FOREWORD

1. This Military History Primer-2012 is exclusively designed for the benefit of potential participants and the examiners of the entrance examination to the Command and Staff Course which runs annually in the Army Command and Staff College Shivapuri.

2. Main aim of this primer is to provide basic knowledge of military history. However the readers are requested to carry out further studies on their own. Considering the nature of the subject in general and topics in specific, this primer is documented by taking references from different sources.

3. The contents that has been included in this primer is subject to change and will be periodically reviewed.
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THE RELEVANCE OF MILITARY HISTORY TO THE TEACHING
OF MODERN WARFARE

“Throughout history, modernists have questioned the relevance of military history. With the rapid evolution of technological change in the post-industrial era and the emergence of new missions for military professionals, the question of relevance is more salient than ever. This study examines the argument that technology and the New World Order may have reduced or obviated the utility of military history. It also examines the historians’ counter-arguments and offers practical guidelines for possible uses of military history in the teaching of modern warfare.”

INTRODUCTION

Statement of the Problem

1. The utility of the study of military history to the military profession is an open question that has been asked for centuries. However, the question is even more relevant today with the advent of the nuclear age, the explosion of information technology, and the emergence of new threats (and, therefore, new missions) to the members of the military profession. Many theoreticians believe that the history of warfare will provide no glimpse into the future because of the unprecedented pace of change in the post-Cold War era. On the other hand, there are many who believe that the only way to accurately predict the future is to study the past. This paper will examine the arguments of both groups.

2. Recently, a retired US Army colonel-cum lobbyist on Capitol Hill lamented that the newest catch phrase in the Pentagon had become ‘thinking outside of the box’. He mused, ironically, that he retired after more than twenty years of service because he couldn’t think ‘inside the box’. What this new catch phrase apparently refers to is an ability to visualize the future of warfare while being able to discard old, seemingly useless paradigms about past wars. In an environment that rewards military professionals who seek new solutions to new problems, does the study of military history still have utility? If so, how useful is it?

3. This paper will begin with the argument that the study of military history has lost its relevance in the modern era of warfare. It will examine the extent to which modern weapons have made old paradigms and principles obsolete. It will also examine the utility of military history to the military profession as it tackles new problems posed by an increasing number of actors on a chaotic world stage. These new problems fall outside of the normal definition of war and include non-linear threats such as terrorism, information warfare and international crime.

4. Winston Churchill once stated that military historians could do something that even God can’t do: they can change history. He then equipped that this was the only reason that God tolerated their existence. With this quotation in mind, the paper will also examine the counter-arguments made by military historians that their profession is
still relevant to modern and future wars. Beyond examining these opposing viewpoints, the paper will attempt to fulfil its obligation to offer a way forward. If the argument for relevance holds, then the best uses of history will be explored. Conversely, if the study of military history is deemed to be largely irrelevant, the paper will examine what tools military professionals might use to plan for missions today and in the future. Finally, the paper will offer conclusions based on its research and make recommendations to assist military leaders in determining the uses of military history to the teaching of modern warfare.

Aim

5. The aim of this paper is to determine the relevance of military history to the teaching of modern warfare and to provide military leaders with recommendations for the possible uses of military history in the era of modern warfare.

Limitations and Assumptions

6. As stated in the second paragraph of the introduction, the question of the relevance of military history has been around for centuries. To suppose that this paper, by a relative novice, will end the debate is pure folly. This author will not be able to put to rest a debate that Clausewitz and Jomini, among others, could not resolve. Unfortunately, the subjective nature of this paper will be able to present a framework by which the reader can, hopefully, make his own conclusions. The author assumes the readers will have some rudimentary knowledge of the study of military history. However, every attempt will be made to avoid unnecessary military jargon and to make the topic salient to the largest number possible.

WAR IN THE FUTURE: ARE OLD LESSONS OBSOLETE?

7. Those who argue against placing emphasis on military history in teaching modern warfare are concerned that old paradigms will be obsolete on the battlefields of the future. The basis of their argument is that modern technological advances have outpaced conventional thought processes relating to warfare. In other words, those military professionals who are still studying how to win the last war will be overcome by the sweeping tide of technological changes in the next war.

8. Proponents of this view often cite the works of Alvin and Heidi Toffler. The Tofflers argue in ‘Third Wave’ and ‘War and Anti-War’ that revolutionary change in technology creates ‘waves’ of societal change that, in turn, define how wars are fought. Ryan Henry and Edward C Peartree, writing in ‘Parameters’, the US Army War College quarterly, provide a concise explanation on the implications of this hypothesis:

“Successful pre-industrial war was generally predicated on the seizure of territorial assets, control of them, or both. Successful industrial age war was about reducing the means of production and out-manufacturing one’s opponent – dubbed ‘schlacht
material’ by the Germans during World War I. If the analogy holds, the advance guard of Pentagon theorists and defence analysts contend, future war will be waged for control of data, information, and knowledge assets”.

9. These same theorists would also contend that new force structures and doctrine would be required in the information age. Furthermore, many of them would argue that conceptual models of future warfare and computer war games will have more utility than the study of military history.

10. Just as machine guns, tanks, iron-clad ships and aircraft heralded the ‘second wave’ of industrial age warfare, many believe that precision-guided munitions, or smart bombs, like the ones used in Desert Storm, are heralding in the third wave of information age warfare. For these theorists, the study of the Persian Gulf War would have some utility, but the World Wars and all that came before would have little or no utility. In other words: Schwarzkopf is in, Hannibal is out. Similarly, Clausewitz will have less utility than Toffler and other prognosticators of future war.

11. While we can question whether or not modern weapons will render past history lessons obsolete, there can be no doubt that they will have a revolutionary effect on how wars are fought. Battlefield tracking and warning systems such as AWACS (Airborne Warning and Control System) and JSTARS (Joint Surveillance and Target Radar Systems) will allow commanders to attack targets well beyond the line of sight. The system used by Gulf War commanders to transmit messages could move 2400 bits of information per second. The current system transmits 23 million bits per second into Bosnia. Space-based satellite sensors are capable of providing real time intelligence with resolution up to one metre. In military parlance, these information systems offer a promise that anything that can be seen can be hit.

12. In addition to technological advances in information warfare, firepower systems are also achieving greater lethality, accuracy, and range than ever before. These technological advances are also taking place at an astonishingly fast pace. Tests at the US Army’s National Training Centre and elsewhere show that digitized platoons are three to five times more lethal than the tank platoons that smashed Iraq’s best forces during the Gulf War. Systems such as the Tomahawk Cruise Missile can allow technologically advanced forces to deliver precision firepower from platforms remote from conflict areas. The implications of this new technology could be that old paradigms emphasizing numerical superiority and manoeuvre of forces would be replaced by new paradigms emphasizing technological superiority and firepower.

13. The technological advances described in preceding paragraphs have led many observers to believe that what Clausewitz called the ‘fog of war’ can be lifted. According to one Washington consultant, ‘What the (Military Technical Revolution) promises, more than precision attacks and laser beams, is ….. to imbue the information loop with near–perfect clarity.’ These new technologies, many believe, will allow the application of military force to be reduced to a science. Military history, by contrast, is a discipline that focuses on warfare primarily as an art, not science. To many in the advance guard
of military theory, military history would have almost no relevance in the teaching of modern warfare.
THE CASE OF THE MISSING SILVER BULLET: THE COUNTER-ARGUMENT FOR MILITARY HISTORY

14. Many in the military profession are alarmed at this predilection to throw out the old paradigms, and to de-emphasize the study of military history. Ironically, they argue that the unparalleled advances in technology make the study of military history more relevant to warfare today than in the past. In a recent article, Lieutenant General Paul Van Riper of the United States Marine Corps and Major General Robert H Scales Jr of the United States Army warned policy-makers of the perils of succumbing to ‘promises of high-tech, bloodless victory’. The authors make the following case for future decisions based on knowledge of past events:“Political limitation, friction, and fog are not artifacts of history, but rather conditions embedded in the fabric of war. To suppose that technology could eliminate them from the battlefield thus flies in the face of the natural world as it is”. “Instead, 2500 years of history confirm that ambiguity, miscalculation, incompetence, and above all chance will continue to dominate the conduct of war. In the end, the incalculables of determination, morale, fighting skill, and leadership far more than technology will determine who wins and who loses”.

15. Van Riper and Scales go on to point out that recent failures of technologically advanced nations against determined foes underscore the danger of over-reliance on technology. For example, superior technology did not prevent America’s defeat in Vietnam, France’s defeat in Indo-China and Algeria, the Soviet Union’s defeat in Afghanistan or Russia’s defeat in Chechnya.

16. Military history itself prevents strong arguments against putting too much faith in technology. In the sixteenth and seventeenth centuries, improvements in artillery led enthusiasts to predict that artillery would become the dominant force in warfare. Today, artillery still plays a subordinate role in combat operations. Similarly, Giulio Douhet predicted as early as the 1920s that air power would be the ‘most important element in future wars’. Events in Southeast Asia and elsewhere have failed to prove his hypothesis. More recently, in the early 1950s, American planners adopted a strategy known as the ‘New Look’ that relied on strategic nuclear weapons as an alternative to conventional warfare.

17. These examples suggest that the search for a ‘silver bullet’ in the realm of military warfare is elusive at best. Information age advances, like the advent of artillery improvements, air power, and nuclear weapons before them, are certain to have significant effects on the technological improvements of the past. In this context, those who believe that past is prologue to the future, like van Riper and Scales, will argue that the study of military history is, in fact, very relevant to modern warfare.

18. The United States Armed Forces manual on Joint Warfare merges the strength of both arguments. In a balanced and thoughtful approach, the manual points, ‘The rapid evolution of technology has altered warfare.’ However, it further adds, ‘Friction, chance, and uncertainty still characterize battle … Indeed, the massive quantity of information available to modern commanders produces its own component of uncertainty.’ The
manual concludes, ‘Our military must be skilled in the use of bytes and bayonets alike.’ As for the relevance of military history, the manual is replete with a number of historical vignettes that highlight the importance of joint doctrine and concepts.

**NON–LINEAR THREATS Vs LINEAR HISTORY**

19. While some believe that technology will obviate the relevance of military history, still others believe that the New World Order (or disorder, as some have called it) will render the study of military history bear little or no resemblance to past wars. The technologically advanced countries of the world will increasingly be faced with non-linear threats such as humanitarian operations, terrorism and peacekeeping operations. Even in the developing world, militaries will be asked to perform a variety of missions such as nation-building activities, disaster relief and internal law and order. In such an era of rapid change, innovative thinking and mental agility will be the paramount skills for military professionals. Will the study of military history have anything to offer to the military professional in search of these qualities?

20. In the US Armed Forces, operational requirements have increased threefold since the end of the Cold War in 1989. The increase is due primarily to non-linear threats in the arena of peacekeeping and humanitarian operations. These include missions in Bangladesh (disaster relief), Liberia and Zaire (non-combatant evacuation), Rwanda and Somalia (humanitarian operations), and Haiti and Bosnia-Herzegovina (peacekeeping). In addition, soldiers have been utilised to fight forest fires, to provide hurricane relief and to help administer the Olympic Games within their own shores. Finally, US Armed Forces have participated in two medium- to-high-intensity conflicts in Southwest Asia and Panama.

21. Military planners have predicted the following military–specific trends that are likely to influence the US Armed Forces in the next ten to fifteen years: -

   (a) Proliferation of conventional and weapons of mass destruction will continue.

   (b) Micro-technology and biotechnology will create new areas for activity and competition. Breakthroughs are likely in the military application of directed energy.

   (c) Information technology will be vital to military operations.

   (d) The demand for US overseas presence is not likely to diminish.

   (e) Allied forces and US will be called upon in humanitarian assistance efforts and conflict prevention and resolution.

   (f) Against paramilitary forces, distinguishing combatant from non-combatant will become increasingly difficult.
(g) Some states will rely on asymmetric capabilities such as ballistic and cruise missiles, man-portable air defence, advanced space capabilities information operations and terrorism as a substitute for, or complement to, large conventional armies.

22. In short, most of these threats, both current and future, represent a departure from the types of missions traditionally focused on by military historians. Recognizing this fact, it is fair to ask if the study of military history has become impracticable to the modern military professional.

23. Surprisingly, there are few voices in academia supporting the view that new missions make the study of military history less relevant. The majority of military thinkers argue, instead, that lessons from military history are timeless and, often referred to as the principles of war, are applicable across the entire spectrum of Military Operations Other Than War (MOOTW). In an article entitled ‘No More principles of War?’, Dr Russell W Glenn quotes two academics who believe historical principles can be applied almost universally.

24. One of the academics quoted by Emory R Helton concluded that six of nine principles of war – objective, offensive, security, unity of command, economy of force and simplicity – applied to Operation Provide Comfort in northern Iraq conducted after the 1991 Persian Gulf War, and that ‘five of these will probably apply to any future humanitarian operations’. Glenn also cites Richard Renaldo, who argues that it was counter-productive to separate principles guiding war and operations other than war saying, ‘This distinction seeks to create independence where there is interdependence, division where there is unity.’ He further points out that ‘Principles of war … are robust enough to withstand application across the full range of military operations.’ Or, as a former battalion commander once told the author, ‘If you prepare for W (war), you can do MOOTW.

25. Finally, it appears likely that military historians will adapt to the demand for historical archives on MOOTW, as these operations become increasingly prevalent. Lieutenant Colonel Steve E Dietrich points out that US Army historians in Haiti during Operation Uphold Democracy collected 100 computer disks digitized format in the first month of the operation. The historian then expeditiously transferred this data to an organization known as the Automated Historical Archives Systems in Fort Leavenworth, Kansas. In future conflicts, information may be passed electronically, allowing historians to recreate events almost instantaneously. Lessons learned from an operation in the first week of November could be applied by a different commander in a different part of the world by the second week of November.

**THE CASE FOR RELEVANCE**

26. Having examined the arguments of modernists against the utility of military history, it is equally important to examine the arguments of its staunch defenders. Foremost among these, of course, are military historians. Historians, however are not the best defenders of their craft. Their arguments are sure to arouse some skepticism, much
like the arguments of the air force arguing for more airplanes. The most compelling arguments for the utility of military history come from those who made it, particularly the great captains.

27. There is perhaps no greater endorsement of the utility of military history than Napoleon’s advice to his son from his deathbed: Let him need and meditate upon the wars of the great captains: it is the only way to learn the art of war. Napoleon was renowned for his use of history. When he assumed command of the French Army in Italy in 1796, he took with him a history of a campaign conducted in the same theatre by Marshal Maillebois half a century before. In 1806, when he sent his cavalry commander, Murat, to reconnoiter the Bohemian frontier, he recommended that Murat take with him a history of the campaign that the French had waged there in 1741. Napoleon also proposed establishment of a special school of history at the College of France that would have practical application for officers.

28. Modernists, of course, will argue that Napoleon’s endorsement is not as important in this modern age. Thus, to illustrate a more modern leader’s thoughts on the utility of military history, let us examine a recent article by US Army Chief of Staff General Dennis Reimer. General Reimer tells of a recent visit to the American Civil War battlefield at Gettysburg. One of the lessons brought out during his visit related to the issue of technological change.

29. Springfields and Henry were two different types of rifles available in 1863, the year the Battle of Gettysburg was fought. Both belligerent sides used the muzzle-loading Springfield rifles which fired about three rounds a minute. Either side or both could have used the Henry repeating rifle that had a 15-round magazine. If either side had availed themselves of the new technology, the outcome of the battle and perhaps the war, could have changed dramatically.

30. After the war, the US Army decided to stick with the tried and true Springfield rifles and made a few minor improvements. A decade later General George Custer’s forces were completely annihilated at the Battle of Little Big horn. The historical lesson, according to General Reimer is that armies must know when and what to change. His article also suggests that technology and military history need not be incompatible. In other words, it is possible to embrace technological change and learn from history at the same time.

31. In many ways, military history can be considered relevant because it is the history of change itself. In the teaching of modern warfare, military history may be of little use in learning how to acquire or employ a specific space age technological innovation. However, military history is likely to be very relevant in learning how to help military organizations adapt to the changes that such new technologies bring. By drawing analogies from past innovations and their effects, leaders can avoid repeating mistakes of history.
32. As an example, West Point teaches its cadets to change in warfare using ‘threads of continuity’. Threads of continuity that are part of the military profession include tactics, strategy, logistics and administration, military theory and doctrine, military professionalism and generalship. Threads of continuity can provide the student of military history with a way of obtaining information, and serve as a lens through which events can be examined and placed in perspective. Studying the threads of continuity can help the student to seek and find the relevance of past events to the present situation. If viewed in this always, it argued, history will always be relevant.

**A WAY FORWARD**

33. It is the stated aim of this dissertation to provide guidelines for the best uses of military history in the teaching of modern warfare or to suggest an alternative. Having examined the arguments for and against relevance, it is the considered opinion of this author that military history will continue to have great relevance to the teaching of modern warfare. While stipulating that differences of opinion will persist, this dissertation will attempt to point a way forward based on this conclusion.

**Recognizing Limitations of Military History**

34. Before embarking on the possible advantages to be gained through the study of military history, it is important to first recognize that a sound footing in military history, by itself, cannot make a military professional tactically and technically competent. Officers and soldiers must not neglect the more scientific tools of their trade. A thorough understanding of military history will not help an officer to remember the maximum effective range of his artillery weapons. Nor will it help a non-commissioned officer to remember the proper width and depth of a fighting position. Instead, the science part of being tactically and technically proficient must go hand in hand with the ‘art’ part. A sound footing in military history is only one component, albeit an important one, of being a well-rounded military professional.

35. Similarly studying military history will never supplant practical experience. If it were so a second lieutenant with vast knowledge of the Peloponnesian Wars might be better qualified to command a brigade than a brigadier with twenty-five years experience. Knowledge acquired through the study of military history can add to but not replace, knowledge gained from years of attending ‘The School of Hard Knocks’. Thus this example and the one before, we see wisdom of the words of Field Marshal Erwin Rommel, who said, ‘Training is the best form of welfare for the soldier.’

36. Finally, military professionals should guard against becoming wed to outdated paradigms as they study the past. Study of the past should be conducted with an eye to the future. A good illustration of this point is the sizeable lobby of horse cavalry officers in the American Army who argued for maintaining horse cavalry units long after that concept had outlived its tactical usefulness. In fact there were still horse cavalry units in the US Army until 1945, long after tanks, machine guns and aircraft had rendered them obsolete. By using military history to argue for obsolete concepts,
military professionals help bolster the arguments of modernists who claim that military history is no longer relevant.

**What Leaders Can Expect From the Study of Military History**

37. Dr Eric Grove, a leading expert on naval power, states very precisely one of the main expectations of the avid student of military history: ‘History cannot prescribe actions to the modern naval officer. What it can do is to inform him or her of the likelihood of certain actions leading to certain results.’ In other words, history cannot give us an exact model by which to achieve success. However, we can certainly increase our probability of success by drawing on the experiences of the past. As Grove goes on to say, military history can keep us from ‘reinventing the wheel’.

38. Secondly, modern military professionals can expect military history to augment professional knowledge gained through formal training and instruction. Examples from military history can serve as excellent teaching tools to underscore instructional objectives. Operation Overlord, for example, illustrates principles of joint and combined warfare. Examples of failures, such as the American hostage rescue attempt in Iran, may ultimately be more instructive than examples of successes.

39. The instructional value of military history is not reserved to the operational and strategic levels. Platoon leaders would do well to heed some of the simple advice offered by Rommel in *Infantry Attacks*, written in 1937 based on his experiences in World War I. Some examples are offered below:

   “War makes extremely heavy demands on the soldier’s strength and nerves. For this reason make heavy demands on your men in peacetime exercises”.

   “It is difficult to maintain contact in fog. Advances through fog by means of a compass must be practised, since smoke will frequently be employed. In a Meeting engagement in the fog, the side capable of developing a maximum fire power on contact will get the upper hand: therefore, keep the machine guns ready for action at all times during the advance”.

   “All units of the group must provide for their own security. This is especially true in close terrain and when faced with a highly mobile enemy”.

   “Too much spade work is better than too little. Sweat saves blood”. “The rain favoured the attack”.

40. These simplistic lessons might very well be ascertained through simple deductive reasoning or, almost certainly, through practical experience. The point is that military history can serve to reinforce both the intuitions of the military officer and his practical
experience.

41. Another benefit derived from the study of military history is that, quite simply, it helps to build an active and inquisitive mind. While this may seem to be an obvious point, it cannot be overstated. One can argue that in a complex world, the ability to exercise a disciplined, agile intellect during times of stress may be the most important attribute a leader can possess. George C Marshall was the American Army Chief of Staff during World War II and the architect of the Marshall Plan that helped save Europe from economic collapse after the war. He wrote the following concerning his two years at the Army Staff College:

“The association with the officers, the reading we did and the discussion … had a tremendous effect … I learned little I could use … (but) I learned how to learn … my habits of thought were being trained”.

**Beware of Bad History**

42. It is important to note that historians often warn of the dangers of drawing the wrong lessons from history. One common fallacy, according to historian Jay Luvaas, is to assume that the solution to one historical problem will work in all cases. He calls this the ‘fallacy of interchangeability’. The classic example of this fallacy is the German army during World War II. Having experienced great success on the western front using blitzkrieg tactics, the Germans naturally assumed that the same tactics would work on the eastern front against the Russian Army. The Germans failed to take into account the comparatively stronger resolve of the Russian soldier, the Russian ability to protect their flanks, the scarcity of road and the differences in weather and terrain. The German inability to adapt their ‘tried and true’ techniques to the new set of conditions proved disastrous. Thus, lessons learned from history must be adapted to suit the conditions in which they are applied.

43. Baron von Steuben realized this when he took on the task of training Washington’s inexperienced army at Valley Forge. Though he had learned under Frederick the Great that fear was the best tool to train an army, he adapted his techniques to his new set of conditions. He abandoned the disciplined formations of Frederick the Great and taught manoeuvres more suitable to the American mindset and terrain.

44. Another dangerous pitfall is the tendency to view historical analogies with too much simplicity. Political scientists Richard Neustadt and Ernest May refer to these analogies as ‘seducers’. Because you are intimatelly familiar with one historical event, you are tempted to draw a hasty analogy to the current situation without closely examining the similarities and differences. An example of this type of reasoning was the American reluctance to get involved in Bosnia-Herzegovina because of the perceived similarities with the failed experience in Vietnam. For years, the mantra of foreign policy in the US was ‘No More Vietnams’. When international pressure compelled the US to take a leading role, foreign policy decision-makers were haunted by these three words. Yet, on closer analysis, the situation in Bosnia-Herzegovina bore little
resemblance to Vietnam. Once the US decided to act in Bosnia, they were able to effectively lead a coalition that, until now, has been remarkably successful.

45. Neustadt and May provide an excellent framework that, if used, may prevent decision-makers from making bad decisions based on ‘seductive analogies’. The first step is to start out by listing what is known, unclear and presumed about the situation. This will help the decision-maker to focus on defining the problem before reaching for a hasty decision without all the facts. The second step is to compare the situation to known historical analogies, then jot down similarities and differences between the two situations. If the similarities far outweigh the differences, the historical analogy is likely to be very useful in formulating a course of action. At the very least, the analogy may be instructive in defining which action(s) should not be taken. Of course, if the differences outweigh the similarities, chances are high that you have been ‘seduced’ by a faulty analogy.

TEACHING LEADERS TO THINK IN TIME STREAMS:

SOME PRACTICAL STEPS

46. Decision-makers at all levels should approach the study of military history with the goal of being able to master the skill of thinking in time streams. Neustadt and May define this skill as the ability to look at an issue in the present with a sense both of past and of future. Another example from the extraordinary life of General George Marshall provides a model for thinking in time streams. In June 1947, Marshall outlined a plan to provide massive economic assistance to the war-ravaged countries of Europe.

47. The outline of Marshall’s plan had four basic points. First of all, the aid would be purely humanitarian in nature with no political overtones. Secondly, the approach had to ‘provide a cure rather than a mere palliative’ (in other words, all the aid would come as a “one-time” event). Third, the Russians and their satellites were welcome to participate. Finally, the Europeans themselves had to determine what was needed and ask the United States for help.

48. Marshall almost surely developed this plan by visualizing the future, analysing the past, and then crafting a solution for the present. He realized from his understanding of history that Americans would support a plan based on humanitarian need (thus, point I) not a politically motivated plan (therefore, point 3). He recognized the historically short attention span of American democracy, thereby calling for a one-time plan that would not test the patience of the public (point 2). Finally, he understood the proud nature of the Europeans (especially where America was concerned) and placed the onus on them to determine the requirements.

Learning to Teach Yourself

49. In a preceding paragraph, Marshall was quoted as saying that he ‘trained his habits of thought’ at the Army Staff College. Learning to understand history and how to apply its
lessons is a lifelong journey. With this point in mind, let us examine some of the practical steps to becoming ‘time stream thinkers’. The first piece of common advice from historians and great captains alike is to develop a steady appetite for reading. J F C Fuller, addressing a class at the British Staff College after World War I, told the students, ‘Until you learn to teach yourselves, you can never be taught by others’.

50. A second practical step recommended by historians is to be disciplined in the way you read military history. While reading for pure enjoyment is acceptable and even necessary, the student of military history should try to view history through some conceptual framework. The principles of war and threads of continuity, both discussed earlier in this paper, are quite useful for this purpose. Also, the reader should try to identify with the people and events he reads about. He must learn to ask questions and generate more interest, which may require reading a second, third or fourth book on the same subject.

51. Finally, the student of history must learn to read with a critical, even cynical eye. As Churchill said, ‘God cannot change history, but historians can.’ While the search for truth may be exasperating at first, Luvaas insists that the effort will ultimately be fruitful:

“To recognize the frail structure of history is the first essential step toward understanding, which is far more important in putting history to work than blind faith in the validity of isolated fact. History tends to inspire more questions than answers, and the question one asks of it, determine the extent to which the subject may be considered practicable”.

**Training Subordinates at the Formation Level**

52. At the unit level, there are several practical measures that commanders can take to help create ‘time stream thinker’. First of all, commanders should publish suggested reading lists for their officers. This presupposes that the commander has developed a reading of his own on the military profession. However, if he has not, then he can borrow from a number of lists published in military journals, pamphlets, web sites, etc. The commander can tailor the list to meet his needs. For example, if he is concerned about a lack of cohesion, he may direct his officers to read a book about the bond among soldiers in battle, such as Stephen Ambrose’s Band of Brothers.

53. Taking this suggestion one step further, the unit commander may also direct his subordinates to prepare a book report on a specific topic. In addition to serving its stated purpose, the commander might also use the exercise as an opportunity to assess his subordinate’s written communication skills. The commander may desire to assign individuals with a briefing on a topic of historical significance for officer professional development forums. At these forums, commanders could use examples from history to generate discussion among his officers. His focus should be on teaching his subordinates how to think – not what to think.
54. A final option at the disposal of the commander is the unit staff ride. If geography permits, the unit could schedule a visit to a nearby battlefield. Prior to the day of execution, reading assignments and professional development forums may have already been conducted. The unit officers could then gain a new appreciation for the ground based on their earlier study. A good technique during a staff ride is to assign certain staff officers a research topic in their area of expertise. For example, the medical officer could give a presentation on casualty evacuation during the battle, or the unit chaplain could give a presentation on providing spiritual guidance during the heat of battle. These assignments will energize the staff and provide the other participants with some considerations they probably overlooked. The second suggestion is to ask each officer to share one ‘lesson learned’ with the rest of the group prior to departing from the staff ride.

**Military History at the Institutional Level**

55. At the institutional level, numerous opportunities exist to train leaders to learn from military history. First of all, service academies may consider teaching at least two semesters (six credit hours) of military history. At this level, an excellent opportunity exists to include young minds with a lifelong interest in military history. In the training schools, commanders may consider a variety of exercises to acquaint officers with military history.

56. At times, level of schooling, an appropriate exercise might be an analysis of a particular battle using the principles of war or any other conceptual framework. For majors at the Staff College or colonels at the War College, an appropriate exercise might be a campaign analysis based on joint doctrinal concepts. At all levels, officers stand to gain immense benefit from studies of the great captains and well-planned staff rides.

**CONCLUSION**

57. While advances in technology will change the way wars are fought, the relevance of military history to the teaching of modern warfare will not be diminished. Military history will remain relevant to modern warfare despite the emergence of non-linear threats. Military history, if studied properly, will allow military professionals to benefit from the previous experience of others to reinforce professional knowledge and practical experience, and to develop an active and inquisitive mind. In view of the utility of history to the military profession, commanders should develop reading programmes that will encourage their subordinates to become lifelong students of history. Commanders should use officer professional development forums, book reports and staff rides to develop subordinates in this critical area. Every officer should endeavour to develop his own personal military history reading programme and learn to read critically. Officers should learn to view issues in the present with a sense both of past and of future. Military history classes should be integrated into each level of professional institutionalized training – from service academies to the War College.
LESSONS FROM MILITARY HISTORY

Introduction

1. “We trained hard but it seemed that every time we were beginning to form up into teams we would be reorganized. I was to learn later in life that we tend to meet any new situation by reorganizing; and a wonderful method it can be for creating the illusion of progress while producing confusion, inefficiency, and demoralization.” Most people who are shown the above statement and asked who they thought said this and when, have reacted by ascribing it to a military leader no more that a generation away. Each and every one of them has shown incredulity and amazement at the disclosure that the author was Petronius Arbiter in the year 210BC! What does this show? That some things never change, and that history repeats itself. Why should this be so?

2. History is not an open book of introvertible facts. We can only begin to unravel it values if we first recognize its imperfection, its incompleteness, its look of objectivity its relevance in an environments. Will and Ariel Durant in their classical the lesson of history, state: “Is it possible that, after all, “history has no sense” that it teaches us nothing and that the immense past was only the weary rehearsal of the mistakes that the future is destined to make on a larger stage and scale? At times we feel so, and a multitude of doubts assail our enterprise.” Our approach to history and its lessons must be guided by this caution: it is encapsulated by Liddell Hart in the following works:- “Our knowledge of any past event is always incomplete, probably inaccurate, beclouded by ambivalent evidence and biased historians, and perhaps distorted by our own patriotic or religious partisanship... most history is guessing, and the rest is prejudice... the historian always oversimplifies...” To the above must be added two further observations:-

(a) Our study of history is made more hazardous by the acceleration of change, the element of chance, some quirk of character or circumstance that upsets calculations.

(b) Historiography is not a science. It ferrets out facts; establishes order in the chaos of materials; seeking perspective & enlightenment. You must be content to deal with probabilities; to see a part in the light of the whole to learn enough to bear reality of the present patiently and with understanding.

3. Notwithstanding the above, there is no escape from history. Professionals like the military officer have nowhere to turn to if they want to learn from the experiences of others.

“Let it be admitted that the modern technological revolution has confronted us with military problems of unprecedented complexity, problems made all the more difficult because of the social and political turbulence of the age in which we live. But precisely because of these revolutionary developments, let me suggest that you had better study military history, indeed all history, as no generation of military men have studied it before.”
4. The purpose of historical inquiry, therefore, must relate to a search for an interpretation of the past because the past is the only data we have from which to glean patterns of behaviour whose enduring nature as features of human activity make them relevant to our own times and problems. We do so by a method that is first, inductive, sifting historical evidence to produce general truths; and then deductive, applying those truths to other, present circumstances that are seen to be more or less analogous. The entire process depends on the effective use of reasoning by analogy, deciding which lessons from the past; apply to the present and which do not. There in lies the difficulty of learning from the past. But there in also lies the value of studying it since history alone provides us with the intuitive to make the choice. The question as to the relevance of lessons of military history has always has its doubters.

“If you can doubt at points where other people feel no impulse to doubt, then you are making progress.”

(Chang Tsai, 11th Century)

“Fools say that they learn by experience. I prefer to learn by other people’s experience.”

(Bismarck)

5. **Part I (The Value of History)**
   (a) What is history?
   (b) Evolution and categories of military history
   (c) Impact of historians and theorists on warfare
   (d) Impact of history on world affairs
   (e) What does history teach us?
   (f) History helps in understanding the nature of war

6. **Part II (Lessons of History)**
   (a) Wars and society
   (b) Great leaders shape history
   (c) Repeating history
   (d) Lessons from military history
   (e) History and future warfare
   (f) Technology and warfare

7. **Part III (Contours of Future Conflict)**
   (a) What is RMA?
   (b) Dimensions of future warfare
PART I

THE VALUE OF HISTORY

What is History?

“History is the record of man’s steps and slips ... it is the broadest of studies, embracing every aspect of life. It lays the foundation of education by showing how mankind repeats its errors, and what those errors are... It provides us with the opportunity to profit by the stumbles and tumbles of our forerunners... The study of history ... is a universal experience – infinitely longer, wider and more varied than any individual’s experience. How often do we hear people claim knowledge of the world and of life because they are sixty or seventy years old? There is no excuse for any literate person if he is less than three thousand years old in mind.”

(Liddell Hart).

8. Allan Nevins, one of the foremost recent historians, suggested a useful definition for the beginner in his introductory volume, ‘The Gateway to History’ as: “History is any integrated narrative, description or analysis of past events or facts written in a spirit of critical inquiry for the whole truth”. History, thus, involves a body of recorded materials from the past and a method, a special manner of treating those materials. It involves the discovery of knowledge in the broader sense and the enrichment of the intellect. The study of history develops a sense of perspective, of the continuities and discontinuities, and of time in human affairs.

Evolution of Military History.

9. Wars and campaigns have been part of general history ever since it began to be recorded. But it distinctive delineation as military history is linked to the development of military profession in its more modern form. Not until the early 1800s did military history become a special field. Jomini, the nineteenth century Swiss theorist, recognized three kinds of military history. The first he categorized as the pure version--the recounting in minute and pedantic terms of all aspects of a given battle, including such details as hourly locations of small units. This recounting was done without much concern for useful analysis. The second form, he said, used a campaign or battle to examine the principles of waging war; it analyzed the relationship between events and principles, and when applied in broad context, could reveal something of the evolution of the art of war. Jomini’s third category was political- military history, the examination of war in its broadest spectrum through association of military with political, social, and economic factors.
10. While Jomini was thinking and writing essentially about military history, the great Prussian military thinker, Karl Von Clausewitz, was studying the entire problem of war. Seeking to develop a theory of war, Clausewitz considered and wrote “On War”, about the basic aspects of conflict between nations. In so doing, he was producing military history, which can properly be classified under Jomini’s third category. The fundamental questions that a study of military history must address are:-

(a) What forms armies take (Militia, conscript, volunteer, mercenary).
(b) Why armies fight (religion, dynastic interests, space, nationalism, ideology, discipline).
(c) How armies fight (shock tactics, firepower, linear tactics, employment of masses, mobility, position warfare).

11. **Influence of Historians & Theorists on Warfare**. Prominent historians and theorists have influenced warfare and society far beyond their own life span. Jomini’s Principles of War are still taught diligently in most armies of the world. Clausewitz’s concepts on war & politics have helped shape national policies and lend credibility to war plans, they have been used and abused by military leaders and politicians alike. Mahan’s concepts on sea power influenced naval strategies for over a century. Sun Tzu’s writings inspired Mao & the Chinese Revolutionary warfare more than 2500 years later and are studied and quoted even today. Based on study of historians like these and hundreds of others military leaders in any generation become armed with a conceptual understanding of history and its impact on world affairs. They can thus discern the undercurrents, distinctive patterns and likely shape of events as they are likely to unfold in the future.

**Impact of History**

12. History has a lasting and profound impact on world affairs, many present events, crises and problems are, in fact, an extension of historical events that are still running their course. The main characteristics of history can be summed up as:-

(a) **History is Emotive**. The great emotive strength of history has often exhibited the power to mould the nation psyche.

(b) **History is a Paradox**. The past is infinitely various, an inexhaustible store – house of events from which we can prove anything or it’s contrary. Yet historian Michael Howard stresses that, “knowledge of history is necessary to avoid making disastrous decisions”.

(c) **History is Educative**. It is said to be a composite of influences, environment, class struggle, excesses of leaders, wars, religious moves, a sequence of intrigues and aggressions and a story of noble causes.
(d) **History is Science.** Marx and Engles defines history as a science where economic forces are dominant in peoples interaction and in countries relations with each other.

(e) **History is Exploitative.** Perhaps the most deadly character of history is that it can be abused by taking historical examples out of context, misleading a people or a nation and exploiting the resultant public or national fervour.

(i) History is nationalistic.
(ii) History is repetitive.
(iii) History is violent and unforgiving.

13. Before we come to some concluison what history teaches us, I would like to make some gen obsns; In particular, advice to you as students of history to avoid pit falls. Your study must understand the fol perspective:-

(a) “Historians realize how greatly the causation of events on which the fate of nations depends is ruled, not by balanced judgment, but by momentary feelings as well as personal considerations.”

(b) “The most dangerous of all delusions are those that arise from the adulteration of history in the imagined interest of national and military moral. This has resulted because of unwillingness of even good people to admit the truth when it was disturbing to them.” “Nothing can deceive like a document. Many are the gaps to be found in official archives documents destroyed to conceal reputation; forgeries implanted to replace originals in an effort to manufacture history; placing on record files relating to events that did not take place; shaping facts to suit the purposes of propaganda; etc. Therefore, it is hard to discover the truth, and assertions should be treated with critical doubt.”

(c) As Henry Adams said “I have written too much history to believe in it. So, if any one wants to differ from me, i am prepared to agree with him.”

(d) “The see clearly and analyse scientifically requires freedom from prejudice, combined with the power of discernment and a sense of proportion. The path of truth is paved with critical doubt, and illuminated by the spirit of objective and impartial enquiry.”

**What Does History Teach Us?**

14. How can we make the Napoleonic period relevant to military affairs today? The idea is not to apply Napoleonic solutions to our current problems but to try to fathom
how Napoleon approached his problems how he amassed facts, sifted them and arrived at conclusions. And then armed with a broader perspective, tackle our own problems. The study of Alexander the Great, for instance, still offers relevant insights into the exercise of power - military, economic, and political, at the highest level; and a good biography of King Gustavus Adolphus of seventeenth century Sweden offers a case history in the application of theory to the problems of reorganizing a military system.

15. **History Illustrates Issues, It Does Not Provide Solutions.** Conceptions based upon historical experience do not necessarily guarantee success in the field. A careful study of history will illustrate that principles are not immutable rules, which the commander is forbidden to violate. Nor should a theory be based on historical examples arbitrarily selected to support an unfounded preconception. What is necessary is rigorous testing and honest, thorough research. A historically based principle may be fallible; however, it is infinitely better than pure theory ungrounded on historical experience.

16. **History Helps In Understanding Human Capabilities and Limitations.** Studying military history can help one gauge human capabilities and limitations while offering guidelines on how to make the best use of both. Speaking to British Staff College candidates, regarding the value of history Wavell advised: “Study the human side of history. . . to learn that Napoleon in 1776 with 20,000 beat combined forces of 30,000 by something called economy of force or operating on interior lines is a mere waste of time. If you can understand how a young unknown man inspired a half starved, ragged, rather Bolshie crowd: how he filled their bellies; how he out marched, outwitted, out bluffed and defeated men who had studied war all their lives and waged it according to the text books of their time, you will have learnt something worth knowing.”

17. **History Helps In Understanding The Nature of War.** Clausewitz’ defines war as a magnet suspended between three poles ie the people, the government and the military. The interplay of this trinity is unpredictable; once the dice has been rolled, war takes a life of its own, defying predictions and assumptions. The American civil war, fueled by politics and newly born corporate culture became remorseless and revolutionary and continued unabated for more than four years. World war – I started on the assumption that it would be short. However, when passions took over the carnage sprang out of control. Yet, even after losing millions of their countrymen for negligible gains, no politician dared to declare that it was all in vain.
18. We shall start by looking at lessons from history and warfare in a broader context, to understand the relationship between wars and societies, and how history and prominent leaders, have shaped world events. Thereafter we shall move to more concrete examples from modern warfare. Although the three centuries preceding the two Great Wars are full of historical lessons and insights, for the purpose of today’s discussion, we shall focus on lessons from World War II and the period thereafter. From a military history standpoint, it is a treasure trove of knowledge, providing valuable insights into every area of human conflict and the interplay of politics, military, economics as well as lessons in application of strategy, doctrine and tactics. It served as an ideal testing bed for new technologies, innovations and concepts. Although the list of lessons can be unending, we will look at selective lessons relevant to gaining a better understanding of future warfare.

Wars and Society

(a) Wars are a product of society and are shaped by it.

(b) Wars leave a lasting impact on the society. They shape the morals and ethics of the society., changing behaviour, social norms and trends.

“Rome was full of men who had lost their economic footing and their moral stability: soldiers who had tasted adventure and had learned to kill, citizens who had seen their savings consumed in the taxes and inflation caused by war;...women dizzy with freedom, multiplying divorces, abortions, and adulteries...A shallow sophistication prided itself upon its pessimism and cynicism”.

Force rules the world still, Has ruled it, shall rule it; Meekness is weakness, Strength is triumphant Over the whole earth.

“Longfellow”

Nations take to arms to preserve their cultural heritage and values.

“It is clear that the United States must assume today the task that great Britain performed so well in the 19th Century- the protection of western civilization from external danger”...A world order will come not by a gentlemen’s agreement, but through so decisive a victory by one of the great powers that it will be able to dictate and enforce international law as Rome did form Augustus to Aurelius”.

(Lessons of history)

When we look at war on terrorism today in the historical perspective, it is easier to understand events unfolding before us.
19. **Great Leaders Shape History.** In times of social change, reformation and upheaval, great leaders have changed the entire social and political paradigm of their day and affected epoch making changes. *Events take place through him as well as around him; his ideas and decisions enter vitally into the course of history. At times his eloquence, like Churchill’s, may be worth a thousand regiments, his foresight in strategy and tactics, like Napoleon’s, may win battles and campaigns and establish states. If he is a prophet like Mohammad, wise in the means of inspiring men, his words may raise a poor and disadvantaged people to unpremeditated ambitions and surprising power*. “

Will and Aerial Durant, “Lessons of history”

20. **Wars are Destructive and Ugly.** Wars are not romantic or glorious, they are a hard, ugly business. They bring with them death, devastation, disease and misery. They destroy the fabric of entire societies.

(a) The ‘Angle’: The Horror of War (American civil war)

(b) “The ‘horseshoe’ was a boiling, bubbling, and hissing caldron of death”

(c) “This battle was the worst slaughter I ever saw . . . . Such cries! Such groans!”

(d) “The dead, dying and wounded are lying literally in heaps, hideous to look at.”

(e) “. . . bloodshed surpassing all former experiences, a desperation in the struggle never before witnessed.”

(f) “Rank after rank was riddled by shot and shell and bayonet thrusts, and finally sank, a mass of torn and mutilated corpses.”

(g) “. . . below the mass of fast-decaying corpses, the convulsive twitching of limbs and the writhing of bodies showed that there were wounded men still alive.”

“American Civil War”

21. **WORLD WAR-I SIX MILLION CASUALTIES FOR:**

(a) An average Change to the Western front - line trace of NOV 1914 of 8,202.10 feet

(b) A 4 sq mile Allied lodgment in the Balkans

(c) The Loss of Russian Poland

(d) A 10,000 sq yard lodgment at Gallipoli

(e) A 12 mile lodgment in Mesopotamia (Iraq)

22. **Those who don’t Learn from History are Condemned to Repeat It**
(a) **Operation Barbarossa**. Hitler did not learn anything from Napoleon’s misfortunes. His armies suffered a similar fate at the hands of the Russians.

(b) **US in Vietnam.** A refusal to study the Japanese counter-insurgency war in China or the failure of the French in Indo-China led to America’s humiliating defeat in Vietnam. General Westmoreland famously asked. “Why should I study the lessons of the French? They haven’t won a war since Napoleon”. US Army’s rhetorical commitment to counter insurgency was not matched by substantial changes in doctrine, force structure and training. Relying heavily on technological superiority and firepower, in words of Kerpenivich, it was a “Strategy of tactics”, where tactical operations became their own justification.

(c) **Repeating History.** Although a case for US repeating Vietnam in Iraq cannot be made at this stage, however, there are strong indications of them not having learnt their lesson from that debacle.

23. **Political Issues Cannot be Settled by Military Means Alone**

(a) **Arab Israeli Conflict.** In its 56 years of Existence, Israel has ruthlessly used its military to expand well beyond its original boundaries. Though it has won a lot of territory, it is still searching for peace. This historical mindset of land grabbing and brute force inhibits any progress towards a lasting peace, which can only be achieved through political dialogue.

(b) **Regional Conflicts/Insurgencies.** Conflicts like Chechnya, Tamil Insurgency, Kashmir, Irish Republican Movement, all reflect the futility of military solutions alone for complex historical/ social issues.

24. **Military Strategy Must Conform to The National Strategy - Divergence in POLITICO - Military Objectives (Korean War 1950)** General Mac Arthur, the commander of UN forces, after success of Inchon Landing, started ignoring strategic developments in the conflict, brushed aside all warnings and imminent signs of Chinese impending involvement and despite president Truman’s reluctance, pressed all the way to Yalu River, precipitating a Chinese attack, which not only negated all his earlier gains but also prolonged the conflict by another three years.

(a) **Nations, Not Militaries, Fight Wars**

The Home Front. The cliché that wars are fought by nations not the militaries truly manifested itself in the case of Vietnam. US public opinion was fed up of the war and it finally forced the government to pull out inspite of the fact that continuing the war by the US was not a problem.
25. **Wars Must have a Clear End - State**

(a) **Franco-Prussian War.** Bismarck’s wars of German unification are an excellent example of limited wars aimed at specific political objectives.

(b) **The Price of Victory.** Both the United States and the Soviet Union probably possessed the military means to destroy their opponents in Vietnam and Afghanistan respectively, if they were willing to pay a high enough price. Neither, however, realistically estimated that price before committing itself. Without a clear end state, both the superpowers drifted deeper into the quagmire of military involvement.

26. **Successful Wars aim at a Lasting Peace**

“The legitimate object of war is a more perfect peace”.

(William T. Shemon)

(a) **World War I.** Despite the horrendous losses, and casualties of World War I, it could not bring peace and security for the warring nations. The Treaty of Versailles sowed the seeds of discontent and another great war.

(b) **victory for Israel and the occupation of West Bank.** Instead of peace, it laid the foundations of a more bitter and protracted conflict.

27. **Alliances are Vital for Any Nation in International Conflicts.** Britain maintain balance of power in Europe for centuries through alliances. In contemporary environment they are equally important.

(a) **World War II.** Hitler downfall came through a very unlikely alliance of capitalists, communists and nationalists. Neither one could alone have possibly won the war.

(b) **Iraq’s Invasion.** As diplomatic wrangling before and after the war demonstrated, the United States appears increasingly at odds with many of its traditional allies in case of Iraq.

28. **History and Future Warfare**

(a) **Forecasting the Future.** History illustrates that this is an extremely difficult undertaking, most armies fail in the endeavor, they can thus meet emerging challenges only through flexibility and readiness to adapt. The German U boat peril in World War II was both unpredictable and extremely destructive, yet within a relatively short period of time, allied counter measures were able to stem the damage.
(b) Impediments to Military Changes. As armies strive to change, history can help identifying military, social and political barriers to transformation. The period between First and Second World War is an excellent example of immense technological development, theories and conflicting priorities of nations and organization. The French and the British despite being at the forefront of armour development, with thinkers like De Gaulle Fuller and Liddell Hart failed to capitalized, due to lack of will and impediments to military change.

29 The Value of Correct Selection and Maintenance of Aim. To persecute a war successfully, the first pre-requisite is to identifying an aim commensurate with national objectives and military/ economic potential.

30 German Aims and Objectives in World War II. The German military aim was well focused while political objectives were ambiguous, Hitler’s tendency was aimed at economic rather than military dimensions of war. During the Battle of France, military strategy dictated destruction of British Expeditionary Force whereas political expediency led to giving a safe exit, consequently it all came back to haunt the Germans.

31 Conflicting Aims and Objectives of Allied Powers. The United States’ aim during world war - II was Japan focused while the British aim became Germany focused. USSR wanted prolongation so as to see all other powers exhausted and consequently gain pre-eminence in Europe. This resulted into loss of strategic direction, grievous losses of life, unprecedented destruction and an unnecessary prolongation of war.

32 Means Vs Aims. War objectives which are unrealistic and beyond means serve to enhance the magnitude and intensity of death and destruction without commensurate achievement on either side. During the great war, this too was in stark violation of Clausewitz’s oft quoted dictum.

33 Realistic War Strategy Commensurate with Military Capabilities. Sadaat’s war aims in the 1973 War are an excellent example of well defined military objectives aimed at achieving specific political goals. He knew that he would not be able to defeat the Israelis in detail. Yet he aimed at crossing the Suez, securing area beyond it, and breaking the myth of Israeli invincibility. By achieving limited military objectives, and in the process inflicting serious losses on the casualty conscious Israelis, he aimed at a favorable political solution. His war directive is worth reading. “To challenge the Israeli Security Theory by Carrying out a military action according to the capabilities of the armed forces aimed at inflicting the heaviest losses on the enemy and convincing him that continued occupation of our land exacts a price too high for him to pay, and that consequently his theory of security - based as it is on psychological, political, and military intimidations - is not an impregnable shield of steel which could protect him today or in the future”.


34 **Center of Gravity.** Correct identification and targeting of enemy’s center of gravity is vital to success of any operation.

“Centre of Gravity is the hub of all power and movement, on which everything depends”

(Clausewitz)

(a) **German Operations, World War II.** Germany correctly identified Paris as France’s centre of gravity, but gravely erred in assuming public morale as the British centre of gravity.

(b) **Afghan War (1979-88).** The Mujahideen were not intimidated by Soviet occupation of their capital city, always thought to be the Afghan centre of gravity. Their true “center of gravity” lay as much in their conception of the struggle as in a powerful mix of motivational factors including religion, nationalism, xenophobia, ideology and ethnicity.

(c) **Gulf War – I (1991).** US Army intelligence developed an accurate assessment of Iraqi centre of gravity and forecast that ground operations would have to target Republican Guards before Saddam would withdraw from Kuwait. That assessment drove campaign planning, which ultimately arrived at the concept of operations that led to Iraqi capitulation.

35 **Technology and Warfare**

(a) **Technology has not Changed the Validity of Basic Notions of Warfare.** Armies all over the world are attempting to prepare for change, with technology as the driving force. However, despite all these innovations, the underlying concepts are not altogether new. Most are consistent with Fuller’s 1919 prescription for attacking the nervous system of the enemy. In the present environment, the US Forces may not be achieving concentration of force in the classical Napoleonic sense, yet the massing of effects by using ground troops, aerial platforms and precision fires is in essence achieving the same results, but in a different manner.

(b) **Technology in itself is not a Battle Winning Factor.** Technological innovations have to be complemented with operational adaptability and organizational upgradation. Another important lesson in this respect is that technological supremacy is time bound, it stays only as long as the opposite side is not in possession of an appropriate anti-dote, the supremacy of U Boats and Stukas followed the same down wind course.

(c) **There Are No “Magic” Technological Solutions.** To Military Problems “Air Cavalry” in Vietnam, failed to be the undoing of Vietcong as predicted by its proponents. Despite all the rhetoric, precision warfare and
information dominance have their own limitations as demonstrated by Afghanistan and Iraq. “Boots on ground” are still required to ensure military dominance.

36 **Innovation is an Immeasurable Asset.** Armies do not always win battles by following the beaten path. Innovation based on sound historical understanding and military tenets can produce stunning results.

(a) German offensive plan for Battle of France.
(b) Egyptian crossing of Bar Lev Line.

37 **History and Doctrine.** Doctrine must be grounded in history. Military history is an essential source of military theory that, in turn, shapes military doctrine.

(a) "**Operation Point Blank**”. Allied Strategic Bomber Offensive in World War II was on the misplaced assumption that bombers could win the war alone. Neither side gained the envisaged strategic effects, it became a very costly error, rectified after huge losses.

(b) **Israeli Doctrine in Yom Kippur War 1973**. In essence, the IDF prepared to fight the last war, rather than development of a more balanced force structure centered on combined arms, Israeli doctrine and strategy relied upon what worked best in 1967; intelligence, the air force, and tanks. They got a rude shock, when the Egyptians modified their doctrine including integrated air defence and anti tank defence.

38. **Importance of Quantity, Not Just Quality.** After the 1973 War, instead of cutting down the requirement for national service as planned before the war, the Israeli government doubled the size of its standing army by 1982, as the Israelis learned the importance of quantity despite their quality, in conventional warfare.

**PART III**

**CONTOURS OF FUTURE CONFLICT**

39. In the 2nd half of twentieth century, high tech became the defining characteristic of warfare. The earlier transformation in the sinews of war had been gradual till the advent of nuclear weapons. In the last two decades, however, incremental changes in the means and methods of combat have given way to a Revolutionary effect in the nature and character of warfare. Developments in information technology and precision weapons have led to a leap forward in military technologies, aptly described as Revolution in Military Affair (RMA).

**What is RMA?**

40. According to Thomas J Welch “RMA occurs when technological change makes possible the introduction of new material which when combined with organizational
and operational changes results into fundamental change in the conduct of warfare. What is important is not the speed with which a revolution takes place, but rather the magnitude of the change itself”. There is consensus among almost all writers and intellectuals on the main ingredients of the RMA, which are:-

(a) The advent of new technologies and their integration into new weapon systems.
(b) Innovative operation concepts/doctrine to harness the weapon systems or platforms.
(c) Organizational changes to translate these concepts into Military Capabilities.

41. Based on these salient characteristics Williamson & Murray, have traced a few distinct periods in military history where RMA took place.

(a) 14th Century - Longbow: Cultural.
(b) 15th Century - Gunpowder: technological, financial.
(c) 16th Century - Fortifications: architectural, financial.
(d) 17th Century - Dutch-Swedish tactical reforms: tactical, organizational, and cultural.
(e) 17th, 18th Century - Naval warfare; administrative, social, financial, technological.
(g) 18th & 19th Century - Industrial revolution: financial, technological, organizational, and cultural.
(h) 19th Century - American Civil War: ideological, technological, administrative, and operational.
(i) Late 19th Century - Naval warfare: technological, administrative, and cultural.
(j) 19th & 20th Century, Medical: technological, organizational.

Key Dimensions of Future Warfare

42. RMA involves the emerging, multiple new warfare areas. Four potential new warfare areas; space warfare, long-rang precision strike, information warfare and land air warfare are significant: -
(a) **Space Warfare.** The space environment offers the possibility of conducting worldwide military operations in a greatly reduced time frame. Satellites enable near-real-time, worldwide communication, sensing, and navigation. Space strike systems based on satellites or on trans-atmospheric vehicles could enable precision strikes whose quantitative advantage in speed would result into a qualitative difference in capability.

(b) **Information Warfare.** The phenomenon has manifested itself in a movement towards greater focus in the military circles on the role of knowledge in war and specially on the need to maximise one's own ability to collect and use information while disrupting the enemy's ability to do so. At the operational level, information warfare contributes to major changes in the conduct of warfare. One of the key issues is the vulnerability of command, control, communications, and intelligence systems, and the question is how to attack the enemy's system while protecting ones own. Elements of information warfare thus include command and control warfare sometimes called ‘Decapitation Warfare’, ‘Intelligence-based Warfare’ and ‘Electronic Warfare. This has enabled broadening of the scope of the knowledge based military systems to C⁴I²SR (Command, Control, Communication, Computers and Intelligence. Interoperability, Surveillance and Reconnaissance) systems, instead of merely C⁴I.

(c) **Long Range Precision Strike.** Precision strike, in the context of the unfolding RMA is the ability to locate high-value, time-sensitive fixed and mobile targets, and to accomplish this within operationally and strategically significant time lines while minimizing collateral damage, friendly fire casualties, and enemy counterstrikes. All of this is intended to achieve decisive impact on the outcome of the campaign.

(d) **Dominant Manoeuvre.** The key ingredient of the air-land battle is the synchronization and integration of various elements of combat power for their optimum effects. The concept revolves around simultaneity rather than sequential operation. It aims at engaging all echelons, of enemy forces concurrently to prevent them from affecting and complimenting each other. From the concept of air-land battle flows the refined operational concept of the Dominant Manoeuvre, an advanced version of air-land battle. Dominant manoeuvre can be more precisely defined as the positioning of forces, integrated with precision strike, space warfare and information warfare, to attack operational choke points, defeating enemy center of gravity and accomplishing campaign objectives at the least possible cost.

**Asymmetrical Warfare**

43. Asymmetric Warfare is a broad and inconclusive term coined to recognize that
two sides in a conflict may have such drastically different strengths and weaknesses that they resort to different (thus asymmetric) tactics to achieve relative advantage; including attacks on civilians. It may also be defined as the use of unconventional tactics to counter the overwhelming conventional military superiority of an adversary. The concept has mostly been refined by US strategists, working within the debate on the Revolution in Military Affairs (RMA). The US has an overwhelming technological superiority over the conventional military forces of virtually any conceivable adversary, but remains vulnerable to certain types of unconventional response like terrorist attacks, Weapons of Mass Destruction (WMDs) and mainly unpredictable actions at unpredictable places. Depending on one's definition, Asymmetric Warfare may include conventional terrorism, classic GW and the use of cyber-attacks and information warfare. It can also include the use of surprise in all its operational and strategic dimensions and the use of weapons in ways unplanned by a technologically/numerically superior opponent. Asymmetric Warfare is not only the domain of weaker or numerically/technologically inferior opponents. Strategies have been employed even by the superpowers in the past to alter the changing course of wars. The wide range of such strategies, employed in the past both by superior and inferior opponents, can be seen in the :-.

(a) Operation Anadyr – the Soviet deployment of medium range ballistic missiles (MRBM), Intermediate Range Ballistic Missiles (IRBMs) and tactical nuclear weapons to Cuba in 1962.

(b) Carpet bombing of civil population by the US B-52s during the Vietnam War.

(c) Exploitation of major nuclear-armed allies, such as the Soviet Union and China, by North Korea and North Vietnam during their wars against the US.

**RMA and Asymmetrical Warfare.** In the opinion of Michael O’Hanlon, history of warfare is about enemies trying to bypass each other’s strengths and exploit each other’s vulnerabilities. It is only natural that the weaker side in any conflict will take recourse to unconventional and asymmetric ways, in an attempt focused on exploiting vulnerabilities of the superior side rather than accepting the risk of a head-on combat.

**Spectrum of Asymmetrical Warfare.** The superior side would unleash the full might of her elector-magnetic spectrum and precision targeting to blind, paralyse and incapacitate the adversary so as to seek a in an early time frame capitulation of the enemy. The weaker side will resort to measures both passive and evasive in order to minimize own casualties and damages; clinch a breathing space and employ a strategy to selective targeting and prolong the conflict in order to raise the cost of combat for the superior side in her areas of sensitivity.

**Asymmetrical Response.** The response of the weaker side in such a conflict may include some of the following unconventional means of combat :-
(a) Avoid large scale set piece battle and conserve resources.
(b) Trading space for time.
(c) Guerilla warfare.
(d) Attacks on enemy’s strategic deployment systems.
(e) Anti access measures to slow down deployment of opposite forces.
(f) Partisan warfare.
(g) Hacking of opposite computer and cyber systems.
(h) The threat and actual use of NBC weapons.

47. Levels of Asymmetrical Warfare

(a) **Operational Level.** It is the most common form of asymmetry and its history examples include the German use of submarine warfare to counterbalance the British advantage in capital ships and Operation Bodyguard, the operational level deception plan to support the Normandy invasion.

(b) **Military – Strategic Asymmetry.** It is an integrated military strategy based on asymmetry and examples including the Maoist People’s War, Blitzkrieg and Massive Retaliation (the strategic concept to counter Warsaw Pact aggression with a nuclear strike).

(c) **Politico– Strategic Asymmetry.** It is employment of non military means to gain a military advantage. Examples include Vietnam, Gulf war and Balkan crisis; whereas the North Vietnamese were able to gain the moral high ground against USA. Saddam Hussein and Slobodan Milosevic failed in their attempts.

**Conclusion**

48. No two wars have been alike in history. The numerous variables make every war, every battle and every operation a unique episode in the annals of military history. A leader who is well versed in the art of contemporary warfare, however, is more likely to understand intricacies of the future battlefield and manage his duties as a leader more deftly. A war time situation could not be better described than here, by Winston Churchill:-

“Let us learn our lessons. Never, never, never believe any war will be smooth and easy, or that anyone who embarks on that strange voyage can measure the tides and hurricanes he will encounter. The statesman who yields to war fever must realize that once the signal is given, he is no longer the master of policy but the slave of unforeseeable and uncontrollable events. Antiquated War Offices, weak, incompetent and arrogant commanders, untrustworthy allies, hostile neutrals, malignant fortune, ugly
surprises, awful miscalculations - all take their seat at the Council Board on the morrow of a declaration of war“. 

the study of military history has both an educational and a utilitarian value. It allows soldiers to look upon war as a whole and relate its activities to periods of peace from which it rises and to which it inevitably returns. In the leadership arena, it shows the great importance of character and integrity. Finally, in Clausewitz’s time worn phrase “Military history studied in depth helps the soldiers to see war, as a chameleon, a phenomenon that affects and draws its spirit from the society which spawns it”. 
INTRODUCTION

"Recent events have torn history from its mooring, sweeping aside the constants that have defined our world since 1945. The old rules no longer pertain; woes to those who fail to take heed. A world in flux will not deal gently with those resting on their laurels"

A.J.Bacevich

1. Strategy in its present form is concerned with warfare. The origin of word Strategy can be traced back to mean "The Art Of The General". A concept broad enough to encompass every aspect of ancient warfare. Often the politics and warfare were the province of a single person, "The Warrior King", Frederick the Great is an excellent example of this phenomenon as is Napoleon. Seen in this context the term "Strategy" had largely a military connotation dealing with maintenance and handling of forces in the field. It was more the art of generalship as distinct from that of statecraft. The concepts of strategy and tactics were inter-mingled. Strategy was generally considered to be "the art of bringing forces to the battle field in a favourable position", while the battlefield was generally the realm of tactics. This was the state of affair up till the beginning of the French Revolution. The period prior to it is called an age of limited warfare. The wars were limited in objectives as well as resources. The horizons of the strategists were limited and the process of evolving strategy was relatively simple by modern standards. Jomini defined the strategy of that time as "The art of bringing the greatest part of the forces of an army upon the important point of the theatre of war".

2. At about the same time, Clausewitz, established a clear place for strategy in his theory of war. He argued that the art of war, like any art, is creative and not imitative. A sound theory of war, therefore, has to accommodate change and flexibility. Armed conflict is only the means to a political end without which war becomes pointless and devoid of sense. Therefore, war must not be removed from its political context. A second conclusion reached by Clausewitz was that war is waged by "a remarkable trinity" of the government, armed forces and the people. The government establishes the political purpose, the military provides means (force) for political end and the people provide the will. All three are indispensable legs of Clausewitz's strategic triad. In this simple statement, Clausewitz has described every thing about strategy, the flow of strategic thought, the whole spectrum of strategy and the ends that it desires.
Side by side, with the course of military history, conceptual development of strategy has been an on-going process. From a simplistic definition of strategy as an art of the general, a complex structure of various strategy levels has been evolved.

**NATIONAL STRATEGY**

"The art and science of development and using the political, economic and psychological powers of a nation, together with its armed forces, during peace and war to secure national objectives".

United States Publication

**MILITARY STRATEGY**

"The art of distributing and applying military means to fulfil the ends of policy"

Liddell Hart

"The art of the dialectic of two opposing wills using force to resolve their disputes"

Andre Beaufre

**OPERATIONAL STRATEGY**

3. This evolutionary process has been motivated by various factors like the nature of warfare itself, development in the means of warfare, and strategic concepts propounded by military thinkers as well as elemental schools of strategic thoughts. The article shall unfold itself in following sequence: -

(a) The spectrum of strategy.
(b). Nature of warfare.
(c). Development in warfare.
(d). Fundamental forms of strategic thoughts.
(e). Elemental schools of strategic thoughts.
4. **The Spectrum of Strategy** The spectrum of strategy, with passage of time, has expanded laterally and vertically. More expansion has taken place in the realm of policy as well as conceptual development of military and services strategies.

5. **National Strategy** The basic instruments of statecraft [national strategy] are military force, diplomacy and economic power. Military force comprises both the use of force and threat of force. Diplomacy encompasses both government contacts and public diplomacy; and economic power can range from sanctions to aid. Each instrument has its particular character, advantage and constraints; and all are inter dependent and inseparable. These instruments can be soft and hard, and coercive or persuasive. Government also has to decide which instrument would play the leading role and the nature of support desired from the other two. In war, of course, the military instrument would be predominant while diplomacy and economic power would take the supporting role. Elements of national strategy can be seen on the diagram at next page.

**ELEMENTS OF NATIONAL STRATEGY**

```
MILITARY POWER
  USE OF FORCE
  THREAT OF FORCE

ECONOMIC POWER
  SANCTIONS
  AID

DIPLOMACY
  NEGOTIATIONS/GOVERNMENT CONTACTS
  PUBLIC DIPLOMACY
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6. **The Policy.** The military power and diplomacy is collectively called "The Policy". The policy tackles all issues related to the higher direction of war. Some main ones are:-

(a) **Aim and objectives of war.**
(b) **Exterior Manoeuvre**
   (i) Alliances and inter-state relationship.
   (ii) Conditioning of the adversary through media war, sabotage and subversion etc.
(c) **Internal Manoeuvre.** Preparing the nation for war (economics, development of infrastructure, institutions and morale etc).
(d) **Initiation of War.** How should the war be initiated and the preparation of manoeuvres for strategy?
(e) **Policy for the Conduct of War.** How to achieve the ends desired of war?
(f) **War Termination Strategy.** How the war should be terminated in order to achieve the aim and objectives of war?

7. **Military Strategy.** In includes military objectives, strategic concepts and resources. Keeping in view the bounds and parameters set by the policy, main issues that need to be resolved are: -

(a) What is the overall strategic effect desired?
(b) What should be overall strategy?
(c) Which service strategy should predominate?
(d) Inter dependence and linkages of service strategies.
(e) Direction and guidance for the services strategies and the main effects desired from each.

8. **Nature of Warfare** Some of the significant phenomenon of warfare, which have a bearing on the application of strategy, are: -

(a) **Expansion of the Battlefield.** Gradually and imperceptibly, there has been a three dimensional expansion in the battlefield. Radius of action of armed forces has increased in frontage, depth as well as vertically. Modern armies are claiming that, in the future, the enemy will be asked to surrender on the empty battlefield. Contrary to the ancient times, the war is no more a concern of soldiers fighting on a front. The whole nation has to face the brunt of war now; as much as the armed forces.

(b) **Diversity of Armed Forces.** Throughout the history, armies have equipped and prepared themselves in highly diverse ways. When two armies, from distant lands, clashed on the battlefield, the element of diversity came to the fore to the total disadvantage of one side. Victories after victories were achieved by the side which proved superior on the battlefield by virtue of this element of diversity. Mobility of Mongols, superior military system of Napoleon and German Blitzkrieg could be quoted as few examples. At the peril of getting vanquished, the
opposing army had to quickly adapt to the new element introduced in the combat. Mongol invasion was thus checked in Palestine by Sultan Baberous in Battle of Ainul- Jaloot after a victorious march of about 6000 miles. Napoleon's opponents learnt to neutralise his superior mobility and tactics to ultimately defeat him. Nothing could stand in front of panzer advances for first two and half years of World War II. With the advancement in technology it is becoming increasingly difficult to assess the military balance of adversaries. The potential of acquiring "diversity" is much more today despite the improvements in intelligence gathering.

(c) **Phenomenon of Chance.** Phenomenon of chance (Tyche, in Greek) dominates every facet of military history from the highest level of policy to the lowest tactical level. This is as true of peacetime events as of great battles. Thus, unpredictability was and will remain central to how the future events will unfold. The appearance of Napoleons, Hitlers and Saladins is entirely unpredictable for a given time. And such individuals will continue to play major roles in determining outcomes in war and politics of the future. If individual events are un-predictable, so too are the periods of great social and political upheavals such as the French Revolution or break up of erstwhile Soviet Union. Such great social changes are beyond the control of individuals and governments. The consequences of such changes are un-predictable. The world is presently going through information and military technology revolution. What is in store for us?

(d) **Geo-political Dimensions.** Every war has a geo-political dimension, of course different for every war. Influence of sole super power and world powers has enhanced manifold. Open hostilities for prolonged periods will be difficult to sustain without prior consensus of powers to be. It highlights the importance of effective exterior manoeuvre to support the military action on one hand, and the constraint on the strategists to attain the desired results remaining within the limits imposed by international pressure to terminate the hostilities within the permissible time on the other.

(e) **Military Technology Revolution.** After having talked of great social and political events which have shaped our world in the past, let’s see how Information and military technology affects the world. Revolution based on information and military - technology is one such event that we are witnessing now. In Gulf war and Kosovo, the world saw a demonstration of what modern technology can deliver. With the passage of time more and more armies are going to be hit by the technology bug. It has serious implications for strategy.

(f) **Media War.** With the help of modern technology, the ability to monitor activities on the "other side of the wall" and influence the minds through an effective media campaign has enhanced manifold. A new dimension has been added to war and, consequently, to strategy.
9. **Basic Forms of Strategic Thought** Derivatives of strategy of direct and indirect approach propounded by Clausewitz and Liddell Hart respectively have been extensively debated by military thinkers. These are the only two strategies through which main effects and decisive results can be achieved. A military strategist has to opt for one out of these. Therefore, it will be worth while to discuss these briefly before proceeding further. These strategies are: Strategy of Annihilation (Unlimited War) – Direct Approach and Strategy of Paralysis (Indirect Approach).

10. **Strategy of Annihilation.** This has been the prime cannon of military strategy. It is based on the Clausewitzian view, that the destruction of enemy's main forces on the battlefield constituted the only true aim of war---idea of unlimited war and decisive battle. He professed that; objective of military strategy was destruction of opposing forces. Clausewitz centred his argument on the idea that:-

   (a) "War is a political instrument, a continuation of policy carried on with other means. Because the war is subordinate to policy, force destruction is a means to a political end".

   (b) "Strategic paralysis" cannot and of itself affect lasting political change. Therefore, attainment of political objectives necessitates destruction or unconditional surrender of enemy forces.

   (c) The "strategic paralysis" in the absence of total destruction may only be temporary and might not lead to the political objectives. Victories would be meaningless if the opponent remained capable of later aggression.

   (d) The cornerstones of strategy of annihilation are overwhelming force and political will (applied in a concept of total and unlimited war).

   (e) Advantages accrued from destruction are a compensation for the high costs and danger inherent in the strategy of annihilation. Unless carried out with speed and conviction, strategy of destruction could result into attrition rendering incomplete results.

   (f) He said, "We are not interested in generals who win victories without bloodshed".

11. **Strategy of Paralysis.** Liddell Hart, as opposed to Clausewitz, argued that "the perfect strategy would be to produce a decision without serious fighting. He maintained that the universal adoption of the theory of unlimited war has gone far, to weaken civilisation. Main points of this strategy are: -

   (a) A strategist should think in terms of paralysing and not of killing.

   (b) Military forces should be employed to "strategically paralyse" an
adversary's leadership. Destruction of enemy forces was no longer essential to achieve the political objectives.

(c) From this central belief he derived his one "condensed" principle of war the concentration of strength against weakness and his eight maximums which would bring about dislocation and paralysis.

(d) This "paralysis", a psychological and moral dislocation of the opponent’s mind and dispositions would be achieved through the indirect approach.

(e) Where as the direct attack tended to harden and consolidate the resistance of an opponent, indirect approach upsets the opponents balance, psychological and physical, thereby, making possible his overthrow and giving away of his will. Thus, a focus on operational and strategic paralysis was central to Liddell Harts', entire view of warfare.

(f) Ultimately, dislocation would spread from soldiers, unbalanced by indirect approach, to their commander and then to their government.

(g) The sword drops from a paralysed hand.

(h) Effective strategy should subdue the opposing will at the lowest war cost and minimum injury to the post war prospect, with an eye towards a better state of peace. The most decisive victory is of no value if a nation is bled white in gaining it.

(i) No general, he said, is justified in launching his troops to a direct attack upon an enemy firmly in position.

(j) It implies psychological unhinging of enemy to convince him that continuation of action will be costly and fruitless.

(k) Seeking and upsetting the enemy’s equilibrium (balance) was the key to victory.

**Elemental Schools of Strategic Thought**

12. All those who deal with and influence strategy should recognise that a "service perspective" of strategic thoughts does exist and it does influence the strategic mind at work, whether those minds realise it or not. Therefore, the conceptual framework of each service should be clearly understood. There are three generally recognised strategic schools of thought directly associated with each service. These three schools differ in their histories, evolution and fundamental premises. Land power and maritime power strategic theories were developed through an analysis of historical experience but air power theory sprang up from the conception of how to take advantage of new technology.
**Maritime Strategy**

13. Classic maritime strategy had a no of theorists; most notable are Mahan and Corbett. The theory as most clearly articulated by Corbett, consists of two major parts:-
   (a) Control of the seas.
   (b) Using sea control, to establish control on land. To establish control of seas (seven seas), controls decisions ashore. To establish this control they: -
   (c) Seek to dominate the critical sea-lanes and choke points.
   (d) Control the landmass by blockade or projecting expeditionary forces ashore.
   (e) Destroying the enemy fleet facilities, in the exercise of control. The underlying assumptions are: -
   (f) Naval power is founded on maritime communications.
   (g) Naval forces are the keys to success in war.
   (h) Contrary to land based air power and missiles there is a concept of "Forward from Sea".

14. **Air Strategy** Founded by Douhet, postulated that: -
   (a) Aeroplane has revolutionised the warfare. The nation that possesses command of the air can play such havoc as to lead to enemy's surrender.
   (b) (The most powerful selling point is) that given a free hand air power makes protracted wars obsolete.
   (c) Douhet and his disciples believed that air power, unaided, is decisive. In this role its principal missions are destruction of enemy's air capabilities and war making potential.
   (d) Logically then, an independent air arm takes precedence over other services. Land forces play a secondary role of occupation after surrender or for mopping up.
   (e) Physical destruction from the air will compel compliance from enemy. It promises a painless (less casualties) and independent success (e.g., Gulf War, Serbia).

15. **Main Bugs / Problems with Air Strategy**
   (a) USSR ineffectiveness in Afghanistan and US defeat in Vietnam respectively despite their air power.
   (b) Mutual neutralisation of air power in war between equals (e.g., France Vs Germany).
   (c) Ineffective against revolutionary model of war.
   (d) Ineffective against country without significant infrastructure (e.g., USSR Vs Afghanistan).
   (e) Ineffective under special terrain and weather conditions (e.g. built up areas, jungles, fog, mountain country etc).
(f) Cost prohibitive / unaffordable.
(g) Technology intensive / Not available to all nations.

16. **Land Strategy** In contrast, land power strategy has not been synthesised by one or two theorists as the maritime and air strategy. It is the oldest of military powers and its theory is also loosest in structure and clarity. Nonetheless, there is a rich history and literature in regard to land power to guide us. It is a distinct product of nation’s culture and geography. Land power theory thus has more cultural variations or manifestations. Within the land power community the knowledge of its strategic theory is assumed and already two main land power strategic theories of Clausewitzian (Strategy of Destruction and Unlimited War) and Liddell Harts School (Strategy of Strategic Paralysis or Indirect Approach) have been discussed.

(a) **US Land Power School.** US Army War College group has summarised land power as stated below: -

(i) Application of the nation’s Army to exert decisive and lasting influence on land in support of national interests.
(ii) Land power permits joint forces to achieve decisive victory.
(iii) Land power shapes the peacetime international security environment, and responds decisively to the full spectrum of conflict.
(iv) The destiny of nations is shaped by forces on land.
(v) Land forces symbolise a nation’s highest commitment and determination.

(b) **Land Power Strategy.** In essence, then, the land power strategy is: Ultimately the resolution of armed conflict is always predicated on land, armies defeating the opposing armies and physically occupying or threatening to occupy the enemy's territory, thereby eliminating or controlling the enemy government and its ability to resist one's will. Armies must meet and one must be defeated in battle. Navy and Air Force are in support roles delivering men, supplies and fire support, or creating conditions for land power to be applied. Land power strategy focuses on the destruction of enemy's army and occupation of his territory, an end that only an army can assure. (This is pure Clausewitzian thought). The destruction of enemy forces and capture of space does not invalidate the role of maritime or air power but the use of land power or potential use of land power is the decisive factor. From this fundamental belief, structure and the experience of land power, a number of corollaries and doctrinal truths emerge:

(i) Decisiveness and lasting influence in terms of both national greatness and survival depend ultimately on the land power, defeating enemy’s land forces and occupying his territory.
(ii) The use of land power connotes political resolve exceeding that in the
use of other forces (naval or air).

(iii) National perspective is so strong that Army is less inclined to articulate a land strategy because it views an independent service strategy as inconsistent with Army's natural role.

(iv) Only land power recognises and embraces the inter dependency as part of its strategic construct. It is the land power school that is the advocate of the concept of jointness.

(v) Land power has a national focus. A basic principle of land power is that for every objective; seek unity of command and unity of effort. It requires a single commander with the requisite authority to direct all forces in pursuit of a unified purpose.

(vi) Thus, national focus and a search for unity characterise land power strategy.

(c) **Characteristics of Land Power** Some significant characteristics of land power (as opposed to maritime and air power) are:

(i) The Army attempts to come to grips with its future in the light of its past.

(ii) Land power strategists are focused in their strategy by terrain and geography.

(iii) Army's perception of strategy is influenced by its continuous and direct relationship with combat. It thinks in terms of theatres, campaigns and battles. Air and Navy view war as separate series of encounters from which they pursue or fall back as appropriate. Army, once engaged, stays in contact.

(iv) Medium in case of Navy and Air does not play that significant a role as is the case with the Army. Air and Navy seek to exercise control over their medium, while Army occupies its medium (terrain).

(v) For Army, terrain defines the nature of battle and combat plays major role in its conclusion. The longer one is in the medium the higher the risk.

(vi) For Army the ultimate objective is the destruction of enemy in engagement and preferably in one great battle leading to a decisive result that ends the war as quickly as possible (another Clausewitzean truth).

(vii) Army's focus on terrain and contact is important: It tends to cause land strategy to think in terms of sequential strategies as opposed to cumulative ones. Command designates physical objectives (enemy force, important terrain feature--a junction of Lines of Communication or other vital areas) essential to accomplishing the mission. Thus armies move on line of operations from decisive point to decisive point focusing on geographic objectives that set up decisive battle with the enemy. Sequential orientation potentially blinds Army to the value of other strategic approaches such as cumulative or deterrent strategies.

(viii) Ultimate determinant in a war is the man on the scene with a gun.
(Occupation of space is thus half the formula of decisive land strategy). Both, in the Navy and Air force, technology has a dominant position in the hierarchy of success of their strategies.
(ix) Land strategy has generally no single voice and is often contradictory over time.

17. **Future Strategic Environment** What can one predict about the future of warfare? A contemporary strategic historian has said, “The owl of history is an evening bird. It cannot see the light of the day. The future cannot be known at all, yet despite its many ambiguities, historical experience remains the only available guide to the present and to the range of alternatives inherent in the future”. For almost a decade now the military planners, around the globe, have foreseen an impending revolution in military affairs, sometimes called military – technological revolution. Such a revolution would touch virtually all aspects of the defence forces from strategy, basic organizations to tactics. The Gulf War was just a demonstration of the use of new military – technology and the decisive results that it achieved in extremely favorable circumstances. If this is the reality of the future then we need to know what the revolution in military affairs will look like? Four questions are relevant in this context: -

(a) Will it change the appearance of combat?
(b) Will it change the structure of the armies?
(c) Will it alter the country’s power position?
(d) Will it lead to changes in strategic thought at the military and operational levels?

18. **The Forms of Combat** A transformation of combat means changes the fundamental relationship between Offensive and Defensive, Space and time and Fire & manoeuvre. On the strength of fire power accuracy and reach, a military cliché has it that what can be seen on the modern battle field can be hit, and what can be hit will be destroyed. Sophisticated armies can inflict unprecedented levels of destruction on any moving force. Fixed sites are also increasingly vulnerable. The platform has become less important, while the quality of what it carries has become critical. On a world dominated by long-range, intelligent precision weapons the first blow can prove decisive. Incentive ‘for pre-emption may grow’. How such wars initiated by information strike would play themselves, is a matter of tremendous uncertainty. The Structure of Military Organizations.

(a) The balance between quality and quantity has shifted in favour of quality.
(b) The age of mass armies equipped with bulk produced weapons is coming to an end.
(c) The new military will be increasingly joint force; or perhaps, one might say, less and less a traditional, service-oriented force. Air operations have become inseparable from almost any action on the ground.
(d) Fighting units will become small and deploy well dispersed. Extensive use will be made of fire brought to bear from the air on rear areas.
(e) The new technologies will increasingly bring to the fore new type of
leaders; an expert in missile operations, air space management and electronic warfare.

(f) The cultural challenge for military organizations will be to maintain a warrior spirit and the intuitive understanding of war that goes with it.

(g) A profound problem would be to resist the temptation to centralize authority.

19. The Power of States

(a) The contemporary revolution in military affairs offers tremendous opportunities to countries that can afford to acquire expensive modern weaponry and the skills to use it properly.

(b) Small states like Israel, Taiwan and Singapore can do far more against their potential opponents than would have been thinkable 30 years ago.

(c) This revolution will not render guerrilla tactics, terrorism or weapons of mass destruction obsolete. Indeed the reverse may be true. Technologically backward states may rely heavily on these.

(d) The potential for new military powers to emerge rapidly has enhanced. A country like Japan or China can quickly transform their civilian technological power into its military equivalent. Economic strength may prove easily translatable into military power.

20. Implications for Strategy

(a) With some exceptions, limited wars seem more likely in the future; particularly in so far as its objectives are concerned.

(b) Armies defied comparison in the past. Their strength varied greatly depending on where and whom they were fighting. Opacity in the matter of military power may prove one of the most troubling features of the current revolution.

(c) The revolution may bring a kind of tactical clarity to the battlefield, but at the price of strategic obscurity.

(d) Military leaders will themselves be handling forces they do not fully comprehend and will be divided on the utility of various forms of military power.

(e) The whole spectrum of strategy will still be relevant because it is effects oriented. Operative factors and Time – Space – Relative Strength Matrix will still be pertinent but applied by keeping in view, the new realities of prevailing environment.

21. A Word of Caution. At this point in time, United States (and NATO countries) only have the military capability based on the full potential of revolution in military – technology. Rest of the world, including our adversary, will adapt to new change gradually and progressively. There is surely no reason for worry. However, with each passing day, even South Asia will inch forward in the race for modernization. We cannot afford to lag behind in the face of this new reality.
22. **Lessons / Conclusions from Military History**

Inter State Relationship. Some of the conclusions that can be drawn are: -

(a) Economic influence will determine which states will be "constant players" i.e., nations whose interests and views must always be taken into account.
(b) An increasingly sophisticated understanding will be required to determine relationship between internal political / economic matters and external affairs.
(c) Third world forces in most regions will continue to modernize, grow and generally become more competent and lethal. Advance military technologies and weaponry will become increasingly available. A number of them will also develop indigenous arms industries and sizeable export capacity. Third world will acquire more and more independent military capability. World will have three types of armies; modern - qualitatively superior, quantitatively large, and primitive but ideologically motivated/revolutionaries.
(d) Virtually in every region, one or more states will attempt to establish regional hegemony for next several decades.
(e) It will be possible to: -
   (i) Be an economic power without being a military power.
   (ii) Wield great political influence without the corresponding military weight traditionally needed to do so (Japan, IMF, World Bank).
(f) It would be difficult, if not impossible, to be economically weak yet militarily strong and politically influential.
(g) World powers and US will be most influential when co-operating with each other rather than confronting one another.

23. **Policy**

(a) Clarity of national purpose, aims and objectives is essential. Vagueness in policy can be interpreted erroneously by the military strategy.
(b) Military strategy must remain subservient to policy and must strive to achieve the ends desired by policy. In other words, strategy must be in harmony with policy.
(c) Policy should not demand what strategy cannot deliver.
(d) Strategy cannot redress the imbalance created by faulty policy. Similarly, nations that got their strategy right were able to repair tactical and operational deficiencies in their military organizations. But nations that got their strategy wrong no matter how effective their military organizations on the battlefield always lost. (Lower tier cannot redress the imbalance of faulty upper tier).
(e) Instruments of state power other than the military force (i.e., economic power and diplomacy) have gained more potency. Military strategy would need to be applied in more complex environment.

24. **Military Strategy**

(a) Strategy does not demand what militarily is not attainable.
(b) Strategist must have a strategic vision that is translated in the form of clear ideas to execution levels.
(c) Strategy in 21st Century will demand a sense of intangibles and uncertainties. It implies that strategy must have high tolerance for ambiguity and uncertainty.

25. **Time, Space and Relative Strength Matrix** Space for the application of military strategy has been enlarged while the time to attain the desired effects has been drastically curtailed. Modern technology has made it increasingly difficult to assess the relative strength of the adversary. This means that: -

(a) Clarity of strategic design and singleness of conception at all tiers is even more essential.
(b) Strategy would need to be more flexible and responsive in order to meet the unexpected situations.
(c) The potential of achieving surprise, at all levels, has generally enhanced.
(d) Strategic leaders would need to be sharp, decisive and knowledgeable.
(e) Means to execute strategy must be affordable. Overstretching resources, causes loss of power even when the victory has been won.

26. **Fire Power and Manoeuvre** Accuracy and reach of modern weapon systems has imposed dilemma on the survivability of field army. It has imposed serious limitations on the execution of decisive ground manoeuvres. This has various implications because offensive manoeuvre is the very soul of strategy. Joint operations; particularly, air-ground integrated operations will be the basic form of offensive manoeuvre.

27. **South Asian Deterrence**

(a) Weapons of mass destruction are weapons of peace than war.
(b) Strategy of deterrence based on nuclear capability has two significant disadvantages / implications for us: -

(i) Disproportionate confidence in nuclear weapons to deter across the entire conflict spectrum.
(ii) A propensity to escalate from a position of disadvantage or
adversity.

(c) Future war will be limited in nature and fought well below the [nuclear] threshold of the adversaries.

(d) Nuclear threshold is directly proportional to our conventional war fighting capability.

(e) Unconventional warfare of low and medium intensity will be the permanent feature of our conflict environment.

28. Operational Strategy
   (a) True aim of strategy is not to seek a battle but to create a situation where continuation of action would be fatal for the enemy.
   (b) Retain freedom of action for yourself and curtail liberty of action of your adversary.
   (c) Have a clear perception of our own enemy (often we are fighting some ones enemy) and not that of your superior.
   (d) There is always an element of calculated risk in operational strategy (but not in military strategy).

29. Conclusion History has constantly displayed an uncomfortable ability to turn on those most confident about the future. Power will lie at the heart of virtually everything that happens in the 21st Century. More likely it will be economic or political power. It will also appear, quite often, in the guise of military force. The biggest lesson of history and of strategy is the sheer unpredictability and uncontrollability of human, political, economic and military affairs. The patterns and influences of the past will repeat themselves in different forms and arrays. The world is presently going through an information revolution. In the 19th and 20th Centuries God may not have been on the side of the bigger battalions but victory usually was. Future technology, however, may create pockets of military capability that will allow small states to hold off larger ones. The future holds a great opportunity for all. Step forward and take it.
ORIGIN OF MODERN WAR

Introduction
1. The importance of thorough knowledge about military history for a professional military officer is self-evident. Understanding of warfare can be gained in two ways; it can be gained through the experience of actual combat on the battlefield, or through the study of past conflicts. The development of strategic thoughts requires both direct experience and the introspection afforded by study of the past. In fact, one could even argue that the development of strategic thought and the conduct of modern warfare is impossible without study of the past. In addition to being recognised as master strategists, most of the individuals that we are about to discuss were also renowned as scientists, philosophers, or historians. Machiavelli, e.g., studied the military tactics of the ancient Roman Empire and these became a source of inspiration for his work, “The Art of War”. Both Machiavelli and Maurice of Nassau had studied ethics and social reforms. Gustavus Adolphus and Montecuccoli were disciples of these reformers. Vauban was a scientist, engineer, and technician. Frederick the Great was a life-long student of all of these subjects as well as one of the most battle-experienced commander of his time. Over a period of time, a number of fundamental rules and strategies regarding the successful conduct of warfare have been evolved. Passed on by historical records or oral traditions, these fundamental principles of war and the strategies that incorporate them were not really organized into a separate field of study, until the Western Renaissance of the 15th Century.

Aim
2. To study strategic thought from the Renaissance to the 18th Century, with particular attention to its evolution and contributions to the origin of modern warfare.

Sequence
3. The study has been covered in the following sequence:-

(a) **Part I**. Machiavelli – The renaissance of the art of war.
(b) **Part II**. The military revolution of 17th century encompassing contributions made by Maurice of Nassau and Gustavus Adolphus.
(c) **Part III**. Vauban and the impact of science on war.
(d) **Part IV**. The contributions to strategy made by Fredrick The Great and major conclusions.
(e) Conclusion.

**PART I**

4. **Machiavelli – The Renaissance of the Art of War** The Machiavellis were an old, highly regarded family of the 15th Century Italian city-state of Florence. Niccolo
Machiavelli was a descendant of an illegitimate branch of this family and could not be a member of the ruling councils or of the policy making magistrates. However, his friendship and social connections with the city’s ruling aristocracy earned him a prominent place in political circles of Florentine Republic in the period spanning from 1498 to 1512. Niccolo Machiavelli’s career as a political writer began in 1512, following his ouster from the Florentine Chancellery. “The Art of War” (1521) is a record of his ideas on warfare, though he is perhaps more infamous for his political realises, The Prince and Discorsi (or Discourses) which advocate the use of almost any method necessary to achieve one’s political goals.

5. **Concepts / Contributions Towards Warfare** His main concepts and contributions towards warfare included:-

(a) **Connection Between War and Political Strategy.** In his view, “War is the most essential activity of political life”. He further elaborated that, “civil and military lives are connected and united together. There cannot be good laws where there are not good arms, and where there are good arms there must be good laws. A prince should, therefore, have no other aim or thought, but war and its organizations.”

(b) **Advocacy of Conscript Army.** His idea of a conscript army was that of a city state military, a part time military service patterned on the model of the ancient city republics, but hardly suited to the armies of territorial state.

(c) **Role of Artillery.** He did not deny that artillery had increased the striking power but he rejected the idea that artillery alone can be decisive. According to him still the courage of soldiers and ability of commanders were the decisive factors.

(d) **Unity of Command.** According to him the link between political and military leaders and the position of prince provided for the unity of command. To achieve decision on the battle, command must be in the hands of one man. Romans met successes in their campaigns because they had left all the details of a campaign to the discretion and authority of the consul.

(e) **Financial Aspects.** Machiavelli argued that “It is not the gold but the good soldiers who ensure success in the war”. Actually he wanted to highlight the importance of expending the financial resources keeping in view the conduct of war. He said so in the background of the defeat of Italian cities of Florence and Milan at the hands of French invaders, despite their wealth.

(f) **Decisive Battles.** He emphasized that “The decisive battle is the end for which all the armies are raised and hence much care and pains are to be taken in disciplining them, because a complete victory commonly puts an end to war.” He further adds up that “If a general wins a battle, it cancels his all other errors and miscarriages.”
(g) **Discipline.** To him military success depends on order and discipline, natural courage alone is not enough. With him discipline had two aspects. First of all, teaching the soldiers the fundamental use of arms and to accustom them to act in formations. Second was the problem of sub dividing the army into smaller tactical units.

(h) **Training.** The importance of training is highlighted again and again in his book; *The Prince* and *the Discorsi.* He emphasized that training is never finished or completed. A wise leader keeps the necessity of training always in mind and insists on it in peacetime as well as in wartime.

(i) **Severity and Harshness.** He believed that even the bonds that training and disciplines create, cannot guarantee obedience. These must be reinforced by the fear of harsh punishments. Severity and harshness are needed to hold a political body together. A prince must not mind incurring the charge of cruelty for the purpose of keeping his subjects united and feared. According to him, “It is much safe to be feared than loved.”

(j) **Beginning of Strategic Thinking.** By establishing a discussion on military problems on a scientific basis, it was possible to gauge all military measures in relation to one supreme purpose and to have a rational criterion for them. Successful outcome of a war was conceived as dependent on arranging one’s measures in accordance with the rational laws determining the course of military affairs. Although the term strategy did not exist then, but it was the beginning of strategic thinking.

**PART II**

6. **Military Revolution of the Seventeenth Century** The elements of the military revolution like the rise of infantry, the widespread adoption of firearms and the rapid evolution of fortifications capable of withstanding the new artillery made appearance by the end of fifteenth century. The most imp component of this revolution, the emergence of professional standing armies, took place between 1560 and 1660. The term “Military Revolution,” more commonly referred today as “RMA” (Revolution in Military Affairs), not only means adoption of new weapons and tactical formations rather is designed to embrace a complete and fundamental shift in the nature of armies and warfare. Such a shift took place in the era of Maurice, Gustavus Adolphus and Montecuccoli. It was only then that modern armies, founded on the principle of hierarchical subordination, discipline and social obligations, took the shape they have retained to the present day. The transformation accomplished in large part by the efforts, practices and theories of these three commanders, does indeed constitute a true “Military Revolution”.

7. **Maurice of Nassau** A Dutch military commander and political leader rominent in the Dutch War of Independence. Maurice of Nassau was born in 1567 at Dolligen, Germany, the second son of William the Silent. He is regarded as distinguished
administrator, tactician and master of Siege Warfare. In 1588, at the age of twenty-one, Maurice was appointed as Admiral General (Commander in Chief) of the United Netherlands. In 1621 Maurice led the Dutch forces against the Spanish but there was no decisive victory or defeat before his death on April 23, 1625.

8. **Contributions of Maurice of Nassau**

   His major contributions include:

   (a) **Foundation of Modern Standing Armies.** He transformed the unreliable mercenaries and part time military into a professional outfit. This service provided him a lasting place in the evolution of modern war. He created a new type of professional soldier and cabinet leader, combining martial expertise with specific social and spiritual values.

   (b) **Characteristics of New Force.** The distinguished characteristics of the re-organised force, which even became a feature of modern armies, were:

   (i) Intelligent leadership.
   (ii) Unquestioning obedience.
   (iii) Loyalty to the unit.
   (iv) Improvement in tactical deployment.
   (v) Enforced strong code of conduct.
   (vi) Discipline.

   (c) **Emphasis on Training.** The training was aimed at achievement of individual and unit proficiency. Proper execution of the manual of arms became the outward manifestation of discipline, with exercises designed to teach instant obedience to commanders and to build unit cohesion.

   (d) **Organization and Command Structure.** Maurice cut down companies to 130 all ranks and raised the ratio of shot to pike. He did not establish permanent major tactical formations, but for battles, companies were combined into battalions, initially of 800 and later 550 men. He regarded command as a public trust, with authority derived not from noble birth but from commission awarded by state and introduced fixed promotion criteria.

   (e) **Siege Warfare.** Maurice’s contributions to Siege Warfare are undisputed. He assigned a permanent role in his army to artillery, engineers and supply and made siege operation more efficient by introducing the use of troop labour. Thus:

   (i) Digging became a feature of infantry unit operations.
   (ii) Pick and shovel became a standard infantry equipment.

   (f) **Fighting on Interior Lines.** He introduced the use of interior lines to shift his forces between various fronts, which gave his small army a far greater striking range than its size warranted. As a result, he successfully captured more than 29 fortresses.
9. **Gustavus Adolphus** Gustavus Adolphus, King of Sweden, was known as the “Lion of the North” for his brilliant leadership of the Protestant forces in the Thirty-Year’s War. The son of Charles IX, Gustavus was born on Dec 9, 1594, in Stockholm. When he succeeded to the throne in 1611, Sweden was at war with Denmark, Russia, and Poland. He waged a successful war against Russia from 1613 to 1617, acquiring lands that completely cut off Russian access to the Baltic Sea. Gustavus, like Maurice, owes his place in history above all to his tactical and administrative innovations. He is regarded as disciple of Maurice and established his methods with some modifications that added to his offensive capability.

10. **Contributions by Gustavus Adolphus** His major contributions include:-

   (a) **Effect of Fire and Shock.** Gustavus was the first Commander to understand the value of combining effect of shock and fire. He increased the effect of both by new fighting methods and improved weapons.

   (b) **Offensive Action by Combined Arms.** The tactical system of Gustavus stressed offensive action by combined arms. The cavalry, trained to charge at gallop, and supported by musketeers, was launched against the enemy flanks, while artillery opened the attack with fire from fixed lines. At the same time reserves were withheld for use when required. This pattern became the standard for all commanders of the next century.

   (c) **Secure Bases and Lines of Communication.** Logistics and need to guard communication with the homeland, imposed severe restrictions on his strategy. The first consideration compelled him to follow rivers and to secure the strong places along their courses; the second compelled him to establish fortified bases in Northern Germany into which his army could fall back. The Swedish tactics depended on mobility in the field and maintaining secure bases and communications.

11. **Raimondo Montecuccoli** Montecuccoli was born in 1609 the son of minor noble family of Modena, Italy. He began his military career as a simple soldier at the age of sixteen. He later became the Lieutenant General and Field Marshal of the army of the Austrian Hapsburgs. He is best known as military intellectual and is also regarded as a follower of Maurice.

12. **Montecuccoli’s Literary Work** Montecuccoli’s literary work spanned over thirty years from 1640-1670 and included the following books: -

   (a) On Battle (Sulle Battaglie).
   (b) Treatise on War (Trattato de la Guerra).
   (c) “Aphorism on the Art of War” is his most famous work, containing ideas for future campaigns.
   (d) He also wrote many books on mathematics, logistics, organization and
13. **Salient Aspects of Montecuccoli’s Theories on Warfare and Strategy**

Salient aspects of Montecuccoli’s theories on warfare and strategy are:-

(a) He rated counter attack as an essence of defensive battle followed by pursuit. Based on that he developed the modern theory of war of attrition and annihilation.

(b) He regarded war as a great evil but stated that there can be no real peace between the two competing states.

(c) He preferred socio-political solutions over military actions.

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**PART III**

14. **Vauban and The Impact of Science on the War**

Vauban was born in 1633 at Saint Leggier, France. His military family was from the undetermined fringe between the middle class and the lower nobility. After imperfect education of history, mathematics and drawing he rose to the status of director and finally the Marshal of France. His most distinguished work of siege craft and influence on other branches of warfare earned him great respect in the court and in the centuries to follow. Vauban focused his attention to the technical side of the warfare, marking the entrance and influence of science in its domain. Some critics attributed his fame to his superior qualities as a civil servant, not acknowledging his work in the field of strategic warfare. The cultural and economic rebirth of Western Europe after the 12th Century shows that the association of science and warfare was not accidental. The revival of the art of war was closely linked with the recovery of ancient scientific and technical knowledge. This maturity resulted from the contributions of many scientists including Vauban, who either served as consultant or as technical auxiliaries of the army. Though Vauban was not the architect of some new technique or concept, his memoirs treat the most diverse disciplines of warfare. He worked on technical, military and naval problems, inter ocean canals, reforestation, geography, mapping and mines that shaped the conduct of future wars.

15. **Contributions of Vauban**

The influences and contributions of Vauban and other scientists of the time, on the art and science of warfare are:

(a) **International Laws on the Conduct of War.** This century saw an end to the unregulated wars of Machiavelli’s time. Men like Vauban and Grotius were the forces against the wars of unlimited destruction and international anarchy. They hedged in the conduct of war with a host of minor but imp prescriptions and prohibitions that contributed to making warfare a relatively humane and well regulated enterprise.

(b) **Influence of Terrain on the Warfare.** Vauban’s recommendations for repositioning, redesigning and evacuation of the unimportant border fortresses were based on the importance of secure communications and economy of forces. His time spent travelling the whole length and breadth of the country led him to
emphasize the strategic importance of terrain and natural frontiers for the conduct of wars.

(c) **Professionalism.** Vauban recommended the importance of technical education and advocated an institutionalised examination system. During this century, the overall realisation of the formal education for the officer brought a revolution not only in the outlook of the armies, but in the conduct of warfare as well. The reliance on professional competence compelled the commanders to learn the art of strategy rather than brutality and sheer size for winning the campaigns.

(d) **Bureaucracy in Armed Forces.** Vauban’s memoirs on creation of a war ministry finally laid the foundations of civil administration in the armed forces. This realisation strengthened the powers of the crown, introduced hierarchy with defined powers and created unity of command.

(e) **Infantry Dominated Operations.** The induction of flintlock and Vauban’s redesign of the bayonet led to the importance of infantry as a besieging force and in the defence of permanent fortifications. Infantry was now recruited from the middle class, bringing an end to the traditional influence of cavalry, which was dominated by the upper class.

(f) **Strategy of Siege and Defence of Fortresses.** Research in mathematics and architectural science led to a violent revolution in the art of war during this century. French artillery using the first effective siege cannon, adopting the techniques of assaulting the fortresses based on the model of Vauban’s siege craft. The Italian response by changing the design of the fortress brought an end to prolonged sieges, expensive for both the parties.

(g) **Role of Fortresses in Offensive Manoeuvres.** This century for the first time saw fortresses being used as pivots of offensive manoeuvres. Vauban suggested the re-organization of border fortresses in order to dominate enemy’s line of communication and deter access to his own country. In one of his memoirs he stated that, “It should close to the enemy all the points of entry into the kingdom and at the same time facilitate an attack upon enemy territory.”

(h) **Mobility.** The need for intimate fire support for siege craft, motivated Vauban to experiment with different types of sledges to increase the mobility of the heavy cannons. Improved metallurgy, introduction of a new stone throwing mortar and use of ricochet fire revolutionised the art of sieges and defence. These developments in mobility made warfare more dynamic and fluid.

**PART IV**

16. **Frederick The Great.** Frederick the II, later known as Frederick the Great was the third King of Prussia and an experienced commander, who successfully fought in the Wars
of Austrian Succession (1741-42 & 1745), the Seven Years War (1756-1763), and the Bavarian Succession. Born in January 1712 at Potsdam, he was the crown prince and son of King Frederick William I, who insisted that his son be trained as an administrator and soldier. Initially, Frederick II showed a stronger preference for courtly life, music and French literature and at the age of 18 attempted to escape his father’s control by fleeing to England. His father discovered the plot, imprisoned Frederick, deprived him of his royal status as crown prince and forced him to watch the public execution of his fellow conspirators. As one might expect, Frederick subsequently applied himself diligently to the fiscal and military affairs of state and the father reinstated his royal title. Shortly after the death of his father in 1740, he assumed the throne and launched a campaign of expansion by demanding the cession of the Duchy of Silesia from Austria. Austria lost and he achieved an early reputation as one of Europe’s most brilliant strategists and military commander prior to the rise of Napoleon. Frederick ruled as an “Enlightened Despot,” and implemented numerous legal, economic and educational reforms. He was the first European monarch to introduce freedom of the press, grant religious freedom and abolish torture. In both his writings and personal practice, Frederick advocated the primacy of the state over personal or dynastic interests, but he still believed that only a monarch with absolute power could improve the public living. Based on his experiences during the Silesian Wars (also known as the Wars of Austrian Succession) Frederick wrote, General Principles of War in 1746 but it was not published until 1760, following the capture of one of his Generals by the French. He was a prolific writer focusing on topics ranging from music and philosophy to politics, but his real genius is revealed in the observations he made following his various military campaigns and the strategic principles he developed, many of which are still relevant. Before his death, Frederick the Great had turned Prussia into a major European power and successfully defended his nation with a population of only 5 million against the combined might of France, Austria and Russia, each of which had populations exceeding 20 million.

17. Concepts and Contributions to Modern Warfare

Frederick’s major contributions to the evolution of modern war include:

(a) **Identification and Use of Principles of Offence and Surprise.** Invading Silesia without warning in 1740, Frederick shocked Europe with a taste of what later was to be called the "Blitzkrieg". Following his success in acquiring lands that almost doubled the size of his kingdom, he became a strong advocate of the use of surprise and fighting “short and lively” battles of manoeuvre, instead of lengthy wars of slow attrition, which he noted quickly drain the resources and manpower of smaller nations. Although in practice, Frederick's strategic thinking remained focused on the wars of position, he favoured offensive action on the battlefield as a mean of achieving more freedom of initiative. He said, "A commander deceives himself who thinks he is conducting well a defensive war when he takes no initiative and remains inactive. Such a defence would end with the whole army being driven out from the country that the general meant to protect."

(b) **Centralised Command.** Frederick was one of the first proponents of what we recognise today as the principle of unity of command or
more recently, unity of effort. He insisted on exact discipline and personally supervised the drilling of his troops so that both officers and soldiers understood that every act on the battlefield was “the work of a single man.” He constantly reminded his officers, “No one reasons, everyone executes.” While this approach seems somewhat inflexible and tyrannical today, there was little doubt in the 18th Century Prussian Army, exactly who was in charge. All orders given by subordinate commanders carried the authority of the king and were executed with clockwork precision. Many foreign observers noted with admiration the skill and complete responsiveness to command demonstrated by Frederick’s battalions and squadrons whether marching on the drill fields or conducting intricate manoeuvres during battle. Like Machiavelli and others, Frederick advocated that generals should also be students of statecraft, politics and economics in addition to military science and history.

(c) **Motivation, Discipline and Training.** In confidential writings intended for his successors, Frederick emphasized his attempts to impress upon his subordinate officers the idea that they were fighting for the Kingdom of Prussia rather than personal gain or glory during the first Silesian War. Later, he placed even higher theoretical value on the patriotism but never believed that it was possible for the common soldier to be motivated by anything other than fear and regular pay. Commensurate with this belief, Frederick demanded strict discipline from his army and personally supervised its training to ensure skill in shifting from marching order to battle order, steadiness under fire and complete responsiveness to commander.

(d) **Concept of Manoeuvre, Employment of Cavalry and Artillery.** To avoid butchery as a result of frontal clash, Frederick prized the flank attack for which he designed his famous "Oblique Order" which allowed his columns to shift rapidly from a frontal assault and enabled it to role up the enemy’s flank with devastating effect. The superior mobility and co-ordination of his army was unmatched on the battlefields of 18th Century Europe. Frederick set a great value on cavalry and used it for shock action in solid tactical units. However, he failed to recognise its utility for scouting and reconnaissance. After Silesia, the Austrians invested heavily in artillery in an attempt to offset the superior mobility of Frederick’s infantry. Frederick considered artillery an auxiliary force and not a full combat arm but he directed his artillery officers to educate themselves in “the discriminate use of ball and canister on enemy infantry so as to smash a hole in the enemy line to help their own infantry break through.” Frederick is also credited by some historians as the first to develop and employ light calibre artillery that could be drawn by two horses rather than the heavy artillery common to Europe that required a team of six or eight draft horses. Like his infantry columns, Frederick’s light artillery could reposition quickly allowing it to reinforce a successful attack or for counter penetration. This method was so successful that it was later adopted by Napoleon.
18. **Major Conclusions**  A review of the most significant developments that occurred during the period under study is given in succeeding paragraphs. Hopefully, their impact on the origins of modern warfare and strategy has been adequately covered in the course of study.

(a) **Politico-Military Changes (Renaissance to 18th-Century)**

(i) Development of large standing armies.
(ii) Identification of principles of war.
(iii) Orderly administration, training, control and recruitment.
(iv) Move from “Limited” to “Unlimited” war.
(v) Socio-political shift from hereditary dynasties to modern nation-state.

(b) **Scientific and Economic Changes (Renaissance to 18th Century)**

(i) Western discovery of gunpowder and invention of firearms.
(ii) Paper money.
(iii) Advance engineering and design of the siege craft, and fortifications.
(iv) Use of artillery.
(v) Improved cartography.

19. **Conclusion**  The period from the Renaissance to 18th Century, opened with formal observations made by Machiavelli and Vauban on the links between science and diplomacy. This period of western history saw the perfection of the old style of warfare and the launching of a new style of warfare that is still being practised. Given the technological advancements of today, many of the concepts of warfare identified and practised by Machiavelli, Vauban, Maurice of Nassau and Frederick the Great are no longer relevant. However, it is important to note that some are still acknowledged and even followed today as the basic tenets of modern strategy. In this regard, we find that there is still great value in the study of these “Masters of Strategy” and the timeless contributions they have made to the origin of modern warfare. This period saw a number of Revolutions in Military Affairs (RMA). Today we find that RMAs are influenced by a number of factors ranging from shifts in geopolitics to the increasingly rapid advance of technology. However, we are inclined to agree with one of the authors of the chapters who analysed that the most significant RMA at the end of the 18th Century was ultimately a socio-political revolution. Warfare at the dawn of the 19th Century was fought by citizen soldiers fighting for their beloved nation rather than mere pawns caught up in the dynastic conflicts of kings and aristocrats in pursuit of more wealth or land.
NAPOLEONIC INFLUENCE ON DEVELOPMENT OF MODERN WARFARE

Introduction

1. The great names that emerged during 18th Century were those of Machiavelli, Gustavus Adolphus and Vauban who were the architects of modern theories. These theories laid down the foundation on which the initial structure was created by methodical exploits of Napoleon and philosophical works of Jomini and Clausewitz. These three great names added the next major era in the history of the development of modern warfare.

2. The question pertinent to our study is to why in this age; an age which is on the threshold of revolutionized military affairs, should the students of military affairs be concerned with campaigns of Napoleon and works of Jomini and Clausewitz? A simple answer could be, for historical or professional background. But there are more compelling reasons.

3. The conduct of war is an art based on some ageless fundamental concepts that tend to remain valid irrespective of the prevailing means and methods of warfare. Furthermore, though the weapons and tactics have changed continually in step with technological progress, the basic controlling element in war i.e., the man has remained relatively constant.

4. Napoleon was truly a great captain, one who played a major role in the history and development of military strategy. His understanding of mass warfare and his success in raising, organising and equipping mass armies revolutionised the conduct of war and marked the origin of modern warfare. Through his own writings, and those of his professional contemporaries Jomini and Clausewitz, he continues to influence the nature of war and peace today.

5. Born as a contemporary, Jomini drew his aspirations from Napoleon, but it also becomes increasingly evident that Jomini’s writings were the means by which Napoleonic techniques were transformed into military thoughts. On the other hand, the object of Clausewitz’s most illuminating influence has been the relationship of policy and war. It greatly enlightened the political and military leadership of his subsequent generations. Military studies have proved that unless compelled by circumstances Napoleon never pursued major policy goals with inadequate military resources.

6. A study of Napoleon is relevant even in this era of tactical nuclear weapons due to the fact that success in military ground operations will be dependent on the aggregate of the individual tactical success and failures of basic units. Such basic units must be of moderate size, highly mobile, compact, powerfully armed, self-sustaining and bravely led – attributes that characterised a typical Napoleonic Force.
**Aim**

7. To carryout a study of the Napoleonic influence on the development of modern warfare, highlighting the manner in which it was enriched by the philosophy of Jomini and Clausewitz.

**Sequence**

8. The study will be covered in the following sequence:
   (a) **Part I.** Napoleonic Warfare / Concepts.
   (b) **Part II.** Jomini’s Interpretation of Napoleonic concepts.
   (c) **Part III.** Clausewitz’s Theories on war.

**PART I**

**NAPOLEONIC WARFARE**

9. **Napoleon’s Contributions to Modern Warfare**

   (a) **Universal Conscription.** French Revolution coincided with a revolution in war. It expanded the scope of innovation; the most important of these innovations was the gradual adoption of universal conscription. It produced a great increase in the number of soldiers, which lent new weight to the French foreign policy and its policy on war. It enabled French commanders to fight more aggressively and costly campaigns. In 1796, in Italy the new system, for the first time, scored a decisive success. By then universal conscription had made the French Army by far the largest in Europe.

   (b) **Re-organization of Army**

      (i) **Force Structure.** Napoleon restructured unitary army into permanent divisions and corps, combined infantry, cavalry, artillery and support services. It gave the commander greater flexibility, balance and multiplied his major operational choices.

      (ii) **Modernisation of Artillery.** Napoleon, himself a gunner officer, organised the French artillery on modern footing. It gave revolutionary France the most efficient and mobile artillery in the world. For the first time infantry could be closely supported by field guns in all phases of combat, which significantly increased the striking power of the French armies.

      (iii) **Expansion of Staff.** Napoleon expanded the staff and proliferation of the subordinate staff made possible the control of constantly larger and widely dispersed forces.
(iv) **Access to Commissioning.** Commission, previously was the privilege of aristocracy. Napoleon extended access to warfare and opened window for new talent.

(c) **War as Central Element of Foreign Policy.** Napoleon did not regard war as an emergency measure, instead he made it as the central element of his foreign policy.

(d) **Unity of Command.** Napoleon was a strong exponent of unity of command. He strongly felt that collective government has less simple ideas and takes longer to make up its mind. He advocated, “Do not hold a council of war, but take the advice of each one individually”. In war, the commander alone understands the importance of certain things and can alone, through his will and greater insight, conquer and overcome all difficulties. The unity of political and military authority eliminates the friction at the top that otherwise is inevitable. Above all it facilitates quick decisions and their rapid implementation. Emperor’s comprehensive authority gave him an advantage over his opponents who could not develop their system of politico military command capable of matching the quickening pace of the modern war.

(e) **Diplomacy.** Napoleon integrated diplomacy and violence in an effective manner. Before undertaking war, he politically isolated a prospective opponent. In 1805, Napoleon engaged himself in diplomatic negotiations with Russia. He requested for an interview with Tsar Alexander, the Russian monarch sent one of his emissaries to the French Camp to whom Napoleon showed utmost courtesy, displayed hesitation, uncertainty and willingness to negotiate. When the highly impressed emissary returned to Olmutz, Napoleon flattered him by accompanying him as far as the French outposts. Little did the Allies know about the catastrophe, that Napoleon had in the offing for them. This diplomatic engagement coupled with a rapid and crafty deployment for the battle enabled him to secure a complete victory against Allies at Austerlitz. Period prior to the battle of Ulm is yet another example of effective use of diplomacy by Napoleon.

(f) **Strategy of Central Position.** When Napoleon failed to prevent the appearance of the forces of two or more allies in the same theatre of operations, their point of junction afforded valuable opportunities to his recognition of political and military interaction. In 1796, in Italy he opened the campaign that was to make his reputation, with a deep strategic penetration, interposing his forces between Sardinian and Austrian Armies, and preventing their junction; this was a strategy of central position, first knocking the Sardinians out of war, and then turning on to the Austrians. He adopted the same strategy in the Hundred Days War, operating on interior lines between Blucher and Wellington to eliminate the Prussians, before attacking the Anglo-Dutch Army, as soon as he believed it had been isolated.

(g) **Decisive Battles.** Napoleon’s strategic plans and his preparations almost always aimed at an overwhelming tactical decision i.e., a decisive battle or battles
that would eliminate the opposing field army. He pushed a strong army so far forward that it could not be ignored but had to be fought. The aim of Napoleonic strategy was to bring about the threat or reality of the decisive battle. The campaign would be launched from or occupy a central/interior position that would permit the piece-meal defeat of the opposing forces, or it took the form of a manoeuvre against the rear that enveloped the enemy’s position and threatened his lines of communication.

(h) **Leadership.** The concrete tasks of developing units of military energy, and of overcoming and destroying his opponents, whom he could see through the smoke of canons and muskets, stimulated Napoleon’s deepest concern, and evoked his strongest psychic and intellectual responses. The impact of his charisma and the belief in his absolute superiority extended from his troops, their officers and generals to his opponents. Wellington thought, Napoleon’s presence was equal to forty thousand soldiers. It is will, character and audacity which has made me what I am. He emphasized on the most essential quality of a general – the resolution.

(i) **Staff Work.** Napoleon insisted not only on one-man rule but also on one-man command. The operational corps of his staff was never more than an organization for assembling information he required and for transmitting reports and orders. The staff neither generated strategic plans nor developed an institutional capacity for independent decision making within the context of his strategic and operational intentions. As the size of the armies increased and as they were committed in widely separated theatres of war, Napoleon’s strategic control broke down. He said “Do what I ask you to do, I alone know what I must do”.

(j) **Logistics.** The system of living off the land was facilitated by the institutionalisation of a development that reached back to the seven years wars and was to be fundamental to Napoleon’s strategy and his conduct of battle i.e., the breaking up of the formerly unitary army into permanent divisions and corps combining infantry, cavalry, artillery and supporting services. On campaigns these large sub units usually moved on separate routes, each responsible for its own area, but capable of mutual support. It enabled the components to move more rapidly and gave them greater flexibility.

10. **Principles of War.** To our own day, the conditions, in which he lived and fought, are as remote as those of the 17th and 18th Centuries. If we interpret succeeding verities in the most general sense; the desirability of the concentration of force, the advantages of economy of effort, the importance of morale which the Napoleon and post Napoleonic age turned into varying degrees of check lists, called Principles of War. In practice these principles often clash and with changing circumstances tend to assume new, sometimes very surprising timeless forms: -

(a) **Concentration.** Napoleon believed that superior art of war, despite an
overall numerical superiority, lay always in having more forces than the enemy has at the point where one is attacking or the point where one is attacked that is the point of decision. At St Helena, criticizing the actions of a French general during 1799 campaign in Switzerland, Napoleon condemned the dispersal of forces as a vicious habit that made it impossible to achieve important results.

(b) **Speed.** Napoleon conducted his operations with amazing speed. On 23 August 1805, while waiting on the coast of English Channel for the impending invasion of England, Napoleon saw the masses of Austro-Russian Armies assembling to march on the eastern border of France. He changed his military objective, crossed the Rhine in the last week of September, advanced on Danube and threatened the Austrian line of communication to Vienna and to the Russian Army in Moravia. On October 19, 33,000 men surrendered at Ulm without fighting a major battle. On 2 December 1805, Napoleon destroyed the Allied Army at Austerlitz. These events had no parallel in earlier wars. The magnitude of the opposing armies was merely unusual; but speed and seep of the French operations were unique.

(c) **Boldness.** Napoleon executed the operations with boldness and speed, which shocked and stunned his opponents. Clausewitz took note of the extremely feeble strategic schemes; which radiated from Austrian positions at Ulm, and commented that such a net might have caught generals schooled in the cautious manoeuvre of the 18th Century; but it was not strong enough for Napoleon. Almost all the campaigns of Napoleon are characterised by boldness and speed.

(d) **Initiative.** Napoleon preferred the attack. He disliked purely defensive battle; he knew the value of initiative and feared losing it. He would place his forces in a strong defensive position, with as many troops as could be spared kept in reserve to wrest the initiative. Once the enemy was committed on the entire front, the reserve would attack one point of the front, and having broken through move against the flanks and rear of other sectors.

(e) **Centralised Command.** To achieve concentration Napoleon used centralized command. The separation of the army into largely self-sufficient commands was continued by Napoleon, but he imposed much firmer central control on the dispersed command. Through it he achieved mobility, which made possible the concentration of superior forces at the decisive point.

(f) **Psychology.** Napoleon emphasized that three-quarter of a war is a matter of morale; balance of forces counts as only one quarter. The impact of Napoleon’s charisma and the belief in his absolute superiority extended from his troops and their officers and generals to his opponents. Clausewitz who was convinced that no theory of war could be taken seriously unless it included the psychology of the commander and soldiers and their relations to one another. He went so far to state that not a victorious battle or successful campaign, but restoring the morale of the army in Italy in 1796 was Napoleon’s greatest achievement.
11. **Causes of Napoleon’s Failure**

(a) **Understanding by his Opponents.** With the passage of time his opponents understood Napoleon and reorganized their forces to make them more responsive. The result of these developments was that by the time Napoleon decided on the invasion of Russia, his potential and actual opponents had begun to benefit from the revolution in warfare. The absolute superiority Napoleon had enjoyed for some years imperceptibly declined.

(b) **Limited Wars.** Napoleon’s insights, at times unrealistically narrowed the range of his wars to conflicts waged with greatest possible force for the greatest possible ends. Napoleon excluded limited wars for circumscribed goals from his political and military system. In this way not only he reduced his options, he was driven into wars that ultimately became beyond the resources of even the empire. Napoleon’s invasion of Russia went beyond the bound of reason; at best it was a desperate and unnecessary gamble.

(c) **Over Centralisation.** Napoleon not only insisted on one-man rule but also on one-man command. The operational core of his staff was never more than an organization for assembling information he required and for transmitting reports and orders. The staff neither generated strategic plans, nor developed any institutional capacity for independent decision making within the context of his strategy and operational intentions. As long as the army fought in the same general area this caused little harm; but as the size of the armies increased and as they were committed in widely separated theatres of war, Napoleon’s strategic control broke down. Neither in Russia nor in Spring and Fall Campaigns of 1813, in Germany, could his marshals be counted on to interpret his orders in accord with constantly changing situation.

(d) **Unity of Command.** As Napoleon’s victories became more equivocal, the unity of military and political authority in his person led to disastrous policies, which a division of responsibilities among two or more individuals, or at-least existence of advisors might have avoided.

(e) **Grand Strategy.** To accomplish his aim, it was necessary to subjugate England without antagonizing the continental powers. His grand strategy of continental blockade involved one and all in his war against England. His Grand Strategy was therefore at fault. Owing to the economic reasons, English coalitions became stronger and stronger. He said “The peace of the whole world rested with Russia. Alas! English gold proved more powerful than my plans”.

PART II

JOMINI’S INTERPRETATION OF NAPOLEONIC CONCEPTS

Jomini’s Early and Military Life

12. Born in 1779, Antoine Henri Jomini was a Swiss who started his career in banking and commerce, however, inspired by the French Revolution in 1789 and the Swiss Revolution in 1798, he gave up banking and devoted last seventy years of his life to war and its study. For about three years he served as secretary to the minister of war and in 1802 came to Paris, to seek wider scope for his talent and ambitions. He served as an officer on staff with Napoleon and rose to the rank of general de brigade. In 1813, when he left French Army and joined the Russians, he had achieved an international reputation as the historian and theorist of modern warfare. Until his death in 1869 as a Russian general he continued to write and publish, defending and elaborating his military theories and enhancing reputation. Throughout his service, he remained on staff and never had the chance to command any formation.

Interpretation of Napoleonic Concepts

13. Jomini owed his greatest intellectual debt to General Lloyd, a British officer and Tempelhof of Prussian Army because when he began his military studies to find the secret of how the Revolution waged war, the works of Lloyd and Tempelhof came readily to his hand. Therefore, Jomini used the military categories of the Old Regime in his interpretation of Napoleonic concepts, which are:

(a) **Decisive Points.** In Napoleon’s principle of manoeuvring, placing mass of an army so as to threaten the decisive points in a theatre of war and then to hurl all available forces against a fraction of the enemy force defending those points, Jomini defined decisive point as a point whose attack or capture would imperil or seriously weaken the enemy. It could be a road junction, a river crossing, a mountain pass, a supply base or an open flank of the opposing army. He added that the great merit of Napoleon as a strategist lay in not simply manoeuvring for some limited advantage, but in identifying those points that, if lost would dislocate and ruin the enemy. In a larger theatre, or in a war with different aims, the principle might be applied differently, but the basic principle never changed. Almost without exception, the enemy flanks and supply lines would define the decisive points for attack, because an army could not survive without supplies and to threaten its base, would compel it to fight, no matter how unfavourable the circumstances.

Lines of Operations

14. Napoleon introduced the concept of “Operations on Interior Lines” and demonstrated it while eliminating the Prussians. Taking lead from this concept, Jomini defined various forms of Lines of Operations as under:-
(a) **Natural or Territorial Lines of Operations.** These were the rivers, mountains, seacoasts, oceans and deserts etc. It also included fairly permanent man made environment constricting warfare like fortifications, political boundaries, naval bases and road networks etc.

(b) **Manoeuvre Lines of Operations**

(i) **Interior Lines.** Are these adopted by one or two armies to oppose several hostile bodies. Their direction allows the general to concentrate the masses and manœuvre with his whole force in a shorter time than the enemy.

(ii) **Exterior Lines.** They are formed by an army, which operates at the same time on both flanks of the enemy, or against several of his masses.

(iii) **Concentric Lines.** They depart from widely separated points and meet at the same point, either in advance of or behind the base.

(iv) **Divergent Lines.** Are those by which an army would leave a given point to move upon several distinct points. These lines of course require subdivision of the army.

(v) **Single Line.** Are those of an army acting from a frontier when it is not subdivided into large independent bodies.

(vi) **Double Lines.** Are those of two armies, independent or not, proceeding from the same frontier or of those of two nearly equal armies commanded by the same general but widely separated in distance and for long interval of time.

(vii) **Secondary Lines.** Those of two armies acting so as to afford mutual support to each other.

(viii) **Accidental Lines.** Are brought about by events that change the original plan and give a new direction to operation.

(c) **Offensive Action.** Although Napoleon sometimes stayed on the defensive, until his opponent had committed and over extended himself, he preferred the attack. He disliked purely defensive battles because he knew the value of initiative. Jomini further explained this principle and added that deciding how to attack, frontally or on the flanks would depend on the specific situation, but attack itself was essential, the initiative must not be left to the enemy. Once committed to action the commander must not hesitate. He and his officers must, by their boldness and courage, inspire their troops to the greatest possible effort. If beaten, the enemy must be pursued relentlessly. If victory for
some reason eludes the commander, he must try again using sound principles—massing, attacking and persisting. “They want war too methodical, too measured; I would make it brisk, bold, impetuous, perhaps some times even audacious”.

(d) **Logistics.** Napoleon ensured adequate supplies for support of his large army, by compelling the soldiers to requisition, on the principle that “A war feeds another war”, meaning thereby, to draw supplies of all kinds from the country you occupy. Jomini too, regarded logistics a serious problem and his writings on this subject indicate that he understood the important place of supply in the scheme of mobile and expansive warfare. His experience in the Peninsular Campaign and the Russian invasion convinced him of the difficulty of waging successful war against a nation resorting to what we currently call the “Scorched Earth” policy. Modern field commanders are still struggling with the problem that bothered Jomini that of keeping supplies abreast of rapidly moving troops. All of his writings indicate that he was definitely “supply conscious”. In this respect, there is a reason to believe that he was more practical in his appreciation of military supply. In his mind, supply was closely woven into the entire pattern of war and constituted a definitely limiting influence on strategic and tactical operations. He carefully explained how the proper placing of supply installations would facilitate operations and directly influence the success of different tactical formations.

**Jomini’s Contributions Towards Development of Modern Warfare**

15. **Wars of Intervention.** There are two kinds of interventions: first, intervention in internal affairs and second, in external relations. What ever may be said as to the moral character of the first category, instances are frequent. While Russia added to her power by interference in Poland and Austria, on the contrary was almost ruined by her attempt to interfere in the internal affairs of France during the revolution. Intervention in the external relations of states is more legitimate and perhaps more advantageous. It may be doubtful whether a nation has the right to interfere in the internal affairs of another state but it certainly has a right to oppose it when it propagates disorder, which may reach the adjoining states.

16. **Wars of Opinion.** Wars of opinion between two states rather belong to the class of wars of intervention, for they result either from doctrines which one particularly desires to propagate among its neighbours or from dogmas that it desires to crush. Although, originating in religious or political beliefs, these wars are most deplorable for, like national wars, they enlist the worst passions and become vindictive, cruel and terrible.

17. **Wars of Conquest.** These are two very different kinds of invasions: one attacks an adjoining state, the other attacks a distant point over intervening territory of great extent whose inhabitants may be neutral, doubtful or hostile. When the people are supported by a considerable nucleus of disciplined troops, the difficulties are particularly great. The invader has only an army, where as his adversaries have both an army and people in arms, making means of resistance out of everything and with each individual conspiring against the common enemy.
PART III

CLAUSEWITZ

18. Clausewitz who is considered to be the father of modern warfare drew his inspiration from Napoleonic era. His theories have had a profound influence on the manner in which succeeding generations conducted war. His influence is clearly perceptible in the First and Second World Wars, where violence was taken to its ultimate pitch. Clausewitz’s thoughts affected all the armies of the world. The object of Clausewitz’s most illuminating influence has been the relationship of policy and war. It greatly enlightened both the political and military leaderships of his subsequent generations in this regard.

CLAUSEWITZ’S THEORIES

19. What Is a War? According to Clausewitz war is an act of violence, intended to compel our opponents to fulfil our will, violence must be pushed to its utmost bounds and the disarming or overthrow of the enemy must always be the aim of warfare. It was his concept of total war, which was applied in World War I and World War II with the aim of completely overthrowing the enemy. Clausewitz emphasized that organised mass violence is the only feature that distinguishes war from all other human activities. War is an act of force and there is no logical limit to the application of that force. It is conflict of great interests, which is settled by bloodshed, and Clausewitz uses the term Absolute War to denote Napoleonic warfare.

20. War As an Instrument of Policy. Clausewitz’s outstanding contribution to Napoleonic warfare is considered to be his insistence on the relationship between war and policy. He insists that it is of paramount importance to keep in mind the main aim of war i.e., war is nothing but a continuation of political intercourse. The defeat of the enemy’s armed power and of his will, is not an end in itself but a means to achieve political goals. He continues “If war belongs to policy it will naturally take its character from policy. If policy is grand and powerful” so will be the war, and this may be carried to a point at which war attains its absolute form.

21. Dual War. Clausewitz was of the opinion that war can be of two kinds:-

(a) Either the object is to overthrow the enemy, render him politically helpless, thus forcing him to sign peace on whatever conditions we deem appropriate.

(b) Merely to occupy some of his frontier districts, so that we can annex them or use them for bargaining at the peace negotiations.

22. Absolute and Real War. Clausewitz was great exponent of absolute war. He advocated that real war is a composite of three elements. Its dominant tendencies always make war a remarkable trinity, “composed of violence and passion, uncertainty, chance and
probability: and political purpose and effects”. First element, violence and passion concern mainly the people. The second, uncertainty and chance provide scope primarily to the courage, determination and talent of the commander and his forces. The third, politics is the business of the government alone. According to Clausewitz, Bonaparte’s system of war was absolute completeness.

23. **Defence as Stronger Form of Warfare.** Clausewitz stresses that defence is stronger form of warfare. The object of defence is to preserve and the offence is to acquire. Since to preserve is easier than to acquire, the defensive form is easier than offence. Defence has a negative object that of preserving and offence a positive object, that of conquering. We must only make use of defence so long as our weakness compels us to do so and we must give up as soon as we feel strong enough to aim at the positive objects. Clausewitz’s defence is therefore a delayed offensive, or what is some times called “Defensive-Offensive” in which the first phase is attrition and second counter attack.

23. **Concept of Friction.** Clausewitz developed concept ranging in magnitude from general significance to specific operational characteristics. Of these the friction is one of the most comprehensive concepts. Friction refers to uncertainties, errors, accidents, technical difficulties, the unforeseen, and to their effects on decisions, morale and actions. Friction is the only concept that more or less corresponds to the factors that distinguish real war from war on paper.

24. **Importance of Psychology.** According to Clausewitz “war is a battle of opposing wills – hence the breaching of the enemy’s will, should be the object of war”. The psychological characteristics of the great leaders are the prism through which Clausewitz interprets the feelings and abilities of average man.

25. **The People’s War.** During Napoleonic campaigns, the French Armies lived on their enemy’s country, the civil population roused against them, and an inner front was added to the outer front, both of which the invader had to subdue. Clausewitz was one of the firsts to note the importance of such type of warfare. He argued that the total influence of inhabitants of a country in war is anything but imperceptible. Everything goes on easier in our own country, provided it is not opposed by the general feeling of the population, and the spontaneous co-operation of the people, is in all cases most important. Conversely, in an enemy country this applies to the invader. People’s war should be supported by small regular detachments, in order to encourage the inhabitants. They should not be too large, otherwise too many of enemy’s troops will be drawn towards them, and the inhabitants will leave it to the regular forces to fight it out.

26. **The Principles of War.** Clausewitz mentions two fundamental principles: -

(a) **Concentration.** To reduce the weight of enemy’s power into as few centres of gravity as possible, into one if it can be done; again, to confine the attack against these centres of force to as few principal undertakings as possible to one if possible; to keep all secondary undertakings as subordinate as possible. In a word, the first principle is, to concentrate as much as possible.
(b) **Mobility.** To act as swiftly as possible; therefore, to allow no delay or
detour without sufficient reason.

(c) When combined, these principles bear close resemblance to Napoleon’s
maxims: In the art of war, as in mechanics, time is the grand element between
weight and force.

(d) **Principal War Objects.** Besides these two basic principles, Clausewitz
lays down a series of general principles, which he deduces from his three principal
war objectives, which are:-

(i) To conquer and destroy the enemy’s armed forces.

(ii) To get possession of the material elements of aggression of the
hostile army.

(iii) To gain the public opinion.

**DISREGARD OF NAPOLEONIC WARFARE**

27. **Policy and Grand Strategy.** Clausewitz disregarded Napoleon’s concept of
waging war as a matter of policy. He was the exponent of the concept of subordination of
war to the policy. He advocated that the character of the war must take its scores from the
policy. He said, “If the policy is grand so shall be the war”.

28. **Defence Versus Offensive.** Napoleon was the greatest exponent of the offensive
warfare who hardly ever started upon a war without thinking of conquering his enemy at
once in the first battle. Nevertheless Clausewitz held that the defensive was the stronger
form of warfare.

29. **Centre of Gravity.** It is astonishing that Clausewitz while discussing centre
of gravity does not mention Napoleon’s struggle against six ‘English coalitions’, and his
ultimate failure to win his long series of war because of his inability to hit the common
centre of gravity of the whole war.

30. **Concentration of Forces.** Clausewitz was in favour of rigid concentration where as
Napoleon executed the flexible concentration. In Clausewitz’s view no portion of the force
is to be separated from main body. Where as Napoleon frequently sought to trap his enemy
by dividing his army. To the contrary, Clausewitz who took part in Jena campaign, its most
notable example, was completely ignorant of this flexible method of concentration.

31. All great military writers and theorists have tried to contemplate and capture
some fundamental truths about warfare. The best judgement that can be passed on a
theorist is his ability to stand time. Time has always been the true judge. Both the great
wars of twentieth century are greatly influenced by Clausewitz’s concept of absolute war.
His same thought led to use of atomic weapon on Hiroshima and Nagasaki.

**Conclusion**

32. No man in the history of war has exerted a greater influence on the development of modern warfare than Napoleon Bonaparte. Nothing could match the Napoleonic wars in their traumatic effects on subsequent western thinking about war and Jomini had established himself almost instantly as the authoritative interpreter of Napoleonic warfare. He more than anybody else deserves the dubious title of founder of modern strategy. Napoleon’s principles of war and Jomini’s interpretation of these principles have been culminated by Clausewitz. His masterpiece that war is an art of violence and that it is the instrument to achieve all state policies integrated the philosophies of the three military thinkers of all time. Napoleon, Jomini and Clausewitz form an integral whole for the modern warfare. Although Napoleon’s unity of command concept is not valid today, the principles of war outlined and practised by Napoleon shall remain a beacon for the military theorists in the times to come.
**IMPACT OF INDUSTRIAL REVOLUTION**

**Introduction**

1. War is a fundamental of life representing the expression of man’s endless struggle for food and space in addition to his desires for security, power and self justification. The important reasons for embarking upon war are the implementation of political will and to take advantage over opponent, for which a wide variety of methods are devised. These methods are by no means dependent upon what a fighting man may desire but upon the resources provided.

2. The only factor in this universe that has always remained constant is “CHANGE”. Starting from hurling a lump of stones, the subsequent pace of change and improvement in conduct of war was continuous and accelerating. It was in 18th Century that the brakes upon advancement were suddenly released and the industrial revolution produced both wish and freedom to make epoch making changes in society, technology and the war making.

3. In the second half of the eighteenth century, like an unheralded typhoon, came steam-driven machinery, each single horsepower of which could do the work of fifteen men. Thus the Industrial Revolution was born, and man emerged from his caterpillar stage, to rise like a mechanised dragon. Industrial Revolution, rise of National State, expansion of European societies, state controlled economy and advancement in military technology also affected the strategist of 19th Century to a great extent. Industrial based economy had deep-rooted effects on political and military power. It is imperative for any military history student to understand the relationship between Economy and State Power and its impact on conduct of war, as most of the wars of 19th and 20th Centuries were influenced by it and will continue to be influenced in present millennium and so on.

4. Prior to the industrial revolution military organizations tended to concentrate on enhancing combat value of small mercenary armies. Whereas in the age of ‘leve en masse’ or the mass conscription, the emphasis fell upon improvement of arrangements of supply and movement to and from battles. Thus emerged the technique now known as ‘Logistics’. Battles, though justifiably because of their drama and instant effects attracted brilliant glare of publicity, but only became minute ‘factor of effort’ by comparison with the basic administrative effort designed to support pre-combat manoeuvres of strategic consequences. The earliest to grasp this new reality were the Prussian military thinkers and reformers like Adam Smith, Alexander Hamilton, Friedrich List, Scharnhorst, Gneisenau, Moltke and Schlieffen. In keeping with this vast output of manpower and material they introduced radical changes in basic organization of military forces and conduct of war to take Prussia from a state of comparative insignificance to that of a dominance in Europe.
Aim
5. To analyse the impact of industrial revolution on strategic thought, military organizations and conduct of war, highlighting the manner in which the exercise of state power was influenced.

Sequence
6. The study has been arranged in the following sequence:

(a) **PART I.** Economic Foundations of Military Power.

(b) **PART II.** Impact of Industrial Revolution on Strategy (Moltke and rise of the German General Staff).

(c) **PART III.** Impact of Industrial Revolution on Conduct of War (Schlieffen and Strategic Envelopment).

(d) **PART IV.** Salient conclusions.

**PART I**

**ECONOMIC FOUNDATIONS OF MILITARY POWER**

**Industrial Revolution**

7. **Definition.** It is the process of change from an agrarian economy to one dominated by industry and machine manufacture. This process originated from England in the 18th century and later engulfed other parts of the world. The main features involved in the Industrial Revolution were technology, socio-economy and culture.

8. From sixteenth to eighteenth century, power centre of the world, Europe, was governed by mercantilist system. ‘It was a system of power politics in which power of state becomes an end in itself and all considerations of national economy and individual welfare were subordinated to the single purpose of developing the potentialities of the nation to prepare for war or to wage war’. Nations following the mercantilist regulations, were more concerned towards weakening their adversary rather than improving own national economy. The system demanded centralized control of the government over all national resources and the government used the economy, manpower and wealth at its disposal, in waging war to attain wealth and undermine the power of other countries. Thus, war was inherent in mercantilist system, which raged continuously in Europe from middle of the seventeenth century to the early part of nineteenth century. By 1763, England had crushed the commercial, colonial and naval aspirations of Spain, Holland and France. The resurgent France of the revolution and Napoleon were crushed again at Waterloo. In 1815, despite
the loss of American colonies, Great Britain seemed to have arrived at world power in a manner and degree, the world had never before witnessed. “It was better able than others to put the might of her fleets and admiralty, the apparatus of customs and navigation laws, at the service of economic interests of the nation with rapidity, boldness and clear purpose, and thereby to gain the lead in struggle for commercial and political hegemony”.

9. England alone emerged triumphant from mercantilist wars with an established industrial base, capable of manufacturing and exporting the products. However, in the later part of eighteenth century, a realisation emerged in the philosophical circles of Europe against the evils of mercantilism. It was against this background that Adam Smith the British, Alexander Hamilton the American and Friedrich List the German outlined the economic and military policies for their respective countries.

10. Adam Smith. A British philosopher belonging to eighteenth century who was born at Scotland in 1723. Smith’s life was devoted entirely to academic pursuits. He was a student at Glasgow and Oxford, lectured at Edinburgh, and was successively professor of logic and moral philosophy at Glasgow. Later he devoted himself to his great work, ‘The Wealth of Nations’, published in 1776. He died in 1790.

11. Britain in Eighteenth Century. After Britain’s triumph over France in the ‘Seven Years War’ (1756 – 1763), there remained no serious rival to Britain in either commercial or naval power. The time was ripe in Britain for critical reappraisal of the theories and practices of mercantilism. At this juncture through “The Wealth of Nations”, Adam Smith criticised the monopolistic practices of merchants and governments of mercantilist society. Salient theories were: -

(a) Monetary Theory. Mercantilism advocated accumulation of great stocks of bullion as a war chest, either through the wealth of colonies, robbing it from adversaries or borrowing from allied countries. He objected to war chest or war loans, as the principal means of financing wars, instead he favoured heavy taxes. He wrote, “war currently paid for would in general be more speedily concluded, and less wantonly undertaken (by the governments), heavy and unavoidable burdens of war would hinder the people from wantonly calling for it when there was no real or solid interest to fight for”.

(b) Importance of Military Power. Adam Smith, although objected mercantilist system but he accepted few of its ends and one of them is the necessity of state intervention in economic matters so far as it might be essential to the military power of the nation. He wrote, “The first duty of the sovereign, that of protecting the society from the violence and invasion of other independent societies, can be performed only by means of a military force”. In other words, it becomes inevitable that military power be built upon economic foundations.

(c) Navigation Act. This was the real test of Adam Smith’s view on mercantilism. The mercantilist system invented Navigation Acts which legally
bounded the states to use sea routes either by paying taxes to England or use British merchant ships. Smith wrote, “The act of navigation is not favourable to foreign commerce, or to the growth of that opulence which can arise from it. As defence, however, is of much more importance than opulence, the act of navigation is perhaps, the wisest of all commercial regulations of England”.

12. Britain grew as an industrial and military power in nineteenth and twentieth centuries. Historians give a considerable credit to Adam Smith, as he was the man who foresaw the need and importance of an industrialised economy in the future.

**Alexander Hamilton**

13. A high ranking political writer and by no means an economist, however, gave such economic theories, based upon which today United States of America has attained the status of a global power. He was born in 1758 and took an active part in American Revolution alongside George Washington. During the years 1789-1797 he probably did more than any other single person to formulate the early national policies of the United States. His tragic death in 1804, when he was only forty-seven, was a national disaster.

14. **Post American Civil War Scenario.** After the civil war, economically America was in poor state. It had meagre industrial resources, less exports and heavy dependence on imports of finished goods. However, the vastness of land and plentiful resources, were still to be explored and needed a well thought economic policy to reap the richness of land.

15. Hamilton, a protectionist, believed in national economy. He wrote the famous “Report on Manufactures”, on political economy. He can be considered as a link between Adam Smith and Friedrich List. His major theories, which outlined the American economic policy, were: -

(a) **National Economy.** Hamilton had a passion for national unity. His concept of national economy was therefore based on creating favourable circumstances to breed a united national policy. Salients of this concept are: -

(i) Manufacturers are protected by the government to enhance the productive capacity of the country.

(ii) Public debts be taken as a binding force for the investors.

(iii) Hamilton believed in a national bank to lend maximum support to the government.

(iv) Manufacturers of munitions of war be encouraged and controlled by government.

(v) A strong military policy/attainment of naval safeguard for
external commerce.

(b) **Infant Industry Argument.** Hamilton believed that a young country like United States could not compete with countries like Great Britain that had been long established in manufacturing. He wrote, “to maintain, between the recent establishments of one country and the long matured establishments of another country, a competition on equal terms is in most cases, impracticable. Hence, the industry of newer country should enjoy extra ordinary aid and protection of the government”. Hamilton recommended certain steps to achieve this objective:

(i) Import duties on finished products.
(ii) Restraints on export of raw material whereas export of finished goods be encouraged.

(iii) Exemption of duties on import of certain necessary raw material.
(iv) Monetary rewards and bounties.
(v) An annual purchase of firearms and military weapons from local manufacturers.

(c) **Inter-Weaving of Secondary Economy.** Hamilton visualised inter-weaving of secondary economy on regional basis. The agricultural South should share in the benefits of industrial North. After development of adequate communication infrastructure, West would offer a market to the traders and manufacturers of East.

(d) **National Security.** Hamilton had a realistic appreciation of the factors that were pertinent to national security. He understood, that due to the distance from Europe and vastness of land, it will be extremely difficult for any power to conquer America, however, he knew too well that a weak nation does not ever has the choice of being neutral. Therefore, he underlined following aspects for national security:

(i) National unity against factionalism and sectionalism.

(ii) Colonies on the continent be only transferred to America. Professional army should be the basis of national defence.

(iii) Take a sizeable share in the occupation of the ocean and right of transportation of commodities, fishing and use of other seas.

(iv) If necessary, a counter navigation law.

16. Hamilton ranks with the great statesmen of modern times. He is, in fact, an American, Colbert or Bismarck. America’s industrial success in twentieth century is actually the outcome of economic policies derived by Hamilton in eighteenth century.
Friedrich List

17. A German political economist, who was an ardent exponent of ‘Zollverein’, or in other words protectionism, which had a remarkable impact on the economic revival of Germany in the nineteenth century. He was born in 1789 and studied political economy. As a young man he saw Germany at the lowest ebb, and decided to teach his fellow citizens the means and policies required to promote the power of Germany. His liberal and nationalist ideas made him an irritant for the government and ultimately resulted into his exile in 1825. List then settled in America till his return to Germany in 1832. Before we discuss his theories it is necessary to understand ‘Zollverein’.

“The customs union of member states to promote internal free trade but to shield member states from foreign competition (England). It requires progressive destruction of internal tariffs between the member states”.

18. List believed that key to the solution of German problems was the principle of nationality. His views were similar to Hamilton over political economy. He said “Germany must abolish her internal tariffs, and by the adoption of common uniform commercial policy towards foreigners, strive to attain to the same degree of commercial and industrial development to which other nations have attained by means of their commercial policy”. Few of the important aspects of his theory are: -

19. Relationship of Politics, Economics and Power. List wrote, “A nation is a separate society of individuals, who possessing common government, common laws, rights, institutions and common history, constituted a body. The objective of economy of this body is not only wealth as an individual, but power and wealth as a nation, because national wealth is increased and secured by national power, as national power is increased and secured by national wealth”.

20. National Security. Salients of List’s concept of national security are: -

(a) Protection of Productive Power. List believed that productive power is the key to national security. He underlined certain responsibilities of the government in this regard: -

(i) To guard commerce by a navy, because the merchants cannot protect themselves.

(ii) To protect the carrying trade by navigation laws, because carrying trade supports naval power and naval power protects carrying trade.

(iii) To support agriculture and other industry by turnpikes, bridges, canals and railroads.

(iv) Protect new inventions by patent laws.
(b) **Ability to Wage War.** List believed that a nation with wealth without ability to wage war invites aggression. Although, he did not advocate waging of war as means of collecting wealth as per the virtues of mercantilist societies, however he defined new concepts of power. List wrote, “the ability of a nation to wage war is measured in terms of its power to produce wealth, which can best be achieved by national unification and protectionism”.

(c) **Protectionist Policy.** List argued, that, protectionist policies may for the time being increase the price of living due to tariffs but later would lay a solid economic foundation. He said that those who say the cheapness of consumer goods is a major consideration in weighing the advantages of foreign commerce undermine the power, the honour and glory of the nation. He said, “who can be consoled for the loss of an arm by knowing that he had bought his shirt forty- percent cheaper”.

(d) **Influence of Railways.** The greatest single contribution that List made to modern strategy was his elaborate discussion of the influence of railways upon the shifting balance of power. List wrote, “a perfect railway system would transform the whole territory of the nation into one great fortress, which could be readily defended by its entire combatant power, with a minimum of expenditure and with the least disorganization of the economic life of the country”.

21. List carried with him into another world the comfort of Zollverein, a solid achievement for which he could justly claim a large share of credit. But it remained for historians to appreciate fully the importance of the Zollverein in the creation of the German Empire. The thinking of Adam Smith, Alexander Hamilton and Friedrich List was conditioned by the fact that they were respectively British, American and German. But in certain fundamentals of statecraft their views were surprisingly alike. They all understood that military power is built upon economic foundations and each of them advocated a national system of economics that would best meet the needs of his country. For so long as nations continued to place their faith in unbridled nationalism and unrestricted sovereignty they will continue to rely upon whatever measures will, in their judgement, best guarantee independence and security.

22. **State Power Vs Economy.** War was inherent in Mercantilism or Totalitarianism. To wage war a country needs strong base, which is, in turn, dependent on strong economy and industry. The Economists of the 19\textsuperscript{th} Century propagated that: -

(a) Economy should be used as tool to achieve national aims and objectives.

(b) Development of industries is necessary to strengthen the economy of a country.

(c) To enter into free competition with advance nations it is necessary to abolish internal tariff and adopt a uniform commercial policy within the
country as well as with other nations.
(d). Object of national economy is not to make individuals rich but to increase the national wealth, which will ultimately increase national power. Only a wealthy nation possesses strength to protect the wealth, rights, freedom and independence of its individuals.

(e) War or the very possibility of war makes the establishment of manufacturing power an indispensable requirement for any nation because ability to wage war by a nation depends upon its productivity.

(f) The greater the productive power, the greater the strength of a nation in its foreign relations and greater it’s independence in time of war.

PART II

IMPACT OF INDUSTRIAL REVOLUTION ON STRATEGY
(MOLTKE AND RISE OF GERMAN GENERAL STAFF)

Impact on Strategy

23. **Strategy.** Strategy, is the art of employing all elements of the power of a nation or nations to accomplish the objectives of a nation or an alliance in peace or war; also the art of military command in combat. Tactics, on the other hand, is the dispersing and manoeuvring of forces to accomplish a limited objective or an immediate end. Strategy involves the use and close integration of economic, political, cultural, social, moral, spiritual and psychological power.

24. A purely military strategy for a nation is no longer possible. A clear-cut line of demarcation between military, economic and political matters no longer exists. Consequently, the development of military strategy takes into consideration political and economic factors, and, conversely, political strategy must be firmly based on military and economic power.

25. **Development of Strategy.** Helmuth von Moltke influenced Prusso-German military thinking from mid 19th Century into the First World War that adapted to the industrial age. Political, economy, strong foreign policy and industrial base gave birth to following strategic concepts:

(a) Strategy of Envelopment.
(b) Strategy of Defensive Offensive.
(c) Strategy of Mobilization.
(d) Strategy of Concentration.
(e) Operations on Interior and Exterior Lines.
(f) Strategy of Expedients.
(g) Blitzkrieg.

26. **Strategy of Envelopment.** Confronted with the deadlock imposed by new
weapons and extended frontages, Moltke, developed the concept of outflanking the enemy in one continuous strategic-operational sequence combining mobilization, concentration, movement and fighting. By seizing the initiative from the outset, he intended to drive his opponent into a partial or complete envelopment, destroying his army in a great and decisive battle of annihilation or encirclement. Moltke’s solution, the “strategic envelopment” mounted directly from the initial concentration. Although Moltke had demonstrated the potential of his new methods in 1866 (Austro-Prussian War) and 1870 (Franco-Prussian War), Schlieffen, his eventual successor from 1891 to 1906, became historically significant as a teacher and an exponent of strategic envelopment, which he described and glorified as the Cannae Concept and came to regard as the only really effective method of waging war. Shlieffen’s ideas influenced another generation of German strategists who updated the concept of strategic envelopment and applied it with striking success during the Blitzkrieg phase of the Second World War.

27. **Strategy of Defensive Offensive.** Understanding the power of the defensive and realistic enough to recognize that the search for total victory would prolong resistance, Moltke advocated a strategy of defensive-offensive operation in the later stage of his life. No longer seeking a rapid decision marked by decisive battles, he planned to operate offensively, moving into enemy territory west and east to disrupt mobilization and occupy easily defensible lines, and then have the enemy suffer heavy casualties in futile attacks against German defensive firepower. To achieve this he intended to allocate approximately equal forces to the two fronts. He neither expected total victory nor favoured additional territorial acquisitions, but counted on diplomacy to bring the conflict to an acceptable conclusion.

28. **Strategy of Mobilization.** Mobilization of any army was the biggest dilemma of every military commander of Napoleonic wars and after. In case of Prussia, the unhappy geographical structure, with its far-flung east-west extension, aggravated its military problems. Industrial revolution in the form of railroad network offered a remedy that Moltke exploited to the full. Moltke had begun to study railroads before a single line had been built in Germany. The railroads offered new strategic opportunities. Troops could be transported six times as fast as the armies of Napoleon had marched, and the fundamentals of strategy, time and space, appeared in a new light. A country that had a highly developed system of rail communications gained importance and possibly decisive advantages in warfare.

29. **Strategy of Concentration.** The changeover from marching to battle formation was a time-consuming process, and armies had, therefore, to be massed days before the battle. After 1815, road conditions improved greatly due to industrial development and new strategy/tactics became possible. Moltke felt that the mobilization and initial concentration of the army was calculable since it could be prepared a long time before the outbreak. This was in line with the Napoleon’s thinking who always calculated well before time, Battle of Austerlitz was an example of this fact, “An error, “he said, “in the original concentration of armies can hardly be corrected during the whole course of a campaign.” Moltke envisaged operations, in which the concentration of the army would take place on the battlefield itself, thus discarding the Napoleon’s principle that the army
should be concentrated well before the start of a battle. This depends, not merely on calculable factors, space and time, but also often on the outcome of previous minor battles and on the weather. For planning and preparation, railroads and telegraph accelerated mobilization, but the initial concentration and deployment of the field armies was critical, dilemma was that initial concentration required highly centralised control, while the movements of the separate armies in the field required decentralised command. Road network gave birth to concept of marching in separate columns. In addition to making use of railroads, Moltke proposed to employ the dense road system that had come into being in the course of the industrial revolution.

30. **Operations on Interior and Exterior Lines.** Moltke’s strategy in 1866 showed that the much-contemplated inner line of operations was merely of relative significance. He summed up his experiences in these words “The unquestionable advantages the inner line of operations are valid only as long as it retains enough space to advance against one enemy by a number of marches, thus gaining time to beat and to pursue him, and then to turn against the other who is in the meantime merely watched. If this space, however, is narrowed down to the extent that you cannot attack one enemy without running the risk of meeting the other who attacks you from the flank or rear, then the strategic advantage of the inner line of operations turns into the tactical disadvantage of encirclement during the battle.” Moltke’s strategy was characterised by his openness of mind and by the elastic changes from one device to the other. Moltke’s new concepts were successfully applied during Austro-Prussian and Franco-Prussian wars.

31. **Strategy of Expedients.** In the more restricted sphere of operation, Moltke was at his best in recognising that the changes brought about by vastly improved fire-arms, transportation and communications, together with the ability of states to raise and maintain ever larger armies, required corresponding changes in strategy, tactics, command, and organization. The American Civil War had demonstrated that these new factors could create a tactical and operational deadlock, and Prussia, always facing a potential multiform conflict, could not afford a protracted war. But rapid decision required an aggressive offensive to destroy hostile forces, while the great increase in killing power derived from filled firearms had made frontal attacks prohibitively costly and extended frontages made tactical outflanking impossible. He advocated the strategy of expedients, which means seeking solution to a given strategic problem according to prevailing situation. His flexible strategy of expedients using exterior lines in 1866 and interior lines during the first phase of war in 1870, which made every effort to concentrate numerically superior forces more rapidly than the enemy.

32. **Blitzkrieg.** Influenced by mass production of war waging material supplemented by growing nationalism, German strategists of mid 20th Century refined the concept of Blitzkrieg, which was floated by JFC Fuller and Liddell Hart after First World War. Blitzkrieg, “lightning war”, is the strategy of modern warfare that was first used with brilliant success by Hitler’s Wehrmacht against Poland in September 1939 and later employed against the armies of France, Britain, Holland and Belgium in May-June 1940. The architect of Blitzkrieg invasion plan was General von Manstein, Chief of Staff to
Field Marshal Karl von Rundstedt, who evolved a system of rapidly advancing armoured units, supported by infantry and co-ordinated with overwhelming air support. After World War II, fear of a blitzkrieg-style invasion dominated the military thinking of the Warsaw Pact and NATO alliances.

33. **Validity of Concepts Today and Tomorrow.** After having discussed the strategic concepts, it is appropriate to analyse the validity of few of the concepts in the new scenario. Our views regarding few of the concepts are:

(a) German Blitzkrieg was surprise to the armies of Europe during 2nd World War.
(b) Strategy of Defensive-offensive can prove successful, if based on strong foreign policy to reach to a diplomatic solution in earlier time frame.

34. Strategy of concentration has gained added importance in the light of information technology and use of satellites. It implies that the armies should be concentrated as late as possible to avoid giving away own intentions at earlier stages of battle.

**Emergence of the Prussian Army in Europe**

35. For half a century after the peace of Vienna, Prussia abstained from active participation in European wars. When the Prussian Army emerged in 1860s as the most powerful force on continent, it had for almost two generations no practical experience of war. It had undertaken some insignificant campaigns during the revolution of 1848-1849 and had been mobilised repeatedly between 1830 and 1859 in anticipation of conflicts that did not materialize. In the same period the Russian, Austrian, French and British armies had been fighting wars. The superiority of Prussian Army in 1860s was made possible due to three important factors: -

(a) Its organization.
(b) Peacetime training.
(c) Theoretical study of war.

36. Prussian Army of 19th Century owes its elevation to zenith to four great men, most of them non-Prussian by descent: -

(a) Fredrick the Great.
(b) Napoleon.
(c) Scharnhorst.
(d) Gneisenau.

37. Fredrick the Great endued precious memories of victory and endurance in adversity, which were essential for pride and self-reliance of an army. He impressed upon his successor that battles are won first on training ground. Napoleon, foreign conqueror, reminded Prussia of the role that strategy play in warfare and after Battle of Jena, Scharnhorst and Gneisenau adapted the Prussian Army to new type of warfare based on a
historical and inductive method that gave full credit to a creative imagination of command and moral energy of his troops. In Clausewitz work, ‘On War’ the new philosophy found its classic literary expression. Conscription was rule everywhere but in Prussia it was followed religiously to make it a citizen army. All served without distinction.

38. Scharnhorst introduced ‘Shrink Age System’ to quickly train recruits and transfer them to reserve, thus maintaining a standing army of 42000, and actually increasing trained manpower. Gneisenau taking advantage of this and by quick mobilization, made Prussian Army the most potent force in Europe. Both were great leaders of men, the one possibly greater in educating them for war, the other directing them on battlefield, believed that thought should lend wings to action. Emergence of Prussian Army as dominant force in Europe was because of these military reformers and their philosophies in consonance with existing circumstances.

Origin and Rise of General Staff

39. The need of an effective General Staff, lack of which had so largely led to the ruin of Napoleonic system, was first recognised by Prussia. In 1809 Scharnhorst reorganised War Ministry and created a special division that was charged with plans for organising and mobilizing, and with peacetime training and education of army. Under the jurisdiction of this section came also the preparation of military operations by intelligence and topographic studies and finally the preparation and direction of strategy and tactics. As minister of war Scharnhorst retained direction of this section and exercised a strong influence on tactical and strategic thought of officers in it by training them in war games and staff manoeuvres. He posted Adjutants to various units to extend influence of Chief of General Staff over all generals.

40. Later on General Staff was separated from War Ministry and allowed to handle all military affairs from training to conduct of war on battlefield, whereas War Ministry handled administration and policies. This decision had far reaching consequences. One of the most far reaching military reorganization in 19th Century, as a result of industrial revolution, was the appointment of Prussian Chief of General Staff as supreme adviser to the Monarch in 1812, who was Commander in Chief of armed forces. Ministry of war with its political function was by-passed. Thus political power was given to military deity on the eve of renewed bid for expansion by Prussia. The glimpse of this ambitious system in action appeared when Prussia intervened in Schleswig-Holstein in 1848. In 1864, again due to the supremacy of General Staff as compared to other nations in Europe, with minor Austrian involvement, the Prussian Army invaded Denmark to settle small outstanding territorial differences and at a little loss to itself, defeated Danish Army. A repeat was seen in 1866 and 1867 in Sadowa and Sedan. Prussian Generals von Moltke, von Roon and Chancellor von Bismarck felt satisfied that instrument of their creation with its modern weapons was capable of dominating central Europe and creating the amalgamation of all Germanic states into one nation under one Monarch Wilhelm I. These three men and General Staff were destined to raise Prussia from a
position of comparative insignificance to one of supremacy in Europe.

Moltke’s Philosophy on Conduct of Military Affairs

41. Von Moltke was born in 1800 at Denmark. He got military training from Denmark and on request was transferred to Prussian Army in 1820. Attended War College at Frankfurt and was attached with Prussian General Staff where he remained for more than sixty years since 1832. When at age of 65 he took over command of Prussian armies he never had commanded a company or lager size force in field. He was a civilized and humble man. As an accomplished writer he produced valuable books in strategy and movement of Prussian Army by rail. The Monarch, Wilhelm I, made him Chief of General Staff in 1857.

42. Moltke was a profound student of war, deeply versed with methods of Napoleon and theories of Clausewitz: but not a blind follower, because he related them to subsequent technical developments. From Napoleon he learnt that movement is soul of war. Therefore railways would become the most important factor in strategy. From Clausewitz he learnt that statecraft and generalship are closely related and in consequence he took profound interest in political and foreign affairs, but abstained from active participation paying more attention to military affairs. He was convinced on monarchical government’s superiority.

43. Moltke denied that strategy was a science and principles could be established from which plans of operations could be logically derived. Beyond initial clash of forces war becomes a combination of calculations and daring. Military history tells us that each situation called for a definition in term of its own circumstances and solutions. He made study of military history compulsory for General Staff but told them it was different from strategy. He said, “strategy is a system of adhoc expedients. It is more than knowledge alone. It is application of knowledge to practical life. Develop an idea in accordance with circumstances”. Accordingly the organization of command held prominent place in Moltke’s idea of war. He refrained from issuing any but most essential orders. “An order shall contain everything that a commander cannot do by himself, but nothing else.”

44. Moltke's study of military history in correct perspective and visualizing effect of industrial advancements like methods of move by railways, road and improvement of weaponry led to a number of conclusions which he applied with perfection to Prussian Army to make it one of the greatest in Europe.

(a) Decentralization. With the armies growing larger, deployment becoming extensive and means of movement becoming more rapid, it demands decentralization.

(b) Initiative. No plan can look beyond initial clash of major forces therefore it is incumbent on subordinate commanders to act on their own initiative in accordance with common doctrine.

(c) Logistics. Larger armies demanded a greater management and arrangements. Logistic sciences and pre combat manoeuvres of armies became
decisive factor in deciding outcome of the campaigns.

(d) **Railways.** Railroad offered new strategic opportunities for Prussia inspite of its geographic dilemma severed by Hanover. Troops could be moved six times as faster as Napoleon had marched and fundamental of all strategies – time and space- appeared in new light. Time could conquer space.

(e) **Roads.** In addition to railroad the network of dense roads system due to industrial revolution added diversity to already existing strategic opportunities.

(f) **Mobilization.** Speed of mobilization and concentration of armies became an essential factor in strategic calculations. In fact time tables of movement and assemblage together formed the very core of strategic plans drawn up by military staff in expectation of war.

(g) **Envelopment.** Lethality of weapons increased which rendered frontal attacks futile, therefore victory be sought in envelopment.

(h) **Inner Lines.** He showed that much vaunted inner line of operations were of merely relative insignificance, when space is narrowed, it turns into tactical disadvantage of encirclement during battle.

45. The Austro-Prussian War of 1867 (at Sadowa) and Franco-Prussian War of 1870 (at Sedan) were clear manifestations of these ideas and conclusions of Moltke. In former he chose Gitschin as point of concentration not because it offered strategic opportunities/advantages but merely on account of distances whereas in later the speed of concentration tipped balance in favour of Prussia. Both wars were limited by aims. One aimed at driving Austria out of Germany and second aimed at uniting all Germany under one leadership of Prussia. These wars were rapidly decided in 7 weeks only due to:

(a) Limited nature of both wars.
(b) Superiority of Prussian General Staff.
(c) Speed of Prussian mobilization.
(d) Superior Prussian tactics.
PART III

IMPACT OF INDUSTRIAL REVOLUTION ON CONDUCT OF WAR

(SCHLIEFFEN AND STRATEGIC ENVELOPMENT)

46. American Civil War (1861-1865). It was the first great conflict of steam age, and its origin was intimately related to impact of industrial revolution. War was fought between Unionists of North and Confederates of South. It was war of modernity, mortars, grenades, rockets and booby traps. Flintlock musket of Napoleon age was superseded by Minie Rifle, with more range as a supporting weapon to infantry assault. This resulted into culmination of bayonet assault, frontal attacks became futile and entrenched warfare came into existence. Unionists won the war being industrial power.

47. Austro-Prussian War (1866). It was the war of 7 weeks where Moltke applied strategy of interior lines. The strength of Prussian Army was in its infantry, which excelled both in tactics and arms. The Prussians were equipped with breech loaded needle gun, which completely out classed Austrian Lorenz muzzle loading gun. During this war Prussia first time exercised system of general staff. Staff was very efficient and executed operational plan on ground swiftly. Prussia mustered forces at the point of decision faster than Austria, through railway and road network. Austrian staff was inefficient and could not concentrate their forces in time, which ultimately led to the defeat of Austria.

48. Franco-Prussian War (1870-1871). The experienced Prussian General Staff of Austro-Prussian War, prepared plan against France in 1868 based on strategy of interior and exterior lines also called as strategy of expedients and implemented it in July 1870. Superior staff work, speedy mobilization, efficient and aggressive operational leadership, exploiting the advantages of larger battalions crushed French Imperial Armies. On French side overconfidence, lack of planning and obsolete organization all contributed towards disaster.

Von Schlieffen

49. Schlieffen became the Chief of General Staff in 1889 after Waldersee. He was well known as the most controversial strategist of his time, who combined the first rate administrative talents with solid education but lacked the cultural talents of Moltke. Schlieffen like Moltke advocated deeper manoeuvres aimed at annihilation but preferred commands instead of issuing directives. The German strategic problems at that juncture of time are discussed briefly in succeeding paragraphs.

50. Parallelism. Moltke during his last stage of the career shifted from the concept of issuing directives to commands. The main reason was the changed politico-military situation. After the assumption of appointment by Schlieffen the chances of two front war
were more likely. Fredrick was taken as the precedent who had successfully fought battles on several fronts. The main dilemma with Schlieffen was to choose the front either Western or Eastern for initial annihilation. France was finally chosen and the concept of recoiling the adversary on reverse front was attempted for application in his master plan.

51. **Implications.** Though France was selected for the initial blow considering slow Russian mobilization, but it had certain serious implications: -

(a) **Location of Switzerland and Belgium.** Switzerland was easily defensible and offered no passage for troops but French forces could pass through Belgium, outflank the Rhine and threaten Ruhr.

(b) **Terrain.** Ardennes were thickly wooded and had a few hill roads. Luxembourg gap was covered by only two weak armies. So the only option left was Belgium.

(c) **Intervention of Britain.** Violation of Belgium neutrality might force Britain’s intervention. It was feared that if Britain appeared in Belgium or Northern France, German forces would be drawn into a catastrophe.

52. **Schlieffen Plan**

(a) **Considerations**

(i) Russian mobilization will be slow initially so France is to be taken on first.

(ii) France would have strong fortresses along their frontiers, which may result in loss of valuable time.

(iii) Wide manoeuvres through Belgium was possible.

(iv) Military advantage, out weighed violation of Belgium’s neutrality and dangers of British hostility was imminent.

(b) **Plan**

(i) **Eastern Front (Russia).** 8th Army and local troops were to defend Eastern Prussia. Three strong armies to move to Galicia to face Russians.

(ii) **Southern Front (Serbia).** 3x weak Austrian armies to move to Serbia.

(iii) **Western Front.** Seven armies divided into Right Wing (five armies) and Left Wing (Two Armies.)

(iv) **Execution.** Left Wing would hold the French forces in Lorraine and Alsace, and fall back. Right Wing would pivot at Metz, move forward through Luxembourg and Belgium. Then it will swing west of
Paris and fall in the rear of French armies engaged with left wing and drive them into Germany and Switzerland.

53. **Criticism on the Plan**

(a) General von Bulow and General Bernhardi preferred frontal attacks instead of flanking ones.

(b) General von Schlicting advocated smaller groups instead of huge armies.

(c) Schlieffen was blamed for doing nothing for the training of senior commanders.

54. **Modification in Plan.** In 1905, Moltke (the younger) on assumption of the appointment of Chief of General Staff decided to go for double envelopment. To this effect the strength of left Wing, was increased and right wing was weakened. The plan for Eastern Front was left unchanged.

55. **Reasons of Failure**

(a) Moltke (the younger) only copied the ideas of Moltke (the elder) slavishly and could not visualize the situation correctly at Verdun.

(b) Plan was to advance west of Paris but actually it was conducted east of Paris, leaving French capital and railways hub uninvested.

(c) Weak and incompetent generalship.

(d) Incorrect passage of information to Moltke’s Headquarters.

(e) Exposed flank of General Kluck.

56. **Impact on Conduct of War**

(a) **Adoption of Strategy of Annihilation.** Envelopment technique of attack was adopted which may be single but mostly double envelopment. It was demonstrated in the Battle of Tannenberg in August 1914. Eisenhower was also inspired by the idea of wide and bold manoeuvres for decisive results.

(b) **Concept of Depth in Defence.** By mid 1915, though the problem of supplies was overcome but the element of surprise was eliminated to large extent. So the concept of depth in defence emerged.

(c) **Faster Mobilization.** Due to improved railway communication network, the speed of mobilization was enhanced. The assembly of
1.2 million troops by Germany and France is the testimony to the fact. However the battlefield mobility could only be demonstrated in its true sense in the Battle of Somme, in 1916.

(d) **Enhanced Offensive Capability.** Due to increased lethality of weapons and advance in communication technology the offensive capability of forces was enhanced.

(e) **Importance of Attrition not Lost.** With the invention of gas and artillery shell, the firepower at longer ranges was enhanced but it could not achieve decisions as witnessed in the Battle of Ypres. Attrition was then considered as a prelude to annihilation.

(f) **Aerial Reconnaissance.** The aircraft enabled the commanders to gain insight of enemy intentions and movement.

(g) **Unification of Command.** Developed means of communication facilitated faster execution of orders and unified the command.

(h) **Tactics as a Prelude.** Conditioning factor of strategy gained more importance as, without freedom of movement, strategy was conducted as an academic exercise only.

**PART IV**

**SALIENT CONCLUSIONS**

57. **Mobilization.** The invention of railway and the resultant enhanced speed of mobilization of forces brought revolutionary changes in the conduct of war. In Napoleonic campaigns, it became difficult to shift large forces in the theatre of war due to non-available of railway/road infrastructure. Moltke was in a position to beat France in time and space through rapid mobilization in Franco-Prussian War.

58. **Concentration.** The means of quick mobility enabled the commanders to achieve superior concentration in battlefield. Napoleon, Clausewitz and Jomini stressed upon this principle of war. Moltke was able to apply this strategy of concentration by utilising the means of mobility.

59. **Command and Control.** Moltke advocated centralised control over the initial concentration of forces and decentralised execution by the subordinate commanders. It was practised by the Germans in First and Second World Wars. This concept is still practised in present environment.

60. **Strategy.** Quick mobility and superior concentration in the battlefield led to the development of operations on interior and exterior lines as it suited in various campaigns.
Moltke called it system of expedients and applied it with openness of mind for the successful outcome of battle.

61. **Power Potential.** As an impact of industrial revolution the power potential of nations depended largely on strong economy, industrial base, strong foreign policy and indigenization.

62. **War Waging Capacity.** A country will have to rely upon the measures as per judgement that best guarantee the independence and security of a nation. Ability of a nation to wage a war depends upon its productivity; hence there should be less reliance on other nations in case of war. Britain was the only country, which stood against Germany in Second World War in Europe, till America joined. Similarly during the Falkland War Britain because of its war waging capacity was able to launch a military expedition across 8000 miles of sea.

63. **Strategy of Envelopment.** The deadlock imposed by new weapons and extended frontages can be overcome by out flanking the enemy in one continuous strategic operational sequence combining mobility, concentration, movement and fighting. By seizing initiative from outset it was possible to drive the adversary into partial or complete envelopment, destroying enemy in a great and decisive battle of annihilation and encirclement as planned by Schileffen for the conquest of Paris.

64. **Efficient Staff Procedures.** The constraints of centralised command system can be overcome by establishing an efficient general staff, combining flexibility and initiative at local level with conformity to common operational doctrine as per intentions of higher commander. Battle of Tannenberg is a classic example of command and staff harmony.

65. **Protection to Industrial Sector.** The war potential of a nation is derived from the economic base, which ultimately takes its root from the industrial infrastructure. The industry prospers more rapidly in the hands of private sector under the auspices of the government. As was implanted by Britain, France and Germany by abolishing internal and external tariffs in later half of 18\textsuperscript{th} Century. This concept is still pursued by America and Western Powers in the shape of WTO and Briton-Wood institutions.

66. In nutshell the industrial revolution, transformed a fundamental change in the concept and modes of making war. The revolution had following facets: -

(a) An economic revolution that provided the means to feed, arm, and transport mass armies.

(b) The mobilization of mass armies.

(c) A revolution in weapons technology involving a phenomenal increase in firepower.
(d) A revolution in the technique of management and organization.

Conclusion

67. Whatever may have been the virtues of Mercantilism in seventeenth and eighteenth centuries, its modern counter-part has been an incendiary force in a highly inflammable and explosive world. The Neo-Mercantilism is more dangerous because it operates around our highly organized and closely integrated society. The thinking of Adam Smith, Alexander Hamilton and Friedrich List was conditioned by the fact that they were respectively British, American and German but in the certain fundamentals of statecraft their views were surprisingly alike. They all understood that military power is built upon economic foundations and each of them advocated a national system of economy that would best meet the needs of his own country. These concepts were well understood by strategist like Moltke and Schlieffen who devoted their lives for developing the Prussian military organizations, and evolved strategies, which brought fundamental changes in the warfare. With industrial revolution there was corresponding metamorphosis in conduct of war. It seems appropriate to end with a quote from Moltke, “Everlasting peace is a dream, and not even a pleasant one; and war is a necessary part of God’s plan for the world… without war world would deteriorate into materialism”.
REFORMATION IN MILITARY THOUGHTS

Introduction

1. From the time of the Peter the Great’s victory over the Swedes at Poltava in 1709, Russia has been a major European power. Military strength made this ascent possible. Nevertheless, despite many effective military leaders and development of an extensive literature on the theory of war in the 19th Century, Russia produced no strategic thinkers of the stature of Mahan, Clausewitz, Liddell Hart or JFC Fuller. Yet it is a paradox that until the mid of the 19th Century, service in army was preferred career for educated Russians. The army and military values played a dominant role in the reigns of Alexander I and Nicholas I. After 1855, as the economy expanded and society became more complex, the army lost some of its former hold over the lives of upper classes. Russian ideas on military service, tactics and strategy from 19th Century to early 20th Century had great influence on subsequent shape of Russian military thought.

Russian Serf System

2. From 1709 to mid 19th Century, Serfdom remained hallmark of Russian military system. This system called for forcible enrolment of serfs/peasants for lifetime (later reduced to 25-year term), to maintain a large standing army of professional soldiers. The officers’ cadre came from educated noble class. Throughout the 18th Century and through the end of Napoleonic Wars, the Serfdom, whatever its moral and other aspects, posed no problem for the Russian Army; on the contrary, it strengthened the army and helped make it what it was. The Serf System, which enslaved half of the Russian population, increasingly troubled Russian intellectuals from late 18th Century onward. They saw it amongst other things, inconsistent with Western belief in human liberty. Nevertheless, this system was perhaps more satisfactory than the mixture of conscription and mercenary service that characterised the armies of Old Regime Western Europe, as Russian peasant soldiers were virtually paid nothing.

Alexander Suvorov

3. He was an inspired leader of men and aristocrat, who influenced Russian military thought in 18th Century. He was aware of the discussions on the tactical innovations that were filling the pages of Western, particularly French military articles and books. Salient aspects of his contributions are as under:

(a) **Tactical Innovations.** Towards the end of 18th Century, under Alexander Suvorov, some innovations in tactics were witnessed in Russia, that characterised the Revolutionary Era, such as rapid forced marches and dispersed order adopted by Russian forces.

(b) **Russian Military System.** Suvorov clearly recognised the value of the
peasant soldier as none of his predecessors could do so. He demonstrated that Russian military system at the end of 18th Century was capable of adopting new tactics and competing with the best the West could offer. He said that even under able, though less inspiring commanders, such as Michael Kutuzov and Michael Barclay de Tolly, who used more traditional methods, the Russian mobilization system and military effort as a whole proved capable of defeating Napoleon’s armies in 1812.

(c) ‘The Art of Victory’. Suvorov’s most famous work, The Art of Victory, is an eight-page pamphlet, a manual of practical advice directed at junior officers and non-commissioned officers. The pamphlet emphasizes the importance of the fighting spirit of the troops, explains battlefield tactics and adds instructions on maintaining health and morale. In view of his talent as a commander and theorist, Suvorov came to symbolise the Russian art of war.

The Reign of Nicholas I (1825 – 1856)

4. Russian National School. In a paradoxical way, Russian National School or the notion of Russian art of war was greatly influenced by the Revolutionary Era, which stressed the national element as a force making men fight with loyalty and enthusiasm. General N V Medem, writing in 1837, argued that improvements in weapons and techniques of defensive warfare increased the importance of ‘moral force’ in war, anticipating the primary thrust of nationalists. This notion and the associated concept of an army based on universal service and a large trained reserve or military were the most important features of the military thought of the younger generation of progressive military officers during the reign of Nicholas I.

5. Changes in Balance of Society and Evolution of New Military Thought. It was during the reign of Nicholas that major changes in the balance between military and civil society began to take place. No longer was the career of military officers virtually the only reasonable option open to the majority of the nobility. Due to the quantitative expansion of higher and secondary education that began under Alexander I and continued under Nicholas I, there emerged a significant reading public, which provided a market for the new generation of Russian writers, who included the first really great figures of 19th Century Russian literature – Pushkin, Lermontov and Gogol etc. Some of the issues that later dominated military thought in Russia began to emerge in the age of Nicholas.

6. Policy of Deterrence. Under Nicholas I, Russia’s policy was aimed at preserving the European status quo, and Nicholas termed it as ‘policy of deterrence’ saying “Russia is a power mighty and fortunate in its own right; it will never be a threat to its neighbours or to Europe. However, its defensive position must be so impressive as to make any attack impossible”.

7. **Desire for Shifting to a Short-Term Conscript Army.** Throughout the reign of Nicholas I, a very large standing army was maintained on the basis of the traditional system of 25-year terms of service for peasant conscripts. Desire to shift to a short-term conscript army with a large reserve force though existed but could not be clothed because it was inevitably linked with major reforms in the Serf System, which although discussed, made no actual progress under Nicholas I.

**The Crimean War (1853 to 1856)**

8. The defeat in the Crimean War marks the end of the old regime in Russian Army. Russian soldier fought bravely, nevertheless, the war was lost. The mobilization of 1,742,297 officers and men (plus 787,197 irregulars and military) proved inadequate to deal with a force of 300,000 French, British, Sardinian and Turkish troops. This was a big setback to the Russian might as well as their strategy. The defeat led them to think over changes in military system and reformation of military doctrine.

**Military Reforms (1874)**

9. In post Crimean War era, Russian military’s basic strategic problem was that they could not compete with the West in turning a high proportion of adult male population into trained soldiers. Dmitri Miliutin, who was minister for war from 1861 to 1881, was largely responsible for the attempt to deal with Russia’s strategic problem, manpower mobilization and training, that was embodied in military reforms of 1874. Miliutin reform programme had three main goals: -

(a) To improve the administrative structure of the military.
(b) To shift to a system of short-term service with a reduced standing army and a large reserve force.
(c) To raise the quality of military education, for officers and ranks and files as well.

10. The reform system introduced the principle of a universal service obligation, regardless of social status. Totally uneducated peasants served for six years (later five years). At each level of education, there was substantial reduction in service. For university graduates, it was merely six months. The conscription was not only abolished but also defined in the criminal code as exile to Siberia.

**Effect of National Economy (1870 to 1914)**

11. By the mid 1870s, Russia had in place the basic structure of a modern continental European military system. The problem now was how to make it work and to develop a force truly comparable to that of the other major continental powers. Neither manpower nor the introduction of new military technology was the problem. Russia produced
weapons comparable to those of its rivals from 1870 to 1914. The basic problem was the budget and the size of the Army. Russia was poor and relatively under developed country, even after the rapid industrialisation of the 1890s. At the end of the 19th Century, Lieutenant Colonel AA Gulevich of the Russian General Staff Academy recognised the intimate connection of modern war and national economy. Nevertheless, optimistically, he saw Russia’s lower level of economic development and poorer standards of living as better enabling it to stand the strain of an exhausting war.

**Post-Reform Era to World War I**

12. Russian military thought in the post-reform era up to World War-I did not focus on the growing problem of modern industrial war. It centred to a surprising degree on what would seem to be a largely irrelevant historical dispute. The humiliation of Crimean War and less than brilliant showing of Russians against Turkey (1877-1878) caused them to seek solution in their own tradition. The problem existed in non-availability of strategic thinkers. Military historians like Maslovs’kiil and Myshlaevskii had only an indirect influence on the strategic thinking. By far, more prominent was MI Dragomirov, who taught tactics and was later head of the General Staff Academy. Dragomirov’s work published in 1879 was used by Russian officers for thirty years. He advocated the bayonet in preference to firearms and stressed upon the importance of morale. He argued, “the bullet and the bayonet supplement each other: the first paves the way for the second. The mutual relationship remains the same, no matter how far the perfection of firearms is carried”. He further said, “the bullet is a fool, but the bayonet is a fine fellow”. His basic notion was the same as of Suvorov, “What really matters in war is the will of the men to fight”.

**Leer’s Emphasis on Importance of Moral Force**

13. Most prominent influence on the Russian military thought in late 19th Century was that of General GA Leer. To him, the basic elements of strategy were permanent, unchanging and to be derived from the study of the great commanders and writers of the past in European warfare; Lloyd, Napoleon, Jomini and Clausewitz. Leer emphasized the decisive importance of cold steel. He opined that firepower was preparatory, the bayonet decisive and victory depended ultimately on moral force.

**Pre-World War I Reformation of Thought**

14. Not until 1910 was it possible to begin a major programme of improvement to prepare the Army for the general European war that by then had come to seem likely or even inevitable. Despite the lessons of Russo-Japanese War about the importance of modern firepower and the difficulty of attacking entrenched positions, the national school was by no means discredited. Indeed the spirit and the enthusiasm of the Japanese troops reinforced the Russian basic belief in the paramount importance of morale. Colonel Neznamov, a lecturer of tactics at the General Staff Academy argued
that Russia lost the war with Japan because in the days of modern firepower, she still
dreamt of thunderous bayonet charges and put its faith in the valour of its soldiers.
He firmly asserted, “fire decides battle”. On the eve of World War I, Neznamov discussed
the problem of dealing with mass armies on extended fronts. The goal of war, he thought,
remained the destruction of the enemy in a quick decisive battle. He did not foresee the
stalemate of trench warfare but expected the continued deployment of large forces over
large areas with considerable movement as each side tried to outflank the other.

**Russian Strategy On the Eve Of World War I**

15. On the eve of World War I, a clear division of opinion existed on Russia’s strategy
between the nationalists and the academics. Sukhomlinov, the minister of war, was a
nationalist. Arrayed against him was a group of officers, known as young Turks, who were
convinced that western technology and military methods were of central importance for the
Russian Army. This group included General Golovin and General Alekseev, the
commander of the important Kiev Military District in 1914. The latter’s influence was
crucial in determining the plan put into effect, of attacking both Austria and Germany in
early weeks of the war. The western limit of the Empire was Poland, bordered by
Austria-Hungary in the South and by Germany to the West and North. It was thus an
exposed salient, vulnerable to a pincer movement from Austrian Galicia to the South and
German East Prussia to the North. In the year immediately following the Russo-Japanese
War, the High Command decided on a defensive strategy that called for abandoning much
of Poland and establishing a line further to the east that would not be threatened from either
the northern or the southern flank. This was consistent with the ideas of the ‘national
school’. However, as a defensive plan, it went contrary to the wide spread notion of
strategic theories of the day that offensive action was normally preferable.

**The Upshot**

16. The impact of different steps in the process of reformation in Russian military
thought, on the wars they had to fight in the days to come, may be summarized as under:

(a) Due to absence of any influential strategic thinkers for a long time, the
process of reformation in military thought in Russia remained quite slow as
compared with their American and European counterparts.

(b) Another noteworthy problem was the division of thinkers into two
schools of thought viz. the nationalists and the academics. Due to this very reason,
they remained stuck up between the strength of moral force vis-à-vis bayonet and
bullet, despite the lessons of Russo-Japanese War.

(c) There also remained a debate about adoption of a military system suitable
to Russia in their peculiar socio-cultural environment. They took a long time to
switch over from Serfdom to the modern system of standing army, which paid them
in times to come.
(d) The weak economy had an impact on adoption of a suitable military system and strategy by Russia before and through World War I.

American Strategy – from its Beginning Through World War I

17. American ways of war have been offshoot of European ways of war, and American strategic thought has therefore been a branch of European strategic thought. The particular emphasis that Americans drew from European methods of war-making were to help shape American strategy into the 20th Century, when Americans ceased to be simply pupils of Europe and became tutors to military forces of much of the world, in addition to building a war machine of their own that gave United States the status of a Super Power. From the beginning, one of the American changes of emphasis was towards less restraint in the conduct of war, in both means and ends. Then came in the characteristics of European war after the close of the Wars of Religion and before the wars of French Revolution. As Europe, after 1648, entered an age of limited war employing the means of carefully regulated combat among professional armies to achieve ends of limited dynastic advantage, in North America war began by the colonist settlers .. To this end, the means frequently disregarded European restrictions on attacks against the property and lives of non-combatants. 17th and 18th Century Americans came to conceive of war in more absolute terms than did their European contemporaries.

General George Washington

18. Foremost among American advocates of transplanting European modes of war to the western shores of the Atlantic was General George Washington. His note-worthy contributions are as under: -

(a) **Acceptance of European Tutelage.** As Commander in Chief of the Continental Army, he accepted European tutelage in virtually every aspect of his conduct of the War of Independence, including the tactical training of his troops, respect for the rights of combatants and non-combatants under the international law of war, and most certainly in strategy. He moulded the main Continental Army into as close a facsimile of the rival British Army as he could.

(b) **Rejection of Revolutionary/Guerrilla Warfare.** Washington rejected the plea of Major General Charles Lee, who believed that a war fought to attain revolutionary purposes ought to be waged in a revolutionary manner, by calling an armed populace to rise in what a later generation would call guerrilla war. Influence of Washington overshadowed the unconventional warriors in shaping the roots of American strategy and the institutional development of United States Army.

(c) **Strategy of Attrition and Avoidance of General Action.** Washington’s strategy was not to win the war through victory in battle, but to wage what has been
called a War of Posts. This denoted avoidance of a general action at all times and putting anything to risk unless compelled by a necessity. Avoiding general action, Washington could keep the Continental Army alive and hoped that the Revolution would remain alive as well. He hoped to win the war through what was later to be called the ‘strategy of attrition’. He found that commitment of his troops to battle was an invitation to defeat. Therefore, as the war went on, he fought fewer and fewer battles.

(d) Establishment of Military Institutions. Washington’s insistence on creating a European-style professional army to wage war on European pattern led him to shape the permanent military institutions of the United States. He wanted establishment of a military academy for European-style education of officers. The United States Academy was inaugurated in 1802 at West Point. However, against his desire, the Academy was inaugurated under the administration of Thomas Jefferson who, unlike Washington, professed to favour the citizen-soldiers of military over General Staff as the backbone of American defence – though he did little to strengthen the military system.

Dennis Hart Mahan

19. Dennis Hart Mahan, the highest-ranking graduate of the class of 1824 turned to be a renowned American military intellectual. In 1826, he went on a four-year sojourn in France to observe French Army, study at the School of Application for Engineers and Artillery at Metz and bring back French institutional material to the United States Academy. Returning to West Point in 1830, he took over teaching duties and remained professor of Military and Civil Engineering, and the Science of War from 1832 to 1871. Mahan transmitted French interpretations of Napoleonic War. His writings on military strategy encompassed the following: -

(a) The Value of Fortifications vis-à-vis Offensive. He highlighted the military aspects of engineering, in particular the fortifications. Nevertheless, though he taught that the spade was as useful in war as the musket, but he regarded the values of field fortifications ultimately as that of springboard for launching attacks.

(b) The Battle of Annihilation. He was significantly a disciple of Napoleon to believe that defence alone cannot win military campaigns, least of all passive defence, and that seizing the initiative through aggressive action is indispensable to final success. He taught, “vigour on the field and rapidity of pursuit should go hand in hand for great success. Carrying the war into the heart of assailant country, or that of his allies, is the surest plan of making him share its burdens and fouling his plans”. This way, he opined, the battle of annihilation could be fought.

Henry Wager Halleck
20. Halleck was Mahan’s favourite student in the class of 1831. In his military writings, he focussed on the following:

(a) **Coastal Fortifications.** He emphasized on the importance of military engineering, by reaffirming the value of America’s long standing programme of coastal fortifications. In his judgement, it was necessary to defend the United States from foreign attacks and for buying time for mobilization and training of citizens’ militia. Halleck cited the principles of the Archduke Charles of Austria. He quoted Charles on importance of possessing ‘strategic points’, generally comparable with today’s ‘vital grounds’ as decisive in military operations.

(b) **Logistical Foundations of Strategy.** Halleck’s insight into the logistical foundations of strategy proved consistently acute. He had a shrewd eye for logistically viable lines of operation for the Union Forces, and increasingly realized that one of the most effective weapons of offensive strategy was to aim not directly at the enemy armies but at their logistic bases.

**Lee and Jackson**

21. The Civil War dragged on through four years, and by its later stage, the rival systems of field fortifications, particularly those around much-contested strategic points as Petersburg and Atlanta, offered previews of the western fronts of 1914-1918. The devastating effects of rifled muskets and cannons aggravated the difficulties of developing a workable offensive strategy. Confederate military leaders General Robert E Lee and Major General Thomas J Stonewall Jackson, showed readiness to break loose from the inheritance of defensive military thought. Their main contribution to reformation of American strategic thought were:

(a) **Emphasis on Attack.** Lee and Jackson agreed that their armies must grasp initiative in war. Jackson was of the opinion that a concentrated attack on a vital point was a better measure of security than dissemination along the frontier. He said that the counter-stroke was the soul of the defence and that the true policy of the state, which was compelled to take up arms against a superior foe, was to allow the foe no breathing space. Lee, on the other hand, took over the field command of the Confederate Forces– now named the Army of the Northern Virginia – and directed them into a series of manoeuvres and attacks against the opponent’s rear and flanks.

(b) **Napoleonic and not Jominian or Mahanian** Jackson and Lee were not the disciples of Dennis Mahan or Jomini and were rather of Napoleon. From their study of Napoleon’s wars, they drew more aggressive strategic concepts than any previous American general did. Lee advocated that strategic defensive would not suffice if the aim were to win as well as to destroy the enemy’s army and that carrying the war into enemy’s country was necessary for this. He however stood a little more realistic in opining that offensive manœuvre could achieve the strategic objective of war only if it culminated in decisive destruction of the enemy. He
perhaps wished to say that not manoeuvre but destructive battle could only break the ability and will of the enemy to fight.

(c) Fire Control and Close Quarter Battle. Jackson said, “...my opinion is that there ought not to be much firing at all. My idea is that best mode of firing is to reserve your fire until the enemy gets or you get them to close quarter. Then deliver one deadly, deliberate fire, and charge with the bayonets”.

22. The fire control suggested by Jackson was bound to force the assailants to avoid frontal attacks. This, thus, opened new fronts i.e., attack from the flanks and rear as advocated by Lee also. However, the defender could shift the firepower to the flanks and rear also, thereby lending strength to defence leaving the attacker with no reasonable response. Thus, the first major effort to move from the previously defensive American strategic thought towards an effective mode of offensive action nearly ended in failure.

Grant

23 Halleck’s student, Grant seemed at first glance the opposite type of soldier, a man of simple and direct action, without historical study. Nevertheless, he rapidly developed into a strategist whose vision of the offensive made him at least Lee’s equal in the overall conduct of war. He became the most influential figure in shaping the American strategy for next hundred years. He advocated destroying the enemy army by means of a brutal day-after-day exchange of casualties. His chief impact on subsequent American strategic thought lay in that direction. He advocated the strategy of manoeuvre to turn the enemy out of his defensive position, and to trap and force the surrender of the opposing army. To achieve the aim of forcing the surrender of the opposing army, Grant felt compelled to modify his strategy and seek utter destruction of the enemy i.e., Confederacy’s capacity to wage war, though he had never hoped that destruction of a major enemy army could be achieved in a single Napoleonic battle. Unlike many admirers of Napoleon, he was never infatuated with battle in any form, whether climacteric or attrition. He was always a Jominian rather than a Clausewitzian strategist.

Sherman

24. Sherman, essentially a disciple of Grant, followed his thought of strategic destruction of enemy forces and resources. In the operations led by him, he deliberately tried to terrorize the people of Georgia and Carolina with no regard to their age. Denied war resources and the supporting will of the Confederate population, Sherman believed, the organized armies would soon collapse.

Comeback of Defensive Strategy

25. The limitations afflicting Sherman’s effort to find an alternative to Grant’s strategy, together with the limitation of Lee’s Napoleonic strategy and the appalling costs of Grant’s
method of destroying Lee’s army, could well encourage a return to defensive emphasis that had characterized the beginning of American strategic thought. Such a defensive thought did return. After the Civil War, there was no vigour or creativity in the Army’s contemplation of European-style of war. The late 19th Century Army did not produce any strategic thinker of the stature of Mahan. The American Army fell between two schools; too European an army efficient enough on frontier and too much a frontier constabulary to be preparing itself for European-style war. The preparations that did develop turned the offensive strategies of Lee, Jackson, Grant and Sherman to the defensive.

**Bigelow’s Political Strategy**

26. Captain John Bigelow, in his famous book *The Principles of Strategy*, gave an idea of political strategy which embodied naval blockade and other such measures. He divided the political strategy into two categories: efforts to make the enemy’s government the object of strategy, and efforts to attack the will of the enemy people. This indeed contemplated economic pressure on the enemy, a thought that still holds well in American thinking.

**World War I**

27. With no American strategic thinkers presenting a persuasive contrary view, it was a strategy based on Grant’s thoughts which shaped the American military participation in World War I. American reliance on superior numbers and resources prevailed in 1918; the American reinforcement of the Allies on the Western Front confronted the German Army with force beyond its capacity to resist, had the war continued into 1919, thereby precipitating the demoralization of the German High Command and its appeal for an armistice. The same thought shaped up the American strategy for the decades to come including World War II. Dependence on numbers and resources turned American strategy into a strategy of mass and concentration, which held well during World War II as well.

**The Upshot**

28. The discussion on the process of reformation in American military thought may be summarized as under:

   (a) The particular emphasis that Americans drew from European methods of war-making were to help shape American strategy into the 20th Century, when Americans ceased to be simply pupils of Europe and became tutors to military forces of much of the world, in addition to building a war machine of their own that gave United States the status of a Super Power.

   (b) American military thought before World War I kept swinging between adoption of defensive or offensive strategy. Nevertheless, it were the
Grant’s thoughts, which shaped the American military participation in World War I. Due to the magnitude of industrial development, the Americans could afford to rely on superior numbers and resources both in World War I and II, which resultanty turned American strategy into a strategy of mass and concentration.

(c) Americans have reaped the fruit of Bigelow’s concept of political strategy, economic pressure on the enemy country and naval blockade of the enemy for over one century. The concept was applied by them in their conduct of World War I, World War-II and the wars fought by them later.

Men against Fire

29. The Doctrine of Offensive - 1914. When war broke out in Europe in August 1914, every major belligerent power at once took the offensive. The disasters compounded by World War I have left historical image of strategic blindness virtually unparalleled in history of warfare. Yet political leaders who sanctioned and the military leaders who planned the operations in that war were neither blind to the likely consequences nor ill-informed about the defensive power of the 20th Century weapons. The World War saw the climax of both offensive and defensive manoeuvres. The strategies adopted by the belligerents were based on the experience of different wars fought by them. Coupled with that was the influence of the theories of strategic thinkers in Europe and America. The impact of modern technology was even greater. Trinity of bullet, spade and wire gave birth to stalemate and defence overwhelmed the offensive.

Advancements in the Field of Armament and its Effects

30. Advancements in the field of armament had a note-worthy impact on the process of reformation of strategic thought. The substitution of high explosive with gunpowder as the propellant for small arms and artillery ammunition transformed both range and accuracy of weapons. Greater explosive power made possible smaller calibre rifles with a low trajectory and a range of up to 2000 meters, much more effective not only against assaulting troops but also against old field guns. It became possible for infantry to carry more ammunition in the battlefield due to small calibre, while brass cartridge and magazine loading increased the rate of fire. Range, weight and accuracy of artillery were comparably increased. The range of field artillery extended to 6000 meters with recoilless carriage, making possible rapid and continuous fire and mobile heavy artillery came into service with range of 10,000 meters or more. The scale of battlefield was increased with the capability of railway to bring troops to battlefield.

Theories of Military Thinkers

31. Marshal Ferdinand Foch. Foch advocated the strength of defensive over offensive. His strategic thoughts mainly encompassed the following:
(a) **Impossibility of Frontal Assault.** He ruled out the possibility of frontal assaults in any future war as they were very expensive and chances of success were remote.

(b) **Firepower.** No assault could succeed until the attacker had achieved superiority in the firepower over the defender. He wrote that, “the superiority of fire becomes the most important element of an infantry’s fighting capability”.

(c) **Zone of Death.** Foch advocated the impossibility of frontal assaults in view of the zone of death created by the defender’s fire and that the same had to be crossed over by the assaulting forces before reaching the enemy.

32. **Schlieffen’s Offensive Strategy.** German General von Schlieffen composed famous German plan across Ardennes to attack into Belgium and France based on offensive strategy. The plan was indeed an offshoot of the German technique of assault and tactical doctrine since 1870 - the avoidance of frontal attack and attainment of the objective by envelopment. The German forces marched through France and Belgium, but to no avail. Schlieffen emphasized reliance on numerical superiority, but failed to consider that superiority on the battlefield can be proved by those troops only who can accept great losses and advance more vigorously than their foe. General Bernhardi describes Schlieffen era strategy as ‘a declaration of bankruptcy of the art of war’.

33. **Colonel De Grandmaison.** Colonel Grandmaison was Director Military Operations of France. He doubted the fruitfulness of dispersion in attack and especially the Schlieffen’s plan. He endeavoured to draw offensive strategy for French. He advocated his standpoint as under: -

(a) **Offensive-Mindedness.** He wrote, “It is more important to develop a conquering state of mind” and that “In battle one must always be able to do things which would be quite impossible in cold blood; e.g., to advance under fire. Nothing is more difficult to conceive offensive in our state of mind now. We have to train ourselves to do it and train others, cultivating with passion every thing that bears the stamp of the offensive spirit. We must take it to excess; perhaps even that will not go far enough.”

(b) Grandmaison composed regulations for the French Army’s offensive strategy. He wrote “The French Army, returning to its traditions, recognizes no law save that of the offensive”. This was the feeling that suited the temperament of French population at that time, was much liked by the people and also reflected by the national writers. In 1914, the same was amply practised by the French in launching the offensive into Germany and suffered heavy losses due to very limited area for penetration.
British Version of Offensive Strategy

34. British General Sir Douglas Haig laid emphasis on the importance of artillery and avoidance of brutal committal of the forces. At Verdun in 1916, Germans displayed their knack of launching offensive. German fashion of attack had so pronounced an effect on the minds of the historians of the time, that British official history records it as “man was not pitted against men, but against material.” The same was taken as a model by the British in planning the first great offensive in Somme in 1916. The whole available industry was put to prepare the war arsenal and heavy artillery under the energetic direction of Lloyd George, the Minister of Munitions. About the Battle of Somme, it was recorded that nothing could stand in the way of the offensive with such a huge pounding of the area.

Technique of Assault

35. Conventionally, since the days of Napoleonic Wars, assaulting infantry always advanced in three waves; the first of skirmishers in loose formation, next of main body of infantry in close formation and last of reserve, to be fed on direction of the commander. It was a practical arrangement that proved useful till 1870. However, after that when French rifle fire stopped the attacking German battalions, the German Army never again reverted to the traditional formations. Then onward, only after the defences had been crushed by fire and surrounded by flanking formations, would be overrun Another technique of assault came in within next 10 years. This technique envisaged elbow to elbow assault by infantry waves to reach the zone of death if success was to be achieved. In such a technique, morale remained of an unequivocal importance.

Pre-World War I Campaigns / Wars

36. Experience of the pre-World War I campaigns played a major role in reformation of strategies of world powers. Some of these are as follows: -

(a) American Civil War (1860s). As already discussed in Part I, the Civil War initially saw an era of fortification and trench warfare. But Lee and Jackson brought up the thoughts of offensive strategy. Due to unsuccessful attacks, American strategy again turned to defensive.

(b) Franco-Prussian War (1870-71). In this war, France was defeated at the hands of Prussia. The war marked the end of French hegemony on continental Europe and resulted in the creation of a unified Germany. Entire army was equipped with a newly invented machine gun and breech-loading rifle

(c) Crimean War (1853-1856). Fought by the allied forces of Great Britain, France, the Ottoman Empire and Sardinia against Russia, stigmatised Russia with defeat and led the Russian thinkers to evolve new strategy for any future war, though they could not.
(d) **Anglo-Boer War (1899-1902).** Both the British and the South Africans were equipped with modern weapons. British attacks in close formations were halted and they were forced to surrender.

(e) **Russo-Japanese War (1904-1905).** It was a war that followed intense interest not only by the naval and military specialists of Europe and United States but the governments they served, all of which were deeply concerned with the changes it affected in the power balance in the Far East and its consequent effect on Europe. Major lessons of the Russo-Japanese War were:

(i) Inspite of all advantages the weapon systems gave to defence, the offensive was still possible.
(ii) The artillery was largely used by both the sides.
(iii) The idea of close formation manoeuvring in battlefield was put to an end.
(iv) Field artillery made little impression but heavy artillery used in massive concentration could break defender’s resistance.
(v) Japanese showed that the best answer to the invisible defence was invisible attack. They therefore carried advance by night, digging in before dawn and remaining immobile during day.
(vi) Casualties were immense on both sides.
(vii) Bayonet was not in any sense an obsolete weapon.
(viii) The most important lesson was that technology was not the most vital element in warfare but the morale, and morale, not of army alone but of the entire nation.

37. The experience of these wars and campaigns opened a new venue for military thought, which later had a decisive impact on the conduct of World War I.

**The Upshot**

38. With the outbreak of war in August 1914, most of the major powers in Europe took the offensive. They went to war with the expectation of heavy casualties and bigger losses. The attacks became particularly expensive in terms of causalties. 1,500,000 French troops who went to war at the beginning of August 1914, 385,000, or about one fourth, were causalities after six weeks of fighting. Of these 110,000 were dead. British lost about 120,000 men till the end of war. Massive artillery bombardments were carried out to make the attacks successful. For instance at the offensive of Somme some 1.5 million rounds were fired in a week long time over a front of about 18 miles. World War I ended in a deadlock. The belligerents thus started searching for new fronts. The answer was later found in mobility, made possible by development of tanks, mechanised forces and air power, which revived manoeuvre in subsequent battles. The reformation process of strategic thought that prevailed in Europe including Britain, influenced the conduct of
future wars, including World War I and World War II, to a greater degree. The salient aspects are: -

(a) **The Necessity of Fire Support.** The thought on importance of fire support particularly that of artillery held good in conduct of the coming wars. The belligerents endeavoured to achieve fire superiority in each battle.

(b) **The Importance of Morale.** While superiority in numbers was of utmost importance for launching of a successful offensive, prevalence of high morale was considered equally important especially in face of the defender’s zone of death.

(c) **Strategy of Attrition.** In view of the developments in the field of armament, the strategy of attrition and destruction of enemy army was preferred over capture of ground.

(d) **Failure of Frontal Assaults and Quest of New Fronts.** The trinity of bullet, spade and wire in World War I decisively failed the launching of frontal assaults. Similar was the failure in undertaking outflanking moves.
AGE OF MACHINE WARFARE

Introduction

1. With inevitable developments in the fields of armament and radical changes in military organizations in the 19th Century, new strategic thoughts emerged in America, Europe and Russia. This gave birth to a new era of reformation in military thought. American Civil War, wars in Europe and those fought by Russia played a historic role in the reformation process. Nevertheless, the process did not run parallel in all these countries. For a century, the most important issue in Russia remained the military system, especially the system of organization and enrolment. On the other hand, in America and Britain, the emphasis remained on adoption of defensive or offensive strategy. Napoleon’s offensive strategy had a note-worthy impact on reformation process of American strategic thought, influence of industrial development and technological advancement notwithstanding. Strategic thoughts of that era matured up to such an extent that they had a lasting value in the ages to come.

2. The history of warfare can be divided as “the adaptation of firearms (1450-1648), the period of professional armies and dynastic wars [1648-1789], the capitalisation of war (1789-1914) and the totality of war from 1914 to 1945. The last two periods saw a definite trend towards the mechanisation of war, towards the increased size of armies, towards the miniaturisation of population, towards nationalisation of war effort and towards the intensification of military operations.

3. The American Civil War foreshadowed the Great War of 1914-1918. It saw the employment of mass armies, railroads, railway artillery, armed ships, repeating rifles, gattling guns, balloons, trenches and wire entanglements. In one sense, the civil war was the first modern war of material. Before the induction of machines in World War 1, trench warfare was conducted using a form of field fortifications consisting of parallel row of trenches. World War 1 began as a war of movement, but stalemate developed after first few weeks. Each side suffered enormous casualties in vain efforts to breach the other’s defences; new concept of warfare and new weapons such as aeroplane and tanks were introduced, and sea was revolutionised by the submarines. World War II (1939-1945) marked a return to the war of movement.

4. The period between the two wars saw strategies once more in a process of flux. As an outgrowth of World War 1, strategy came largely to mean defensive. French prepared fortifications of Maginot line, bordering Germany. The belief was strong that field fortifications aided by machine gun would contain enemy attack. Meanwhile to overcome the superiority of the defences, tanks and armoured cars were developed. This solution on the ground found support in Germany, USSR and USA.
5. In France, Charles De Gaulle encouraged the strong tide of the opinion and advocated tank warfare to restore the strategy of mobility and offensive. Liddell Hart, (1895 – 1970), British military strategist and historian who developed the basic concept of tank warfare, that the German Army later employed in its Blitzkrieg attacks during World War II. He claimed that those who commanded the elements of mobility and surprise would win the wars of the future. Also, John Frederick Charles Fuller, a British army officer and war historian, who as chief of staff of the British tank corps planned the surprise attack of 381 tanks at the battle of Cambrai on November 20, 1917. All these strategies envisaged total mobilization of national resources and nation’s human power.

**Aim**

6. To analyse the period of strategic revolution in mechanised and armed warfare and consequent fluctuations in the political attitude, priorities and constraints in the development of strategic doctrines and draw pertinent lessons to our environment.

**PART I**

**DEVELOPMENT OF GERMAN STRATEGIC THOUGHT DURING**

**WORLD WAR I (1914-1918)**

**General**

7. World War I, military conflict, from 1914 to 1918, that began as a local European war between Austria-Hungary and Serbia on July 28, 1914; was transformed into a general European struggle by declaration of war against Russia on August 1, 1914; and eventually became a global war involving 32 nations. This war was the first coalition war of 20th Century and an important landmark in the story of evolution of modern strategies.

**Strategic Theories**

8. **Universalist Approach.** This approach to start with depended on the freedom of the military and the maintenance of separation between military and civilian society. The dualism was not all that far removed from a “Liberal” notion of civil military relations. In liberal tradition, strategy remained separated from military doctrine. Strategy was considered the domain of politicians and doctrine the proper realm of military men. After the defeat at Marne in 1914, the strategists thought of combining the functions of policy making and attainment of military objectives in one person. Previously it used to be the politicians, who were the policy makers and the will of the sovereign i.e., King’s to be executed by the military.
9. **Impact of Material on Total War.** By 1915, material had become the decisive factor in war. The demands of trench warfare for all kinds of military equipment and supplies were far more than ever estimated. The requirement was there, for military and civilian leaders to co-ordinate, organise and direct national resources efficiently, because it was a war of coalition launched over vast stretches, and great effort was required in its direction. This coalition war presented two problems. First was, how to prepare effectively for a war of material and secondly, how to co-ordinate military effort in a modern war. Neither the civilian elements of the state nor the military could carry out both of these tasks effectively and expeditiously. Military work and politics became inseparable in machine age. This factor took over and engulfed entire society in an ever-expanding machine of violence. This resulted into a total war.

10. **Theories of von Schlieffen**

   (a) Count Alfred von Schlieffen was assigned to the Prussian General Staff in 1865. He remained Chief of General Staff from 1891-1907. He is particularly well known for the Schlieffen Plan for the invasion of France.

   (b) **Gesamtschlacht.** This theory advocated doctrine of mobility, aimed at achieving quick decisions in a war by means of fluidity and dynamics of operations. This theory is related to the physical move of mass i.e., forward thrust to the centre of gravity thereby creating momentum and security for itself.

   (c) **Theory of Total Annihilation.** This was based on Cannae principle, whereby enemy forces were to be enveloped and totally destroyed/annihilated by means of quick move of forces.

11. **Ludendorff Theory.** He was one of the Germany’s chief strategists during World War I. To overcome the strategic stalemate of World War I, the German General Erich Ludendorff gave the theory of total war. He envisaged total mobilization of nation’s human and war resources. Also advocated the victory at all cost. His fanatic outlook with regard to achievement of military goals resulted in the massive sacrifice by the Germans. In the Battle of Tannenberg in East Prussia in 1914, Ludendorff proved the merit of his contention that annihilation of the enemy was more important than seizure of territory.

12. **Falkenhayn’s Indirect Approach.** Erich von Falkenhayn, was German General and Minister of War from 1913 to 1915 and one of the principal planners of World War I. He prepared Russian (1915), Serbian (1915-1916) and Verdun (1916) offensives. Falkenhayn at the end of 1915 concluded very candidly that no direct approach could overthrow Great Britain, and that the German Army, if given all possible resources, would not be able to fight a decisive breakthrough battle on the Western Front without undue hazard. Nor did he expect decisive military victories in the East. He proposed an operation that aimed at breaking the stranglehold of Great Britain over its continental allies by indirect means. He carefully thought about an operation against Verdun that aimed at the “morale” of France by pounding its Army. He hoped for the collapse of elite
control in the enemy’s camp by “bleeding its forces to death” which would set free pressure for peace.

13. **Mechanisation and Mass Incorporation**

(a) Battle of Somme 1916, resulted in the victory of Anglo-French forces. The Germans gave the concept of Elastic Defence i.e. depth or successive lines of defence to counter the mechanised forces.

(b) War was no more restricted to military but it also involved the civilians, as they were more and more involved in manufacturing of munitions, weapons etc.

14. **Political Developments.** During the period (1914-1938) many strategies were created and re-created, which gave rise to Fascism in Italy, Nazism in Germany and Communism in former USSR. Moreover, the developments in modern weapon systems and aircraft led to a high intensity of destruction in the conduct of military campaigns. War also influenced diplomatic, economic and political spheres of a nation.

15. **New Approach to Defensive Warfare**

(a) The concept of depth in defence was introduced by the Germans in their front lines, and created the main line of defence/resistance and a line of reserve trenches further back.

(b) The attack would be filtered by a line of outposts, and then drawn deeper into position and away from its artillery support.

(c) The attacker would then be smashed between main line of resistance and line of reserve trenches.

(d) This admirable concept of depth in defensive warfare favoured independent actions and granted flexibility.

16. **Industrial Warfare.** The British and the French, the two allies managed to retain a distinct edge over Germany in the war of material. The French and British did not follow the development of new forms of tactics and organization of forces. Instead, they fought industrial war in European manners and traditions, and maintained the traditions at very high cost of their soldiers and nation. Whereas Germans were constantly in search of using force, that was calibrated to the means of industrial war. The Allies continued to fight a war of “abundance” despite the fact that most of the items were borrowed from all over the world and Germans fought the war of “scarcity”. In this situation, Ludendorff advocated maximum use of available means. Efficiency was achieved through an army reform, rather than procurement revolution. German military was locked into a procurement system centred around heavy industry, found it easier to
change the army than to keep the system open to weapons procurement. On the other hand the Britain’s maintained their traditions and preserved the hierarchies within the army. The war of material affected nations differently, because of the practices of war. The German progression toward machine culture, was adopted by all the European armies and this put an end to land warfare.

17. **Development of War.** Over the period, wars and military conflicts passed through various stages, as a result of changes in the concept of warfare and development of new equipment/machines. This made warfare adopt various shapes with regard to war aims and objectives. It transformed war between armies to a total war concept, involving whole nation and all it’s resources. Wars were fought by deliberately intensifying the use of force. This concept has also phased out and they are now fought as low intensity and limited wars.

**PART II**

**DEVELOPMENT OF MECHANIZED FORCES**

**General**

18. Period between the two world wars can be characterised by the lack of will on the allied side to develop their war waging machinery, due to multifarious reasons. However some outstanding military thinkers like JFC Fuller, Liddell Hart, Weygand and De Gaulle on the allied side and Guderian, Bockelberg on the German side introduced new concepts of warfare which envisaged a dominant role for armoured forces. These theories were strongly rejected and resisted by the majority of cavalry loving die-hards.

**Apostles of Mechanised Warfare and Their Theories**

19. **JFC Fuller Theory of All Tank Army.** General JFC Fuller, a British officer, was the leading tank pioneer who made his name as author of “Revolutionary Plan 1919” which envisaged employing about five thousand heavy and medium tanks with close air support for a thrust some twenty miles deep that would paralyse the German command system. In a prize-winning essay in 1919, he mentioned that in near future tanks would replace infantry and artillery can only survive if it is developed into a kind of a tank. He estimated that it would take five years to convert the army into mechanised divisions and another five years to overcome prejudices and vested interest. Fuller for the most part relegated infantry to a strictly subordinate role of protecting line of communication and fixed bases.

20. **Liddell Hart’s Theory of New Model Army.** Liddell Hart was seventeen years younger than Fuller, but he was more balanced, tactful and less extravagant as compared to Fuller. Liddell Hart developed more detailed and realistic plans for the gradual conversion, in four stages, to “New Model” army. Though he also gave precedence to tanks, but he
always emphasized the need for the infantry as an integral part of the mechanised force. By mid 1920, Liddell Hart had developed the concept of a “New Model” army, which should operate independent of roads and railways and advance one hundred miles in a day. In his book title “Paris” he gave his ideas about the future of warfare and sketched existing prospects for the mechanised armies:

“Tanks are not an extra arm or a mere aid to infantry but the modern form of heavy cavalry and their true military use is obvious – to be concentrated and used in as large masses as possible for a decisive blow against the Achilles’ heel of enemy army, the communication and command centre which form its nerve system. Then not only may we see the rescue of mobility from the toils of trench warfare, but with it the revival of generalship and the art of war, in contrast to its mere mechanics.”

21. **De Gaulle’s Theory of New Modern Army.** France closest equivalent to Liddell Hart in the 1930s was Charles De Gaulle. De Gaulle campaign for an autonomous and professionally manned mechanised corps was politically controversial. His works highlighted the need for thorough analysis of quality of the army and its doctrine. His first recommendation was for massive expansion of mechanised force with their permanent peacetime organization and training as homogenous shock formations. The second was creation of a separate corps for this mechanised and motorised force. De Gaulle suggested the creation of six mechanised infantry divisions, a light reconnaissance division, and reserve comprising an assault armoured brigade, a heavy artillery brigade, and an air observation group.

22. **Guderian’s Theory of Blitzkrieg.** In Germany the chief disciple of mechanised warfare was Guderian. He was a communication expert in 1922. From then on, he was the principal protagonist of mechanisation and the development of mobile formations of all arms, based primarily on the tanks, operating as an independent force. Deeply impressed by the ideas of Liddell Hart, he organised the German mechanised forces for long range strokes. The theory of Guderian’s Blitzkrieg, was to employ mobility as a psychological weapon. According to JFC Fuller the aim of Blitzkrieg was; “not to kill but to move, not to move to kill but to move to terrify, to bewilder, to perplex, to cause consternation, doubt and confusion in the rear of the enemy, which armour would magnify until panic became monstrous. In short, its aim was to paralyse not only the enemy command system but also his government, and paralysis would be in direct proportion to velocity”. To paraphrase Danton, “Speed, still more speed, and always speed” was the secret of the Blitzkrieg.

**Development of Mechanised Forces between the World Wars**

23. **Great Britain**

   (a) **Situation after World War I.** Britain after the World War I
perceived no obvious enemy in the near future. Under acute financial pressures and in a state of war weariness, Britain demobilised its huge armies at a break neck pace. Within two years army strength was reduced to 370000 from over 3.5 million.

(b) **Process of Mechanisation**

(i) The late 1920s were increasingly worrying the War Office and General Staff about the British Army’s deterioration in number and equipment and its inability to meet possible commitments.

(ii) The experiments regarding employment of mechanised forces, conducted in 1927 and 1928 emphasized the difficulty of combining tanks with other arms. Thus First Tank Brigade was formed on provisional basis in 1931. The first armoured force manual was published in 1929 under the title “Mechanised and Armoured Formations” which used terms of tank brigade as the basic operating armoured unit.

(iii) In the First Mobile Division, which was proposed in 1935 and actually came into being in 1938, mechanised cavalry predominated.

24. **France**

(a) **Situation after World War I**. The World War 1 cost France over 1.3 million causalities and occupation of ten of its economically richest areas, no other nation suffered such heavy losses. In fact, France barely managed to survive. Therefore it was natural for France to adopt defensive doctrine and security policies, and the 1920s witnessed a return to the traditional military credo of Third Republic: faith in the trinity of a fortified Eastern border, foreign alliance, and universal conscription.

(b) **Process of Mechanisation**

(i) After the war, the infantry support role became embodied in official doctrine, although in the immediate post war period General Estenne, the father of French Tanks, propagated the idea of mechanised field forces based on tanks. In 1920 tanks became an integral part of the infantry, which continued to look at them as an auxiliary weapon right up to the disaster of 1940, when the bulk of French tanks were still held in independent light tank battalions intended for close support.

(ii) At the end of World War 1 France had three thousand light and heavy tanks. For the first time in 1932, French tested the viability of mechanised formation at Mailly Camp. Its success encouraged General Weygand to establish a new “Type 32” light cavalry division. This comprised a mechanised brigade of armoured cars and two mounted
brigades. Later four more cavalry divisions were modified, and three remained in this form when war came in 1940.

25. Germany

(a) Germans were last to conceive the idea of mechanised forces. However, they proved ahead of others in welding together the various elements necessary to form an effective armoured force and in exploiting its potential of striking power and mobility.

(b) Three panzer divisions were created in October 1935; each was based on a tank brigade backed by an infantry brigade.

(c) Three more panzer divisions were created in 1938 and 1939, and had a rifle brigade with two battalions while in the first three divisions the motorised rifle regiment was expanded from two to three battalions.

(d) Four more panzer divisions were created in 1939. Thus, on the eve of the 1940 French Campaign, there were ten panzer divisions available with a total of thirty-five tank battalions.

26. USA

(a) Only three tank battalions were in the field when the Armistice of 1918 intervened and shortly after the war, the independent Tank Corp was abolished. Under the 1920 National Defence Act, tanks became an integral and subsidiary part of infantry.

(b) Under these conditions little progress towards mechanisation was possible. In 1932, after experiments, 7th Cavalry Brigade was called into being but this did not become effective until late thirties. However by 1939 the Brigade was complete. The role envisaged at the time for the brigade was a mechanised form of traditional and military cavalry role of exploitation, raid on enemy flanks and rear and so on. Just after the 1940 French Campaign US armoured force was created.

27. Soviet Union

(a) The development of Soviet armoured formations started in early thirties. It was then that Soviet Union began to build its tank strength and to expand its armoured forces beyond the few units it hitherto possessed. The Russians initially allotted one light tank battalion to each regular infantry division. Tanks brigade equipped with light, medium and heavy tanks were also created, for infantry support at the higher level of corps or army. In addition to the other armoured units, Red Army also formed independent mechanised brigade, whose role became that of
mechanised strategic cavalry.

(b) Russians also formed the mechanised corps in 1932 which had two to three mechanised brigades, each with it’ 100 odd tanks together with motorised infantry brigade and a large motorised field artillery regiment.

**PART III**

**INTERESTS AND STRATEGIES OF ALLIES DURING WORLD WAR II**

28. **General.** The three partners, USA, UK and USSR were faced with the common enemy, Germany. The strategies evolved were the result of changing pressure and circumstances in the global war. Each power in the Grand Alliance fought the war according to its own politico-military system. Each had its own, interests, often conflicting with other’s, which kept changing due to the changing circumstances and to achieve the desired results. USA and UK formed the basis of alliance whereas their strategic decisions were often conveyed to USSR in general terms.

29. **Formative Era- Early Stages Of War**

(a) **UK’s Strategy of Periphery and Her Interests.** Entering the war against Germany after fall of France in 1940, UK could make use of her economy and resources to counter any change in the balance of power in the European Continent. As the time progressed it became evident that she could not hold fast against the German onslaught. Cashing the America’s interest in the region, UK formed alliance with USA to defeat Germany. This partnership was the inner hub of the Grand Alliance. UK’s vital interest was the retention of its vast colonial empire and for this she had to keep sea-lanes opens. Japan was the major threat to her interests in Southeast Asia. To protect her interests in the Pacific, UK needed supplies from America to stay in the war because of her small economy. To defeat Germany, Britain emphasized on the strategy of periphery, which aimed at hitting the German interests around the edges of the continent, gradually weakening it and eventually striking at the heart of Germany. This was conceived to be done with the blockade, bombing, propaganda, and support of the occupied countries, subversive activities and the rise of locals against German occupation. The emphasis would be on mobile, hard hitting armoured forces operating on the periphery of German controlled territory rather than the direct confrontation with Germany. The process was to start with ‘Operation Torch’.

(b) **USA’s Strategy of Mass and Concentration and Her Interests.** Because of the USA’s interests in the Pacific, Japan was the natural enemy rather than Germany. In the Grand Alliance, USA was given the main responsibility of war against Japan, and to defeat Japan it was necessary to defeat Germany first, thereby bringing speedy end to the war. The American emphasized
on the strategy of “Mass and Concentration” to defeat Germany. This strategy aimed at hitting Germany directly and swiftly adopting cross channel approach, which coincided with the interests of Russia. President Roosevelt, influenced by Churchill, made the decision to launch the Operation Torch, over-ruling the military considerations of his military staff. The decision resulted from two basic factors, Roosevelt’s insistence on action of American ground forces against Germany in 1942 and refusal of Churchill to accept Bolero (Cross Channel approach). On the other hand, Soviets showed their disapproval of Torch because of obvious reasons but gradually General Marshal pushed the circumstances for cross channel operation, where he could adopt the strategy of “Mass and Concentration”. The Anglo-American chiefs agreed to launch Overlord (Cross Channel operation) in the spring of 1944 in conjunction with Southern France operation under General Eisenhower.

(c) **Russian Strategy of Security and Expansionism.** The Soviets were faced with only enemy, Germany. They lacked air and navy but possessed enormous human resources and vast land. It had two hidden aspects of strategy, whether by intent or forced by the circumstances, the security of its territory and expansionism. To achieve first, it relied on its geography, where it gave away territory and even lives to gain time for the second. By adopting this strategy, Russia could achieve her ultimate objective of absorbing Eastern Europe. To achieve both strategic objectives, Soviets wanted opening of second front, thereby founding common grounds with USA in launching of ‘Operation Overlord’. But once it was delayed and instead Operation Torch launched, Soviets showed their disapproval of Anglo-American collaboration. In this period Churchill won to apply his theory of periphery approach, whereas the expectation of the Soviets for a second front did not meet.

30. **Mid War Period 1942-44.** This phase covering the mid war period down to the Normandy landing, reflects the offensive phase of coalition warfare. The period saw the development of America’s military might, Britain’s deteriorating economy, culmination point of Barbarosa and Russian strategy of expansionism. Following events had profound impact on the outcome of the war: -

(a) **International Conferences.** The international conferences held in Moscow, Tehran, Yalta and Potsdam reflect the divergent views and interests of the three big powers. The series of decisions reached at the international conferences of 1943, from Casablanca in January to Tehran in November reflected the compromises of the Americans and British between war of attrition and war of “Mass and Concentration”.

(b) **Shifting of Initiative.** This was the Period when power to determine strategy, time and space to fight war passed gradually from Axis to Allied.

(c) **Pacific Alternative.** War in the pacific gave a lever to USA to keep the
British demand of Operation Torch, (the Mediterranean issue) under control, because the Pacific alternative meant no Torch Operation. On the other hand, General Marshal could rightly assess that Mediterranean offensive could not be stopped without capture of Sicily and Italy to completely secure Mediterranean, which paved the way for Operation Torch.

(d) **Soviet Change of Strategy from Defensive to Offensive.** After Stalingrad, Soviets started showing their intent of expansionism, by having their presence felt in the alliance and demanding more strongly the opening of second front. In turn Russia promised to launch westward drive. In fact USA’s indication of launching Overlord gave incentive to Russia to fulfil their strategy of expansionism more strongly and forcefully.

(e) **Advance Through Balkans.** Keeping in view the complex political and sensitive nature of Balkans, no power in the alliance suggested adoption of this route of advance to defeat Germany. Moreover ground did not favour the operations through this region. Although a successful operation through Balkans might have reined Russian expansionist designs. Churchill only wanted raids, assistance for native population or using a few armoured divisions, but USA was clearly against this obsession, because of the ultimate cost and requirement of an operation in the Balkans.

(f) **American Power Drive.** This period shows the power-mindedness of the Americans, as Gordon Harrison said “To accuse America of mass production thinking is, only to accuse them of having mass-production economy and of recognising the military use of such an economy. The Americans were power-minded”. During 1942-44, USA managed to set the stage for their policy of Mass and Concentration. The target date for Overlord was to act as the pivot for the global war.

(g) **Shift in the Balance of Alliance.** Two major factors brought USA and USSR closer, the Russian position after Stalingrad and the deteriorating economy of the British. In fact it was here that the seeds of cold war were sown, and emergence of two super powers started, leaving Britain to trail behind.

31. **Final Phase of Allied Strategy.** Last nine months of war represent the problem of peace on the continent. Following were the major aspects of this phase: -

(a) **Russian Strategy of Expansionism.** Russian launched their drive westward to capture Berlin, Vienna, Prague and Balkans to fill in the vacuum left by the Germans. This showed the divergent aims and objectives of the allies.

(b) **The Strategy and Interest of USA.** The American interest during this period was to wrap up the business of war quickly from the continent and deal with Japan. On the other hand, America also wanted to put a stop to Russian advance which seemed unlimited. To achieve this, USA adopted the strategy of speedy operations to reach first to the heart of Germany before Russia. On the other hand,
General Eisenhower made the decisions basing on military considerations to end the war swiftly and with fewest casualties. It became more evident once he stopped at the Elbe River and did not take Berlin or Prague ahead of Soviets.

(c) **Divergence of Views on the Notion of Peace**

(i) **USA.** It wanted to withdraw troops within two years after the end of war and establish a new international organization to maintain peace.

(ii) **UK.** Since its economy was in bad shape so she thought it more appropriate to accept moderate Soviet demands applying the principle of sphere of influence.

(iii) **USSR.** Russia grew stronger after Stalingrad and started capturing the Eastern Europe till it reached Berlin. What it could not obtain through negotiations, it sought through unilateral action.

**Conclusion**

32. Development in the field of mobility and armament between the two world wars had decisive influence on the means and methods of waging war. Military thinkers of that era devoted enough of their time and studies in formulation of suitable doctrines to make optimum use of what all was coming to scene in technological side. The concepts evolved by the military thinkers like JFC Fuller and BH Liddell Hart were put into practice by the commanders on the field in an even better fashion e.g., the concept of strategic paralysis given by Liddell Hart was clothed by German General Heinz Guderian in form of Blitzkrieg – a way of war-making which still holds good in the doctrines of most of the modern armies.
PART-II

Nepal Tibet war 1791

Introduction

1. Nepal had enjoyed the unique position of premiership in trans-Himalayan trade in the later medieval and the early modern periods. Kantipur Valley (now Kathmandu) as an entry-pot has served as the centre of this highly lucrative trade. Besides this, Nepalese politics was also centred in Kantipur, reason being traditionally, Kantipur valley had served as the province of the elites, and even today, Kathmandu Politics is still the primary means of political expression. The ruling dynasties of Kathmandu in the past did control the route leading to two principal passes of Kuti and Kerung, which controlled the trans-Himalayan trade between South and East Asia. These two passes of Kuti and Kerung, had often been a cause of dispute between Nepal and Tibet from the medieval period to modern times. Kuti and Kerung passes reaching an elevation of 6000 ft., is located at Kodari and Rasuwa respectively. The control of these two border towns of Kuti and Kerung was important not only economically but also politically, therefore Nepal did try to control these two vital passes and extend her territory up to watershed. For this Nepal had fought three decisive wars with Tibet and China during the 18th and 19th centuries.

2. Historical Background. The present autonomous region of Tibet of People's Republic of China used to be called by name 'Bhota' since early period of our history. The name Bhota, is derived from Sanskrit expression for Tibet, is perhaps from the ward Boda (occurring in the coins of Kaniska, a Hindu King in Bharat Barsa). The name Tibet is Arabic from Tibetan expression for Tibet 'Toh Po' means upper Tibet. The history and politics of Nepal and Tibet have been rooted in and shaped by the distinct character of land and its people. During 1751 AD Fifth Dalai Lama ruled Tibet and was greatly influenced by the Manchu dynasty of China. Chinese Emperor Ch'ien Lung (1736-96 AD) had deputed two Chinese residents called Ambans to the Court of Dalai Lama in Lhasa.

3. Socio-Cultural and Religious Relations. The socio-cultural contacts between Nepal and Tibet have been long and intimate. This interaction benefited both the countries long and helped to develop sophisticated cultures of their own. It was primarily through Nepal that Tibetan people received Buddhist religion in ancient period. However, in the medieval period, Nepal was herself to receive a greater dose of Tantrick Buddhism from Tibet which affected almost every aspect of her life and practices. Such an intimate social and cultural relationship was codified into a political treaty in the seventeenth century. The Tibetan influence is also seen in dialects of Nepal in the Northern region. Modern Nepalese family names like Tsang Lama, Sherpa and Tamang reflect Tibetan origin probably were descendants of Tibetan who migrated to Nepal for food, shelter and fortune in the distant past. The impact of Nepalese culture in Tibetan monuments and epigraphs as well as the life style of the people were also significant. The growth of mercantilism in South and East
Asia, the emergence of a powerful kingdom of Tibet under Song-tsen Gampo and the rise of consolidated prosperous Nepal under Ansuvarma in the 7th Century constituted a watershed in Nepal-Tibet relations. The main link between two countries in religious aspects was through Buddhism.

4. **Political and Diplomatic Relation.** The socio-cultural contact did pave the way for the institutionalization of political and diplomatic relations between Nepal and Tibet in the 7th century A.D. Song-tsen Gampo, after ascending to throne of Lhasa in 630 A.D., he deputed his minister to Nepal asking King Ansuvarma for the hand of Princess Vrikuti. Ansuvarma sent his daughter to Song-tsen Gampo and with her went the Nepalese image of Aksobhya Buddha. Later on, Temple of Aksobhya Buddha was built in Tibet. The authenticity of this episode hinges over the identification of Ansuvarma with Gocha in the Tibetan chronicle, Ba-stan and Ladak chronicles. Nepal came into a more intimate political alliance with Tibet during the days of Lichhavi king Narendradeva. Tibet gave political asylum to Narendradeva and helped by providing military assistance. Thus Narendradeva was able to gain his throne. Although lots of controversies arise regarding the evidence of the above events, it would be sufficient for us to say that nature of political relations between Nepal and Tibet from 630 AD to 650 AD is still shrouded with mystery. It would be more proper to assert that Nepal during the first half of 7th century did offer her help in opening up a new venue of communication between south and East Asia across the great Himalayas.

5. **Economic Relations.** Trans-Himalayan route was taken into account to promote inter-regional trade between South and East Asia. Thus two countries were linked commercially and Nepal became the entry-pot for artefacts and ideas between South and East Asia. A new culture, naming as "mass culture" mainly physical massing of goods and intellectual messing of ideas began to grow and mature in Nepal. For trading purposes mainly Kerung and Kuti passes were used. The Nepalese traders even opened Kothis (shops) in Lhasa in the 17th century for export and imports of goods. Since 16th century Nepal acquired minting rights of coins known as "Mahendra Malli" (See Glossary of Terminology) which was a legal tender and medium of exchange in Tibet. Nepal used to exported food grains, in particular corn, rice, spices, and manufactured goods in exchange of mountain salt, wool, yak tails, sheep and goats.

**CAUSES OF NEPAL-TIBET WAR**

6. **Disputes on Debased Coins.** Since 16th Century the Malla rulers of Nepal valley had acquired minting rights for Tibet in exchange of bullions. Nepalese currency was legal tender and medium of exchange in Tibet. Accordingly, Nepalese coins known as Mahendra Malli" which had an undisputed guarantee of weight, values and fitness became the sole currency of Tibet for a long time. Last rulers of Malla rule in Kathmandu valley supplied inferior coins but continued to receive good and pure bullions from Tibet. Two factors, namely greed and the exigency of time paved the way for the loss of trust between the two governments. Firstly, the prospect of growing such by debasing currency took hold of Malla rulers. Thus practice of offering adulterated coins in exchange of pure bullions continued uninterrupted. Secondly, the exigency of time, merely, the need of finance a war with
Gorkha ruler had compelled Jaya Prakash Malla and Ranajit Malla, the last Malla rulers of Kathmandu valley, to adulterate their currency export to Tibet. Late King Prithivi Narayan Shah tried to solve the problem but Tibetan government showed unwillingness to accept Nepalese coins unless they get compensation for Tibet's financial loss. They refused to lower the exchange rate of debased old coins. They demanded one to one exchange between the debased old coins and new coins. An agreement was concluded on monetary question in August 1775 AD (BS 1832). Main provision of this treaty was to send gold & silver coins to Tibet according to specimen given by Tibetans. This treaty did not prove to be a lasting one, reason being that treaty was silent on two crucial issues, namely, the exchange rate of the debased Malla currency and the nature of trading structure that was to institutionalize the commercial relations between them regarding the exchange rate.

7. **Opening of New Trade Route.** The lure of trans-Himalayan trade was Lhasa. later on British India and Tibet were principal trading partners while Nepal formed the principle venue through which this trade was conducted. Firstly, Tibet rich in minerals like gold, rock salt, tinsel, coral, musk and wool made her a fertile ground for congregation of South Asian traders. Secondly, the policies of Tibetan government were favourable for trade and commerce. Nepal under Malla rule had given every encouragement for the promotion of the trade, such as levying moderate duties on goods and providing surplus manpower for the purpose of transportation. The emergence of Gorkha power and King Prithivi Narayan Shah's conquest of Kathmandu valley and its bid for creation of Greater Nepal set the stage for confrontation politics in central Himalayas. Thus the control of the central Himalayas became a necessity. The policy and attempt of Late King Prithivi Narayan Shah to open trans-Himalayan trade through Nepal was however intended to make his capital Kathmandu, the only entry-pot in the Himalayas, enjoying the monopoly of lucrative trade.

8. After the setting of new political climate in the 17th century East India Company was increasingly involved in trans-Himalayan trade politics. British perception of Tibet gave new dimension to trans-Himalayan trade. Firstly, Tibet used to pay all her imports to gold and the fact which the British thought was that Tibet could be used as a gateway to southern China for trade and commerce. Likewise, Bhutan too was involved in controlling trans-Himalayan route. Late King Prithivi Narayan Shah was able to use his physical powers as well as diplomatic skills simultaneously in an effort to obtain desired goal. Unfortunately, his premature death in 1775 AD brought an end to Nepal-Tibet negotiations for some years. The death of king Prithivi Narayan Shah brought a sing of relief in both British and Tibetan camps and hoped that the new administration of Nepal would be more cooperative in promotion of the trans-Himalayan trade. An agreement was concluded in August 1775 AD (BS 1832). As per the new treaty Tibet was supposed to close the eastern trade routes and conduct trade through Kerung and Kuti. An agreement of August 1775 AD (BS 1832). Although, new treaty was signed it did not last for long. To make the matters worse Tibet refused to stop circulation of old coins and went to extent of opening a new trade route via Sikkim to India in East, Which was a gross violation of the treaty of August 1775AD.

9. **Political Asylum Given by Nepal to Shamer Truluk.** The death of 3rd Panchen Lama during his good will visit to China and the quarrel between his two brothers Drungpa
Truluk and Shamer Truluk, over their property compelled Shamer Truluk to flee Tibet and to come to Nepal via Sikkim. Nepal gave political asylum to Shamer Truluk (other name was Shyamarpa Lama) along with his 14 followers, which brought a new wave of turmoil in trans-Himalayan politics. Bahadur Shah while taking a calculated risk in welcoming Tibetan political refugee leader was very optimistic about a new treaty on currency matters. Shamer on other hand hoped that he could use Nepal's help to have himself reinstated into regency council and even occupy the highest office of Panchen Lama. Bahadur Shah wrote a letter giving warning to attack if discords about the exchange rate of coins and trade were not sorted out amicably. Tibetan government rejected the Nepalese suggestions. After the failure of all diplomatic moves, Nepal decided to resort to war to fulfil its objectives.

10. **Change of Leadership in South-Asia**. Change of leadership in South-Asia introduced an element of political uncertainty during which a viable economies order in the Himalayas could not be worked out. In Tibet, the most powerful figure, the 3rd Panchen Lama had passé away. In Nepal, the power of the minor King Rana Bahadur Shah had fallen into the hands of his uncle Bahadur Shah, whose ideas of trade and commerce were different from that of late King Prithivi Narayan Shah. In British India, Warren Hasting was replaced by Charles Cornwallis who feared the East India Company's involvement in endless disputes with foreign power. These new political developments helped to shape the politics of physical confrontation in the Himalayas, which brought China and even to some extent British India into the conflicts.

11. **Exploitation of Internal Conflicts of Tibet by Nepal**. The troubled state of Tibet characterized by disorder and disunity provided a suitable occasion for Nepal to revive her traditional territorial and truly commercial interests in Tibet. In the first half of 17th century, Tibet became so weak due to her internal strife that King Ram Shah of Gorkha and King Pratap Malla of Kantipur exploited the opportunity and seized the major trade routes Kerung and Kuti respectively. Pratap Malla forced Tibetans to sign a commercial treaty, granting sufficient privileges to Newar merchants of Kantipur valley to trade in Lhasa, such as right to establish trading houses, entitled Kantipur King to post his representative there. Tibet was not to impose custom duties to Nepalese merchandise and had promised to make a token payment in gold and silver. The most substantial thing Nepal obtained by this treaty was her right to mint coins for Tibet.

12. **Expansion Program of Nepal**. The conquest of Kathmandu valley by 1769 AD under the Gorkha rule and its bid for the creation of the Greater Nepal set a stage for the period of confrontation politics in the central Himalayas for a period of half a decade. Two factors contributed to the introduction of this new political climate. First, the troubled state of Tibet, characterized by disorder and disunity provided a suitable occasion for Nepal to revive her traditional, territorial and commercial interests in Tibet and secondly, the control of central Himalayas became necessary if Nepal was to materialize her expansionist program.

13. **Ambition of Regent Bahadur Shah**. After the asylum of Shamarpa Lama in Nepal, Bahadur Shah, who seemed to be quite ambitious after his success in western unification campaign in western sector planned to exploit the situation in his favour. Reason being,
firstly, he was quite confident that his intimacy with Shamarpa would win support for religious sect in Tibet and would further facilitate trade and transaction. Secondly, as Shamarpa lama had stayed in China for some years and Bahadur Shah was confident that his political asylum will not create problem in maintaining friendly relation with China.

14. **Problems created in mint coins sending to Tibet.** Since the sixteenth century the Mallas of the Nepal valley had acquired minting right for Tibet in exchange for pure bullions. This trade was very profitable to Nepal. She was getting an opportunity to flourish. Accordingly, Nepalese coins known as "Mahendra Malli" which had an undisputed guarantee of weight, value, and fitness became the sole currency of Tibet for a long time. However, after the separation of Mallas, King Jayaparakash Malla and Ranjit Malla lost the trust of coin upon its quality. Thus, the Tibet discontinued the practice of offering pure bullions in exchange for adulterated coins. Prithivi Narayan Shah found himself in the middle of this knotty problem the moment he stepped into the shoes of the Mall rulers of the valley. He sent a group of representatives along with a proposal to start trade of minting again to Tibet. Tibet was no longer to accept the Nepalese coins unless the new Nepalese ruler could compensate Tibet's financial losses from adulterated coins during the Malla Period, though it did promise to guarantee the weight, value and fitness of all new coins. It was the national interest of both Nepal and Tibet.

15. **Nepal gave political asylum to Shyamarpa Lama.** The death of the third Panchen Lama during a good will visit to China and the quarrel between his two brothers, Drungpa Truluk and shamer Truluk (Shyamarpa Lama), over his property compelled Shyamarpa Lama to flee Tibet and to come to Nepal in 1788 with his 14 followers. The regent Bahadur Shah took a calculated risk in welcoming the Tibetan political refugee leader. This provided Nepal and opportune moment to intervene in the Tibetan internal politics. With Shyamarpa Lama, Bahadur Shah became optimistic of a new treaty on currency matter. The Regent sent a message to the Tibetan government, which hinted to future, Nepalese actions if the Tibet is not keen to resolve the currency and trade dispute. Tibet, however, was in no mood to listen to Nepalese demands. However, her reaction to the letter was direct and significant. First, the Kashag (Tibetan Cabinet) alerted the border districts to possible Nepalese invasion; and secondly, it sent a reply to the Nepalese letter placing the entire blame of the currency matter on Nepal herself.

16. **Tibet opened new Trans-Himalayan Trade route with East India Company.** As the second half of the eighteenth century began to unfold itself, the Company Government was increasingly involved in the Trans-Himalayan trade politics. Two factors helped to accentuate this process, political developments in the Himalayas and the British perception of Tibet. British perception of Tibet gave a new dimension to the Trans-Himalayan trade. Tibet assumed importance in the eyes of the East India Company not only because she paid all her imports in gold but also because the British thought that Tibet could be used as a gateway to Southern China for trade and commerce.

17. The failure of Kinloch's military expedition did not bring the British effort to open the Trans-Himalayan route to Tibet via Kathmandu to a close. However, two missions were
dispatched shortly for the purpose. The first was that of James Logan, who was due to visit Nepal during 1769-70. He carried with him two letters: one to Jayaprakash Malla and other to Prithivi Narayan and was given the discretion to decide according to circumstances which of the two letters was to be delivered. When Logan arrived in Kathamndu, Prithivi had already crowned himself as the monarch of the Nepal Valley. The British envoy attempted to negotiate a commercial treaty with the Prithivi Narayan but was unsuccessful.

18. Prithivi Narayan was able to use his physical powers as well as diplomatic skill simultaneously in and effort to obtain the desired goal. Unfortunately, his premature death in 1775 brought a sign relief in both the British and the Tibetan camps and hoped that the new administration of Nepal would be more cooperative in the promotion of the Trans-Himalayan trade. The Panchen Lama, with the hope of concluding a satisfactory trade and coinage pending between the two countries, wrote to Singha Pratap Shah, the new ruler of Nepal.

19. The Nepalese new administration responded immediately and directly. A group of Nepalese officials under the leadership of Rup Narayan Karki was deputed to the border town of Kuti, where he met the Tibetan counterpart Shelu Khenpo and Depon Padstal. An agreement was concluded on the monetary question in August 1775. This treaty, through it was a valuable legal document designed to regulate the commercial well-being between the two governments, was not strong enough to make its effect lasting and enduring. The reason since the treaty was silent on two crucial issues, namely the exchange rate of the debased Malla currency, and the nature of trading structure that was to institutionalize the commercial relation between the two states. To make the matters worse Tibet refused opening a new trade route in the East, which was a gross violation of the treaty of 1775.

20. Maltreatment of the Nepalese in Tibet. The maltreatment of the Nepalese traders in Tibet brought the relations between the two countries to a crisis. For several years the Tibetan government had been responsible for the gross injustices against the Nepalese merchants in Lhasa. The friction often flamed into actual hostility leading to the shedding of innocent blood. The victims of the Tibetan outrages were not only Nepalese domiciled in Tibet but also casual Nepalese tourists.

21. Chinese intention to help Tibet against Nepal. Chinese Emperor too decided to throw his weight behind the Tibetans. China decided to intervene in the Trans-Himalayan politics for two reasons: First, The Lame of Digarche, who was the spiritual father of the Emperor of China, had asked the court of Peking for assistance; and secondly, the conquest by the Gorkhali of Tashilhunpo, the capital of Tsang Province, put the defences of Lhasa at a stake, thus China was naturally drawn into this conflict.

NEPAL-TIBET WAR 1791-92 AD

22. Immediate Causes of War. After the war Tibet felt the lack of leadership and summoned the regent Ngawang Tsultren from Peking. He started a new gesture of friendship to Nepal by sending two officials. Nepal refused to negotiate with them and
demanded ministerial rank representative for talk. Representative of both sides met at Kuti but what actually happened there is difficult to assess as both sides have their own versions. The Nepalese sources claim that Tibetan made an unsuccessful attempt to capture Shamar Lama. Tibetan version asserts that Nepalese representatives attacked Tibetans. Whatever may be the truth in these two versions, both sides were not able to bury their differences. As per the treaty of 1789 AD, Tibet was supposed to pay Rs.50,000.00 annually. Tibet paid the sum timely to Nepal in the first year but refused to pay next year. After this embarrassing act of Tibet government, Nepal decided to attack on Tibet

**Preparation for War**

23. **Nepalese Side**

(a) **Collection of Intelligence.** All necessary info about Tibet was collected. Shamarpa Lama extended his valuable cooperation in this aspect.

(b) **Psychological Operations.** In order to win over the heart & minds of Shamarpa Lama's followers Bahadur Shah issued a directives to commanders of Nepalese troops not to attack and damage any Gumba (monastery) of Shakyas. He eve guaranteed the security of life of Tibetans if they would extend their support to Nepali forces.

(c) Nepalese troops were permitted to loot monasteries other than of Shakyas but was strictly prohibited to kill or terrorize those who surrendered. In order to raise the moral of troops they were told that the looted property would be distributed equally among them.

(d) **Recruitment.** Royal orders were proclaimed to join the army compulsory.

24. **Grouping and tasking**

(a) **Kuti Sector**

(i) **Main commanders.** Kazi Damodar pande, Bom Shah, Devadatta Thapa, Capt Jahar Singh Basnyat, Sardar Parbal Rana, Sardar Pratiman Rana, Taksari Nar Singh Gurung.

(ii) **Strength.** 4,000 troops.

(iii) **Task.** To advance along Kuti pass and capture area Digarcha.

(b) **Kerung Sector**

(i) **Main commanders.** Kazi Abhiman Singh Basnyat, Capt Kalu Pande, Sardar Jaswanta Bhandari and Sardar Ranjit Kunwar.

(ii) **Task.** To advance along Kerung pass and capture area Digarcha.
(c) **Kharta Sector**

(i) **Main commanders.** Subba Kirtiman Singh, Subba Puran Shahi, Subba padam Singh Basnyat, Subba Madhav Shahi.

(ii) **Task.** To advance from eastern side and capture area Kharta and finally join another group to capture Digarcha.

25. **Tibetan Side**

(a) Tibetan government initially planned for defensive battle.

(b) Tibet solicited Chinese assistance.

(c) Tibetan government later planned for offensive battle after conforming Chinese assistance.

(d) Establishment of combined force (Tibet & Chinese troops).

(i) Fu-Kang-an the Chinese General led 10,000 troops and further raised 3,000 troops as reserve and marched to drive Nepalese forces.

(ii) 10,000 troops under Kalon Horkhang, to advance along Kerung route.

(iii) 3,000 soldiers under Cheng Teh, to advance along Kuti route.

**Conduct of War**

26. In general, Nepal-Tibet -China War 1791-92 AD comprises mainly successful advances on the way towards Kuti, Kerung and Digarcha and the battle of Kuti, Kerung and Betrawati. Major offensive and advances while approaching towards Tibet were as follows:

(a) On August 6 1791 AD, Nepalese forces advanced toward Tibet. Nepalese troops under the command of Kazi Abhiman Singh Basnyat after fighting a fierce battle against Tibetan forces captures Jhunga. Capt. Kalu pande, Sardar Jaswant Bhandari and Sardar Ranjit Kunwar were the other brave commanders participated in that sector.

(b) Kazi Damodar Pande, Kazi Devdatta Thapa, Capt Bom Shah, Capt Jahar Singh Basnyat, Sardar Parabal Rana, Sardar Pratiman Rana and Taksari Nar Singh Gurung along with the troops advanced towards Digarcha along Kuti route. In Oct 1791, Nepalese troops mounted an attack on Digarcha. The main Lama fled to Lhasa. After a slight resistance, Digarcha was captured by Nepalese troops and demanded compensation of 50 dharnis of gold for the violation Treaty of 1789 AD. The Nepalese troops looted and captured large amount of money, gold and silver when their demands were rejected. At this juncture the Chinese emperor decided to
assist Tibet and to intervene in the trans-Himalayan politics. The Chinese Army being enraged by the religious and political crimes committed by Nepal, sent a large armed force to assist Tibet. The small Nepalese Army was ill prepared, ill equipped and of ill-health and hence was in no position to meet such show of Chinese strength. The Nepalese defenses crumbled down and the Army began to retreat rapidly until it came to Nuwakot, (13 kos or 26 miles) from Kathmandu.

(c) The third group led by Kazi Kirtiman Singh Basnyat, Subba Puran Shahi, Subba Padam Sing Basnyat and Subba Madhav Shahi advanced along Khoto route. This group fought against Tibetan forces at Cheer Baluwaa and captured it. This group advanced further and stationed at Tingri.

27. **Chinese involvement and Assistance in War.** The Tibetan government solicited military help from China. China backed Tibet government mainly for two reasons. Firstly, the Lama of Digarcha, who was spiritual father of Emperor of China, had requested the Court of Peking for assistance and secondly, the conquest by Gorkhali of Tashilhunpo, the capital of Tsan province, put the defences of Lhasa at the stake, thus China was naturally drawn into this conflict. The Chinese Emperor sent large Army of 70,000 men under his trusted general Fu-Kang-an to punish Gorkhali. This Army was divided into 2 division of 30,000 and 40,000 each. Likewise Tibetans raise 10,000 soldiers under leadership of Kalon Horkhang. Combined Chinese and Tibetan forces were divided into 2 group main portion of their forces under command of Fu-Kang-an and Kalon Horkhang was set to launch attack against Nepal through Kerung route. Another small contingent of 3,000 soldiers led by Chengte attacked through Kuti route.

28. **The Battle of Kuti Sector**

(a) First battle at Kuti took place in June 1792. Nepalese forces were stationed at Kharta. The combined forces and the Tibetans forces led by Cheng-the mounted attack against the Nepalese forces at Kuti and pushed them back.

(b) The Nepali force withdrew to Listi and took defensive position there. The combined and Tibetan forces also attracted them at Listi and gave them a severe defeat. They also suffered heavily.

(c) The Nepali forces withdrew to Nepal-Tibet border and took position there. But the combined forces because of their severe loss, did not attempt more to attack against the Nepali forces at their new position.

29. **The battle of Kerung Sector**

(a) The battle started in middle of June 1792 AD. About 6,000 Chinese and 6,000 Tibetan forces led by fu Kang-an and kalon horkhang moved towards Nepal.
(b) **Nepalese forces Deployment.** Main three forts of Kerung were defended by Nepali troops under the command of Tularam Pande, Shatrubhayan Malla and Udhab Khawas. Bhaskar Rana, Subedar Aagwa, Prabal Rana, Bharat Khawas and Ranakeswar Pande of Shree Nath coy. commanded Nepalese troops at Sraruk. Troops at Dhunche were under command of Kazi Damodar Pande.

(c) The combined Chinese and Tibetan forces defeated small contingent of Nepali Troops in the battle of Kurkurghat.

(d) Fierce battle raged for 5 days at forts of Kerung, where small contingent of Nepalese Troops could not withstand against combined forces. Nepalese Troops were forced to vacate these forts and withdrew to Rasuwa. On Nepalese side Shatrubhanjan Malla was seriously wounded whereas Tularam Pande died, Nepalese forces suffered the death of 200 soldiers while combined forces suffered death of 400 soldiers.

(e) After Capturing Kerung, combined forces advanced towards Rasuwa. Nepalese Troops gave a strong resistance at Syaprul on way to Rasuwa. Finally, Nepalese troops had to withdraw to Dhunche and joined with other forces led by Lazi Damodar Pande who shifted his forces to Dhaibung because of its better strategic position.

(f) Although combined forces kept on advancing by winning battle at different places but their condition began to deteriorate on account of their ignorance about topography and weather of Nepal lack of sufficient food, psychological blow of sheer distance, loss of man powers, overall this war inflicted a heavy toll on both sides.

(g) Chinese made a deceitful plan of inviting Bahadur shah for a negotiation in their camp and imprison him there till he agrees their conditions. As Bahadur Shah was well informed about the plot, he insisted them to come to Kathmandu. After the failure of diplomatic efforts, Chinese decided to move forward and continue their offensive.

30. **The Battle of Betrawati, 1792 AD**

(a) After being forced by the combined forces to withdraw from their forward defensive positions, Nepal government started planning for the final and conclusive battle against the combined forces and directed its military commanders of East and West to muster in Kathmandu with their forces. Nepalese final preparations were as follow:

(i) Nepalese Troops were divided in to different groups and deployed at different defensive positions under command of Sri Krishna Shah, Bom Shah, Kazi Abhiman Singh Bhasnyat, Kazi Dhaukal Singh Basnyat, and Satrughan Shahi.
(ii) 5x coys, took defensive positions at Chokde, commanded by Kazi Damodar Pande, Saradar Prabhat Rana, Saradar Parath Bhandari and Subba Jorabar Bogoti.

(iii) Second group took the defensive position at Lachyang commanded by Chautaria Krishna Shah, Chautaria Bom Shah, Kazi Naru Shah and Sadar Satrughan Shahi.

(iv) Third group took defensive position at Gorkha, commanded by Kazi Kritiman Singh Basnyat, Kazi Devdatta Thapa, Sardar Pratiman Rana, Sardar Jaswant Bhandari, and Kazi Bakhatwar Singh Basnyat

(v) This troops were supplied with the sufficient quality of guns, cannons, ammunitions and weapons.

(b) Chinese commander ordered troops to cross river Betrawati on August, 1792 AD. Initially Nepalese Commanders allowed many Chinese troops to cross the bridge. Later on Nepalese troops attacked suddenly from three directions when combined troops started climbing the hill. The combined forces could not with-stand against the attack and started fleeing. Nepalese troops even launched night attacks and inflicted heavy casualties against them.

(c) Chinese morale was high as they had been achieving success in brushing aside minor opposition on the way to Kathmandu. Although the combined forces were superior in number and even possessed a light artillery, Chinese commanders were compelled to ponder over the situation. As Chinese forces had suffered heavy casualties, mainly due to lack of knowledge about the terrain, deployment (river Betrawati was only possible to cross through a narrow bridge because of high flooding and strong current) and the adverse weather conditions. Combined forces opted for the talk for ending hostility. Thus, the crucial battle of Betrawati stopped combined forces' advance towards Kathmandu.

31. **British Involvement.** At that time British was a major power in South Asia. Both Nepal and Tibetan government approached East India Company for assistance in war. They were in difficult position; neither could they miss the opportunity to promote company's commercial prospects nor incur the hostility of China, which was certain, if they gave military assistance to Nepal. Likewise they could not even let the China occupy Nepal, which might result in frequent border clashes with China. Therefore Lord Cornwallis decided to remain neutral and chose political mediation as the best course and sent Capt. Kirkpatrick (one-man mission) to Nepal to act as mediator in an effort to end the hostilities. But the real motive was to oblige Nepal so that her territory could be use as a convenient route to promote trade between Tibet and Bengal and to establish English representative in Kathmandu to look after the English trading interests.

**LESSON LEARNT FROM NEPAL-TIBET WAR**
32. **Collection and Updating of Intelligence.** In order to be successful in war detailed preparations and planning is required. Therefore, detailed and accurate information about enemy, topography of possible battle field and effects of climate and weather is very much important. Nepal could get important and reliable intelligence from own representative in Lhasa, information gathered by the delegates of Quinquennial mission and even sometimes sending clandestine team to gain and confirm information were very fruitful. Timely information helped in adjustment and reinforcements of forces during the third war. Spies were mobilized to get information about the forts, tactics of enemy's army, strength of list forces and local situation of the adversary. Even agents were used to bribe enemy's commanders and other officials to win their favour.

33. **Evaluation of Enemy.** Estimation of enemy capabilities is very crucial to determine own courses of action which has to be duly analyzed. Nepal could not visualize this in second war with the Tibet and China and also during the third war in Kuti sector. During the third war, China was suffering from internal conflicts, while British and Russian were engaged in Crimean war. Nepalese leaders were aware of the situation that none of the big powers could assist Tibet. Realizing the fact, Nepal launched war against Tibet in a favourable situation and gained victory.

34. **Psychological Operations and Propaganda.** Though the impacts were not known the propaganda and psychological operations conducted by both the countries, had some effects. Propaganda of more strength than actual projection of significant capabilities, acts of barbarism, no harm to those who collaborates was the theme.

35. **Diplomatic Relations.** Nepalese leaders were able to convince then East India Company, over the causes and needs of the war. Appropriate diplomatic, political and economic relations have to be maintained in order to solicit support of neighbouring countries. They may not be completely reliable too. Therefore, study and correct anticipation of neighbouring states' attitude and situation has to be done.

36. **Offensive and Counter Offensive.** From the beginning of every war, Nepal was always in offensive. When Tibetans started counter offensive after regrouping and preparation Nepal had to fall back. During the second war, Nepal had to fall back till Betrawati. Finally, Nepalese forces offensive actions compelled the Chinese to come to the negotiating table. Therefore, armed forces have to be prepared for all eventualities like, defend, delay and retrograde.

37. **Surprise and Deception.** Speed in action, exploiting adverse weather condition, use multidirectional attack, misleading the enemy by various unconventional methods while defending at Dhaibung were very fruitful. Tibetans were surprised when Nepalese soldiers infiltrated into the Jhunga fort in the disguise of porters and plain traders and were successful in helping the main forces to capture it. The Tibetans attempts for peace talk and simultaneous preparation for major offensive against Nepalese these main defences during the third war was a surprise to Nepalese forces.
38. **Communication.** The reliable and quick means of communication is very important as the messages from the front to the headquarters as well as the orders from the headquarters to the front can reach quickly, such an arrangement helps a lot in the war. In 1856 AD Nepal-Tibet War, Nepal could send reinforcements immediately to besiege Nepalese forces in Tibet because the former received information in time. A good and reliable transportation arrangement is equally important in war for the ferrying of arms, ammunitions, clothing, casualty evacuation etc. During Nepal-Tibet war, animals and porters were used. Postal systems were run by horse riders and on foot.

39. **Logistics and Administration.** Mostly Nepalese forces once reached to a certain point, they could not maintain their advance further due to difficulty in logistics support. Due to the limited axes of maintenance and adverse climate and weather in the high mountains supply could continue for limited period only. Provision of arms/ammunition, food, clothes, and equipment needed longer time and more funds too. In this regard Nepalese troops could maintain safer lines of communication from Kathmandu to the battle front by protecting it in vulnerable areas.

40. **Public Perception.** Favourable public opinion is an important factor to fight a successful and sustained war. It was timely realized by Jang Bahadur. He decided to negotiate rather then to continue the war due to deteriorating economy and unsympathetic public opinions at home country. He consulted with his bhardars and commanders and solicits their opinions as well as knowing popular support for the war or its alternative.

41. **Firm Base.** A strong firm base, from where the further offensives can be launched in quicker and safer ways, is very essential in mountainous offensives. It was also applied during this war as the Jhunga was captured and heavily safe guarded prior to launch deep operations. Jhunga was termed as jumping board to the Nepalese attacking troops.

42. over disorganized, decentralized and confused enemy. Then military leaders like Kazi Damodar Pande, Kazi Abhiman Singh Basnet, Kazi Bom Shah, Gen Dhir Shamser etc. were under benevolent patronage of Bahadur Shah and Jung Bahadur Rana were lively sons of Nepal. Their art of 'leading the troops from the front' was one of the major factor of success in Nepal Tibet wars. Jung Bahadur Rana used to deliver routine morale boosting speeches to the troops in field, which bolstered the morale of troops, aspiring them to sustain the tough war of the time.

43. **Reserve and Reinforcements.** Recruitment for reconstituting reserves was fruitful during the third war. Correct positioning and timely employment of reserve was also a critical factor in winning and loosing battle during the second and third wars.

44. After detail analysis of the different war fought with Tibet, we can defeat our enemy, if we pay more attention to following points:

   (a) Gain the information about enemy.
   (b) Know the knowledge about enemy's moral.
   (c) Make plans about those important places where major offensive to be launched.
(d) Motivate the troops.
(e) Boost up the moral of troops by providing facilities as much as we can.
(f) Make deception plan to deceive the enemy.

CONCLUSION

45. Nepal's policy towards Tibet had always been commercial rather than political. It was a traditional policy of Nepal to close Sikkim route to Tibet, so that the trade between India and Tibet could pass only through the Nepalese territory. Therefore, in order to monopolize the commercial potentialities of Tibet, Nepal fought wars with Tibet with a view of establishing control over the two border passes. However, the historic ambition of Nepal could not materialize due to Chinese interference in the Himalayan politics. After 1792 AD, Nepal adopted another strategy to safeguard her interests in Tibet that was the dispatching of Quinquennial mission to China and joining hands with the Amban to protect the Chinese suzerainty over Tibet. Nepal neither ventured to annex the strategic border passes nor raised the question of minting rights in Tibet, because of the unfavourable attitude of China. When China was embroiled in her internal crises, Jung Bahadur Rana exploited the situation and declared war on Tibet and forces to sign a dictated Treaty. After 1856 AD, the main goal of Nepal's policy toward Tibet had been to defend the rights and privileges obtained by the Thapathali treaty. Nepal, in order to protect her interests, professed allegiance to the Chinese Emperor, sent Quinquennial Missions and always kept good relations with Amban. It was the opinion of Nepal that certain amount of Chinese influence in Tibet would help her to enjoy her extraterritorial rights there. It was also the policy of Nepal up to, the last quarter of the 19th century to balance to power of the British to get against the Chinese.

46. Tibet, except for a brief period remained under nominal Chinese suzerainty. China always tried to keep Tibet under her grip therefore; she wanted Tibet to remain as a weak power. China therefore always came forward, whenever attacked by Nepal. The Second Nepal-Tibet war can be cited as an Example. Tibet too was never in favour of remaining under Chinese domination and had attempted on many occasions to regain full sovereignty, but had always courted disappointments. Tibet did not want that Nepal and China should come into closer contacts. It was the common belief of the Tibetans that Nepal wanted to see China strong in Tibet in order to play China off against the British. The Tibetans had taken the Treaty of 1856 AD as a forced treaty and reacted against it on many times, which virtually led both sides on brink of war also. There was also a game of Tibet to create disunity between Nepal and China; on the contrary Nepal and China wanted to dominate the Tibetans affairs respecting each other's interests. Thus, Nepal was an important factor in determining the Chinese policy towards Tibet. In the beginning of 20th century, when British appeared on the political horizon of Tibet, neither Nepal nor China could continue their traditional policies. In order to cope up with complicated situation they had to encounter each other in one of other way.
ANGLO NEPAL WAR(1814-1816)

Introduction

1. The Anglo-Nepalese War (1814 — 1816), was fought between Nepal and the British East India Company as a result of border tensions and ambitious expansionism tussle of interest of both the sides. When Nepal was on its expansion process at that time, British had almost colonized India and they were seeking chance into Nepal also. At that time, the border between Nepal and East India was not well marked and a number of border disputes existed. Among them, East India Company started to claim Seoraj and Butwal belong to them and also put an ultimatum to vacate within 25 days. However, Nepal did not vacate the disputed lands as per ultimatum given by British India Company. So, the magistrate of Gorakhpur sent force to capture the disputed lands Seoraj and Butwal on April 1814. But after a few days, Nepali troops were sent from Palpa to recapture Seoraj and Butwal. Nepali troops recaptured the land and evicted British East India company troops from that place. This became an immediate reason to British India Company to fight against Nepal. The governor general of East India Company formally declared war against Nepal on 1st November 1814. The war ended with the signing of the Treaty of Sugauli in 1816.

Geo-political situation on the eve of war

2. In the beginning of 17th century, British East India Company opened its factories in south India, especially in Surat and Bombay in the west and Madras in the east. By the end of 17th century, Company had opened its training centers in Calcutta as well. East India Company got constant harassment from the Indians in their training activities. As a result of which, British government felt the need of their own security agency in India for smooth and free conduct of their economic activities. Newly formed Army of East India Company defeated the army of Nawab of Bengal in the battle of Pallassy in 1757 AD. With the help of that army, East India Company was able to spread their influence in Bihar and other places of India. Lord Wallesley’s “Subsidiary Alliance System (1798A.D.)” spread the influence of East India Company in may parts of India as a result of which by the beginning of 19 century East India Company had its direct control over Delhi, Auth, Bihar and Bengal in the north, Maysor, Karnataka, Haidarabad and Madras in the south and Ceylon. States of njab, Rajputana, Gwalior, Indor and Nagpur were independent. Gorkhali forces under the leadership of king Prithvi Narayan Shah captured the three Malla’s states of Kathmandu valley. During the regency of Bahadur Shah, Gorkhali troops captured the Chaubise states between rivers Kali Gandaki and Bheri from 1784 AD by the end of 1786. From 1786 to 1790 AD, Gorkhali troop extended boundaries up to the river Mahakali. In 1790 AD, they crossed the river Mahakali and by 1791 AD, crossed river Sutlej and in 1806 AD and seized the fort of Kangada. East India Company felt threat from the rise of Gorkhali power under the leadership of king Prithvi Narayan Shah. Hence, with a view to crush the rising Gorkhali. Geo-political Situation on the eve of War Company dispatched captain Kinloch’s expedition to Nepal in 1767 AD, but this British expedition was badly defeated by newly formed Gorkha Army. When the British side realized the might of Prithvi Narayan Shah, they tried to peruse Prithvi Narayan Shah for friendly relation through many British
missions. In this connection James Logan’s mission was dispatched to Nepal in 1770, likewise another mission under command of Foxcroft was sent in 1784. Another significant mission was Kirkpatrick’s mission in 1791, Abdul Quadir mission in 1795 and Captain Knox’s mission in 1801 but all these missions failed because of the great distrust of the Nepalese side. East India Company was now convinced that their grand design in Nepal cannot be fulfilled by peaceful means. “They now had started to think to use force for compelling Nepal accepts British proposals”. Nepal could have prevented the war by diplomatic efforts, but “the weakest side of Nepal at that time was it did not even tried to develop a diplomatic reltions with the neighboring and other countries”

**Causes of War**

3. For centuries the three kingdoms of the Kathmandu valley, Kathmandu, Patan and Bhadgaon, (now Bhaktapur) had quarrelled amongst themselves and were too concerned with internal rivalry to pay attention to any potential danger from without. This insularity had by 1769 enabled Prithvi Narayan Shah, the king of Gorkha, to conquer the valley, forming the foundations for the modern Kingdom of Nepal. In 1767, a request to the British for help by the traditional valley kings under threat from Gorkha expansion resulted in an ill-equipped and ill-prepared expedition numbering 2,500 led by Captain Kinloch. The expedition was a disaster; the Gorkha army easily overpowered those who had not succumbed to malaria or desertion. This ineffectual British force provided the Gorkhas with firearms and filled them with suspicion, causing some to underestimate their future opponents. This conquest of the Kathmandu valley was only the beginning of an explosion of Gorkha power throughout the region. The Gorkha armies had overrun all of eastern Nepal by 1773. By 1788 Gorkha forces had also annexed some western portions of Sikkim. In the west, all rulers as far as the Kali River had submitted or been replaced by 1790. Farther west still, the Kumaon region and its capital Almora had also succumbed to the Gorkhas.

**The main causes of the war**

4. Though the war between Nepal and East India Company seemed to be started due to border problem in Butwwal and Seoraj, but ther were also a numbe of underlying causes. The main causes of the war were as follows:

(a) The policy of expansionism of the East India Company and Nepal.

(b) The growing military power of Nepal which could be dangerous for the East India Company.

(c) The refusal and distrust of the rulers of Nepal to establish any sort of British Missions East India Company.

(d) British East India Company’s commercial interests in Indian sub continent.
(e) The extensive natural resources on which the East India Company wanted to get hold.

(f) The aim of the East India Company to increase its influence in Tibet and China via land of Nepal.

(g) The territorial disputes between East India Company and Nepal.

(h) Self over estimation of both the powers.

(i) Failure of diplomacy.

(j) The successful unification campaign of Nepal which was likely to pose threat in the area of interest of the British East India Company.

(k) Strategic interests and objectives of East India Company.” By 1814, Mona’s aims had been crystallized as three folds: show a big victory against the Gorkhas so as to indirectly convey the message of British supremacy in India”

(l) To secure its position in Indian Sub continent. To secure smooth flow of Trans Himalayan trade.

(m) Get hold of some of the important hill stations.

(n) Dominate Nepal for future hegemony in the region.

(o) Exploit natural and human resources of Nepal.

**Immediate Causes of War**

5. Border dispute in Seoraj and Butwal was the main immediate cause of the war. In 1804 AD, when Nepalese troops captured Palpa, they also captured its lowlands of Butwal and Seoraj. The Governor General of East India Company proposed to give Seoraj to Nepal and take back Butwal. East India Company proposed for joint commission to investigate the whole border issue. Both the sides claimed their rights to those disputed areas with their proofs. In March 1814, Border commission was formed to solve the border conflicts of those areas. This issue was discussed in Nepal durbar. During this discussion opinion of the Bhardars was divided. Amar Singh Thapa and Bhimsen Thapa were not in favor of returning the disputed land to East India Company. East India Company in March 1814 gave an ultimatum to Nepal in which they demanded to vacate those areas within 25 days. The Magistrate of Gorakhpur ordered seventh company of native infantry to capture Butwal. In these action, sixteen Nepalese soldiers were killed but due to adverse weather condition, East India troops returned back soon keeping a small security post there. Nepal decided to take back that area by force. In 1814 AD, Nepalese troops under the command of Munraj Faujdar attacked British police force, killed eighteen soldiers and recaptured
Butwal. “The problem could have been solved, and the war could have been avoided, had not the dispute been merely symptomatic of a far larger problem”

**Anglo Nepal War and its effects**

6. **Campaign in Western Front:** While the Gorkhas had been expanding their empire into Sikkim in the east, Kumaon and Garhwal in the west and into the British sphere of influence in Oudh in the south, the British East India Company had consolidated its position in India from its main bases of Calcutta, Madras and Bombay. This British expansion had already been resisted in parts of India, culminating in the Mahratta Wars, as well as in the Punjab where Ranjit Singh had his own empire-building aspirations. It was therefore imperative to the British that the Gorkha war was quickly and successfully concluded. When the Kathmandu durbar solicited Gorkha chiefs’ opinions about a possible war with the British, Amar Singh was not alone in his opposition, declaring that “They will not rest satisfied without establishing their own power and authority, and will unite with the hill rajas, whom we have dispossessed.” This contrasts sharply with the prime minister Bhimsen Thapa—“Our hills and fastness are formed by the hand of God, and are impregnable.” The Gorkha prime minister realised the Nepalese had several advantages over the British including knowledge of the region and recent experience fighting in the mountainous terrain. However, the British had numerical superiority and far more modern weapons.

(a) **First campaign:** The initial British campaign was an attack on two fronts across a frontier of more than 1,500km (930 miles). In the eastern front, Major-General Bennet Marley and Major-General John Sullivan Wood led their respective columns across the Tarai towards the heart of the valley of Kathmandu. Further east, on the Sikkim border, Captain Latter led a small force in a primarily defensive role. Major-General Rollo Gillespie and Colonel David Ochterlony commanded the two columns in the western front. These columns were pitted against the cream of the Gorkha army under the command of Amar Singh Thapa. All four columns were composed mainly of Indian troops, though Ochterlony’s was the only column without a single British infantry battalion. The Commander-in-Chief of the British forces was Lord Moira. The campaign started badly for the British. A day before the Governor-General officially declared war on 1 November 1814, General Gillespie had been killed trying to take the defended fort at Kalanga at the Battle of Nalapani. In the interval before Gillespie’s successor Major-General Gabriel Martindell took over command, Colonel Sebright Mawby managed to take Kalanga by cutting off its water supplies. Soon after Martindell arrived however, the British suffered further setbacks at the hands of Ranjur Singh Thapa (Amar Singh Thapa’s son), at the Battle of Jaithak. Martindell eventually reduced Jaithak to rubble with his guns but, even with vastly superior numbers, he failed to occupy it for fear of counter-attack. Major-General Sir David Ochterlony, (1758-1825) by A. W. Devis. Ochterlony was reluctant to go to war. The generals in the east mirrored this pusillanimity, with both Wood and Marley reluctant to face the enemy. After two attempts to advance on
Butwal, Wood, with superior numbers, feebly retreated and took up a defensive posture at Gorakhpur. His compatriot, Major-General Marley, whose 8,000 strong force was supposed to provide the main striking force on Kathmandu, showed even more timidity. After his advance posts at Samanpore and Persa were wiped out due to lack of support, he was reduced to abject inactivity and, on 10 February 1815, deserted, unable to endure the irksomeness of his situation and took the sudden and extraordinary resolution in leaving the camp”. The company’s hopes now rested on the abilities of Colonel Ochterlony’s force of around 10,000 troops. Unlike the other generals, Ochterlony showed determination, skill and an ability to adapt to the circumstances. Although there were no initial decisive encounters, Ochterlony slowly pushed Amar Singh’s army higher and higher into the mountains until, in April 1815, the Gorkha general had been forced back into his main fort at Malaun. The ensuing Battle of Deauthal was decisive. Attempts by Amar Singh’s most able lieutenant, Bhakti Thapa, to dislodge the British from the Dionthal ridge overlooking the Malaun fort failed. Although Bhakti Thapa was killed in the action on 16 April, the fort held out for a while. However, when news arrived announcing that Almora had fallen to Colonel Jasper Nicolls’ 2,000 strong force of regular sepoys on 26 April, Amar Singh Thapa realized the hopelessness of the situation and, threatened by the British guns, surrendered. In recognition of their heroic defences of their respective forts of Malaun and Jaithak, Ochterlony allowed Amar Singh and his son Ranjur (who had joined him at Malaun) to return home with their arms and men. During the campaign Ochterlony was promoted to major general.

(b) **Second campaign**: After Ochterlony’s successful campaign in western theater, the Kathmandu durbar failed to ratify the peace agreement signed on 28 November 1815. This reticence to sign soon led to the second campaign. Unsurprisingly, Lord Moira placed Ochterlony in command of the 20,000 strong invasion force of Nepal. While General Ochterlony advanced towards Makwanpur, simultaneous operations by the chogyal (king) of Sikkim drove the Nepalese army from the east. Amar Singh Thapa took no part in the campaign — he had retired to a temple, and died shortly after the war ended. After the decisive Battle of Makwanpur on 28 February 1816 and the fall of the neighbouring fort of Hariharpur (after Ranjur Singh abandoned his post), the situation became very critical for Nepal. The British threat to the capital Kathmandu compelled the Nepalese to ratify the treaty without any further delay.

(c) **Effects of War**: The Treaty of Sugauli 4 March 1816. It suited Ochterlony to bring the campaign to a speedy conclusion because of the approach of the dreaded aul-fever season but also because a number of his European troops were suffering from dysentery.

7. **Levels of War**: The levels of war are doctrinal perspectives that clarify the links between strategic objectives and tactical actions. Although there are no finite limits or boundaries between them, the three levels are strategic, operational and tactical. Understanding the interdependent relationship of all three helps commanders visualize a
logical flow of operations, allocate resources, and assign tasks. Actions within the three levels are not associated with a particular command level, unit size, equipment type, or force or component type. Instead, actions are defined as strategic, operational, or tactical based on their effect or contribution to achieving strategic, operational, or tactical objectives.

(a) **The strategic Level**: The strategic level is that level at which a nation, often as one of a group of nations, determines national and multinational security objectives and guidance and develops and uses national resources to accomplish them. Strategy is the art and science of developing and employing armed forces and other instruments of national power in a synchronized fashion to secure national or multinational objectives. The National security council translate policy into national strategic military objectives. These national strategic objectives facilitate theater strategic planning. Military strategy, derived from policy, is the basis for all operations. In other hand it is a combine strategy of political and military objective in order to achieve a strategic goal of the state.

(b) **The operational Level**: The operational level of war is the level at which campaigns and major operations are conducted and sustained to accomplish strategic objectives within theaters or areas of operations (AOs). It links the tactical employment of forces to strategic objectives. The focus at this level is on operational art, the use of military forces to achieve strategic goals through the design, organization, integration, and conduct of theater strategies, campaigns, major operations, and battles.

**Conclusion**

8. Operational art is translated into operation plans through operational design. A well-designed plan and successfully executed operation shape the situation for tactical actions. Executed skillfully, a good plan increases the chances of tactical success. It does this by creating advantages for friendly forces and disadvantages for the enemy. A flexible plan gives tactical commanders freedom to seize opportunities or react effectively to unforeseen enemy actions and capabilities. Flexible execution maintains the operational initiative and maximizes tactical opportunities. During the Anglo Nepal War the commanders of western front shows the well design tactical plan and successfully executed the operation in order to support the campaign as a whole. Also from the different definition that we have deal before it clearly depicted that in operation level at which campaign and major operation are conducted and sustained to accomplished strategic objective with in the theaters or areas of operations. From these theoretical aspect we can reveal that the major battles that was fought during the Anglo Nepal War (1814-1816) can be correlated as a campaign for sustain to accomplished the strategic level objective with in the area of operation. The major battles and campaign which was fought by tactical commander employed the level of forces to get the combine political and strategic objective.
"When the dive-bombers came down, they (the French) stood it for two hours and then ran with their hands over their ears."

"Sedan fell as a result of a bombardment..........it was a superb example of military surprise."

"The pace is too fast......it's the co-operation between the dive-bombers and the tanks that is winning the war for Germany."

"News that the Germans are in Amiens..........this is like some ridiculous nightmare."

(Excerpts from a diary of a French Soldier)

**Introduction**

1. The foundation of mobile warfare has its roots in ancient and medieval world. The German Army, late in World War I developed basic tactics that eventually evolved into modern mobile warfare. Germans developed these tactics in an attempt to overcome the static trench warfare on the Western Front. Elite “Storm troops” infantry units were created to attack enemy positions using the momentum of speed and surprise but eventually failed because of the lack of mobility and support needed in order to continue advancing further into enemy controlled territory. During 1920s, British military philosophers Captain Sir Basil Liddell Hart, General J.F.C. Fuller and General Martell further developed tactics of mobile warfare. They all postulated that tanks not only seize ground by brute strength, but could also be the central factor in a new strategy of warfare. If moved rapidly enough, concentrations of tanks could smash through enemy lines and into the enemy's rear, destroying supplies and artillery positions and decreasing the enemy's will to resist. All of them found tank to be an ultimate weapon able to penetrate deep into enemy territory followed by infantry and supported by artillery and air force. In late 1920s and early 1930s, Charles De Gaulle, Hans von Seekt, Heinz Guderian and many others became interested in the concept of mobile warfare and tried to implement it in an organizational structure of their armies. Heinz Guderian organized Panzers into self-contained Panzer Divisions working with the close support of infantry, motorized infantry, artillery and air force. From 1933 to 1939, Germany was on a quest to fully mechanize its army for an upcoming conflict.

2. German High Command used Spanish Civil War (1936-38) as a testing ground for newly developed tactics, which proved to be a formidable combination of land and air action. In September 1939, Germany invaded Poland using mechanized ground forces working with the close support of the air force to breakthrough and penetrated deep behind Polish lines of defence. In May 1940, during the invasion of the Low Countries and France, the Germans once again used same tactics (including the use of paratroops) to shock and disorganize the defenders. At the time when Britain was being heavily attacked by German Air Force, the British media first used the word “Blitzkrieg”, the “Lightning
War”. From October 1940 to March of 1941, Germans conquered Balkans using the same proven tactics. When in June 1941, Germany invaded Russia, tactics of blitzkrieg allowed them to reach the outskirts of Moscow in December 1941. Blitzkrieg was also implemented with great success by Erwin Rommel in North Africa.

3 At the same time, potential of blitzkrieg and related tactics was fully appreciated by the Allies, who implemented this tactics on all fronts. US Army General George Patton used blitzkrieg and mobile warfare tactics in his European operations of 1944. After World War II, blitzkrieg and mobile warfare developed by the Germans were used by Israeli forces during their numerous conflicts with the Arab Nations as well as by American Forces during the Operation “Desert Storm”. The revolutionary tactics of blitzkrieg and mobile warfare developed during World War II formed a base for future development of weaponry and warfare.

Aim

4. To carry out an in depth analysis of the concept of “Blitzkrieg” with particular reference to following:-

   (a) Evolution of the concept.
   (b) Its practical manifestation in Poland, France and Russia.
   (c) Its relationship with and influence on the development of the American concept of “Air-Land Battle” and the Soviet doctrine of “Deep Penetration”.

Sequence

5. The paper unfolds itself as under:-

   (a) **Part – I.** Evolution of the Concept.

   (b) **Part – II.** Practical Manifestation of the Concept in:-

      (i) Invasion of Poland.
      (ii) Invasion of France.
      (iii) Operation Barbarossa.

   (c) **Part – III.** Relationship with and Influence on:-

      (i) US Concept of “Air-Land Battle”.
      (ii) Soviet Doctrine of “Deep Penetration”.
PART – I – EVOLUTION OF THE CONCEPT

Background

6. **General.** During First World War the bullet, spade and wire (obstacle) made the fronts static. To restore the mobility a number of methods were tried. The tank made its appearance towards the end of First World War during the battle of Somme. Though it did not significantly effect the out come of the war, but it was able to create panic in defences and achieve surprise. Thereafter, at the battle of Cambrai on November 21st, 1917, the tank proved its effectiveness in the first major tank battle of all time. Nearly 400 tanks crossed into no-man's land and proceeded to flatten barbed wire fences and ditches to provide access to the following infantry. The attack was so effective in breaking through the Hindenburg Line, constructed by the Germans that the British were unable to capitalize on the success due to lack of infantry support and thus the seeds for “Blitzkrieg” were sown. The literal translation of the term “Blitzkrieg” is ‘Lightening War’ resulting in quick victory, something for which men had striven throughout the history. The word was coined in late thirties which implied quick victories through harnessing together air power and mechanised force to defeat the enemy by means of dislocation rather than wholesome destruction of his armed forces. General Guderian translated this theory into reality both as an exponent and executant. He pioneered a new form of warfare which had profound effects on the initial outcome of the Second World War in particular and future of the warfare in general.

7. **Evolution.** In the final stages of World War I, technology started a chain reaction that led to the evolution of theory of blitzkrieg. The exponents of the future use of the tank were members of the General Staffs of both France and Britian. The French General Staff believed in the close cooperation between the tanks and infantry whereas British General Staff believed in the independent use of tank in tank corps and armies with integral artillery and engineer support. This idea occurred to Major General JFC Fuller in the summer of 1917 and got maturity in the following year, when the Germans broke through the British 5th Army. He saw tens of thousands of panic-stricken soldiers pull back. He saw that once brain of the organization is removed it becomes a mob. It occurred to him that if the brain of the army were suddenly removed, it would result in the collapse of persons they control. This approach resembled with the conception of Captain Liddell Hart’s indirect approach. The idea was elaborated as “Strategic Paralysis as Object of the Decisive Attack”, later known as ‘Plan 1919’. Fuller produced this famous paper which in a way could be termed as the foundation stone of blitzkrieg. He proposed that objective in attack, should be the disorganization of enemy’s command so as to destroy his nerve centres. This could be achieved by launching attack on enemy’s headquarters, supply and rear centres. Thereafter, the “Breaking Force” consisting of heavy tanks, infantry and artillery would be launched followed by “Pursuing Force” of light tanks, lorry borne infantry and cavalry, who would chase the disorganised enemy till he surrenders. This plan became the foundation stone for the champions of mechanised warfare in 1920’s and 1930s, and indeed for blitzkrieg. Thus by the end of the World War I, the essential
ingredients of blitzkrieg were introduced. Fuller’s “Plan 1919” was also accepted by Foch in principle, who called Britain for production of 4500 tanks as part of Allied Force. The tank corps, after wrangling, was allowed to become a separate corps composed of only four battalions. Fuller was made responsible for the training. A trial force of a brigade was formed in Salisbury plains comprising, a battalion mix of armoured cars, machine gun carriers, tank battalion, and a mechanised machine gun battalion with mechanised artillery and engineers. Fuller was selected to command this force but he declined.

8. In Germany there were quite different developments in 1920s. Hitler wrote “Mein Kampf” which was blueprint of his long-term strategy. He had strong passion for mechanisation i.e. car and aircraft. Addressing in an open letter to the Chancellor, he wrote, “The next war will be different from the last world war. Infantry attacks and mass formations are obsolete. Interlocked frontal attacks lasting for years on petrified fronts will not return. I guarantee that …… we shall regain the superiority of free operation” By the time Hitler came to power in 1933, he was clear what he wanted. He envisaged an army, which would be highly mobile and capable of quick and devastating strikes at the enemy. He said,” I shall never start a war without the certainty that a demoralised enemy will succumb to the first stroke of single gigantic stroke”. A five year plan was drawn in 1928 to expand the forces to 17 divisions. Due to shortage of material, it was never put into effect. However, progressive thought, aided by co-operation of Russia, continued to synthesise and fashion what was ultimately to become the blitzkrieg. It was the Guderian who fathered the German concept of “Blitzkrieg”. He read the books and articles of Englishmen, Fuller, Liddel Hart and Martel, that excited his interest and gave him the food for thought. He wrote number of articles, which enhanced his reputation of pioneer of German tank warfare. Guderian’s emphasis on mobility was never challenged, rather it was considered as the legacy of Von Seeckt. This theory not only conformed to Prussian military thought but was also in line with the highly successful storm troop tactics of 1918. His understanding of blitzkrieg refined during his appointments as staff officer at Inspectorate of Mechanical Transport Troops, as commanding officer of a motorised battalion and chief of staff of newly created armoured corps. He was appointed to command world’s first armoured corps in 1938. He was asked to spearhead a force to “Anschluss”, or annexation of Austria. Now he began believing that fast, deep penetration of territory would bring about a complete collapse of enemy’s military system. Thus the German recipe for the theory of blitzkrieg was mixture of Liddel Hart and Fuller’s “Plan 1919”.

9. Soviet theory of deep penetration was also the other side of the coin. Marshal Tukhachevski believed in maximum contact area with cavalry and mechanised forces as reserve called “Shock army”, a powerful, versatile force composed of all arms including aviation. However, the French concept revolved purely around defensive use of armour. The only voice was that of De Gaulle but, little attention was paid to him. Tanks also made in-roads in the United States Army with Patton a leading figure. Therefore, by the end of 1936, the Germans had fashioned a blitzkrieg weapon and the Russians were planning to employ largest mechanized force in counter offensive role, supported by Red Air Force. The French were overhauling their armament industry, and introducing
gradual mechanization, but their hopes were still pinned to Maginot Line. The British tank enthusiasts, throughout twenties and early thirties were raged back and forth. On one hand, there were early tank proponents like J.F.C Fuller and Liddel Hart, who proposed combat formations of purely tanks. While the other side supported Germans thinking, thereby, having infantry as a necessary adjunct to deal with battlefield problems, which were unsolvable with tanks alone. Ultimately, the British settled on a schizophrenic scheme, while the Royal Air Force committed to the strategic bombing concept. The Americans, though, had produced a strategic bomber still did not have a true mechanised force.

**Ingredients of Blitzkrieg**

10. On ground, the concept entailed following actions:-

   (a) Air Force attacks on enemy front-lines, rear positions, main roads, airfields and communication centres. At the same time infantry attacks on the entire frontline (or at least at main places) and engages enemy. This restrains the enemy from knowing where the main force will attack and makes it impossible for him to prepare any defences.

   (b) Concentrated tank units breakthrough main lines of defence and advance deeper into enemy territory, while following mechanized units pursue and engage defenders preventing them from establishing defensive positions. Infantry continues to engage the enemy in order to prevent him from withdrawing and establishing effective defence.

   (c) Infantry and other support units attack enemy flanks in order to link up with other groups to complete the attack and eventually encircle the enemy and/or capture strategic position.

   (d) Mechanized groups spearhead deeper into the enemy territory outflanking the enemy positions and paralysing the rear, preventing withdrawing troops and defenders from establishing effective defensive positions.

   (e) Main force links up with other units encircling and cutting off the enemy.

**Factors Determining Application of Theory**

11. Following factors determine the application of blitzkrieg theory:-

   (a) Mobility and striking power of forces. This will be more appropriate in the context of relative mobility and striking power or in other words “Mobility Differential”.
(b) Enemy’s system of command, control and communication.

(c) Air situation.

(d) Terrain friction including obstacles and communication infrastructure.

(e) Training of commanders i.e. they must have initiative, drive and independence of action.

(f) Sound and compatible mobile logistic system.

**PART – II - APPLICATION OF THE CONCEPT**

**Background**

12. **Blitzkrieg - The Fall of Poland.** In September 1939, Germany shocked the world with its lightning invasion and rapid destruction of Poland. With the invasion a new word, “BLITZKRIEG”, was born and the world glimpsed for the first time the culmination of German tactical development.

13. **Preliminary Moves.** In March 1939, immediately after the dismemberment of Czechoslovakia, Hitler told Colonel General Keitel, Chief of the High Command of the Armed Forces and Commander in Chief of the Army, that the time had come to settle the Polish problem by military means. A week later, Hitler set forth a strategic outline for an attack on Poland no later than September 1st, 1939. On April 28th Hitler brogated the Polish-German Non Aggression Treaty of 1934. In July 1939 under the guise of conducting summer manoeuvres, strong German Forces moved into assembly areas near the Polish Frontier. Other forces were dispatched to East Prussia ostensibly to participate in the twenty-fifth anniversary of the Battle of Tannenburg. On August 31st, Hitler signed Directive Number-1 for the conduct of the war. Before sunrise the next morning, 1st September, 1939 World War II began.

14. **War Plans**

(a) **Polish Plan.** Poland’s strategic position was weak as she lied between Germany and the Soviet Union. She was further hampered by the fact that more than ten million of her thirty-seven million people were non-Poles, her industrial base was weak and she included in her boundaries on the north and east, territories to which Germany and the Soviet Union had strong historical claims. Polish Commanders had two options, a forward defence of the borders, or an interior defence based on the major rivers. The Polish High Command decided on a compromise. The Army would deploy forward but only long enough for mobilization to be completed. Once that had occurred the Army would fight a
delaying action to the south-east. The purpose of this was to preserve the Polish Army long enough for France to attack and defeat Germany in the west.

(b) **German Plan.** The fundamental concept of the German War Plan was to fight a short war that would be over before France or Britain could put their forces in the field, should they decide to fight for Poland. The plan was given its final form in an order issued on 15th June by Army High Command. This order provided for two Army Groups, Army Group North commanded by Colonel General Von Bock, and Army Group South, commanded by Colonel General von Rundstedt. Army Group North was to attack eastward into the Polish Corridor whereas Army Group South with three Armies was to advance from the Silesia and Slovakia toward the North East. The meeting of these two forces would have presumably ended the campaign. General von Bock suggested extending the arms of the encirclement east of Warsaw to prevent the escape of Polish troops into the Pripet Marshes. This suggestion was acted upon in Phase II of the actual campaign.

15. **Conduct.** At dawn on 1st September the Luftwaffe struck at Polish airfields destroying most of the planes before they could get off the ground. With control of the skies assured, the Germans began the systematic destruction of railroads and the few communications nodes. From the very outset, the Poles mobilization plan was seriously compromised. Before the day ended, chaos reigned at Polish Army Headquarters. The first phase of the campaign fought on the frontiers, was over by 5 September and the morning of the 7th found reconnaissance elements of Army Group South’s 10th Army just 36 miles southwest of Warsaw. Meanwhile, also on 5th September, Bock’s Army Group North had cut across the corridor and turned southeast for Warsaw. The fast moving armoured spear heads of the German attacks left the immobile Polish Armies cut up, surrounded and out of supply. The destruction of Polish Forces was accomplished in the second phase of the campaign. The war, for all practical purposes, was over by 17th September. The Polish Government surrendered on 19th September and lost an army of 800,000 troops.

16. **Analysis**

(a) **Power of Armoured Divisions.** The Polish Campaign, lasting only 28 days, provided an excellent stage on which Hitler could show off the power and efficiency of his armoured divisions. The campaign introduced a new concept of employment of forces in the war: the ‘Blitzkrieg’. The German Army was deployed in 58 divisions, of which 14 were Panzers. They were opposed by the Polish Armed Forces with 30 divisions, only one of which was motorized.

(b) **Multi Pronged Attack.** Five powerful armies i.e. third, fourth, eighth, tenth and fourteenth armies overran Poland from three directions on 1st September 1939.
(c) **Use of Joint Forces.** The German military strategy of using fast-moving tanks, with motorized infantry and artillery supported by dive-bombers, and concentrating them on one part of the enemy sector proved very effective.

(d) **Deep Thrust.** Guderian favoured from the beginning the strategic use of Panzer Forces - a deep thrust into the enemy, without worrying about a possible threat to his own unprotected and far-extended flanks. That was why he planned to transport all supporting elements of the panzer forces (infantry, artillery and engineers) in a similar way - that is, on tracks and the supply services (petrol, ammunition, food) were organically incorporated with the fighting troops.

(e) **Superior Tactics.** Poles did not have any worthwhile plan to blunt the German onslaught, whereas German General Staff prepared a well coordinated plan. Blitzkrieg was employed for the first time and Polish Army was neither trained nor prepared to react swiftly to the mechanized columns of German Armour.

(f) **Dynamic Commanders.** German Commanders as compared to the Poles were well aware of the mobile operations and employment of mechanized forces. Therefore they developed operations like a well coordinated machine. Guderian was the pioneer of tank tactics in the German Army. He placed a radio set in an armour vehicle and controlled the battle from the front line, hence giving the concept of a command vehicle.

**Invasion of France**

17. The defeat of France is generally attributed to poor performance of French troops which is contrary to the available/recorded facts. It is evident from German sources of military history the German initial attacks met formidable resistance everywhere except at Sedan where French high command had deployed low grade, ill-equipped reserve divisions. They had visualized limited German offensive due to unsuitable nature of terrain in Ardennes. The error in French strategic vision and their ill-conceived military organization made it extremely difficult to regain balance after confronting strategic surprise achieved by Germans.
The lightening warfare (blitzkrieg) was a sudden blow to their defensive concepts. The panzers under the umbrella of Luftwaffe penetrated deep into their territory before their reserves could react in time and space dimensions.

18. **Relative Strength.** The relative strength of opposing forces at the out break of hostilities was as under:-

<table>
<thead>
<tr>
<th></th>
<th>Germany</th>
<th>Allies</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Total manpower</td>
<td>2,758,000</td>
<td>2,776,000</td>
</tr>
<tr>
<td>(b) Divisions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infantry</td>
<td>121 Divisions</td>
<td>113 Divisions</td>
</tr>
<tr>
<td>Armour</td>
<td>10 Divisions</td>
<td>3 Divisions</td>
</tr>
<tr>
<td>Motorized Infantry</td>
<td>5 Divisions</td>
<td>8 Divisions</td>
</tr>
<tr>
<td>Tanks</td>
<td>2700</td>
<td>3000</td>
</tr>
<tr>
<td>Artillery Pieces</td>
<td>7700</td>
<td>1,200</td>
</tr>
<tr>
<td>Air Crafts</td>
<td>3000</td>
<td>1,900</td>
</tr>
</tbody>
</table>
19. **Overview of Opposing Plans**

(a) **French Plan.** The French concept of offering battle to the Germans revolved around their experience of World War I. They had appreciated an offensive from north east. The other contemplated German alternative to the offensive from north, was an attack on Maginot Line. The French thought that the attack against Maginot Line would be effectively blocked due to its defensive strength. Offensive through Ardennes was ruled out due to unsuitability of terrain for any large scale operation. Consequently, a plan was conceived which called for maximum deployment in the North and at Maginot Line. Bulk of the forces including armour and mechanized troops were allocated to these two sectors. The defence on the centre line was linear with inadequate depth and without any reserves. The front was to be defended by 9th and 2nd Armies which comprised twelve mediocre (second line) divisions. Both the armies lacked in quality and quantity of equipment and fighting troops. Most of the units did not possess adequate number of anti tank guns. A force of four light divisions was to act as covering troops in the Ardennes forests and was expected to achieve a delay of four to five days before enemy could attempt the crossing on Meuse river. It was believed that in case main effort developed on this front, this delay of five days would be sufficient for the employment of reserves. This would effectively restrict the enemy in attaining her aims in this sector.

(b) **German Plan.** “While the Allied Commanders thought in terms of battle, the new German Commanders sought to eliminate it by producing the strategic paralysis of their opponents, using their tanks, dive bombers and parachutists to spread confusion and dislocate communications”. With this concept Germans looked to strike at enemy’s weak points with the purpose of achieving deep penetration, cutting the lines of communication and trapping enemy’s major formations. The initial German plan did not completely fit into above doctrine as it planned for the main effort to develop from Belgium. Hitler was not much amused with the plan. However, the amended plan presented by Mainstein solved the problem, as it completely plugged into the new German concept. The plan envisaged main attack on centre line by a rapid crossing of the hostile Ardennes between Namur and Sedan and establishment of bridgehead on the Meuse with a view to exploiting towards the sea. The plan was based on the likelihood of achieving surprise and thus gaining speed. Von Kliest’s 12th Army group was assigned the responsibility to conduct this operation as under:-

(i) Guderian’s 19 Panzer Corps was to attack at Sedan and establish bridgehead at the River Meuse. 14 Motorized Corps was to follow 19 Panzer Corps.

(ii) Reinhardt’s 41st Panzer Corps was to attack Montherme area.

(iii) Hoth’s 15 Corps was to attack in general area Dinant.

20. **Practical Manifestation of Blitzkrieg.** During the conduct of the
German offensive practical manifestation of the concept of blitzkrieg was evident in its classical sense on the following occasions:-

(a) **Crossing of Ardennes.** The Germans moved into the Ardennes on 10\textsuperscript{th} May and their unexpected action faced little resistance. The German main effort of Army Group ‘A’ quickly brushed aside cavalry divisions of 2nd and 9th French Armies in the Ardennes and reached Meuse by 12th May. The Germans attempted crossing without waiting for infantry and artillery to exploit enemy’s imbalance. Stuka dive bombers were used as flying artillery. By the evening of 13\textsuperscript{th} May, Germans had established three bridgeheads, i.e Sedan, Montherme and Dinant. The French were totally surprised and could not launch any worthwhile counter attack. The German armour advanced rapidly and by the evening of 15\textsuperscript{th} May it had reached a depth of 35 miles. The 9th French Army had collapsed and a critical gap was created in 3 days, i.e between 13\textsuperscript{th} and 15\textsuperscript{th} May, through which the roaring German Panzers rolled deep into French territory.

(b) **Sedan Bridgehead and Breakout.** To exploit the initial surprise achieved by quick crossing of Ardennes, it was decided to attack Sedan earlier than planned. Guderian’s Corps comprising 828 tanks attacked Sedan under strong air cover. The crossing of River Meuse at Sedan commenced at 1600 hours on 13\textsuperscript{th} May. Due to extra ordinary speed, the defences on the river bank quickly collapsed and by 2300 hours a bridgehead of 4 miles depth and width was established by the Germans. 10 Corps (ex 2 French Army) defending the area offered little resistance. An ill planned, ill timed and under strength counter attack was launched at 0700 hours next day, but by then the tanks had crossed over and the attack miserably failed. During the entire duration Luftwaffe provided valuable support to the Panzers and denied the French Air Force any chance to destroy the bridges or check the advance of Panzers.

(c) **Lightening Advance of Panzers at Dinant.** Hoth’s 15th Panzer Corps with 532 tanks attacked this sector. Operations here proceeded with greater speed than that of Sedan. The crossing commenced in the evening of 12\textsuperscript{th} May. Here too, the defences quickly collapsed. By 1000 hours, 13 May the bridgehead was 3 miles wide and 2 miles deep. Tanks crossed over on 14\textsuperscript{th} May and pierced through the defences over running 18th and 22nd Divisions. Due to penetration from the front and threat of being outflanked from the rear, panic spread in the French. Complete 9th Army abandoned its positions at night with a view to occupying defensive positions on the French frontier. An intermediate position was planned to be occupied in between, but the ill organized Army, pursued by a spirited force could not achieve its aims. In the process, 9th Army also failed to make use of 1st Armoured Division which was made available for the counter attack task.

(d) **Operations after Crossing Meuse.** The aim of this decisive phase was to
bring the war in France to an end. Rapid exploitation by Panzers unfolded as under:-

(i) **Army Group B**. Comprising 6 Panzer Divisions, broke-through between Oise and the Sea and advanced to the lower Seine in the area of Rouen.

(ii) **Army Group A**. Comprising 4 Panzer Divisions, attacked on both sides of Rethel and penetrated deep into France with the Plateau de Langres as its objective.

(iii) **Army Group C**. When the attacks of Army Groups A and B were underway, Army Group C was to assault Maginot Line and aimed to breakthrough between Metz and Rhine.

21. **German Invasion of Russia Operation**

(a) **“BARBAROSSA”**

The initiation of the ‘Operation Barbarossa’ meant head on collision of two of the greatest armies, the two most absolute systems in the world. No battle in the history compares with it in terms of men, might of ammunition, length of front and the desperate upsurge of fighting. The German invasion of Russia under code name 'BARBAROSSA' was launched with the aim of eliminating the Soviet Union as a political and military might in Europe. It was assumed that the Russia will be crushed in only 10 weeks but the campaign lasted over 4 years. The war spread its battle fields over thousands of miles and finally decided the fate of the German Armed Forces, Germany and Hitler. The operation was launched on the frontages of 1500 miles using three Army Groups supported by an Air Fleet.
22. **German Objectives and Design of Operations**

(a) **Political Objective.** Germany wanted to deprive Russia of her vital western areas, from which military operations could be launched against Germany, and to reduce her military and economic power so that she could no more be a threat to Germany.

(b) **Military Objective.** The German military objective was to extend her eastern frontier to Line Leningrad – Moscow – Stalingrad - Astrakhan as a minimum and Leningrad - Volga at the maximum, annihilating maximum Red Army in the process.

(c) **Design of Operations.** The German design of operations was to fix the enemy close to the borders, penetrate on a broad front with armoured / mechanized forces advance with speed on multiple axes and reach enemy's strategic depth. Infantry formations were to follow the Panzer spearheads, to conduct shallow encircllements of trapped enemy thereby destroying it, thus preventing withdrawal of enemy.
23. **Soviet Design of Operations.** Russian aim was to initially avoid war by underplaying the Russo-German hostility and to take advantage of the great Russian space if the war was forced on them. The design of operation was to hold frontiers as far fwd as possible with infantry armies, keeping tank armies well to the rear to offer strong resistance, barter space for time, mobilize the immense Russian resources and then launch counter offensive to destroy the over-extended German Forces.

24. **German Operational Plan.** On 18th December 1940, Hitler signed Directive Number 21. Following were main features of the operational plan:-

(a) To advance towards Leningrad and Moscow by forcing the Russians to defend those cities, smashing Russian Armies in the field, in a rapid campaign.

(b) To advance on Kiev, Kharkov, Rostov, Stalingrad and occupy the Caucasian Oilfields.

(c) Subsidiary to these main operations, launch an offensive north of Leningrad in conjunction with Finns and from the Upper Pruth in collaboration with Rumanians, to fix the Russian Forces there.

25. **Army Groups - Outline Plan.** To accomplish this plan, the German Forces were organized into three Army Groups, to operate respectively in the direction of Leningrad, Smolensk and Kiev.

(a) **Army Group North.** This was the smallest Army Group and was to attack from East Prussia across Memel through the Baltic States on Leningrad. It was assigned following tasks:-

(i) To annihilate the enemy in the Baltic States and link up with Finns.

(ii) To capture Leningrad from the south and south east.

(iii) Finnish Forces were to standby till 11th Jul 1941, ready for attack and fix Russian Forces north of Leningrad.

(iv) Norwegian Forces were to contain Russians in the extreme North by threatening Murmanskk-Leningrad Railways.

(b) **Army Group Center.** This was the largest of the three groups. It was to make widely separated two pronged thrusts north and south of the
Bialystok Salient, finally encircling and annihilating the Soviet forces west of River Dnieper. The tasks given to this group were as follows:-

(i) Northern thrust to be made by 9 Army and 3 Panzer Group from the area of Swalki in East Prussia.

(ii) Southern thrust to be made by 4 Army and 2 Panzer Group from the area of Brest- Litovsk.

(iii) Two Panzer groups were to drive deep wedges in the form of pincers into the enemy's rear across the salient of Grodno - Brest Litovsk.

(iv) To cease temporarily mobile operations at Smolensk and to transfer Panzer Groups to Army Group North for final attack on Leningrad or to turn South towards Ukraine in support of Army Group South.

(c) **Army Group South**. The Group was to attack on two separate wings, one from southern Poland and the other from Rumania. In Poland Panzer Group and an Infantry Army were to strike from Lublin area south of Pripet Marshes towards Kiev and Dnieper, while another Army on its south would attack towards Vinnitsa and Lvov. In Rumania a single German Army assisted by Rumanians was to attack across Pruth, into Bessarabia and Ukraine. Following tasks were given to various components:-

(i) 11th Army and 1st Panzer Group were to drive east from area south of Lublin. 1st Panzer Group to secure area Kiev while 6th Army was to provide flank protection. These were then to turn south along Dnieper and secure crossing places on this river to prevent enemy withdrawal eastwards.

(ii) 11th Army and 8th Rumanian Army were to defend Rumanian territory till the Russian Army in Ukraine was either encircled or withdrew. At that juncture, both armies were to advance through Kamenets- Podolskly and Mogilev- Podoslskly into Ukraine.
(iii) **Russian Dispositions.** In June 1941, the defence of the western border was assigned to the Leningrad Special Western, Special Kievan and Odessa military districts. Each front had its own air division (with 900-1100 aircrafts) which was under the direct control of the Front Commander.

(iv) **Brief Conduct** German attack, on 22nd June 1941, came as a tactical surprise for the Red Army. Along with Germany, Italy, Romania, Hungary, Finland, and other Axis countries also declared war on Russia. The Axis assault was launched from the Arctic Ocean to the Black Sea, striking for Leningrad, Moscow, and Ukraine. As the Red Army reeled back in disarray, Stalin began frantic efforts to remove industrial plants and workers from the path of the invaders and relocated them in and behind the Ural Mountains. For a time the German Blitzkrieg appeared successful, as millions of Soviet soldiers were encircled and annihilated or captured. The advance on Leningrad was checked in September 1941. Although the city remained besieged until January 1944 resulting in 1.25 million casualties. The drive on Moscow was stopped in December 1941 with German tanks about 30 km from the city center.
(v) In the south, the Germans were more successful; they took all of Ukraine and pressed on towards Volga to sever Moscow and Leningrad from Caucasus, where Russia’s most productive oil fields were then located. However, in January 1943, German forces were finally halted and defeated in the epic battle of Stalingrad. It was the turning point of the Soviet-German war and one of the decisive engagements of world history.

26 Analysis

(a) **Time Space and Relative Strength.** Although the Germans were inferior in strength to the Russians, it was through optimum use of time and space that they achieved relative strength superiority at the point of decision.

(b) **Speed of Operations.** Speed, so vital for success of any operation was strategically achieved through three major actions / decisions:-

(i) **Air.** Complete air superiority was gained by Luftwaffe.

(ii) **No Bridge Head.** The decision was made to achieve effective penetration or break-through during battle of the frontiers by Panzer groups supported by infantry corps. This ensured transition of this stage into exploitation without loosing time in establishing bridge head and breakout.

(iii) **Strategic Balance.** Germans initially ensured balance by judicious grouping of infantry and Panzer formations, within each Army Group. They kept the Russians paralysed and imbalanced, not allowing them to use their reserves in the required time frame.

(c) **Combination of Forms of Manoeuvre and Directions**

(i) **Forms of Manoeuvre.** Army Group North and Army Group South based their plans on single envelopment whereas Army Group Centre planned double envelopment by the two Panzer Groups. The events proved that double envelopment was more successful in destruction of large enemy forces.

(ii) **Combination of Thrust Lines.** Germans moved on a combination of different thrust lines and maintained this to facilitate encirclement, keeping the enemy imbalanced.
(d) **Air.** Germany modernized 250 air fields and 50 landing strips in the east Operation Barbarossa. On 22 Jun 1941, Luftwaffe raided 66 Russian air fields and destroyed 1200 aircraft.

**PART – III**

27. **American Concept of Air Land Battle**

(a) **Genesis.** American concept of “Air-Land Battle” came in to effect during the Vietnam War. Critics believed that the American Army in Vietnam did not do well, as expected by political and even military leaders. Speculation began to run high that the American military would be incapable of conducting itself effectively in a major conventional war, especially one that involved the numerically superior, well-equipped and highly trained forces of the Soviet Union. Once the Vietnam War ended, American strategic attention returned to Western Europe, and here the picture was not encouraging. Throughout the mid-70s Soviet Union had been steadily increasing its forces in the Warsaw Pact including several key conventional weapons systems; resultantly the Soviets had an overwhelming numerical advantage over NATO forces. Air-Land Battle was a military doctrine adopted by the United States Armed Forces in late seventies as a solution against growing Soviet/Warsaw Pact's threat. NATO planners also realized that Warsaw Pact surpasses them in quantity of equipment, units and manpower. Therefore, in response to these problems, NATO strategists lead by the United States formulized necessary theory of war to negate the Warsaw Pact's numerical superiority in conventional warfare, thereby developing the concept of Air-Land Battle.

(b) **The Definition.** It is the co-ordinated employment of military forces vertically and laterally, above and at the surface, in predetermined time and space, aimed at generating maximum combat power and movement to achieve jointly conceived objectives. The concept must meet following fundamental parameters: -

(i) Unity of aim.
(ii) Joint planning.
(iii) Judicious use of force.
(iv) Flexibility.
(v) Favourable air mobility.
(vi) Intelligence.

(c) **Concept of Air Land Battle.** The US Army’s basic fighting doctrine is Air Land Battle. It reflects the structure of modern warfare, the Dynamics of combat power and application of classical principles of war to contemporary battlefield requirements. It is called Air Land Battle in recognition of the inherently three-
dimensional nature of modern warfare. All ground actions above the level of the smallest engagements are strongly affected by the supporting air operations of one or both combatants.

28. Air Land Battle describes the Army’s approach to generating and applying combat power at the operational and tactical levels. It is based on securing or retaining the initiative and exercising it aggressively to accomplish the mission. The best results are obtained when powerful blows are struck against critical units or areas whose loss will degrade the coherence of enemy operations in depth, and thus most rapidly and economically accomplishing the mission. From the enemy’s point of view, these operations must be rapid, unpredictable, violent, and disorienting. The pace must be fast enough to prevent him from taking effective counteractions. The operational planning must focus on decisive objectives. It must stress flexibility, the creation of opportunities to fight on favourable terms by capitalizing on enemy vulnerabilities, concentration against enemy centres of gravity, synchronized joint operations, and aggressive exploitation of tactical gains to achieve operational results. Success on the battlefield will depend on the Army’s ability to fight in accordance with four basic tenets. These are:

(a) **Initiative.** It means setting or changing the terms of the battle by action. It implies an offensive spirit in the conduct of all operations. Applied to the force as a whole, initiative requires a constant effort to force the enemy to conform to operational purpose and tempo while retaining own freedom of action. In attack, initiative implies never allowing the enemy to recover from the initial shock of the attack. The goal is creation of a fluid situation in which the enemy steadily looses track of events and thus coherence.

(b) **Agility.** It is the ability of friendly forces to act faster than the enemy. This is the first prerequisite for seizing and holding the initiative. Efforts are directed, that by the time the enemy reacts to one action, another has already taken place, disrupting his plans and leading to late, uncoordinated and piecemeal enemy responses. Process of successive concentrations against locally weaker or unprepared enemy forces will enable smaller forces to disorient, fragment and eventually defeat much larger opposing formations.

(c) **Depth.** It is the extension of operations in space, time and resources. Through the use of depth, a commander obtains the necessary space to manoeuvre effectively, the necessary time to plan, arrange and execute operations and the necessary resources to win. Momentum in the attack is achieved and maintained when resources and forces are concentrated to sustain operations over extended periods.

(d) **Synchronization.** It is the arrangement of battlefield activities in time, space and purpose to produce maximum relative combat power at the decisive point. Synchronization is both a process and a result.
29. **Relevance of Blitzkrieg with Air Land Battle.** A military doctrine is a general description as to how an army would conduct itself when it fights, whether it will be organized in large massed units or small independent sections and so on. The difference between the old US field manuals about operations/tactics and Air land Battle is somewhat similar to the difference between the ways World War I and the early days of World War II were fought. In World War I, the opponents focused on killing or capturing more men than the other. Whereas, in World War II, the German Army captured or broke up whole enemy units by using tactics which was contrary to "fire and attrition" and have come to be known as "manoeuvre warfare". In the early days of World War II, General Guderian demonstrated the German advantage in each of these three areas with the famous Panzer tanks, the first use of portable radios, and German air superiority through the use of Stuka dive bombers. The United States has recently concentrated on these three areas by devoting a tremendous amount of development funding to projects like the Abrams M-1 tank, the Bradley Fighting Vehicle, battle management computer systems and enhanced communications, and improved tactical air capabilities using F-16s, F-18s and advanced attack helicopters. Finally, converging all these efforts towards concept of Air Land Battle.

30. **Soviet Doctrine of Deep Penetration**

(a) **Genesis.** This theory was evolved by two Russian General Marshall Tukhachevskii and V.K.Triandafillov. During the 1920s and 1930s, when Von Seeckt and his colleagues of German Army were busy in considering blitzkrieg, Marshal Tukhachevskii of Russian Army was seriously analyzing the period of Red Army’s birth and making plans for shaping lessons for the future from his experiences. At that time Russians were confronted with the problem of conducting military operations involving mass armies. He also drew few deductions from the theory of manoeuvre in general and the turning movement in particular from the writings of General Ukaniev, an earlier advocate of cooperation between all arms. Therefore, he advocated the concept of amalgamating tanks with their motorized infantry into a cohesive force capable of striking deep into enemy’s operational and strategic depth. Triandafillov had also focused on the importance of shock army, a powerful and versatile force composed of all arms. Tukhachevskii’s work laid the foundation of what was later called the operational art and the concept of Deep Strike.

(b) **The Definition.** The 1936 Field Service Regulation of Russian Army was prepared under the supervision of Tukhachevskii’ and A. I. Egorov, who defined the deep operations as:-

“Simultaneous assaults on enemy defences by aviation and artillery to the depth of the defence, penetration of the tactical zone of the defence by attacking units with widespread use of tank forces, and violent development of tactical success into operation success with the aim of complete encirclement and destruction of the enemy’’.

The deep operation theory hinges around two theories of war “manoeuvre”
and “attrition”. In attrition war, troops’ movement is simply a mean of getting to a position in time to await or to give battle. Being concerned only with static force, infantry dominates this form of warfare. On the contrary, “Manoeuvre Theory” regards fighting as only one way of applying military force to the attainment of politico-economic aim. It attempts to cause dislocation of enemy forces. Relying on speed it avoids attrition. A balanced combination of attrition and manoeuvre theories lead to Tukhacheviski’s “Deep Operation Concept”. Prior to start of the battle both are divergent in objectives; one seeks destruction the other dislocation, but once battle breaks out both compliment each other.

31 Influence of Blitzkrieg on Russian’s Deep Penetration Theory. The question of the potential decisiveness of initial operations in the war, had been a topic of sharp debate within the Red Army. In1931, R. P. Eideman, who was then Chief of the Frunze Military Academy, directly addressed the impactof new mechanized forces and aviation on the conduct of operations during the initial period of war. To his opinion, “war will come without declaration as air and mechanized forces would strike across the frontiers in advance of the main forces thus disorganizing the defences, once penetrated. At the same time flanking operations, leading to the encirclements of covering forces, were also to be expected”. Therefore, for a successful defence against such a threat, Eideman emphasized on the maintenance of large, highly mobile covering forces. M. N. Tukhachevsky stressed on the increased vulnerability of forces (undergoing mobilization) from air attack, mechanized thrust, and airborne assault. Tukhachevsky recommended that in the face of the air threat, strategic deployment be undertaken at a depth of 250 kilometres from the frontiers. Thereby, effectively employing the new means of mechanized warfare to strike deep into enemy’s territory, in order to engage her main forces under favourable circumstances during the first week of hostilities.

32 Transformations of the Doctrine. This Soviet doctrine / theory underwent different minor transformations in the post World War II period, but the basic doctrine remained the same. These changes/additions are discussed below:-

(a) Tank Corps were disintegrated into Tank Divisions coupled with mechanized divisions to form the all-arms army.

(b) Vast tank formations rolled forward over a nuclear and chemical carpet with little need to fight or manoeuvre. The all arms force being relegated to a secondary role of providing diversions and mopping up.

(c) The introduction of the BMP I envisaged a slashing attack as an alternative to heavy break in. This slashing attack goes in through a gap or down an enemy boundary and turns in diagonally along the rear boundary of the enemy division.

(d) The introduction of the air-ground assault brigade, an operational
helicopter formation and BMD (Multipurpose air transportable armoured vehicle) added yet another dimension.

(e) Replacement of the tank and all arms division by a single type of shock divisions paired with an airborne division.

33 Relevance of Blitzkrieg with American and Russian Theories

Major features of theories discussed above are as under:

(a) Application of Basic Theories of War

(i) The deep operation and air land battle concepts lay equal emphasis in manoeuvre and attrition theories.

(ii) In the blitzkrieg, manoeuvre theory gets greater importance.

(b) Form of Manoeuvre / Penetration Technique

(i) In deep operation heavy break-in forces are employed at the point of decision for affecting deep penetration.

(ii) In blitzkrieg deep manoeuvres are carried out, employing infiltration technique by highly mobile and mechanised forces.

(iii) Air land battle concept relies on relatively shallower manoeuvre by ground forces in conjunction with fairly deep air strikes for interdiction.

(c) Nature of Operation

(i) Deep operation is offensive in essence.

(ii) Blitzkrieg is also offensive in nature.

(iii) While the air land battle is defensive offensive or active defence.

(d) Force Structure

(i) For deep operation one needs overwhelming superiority in means of mobility, men, and material.
(ii) For blitzkrieg, superior mobility is important.

(iii) In air land battle, superior technology is the pre requisite.

(e) **Surprise**

(i) In deep penetration concept, surprise is achieved through preponderance of resources at the point of application.

(ii) In blitzkrieg, surprise is achieved through speed of operation.

(iii) In air land battle, deep and massive air strikes will do the needful.

**Conclusion**

34 The blitzkrieg doctrine arose from determination not to repeat the stagnant and bloody dead lock of trench warfare. It was a successful attempt to restore mobility to a battlefield, where weapon technology had outpaced tactical doctrines. The object of blitzkrieg is achieved through psychological dislocation of the enemy, which in turn means aiming at brain and nerve centres rather than trying to put his limb out of action by employing brute force. Quick and economical victories have been dreams of military commanders since ages. It is still the order of the day. Weapons may change but blitzkrieg will maintain its attraction and its essence, the psychological dislocation of the enemy through the use of shock action on land and air along the line of least expectation, will survive, as something for which military commanders will continue to strive.
**ALLIED INVASION OF WESTERN EUROPE**

**Introduction**

1. The Allied invasion of Western Europe commenced on 6 June 1944, with the launching of Operation Overlord. The Americans and the Russians had been pursuing Britain for a cross Channel invasion against Europe, in order to open a second front against the Germans. The final decision for a cross Channel assault came after the Casablanca Conference in 1943. The entire Allied war machinery was set in motion for one of the greatest amphibious operations of the world. Some 6,500 vessels and 130,000 men landed on five Normandy beaches: UTAH, OMAHA, GOLD, JUNO and SWORD. Over 12,000 aircrafts ensured air superiority, bombing German defences and providing cover to the Allied Land Forces. The landings caught the Germans by surprise, who were unable to counter attack with the required speed and strength. However, in the months following the landings, the Allied progress was slowed down due to the over stretched lines of communications and logistic problems. The initial landings and the subsequent operations towards the Rhineland were a classic example of joint operations by land, air and sea components of the Allies. The entire operational effort was the combination of the amphibious operations and bold manoeuvres, which resulted in the defeat of the German Army. The liberation of Europe brought an end to Nazism and the decision for cross Channel operation proved a turning point in bringing an end to the Second World War.

**Aim**

2. To analyse the plan and conduct of the Allied invasion of Western Europe with a view to drawing pertinent lessons.

**Parameters of Study**

3. In this study, an endeavour has been made to concentrate on the cross Channel invasion of Europe, 1944 with particular focus on the following:-

   (a) The plans, motives and objectives of the Allied partners.

   (b) Coordination and cooperation among the land, air and naval components of the combined Allied command.

   (c) Measures taken by the Allies to achieve strategic and tactical surprise for the operation.

   (d) Magnitude of the logistic problems after the breakout of the Allied Forces from Normandy to the Rhine.
4. Sequence of paper is as follow.
(a) PART I - Plans, Motives and Objectives
(b) PART II - Allied Cooperation and Coordination Between Land, Air and Naval Forces
(c) PART III - Conduct
(d) PART IV - Logistics
(e) PART V - Analysis

PART I - PLANS, MOTIVES AND OBJECTIVES Zone of Operations - Topography

5. The salient features of the Zone where Operation OVERLORD was conducted are as under:-

(a) “Overlord” included operations in five countries namely France, Belgium, Holland, Luxembourg and Germany.

(b) The geographical proximity of these countries forms a peninsula jutting westwards into the North Sea, English Channel and Atlantic Ocean.

(c) The area in the north comprising Holland and Northern Belgium is interspersed with rivers and canals forming a natural barrier to any offensive from the east. The important ones are, Rhine, Meuse and Mosselle.

(d) Northern and Central France, Southern Belgium and Luxembourg represent generally flat terrain and provide suitable invasion corridors for mechanized forces.

(e) Ardennes Forest spans part of Luxembourg and Southern Belgium up to River Meuse and is approximately 40 to 50 miles deep. It restricts tank movement to specified roads and tracks.

(f) France has 5,500 kms of coastal area. Important harbour areas along the western coastline are Pas de Calais, Le Havre, Normandy, Cherbourg, St Malo and Bordeaux. Whereas in the south in the Gulf of Leon important harbour areas are Marseilles and Toulon.
(g) France is drained by four major rivers. The Loire, Garonne, Seine and the Rhône.

(h) Entry into Germany is restricted by River Rhine which was converted into a formidable obstacle and prevented any progress east of it without its reduction.

(i) The significant cities in this area are Arnhem, Brussels, Caen, Paris, Ardennes, Dijon, Dusseldorf and Berlin.

(j) The area in general had well developed communication infrastructure facilitating large scale movement of troops by road and rail.
6. By the spring of 1944, the Allied Commanders had almost finalised their plan for the invasion of Europe. The main onus of their effort was going to be directed towards the defeat of the German Army and its key industrial base. The strategic aims of the Allies were to enter Europe through a cross-Channel amphibious operation and then advance through the mainland towards Germany (Ruhr industrial base) as well as the destruction
of its armed forces. For quite some time, the cross Channel invasion of Europe was being contemplated by the Allies. It was due to Churchill’s insistence that the plan could not be put into effect. He wanted the Allied Forces to enter Europe through its soft underbelly, i.e. Italy. This would have had the added advantage of providing the much needed security to the British forces operating in Northern Africa besides being a safeguard for Allied shipping operating through the Mediterranean. Despite strong American reservations, he did not budge from his stance. Having achieved success in Italy, now the time was right to hit the Germans and drive them out of France. The Americans were always of the opinion that Germany could only be defeated by invading Europe from the West. The Soviet Union also wanted the Allies to open a second front so as to relieve pressure from the Soviet Forces fighting the Germans on the eastern front. The strategic aims of Germany were to retain control of large territorial gains in the West and avoid a second front in Europe. As their forces were facing defeat after defeat in Russia, so they wanted to stabilise the situation before taking on the Allies on the western front.

**Strategic Centres of Gravity**

7. The strategic centre of gravity of the Allies was the massive strength of the combined coalition forces in terms of air, ground, and naval combat power which could be concentrated on the European Continent. As was seen later in the European Campaign, their superiority in numbers did prove decisive in the final outcome. This force was complemented by American war production capability which was fully capable of supporting the coalition effort. The Allies had correctly identified this overwhelming advantage and used it to maximum effect against Germany by concentrating resources at the right place and time. The strategic centre of gravity of Germany was its sizeable mobile ground combat force which could, in theory, be quickly deployed and concentrated against any invading Allied force. However, this was severely disturbed by the Allies due to their superior mental and physical mobility as well as elaborate and comprehensive deception efforts in preparing for this campaign.

**Operational Aims**

8. Germany was confronted with the difficult operational predicament of trying to predict precisely where the attack would come from, and how to find the best defence against it with some 53 divisions spread throughout France. Also, Rommel was very much aware of the likely impact of allied air superiority on any defence plan. Both Rundstedt and Rommel were reasonably convinced that the attack would come at Pas de Calais. Both commanders and Hitler agreed that the early hours of any invasion would be critical as letting the Allies to establish a beach head successfully on mainland Europe would mean disaster for the Germans in the long run. However, there was serious disagreement on how to deploy and employ reserve forces and when to commit them. Rommel wanted the reserves to be deployed forward to be effective. He believed that the best way of dealing with any Allied invasion attempt would be to wipe off any foothold that they
manage to achieve, as early as possible. However, his assessment was not agreed to by Von Rundstedt who wanted to hold the reserve well behind the front line. Hitler also placed unrealistic confidence in his Atlantic Wall which was not at all as effective an obstacle as the German propaganda machinery had posed it to be.

**Outline Allied Strategy**

9. The Allied strategy was as follows:-
   
   (a) To land on the Normandy Coast and establish a foothold between Cherbourg and mouth of river Orne where the German defences were believed to be less fortified. The landing site also had to be within the logistical limitations of the Allies (namely aircraft, naval ranges, as well as port capacity constraints).

   (b) Build up the resources needed for the decisive battle in Normandy after the initial landings.

   (c) Breakout and pursue the Germans on a broad front with two Army Groups. The left Group was to secure the necessary ports for subsequent logistic support and reach the boundaries of Germany to threaten Ruhr. The other Group was to link up with the forces that were to invade France from Italy.

   (d) Complete the destruction of German forces west of the Rhine and launch a massive attack in Ruhr area by double envelopment so as to cripple the German war machinery.

**German Appreciation**

10. Germans were expecting an Allied invasion of Northern France but were unsure about the possible landing zones. Field Marshal Von Rundstedt, Commander in Chief of German forces in the west, thought that the landings would be made between Pas de Calais and Dieppe. Hitler initially thought Normandy to be the possible landing site. Field Marshal Rommel, in charge of channel coast forces, supported Hitler’s viewpoint. It was only due to the deliberate deception scheme employed by the Allies that the German High Command became convinced that the landings would be on the beaches of Pas de Calais.

11. **Allied Forces**

   (a) **Supreme Commander Allied Expeditionary Force.** General Dwight D. Eisenhower.

   (b) **Deputy Supreme Commander.** Air Chief Marshal Arthur W Tedder.
(c) **Allied Naval Expeditionary Force Commander.** Admiral Sir Bertram Ramsay.
   (i) Western Naval Task Force
   (ii) Eastern Naval Task Force

(d) **Allied Ground Forces Commander.** General Bernard Montgomery.

(e) **1st US Army Commander.** General Omar Bradley.
   (i) 5 Corps
   (ii) 7 Corps

(f) **2nd British Army Commander.** General Miles Dempsey.
   (i) 1 Corps
   (ii) 30 Corps

(g) **Allied Expeditionary Air Force Commander.** Air Marshal Sir Trafford Leigh Mallory.
   (i) 2nd Royal Tactical Air Force
   (ii) 9th US Air Force

12. **German Forces**

(a) **Commander in Chief West.** Field Marshal Von Rundstedt.

(b) **Army Group B Commander.** Field Marshal Erwin Rommel
   (i) 7th Army (3 x Corps)
   (ii) 15th Army (4 x Corps)
   (iii) 88 Corps (3 x Divisions)

**Allied Plan**

13. Allied leaders decided during the Casablanca Conference that the planning needed for the invasion could not begin before a commander was appointed. The position of Chief of Staff to the Supreme Allied Commander (designate) or COSSAC was created. The man designated was British General Frederick Morgan. The first and most important question faced by General Morgan was finding a location for the invasion. There were critical parameters that had to be met when choosing the invasion site, the first of which was that it must be within range of Allied planes operating from Great Britain. Control of the air was essential to the success of Operation Overlord. The invasion required thousands of ships to move tens of thousands of soldiers as well as a massive amount of supplies across the English Channel. After a long debate on the most suitable landing site, the beaches finally chosen were those in the Normandy region of France. Normandy beaches were well within range of the fighters in Great Britain. They were at the tip of the Cotentin Peninsula and were sufficient to handle the required unloading operations.
Having chosen where to land, COSSAC now considered what to land. The Combined Chiefs of Staff limited the number of landing crafts that could be used to lift three divisions in the initial assault plus two more in reserve, or about 4,504 craft. This would mean a reduced attack frontage of no greater than three divisions. Such a narrow assault, of course, would be more vulnerable to counterattack and might not provide enough room for the following forces to land and organize for further operations.
14. In the end, the Allies planned to assault five beaches on D-Day. From east to west, they were SWORD, JUNO, GOLD, OMAHA and UTAH beaches. The British 2nd Army was to attack the three eastern beaches. Landing at SWORD beach would be the British 3rd Infantry Division, at JUNO the Canadian 3rd Infantry Division and at GOLD the British 50th Infantry Division. The American 1st Army prepared to attack the two western beaches. At OMAHA the 1st and 29th Infantry Divisions and at Utah the 4th Infantry Division was to land. Individual divisions handled detailed tactical planning for each beach. Consequently the plans varied from one another. However, the salient features of the master plan are as follows:
(a) Establishment of a beachhead at Normandy between the Orne River and Cherbourg peninsula by cracking the crust of Atlantic wall with the 1st US Army and 2nd British Army.

(b) Creation of sufficient space for induction of 3rd US Army and 1st Canadian Army. During this stage, it was planned to reach Avranches and capture the port of Cherbourg by D + 14.

(c) Breaking out from the line Granville - Vire - Argentan - Falaise - Caen, towards South by 3rd US Army and East by 21st Army Group to reach Seine / Paris
by D+90.

**German Plan**

15. By 1944, Hitler's Europe had become a seemingly impenetrable fortress, protected in the west by what came to be known as the Atlantic Wall. The Atlantic
Wall is perhaps the most massive fortified position ever in history and it had become a formidable obstacle for the Allied planners. It was created by order of Hitler's Führer Directive Number 40 and comprised a massive trench system, reinforced with massive concrete strong-points. This wall was filled with machine-gun nests and pillboxes. The beaches were heavily fortified with hedgehogs, Belgian gates, log-ramps, wooden-posts, and Rommel's Asparagus. The beaches were also covered with barbed wire and minefields. By the time D-Day finally arrived, Rommel had laid 6.5 million mines and was working towards his goal of 11 million. Knowing that he could not counter Allied air power, Rommel wished to station his troops, including the Panzer reserves, as close to the beaches as possible to reduce their vulnerability to bombing. Opposing him was Field Marshal von Rundstedt who wished to fight the critical battle inland using the Panzers in a more mobile battle. Instead of supporting a single strategy, Hitler compromised and released some Panzers to Rommel and retained the balance under his control far from the beaches. Beyond the strategic debate, Rommel had to overcome many problems created by the constant drain of the fighting in Russia. The men assigned to the Atlantic Wall were not first-class material and the equipment that they used was frequently of foreign make. Shortages of gasoline and vehicles and the use of combat troops for obstacle construction hampered training. The differences between Rommel and Von Rundstedt in their strategic compromise resulted in disastrous consequences. The infantry divisions were deployed thinly along the coast. The armoured divisions were neither all forward nor were they all back. Six of the ten Panzer divisions were placed north of the Loire while the other four divisions acted as scattered reserve for the south and south west. There were three Panzer divisions under Rommel’s command. The other three divisions, Panzer Group West, were under Rundstedt’s command. This splitting of mobile reserve did not favour the Germans in the end.
16. **Strategic And Tactical Surprise**

(a) **Strategic Surprise** The Allied Command understood that the chances of success for Operation Overlord were bleak if the deceptive schemes were not on unprecedented scale. The aim was to make the Germans believe that the major Allied attacks might be further north. When it became obvious that preparations were being made in Britain for a cross Channel invasion, the plan was made to give the impression that the main assault would be against Pas de Calais or the Belgian coast. Measures were also taken to suggest that the assault would come much later than it was originally planned, so that if the enemy did in fact guess the true objective, he might still be confused. It was with this objective in mind that the overall deception plan was formulated. The main deception plan was codenamed “BODYGUARD”.

(b) To convince the Germans that Normandy was only a feint or demonstration for the real invasion that was to occur several weeks later.

17. To accomplish these missions, “Bodyguard” attempted to mislead Hitler by convincing him of the following notional Allied strategic objectives:

(a) Invasion operations would begin in the spring of 1944 with a combined British, American and Russian attack through Norway.

(b) The Allies would continue their thrust through the “soft underbelly” of Europe, repeating their 1943 attempt to break through the Gustav Line and expand their efforts into Greece and the Balkans as well.

(c) If an invasion of France was to be attempted at all, it would occur at the Pas de Calais, but certainly not before July of 1944.

(d) If indeed any Allied landings were to take place on the beaches of France, they would be merely diversionary feints designed to draw German forces away from the actual invasion sites along the Pas de Calais.

18. Operation Bodyguard was broken down into subordinate plans; the principle ones were:

(a) **Operation Fortitude North.** It aimed to contain the enemy forces in Scandinavia.

(b) **Operation Fortitude South.** It aimed to pose a threat against the Pas de Calais area.

(c) **Operation Zeppelin.** It covered the Eastern Mediterranean.

(d) **Operation Ironside, Vendetta and Ferdinand.** It covered the Western Mediterranean.

(e) **Operation Double Cross.** It aimed at turning all of the German spies in Britain into double agents.

**Tactical Surprise**

19. No major operation is undertaken without a carefully calculated attempt to deceive the enemy. To attain tactical surprise to further the advantage gained by the crucial deception at the strategic level, following measures were employed by the Allied forces for D Day:
(a) **Radio Signal Deception.** Fake radio messages originating in Britain were assiduously monitored by the Germans. These added an essential piece to the total jigsaw puzzle dropped into the Germans’ lap.

(b) **Air and Artillery.** Just prior to the actual landings at Normandy, a number of areas on the French coast were heavily bombed. This was in combination with the bombing of false targets by allied air & artillery. Simulated ammo dumps near the false gun positions and fake registration of targets was also done in an attempt to mislead the Germans.

(c) **Dummy Paratrooper and Airborne Landings.** On D Day, British and American airborne troops were dropped in areas other than the intended target in four simulated airborne operations. The code name for this operation was “Titanic”.

(d) **Use of Electronic Counter Measures.** Extensive and highly sophisticated air and sea deceptive operations carried out on D day at the eastern edge of English Channel to make the Germans think that two very big assault convoys were approaching the French coast.

**PART - II – COOPERATION AND COORDINATION BETWEEN ALLIED LAND, AIR AND NAVAL FORCES**

**Chief of Staff Supreme Allied Commander (COSSAC)**

20. From 1941 to early 1944, the Allies continued planning extensively for the cross Channel attack. They also improved the joint command relationships, which culminated with Eisenhower's selection as Supreme Commander of all joint forces in 1944. The resultant staff of Chief Of Staff Supreme Allied Command (COSSAC) was fully integrated with allied officers and was designed to avoid the pitfalls identified from lessons learned in World War I. General Eisenhower was the overall commander. He instructed his staff to plan for the invasion of France including modalities of build up for the attack. This was going to be the largest amphibious operation in the history of warfare involving a lot of coordination and cooperation between land, air and ground forces. COSSAC’s tasks were threefold, enumerated as under:-

(a) To prepare plans for a diversion against the Pas de Calais; to encourage the Germans to concentrate their defences in the wrong place.

(b) To plan for a sudden cross Channel attack, called Operation Rankin; to relieve Russia or exploit a sudden collapse in German defence.

(c) The most important role of COSSAC was to prepare plans for a full scale assault against the continent in 1944 as early as possible. This was called Operation Overlord.

**Supreme Headquarters Allied Expeditionary Force (SHAEF)**

21. The immense scope of the Allied preparation was perhaps the greatest thing they had for them. The Allied planning was extremely detailed and accurate and the final plan
was the culmination of years of organized and effective planning. The Allied plan for invading Europe began with the appointment of General Dwight D. Eisenhower as the overall commander. SHAEF was created on 15th Jan 1944 as the successor to COSSAC. SHAEF was made up of six of the best officers the Allies had to offer including Eisenhower, General Bernard Law Montgomery, Lieutenant General Walter Bedell-Smith, Air Chief Marshal Arthur Tedder, Admiral Bertram Ramsay, and Air Vice Marshall Trafford Leigh-Mallory. Lieutenant General Bedell-Smith was the Chief of Staff, Air Chief Marshal Tedder was the Deputy Supreme Commander under Eisenhower and Admiral Ramsay commanded the Allied Naval Expeditionary Force (ANXF) while Air Vice Marshall Leigh-Mallory commanded the Allied Expeditionary Air Force (AEAF). General Montgomery was Britain's biggest wartime hero and was granted command of the 21st Army Group, which comprised the 1st US Army, under Lieutenant General Omar Bradley; and the British 2nd Army, under Lieutenant General Miles Dempsey.

**Neptune**

22. The SHAEF staff began final tactical planning in January 1944 for Operation Neptune; the precursor to Operation Overlord. It was the “expansion of the strategic (OVERLORD) plan into a combined tactical plan of the three services.” It included input from all three “Tactical Commanders-In-Chief” who collectively became known as the Neptune Joint Commanders. It was this close integration of the air, land and sea forces commanders in planning for the operation that resulted in successful landings at Normandy on D-Day. This was no mean feat considering the large magnitude of forces to be employed for the purpose, which are listed below:-

- (a) Ground forces. 5 infantry divisions for five different beaches.
- (b) Airborne troops. 3 airborne divisions.
- (c) Ships and Landing craft. 6500, all types.
- (d) Vehicles. 200,000 all types.
- (e) Supplies. 600,000 tons.
- (f) Aircraft. 11,000 fighters, bombers and transport aircraft.

**PART III – CONDUCT**

23. **Air Force and Naval Forces.** The invasion itself gave prominence to land forces but provided major roles for air and sea components.

(a) **Air Force.** 12,000 planes of the Allied air forces swept the Luftwaffe from the skies, photographed enemy defences, dropped supplies to the resistance, bombed railways, attacked Germany's industries and isolated the battlefield. It also carried three airborne divisions into battle by using 1000 transport aircrafts, protected the force as it crossed the English Channel, and attacked targets throughout the invasion area before and after the landing.
(b) **Naval Force.** The Allies' naval component too, was as active. During the build up the navies escorted convoys, patrolled and protected the English Channel, conducted amphibious rehearsals, reconnoitred beaches and beach defences. During landings, provided more than 5,000 ships which carried, escorted and landed the assault force of 130,000, over 100 miles along the 50 miles stretch of Normandy coast. Once the force was landed, naval gunfire provided critical immediate support for the soldiers as they fought their way across the beaches.

**Action of the Paratroopers**

24. Departing from Portland Bill on the English Coast, the 101st and 82nd US Airborne Divisions were dropped on the Cherbourg peninsula to secure the western end behind UTAH, seize the bridges and halt the German advance from the west. Due to heavy fog and German guns, the pilots were unable to drop the paratroopers precisely as planned. The 101st Division suffered great losses and only one sixth of the force reached its destination. Both divisions managed to form smaller improvised squads, and managed to wage a fight. By 0430 hrs, the 82nd Division had captured St Mere Eglise. Of the 23,000 airborne troops, 15,500 were Americans and of these, 6,000 were killed or seriously wounded. The British 6th Airborne Division and a special task force landing in gliders simultaneously landed on the eastern side of the invasion area and moved quickly to secure their objectives. The glider task force captured key bridges on the Orne River and Caen Canal. After a fierce fight, a substantially under strength paratrooper force subdued the German Merville battery which was in position to target the Allied invasion ships as soon as they were to appear off the beaches. The vanguard airborne troop landings were considered a heartening success.

**Amphibious Landings**

25. The amphibious landing was on five beaches. In the west, the American troops landed at UTAH and OMAHA beaches while in the east, British and Canadians landed at SWORD, JUNO and GOLD beaches.

(a) **OMAHA Beach** The landing by regiments of the 1st and 29th Infantry Divisions and Army Rangers on OMAHA Beach turned out to be more difficult than expected. When the first wave landed at 0630 hrs, the men found that naval gunfire and pre-landing air bombardments had not yet softened German defences. German positions looked down from bluffs as high as 170 feet. Beach obstacles were strewn across the narrow strip of beach, which delayed the assault at the water's edge for much of the morning of D-Day. Initial reports painted such a bleak portrait of beachhead conditions that General Omar Bradley considered pulling off the beach and landing troops elsewhere along the coast. However, during these dark hours, bravery and initiative came to the fore. Supported by naval gunfire, the Allies drove the Germans inland. By day's end, V Corps had a foot hold on the Normandy coast. The force consolidated to protect its gains and prepared for the next step on the road to Germany. The 1st Infantry Division alone sustained 1,190 casualties, more than 50 percent of all V Corps losses.

(b) **UTAH Beach** The 4th Infantry Division was assigned to take Utah Beach. In
contrast with OMAHA Beach, the 4th Infantry Division's landing went smoothly. The first wave landed 2,000 yards south of the planned beach. Fortunately the original planned beach landing was heavily defended in comparison to the light resistance encountered on the new beach. General Dwight D. Eisenhower ordered that landing craft carrying the successive assault waves land reinforcements, equipment and supplies to capitalize on the first wave's success. Within hours, the beachhead was secured and the 4th Infantry Division started inland to contact the airborne divisions, scattered across its front. At the end of the day, UTAH Beach forces though had not gained all of their planned objectives yet a Beach Head was secured and the soldiers that landed at UTAH Beach had moved four miles inland.

(c) **GOLD Beach** On GOLD Beach, nearest to OMAHA, the 50th Infantry Division and the 8th Armoured Brigade were scheduled to land with the tanks in the vanguard. Some initial assault units were pinned down by accurate German fire but others overpowered the defenders within half an hour. Subsequent waves gradually flanked the defenders and pushed inland. By nightfall they had advanced about 2.5 miles inland on a front of 3 miles. However they failed to link up with the American Omaha Beachhead because of a gap of seven miles between them.

(d) **JUNO Beach** The Canadian 3rd Division landed on JUNO Beach and encountered stiff initial resistance. Due to choppy seas they were about half an hour behind schedule. This left little time for the assault engineers to clear beach obstacles before the incoming tide covered them. The mined obstacles and German shells posed major problems. Parts of the assault group confronted strong defensive positions which delayed them until the afternoon. Other parts quickly overcame the less vigorous German resistance and moved rapidly inland. By the end of the day they had almost accomplished their objectives and were astride the vital Caen / Bayeux Highway. They managed to link up with British troops from GOLD Beach and their beachhead was 12 miles wide and 6 miles deep. But they were still 3 miles short of linking up with the British forces on their left – the SWORD Force.

(e) **SWORD Beach** The British 3rd Division on SWORD Beach also met intense opposition. They were behind schedule due to offshore reefs and tricky tidal currents. The delay gave the German defenders valuable time to recover from the earlier bombardment. Although the British broke through the crust of defenders in an hour, the resultant congestion on the beaches behind them caused further delay. By early afternoon they had managed to expand their beachhead and link up with 6th Airborne Division holding their left flank. In late afternoon they repulsed the only serious German counterattack against the beachheads, destroying 76 out of a total 145 tanks from the 21st Panzer Division. However, they were stopped short of their vital D-Day objective of taking the port city of Caen.

26. By nightfall of June 6, the British Attackers on the east had established a beachhead nearly 20 miles long and about 5 miles deep. They had pushed to the outskirts of the city of Caen. On the west, at "Utah" Beach, the American VII Corps held an area almost 10 miles wide, with spearheads more than 4 miles inland. The American Omaha Beach was the only location facing serious challenges. The frowning cliffs overlooked narrow beaches, and the German defenders were unexpectedly numerous in numbers. The American V Corps, however managed to seize two
narrow strips of beach and cliff. It held on to them through the day and into the night. Then, as reinforcements came ashore, the attackers pushed out again. Their initial footholds were secure.

**The Build Up**

27. In their painstaking preparations for the attack, the Allied planners had figured every conceivable way of getting the greatest possible number of men and supplies onto the beaches in shortest possible time. Right after D-Day, they towed from England several old ships and a number of specially built.
Meanwhile, as the American encirclement eastward from Brittany developed, the British and Americans began a strong advance west of Caen towards Falaise. On 16 August, Hitler finally recognized the futility of trying to hold on and gave permission for a withdrawal from Normandy. The only route of escape lay through a gap between the converging American and British spearheads at Falaise. The position was held by the recently arrived Polish 1st Armoured Division. The Polish force split into two parts, one section left to meet up with the Americans, the other was to try to be the ‘cork in the bottle’ on Road Chabois - Vimoutiers where the Germans poured out of the pocket. After a pitched battle for sometime, the remnants of the German 7th Army and 5th Panzer Army succeeded in breaking through between 16 and 19 August. After the debacle at Falaise, the Allied gained quick victories and soon liberated Paris.
Effects of Surprise and Deception Measures

29 The elaborate deception efforts made by the Allies bore fruit during war both at the strategic as well as the tactical levels. Due to successful portrayal of Pas de Calais as the intended landing site, the Germans were convinced even three weeks into the war that the landings at Normandy were a deception. The fake lighting schemes off the shore of England, fictitious wireless traffic depicting build-up of an Army Group, use of dummy flotilla etc, all proved effective in deceiving the Germans at strategic level regarding the actual landing site. Use of gliders and paratroopers in areas away from the intended beachheads misled the German commanders at tactical level.

PART IV – LOGISTICS

30 General. In July 1943, the logistical plan was prepared and it was estimated that the provision of adequate maintenance for Allied Forces in initial stages would require a flow of supplies rising from 10,000 tonnes per day on D+3 to 15,000 tonnes on D+12 and 18,000 tonnes on D+18. These figures were based on assault by three divisions. The capture of Normandy and Brittany group of ports was expected to ensure discharge capacity sufficient to support at least 30 divisions. Capture of Cherbourg was not expected before D+14 and its capacity on opening was estimated as 1900 tonnes, rising to 3750 tonnes after 30 days. In any event it was not sufficient for the maintenance of the lodgement forces, approximately 8 divisions. Brittany port would not offer a solution before D+60. It was therefore concluded that the initial build-up would have to be over the beaches to support 18 divisions for one month. However, by the end of August 1944, the approximate strength of the Allied forces on the Continent was 36 divisions (20 American, 12 British, 3 Canadian and 1 Polish division).

31 Beach Organisation. The responsibility for developing and operating various supply installations on the far shore was assigned to the Engineer Special Brigades. These organisations were specially trained and equipped to handle the technical organisation of beaches. Their mission was:

(a) To regulate and facilitate the landing.
(b) Movements of personnel and equipment on and over the beach to assembly areas and vehicle parks.
(c) Unload cargo ships.
(d) Move and establish and maintain communication.
(e) Evacuate casualties and prisoners of war over the beach to ships and crafts.

32 Supply Plan. It was planned to build up on the continent only those forces which can be administratively supported under full operational efficiency. The size of the forces that could be built up on the continent was limited from the beginning by the scale of logistic support which could be provided. Essentially the problem was to gear the build up of troops with the flow of supplies in order to ensure that both daily maintenance needs and adequate reserves were provided. Administrative plan of April 1944 prescribed that an overall reserve of 14 days of all classes of
supply be maintained which was found to be unattainable and subsequent modifications provided for the build up of 7 days supply of ration, 3 days of all other classes except ammunition. Priorities for the build up of these levels were however established. Logistic planners estimated that supply levels could be attained only if supplies were landed at a rate of 50 percent in excess of then current maintenance requirements.

33 The Depot Structure. In February 1944, instructions were issued to establish depots on the Continent. Planning involved estimating the amount of space required as well as selecting the most suitable sites for covered and open storage, hard standings, vehicle parks, ammunition storage along roads and POL tankers. In many cases it was important that storage be located near railway spurs and sidings. Space requirements ran into astronomical figures. In first six weeks it was estimated that approximately 220,000 square feet of covered storage and 150,000 square feet of open storage was required. However, the requirements were too heavy to meet.

34 Transportation. Movements influence every aspect of supply. In the initial stages all moves were carried out by trucks and very little rail mileage was expected before D+14. The mission of the transportation corps was to carry out all motor transportation connected with port clearances, static inter-depot operations and line of communication hauling. This entailed traffic communication/regulation both at the ports and along the lines of communication.

35 Supply of Petrol, Oil and Lubricants (POL). The magnitude and importance of movement problem are nowhere better illustrated than in the separate plans which were made for transportation of petroleum products. POL alone accounted for one quarter of all the tonnage transported to the European Theatre of Operation. From the very start of invasion, planning for adequate POL supply focused on the use of some kind of light pipelines which could be laid down quickly so that gasoline could be transported economically over long distances. An outline plan for POL distribution was made which provided for light weight pipelines which could be laid at the rate of 20 or more miles per day.

36 Logistics Problems: By 25th July, logistic operations in the rear areas in Normandy had progressed well except for port reconstruction. Discharge was being developed to maximum capacity at the beaches. The overall supply situation was regarded as satisfactory at the beginning of August. The communication zone had 9 days supply of ammunition, 16 days of POL and there was no shortage of ration. Army reserves were however, badly distributed because a large portion of supplies was still under the control of First Army, which had stock of certain supplies in excess of authorised level on 6th August. First Army had about 11 days of supply of POL as against Third Army’s 13 days. Third Army presented the most immediate problem, as General Patton’s forces by this time had penetrated deep into Brittany. Logistic problems were:-

(a) Raising of 12th Army Group. On 1st August, 12th Army Group upon becoming operational, issued administrative instruction authorising reserve level of 7 days of ration, POL and ammunition. However when they began their rapid advance it became difficult to move even daily maintenance of supplies, with only Normandy Port functioning.

(b) Lack of Transport Facilities. At the end of August, the daily average tonnage of both armies exceeded 11,500 tonnes of POL and ammunition, 12,500 tonnes of ordnance stores and 15000 tonnes of ammunition. The commodities, though available,
could not be delivered due to lack of transport facilities. By the end of August 1994, ninety to ninety-five percent of all the supplies on the Continent lay in Base Depots in the vicinity of beaches and there were virtually no stocks between Normandy and the forward dumps.

(c) **Failure of Depot System.** Efficient logistic structure depends on good depot system, where the theatre main reserve stock can be accommodated. Due to the limitation in storage space, transportation and mobile operations, the advance section was authorised to maintain only a small portion of total theatre reserves in its depots. The planned depot structure, and method of operation were upset due to lengthy confinement in beachhead area of Normandy. The rapid extension in lines of communication during August prevented the planned expansion and establishment of depot system in depth.

(d) **Shortage of Gasoline.** Until the Allied Armies crossed the Seine, supply shortage had not become serious enough to restrict their operations. Soon shortages developed in almost all categories, the first to reach critical proportions in the sense of threatening the success of tactical operations was the shortage of gasoline. This occurred due to delay in capturing Cherbourg port which was eventually secured on D+21.

(e) **Ammunition.** The problem in supply of ammunition occurred due to inadequate provision on the Continent. Limitation on expenditure therefore, had been imposed within the first week of invasion. Due to difficulties in handling, both armies attempted to keep their ammunition stocks as mobile as possible. This required considerable transport which other wise could have been utilised for dumping purposes.

(f) **Rations and Other Supplies.** Since rations are consumed in fairly uniform amounts regardless of tactical conditions, these placed a lesser daily demand on transportation resources. In the first month following the landing in France, operational rations were issued. In the second week of July a fairly rapid shift was made to the bulk type B rations, but at the time of breakout a shift back to operational rations was made. However, subsequent supply lines being extended many miles every day, the time lag lengthened to as much as 10 to 17 days.

(g) **Medical Support.** The distribution of refrigerated whole blood was organised by a theatre blood bank, consisting of a base depot and advance blood depot for communication zone and field armies. In first three months all blood was flown from base depot at Salisbury, England. Whole blood was not enough in the early stages of operations; it became the most critical item of medical supply early in August. However the shortage came to an end in mid August when increasing quantity of blood began to arrive from the United States.

(h) **Signal Engineer and Quartermaster Equipment.** Shortage of these equipments developed primarily as a result of inadequate means of transportation. There was virtually no replacement of clothing towards the end of August and in mid September approximately 80 percent of all issues were made from renovated salvage. The limitation of transport had an acute effect on the move of engineer supplies, due to the bulk and weight of major engineer items.
PART V – ANALYSIS

37. **Unity of Command.** The Allied established a comprehensive command organization which exercised complete control over all three services. The decision of SHAEF did not require approval from any other organization or personality while on the German side, Von Rundstedt did not enjoy complete control over the forces as the major portion of the reserves was under direct control of Hitler.

38. **Concentration.** Concentration of superior forces at the point of application is of utmost importance for success in any operation. The Germans had a total of 48 divisions in the West out of which 38 were all along the coast and 10 were in reserves. The Germans expected the landing in Pas de Calais and deployed their forces accordingly. Therefore, they could not achieve concentration of forces at the point of decision i.e., Normandy.

39. **Maintenance of Aim.** The strategic aim of the Allies was to enter the Continent of Europe, liberate France and in the process undertake operations aimed at the heart of Germany for the destruction of her armed forces. The Allies adhered to this aim throughout the campaign in Western Europe.

40. **Coordination.** Allies had established the joint HQ COSSAC (Chiefs of Staff to the Supreme Allied Command) to co-ordinate the efforts of all the three services. This was renamed as SHAEF (Supreme Headquarter Allied Expeditionary Force). Allies planned and executed joint operations to achieve success. All the three services along with the airborne forces were employed in unison. All the three services had their own commanders but during the approach phase the ground troops were placed under command naval forces to cater for any eventualities.

41. **Surprise and Deception.** The Allied were able to deceive the Germans in believing that the Normandy landing was a diversion and the real invasion would come at Pas de Calais. The Germans were totally deceived regarding the location, timings and magnitude of the invasion.

42. **Importance of Logistics.** The allied forces ensured maximum possible logistic support for the ground offensives. The construction of Gooseberry and Mulberry artificial harbours allowed Allied Forces to build up and prepare for breaking out of the initial bridgehead. The capture of Cherbourg port also facilitated the task of allied logisticians. At the same time, proper interdiction of communication means available to the Germans ensured that the enemy logistics suffered and his reserves could never reach their designated points of employment in time.

43. **Close Air Support and Battlefield Interdiction.** Allied air support during the beach landings was overwhelming. American and British planes flew thousands of sorties on D-Day. In contrast, the Luftwaffe flew a few hundred sorties with only one attack actually reaching the beaches. Allied heavy bombers, fighter-bombers and fighters were unhampered in their efforts to destroy the German defences and prevent reinforcements from reaching the battle.

44. **Employment of Reserves.** Hitler's response to Allied breakout was to order a counterattack across the narrow corridor from Mortain through Avranches to the sea to cut off the US troops.
racing south. This folly resulted in the envelopment and subsequent annihilation of the German 7th Army in the Falaise pocket. The Allies, on the other hand, used their reserve forces in conformity with their plans and to good effect.

45. **Intelligence.** Germans were expecting the Allies to land in the Pas de Calais area, where the English Channel was narrowest. German intelligence failed to provide any clue of the intended landings in Normandy area. At the same time the Allies encouraged the Germans to believe that Pas de Calais was the intended target through a series of deceptions collectively known as Operation BODYGUARD.

46. **Secrecy and Security.** These are very important facets of warfare. Advance knowledge of German plans even at the tactical level enabled the allied forces to spring many surprises on them. The Germans did the same to the British at the time of Operation GOOD WOOD as they came to know of the Operation before it was launched. Utmost sense of secrecy and security on part of the Allies at all levels enabled them to deceive the Germans regarding the actual site of the landings.

47. **Morale.** At the time of the Normandy Landings, the Germans were facing reverses on all fronts and there were no chances of success. German morale had already hit rock bottom. The troops had lost their fighting spirit and were being made to fight forcibly on many fronts for a lost cause. The Allies, in contrast, were riding on a wave of success and their morale was high.

48. **Initiative.** The purpose of the break out was to seize the physical objectives for the operation from which further operations could be developed in the west. All of this was done by keeping the Germans off balance. The Germans lost the initiative and were forced into a defensive posture. Instead of developing a strategic plan with the broad objective of throwing out the invaders, the Germans were forced by the speed of Allied build-up to plugging gaps in their line, rushing regiments and scraps of panzer units wherever the danger seemed greatest at the moment.

49. **Airborne Operations.** The Allies airborne troops were employed for seizing important features in support of the land offensive during the initial landings on Normandy. This proved instrumental in isolating the beaches where landings were being made.

50. **Training and Equipment.** Besides converting reserve divisions, the Commander-in-Chief West enlarged his army by rehabilitating German units from the eastern front, and by activating new divisions out of miscellaneous personnel drawn in part from his own resources and in part from the Replacement Army. Thus, Rundstedt had two kinds of units: old divisions which had lost much of their best personnel and equipment; and new divisions, some of excellent combat value, some only partially equipped and partially trained. On the other hand, Allies launched the offensive after months of preparation and with equipment tailor-made for the amphibious landings.

**Conclusion**

51. The decision to launch a cross Channel invasion was basically taken on insistence of the Americans and the Russians against British reservations. The British would have wanted to keep advancing via Italy or mount Operation ANVIL to come up with what Churchill would refer to as the “Soft under belly of Europe”. Coming up via the “soft belly” might have saved more Allied
casualties besides stopping the Russians further east. However, the quickest way to defeat the Germans was to reach their mainland as early as possible, which could be done by landing in France. That was the reason that the Allies decided to open up a new front and attack the Germans from two sides- Italy as well as France. Despite being a difficult operation, the cross Channel attack was planned in great detail, deliberate preparations were made and finally the Allied military might rolled into action on the beaches of Normandy in June 1944. By the time the Allied invasion came, the Germans had already suffered huge losses at the hands of the Russians on the eastern front. They had mostly second class troops opposing the strong Allied beach assault at Normandy on D day. The superb Allied deception efforts further added to their misery when they were totally deceived regarding the landing site. Disharmony of thought and actions between German senior commanders was an added factor which led to the piecemeal employment of reserves by the Germans. Hitler’s constant interference with the actions of commanders fighting the battle led to a disaster. All this was not to undermine the brilliant interdiction carried out by Allied air forces and their support to the ground forces during breakout from the beach head. In short, the Allies came fully prepared for the war while the German preparations can, at best, be called half-hearted. The Allied invasion of Western Europe undoubtedly proved to be a turning point in the Second World War. The storming of a fifty miles stretch of French Normandy Beach by the Allies and the subsequent operation towards the Rhineland, was a classic example of meticulous planning and inter-arm cooperation with no parallels in the history of warfare. The tide turned at Normandy and never again did the Germans regain their balance till the termination of the Second World War. Germany was decisively defeated along with the rest of the Axis forces and Allies triumphed to a glorious and well- deserved victory.
**Introduction**

1. World War II ended in September 1945, with the total surrender of Japan. Dictator Joseph Stalin was all too well aware of Korea’s value as a foil against Russia’s traditional rivals, China and Japan, and as a checkmate to the United States which, having won the war in the pacific, was bound to play a leading role in establishing the new order in Asia. Stalin was waiting for just such an opportunity where the Soviets could enter the war against Japan while incurring minimal loss, and so it was no surprise when he declared war against Japan after the U.S. dropped the second atomic bomb. On 12th August, two days before Japan quit, Soviet military forces swept through Manchuria and North Korea. The United States reacted in alarm when she realized the potential danger of having strategic Korean Peninsula controlled by communist forces. President Truman proposed a joint occupation of Korea by the two powers where the Soviets would occupy the territory north of the 38th parallel, while the U.S. would control the area south of the line, to which the Soviets agreed. Thereafter, the Russians were training North Korean youth to bear arms, indoctrinating the people with Communist propaganda. They had no intention that Korea should ever again be united except under the Red Flag. Korean War, a military struggle, which was waged on land, sea, and in the air over and near the Korean peninsula; began after the North's invasion of the South, the conflict swiftly developed into a limited international war. It was limited in a sense that unlike WW-II, here the Clausewitzian notions of absolute nature of war, demanding nothing less than the unconditional surrender or prostration of the enemy, did not come into play; however it did involve the United States and 19 other nations. The Korean War lasted for more than three years and in July 1953, when it reached its ultimate end with the signing of truce agreement at Panmunjom. The first year was a seesaw struggle for control of the peninsula, followed by two years of positional warfare as a backdrop to extended cease-fire negotiations. The action was unique because neither the UN nor its predecessor (the League of Nations) had ever used military measures to repel an aggressor.

**Sequence:**

2. Sequence is as follows:
   
   (a) Part I Origin, Causes and Events Leading to War
   (b) Part II Conduct of the War and the Chinese/Soviet Intervention
   (c) Part III POW Controversy and The Armistice
   (d) Part IV Analysis and Lessons Learnt

**PART - I – ORIGIN, CAUSES AND EVENTS LEADING TO WAR**

**Historical Overview**

3. **Potsdam Conference.** The future of Korea was decided at Potsdam Conference, in which the
Soviet Russia had agreed that Korea should be granted independence after the final defeat of Japan. It had also been agreed at Potsdam that Soviet Russia should accept surrender of all Japanese troops north of 38th Parallel, while the American troops did likewise south of the line. However, its important to note that it was never contemplated by the western powers that the 38th parallel was to serve as a temporary line to be used solely for the purpose of rounding up the Japanese troops after the defeat and that once the task was completed, all foreign troops were to be withdrawn from Korea.

4. Soviet Policy

(a) Communist Expansionist Designs. In the initial period of cold war Soviet Union was viewed as an expansionist nation primarily responsible for political and military contention, and that there was a real and global communist threat to independent but internally weak nations; all those nations which ringed Soviet Union in Europe, in Middle East and in Asia. The Soviet Union, according to this view, headed a grouping of ideologically like minded revolutionary entities and nations that were actively expansionist through the selective support of non ruling communist parties in their quest for power. Initially, it was the intention of both USA and the Soviet Union to establish a stable and unified Korea and withdraw their military forces from the area. However, neither the Soviet Union nor the U.S. wanted the peninsula to fall into the other's hand; the Soviets desired a Communist Korea whereas the U.S. wanted a democratic nation. So the roots of division were laid from the very outset of Korea's liberation. Communist elements in the north were present since the Japanese colonial period, but with the north now under Soviet tutelage the leftist factions were able to seize power. During the period of civil turmoil of 1945-46, there were many different leftist factions vying for power. It was during this time that the Soviets helped establish Kim IL Sung, a product of the Soviet military machine, as the leading political figure in the north.

(b) The Institute of Soviet Military Advisors. The Institute of Soviet Advisors was validated the same time as the creation of the Korean People’s Army(KPA) – 8th February 1948. With a new formal designation, the Peoples’ Committee of North Korea Department of National Defence was formed with the participation of over 470 Soviet military advisors. Before the start of the war, Soviet Advisors were located with the Ministry of National Defence of North Korea, as well as in the commands, in infantry divisions, independent infantry brigades, infantry and artillery regiments and political schools. It was largely due to the efforts of these Soviet military advisors that the KPA was created. With the aid of the Soviet General Staff, they developed the KPA operations plans in case of war on the Korean peninsula. After the withdrawal of Soviet forces from North Korea, and later on the withdrawal of the Americans from the South, the Soviet leadership made the decision to keep 4,293 Soviet military specialists in North Korea.

(c) The Soviets wanted to convert the complete Korean Peninsula into a communist dominion but at some later time. Whereas the North Korea’s leadership created a situation, which Moa as well as Stalin were unable to ignore any further. Soviet Union was boycotting the UN at that time hence did not participate in voting; a grave mistake which gave US a chance to use UN for building a coalition against Communist Forces.
5. **US Political Objectives**

(a) US long-term national objectives in Asia were to reduce or eliminate Soviet influence, contain communism and establish cooperative relationships among friendly, noncommunist governments.

(b) The US leadership hoped this would diminish any threat to the United States from Asia and assure US access to the resources of the region. Overall US objectives were:

(i) Economic assistance to South Korea.
(ii) Neutralize Russian Imperialism. Pitch China against Russia.
(iii) Terminate hostilities under appropriate armistice arrangements.
(iv) Ensure that the Korea’s border was drawn no further south than the 38th Parallel.

(c) **Specific Missions Charged to Far Eastern Command** Based on the US Policy of 1950s, the US decided that, in the event of a Soviet attack, American forces of Far Eastern Command will conduct strategic defence. Missions assigned were:

(i) Defence of Japan.
(ii) Ensure safety to US personnel in Korea.
(iii) Not to engage Chinese forces on the mainland beyond Korean Peninsula.

(d) **Withdrawal of American Troops**. After the formation of North and South Korea, Soviets proposed mutual withdrawal of troops. US agreed and following the creation of new Republic in South Korea, American troops were withdrawn with the exception of a small staff of advisers, left on South Korean Government’s request to train Republican Armed Forces. US reduced her forces from 7,500 to 500.

(e) **Syngman Rhee’s Demand for Independence of Whole of Korea**. In the south, after the banning of leftist political parties by General Hodges, the American Military Ruler in South Korea, a Korean patriot named Dr Syngman Rhee began to acquire political power among the conservative elitists. Rhee’s strong stance against communism and his commitment to maintaining civil order during these turbulent times found favour and support with the Americans. Syngman Rhee thus eventually positioned himself as the dominant political leader in South Korea by 1947. His strong anti-communist views kept North Korea wary of his designs and thus away from any negotiations for unification.

(f) **Elections – 1948**. In 1948, UN authorized General Elections in Korea. In due course the elections took place but in South Korea only and resulted in creation of a new Republic of Korea with its capital at Seoul. It was accepted by UN except Russia and her satellites. Russia announced that they had held their own elections and formed a Korean Peoples Democratic Republic (KPDR) and claimed it as the rightful Government of Korea.
Thus the country became completely divided under the influence of two different ideologies; communism and anti-communism. The elections of 1948 and the division of Korea that ensued set the stage for a civil war and by 1950, both North and South Korea sensed that war was inevitable.

6. **Important Political and Military Developments Leading to War**

(a) **Redefinition of US Foreign and Defence Policy.** In post World War-II period US wanted to reduce her political and military commitments all over the globe and the debate for redefinition of the US defence circle was going on. Causes of Korean War could be debated at length but a few would disagree that it was a wrong definition of US Foreign Policy which encouraged the North Korea to invade the South. While outlining the defense policy of the US, the Secretary of the State Dean G. Acheson placed South Korea out of the Defensive Perimeter of the US. On January 5, 1950, Secretary of State Dean Acheson, speaking at the National Press Club, articulated the American policy. He spoke of those countries that the US would defend with force: Japan, the Rykus islands and the Philippine Islands. Korea was left out. The withdrawal of the last American forces from Korea, as well as North Korean Kim's conviction that the US would not intervene, convinced the North Koreans to attempt to unify the country by force. The Soviets, led by Stalin, and the Chinese, led by Mao, concurred with both Kim's judgment about the United States and his plans to unify the country by force. In June, he struck.

(b) **Disproportionate Rise in Military Potential of the North.** US did not arm South Koreans to face any aggression from North Korea. Whereas Soviets, while withdrawing, aggressively armed North Korea. Military history is full of examples where relative strength superiority encouraged aggression. North Korean Army was well trained and far superior in military strength. In terms of being prepared for war, not only did North Korea possess a larger army, it also had many experienced veterans who had fought in China's Civil War. In addition, North Korea by this time was manufacturing some weapons and armaments itself apart from the large inventory of Soviet supplied weapons. South Korea, on the other hand, had soldiers who had not even attended basic training. Finally, North Korea had the support of the Chinese Military as well.

(c) **Political Situation.** From a general viewpoint, the Korean War was one of the by-products of the cold war, the global political and diplomatic struggle between the Communist and non-Communist systems following World War II. The motives behind North Korea's decision to attack South Korea, however, had as much to do with internal Korean politics north and south of the 38th parallel (the boundary between the two republics) as with the cold war. On withdrawal of US troops; South Koreans took over the responsibility of guarding the frontier along 38th Parallel. This led to a series of border skirmishes with both the parties accusing each other of creating disturbances. Also both governments began blaming each other for the economic instability caused by the division since neither half could be self- sufficient.

(d) **Kim’s Desire to Unite Korea by Force.** The Korean people wanted to be unified as one country. The North Korean leadership decided to achieve it by force and
did not hesitate seeking outside help. Therefore after having built his armed forces, Kim attempted a forceful occupation of the South. Although Kim Il Sung was eager to fight in 1950, he was not ready for it till the summer of 1949. Large contingents of his best soldiers were still in China, fighting on the side of the Communists in that country’s civil war. In the early months of 1950, however, tens of thousands of these soldiers returned to the Democratic Peoples Republic of Korea (DPRK), including the 6th Division under General Pang Ho-San, which had a distinguished record in China. In May 1950 Kim perched this division just above the 38th Parallel. He hoped that the summer of 1950, like the summer of 1949, would bring South Korean provocations, which he could use to justify an invasion by the North. Kim claimed that he was provoked by a minor lunge by the South across the Parallel in the early morning hours of 25 June 1950. Whether or not, the South lunged across the Parallel still awaits further evidence, but the North bore the major responsibility for escalating a minor skirmish to the level of massive conventional war.

PART 2- CONDUCT

7. The Korean War was one of the most destructive wars of the 20th century. As many as 4 million Koreans died in the peninsula, two-thirds of them civilians. China lost up to 1 million soldiers, and the United States suffered 36,934 dead and 103,284 wounded. Other nations suffered 3,322 dead and 11,949 wounded. Economic and social damage to the Korean Peninsula was incalculable, especially in the North, where three years of bombing left hardly a modern building standing. Decades later, Koreans still seek reconciliation and eventual reunification of their torn nation.

(a) Geography and Topography of Korean Peninsula. Korea is an S shaped Peninsula approximately 600 miles long, stretching NE to SW. Through land, it is only connected in the North to Manchuria, a Chinese Province, and Russia. Most of the northern boundary runs along river Yalu Tuman that separates Korea from Manchuria, it shares fifteen miles boundary with Russia. In the East and SE, Sea of Japan separates it from Japanese islands, the closest being Kyushu, a little more than hundred miles. In the West, is the Yellow Sea extending up to China. There is no country in the world less suited than Korea to the movement of military forces in war, coastwise. Almost the entire length of the country is mountainous and ridge-lined. There is no thick forest anywhere in the country and fighting in Korea is either up hill or down hill.

KOREAN PENINSULA

8. **Major Towns.** Following are the major towns in Korea: -

(a) **Pyongyang.** The capital of North Korea and third largest city of Korea

(b) **Chungho**. Port and Headquarters of Communist Navy.

(c) **Seoul.** Capital of South Korea; only 40 miles south of 38th parallel, 200 miles from West Coast, an important communication centr
(d) **Taegu.** The largest inland town; an important transportation and agricultural centre.

(e) **Pusan.** Major vital port and second largest city.

9. **Major Rivers.** The major rivers in Korea are as follows:-

(a) **Yalu.** The largest river in Korea which forms the northern boundary between North Korea and Manchuria, a province of China.

(b) **Naktong.** Most important and longest river in the south in Pusan area which flows due west and falls in Korean Straits.

(c) Other major rivers are Kum, Han and Tuemen.

(d) **38th Parallel.** 38th Parallel divides Korea into two zones; Northern Korea and Southern Korea. It is not a border in any true sense. Neither it is militarily defensible, nor does it bear any traditional significance. It is just a division – the geographical division of a country forced by Super Powers.

10. **The Pusan Perimeter.** Pusan Perimeter was a rectangular area, the salient aspects were:-

(a) The enclosed area was about forty-five by eighty-five miles.

(b) The wide Naktong River running North South and passing Taegu and Pusan on the westward defined the western boundary.

(c) In the North the broad valley running from Taegu to Pohang formed the front line.

(d) The Sea of Japan and the Korean Straits covered the Perimeter from East and South.

(e) The irregular defensive front was roughly two hundred miles long.

11. **Invasion - June 1950.** The North Korea’s invasion of the South was the greatest surprise for US; even greater than Inchon Landing1. General MacArthur once remarked, “No man or group of men could predict the North Korean attack any more than you could predict the attack on Pearl Harbour. Even if I would have been supplied with an authentic copy of the North Korean attack order 72 hours in advance, it would not have made much difference.”2

12. On 25th June 1950 at 4 a.m., 70,000 North Korean troops with Russian T-34 tanks crossed the 38th Parallel. Six infantry and one armoured divisions were launched along six approaches. North Korean infantry preceded by tanks started making headway down the Peninsula. The
Northern forces rapidly advanced southward against the ill-equipped defenders. Just 20 km North of Seoul, a critical line of defence for the South maintained by a Republic of Korean Army (ROKA) Division. By the morning of 26th June, the division of Seoul had not committed its forces to battle, probably because it was waiting to be reinforced by another division from the interior of South Korea. However, when the reinforcing division finally arrived on 26th June, troops panicked, mutinied, and fled. The reasons for the mutiny were many, including the relative lack of ROKA firepower, poor training, and ultimately the unpopularity of the Rhee Government which had nearly been voted out of office in relatively free elections held a month earlier.

13. **UN Intervention.** President Truman appealed to the UN to take "Police Action" against the "unwarranted" attack. The Security Council condemned North Korea as aggressors and called upon it to hold hostilities and withdraw to the 38th Parallel. But North Koreans not only ignored but increased the scale of their attacks.

14. **Arrival of the American Troops.** The United States led the U.N. force in the so-called "Police Action" against North Korea. On 30th June two battalions of 24th Infantry Division, arrived by air to Pusan. The force was named Task Force Smith which took up defensive positions three miles North of Osan. The remainder of the Division quickly followed by sea and by 5th July its concentration had been completed. General Walker was named commander of UN Forces in Korea. US forces could do little against a superior force and were soon forced back to a perimeter around the southern port city of Pusan by early August.

**NORTH KOREA’S INVASION - JUNE-SEPTEMBER 1950**

15. **Achievement of Strategic Military Surprise by Inchon Landing.** The UN Forces were on defensive till 15th September when the American Forces, under the command of General MacArthur, achieved a strategic surprise by a successful amphibious landing at Inchon.
(a) The 8th Army staff objected to Inchon landing and the weakening of defences of Pusan perimeter by pulling out a Marine Brigade. They argued that if the forces earmarked for Inchon could be sent to Pusan, the North Koreans could be beaten without what they regarded as a ‘Dangerous Grandstand Play’.

(b) The most relentless opposition came from Navy and Marines, alluding, ‘We drew up a list of every conceivable and natural handicap and Inchon had them all.’

(c) On 15th September 1950, Joint Task Force Seven, with more than 320 warships including 4 aircraft carriers, carried the nearly 70,000 man strong force of X Corps into the dangerous tides of Inchon Harbour. Preceded by heavy naval bombardment and under a blanket of fighter aircraft, led by the veteran 5th Marines, elements of the 1st Marine Division were landed 100 miles behind the North Korean lines and fought their way on to take Seoul. The stroke was decisive.

(d) Conceived and directed by the brilliant General Douglas MacArthur, the assault at Inchon was a strategic masterpiece. The invasion had suddenly positioned some of the finest fighting men across the main North Korean lines of supply and in the rear of their attacking armies. Within two weeks, the North Korean army was largely destroyed or made ineffective. The way to the Yalu, and total destruction of North Korea’s military power, seemed virtually unopposed.

(e) The landing allowed the U.N forces to break through the Pusan perimeter, to retake Seoul, and to cross the 38th parallel by September 30. General MacArthur launched a brilliant amphibious invasion behind enemy lines, about 40 km west of Seoul. In a coordinated move, UN forces broke out of the Pusan perimeter and within a week, they captured Wonson, located on the eastern side of North Korea. Thereafter, they marched towards the Yalu River with almost no resistance from the Northern units.

16. Aftermath of Strategic Surprise at Inchon

(a) In early November US claimed 1,35000 Prisoners in addition to 200,000 causalities inflicted, making a grand total of 335,000 North Korean losses.

(b) The enemy had been virtually destroyed and never fought again above corps strength throughout the war. In 1953 it was estimated to number only about 50,000 men. Thus MacArthur strategy had been spectacularly vindicated.
But still Inchon had become a forgotten victory and not a famous one due to the subsequent course of the war in Korea, which swept away the dazzling prospects raised by MacArthur’s classic victory into a depressing military stalemate and a political partition of Korea.
UN COUNTER OFFENSIVE (SEPTEMBER - OCTOBER 1950)
Participation of Russian Army in War

17. The participation of the Armed Forces of the USSR in the Korean War can be divided into three distinct periods.

(a) **Stage 1 – Preparation.** This phase involving the provision of military aid and expertise by the USSR in the creation and equipping of the KPA started immediately after it annexed the Japanese Korea in 1945 and continued up to the commencement of hostilities on 25th June 1950. The deliberate effort made by the Soviets in training and building the KPA was self evident on 25th June 1950.

(b) **Stage 2 – Beginning of the War.** The day North Koreans crossed the 38th Parallel and invaded South Korea, it commenced the second stage of the participation of the Soviet military component, represented mainly by Soviet advisors and specialists. At this time, all advisors were located with the staff of frontal command and commanding general of the KPA, Kim Il Sung. They were strictly forbidden by the General Staff of the Armed Forces of the USSR from crossing the 38th Parallel. This order remained in force for the course of the war.

(c) **Stage 3 – The Counter Offensive and the Entry of the Chinese.** With the start of counter offensive by the UN forces in September 1950, the KPA started taking heavy losses. At this time the North Korean government turned to the Soviet leadership with a request for "International Air Forces" to cover the combat order of the Korean army from the air. Soon these "covering forces" began to come from the Chinese territory, which in the end were combined to form the 64th Independent Air Korps (IAK). The Soviet provided active air cover to the KPA forces during this stage of the battle. Moreover, the Soviets sent a group of generals from the General Staff of the Soviet Army, headed by the Deputy Chief of the General Staff, Army General M. Zakharov, to Korea. From 1950 to 1952, this group was located in North Korea, and afterwards, it moved to China. The USSR also continued to actively supply military goods to both China and the DPRK. Experienced specialists from Soviet military aviation, pilots, navigators, engineers and technical personnel also helped to keep KPA battle worthy.

18. **Chinese Intervention--3 November 1950-24 January 1951**

(a) **Phases of Intervention.** Chinese intervention can be broadly summed up in three distinct phases:-

(i) First Phase 14 October–7 November Surprise Probe
(ii) Second Phase 26 November—11 December Massive Attack
(iii) Third Phase 1 January—9 January Drive to 38th Parallel

(b) **Shock of Chinese Intervention.** The large-scale Chinese attacks came as a shock...
to the allied forces. After the breakout from the Pusan Perimeter and the Inchon landings, the war seemed to have been won. The desperate defensive fighting of June was a distant memory, as were the bloody struggles to hold the Naktong River line in defense of Pusan in August and early September.

19. **Facts Relating to Chinese Intervention** A few facts related to Chinese intervention are:-

(a) According to Senator Taft of US, “Although apparently, the possibility was foreseen by all our intelligence forces: We also appeared to be completely surprised by the entrance of the Chinese Communist Forces into the war in November 1950.”

(b) In late October 1950, while China was issuing its warning, a large Chinese force had already entered North Korea.

(c) Infact, sensing this an opportunity not only to stop but also to roll back Communist expansion, President Truman approved orders for UN forces to cross the 38th Parallel and push the enemy above the Yalu River, which separated North Korea from China. Despite repeated warnings from the Chinese that they would enter the war if the Americans came near the Yalu, UN forces crossed into North Korea on 7th October and later captured Pyongyang, its capital city. By 25th October, some advance units had reached the Yalu; there they came into contact with Chinese “volunteers” who had moved into North Korea. After hard fighting in which MacArthur's units had to fall back, the Chinese retired and MacArthur continued his offensive. Shortly thereafter, a Chinese force estimated at between 130,000 and 300,000 attacked US forces. UN troops, overextended, outnumbered, and ill-equipped to fight a fresh enemy in the bitter Korean winter, were soon in general retreat. On 26th November the Communists cut the escape route of some 40,000 US soldiers and marines in northeast Korea, who fought their way out and were later evacuated from the port of Hungnam. The Communists reoccupied Pyongyang on 5th December.

(d) Communist forces struck again, this time in massive numbers. Seoul was recaptured on 4th January 1951. Because they had overextended their supply lines and had vastly inferior firepower, they were not able to press their advantage. The Communist offensive was halted along a front far south of Seoul.
20. southward, Truman again redefined American policy in Korea. Unwilling to engage in an all-out war with China, which could have led to a world war involving the Soviet Union, certainly would have alienated the European allies of the United States, the President abandoned as his objective the military reunification of Korea. He returned to his original goal of stopping Communist aggression in Korea.

PART - III - THE ARMISTICE Years of Stalemate July 20, 1951- July 1953

21. The first twelve months of the Korean War (June 1950-June 1951) had been characterized by dramatic changes on the battlefront as the opposing armies swept up and down the length of the Korean peninsula. This war of movement virtually ended on 10th July 1951, when representatives from the warring parties met in a restaurant in Kaesong to negotiate an end to the war. Although the two principal parties to the conflict - the governments of the Democratic People's Republic of Korea (North Korea) and the Republic of Korea (ROK or South Korea) were more than willing to fight to the death, their chief patrons (The People's Republic of China and the Soviet Union) on the one hand and the United States and the UN on the other. Twelve months of bloody fighting had convinced Mao Tse-tung, Joseph V. Stalin, and Harry S. Truman that it was no longer in their respective national interests to try and win a total victory in Korea. The costs in terms of men and material were too great, as were the risks that the conflict might escalate into a wider, global conflagration. Consequently, they compelled their respective Korean allies to accept truce talks as the price for their continued military, economic, and diplomatic support.

Continuation of the See-saw Struggle

22. The savage, seesaw struggle was repeated in one way or another on countless mountain peaks and ridges during 1952, as the two sides struggled to gain ascendancy over the rugged no-man's-land that separated their respective battle lines. The heavy casualties incurred in these bitter outpost battles discouraged General Clark from authorizing any new offensives after Operation Counter. This defensive-mindedness rankled General Van Fleet, who believed that the high casualties the UN was experiencing were due in part to the UN allowing the enemy to launch attacks when and where he wished. The bloodiest of the fighting of this summer took place on Triangle Hill and Sniper Ridge.

PW Controversy

23. Although a number of issues separated UN and Communist negotiators, the chief stumbling block to the arrangement of a final armistice during the winter of 1951-1952 revolved around the exchange of prisoners. At first glance, there appeared to be nothing to argue about, since the Geneva Conventions of 1949, by which both sides had pledged to abide by, called for the immediate and complete exchange of all prisoners upon the conclusion of hostilities. This seemingly straightforward principle, however, disturbed many. To begin with, UN POW camps held over 40,000 South Koreans, many of whom had been impressed into Communist service and who had no desire to be sent north upon the conclusion of the war. Moreover, a considerable number of North Korean and Chinese prisoners had also expressed a desire not to return to their homelands. This was particularly true of the Chinese POWs, some of whom were anti-Communists whom the
Communists had forcibly inducted into their army. Many Americans recoiled at the notion of returning such men into the hands of their oppressors, and for several months American policymakers wrestled with the POW question.

24. **Road to Armistice (January 1951-July 1953)**

(a) In January 1953 Dwight D. Eisenhower succeeded Harry S. Truman as President of the United States. Eisenhower's ascension to the presidency created an air of uncertainty among Communist leaders.

(b) Communist uncertainty about the future increased in March, when one of North Korea's prominent patrons, Soviet leader Joseph V. Stalin, died. Stalin's death triggered a succession struggle inside the Soviet Union.

(c) The convergence of these events- the death of Stalin, the ascension of Eisenhower, and the growing desire on the part of all sides to find a way out of a seemingly unending and unprofitable conflict, created an environment conducive to a settlement of the Korean imbroglio.

(d) **Account of the Last Days of Stalemate.** The last two months of the war had been some of the most horrific of the entire conflict. In less than sixty days, Communist artillery had fired over 700,000 rounds at UN positions, while UN artillery had repaid the favour nearly sevenfold, sending over 4.7 million shells back at their tormentors. Approximately 100,000 Communist and nearly 53,000 UN soldiers were killed, captured, or wounded during those final two months of combat.

(e) **Final Agreement on PW Issue.** Following terms of exchange of prisoners were established and signed by both:-

(i) Neutral Nations Repatriation Commission shall be established for screening of PWs.

(ii) PW issue will be settled by majority vote of the Commission.

(iii) The Commission shall declare the release from the PW status to civilian status of all those prisoners who have not exercised their right to be repatriated.

(iv) The state of origin of the PWs would bear the expenses of the PWs repatriation.

(f) **Signing of Armistice.** The armistice was eventually signed on July 27, 1953 after two years and seventeen days and 575 regular meetings. By that time, both the sides had suffered causalities much beyond their expectations. The agreement released 75,830 Korean Communist of which 5,640 were Chinese. And, North Korea released 3,600 American prisoners and 7,860 South Korean prisoners. In marking the event General Clark the UN Commander in Korea opined,

"The conflict will not be over until the concerned governments have reached a political settlement.”
ARMISTICE --- JULY 1953

ARMISTICE LINE
July 27, 1953
As part of the cease-fire, both sides agreed to withdraw two kilometers along the final battle ground and establish a “DEMILITARIZED ZONE” along the armistice line -- a zone that exists even today.

(g) **Claims of Victory.** The Korean War ended on 27th July 1953. The victory was not clearly defined and, in fact, the armistice was negotiated over the course of months between the two sides. So, who won the war? As John Halliday and Bruce Cumings wrote in their book "Korea: The Unknown War" (Pantheon Books, 1988): "Each side proclaims that it won, yet each actually seems to feel that it lost."

**Internal Aspects/Atrocities Committed by Korean and US Forces**

25. The greatest repercussions of the Korean conflict, however, were the effects the war had on the human beings, it touched-the soldiers, it maimed the civilians, it displaced the families around the world who lost their sons and brothers, fathers and lovers to bomb, bullet, and shell.

(a) **Mistreatment of Prisoners.** Both sides were guilty of mistreating the PWs. Syngman Rhee's government, during the communist advancement into South Korea, killed and executed hundreds of PWs. North Korean units, as well, executed hundreds of PWs. In South Korean PW camps, 6,600 prisoners were killed, died of malnutrition or due to lack of medical attention and diseases.

(b) **Massacre of Civilians by US and North Koreans**

(i) The investigation group of the International Women's Union disclosed after rounding up its on-spot inspection, that "the large-scale massacre and torture committed by the US troops in the areas under their temporary occupation are more brutal than those committed by Hitler's Nazis in Europe they had occupied temporarily."

(ii) Reports have shattered the conventional picture that all the atrocities in the Korean War were committed by the North Koreans or their Chinese Allies.

(iii) US veterans once interviewed said that they machine-gunned hundreds of helpless civilians under a railway bridge at **No Gun Ri** on 26th July 1950.

(iv) A week later, according to other veterans, a US General ordered the destruction of two strategic bridges across the Naktong River killing hundreds of civilians.
(v) The investigation documents reveal other incidents in 1950-51 when US jets repeatedly attacked groups of Koreans in civilian clothes on the suspicion that they harboured enemy infiltrators.

(vi) The defence ministry in Seoul is reported to have heard of nearly 40 similar cases of alleged civilian killings by US and South Korean forces.

(vii) Official war histories record that 10,000 litres of Napalm and 697 tons of bombs were dropped on civilians, resulting in the deaths of almost 8,000 people.

(viii) Some 1,800 political prisoners held in Taejon, south of Seoul, on charges of being communist sympathisers were executed in July 1950 by South Korean Military Police.

(ix) The US troops committed inhuman murderous acts everywhere they set their feet on -- such as gouging out people's eyes, cutting out their ears and hands, disemboweling, chopping bodies alive into pieces with saws or knives and burying them alive.

(x) According to the data released then, in the brief period of temporary occupation of the northern part of Korea, the US troops killed, in such a brutal way, hundreds of thousands of innocent inhabitants: 15,000 in Pyongyang, 35,380 in Sinchon County; equivalent to one fourth of its population, 19,072 in Anak County, 5,545 in Songhwa County, 13,000 in Unryul County, 5,290 in Pyongsan County, 6,000 in Haeju City, 1,511 in Nanipo City and etceteras.

(xi) North Koreans and Chinese were no better than the US forces but were equally brutal in dealing with US and South Korean prisoners and civilians.

(c) **Effects in the West.** The consequences of the Korean War in Western Europe had much the same effects as in America. As a result of the indeterminate finale, military build-up and the arms race became the norm from the 1950s to the 1990s. Winston Churchill commented about the Korean War and its aftereffects on the West, "Korea does not really matter now. I'd never heard of the bloody place until I was seventy-four. Its importance lies in the fact that it has led to the re-arming of America."

**PART - IV - ANALYSIS AND LESSONS LEARNT**

26. The Korean War still has much to teach us about military preparedness, global strategy, combined operations in a military alliance facing blatant aggression and the courage and perseverance of the individual soldier. The modern world still lives with the consequences of a
divided Korea and with a militarily strong, economically weak, unpredictable and supposedly, nuclear armed North Korea. This War was the first major armed clash between Free World and Communist forces, as the so-called Cold War turned hot.

27. **Analysis**

(a) **War and USSR.** The Korean War was a disaster for the USSR. The uncertain ending disrupted the delicate balance between the Soviet Union and the US. Soviets were certain that the indecisive end would be enough for the United States to convince their Western allies to embark on a program of re-armament. Moreover, the Sino-Soviet relationship also suffered as a result of the Korean War.

(b) **China’s Bid for Regional Power Status.** Another result of the Korean War was the ascendance of the People's Republic of China onto the world stage. Fighting against the US, China received aid from the Soviets, helping them to become a major military power. While fighting against the US in the first war which US entered and did not win, China established itself as a power to be reckoned with.

(c) **US and Korean War.** The Korean War brought an important shift in US Cold War Policy. By 1950, a loss to communism anywhere was thought of as a loss everywhere.

   (i) One of the significant results of the Korean War was that it gave the US reason to increase its military expenditure four-fold.

   (ii) The Korean War also strengthened the US relationship with Britain, which sent troops for the UN peacekeeping force.

   (iii) It was during the Korean War that black and white troops were first integrated in the US army, an important step on the road to civil rights.

(d) **Japan’s Benefits and Security Issues.** Japan appears to be the biggest winner of the Korean War. By cooperating with Western efforts and serving as a logistics base, she had her economic and military capabilities enhanced. Japan was able to negotiate a peace treaty with occupation forces and gain back independence. Thereafter, it started cruising on the road to economic boom.

(e) **Establishment of UN as a Forum for Enforcing Peace.** Put to test in its infancy, the UN was for the first time adopted as a forum for conflict resolution and enforcement of peace in the world. The response which the UN got from its member countries was tremendous. Though America’s motive for participation was to contain communist ingress, however the western and the democratic world at large gathered under the UN banner to safeguard the world peace and to avoid the repetition of the last great war where initial weakness in resolve allowed few nations terrorize the world at large.
Difficulties in Controlling the Scale of War. Korean War demonstrated the new terms of the new post-WW II era, and showed how difficult it would be to fight a limited war under those terms. Although the US attempted to keep the war on a limited scale, it quickly snowballed out of proportion, involving China, at times seeming as if it might once again become a nuclear flash point or a world war.

Tenacity of the Asian Militaries. The Korean War also proved the tenacity and skill of the Communist Asian Militaries, something that was reaffirmed by the Vietnam War in the 1960s.

Impact of Personality. The Korean War also showed the impact a single individual can have on history. General Macarthur's brilliant strategies, willfulness and refusal to obey orders dramatically influenced the outcome of the war, in both positive and negative ways.

The Unknown War. The Korean War is mainly an "Unknown War." Korea was not considered a political or military hot spot until the 1950s. In fact, this war is overshadowed by the World Wars that preceded it and the Vietnam War that followed immediately after it.

28. Reasons for Success of Allied Forces

Supreme Role of US Navy.

(a) Dilution of Forces. After capture of Seoul, North Korean Forces continued their advance towards South. They were ultimately drawn into an area, most suited for a final stand through delaying battles on successive lines, which resulted in extension of their line of communication, dissipating the North Korean forces. As North Korean Forces approached the Pusan Perimeter, they were diluted to an extent that their offensive ability to go further had been sufficiently curtailed.

(b) Logistics. Logistic support is very vital to the success of any operational plan. The main drag on communist’s movement over land was a chronic shortage of fuel for tanks and truck convoys.

(c) Demoralization Due to Inchon Landing. Timings for Inchon landing were planned carefully and news badly affected morale of North Koreans who needed high spirits to continue fighting against the defense of Pusan Perimeter.

29. Professional Competence

(a) Wrong Premises. The Korean War had been a war of lighting thrusts, mostly based on the wrong premises of military and political hierarchy. The North Koreans eager on seeing the Korean unification invaded South Korea with all their strength believing that the Americans have probably gone for good and will not
intervene. However, it was not to be and the US under the UN umbrella led 13 nations back onto the Korean Peninsula pushing the North Koreans back to the Yalu River. With victory in sight, it was America’s turn to be surprised once again, as the Chinese dressed as North Koreans poured over the Yalu River to turn the tables onto the UN Forces.

(b) **Underestimation of the Enemy.** One of the major mistakes of Korean War was underestimation of the enemy. US knew the Chinese capabilities perfectly well yet, MacArthur belittled the Chinese threat. US planning was based on the assumption that no Chinese commander in his right mind would commit his forces south of Yalu at that time.

**Conclusion**

30. The end of Korean War could be debated at length but a few would disagree that it was a wrong definition of US Foreign Policy which encouraged the North Korea to invade the South. Even if we believe that Kim II Sung had already made plans for invading the South the placement of South Korea out of the Defensive Perimeter gave more confidence to Mao and Stalin. The Korean War was a conflict fraught with paradox. It pushed China and former Soviet Union closer together in an immediate sense only to generate that afterwards would split them apart more rapidly than otherwise would have been the case. It accentuated the bipolarity by increasing tensions between the superpowers and making their allies more dependent on them; but also added to the determination of many third world nations to avoid committing to any side. This war also saw the US using the UN effectively as an instrument of national policy. China emerged from the war an overall winner. Perhaps the greatest paradox of all was that the conflict wrought terrible devastation to Korea, militarized the cold war as never before and often threatened to go out of control, yet the war was a defining event in the long peace between two super powers. The Soviets and the Chinese learned their lessons well and never again engaged US frontally and were thus able to prolong the Cold War and avoid a possible World War. In short as a result of the Korean War the world remained safe as the big powers avoided direct military confrontation not only in East Asia but also In Europe. As a final word, it can be said that the armistice of 1953 gave birth to more complex problems than it resolved. From a perch 50 years later, it is clear that such a road still is being trodden by new generations of statesmen seeking elusive goals of an everlasting peace. Since long US is declaring her pledge to destroy the military and so called nuclear potential of the North Korea who is now left without her patron after the demise of Former Soviet Union. Supposedly that day is still not very near as the Middle East experience has not been very encouraging for the US to undertake any such venture in Pacific in near future.
VIETNAM WAR (1965-75)

Introduction

1. The Vietnam War lasted from 1965 through 1975. It involved the North Vietnamese (NV) and National Liberation Front (NLF) in conflict with United States (US) forces and South Vietnamese Army (SVA). In essence it was an unsuccessful effort to permanently partition North and South Vietnam into communist (North) and capitalist (South) areas. The US became involved in Vietnam, because she believed that the fall of Vietnam to Communist Government would ensure spread of communism throughout South East Asia and beyond. The belief was known as “Domino Theory”. South Vietnamese Government adopted repressive policies, assisted by US, which led to rebellion. National Liberation Front (NLF) having close ties with Communist in the North was formulated to overthrow the pro-US government in the Southern part. The US involvement increased with each day passed and reached to a level of half a million of troops. In the 1950s the US began to send troops to Vietnam. During the following 25- years period; the ensuing war would create some of the strongest tensions in US history. Almost 3 million US men and women were sent thousands of miles to fight for what was a questionable cause. In total, it is estimated that over 2.5 million people on both sides were killed. Colossal losses were borne by NLF forces not because of the huge number of troops but the superior technology and firepower, the US forces had at their disposal. Financial cost of the war stood at $200 billion. The struggle carries far-reaching lessons for both policy makers and students of military history. It was a conflict between asymmetric adversaries. A clash between, where one had the conviction to fight, while other wanted to assert its hegemony with massive technology and arsenal superiority. The world's most powerful and technological advanced nation was unable to defeat an army of peasants using homemade and captured weapons.

Aim

2. This chapter aims at carrying out an analytic study of the Vietnam War with a view to drawing pertinent lessons, with particular reference to the following:

   (a) Causes of failure of US forces.
   (b) Principles and tactics employed by the Vietnamese.
   (c) Role played by the Media.

Sequence

3. The sequence is as follow.

   (a) **Part I.** Historical perspective and the prelude to the war.
   (b) **Part II.** The War 1965 – 1975.
   (c) **Part III.** Causes of failure of US forces and the principles and tactics
adopted by Vietcong.

(d) Part IV. Role of media.
(e) Part V. Lessons.

Historical Perspective

4. For much of Vietnam's history it had been under foreign rule, primarily by the Chinese in 111 B.C. The Vietnamese finally regained their independence and by 1700 controlled the entire country. In 1860, France began its domination of the area and had, by the late 19th century, implemented its colonization. In 1941 the Indochina communist party combined with other nationalists formed an organization called the Vietminh. Their leader was Ho Chi Minh. During WWII, the Japanese Government took control of much of the area and set up a puppet regime that was eventually forced out by the Vietnamese at the end of that War in 1945. After WWII and until 1955, French wanted to regain colonial control over Indochina, and would only consider independence for Vietnam if it agreed to remain within the French Union. Fighting began between the Viet Minh and French military forces in 1946. By 1954, after a stinging defeat for the French in the battle of Dien Bien Phu, the French negotiated a separation between their forces and those of Viet Minh. The French troops withdrew, leaving a buffer zone separating the North and South and set up elections in order to form a government in the South. The communist regime set up its headquarters in Hanoi under the leadership of Ho Chi Minh. Many North Vietnamese left the country and fled south where the self-proclaimed president, Ngo Dinh Diem had formed the Republic of Vietnam. The agreement between the French and Viet Minh were negotiated in Geneva, and were known as the “Geneva Accords”. The agreement stated that elections were to take place in 1956 throughout Vietnam. Fearing a loss, Ngo Dinh Diem refused to hold elections, and the Viet Minh decided to return to war.

Prelude to War

5. Start of Conflict. The conflict started with the US and some 40 other countries supporting South Vietnam by supplying troops and armaments, and the USSR and the People's Republic of China providing armaments to North Vietnam and the Vietcong. By the end of 1962 the number of U.S. military advisers in South Vietnam had increased from 900 (in 1960) to 11,000 and Kennedy authorized them to fight if they were fired upon. Popular dissatisfaction with Diem continued to grow, even within his army, and Diem was assassinated during a military coup on 1st November 1963. A series of unstable administrations followed in quick succession after Diem's death, and the Viet Cong increased their activities while the South Vietnamese were politically preoccupied.

6. Firing at USS Maddox. On 2nd August 1964, North Vietnamese patrol boats fired on the US destroyer Maddox in the Gulf of Tonkin, and, after President Lyndon B. Johnson asserted that there had been a second attack on 4th August, the US Congress almost unanimously endorsed the Gulf of Tonkin Resolution authorizing the president to take “all necessary measures to repel attacks and prevent further aggression”[14].
PART - I - THE WAR 1965-75

7. **Topography and Climate**

(a) **Topography.** Lying on the Indochinese peninsula, Vietnam borders on China to the North, Laos and Cambodia to the West and looks out to the sea in the East and the South like a long balcony reaching the Pacific Ocean. It is a bridge connecting the continental part of Southeast Asia to the scattering archipelagos in the Eastern Sea. Vietnam owns 329,600 square kilometres in the tropical and subtropical zone and has a 3,300 kilometres of coastline. Vietnam is a land of geographical contrasts, all the country’s delta and plains account for only 20% of the land but are inhabited by 85% of the population. Jungle clad mountains account for 80% of the land area but support only 15% of the population. Vietnam has five main land regions.

(i) The Northern Highlands
(ii) The Red River Delta
(iii) The Annamite Range
(iv) The Coastal Lowlands
(v) The Mekong Delta

(b) **Climate.** The highlands have temperate climate. The humidity varies from 80% to 100%. Every year, Vietnam receives heavy rainfall round the year. The average temperature ranges from 22 to 27 degrees centigrade.

(c) **Opposing Aims**

(i) **US.** US involvement was based on Domino Theory. The fear in American circle was that if one country falls to the communists, Thailand, Cambodia, Laos and Malaya would also go. The US aims in Vietnam were: -
(ii) Preservation of a non-communist South Vietnam in order to thwart the fall of other Asian countries to communism.
(iii) To protect US power and prestige.
(iv) By 1966 defeat-avoidance had become the central US war aim.

(d) **North Vietnam**

(i) The major aim was to overthrow the South Vietnamese Government in order to have complete control over Vietnam.
(ii) Expand the influence of communism in the region.
(iii) Relegate the growing US influence in the region especially in South Vietnam.
Conduct of the War

7. **Initial Deployment**

(a) **US.** The sustained American bombing raids of North Vietnam, Operation Rolling Thunder, began in February 1965 from the Thai air bases. The first US combat troops (9th Marine Expeditionary Brigade) arrived in Vietnam to defend the US airfield at Danang. US 1st Air Cavalry Division had a clash with North Vietnamese Units in Ia Drang Valley. By the end of the year 1965, US troops level reached close to 2,00,000.

(b) **Vietcong.** The strength of Vietcong steadily rose with the help of infiltrations by regular NVA troops throughout 1965. Viet Cong influence was mainly in the countryside where long standing bases and secret zones acted as staging areas for their operations. Many such bases also existed in the heart of populated areas, where Vietcong forces remained dispersed among hamlets and villages.

8. **Tactics Employed**

(a) **US.** US initially avoided the use of ground forces, relying more on using airpower to strike industrial and military targets. A lot of stress was also given to the use of helicopters in a combat role. However, the absence of any tangible targets forced the US to use their ground forces including mechanized elements to search and destroy suspected Vietcong strongholds.

(b) **Vietcong.** Vietcong, actively aided by NVA relied on remaining elusive to the US and SVA. Dispersed among population, they appeared only to strike at the vital targets and afterwards dispersed again. Along with these guerrilla tactics, NVA proved to be a formidable foe when it came to conventional fighting making best use of ground and weaponry at hand.

(c) **Overview.** The Gulf of Tonkin Resolution of 1964 paved the way for deployment of large scale US Forces in Vietnam. Operation “Rolling Thunder” marked the beginning of the US air raids on North Vietnam in February 1965. It was followed by the arrival of US ground troops initially to secure the naval base at Danang and subsequently in an active role. The troop level reached to 200,000 the same year.

(i) 1966 saw an increase in hostilities and the first major US offensive against the Vietcong Guerrillas was launched, codenamed “Operation Crimp”. The aim of this operation was to eliminate the Vietcong base at Saigon.

(ii) Operation “Cedar Falls” was a major ground offensive launched in 1967, by approximately 30,000 US and South Vietnamese troops to complete the unfinished Job of the previous year.
(iii) The American marine base at Khe Sanh was the site of a major attack by North Vietnamese Army in January 1968. The Siege continued for almost three months and US troops finally abandoned the base in April 1968.

(iv) Also in 1968, the North Vietnamese launched a major offensive on the eve of Tet holidays. Though initially successful, the events were soon reversed and the US forces recaptured the lost areas.

(v) The emphasis of Nixon Administration in 1969 was to lay the foundations for the policy of Vietnamization, which meant a gradual shifting of the onus of fighting to the South Vietnamese.

(vi) By 1970, as a result of Vietnamization, the number of US troops started to reduce gradually, and reached to approximately 280,000.

(vii) In 1971 and 1972 the US involvement was further reduced, but massive bombing of the Vietnamese cities of Hanoi and Haiphong was undertaken to force North Vietnamese to make concessions for ongoing peace talks.

(viii) In 1973, the cease-fire agreement was signed between the US and North Vietnam in Paris. American troops started leaving Vietnam the same year.


(d) **Operation Rolling Thunder.** On 13th February 1965, US Air Force and Navy commenced Operation Rolling Thunder. It was initially planned for three weeks, but lasted for three years. The concept of this operation was that as the bombing missions progressed from the DMZ (Demilitarized Zone) towards Hanoi, the communists would sue for peace. The objectives were to destroy North Vietnamese economy, reduce the infiltration of NVA/Viet Cong and to boost South Vietnamese morale.

(i) Heavy damage was inflicted by large number of US aircrafts against North Vietnamese Army and Viet Cong guerilla concentrations. Targets also included military bases, ammunition dumps and fuel depots. As the bombing continued, US Air Force encountered North Vietnamese Air Force, which comprised over 200 fighter aircraft of Russian origin. The US Air Force was able to overcome the challenge posed by the opposing Air Force.
(ii) The planning of air strikes was complex. Decisions, including low-level choices, were taken thousands of miles from the fighting in the Situation Room in Washington. There President Johnson could retain firm control over what attacks should be made. Lt Gen. Joseph Moore at USAF Headquarters in Saigon continually recommended targets, only to find that the targets that Washington chose were seemingly random. During this operation, eight million ton of bombs were dropped often on questionable targets.

(e) **Losses.** The losses incurred by both sides are as under:

(i) **US.** 900 aircraft were shot down and 818 pilots were killed or went missing. Captured US aviators were used as propaganda weapon.

(ii) **NVA / Vietcong.** It caused little damage and could not effectively seal off the reinforcement routes. NVA avoided large troop concentrations and other opportunities for strategic bombing. 120 North Vietnamese planes were lost.

9. **Operation Crimp.** The first major US offensive launched by the ground forces in 1966 under the leadership of General William Westmoreland. It involved 8000 US troops to capture the Vietcong Headquarters at Saigon and eliminate the tunnel system used by the Viet Cong guerrillas. American forces failed to find the Vietcong Base. At the end of 1966, US Forces numbered 3,85,000 men and 60,000 sailors. 6000 Americans were killed during this year and 30,000 wounded. Out of 280,000 Vietcong forces 61,000 perished.

10. **Operation Cedar Falls.** Operation Cedar Falls began in January 1967. The Americans wished to force the Vietcong forces away from the Iron Triangle (Area between Saigon River and Route 13). No major resistance from the Vietcong forces was encountered. The operation lasted for 19 days. A lot of Viet Cong supplies were captured. 72 Americans and 720 Vietcong were killed.

11. **77 Days Siege at Khe Sanh.** The village of Khe Sanh lay in the northwest corner of South Vietnam just below the demilitarized zone.

12. **Significance.** It was an important US Special Forces Base. Its importance lay in its proximity to the Ho Chi Minh Trail.
(a) From Khe Sanh, US artillery could shell the trail and observers could keep an eye on North Vietnamese Army traffic moving southwards. If necessary they could call in air strikes or alert CIA raiding parties across the border in Laos.

(b) Special Forces working with local Montagnard tribesmen also harried North Vietnamese Army traffic in the area and were a definite nuisance to Hanoi. In 1967, the Marines took over Khe Sanh and converted it into a large firebase.

(c) By 1968, President Lyndon Johnson had become interested in this remote base and a question was asked - whether to abandon the base or whether to defend the base.
13. **Conduct**

(a) On the morning of 21 January 1968, at 5:30 am, the Vietnamese Army launched the awaited attack by a barrage of shells, mortars and rockets, and the siege of Khe Sanh began.

(i) During the first two days, 18 Marines were killed instantly and 40 were wounded.

(ii) To withstand the constant assaults, the bunkers were rebuilt to withstand 82 mm mortar rounds.

(iii) On 22nd March, the North Vietnamese launched a massive attack on Khe Sanh. More than 1000 rounds hit the base, at a rate of a hundred every hour. American forces replied with heavy bombing. The North Vietnamese Army launched further attacks in waves, but massed artillery and accurate air strikes broke the attacking elements. In early April ‘Operation Pegasus’ was launched to relieve the forces at Khe Sanh. A 1st Cavalry Helicopter Assault Force landed near Khe Sanh as US and South Vietnam forces hit North Vietnamese Army positions along Route 9. Khe Sanh was relieved on 6th April.

(iv) Due to the presence of highly mobile American forces in the area, it was felt that Khe sanh base was no longer required. Resultantly, in June 1968, US forces abandoned and demolished Khe sanh.

(v) **Losses.** The official assessment of the North Vietnamese Army was just over 16,000 killed. Thousands more were probably killed by American bombing. Whereas the US causalities were 3500.

(b) **Tet Offensive**

(i) Tet (Lunar Year Celebrations, 31st January) had traditionally been a time of truce in the long war and both Hanoi and Saigon had made announcements that this year would be no different - although they disagreed about the duration. While the world was watching the drama unfolding at Khe Sanh, North Vietnamese Army and Viet Cong regulars were also drifting into Saigon, Hue, and most of South Vietnam's cities. They came in twos and threes, disguised as refugees, peasants, workers, and Army of the Republic of Vietnam soldiers on holiday leave. Viet Cong network in Saigon and the other major cities had stockpiled stores of arms and ammunition drawn from hit-and-run raids and black-market. US Intelligence had gotten wind that something was brewing through captured documents but Westmoreland's staff disregarded the reports. At the request of General Frederick Weyand, the US Commander of the
Saigon area, several battalions were pulled back from the Cambodian border. Westmoreland later claimed to have anticipated Tet but the evidence suggests that he was not prepared for anything approaching the intensity of the attack that came and that he was still concentrating his attention on the developing battle at Khe Sanh where he thought Giap would make his Main effort.

(c) **Conduct**

(i) In the early morning hours of 31st January, the first day of the Vietnamese New Year, NLF/NVA troops and commandos attacked virtually every major town and city as well as American Bases in South Vietnam, achieving complete surprise.
Vast areas of Saigon and Hue suddenly found themselves "liberated" and parades of gun-waving NVA / Viet Cong marched through the streets proclaiming the revolution while their comrades rounded up prepared lists of collaborators and government sympathizers for show trials and quick executions.

(ii) **Attack on US Embassy.** In Saigon, nineteen Viet Cong commandos tried to gain control over the US Embassy by blowing their way through the outer perimeter. Their bid to achieve the objective was foiled by the marine guards and troops of 101st Airborne. US troops were able to wipe out the commandos; nevertheless this attack on 'American soil’ captured the imagination of the media.

(iii) **Attack – Sensitive Targets.** Other North Vietnamese Army/Viet Cong squads attacked Saigon's Presidential Palace, the Radio Station, the Headquarters of the Army of the Republic of Vietnam Chiefs of Staff, and Westmoreland's own compound. Furthermore, raids on the Tan Son Nhut and Bien Hoa air bases resulted in the death of twenty-three Americans, wounding eighty-five and serious damage to fifteen aircrafts.

(d) **After Effects**

(i) General Giap had been frustrated at Khe Sanh and defeated in South Vietnam's cities.

(ii) North Vietnamese Army/Viet Cong dead totalled some 45,000 and the number of prisoners nearly 7000. America and its Army of the Republic of Vietnam ally had suffered over 4,300 killed in action, some 16,000 wounded and over 1,000 missing in action.

(iii) The shockwave of the battle finished Johnson's willingness to carry on. Westmoreland was pressuring Washington for 2,06,000 troops to carry on the campaign, but was denied.

(iv) The fact that the Viet Cong suffered far more and had lost a major gamble mattered little because the war looked like a never-ending conflict without any definite and realistic objective.

(v) The NVA persisted in its effort to weaken the Siagon government, launching nationwide “mini-test” offensives. In longer terms it had telling effects on American morale and will to fight.

(vi) It resulted in withdrew of allies from Khe Sanh during the summers. Its abandonment signaled the demise of the McNamara Line and further postponement of MACV’s hopes for large-scale American cross-border operations.
(vii) For the remainder of 1968, Army units in I Corps were content to help restore security around Hue and other coastal areas, working closely with the marines and the South Vietnamese in support of pacification. North Vietnamese and Viet Cong forces generally avoided offensive operations. As armistice negotiations began in Paris, both sides prepared to enter a new phase of the war.

(viii) If Tet wasn’t a full-scale shock to the American public, it was at the very least, an awakening. The Vietcong that Johnson and the generals had described as moribund had shown itself to be very alive and, as yet, unbeaten.

(e) **Fall of Saigon.** By 1st April 1975 the North Vietnamese were advancing through South Vietnam and the Americans realized Saigon would fall next. On 1st April an Evacuation Control Centre was ready to evacuate American personnel and South Vietnam inhabitants. This plan was coded "Talon Vice" or "Frequent Wind". The sealift was from Saigon via Vung Tau. US navy task force 76 came with 3 aircraft carriers and 50 ships to help in the contingency plan of "Frequent Wind". Over 3 million Americans served in the war. The result of the war was 58,000 killed, 1000 missing in action and 1,50,000 wounded.

**PART - II - CAUSES OF USA FAILURE**

14. **Inconsistency in Policy.** From the start of active involvement of US force in 1960 till their withdrawal from Vietnam in 1975 the Government policies did not remain consistent to war aims. From the change of Presidency from Eisenhower to Kennedy and Johnson to Nixon the war policies kept fluctuating from total non-involvement to involvement and ultimately disengagement.

15. **Faulty Policy of Vietnamization.** During the Vietnamization, only minds were subjected to change not the hearts. By June 1971, it was evident that society was in fact, being ruled by Vietcong’s right underneath the South Vietnamese and United State officials. Policy of Vietnamization badly failed. South Vietnam soldiers had ample of modern equipment but they lacked the will to train themselves and lacked the requisite amount of leadership. They would always think that superior US firepower would save them. With both men and material resources, Americans enforced corruption and destroyed the basic tissue of Vietnamese society. All the rehabilitation efforts of US were destructive rather than constructive.

**Strategic Failures**

16. Uncertain policy was bound to give birth to a strategy, which was destined to defeat. US Generals followed the strategy of "Search and Destroy" rather than proven British Strategy of “Clear and Hold”. General in Command, General Westmoreland, while adopting strategy to fight in Vietnam could not comprehend that war was required to be fought at village points rather along lines. Vietcong could break up into small units and go anywhere circumnavigating US out posts. The essence of Guerrilla Warfare is the control of people not the territory. The US Strategists rather adopted the strategy of attrition. This brought Air Force in lime light, which was neither trained nor
designed to go for strategic operations in a wooded country like Vietnam and against an army who’s logistic ran, not on large railways, but on bicycles and man porting.

(a) **Wrong Identification of Enemy’s Centre of Gravity.** The Americans through a wilful mistake identified Vietcong Guerrillas as the centre of gravity. This was done because they had made a conscious decision not to invade North Vietnam, therefore North Vietnamese Army could not be regarded as centre of gravity. For the same reason it could not be Hanoi: the North Vietnam capital. However, the time proved that Vietcong was not the centre of gravity and was amply demonstrated during Tet Offensive when even though they were virtually destroyed the war continued unabated.

(b) **Multiple Objectives.** The North Vietnam concentrated on one objective i.e. the conquest of South Vietnam. In contrast, the United States was caught up in conflicting and sometimes contradictory objectives of resisting aggression and counter insurgency.

**Military Failures**

17. **Inappropriate Tactical Doctrine.** The question of how best to use large numbers of American ground forces was still unresolved on the eve of their deployment. Focusing on population security and pacification, some planners saw U.S. combat forces concentrating their efforts in coastal enclaves and around key urban centres and bases. Under this plan, such forces would provide a security shield behind which, the Vietnamese could expand the pacification zone; when required, US combat units would venture beyond their enclaves as mobile reaction forces. This concept, largely defensive in nature, reflected the pattern established by the first Army combat units to enter South Vietnam. But the mobility and offensive firepower of U.S. ground units suggested their use in remote, sparsely populated regions to seek out and engage main force units as they infiltrated into South Vietnam or emerged from their secret bases. Lack of a clear-cut tactical concept resulted in heavy losses against Vietcong, who remained invisible for most part of the conflict.

(a) **Problems of Command and Control.** The prospect of deploying American ground forces also revived discussions of allied command arrangements. For a time, Westmoreland considered placing South Vietnamese and American forces under a single commander, an arrangement similar to that of U.S. and South Korean forces during the Korean War. In the face of South Vietnamese opposition, however, the idea was dropped. Arrangements with other allies were varied. Americans in South Vietnam were joined by combat units from Australia, New Zealand, South Korea, Thailand, and by non-combatant elements from several other nations. Westmoreland entered into separate agreements with each commander in turn; the compacts ensured close co-operation with MACV (Military Assistance Command Vietnam), but fell short of giving Westmoreland command over the allied forces. On the other hand the Commander in Chief, Pacific, and his air and naval commanders from his headquarters thousands of miles away in Hawaii carried out most air and naval operations outside South Vietnam, including ROLLING THUNDER. This patchwork of command arrangements contributed to the lack of a unified strategy and had adverse effects on US war aims in Vietnam.
(b) **Ineffectiveness of Mechanized Forces.** Facing an opponent who employed no armour, American mechanized units, often in conjunction with airmobile assaults, acted both as blocking or holding forces and as assault or reaction forces, where terrain permitted. "Jungle bashing," as offensive armour operations were sometimes called, had its uses but also its limitations. The intimidating presence of tanks and personnel carriers was often nullified by their cumbersomeness and noise, which alerted the Vietcong to an impending attack. The Vietcong also took countermeasures to immobilize tracked vehicles. Crude tank traps, locally manufactured mines (often made of plastic to thwart discovery by metal detectors), and well-aimed rocket or recoilless rifle rounds could disable a tank or personnel carrier. Together with the dust and tropical humidity, such weapons placed a heavy burden on Army maintenance units.

18. **Inhospitable Climate.** Helicopter Force (lynch pin f US Forces in Vietnam) not only suffered combat losses, but also the heat, humidity and dust of Vietnam taxed the maintenance capacity. Human attrition was also high; hundreds of soldiers, the equivalent of almost a battalion, fell victim to a resistant strain of malaria peculiar to Vietnam's highlands.

**The Vietcong Factor**

(a) As the Vietcong's influence over the population increased, their military forces grew in number and size. Squads and platoons became companies, companies formed battalions, and battalions were organized into regiments. This process of creating and enlarging units continued as long as the Vietcong had a base of support among the population. After 1959, however, infiltrators from the North also became important. Hanoi activated a special military transportation unit to control overland infiltration along the Ho Chi Minh Trail through Laos and Cambodia.

(b) The Vietcong thrived on their access to and control of the people, who formed the most important part of their support base. The population provided both economic and manpower resources to sustain and expand the insurgency; the people of the villages served the guerrillas as their first line of resistance against government intrusion into their "liberated zones" and bases.

(c) By mobilizing the population, the Vietcong compensated for their numerical and material disadvantages. The general perception among the US Forces that ten soldiers were needed to defeat one guerrilla reflected the insurgents' political support rather than their military superiority. For the Saigon Government, the task of isolating the Vietcong from the population was difficult under any circumstances and impossible to achieve by force alone.

(d) The number of infiltrators alone during that period from 1959 to 1964 was estimated at 41,000. The growth of the insurgency reflected not only North Vietnam's skill in infiltrating men and weapons but South Vietnam's inability to control its porous borders, Diem's failure to develop a credible pacification program to reduce Vietcong influence in the countryside, and the South Vietnamese Army's difficulties in reducing long-standing Vietcong bases and secret zones. Such areas not only facilitated infiltration but also were staging areas for operations; they contained training camps, hospitals, depots,
workshops, and command centres. The Vietcong factor eventually became one of the major factors in the defeat of US Forces in Vietnam.

19. **Internal Military Problems**
   
   (a) Growing racial tension in troops.
   (b) Drug abuse.
   (c) Neuropsychiatry cases.
   (d) Deteriorating training standards.
   (e) Decline in leadership quality.

20. **Principles and Tactics Employed By Vietnamese**
    The armies of the North Vietnamese (NVA) and the National Liberation Front (NLF) lacked the conventional military strength of their adversaries. The Vietcong forces were organized as under:
    
    (a) **The Main Force.** It was made up of highly trained, full time regulars with a capability of operating as regimental size units and employing mortars and recoilless weapons. Main force units were the mobile elements of Vietcong military region and either conducted major attacks or reinforced other units. In late 1965 NVA troops infiltrated from North Vietnam and joined these already established main Vietcong forces elements to bolster them significantly.
    
    (b) **The Local or Provisional Forces.** They were composed of regular soldiers, who operated within the boundaries of their respective provinces.
    
    (c) **Guerrilla Forces or Irregulars.** They were recruited from villages to operate on part time basis in their home areas. They collected taxes, gathered intelligence, terrorized and propagandised people and frequently provided reinforcing support for main or local forces. Throughout the conflict the advanced military power of the US and its supplemented forces of South Vietnam outclassed the Vietnamese Army. In the face of the overwhelming military might arrayed against them, the communist forces developed following tactics and strategy to cover their weaknesses: -
    
    (d) **Guerrilla Warfare.** The North Vietnamese (NV) and National Liberation Front (NLF) adopted the guerrilla tactics to subvert the more powerful forces of the US and the South Vietnamese. The US soldiers found difficult to combat, as they were not used to the jungle, foliage, trees and swamps. The guerrilla warfare, made it almost impossible for the US to know who was their friend or foe. To counter guerrilla warfare US resorted to chemical attacks such as napalm bombs and ‘’Agent Orange’’ but it paid lesser dividends.
    
    (e) **Effective Use of Environment.** It is a fundamental principle of guerrilla warfare that an army utilizes natural surroundings to its full extent. The communist effectively used the natural camouflage of the jungle and seldom fought outside its protection. With its dense foliage they were able to mask their movements and operations from the enemy. The thick canopy of the jungle nullified the supreme edge that the US held with its significant air power. The US Air Force was unable to detect its targets due to the jungle obscuring its pilots vision and therefore could not effectively engage North
Vietnamese emplacements, troops and installations.

(f) **Lowering of Enemy Morale.** The NLF and NVA found it extremely effective to strike at the morale of the enemy. American soldiers with low morale were less effective warrior, disillusioned and unwilling to fight. The North Vietnamese devised special methods to strike at enemy morale. They constructed various booby-traps to maim, but not kill enemy personnel. The Vietcong reasoned that a dead enemy was just one body bag, a statistic, but a live soldier would scream from his wounds, taking him out of the fight and subjecting his fellows to hearing and seeing his wounds and agony; lowering their morale.

(g) **Propaganda /Involvement of Locals.** Another important tactics of the North Vietnamese was the involvement of the general population in their operations. Their aim was to win the hearts of peasant population. They did not do anything, which brought about the destruction of land or crops, and acted directly against the US policies of defoliation. They never stole anything and helped the people with their daily work. With this the NLF and NVA won a great many supporters among the general population.

(h) **Logistics and Use of Tunnels.** The Vietcong, following the example of Chinese Guerrillas had always given the highest priority to creating safe base areas, which included key ground, logistic centres and headquarters. Hiding the base areas had always been a high priority for the Vietcong. In remote swamps and forests they had no problems in doing so, however, in open areas close to habitations they faced problems. The answer was to build enormous system of underground tunnels. Tunnel System provided them enough protection to survive American aerial bombing, to appear and disappear at will, and to operate an efficient logistic system. By the end of 1970, the US forces had discovered 48,000 tunnels in various sectors of Vietnam. These tunnels were the bases of many operations for the NVA and NLF, many of which provided command headquarters, barracks, munitions depots, food dumps, water and field hospitals.

(i) **Avoiding Open Battlefields and Use of Night.** The Vietcongs not only used terrain in their favour, but also made use of night hours to their best advantage. They avoided open battlefields to minimize the losses against the most advanced armed troops; where unavoidable they took refuge of night. The essence of their operations lied in attacks without prior warning and when the situation was most favourable and ripe.

(i) **Tactics of Hugging and Killing.** On the one hand Vietcongs evaded US troops’ but on the other hand they required American weapons and ammunition. So like the Red Indians who trailed the herds of wild buffalo to live on it, Vietcongs remained close to US troops hugging them or following their trail in order to destroy them and capture their weapons.

(ii) **Delaying Tactics.** Regular army seeks to end war as soon as possible, to minimize losses where as, insurgents seek to prolong it, since he has every thing to gain by it. Vietcongs used the technique of two steps forward and one step back. No time compulsion provided enormous amount of flexibility in tactics to the Vietcongs. Independence from the time always left initiative in their hands. Tet Offensive, Offensive of 1972 and 1974 proved that initiative of war lay entirely with Vietcongs.
(iii) **Use of Booby Traps.** The Vietcong also used booby traps such as concealed holes in the ground usually covered by leaves and were deep enough to prevent the trapped one to come out effortlessly. Mines buried under ground and concealed with leaves; caused enormous US causalities. The Vietnamese also used the “Punji trap” which is similar to the concealed hole, but with sharp spikes in the pit. Punjis were often deliberately contaminated to increase the risk of infection. They employed another innovative technique, in which a grenade was attached to a trip wire, which exploded instantaneously on contact, causing considerable damage. Moreover, the vacated tunnels once no more required were often booby trapped.

**PART - III - ROLE OF MEDIA**

"Television brought the brutality of war into the comfort of the living room. Vietnam was lost in the living rooms of America--not on the battlefields of Vietnam."

Marshall Mc Luhan, 1975

**Media vis-à-vis War**

21. Vietnam War, without doubt, was the first war to have received such a wide spread print and electronic media coverage. Even the 2nd World War pales in comparison to the the conflict in Vietnam when it comes to the involvement and influence of press and news media. Richard Nixon in his book “In the Arena” declares, that consequences of the media reporting can be catastrophic in the modern world.” The role of media during the Vietnam War is a highly controversial subject. US generals, and General Westmoreland in particular tends to be highly critical of the role of media in the war. But to be fair, media actually brought and showed the brutalities of war to the hitherto fore aloof public of the United States.

**America's First Television war**

22. Vietnam revolutionized the relationship between media and military in ways that still shape policy today. During World War II, the media had generally cooperated with the military and endorsed the war's cause. While tensions increased slightly during Korea, the media and the military continued to coexist in relative harmony. In the early years of the Vietnam War, the same spirit prevailed--correspondents might have disagreed with official policy, but they seldom questioned the righteousness of America's cause. Ward Just, who covered the conflict for the *Washington Post*, recalls Vietnam as "the last war in which American military authorities willingly transported reporters into battle. . . . When you arrived at the command post you were briefed, pointed in the direction of the gunfire, and then left alone to do your work." Reporters in the field often filed stories over military phone lines; the military was so confident of media support that it rejected internal calls for censorship, opting instead for voluntary guidelines designed to maintain security while preserving the rights of a free press. However, as the conflict dragged on, death tolls mounted, and opposition intensified at home, the press became increasingly sceptical of America's involvement. A crucial turning point was the Communists' Tet offensive of 1968, images of the
American compound in Saigon under siege and South Vietnamese officer Nguyen Ngoc Loan shooting a Viet Cong prisoner point blank in the head powerfully conveyed the horror and hopelessness of the war, fanning opposition at home. The My Lai incident of 1968 in which the U.S troops massacred 200 civilians at the hamlet of My Lai was widely covered by the media. The pictures of women and children murdered in cold blood brought the brutalities of war closer to home to the American public. One fact can not be denied that, Television brought the war into the bedrooms of Americans and owing to its need being highly dramatized; the war that Americans saw, was exclusively violent, miserable: guns firing, helicopters crashing, women and children crying, marines dying while lying in the fields. For the first time in military history the outcome of war was determined, not on the battle field but on the television screens. On 10th March 1968 New York Times reported that Joint Chief of Staff had requested an additional 206,000 troops for Vietnam. This was followed by the president Johnson’s, declaration of not contesting for the next Presidential elections. These two events well covered by media proved to be the major factors for change of public opinion as regards Vietnam War.

**Pentagon Papers**

23. Many actions of the American media are believed to have caused a lack of support for the Vietnam War. The Pentagon Papers, perhaps the most controversial case regarding freedom of press and war, is just one of the ways the media played a role in the Vietnam War. In 1971, The New York Times followed by the Washington Post and a handful of other newspapers, began publishing a series of articles based on a top secret,47-volume, government study officially entitled ‘History of the United States Decision-Making Process on Vietnam Policy.’ The day after the first article ran in The Times, Attorney General John Mitchell asked The Times to cease the publication of this material stating that it was in violation of the Federal Espionage statutes. The Times refused to stop the publication, forcing the government to ask for an injunction from the courts placing a temporary restraining order on the papers to stop these series or articles.

24. The print version of the media exercised their freedom quite the same as TV. Pictures such as the one of a 9-year-old Vietnamese girl (Phan Thi Kim Phuc), published on the cover of Life Magazine, burning from napalm, screaming in agony as she frantically runs down the street of her small village, just north of Saigon. The heat and flames that burned away her clothing showed the rest of the world just how cruel war could be. As the war progressed, so did the attitude of the media and the public. In the print media, the traditional press conferences, official news releases, and reports of official proceedings tended to sway, as reporters exercised their free power. With the war reaching the period of heaviest American involvement (between 1964 -1969), reporters started doing more research, conducting interviews and publishing more analytical essays. On television, the press exercised their freedom by displaying photographs or film footage of dead and/or wounded soldiers and civilians on a regular basis, during their evening news. This scenario was commonly known as, "Steak and potatoes with body counts". These pictures shocked the public, but became a common sight for the evening network news. Many people don’t realize how much influence the media had on the war. However, NBC News anchorman David Brinkley did. He used his freedom of the press to express exactly how he felt, much so influencing the minds of his viewers. At one time, Brinkley introduced his report of the latest Vietnam casualties as follows:

*The president said at his news conference last week that the only thing that had been settled when he came to office was the shape of the table. Well, in the five months since then, they have used the*
table in the shape agreed on, settled nothing, and in Vietnam the war and the killing continues. Today in Saigon they announced the casualty figures for the week. And though they came in the form of numbers, each one of them was a man, most of them quite young, each with hopes he will never realize, each with families and friends who will never see him alive again. Anyway, these are the numbers…

25. In retrospect, one can easily identify the culmination of the Vietnam War with the changing American perception regarding media-military relationship. As later events, such as the U.S. invasion of Grenada and Panama and more recently the two Gulf wars, have amply demonstrated, how US Army has taken a realistic stock of its media policy. Media personnel and newsmen are now facilitated in their job, but a latent censorship is enforced in the form of media guidelines and codes of conduct. US seems to have learnt its lessons well from the conflict in Vietnam. As far as North Vietnam is concerned, the population was generally unconditioned to mass media appeals, North Vietnamese leadership used an unstructured media intelligently by reinforcing with other more direct means of communication. Some of the measures undertaken were:-

(a) **The Leaflets.** These were the major mass medium of North Vietnamese in its earliest days. Many of them contained Ho Chi Minh’s picture and advised the fact that Lao Dong Party continued to exist in the South. The mode of delivery ranged from distribution by hand at night, women carrying them in grocery baskets to delivery through kites and balloons.

(b) **Motion Pictures.** These pictures although of low quality technically, contained sufficient matter to motivate people. They were aimed at changing the mindset of South Vietnamese populace.

(c) **Newspapers and Periodicals.** The system had three components. It contained regional and local news, speeches of leaders and non political content such as serial fiction features and revolutionary poetry. The Vietcong also published a number of books containing stories of heroic revolutionary efforts.

(d) **Supplementary Media Systems.** These were established as village information service, cadres reading news aloud and photo displays. Information halls were built and National Liberation Flag containing symbols of revolutionary spirit was raised openly in liberated areas and clandestinely in cities.

**PART IV - LESSONS**

26. Multi dimensional aspects of Vietnam War provide an in-depth study for military leaders at all tiers. The military lessons are interdependent on the political situation, which persisted before and during the war. Therefore, it is also important to understand the political dimension of this war to evaluate the correct lessons from it. This war also tested the technological advancements and became a potent testing ground to evaluate complete dependence on technology. It also carries far-reaching lessons for conduct of future wars. The pertinent lessons have been covered in ensuing paragraphs.

(a) **Policy and Strategy**

(i) **Consistency in National Policy.** It was the longest war in American
history, the most distant and least obviously related to nation’s immediate concern. The policy of the extent of American involvement changed with the change in the government. From President Eisenhower to President Kennedy and to President Nixon it varied from non-involvement to total involvement and ultimately to disengagement. The national policy should remain focused and consistent. Change in governments and top hierarchy should not affect alterations in national aim and policies.

(ii) **Strategy.** USA did not have a clear military strategy throughout the Vietnam War. The war did not end as it was initially planned. The communists suffered a serious tactical defeat, in which much of the indigenous Vietcong guerrillas were killed but for US it was a strategic failure since the Vietcong persisted and ultimately won. The military strategy should be derived from national policies and must be in harmony with tactical operations.

(iii) **Government vis-à-vis People.** Popular public/domestic opinion cannot be divorced from national decision-making process. The tendency of feeding in false and excessively optimistic/pessimistic reports can backfire when things start unfolding the other way. Similarly forming of public opinion in support of Government policies and involvement of general public in debate on issues of national significance is also of prime importance.

(b) **Use of Air**

(i) **Employment of Helicopter.** The helicopter put wings on the infantryman, on the artillery guns, and on the pallets of supplies. One of the most important lessons of the Vietnam War was the employment of helicopter. It showed how commanders could command the battle and enabled commander to critically see the battle and decide where reinforcements were req. Helicopter also proved a very good anti guerrilla weapon.

(ii) **Use of Air Over Jungles.** The US dropped 6.7 million tons of explosives from airplanes. ‘Operation Rolling Thunder’ was a large-scale air operation and enabled US troops to continue operations under hostile environment, even when isolated by the guerrilla forces. Bridges and bottlenecks, which could not be destroyed by prolonged air effort using hundreds of tons of conventional bombs, were destroyed by couple of sorties using radio-controlled bombs.

(iii) **Air Mobility.** C-141 cargo aircraft proved reliable workhorses for carrying vital items from continental US warehouses to Vietnam. Among the most significant
developments was the employment in the battle of the 1st Cavalry Division. The role of air mobility as means of meeting the threat of limited war throughout the world was born. The idea led to conversion from heavy armament and vehicles to lighter versions that could be carried by aircrafts and helicopters, thereby decreasing the deployment timings.

c. **Logistic Support.** Logistic support plans were meticulously worked out and battalions never felt the shortage of ammunition, equipment and foodstuff. Tactical plans were linked/coordinated with logistics support. During this conflict viability of transport aircraft was well established. US long-range transport aircraft supplemented by chartered airlines flew men and cargo across the Pacific. Reconnaissance helicopters also proved to be a useful aid in supplying essential items to forward troops. The helicopters and transport aircrafts were also effectively made use of in evacuation of causalities. CH-54 Helicopter known as “Flying Crane” even delivered bulldozers to forward positions. In order to address problems of fuel up to 500 gallon collapsible drums filled with fuel were delivered through helicopters.

(d) **Breakthrough in Military Technology.** As a result of unsuccessful war American military devoted tremendous amount of resources to design weapons that can be launched far away from its target and guided to the target without human escort. US belief that a soldier’s life should be guarded with as much firepower and gadgetry as can be brought to bear. Vietnam was a laboratory for riflescopes that enabled the soldier to see at night by starlight, laser beams that guided bombs to target and jammers aboard aircraft to foil enemy defences. Sensors for detecting enemy mechanically also went to war in a big way. Examples include laser guided missiles, pilot-free aircraft and the use of the Global Positioning System technology.

(e) **Weapons and Equipment**

(i) **Military Use of Satellites.** Initially satellites were used for target indication. No major breakthrough was made in this regard but its value was adequately recognized for future conflicts.

(ii) **Importance of Sensors.** Timely reactions of US forces to Vietnamese guerrilla actions were greatly attributable to air and ground based sensors. To find an elusive foe, airmen used a variety of sensors. YO-3A Quiet Aircraft powered by a muffled engine and equipped with night vision aerial periscope and laser target illuminator was a great success. ‘People Sniffer’ airborne personnel detector mounted on UH-1 helicopter also helped locate and keep track of Vietcong. This revolutionized the concept of use of sensors in support of ground operations in future wars.

(iii) **Navigation/Orientation.** It was a problem to locate and to find out the landing zones, especially in the areas of thick growth/population. This aspect led to the invention of Global Positioning System.

(iv) **Innovations.** US Army carried out a number of innovations to meet the challenges. Some of the innovations are: -
(v) **Firefly Illumination System.** The illuminating system mounted on helicopters denied freedom of movement to Vietcong at night and allowed other gunship helicopters to engage their targets.

(vi) **Eagle Float** Floating Armoured Troop Carriers with mounted fire support weapons was a great success in combating Vietcong along river lines. Integral artillery support was ensured by Barge-Mounted 105 millimetre Howitzer.

(vii) **Ensure 202 Tank-Mounted Expendable Mine Roller** It was tried in Vietnam as a mine-detonating device for the first time.

(ix) **RPG Screen** In order to provide added protection against armour piercing B-40 RPG the US Forces developed a RPG screen made of ‘Cyclone’ fence in front of their vehicles and bunkers to cause a shaped charged warhead to detonate the warhead before it hits the vehicle. This simple expedient saved many vehicles and bunker positions.

(f) **Electronic Warfare.** A few cameras equipped planes flew reconnaissance missions over South Vietnam, but most planes of this type were engaged in electronic warfare, by jamming radar and analysing the signals itself. Indeed, electronic counter measures proved essential in the air war against heavily defended parts of North Vietnam.

(g) **Influence of Media.** Vietnam War was not only a bitter experience as Military campaign for the USA, but also for their free and uncensored media policy. They learned the lesson the hard way; however, in the first Gulf War in 1991 they formulated a censorship policy, in which the media had 12 rules to follow regarding all news coverage. These 12 rules stated what all is to be reported and what is not to be. Media coverage during Vietnam War was a trendsetter for what we have witnessed in past two decades, as regards to media coverage of various wars. It gave a base to the revolutionising high technological advancements in media coverage witnessed in the recent Gulf War. Embedded Journalists, live footage of bombing, use of satellite telephones are some of the hallmarks of latest innovations in the field of live war coverage.

(h) **Guerrilla Warfare.** Guerrilla Warfare emerged as a power tool for the inferior forces to overwhelm the superior and advanced armies. This was amply demonstrated in Vietnam and later in Afghanistan against Russian forces by Afghan Mujahideens.

**Conclusion**

27. It is also not true that the irregulars or guerrillas will always defeat regular armies. Inventors of the regular armies i.e. the Romans successfully confronted the German tribes and crushed number of rebellions in Middle East. British had met success in Malayan communists counter insurgency only a decade ago. Americans on the other hand were badly humiliated by Vietcong’s. The huge US force equipped with latest equipment and weaponry could not humble a small and relatively ill equipped but determined nation. It also proved that technology alone couldn’t win battles with out high degree of dedication and motivation. Their public is still guilty conscious and apologetic. We as military personnel have to remember two things. “Guerrilla is a
symptom not a cause,” When ever there is a conflict between the sword and spirit, it is the spirit which is going to win”.
Introduction

1. The perpetual nature of Middle East conflict has been a great tragedy for all those involved in it. For over 50 years the colossal sacrifice of lives and wealth by the belligerents has been the fate of this region. Since the partition of Palestine after the Second World War, Israel and Arabs have fought a number of full scale wars besides their involvement in endless border skirmishes and military incidents. The first round between Arabs and Israel in 1949 saw the main brunt of fighting being borne at battalion and company levels. Israelis evolved a military system based on flexibility, use of surprise and innovation. On the opposing side the Arab troops though proved to be effective in defense, were incapable of adapting themselves to rapidly changing environments of the battle. Sinai Campaign of 1956 is classified in many ways as a military classic exhibiting brilliant application of strategy of the indirect approach. In June 1967, the world witnessed the third round between Israel and Arabs. There emerged an Israeli military style characterized by initiative, offensive action, mobility, surprise and rapid deployment of forces to overcome geographic and demographic disadvantages. The magnitude and decisiveness of Arab defeat in June 1967 with serious implications on Arab pride and self respect created the inevitability of the next war. The Ramadan or Yom Kippur War of 1973 was preceded by a war of attrition that lasted for three years i.e. from June 1967 to August 1970 and then a period of “no war and no peace” that extended till 1973. In all the previous conflicts, the Israelis had overwhelmed the Arabs as against 1973 War, in which no side emerged as a clear victor.

Aim.

2. To analyze the planning and conduct of Arab Israel wars of 1967 and 1973.

Sequence.

3. The paper has been developed in the following sequence:-

(a) Part I
   (i) Historical Background
   (ii) Area of Operation

(b) Part II - The Six Days War 1967
   (i) Political and Military Environment
   (ii) Opposing Plans
   (iii) Conduct of War
   (iv) Analysis

(c) Part III - Yom Kippur War 1973
   (i) Situation Prevalent in 1973
   (ii) Opposing Dispositions and Plans
   (iii) Conduct of War
   (iv) Analysis
   (v) Conclusion
PART I

Historical Background

4. Recorded history has described Israel as “the most disputed Real State” on planet Earth. According to traditions accepted both by the Arabs and the Jews, the two people are sprung respectively from Hazrat Ishmael and Isaac, both sons of Hazrat Abraham. Ishmael, because his mother was an Egyptian slave, was forced to leave his father’s land and became an exile in the wilderness. He was believed to be the progenitor of twelve Bedouin tribes, from whom the Arab nations of today claim their descent. Ishmael’s brother, Isaac, became the ancestor of the twelve tribes of the Jews. The rivalry of Jew and Arab is the rivalry of brothers; they both belong to the Semitic race and their languages echo each other. They both claim Palestine as their homeland. In 1915, the British instigated the Arabs to revolt against the ailing Ottoman Empire, which opposed them in First World War. The revolt led by Colonel T E Lawrence (Lawrence of Arabia) became successful and in-turn British and France convinced the League of Nations to grant them colonial authority in shape of mandate. In 1917 in addition to promise of an Arab state British Foreign Minister Arthur Balfour called for establishment of Jewish national home in Palestine formally known as Balfour Declaration. In 1921 Britain divided its mandate in two that is Trans Jordan and Palestine and from that day onwards Palestine emerged as political entity in modern history. The roots of all modern Arab - Israel conflicts can be traced to the creation of Israel in 1948, which was the culmination of 50 years of effort by the world Zionist organization. On November 1947, UNO decided to divide Palestine in separate Arab and Jewish States. The territory given to the new Jewish state qualitatively and quantitatively exceeded that which would have represented an equitable distribution based on population.

(a) **1948 War.** The State of Israel proclaimed its existence on 14 May 1948. Immediately the forces from Egypt, Jordan, Syria and Lebanon invaded Israel in an attempt to crush the new state at its inception. The Arabs gained some initial success but their advances were nullified. Separate armistices were signed in June 1949 between Israel and the bordering Arab States. By then Israeli forces had occupied the area, which was larger, than the area decided by UN resolution. This area was to define Israel’s territory until June 1967.

(b) **1956 War.** The next war erupted in October 1956 when Israel attacked Egypt in conjunction with British and French Forces and quickly secured Gaza - Strip and Sinai Peninsula. Israel’s aim was to have an access to the Suez Canal while her supporters, i.e., British and French hoped to regain control over the Suez Canal which had been nationalised by Egypt in July that year. US and USSR intervened and brought about a cease-fire and forced British and French to withdraw from Egypt and Israel from Sinai and Gaza - Strip.

(c) **1967 War.** From 1957 to 1966, Guerrilla and Artillery attacks were carried out on Israeli settlements, particularly across the Syrian border. These were followed by Israeli reprisals which kept the tension high. In May 1967 Jamal Abdul Nasser, the President of Egypt, reacted to a Syrian announcement that Israel was massing troops on her border by taking several steps. He demanded the immediate withdrawal of UN forces from Egypt –
Israel border, closed strait of Tiran to all Israel’s ships and mobilized his forces on Sinai Frontier. Israel responded with a pre-emptive attack on 5 June 1967 that resulted in rout of the Syrian, Iraqi and Egyptian Forces. By the time the cease-fire was implemented 6 days later, Israel had captured the Gaza Strip and the Sinai Peninsula from Egypt, the West Bank of Jordan, and the Golan Heights from Syria. Israel at last had acquired secure borders which she so much desired.

(d) **1973 War.** Humiliating defeat in 1967 left Arabs in an awkward position. Israel became extremely arrogant. “Facts on the ground “and policy of “No war, No peace” could not be changed by diplomacy. Israel’s defiance and arrogance was piercing through the Egyptians. The internal unrest in the Arab world was increasing as no practical steps were taken to liberate the occupied territory. Egyptian President Sadaat was not taken seriously when he offered to recognize Israel if she withdrew from Arab lands. Sadaat ultimately concluded that “We must take our destiny in our own hands. Every door that I have tried to peep in has been slammed in my face”. Hence Sadaat, the standard bearer of peaceful settlement was ultimately driven to a corner, in favour of last alternative – war “The Yom Kippur War 1973”.

5. **Area of Operations Overview.**

(a) South eastern Mediterranean has been known as cradle of human race and for more than half century a lot of blood has fallen on this land, may it be in the form of full scale war or guerrilla warfare, as it continues till today. In the centre of the area lies the state of Israel, whose existence is still disputed by Arabs in particular. To understand the area as a whole it is more appropriate to see Israel and its neighbourhood. Israel lies in the heart of south east Mediterranean and is bounded in the west by the Mediterranean, in the north by Lebanon. Golan heights in the north east separate Syria from Israel and towards east lies Jordan with Black sea located in the middle of the border. Towards south east border with Egypt exists, beyond which the massive Sinnai peninsula extends. Overall the area is a combination of plains, grasslands, mountains, depressions and desert. The area towards north and north east is fairly mountainous and Golan Heights lie within these. The eastern sector with Jordan is a combination of desert & depressions; Dead sea is the most important feature. However the area in the south and south west is a typical desert with few heights and depressions especially in the Sinai Peninsula. (Map 1)
area but the discussion will be restricted to those which were the scene of battles in the two wars:-

(b) **Sinai Peninsula.** Sinai, whose sand seas and barren mountain ranges divide Africa from Asia and the Mediterranean from the Indian Ocean, is spread over 22000 sq miles and is a place of the utmost desolation. With the exception of a narrow coastal strip in the north, the Peninsula rarely receives rain. The border between Israel and the Egypt, though 139 miles long, was made largely impassable by rolling sand-dunes in the north and rocky outcrops, interspersed with tracts of soft sand, in the south. Only three routes traverse this sea of sand and rock. Of these, the shortest and best surfaced was the northern road from the Gaza Strip through Rafa and El-Arish along the coast to Al-Qantara on the Suez Canal. The central route crosses the Israel frontier at Nitzana and continues to Abu Ageila, where as the third route, was nothing more than an earth track passing through the Mitla Pass, a narrow gorge cutting through steep hills, is a plateau at a height of 600 feet above the Yarmuk Valley in the south to Mount Hermon (9000 feet) in the north, Raqauad Stream in the east and Sea of Galilee in the west. A maze of volcanic hills called Tel, limits the passage of vehicles. In the south the area in more accessible.

(c) **Suez Canal.** An artificial water way, which is 175 kilometres long with width varying from 180 to 200 meters and depth from 16 to 19 meters. The water level is 2 meters below the bank. The banks are very steep, covered by reinforced concrete which prevents amphibious vehicles from landing and climbing. The current is rapid and strong. Direction of current changes every 6 hours.

(d) **Bar-Lev Line.** The Israelis had spent some 268 million US $ to create a series of fortifications, roads and rear area facilities called Bar-Lev Line. These defences extended over 160 kilometres with 31 strong points. These defences covered an area of 5000 square kilometres and contained a system of fortifications, shelters, strong obstacles, and anti-tank / anti-personnel minefields. The fortified area consisted of several lines with well-linked road network. Armoured troops concentrations were located 5 to 30 kilometres east of canal. There were 240 prepared long and medium range artillery positions, 30 of that were kept active. Israel had also underground tanks and pipes to put the canal ablaze (Figure 1). A sand barrier of 10 to 25 meters high all along the canal was also erected.

**PART – II - THE SIX DAY WAR 1967**

6. **Political - Military Environment**

**Political.** Some of the important political factors which contributed directly towards escalation of 1967 conflict are as under:-

(a) **Activities of Palestinian Guerrillas.** Syria concluded a defence pact with Egypt in 1967. Soon after this, guerrilla attacks were mounted by *Al-FATEH* from Syrian bases and reprisals by Israel began to escalate. In order to raise his prestige and position both at home and abroad Nasser declared his full support to Syria as a result of which *Al-FATEH* activities gained momentum in months preceding the war. This enraged Israelis to
large extent forcing them to take punitive actions.

(b) **Withdrawal of UN Troops.** President Nasser, to silent his critics and reassert his leadership of the Arab World, demanded the withdrawal of United Nations Emergency Force (UNEF). Nasser had appreciated that United Nation would not agree to the withdrawal but this turned out to be wrong and his demand was agreed to on 19 May 1967. The withdrawal amplified the already existing tension.

(c) **The Jordan - Egypt Defense Agreement.** On 30 May 1967 another defence pact was signed between President Nasser and King Hussein. Israel could not tolerate such an alliance for the dire consequences that it implied for her existence. An attack from Jordan could hit Israel at her soft underbelly, where the total depth of the country was merely 12 miles. Strategically this was unacceptable to Israel.

(d) **Closing of Straits of Tiran.** President Nasser ordered Naval blockade in the Straits of Tiran on 23 May 67. The closure meant the refusal of the passage of the Israeli ships through this. Israel out rightly rejected this, it was considered and declared an act of war on them.

7. **Military Environment.** Militarily, Arabs were not well prepared since their coalition was still in the embryonic form Moreover General Riaz of Egypt took over command of Jordanian forces on 4 June 1967, only a day before the war started. Some of the major developments which influenced military environment prevalent prior to the war were:-

(a) **Troop’s Concentrations.** In May 1967, Syrians were informed by Russians of large scale Israeli troop’s concentration (approximately eleven brigades) on Syrian borders. President Nasser, in his zeal to demonstrate the reality of his defence pact with Syria ordered move of five infantry/armoured divisions into Sinai on 14 May.

(b) **Placing of Palestine Liberation Army (PLA) Under Arab Command.** About 8000 troops of the PLA were placed under the Joint Arab Command.

8. **Comparison of Forces**

**Egypt**

(a) 20th PLA (Palestine Liberation Army) Division at Gaza.
(b) 2nd Division (Abu Aghila - Kusseima area)
(c) 7th Division (Rafa-El Arish )
(d) 3rd Division (Gebel Libni-Bir Hasane)
(e) 4th Armoured Division (Bir Gifgafa-Bir Hasane)
(f) 6th Infantry Division (Nakha-Kuntilla)
(g) Special Armed force of division strength (West of Kuntilla)
Israel

(a) Gen Tal Div (Three armoured brigades)
(b) Gen Ariel Sharon Div (Three brigades)
(c) Gen Avraham Yoffe Div (Two armoured brigades including armour, infantry and paratrooper units composed entirely of reserve troops)
(d) Several independent forces, these included:-

(i) Mixed Infantry and Armoured brigades facing Gaza strip
(ii) Armoured column in Kuntilla area north of Elath
(iii) Battalion in Elath.
(iv) Reserve of Battalion strength of Paratroopers earmarked for the fighting in the Tiran straits area.

Balance of Equipment

<table>
<thead>
<tr>
<th></th>
<th>Arabs</th>
<th></th>
<th>Israel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Troops</td>
<td>547000</td>
<td></td>
<td>264000</td>
</tr>
<tr>
<td>Tanks</td>
<td>2504</td>
<td></td>
<td>800</td>
</tr>
<tr>
<td>Aircrafts</td>
<td>957</td>
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<td>300</td>
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9. Arabs Plan for Defence

(a) **Strategy.** Ever since the creation of the Zionist State, the Arab’s national aim had been the destruction of Israel as a state and creation of an independent Palestine. The Arabs had no offensive intention at the outset. Their total emphasis was on achieving a political victory and preventing Israel from going to war. Therefore, their military strategy was:-

(i) Deterrence through troop’s concentration abetting guerrilla activity and playing the card of ‘Crush Israel’, in the Arab world.
(ii) Force mobilization for as long duration as possible along with closing of Straits of Tiran, both of which Israel could ill afford.
(iii) If war is imposed, force Israel to fight war on three fronts thereby accentuating their problem of numerical inferiority.

(b) **Concept of Operation**

(i) Showing/keeping an offensive orientation, have a forward defensive posture with main defensive in triangle of Rafah-Al-Erish and Abu Agheila. Syria and Jordan to undertake limited operations to accentuate problems or war on more than two fronts to keep Israelis committed in all directions.
(ii) Initiate actions like forward concentration, guerrilla activities and closing of Straits of Tiran which will force Israel either to submit or attack the Arabs, terming Israel an aggressor.
(iii) If the war starts, involve Israel in long-drawn war of attrition and exploit their numerical inferiority.

(iv) Having checked the main offensive and caused sufficient attrition, launch a violent counter offensive eastwards to take Mizpe Roman, cut off Eilat and then cross the Negev to make land contact with Jordan.

10. **Plan and Dispositions**

(a) **Egyptian Front**. Total Egyptian forces in Sinai composed of one armoured division, one mechanized division and four infantry divisions. These forces were disposed as under:-

(i) **Northern Sinai**. Main defensive effort in Northern Sinai comprising 20th, 7th and 2nd infantry Division with depth provided by 3rd infantry and 4th Armored Divisions as reserve.

(ii) **Kuntila**. Secondary effort comprising 6th Mechanized Division and elements of armour placed opposite Kuntila.

(iii) **Southern Sinai**. Southern Sinai and Sharm-el-Sheikh were held by a brigade plus and Para military forces.

(iv) **Offensive Tasks**. Having absorbed the initial Israel thrust in the Northern Sinai launch a counter offensive eastward by Shazli Force to capture Dimona and Mizpe Ramon to cut-off Eilat. Then cross Negev to make land contact with Jordanian forces.

(b) **Syrian Front**. Syrians were to contain Israeli forces opposite them and allow no penetration of their strong fortifications on the Golan Heights which were held with five infantry brigades. Two armoured, two mechanized and one composite brigade were held in reserve in Kuneitra. Their offensive plans envisaged capture of Safed and Tiberius with division size force each.

(c) **Jordanian Front**. Like Syrians, their plan was also supportive in nature. They were to contain Israeli forces with five infantry brigades deployed east and two infantry brigades west of River Jordan. They had an offensive task of cutting-off Israel at its narrow waist and link-up with Egyptian forces as part of the Joint Arab counter offensive plan.

11. **Israeli Plan for Offensive Strategy** Although, declared political objective was the removal of Blockade of Port Eilat but in fact Israel always carved for more strategic depth to have secure borders with hostile neighbours. Israel’s military objective was destruction of Egyptian force in Sinai. To achieve this Israel evolved a strategy to avoid war on two fronts; for which they initiated quite a few measures to keep Jordan and Syria out of it. The salient features were:-

(a) Surprise Arabs both at strategic and tactical level to lure them into a false sense of complacency.

(b) Undertake a pre-emptive air strike to achieve complete air superiority over Sinai to first deal with their main adversary Egypt. Having succeeded, then launch air attacks against Syria and Jordan, if required.
(c) Undertake a pre-emptive ground offensive to:-

(i) Fight the war on enemy territory and seek decisive battle on their soil.
(ii) Have a short and decisive war destroying the Egyptian forces in Sinai with combined air-armour operations.
(iii) If Jordan and Syria also enter the war, then capture strategic objectives of West Bank of River Jordan and the Golan Heights.

12. **Concept of Operation** Few over-riding factors which greatly influenced the planning by the Israeli general staff and commanders were as follows:-

(a) In the deserts of Sinai, air will play a predominant role and the side having air supremacy will carry the day.
(b) Armour, duly supported by mobile infantry should be used to get initial break-through at all costs.
(c) Once break-through is achieved enemy should not be given time to re-organize and exploitation should be speedy.

13. **Plan and Dispositions**

(a) **Egyptian Front.** An offensive by three task forces to be launched as under:-

(i) **Northern Axis (Tal’s Force).** Comprising two armoured brigades, a para brigade and a para troopers battalion it was to breakthrough at Rafah to capture El Arish and then continue advance towards Suez Canal.
(ii) **Southern Axis (Sharon’s Force).** Comprising an armoured brigade an infantry brigade and a para trooper battalion this force was to first capture Abu Agheila and then to carryout destruction of Egyptian forces in conjunction with Tal’s Force.
(iii) **Central Axis (Yoffe’s Force).** This force had two armoured brigade with 200 tanks but no artillery. It was to operate through apparently impassable sand sea gap to block the Egyptian reinforcements being sent form south towards El Arish. The force was then to penetrate further deep in conjunction with Tal or Sharon’s forces to gain control of the Central Ridge and block the important Passes.

(b) **Deception.** To deceive Egypt that Israel were primarily concerned with the opening of Straits of Tiran and capture Sherm-eI-Sheikh a brigade worth of dummy tanks and vehicles was to be positioned near Mizpe Ramon which was not far from the armoured brigade at Kuntilla to give an impression that two armoured brigades were ready to move southwards.

(c) **Jordanian Front.** Containment of Jordanian forces initially. Later isolate battle of Jerusalem while concentrating on the main effort to destroy the Arab forces west of River Jordan to bring their borders to rest on defensible terrain. No specific allotment of troops to be made till Jordanian response was clearly known.
(d) **Syrian Front.** Like the Jordanian front, remain on the defensive till war in the Sinai was over. Later on seize Golan Heights and force open the road to Damascus.

14. **Land Operation.** The land operation in Sinai commenced at 0815 hours on 5th June, half an hour after the Israeli air strikes. Conduct of Israeli operation in Sinai was a classic example of successful completion of an operational cycle.

(a) **Preparatory Manoeuvre.** It was skilfully done through pre-emptive air strike, surprise and tactful assembly of forces. The effect was so pronounced that it foreclosed almost all Egyptian options before even the start of ground offensive.

(b) **Break Through.** The operations unfolded on each Axis as follows:-

(i) **Tal's Force.** Tal’s immediate objective was El Arish. To reach this, he attacked Rafah from the North and out-flanked it from the South. Having achieved a breakthrough he continued advance along the Coastal Road without waiting for Rafah to fall. El Arish fell in the morning while Rafah and Gaza were captured by mid-day on 6 June. At this stage Tal moved one of his armored brigade southwards, towards Jebel-Libni which was to be taken in conjunction with Yoffe’s Force.

(ii) **Yoffe’s Force.** One of the Yoffe’s two armoured brigades broke through the sea of sand dunes which were considered impassable by the Egyptians and were thus held lightly. The brigade established a block at Bir Lahfan by 1800 hours on 5 June. This created effects of, isolation of Egyptian defenses on the Northern and Southern Routes, cut-off reinforcements from south towards El-Arish, threatened Abu Agheila from the rear and assisted Sharons’ attack at night. Yoffes’ other brigade remained near Nitzana till the capture of Abu Agheila.

(iii) **Sharon’s Force.** Sharon’s Force broke through along the Central Axis but Abu Agheilas’ strong defences blocked its way. A well coordinated night attack by Sharon’s force in which Egyptian gun positions were attacked by a para trooper battalion while infantry and armoured troops assaulted frontally and from the north resulted in capture of Abu Agheila by morning of 6 June and the roads to central Sinai now lay open to Israel. Egyptian’s two counter attacks to retrieve the situation failed. One towards Abu Agheila could not even get underway because of relentless air strikes.

(c) **Manoeuvre of Exploitation.** The fall of Abu-Agheila and El-Arish on morning of 6 June coupled with the news of the destruction of Egyptian Air Force had adverse effects on Egyptian High Command. By afternoon General Murtagi ordered redeployment around Central Ridge, which turned into a rout because of lack of communication. Although Egyptian 4 Armoured Division, Mechanized Division and the Shazli Force could have been effectively utilized to check Israel advance but it was now a race between the two forces to reach the passes in the Central Ridge area. Advance of each force shall be discussed separately:
(i) **Tal’s Force.** As the Israelis came to know of Egyptian withdrawal towards their third line of defense, resting on the Central Ridge, a change in Tal’s advance was affected. After capture of Jebel Libni by afternoon 6 June he moved with his main force to Bir Gifgafa on the Central Route to block entry point of Egyptian Armoured Division at Ismailia Pass. Israelis got the control of this pass after a tank battle in which Israeli Air Force provided massive air support but they were unable to prevent the major part of the division escaping through the Ismailia Pass. The Egyptians withdrew finally by dusk of 6 June. The Israelis now rushed toward the Suez Canal where Tal’s Force reached by morning of 9 June.

(ii) **Yoffe’s Force.** From Jabel-Libni, Yoffe’s Force moved south towards Bir Hassana and Bir Thamada. After their capture troops were dispatched to block Mitla and Giddi Passes by evening of 7 June.

(iii) **Sharon’s Force.** After the capture of Abu Agheila complex, Sharon advanced towards Nakhel and pushed Egyptian 6 Mechanized Division and Shazli Force, towards the passes already blocked by Tal’s and Yoffe’s Forces for their final destruction.

(iv) **Destruction.** Major tank battles took place between Tal Force and 4th Armoured Division in Ismailia Pass area and between Yoffe Force and Shazli Force with Sharon on its heals in Mitla and Gidi Passes in the afternoon and night of 8 / 9th June 1967. By morning of 9th June, Israeli Forces had destroyed eighty percent of Egyptian war equipment, had killed 11,500 soldiers and rounded up 5,000 prisoners.

(v) Sinai was completely captured by Israelis, realizing their dream of secure frontiers.
Egyptian units, paralysed by the breakthrough 5-6 June, managed only weak resistance except in the Taba sector, where elements were too mingled to make any accurate differentiation.
(d) **Jordanian Front.** Smaller units of brigades and battalions conducted the war for West Bank. The total size of both the armies was slightly larger than three divisions. Having failed to keep Jordan out of war, Israel launched her operations in the evening on 5 June 1967 as under:

(i) A force comprising one armour, two infantry and one para-brigade attacked Jerusalem area and captured Ramallah, Jerusalem, Bethlehem and Hebron by 7th June.
(ii) Another force comprising two armour and two infantry brigades crossed the northern Jordanian front and captured Jenin and Nablus. Badly hurt and seriously depleted by combined effort of Israeli air and ground forces, the Jordanian forces withdrew across the Jordan River.

(iii) The entire West Bank was captured even before the decision in Sinai was reached.

(e) **Syrian Front** To outflank Syrian defences from the north through Mount Hermon (an unexpected direction) and then roll the defensive positions from the rear, General Elazar launched the operations on 9th June 67 as follow

(i) Attacked from north with infantry brigade supported by armour and established a breach in the main defensive line.

(ii) An armour and mechanized brigade with main thrust towards north captured Zaoura and Banias by evening and moved towards Qnaitra. By afternoon of 10th June the Israelis captured the northern part of Golan Plateau including Qnaitra.

(iii) Central sector (Rawiye – Daradara) was also captured by the afternoon of 10th June.

(iv) An armoured and an infantry brigade in conjunction with paratroops force attacked from Tel Quazir and captured Daboussiye.

(v) A surprised move caved the complete Syrian front. In an attempt to pressurize United Nations to speed up cease-fire, Syrian announced on Damascus Radio that Qnaitra had fallen, six hours prior to Israeli troops entered the town. Syrian troops broke-up and fled as a result of the announcement.

(vi) The battle lasted only for 27 hours and by 1500 hours 10th June the Golan Heights were in Israeli possession.

15. **Air Operations**

(a) **The Israeli Plan.** Israelis planned to destroy Arab air forces on the ground by neutralizing the runways and then destroying the aircrafts starting first with Egyptians and then tackling others one by one. After destroying Arabs air defense system and gaining air superiority, attention was then to be focused on providing maximum support to the land operations.

(b) **Air strike.** At 0745 hours on the morning of 5 June 67 the first wave of Israeli air strike went in. This was directed against 10 airfields of which 9 were hit. Another wave went after 80 minutes and by the end of this, 17 out of 19 Egyptian airfields had been put out of action. The runway of major Sinai airfield of EI-Arish was not put out of action since
Israelis had plans to use it for forward supply and casualty evacuation. In less then three hours (170 minutes) 300 out of about 340 serviceable Egyptian combat aircrafts including all 30 long range TU-16 bombers were destroyed and their runways rendered un-usabe.

(c) **Close Support.** With air superiority assured, the major assault on land continued un-hindered and the Israeli strike air craft were free to concentrate on close support to their ground forces with napalm, phosphorous, high explosive bombs, block the Mitla Pass and attack retreating Egyptian armoured columns. They also drove Syrians out of the Golan Heights causing them heavy losses.

(d) **Naval Operations** To summarize, the naval operations during the Six Day War had hardly any effect on the overall outcome of this war. Egyptian Navy, in spite of being superior to Israeli Navy, achieve nothing, probably because Egyptians had realized how badly the war was going for them and, therefore, preferred to preserve their ships for better days.

16. **Analysis**

(a) **Threat Perception**

(i) Arabs completely misread Israeli reactions, in spite of their own provocative actions. They never granted Israel the liberty of action to go to war in which she had been completely dragged by Arabs.

(ii) At the tactical level the Arabs failed to perceive the inherent mobility of Israeli ground forces and went wrong in their appreciation that they would be able to involve Israel into a long-drawn war of attrition on their three successive defence lines which Israel could ill-afford.

(b) **Strategy of Pre-emption.** A nation may be forced to use the option of pre-emption because of radical decline in her security conditions due to hostile attitude of neighbouring states in order to turn the strategic balance in her favour. Fully conscious of her vulnerability due to lack of strategic depth and multi-directional threat from Arab states, Israel had long before decided and prepared to use this option. The only pre-requisite to exercise this option was the possession of destruction capability coupled with a concept of initiative strike that would snatch the response capability from the enemy. Israelis had this capability and so decided to exercise this option.

(c) **Centre of Gravity**

(i) **Arabs.** Arabs had identified Israeli Defence forces to be the centre of gravity. But they failed to notice that within the system the centre of gravity always lied in their mobility.

(ii) **Israel.** Israelis rightly identified that within the three Arab countries the centre of gravity lied in Egypt. Once Egyptian Army is destroyed, Syria and Jordan
could never initiate an offensive on their own.

(d) **Surprise and Deception.** Aspect of deception was a major contributor towards launching of this pre-emption by Israel. Only after confirming that they had outplayed them in point of attack and time of attack Israel went to hit Arabs on their soil. Deception about level of preparedness was achieved. Use of Air force before a ground attack to such a high degree was an act of surprise and also a deceptive measure.

(e) **Flexibility.** Israelis had a number of contingency plans to deal with various situations, which provided them great flexibility. To quote Gen Weizmon:-“We have a plan for every thing even for capturing the North Pole. The plans are like bricks, which can be used one by one to build up a structure as the operation develops. We do not go in for pre-conceived and therefore inflexible master plans”. Gen Weizmon

(f) **Employment of Tanks.** Egyptians dispersed their armour all over Sinai and could not gather them together in the right point and time. On the other hand, Israelis exploited the mobility of armour to the maximum employing them in mass.

(g) **Leadership.** According to Rommel, “War is something more than the comparison of leaders. Victory ultimately rests on the shoulders of the commanders conducting the battle”. In Israeli Army most of the officers, both senior and junior, were young, fit, keen, quick and strongly imbued with the aggressive spirit necessary to win the battle. They were always in front, leading their troops because they had to live up to the Motto, “Follow me”.

(h) **Air Superiority.** The most dominating factor was Israel’s complete mastery of the air. This gave their land forces complete relief from enemy’s aerial harassment. Some of the aspects that contributed towards success of Israeli Forces were: -

(i) **Impact of Air.** Complete air supremacy provided Israeli Forces an air umbrella and virtual relief from enemy’s aerial harassment. Thus enabling them to make substantial territorial gains.

(ii) **Intelligence.** There was constant information provided on location of aircrafts, munitions and fuel supplies. This information was regularly updated and facilitated the effectiveness of the strikes.

(iii) **Training.** The training specific to the tasks was the major factor in achieving astonishing level of competence.

(iv) **Efficient procedure for refuelling and re-equipping aircrafts.** Efficient procedures for refuelling and re-equipping of aircraft was adopted and it was done within ten minutes. Resultantly, during the crucial first two days aircrafts remained airborne for eighty percent of the daytime.
PART – III - THE YOM KIPPUR WAR 1973

17. **Political Scenario**

(a) **Set Back of 1967.** The catalyst that ignited the Syrio-Egyptian offensive on 6 Oct 73 had its roots in the humiliations suffered by the Arabs in Six Day War of June 1967. Arab honour had to be redeemed and lost territories regained. From 1970 to 1972, President Sadat spent his energies in seeking his foreign policy objectives through diplomacy.

(b) **An End Solution.** By early 1973, Arab hopes for a just and honourable settlement had reached its lowest ebb. The only course open to Arabs was to break this deadlock by waging a limited war with clearly defined political objectives of a final solution to the 25 years old confrontation with Israel.

(c) **Cairo Summit.** President Sadat mounted diplomatic initiative to bring Syria, Saudi Arabia and Jordan into confidence to plan joint military operations. Basic war aim, finally agreed to and ratified by the Cairo Summit of 10 September 1973 was:-

“Final solution to the twenty five years confrontation with Israel was to be achieved by sparking a crises into which super powers would, inevitably, be drawn and then to make them force concessions from Israel”. For this reason, Saddat called his political strategy as ‘Operation SPARK’.

18. **Internal Pressures**

(a) **Place in Arab World.** By 1973 Egypt had almost become a laughing stock of the Arab World. Sadat’s offers to recognize Israel in return for withdrawal were never taken seriously. Finally he said, “We must take our destiny in our own hands. Every door that I have opened has been slammed in my face”.

(b) **Credibility of the Regime.** Any regime which fails to protect the frontiers of the nation automatically loses its legitimacy. This failure was applicable to Egypt. Even in Nasser’s life time there were symptoms of revolt.

(c) **Israel’s Attitude.** One of the most potent forces acting on President Sadat was the defiant attitude of Israel. The almost incredible arrogance of the Israeli politicians in public reached its limit as the general election due on 31October 1973 drew near. The candidates were outbidding each other in their plans as to what was to be done with conquered Arab territories. Dayan talked openly of his designs for the new port of Yamit at Rafah, which was to isolate Egypt of contact with Gaza strip. “Every word spoken about Yamit is a knife pointing at me personally and my self respect”, remarked the
Egyptian President.

(c) **The Last Chance.** Finally, it was thought that this was Arab’s last chance to recapture lost territories and restore the pride lost in 1967.

19. **Joint Arab Plan** The Arab chaled out a joint strategy to deal with the situation. The salients of Joint Arab Plan were:-

(a) **Sinai Front.**

(i) Egyptian forces to establish five bridge-heads of 5 Kilometers deep by assaulting across the canal with five Infantry Divisions.

(ii) A mechanized division and two armour brigades to be inducted in the bridge heads and reduce Bar-Lev line. Operations to remain within range of SAMs deployed against Israeli Air Force.

(iii) **Golan Heights.** Syrian forces to affect penetration by simultaneous thrusts on a broad front by three infantry and mechanized divisions spearheaded by their integral armour while two armoured division will break through to reoccupy Golan Heights. Exploit up to river Jordan and undertake destruction of Israeli forces east of river Jordan.

20. **Opposing Plans**

**Sinai Front**

(a) **Egyptian Plan (Operation Badre).** Egyptians planned to attack on a broad front (almost all along Suez Canal) with infantry heavy on anti-tank weapons. Salient features of the plan were:-

(i) **Phase 1.** Five infantry divisions each reinforced with an armoured brigade, portable SAMs and ATGMs to attack along five sectors each 5 to 6 kilometres wide. Destroy Bar-Lev Line and repel any counter attack.

(ii) **Phase 2.** The divisional bridgeheads to penetrate depth of about 8 kilometres by H+14 to H+24. Each bridgehead of about 14 kilometres.

(iii) **Phase 3.** By H+48, divisions to expand laterally and close the gaps in five bridgeheads to make two army strength bridgeheads.

(iv) **Phase 4.** H+72, two army bridgeheads to expand laterally to form one armed forces bridgehead and also to penetrate to 15 kilometres east of canal.

(v) **Phase 5.** Take up defence and beat back the counter attacks.
(vi) Surprise was the key factor and all units to remain under air defence umbrella.

(vii) Airborne and sea borne units to be employed on large scale to neutralise enemy headquarters and delay their reserves.
(viii) 1 Army to remain in reserve west of Suez Canal.

(b) **Israeli Plan.** The Israelis had worked out an emergency plan named “Shovach Yonim” to cater for alarming situation erupting in Sinai. The outline was:-

   (i) Holding troops to foil any crossing attempts and holds the Bar-Lev Line.

   (ii) Two armoured brigades to move up in case of emergency.

   (iii) Stabilise the situation and carry out a crossing and capture territory west of Suez Canal.

(c) **Syrian Plan.** The Syrian plan was to recapture the lost territories in 1967. To this end, the plan was:-

   (i) The main effort of two infantry divisions supported by an armoured division plus in area Kuneitra/Rafid to sever the line of communication and secure area upto River Jordan.

   (ii) An auxiliary effort north of Kuneitra.

(d) **Israeli Plan**

   (i) Hold purple Line (existing line of contact) with minimum force, well protected by fortifications and mines etceteras.

   (ii) Defend Golan Heights at all cost, as a strategic imperative.

   (iii) On outbreak of war, stabilise the situation and launch a counter attack.

21. **Conduct of Operations**

   **Syrian Front**

   (a) **Syrian Offensive (Map 6)**

   (i) Syrian launched two infantry divisions (7th and 9th) and one mechanised division (5th) across the Golan Line. There were two co-ordinated thrusts. One along road Damascus - Kuneitra and the second one along Road Sheikh Miskin – Rafid.
(ii) Left fork of Kuneitra column and right fork of Rafid column were to capture Binot Ya’akov, the main Israeli supply route on Golan River. This was Syrian’s main objective.

(iii) 7th Infantry Division’s integral tank brigade got bogged down in the north due to the strong defences and some administrative difficulties, difficult terrain and effective defensive battle of Israeli 7th Armoured Brigade. The Syrian infantry units, however, managed to cross the barrier and penetrated a few KM beyond cease fire line.

(iv) In the south comparatively more success was met and the Syrian broke through the fortifications north and south of Rafid and drove along a number of axes.

(v) Syrians captured the Israeli OP at Mount Hermon position the same afternoon by a heliborne commando assault.

(vi) By afternoon 7 Oct, 1st Armoured division was also launched in Rafid area. By the evening of 7th Oct Syrians had reached 5 miles short of Binot Ya’akov Brigade on Jordan River and within 2 miles of the escarpment overlooking the lake Tiberias. This was the farthest point Syrians reached. Logistic compulsions brought their advance to halt.

(b) **Israeli Counter Attack**

(i) With the arrival of reserves, the Israelis were in a position to launch counter attack to regain the area upto the old cease fire line.

(ii) The counter attack was launched on 8th Oct with two divisions, one in the south towards Rafid and another in centre against Syrian salient in area Nafekh by the end of 9 Oct IDF had returned to its original position in the north on ‘Purple Line’.

(c) **Egyptian Offensive (Map 7)**

(i) Egypt employed its 2nd and 3rd Armies in the main Assault on the Bar Lev Line. 2nd Army operated north of Great Bitter Lake and 3rd south of it with Great Bitter Lake included to 3rd Army.

(ii) At 1400 hours 250 MIGs attacked targets from Bar Lev Line deep into Sinai.
MAP 6

Air assault by helicopter-borne force.

Exploiting forces which could not be committed because of rapid Israeli reaction to the initial attack.

ISRAEL – SYRIA AREA
GOLAN HEIGHTS CAMPAIGN
Syrian Attack, 6–10 October 1973

ELEVATIONS IN FEET

SCALE OF MILES

1967 cease-fire line. It essentially became the border, known as "Purple Line".

Israeli units generally reached full strength by the end of 8 October.

Israeli units regained the "Purple Line" positions by 10 October and shifted the divisions of Laner and Eytan farther north for the 11 October attack north of Quneitra. See Map 11b.
MAP 7

The Bar-Lev Line consisted of fortified strong points (A) along the eastern edge of the Canal. It was constructed to give warning of an impending attack.

SUEZ CANAL AREA
CAMPAIGN IN SINAI

Egyptian Crossing/Reinforcement Phase:
Israeli Counterattacks: 6-13 October
1973

Egyptian commando attack, 6 October

Port Said
Magan
Ismailia
Red Sea
Cairo
Mediterranean Sea

ELEVATION IN FEET
000 1000 2000

SCALE OF MILES

10

60

20

40

60

80

100

Cairo
Mediterranean Sea

ELEVATION IN FEET
000 1000 2000

SCALE OF MILES

10

60

20

40

60

80

100

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20

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60

80

100

Cairo
Mediterranean Sea

ELEVATION IN FEET
000 1000 2000

SCALE OF MILES

10

60

20

40

60

80

100

Cairo
Mediterranean Sea
(iii) First wave of assault infantry crossed the canal from areas not covered by fire from Israeli positions. The most remarkable feature of this crossing was that it was nearly continuous along a front of 170 Kilometres.

(iv) As soon as the infantry assault units had seized the area between Bar Lev Line strong points, the engineers set about their task and in 6-8 hours had 50 ferries and 10 bridges operational. They had also opened up 60 gaps in the sand barrier using floating water pressure pumps. This simple method to cut the rampart in a very short span of time with little effort was innovative idea of a young Egyptian engineer officer.

(v) Egyptian established bridgehead at five different locations each by an infantry division. By 8th Oct the bridgehead of divisions were unified so that they were continuous on each army front to a depth of 10-12 Kilometers and at some places up to 18 Kilometes. Five infantry divisions and about 500 tanks were already east of Suez. Their defense line was an all arms team but foot mobile infantry armed with anti-tank weapons continued to play an important role. In tank duels Israelis had by then lost 150 of their 240 tanks.

(vi) After the arrival of nearly three recently mobilised divisions, Israelis launched a series of major counter attacks against the Egyptians. Due to absence of mechanised infantry and lack of artillery and air support every Israeli attack was repulsed with severe losses - probably exceeding 200 tanks and more than 500 casualties in a few hours.

(vii) No serious attempt to dislodge the Egyptians was made after 9 Oct by Israelis.

(d) Egyptian Attack to Support Syrians

(i) There was increasing pressure on Egypt from Syria to launch an attack in Sinai that would relieve Israeli pressure on her front.

(ii) The two Egyptian armoured divisions kept on the West Bank as reserve were moved across the canal on 11-12 Oct. The attack was launched on 14 Oct. Elements of 2nd Army were to capture Bir Gifgafa and elements of 3rd Army were to launch the attack on Mitla and Giddi passes.

(iii) By then Israel had learnt from their experience of battle of past few days and was well-integrated in combined arms teams. By then IAF was also playing an increasingly effective role in Sinai.

(iv) Egyptian 2nd Army launched a disjoined attack. It advanced for about 8-10 Kilometres; met heavy resistance was repulsed with heavy losses of 150-200 tanks.
(e) **Operation Gazelle - Israeli Counter Offensive (Map 8)**

(i) Heavy attrition suffered by Egyptian on 14 Oct reduced their tank superiority, at the same time Israeli armoured units from Golan Heights and US air lifts started arriving. This led the Israelis to go ahead with their counter offensive.

(ii) General Sharon immediately after his arrival on 7 Oct urged for an immediate effort to punch through across the canal.

(iii) The crossing site selected was just north of that Suez Canal’s entrance into the Great Bitter Lake. This site also coincided with the boundary line between the Egyptian 2nd and 3rd Armies.

(iv) The operation commenced on 15 Oct. 1st Armoured Brigade of Sharon’s division was launched on right flank of 2nd Army.

(v) By midnight the link up had been achieved and by 0300 hours elements of Israeli paratrooper brigade were across the canal encountering practically no opposition.

(vi) A major attack under General Shazli comprising the Egyptian commando units, reinforced by the weakened 21 Armoured Division on 20-21 Oct 1973 was abortive and severely mauled by Israeli armour and TOW missiles.

(vii) **Cease Fire.** Largely due to efforts of the Soviet Union the UN Security Council imposed a Cease Fire on 22 October. This was soon violated by Israelis who took the advantage of claimed Egyptian violations. Before the 2nd cease fire on 24 October the Israeli enlarged their bridgehead and captured almost 7000 prisoners. They however, failed in their efforts to occupy the city of Suez. This was principally a move for making a better bargaining position on negotiation table.
MAP 8

SUEZ CANAL AREA
CAMPAIGN IN SINAI

OPERATION GAZELLE: Exploitation and Isolation Egyptian Third Army, 16-23 October 1973: Egyptian Attacks

Port Said
Quanfara
Rumani

Isolated Egyptian units operated in this area.

Cease-fire Line 24 October

Mediterranean Sea

ELEVATIONS IN FEET
0 1000 2000 3000

SCALE OF MILES

40

Cairo
Adan
Suez
Gavish
22. **Analysis.** Every new war brings out certain unknown facts whose implications are different. 1973 Arab Israel war was no exception.

(a) **Principle of War.** Following principles of war were adhered during this war:

(i) **Superior Concentration of Forces.** Israeli concentration of superior forces at correct point of application during op Gazelle was an classic example of counter offensive. The concentration of forces just north of Great Bitter Lake - Suez Canal junction and exploitation of gaps between Egyptian 1st and 2nd armies caught Egyptians by surprise. This changed the TSR matrix into Israeli favour thus highlighting the importance of this aspect.

(ii) **Surprise and Deception.** Egyptian initial operation of crossing the canal and making bridgehead is an excellent example of surprise at strategic and tactical level. When the wars are intense and short, the force which can assemble and achieve initial success can cause great imbalance on adversary. The attack plan required at least a fifteen-day period of preparation, yet the beginning of the countdown was known to very few. Even the highly pluralistic American Intelligence community did not predict the Egyptian and Syrian attack, despite its access to overhead reconnaissance from Spy Satellites, as well as other sources.

(iii) **Superior Mobilization System.** The speed with which Israeli Armed Forces mobilized and reacted to the sudden attack from Egypt and Syria gives an evidence of there sound planning. This mobilisation very quickly changed the battle scenario in Israel’s favour.

(b) **Limited War.** A limited war is the one which has limitations imposed on space, time, weapons and political objectives.

(i) **Time Dimension.** In the scenario of 73 Arab Israel War the limit on time was not set by the combatants but it was indirectly imposed bythe involvement of the Super Powers. None of the Super Powers would have liked to see their client states losing the war, Russia threatened to send her forces to fight for Egypt if the war was not stopped.

(ii) **Political Objectives.** The scope of political objective was limited on both the sides. Arabs wanted to break the political deadlock and create conditions for the liberation of territories occupied by Israel in 1967. Similarly Israel’s objective was to capture additional territory for subsequent bargaining purposes.

(iii) **Military Objectives.** The research indicates that Egyptian Army appeared to have visualized the establishment of bridgehead only whereas Egypt’s political objective was to defeat the Israeli forces in Sinai. Thus it can be said that in the case of Egypt, her military objective was not in harmony with the political objective.
(c) **Offensive to Defensive Strategy.** Since its existence, the Israeli military posture has been an offensive one. Defence was not given any consideration by Israel. The strategy was based on the concept of pre-emption and destruction of the enemy potential in his own area. Thus the military system was developed foreseeing the employment of tank and aircraft as dominant weapon systems. 1973 War brought about a diametric change in Israeli strategy swinging it violently from the offensive to the defensive.

(d) **The Failure of Strategy of Pre-emption.** 1967 war brought a change in military geography of Israel. She then had a much larger area to defend. The strategy of pre-emption was no more advocated or thought to be essential. Also, in the wake of 1967 War, Israelis resorted to making static defences in Golan and Suez Canal area which was defensive act in orientation. Nevertheless the dominant elements of Israeli forces still remained air force and armour.

(e) **Strategic Manoeuvre - Interior/Exterior Lines.** Though Israel continued to operate on interior lines even in 1973, switching of forces from one sector to the other became more difficult because of the increased distances. This, to some extent, affected their strategy of flexible defence. Egypt as well as Syria apparently did not make use of interior lines to shift forces on their respective fronts. The reasons could be lack of planning or inadequacy of laterals. Israelis were placed on interior lines. They could not afford to lose Golan Heights whereas they could trade space for time in Sinai. They decided to take on Syria first, blunt their attack and the turn towards Egypt later. Their rationale proved correct and they successfully exploited the central position, switching their resources from one sector to other at the right moment.

(f) **Lack of Clarity in Egyptian Strategy.** Egyptian’s strategic concept to liberate occupied territory did not seem to be very clear. Was the objective to establish bridgehead only or go further beyond that? The study of the battle reveals that Egyptians were not too definite about the development of the battle after the bridgehead phase. The delay caused in consolidating the bridgehead helped Israelis to absorb the initial shock of surprise. The battle of Suez Canal turned out to be tactical and not strategic victory for the Egyptians.

(g) **Operational Cycle.** The 1973 Arab Israel War is typical example where operational cycles of both rivals were not completed. Arab Armies completed the first phase of the cycle, i.e. battle of breakthrough but thereafter, the exploitation and destruction stages were not executed. The Israelis, on the other hand carried out a typical defensive operational cycle in that after the initial battle of attrition they fell to the defensible terrain, particularly in Sinai. They regrouped and launched the counter offensive, but in their case too the cycle did not culminate in battle of destruction on both the fronts.

(h) **Failure to Handle Large Scale Operations.** In their planning, the Egyptians appeared to have failed to grasp the importance of developing large scale operations. The strategic objectives are generally centres of communications or important geographical features. The maximum the Egyptians went across the canal was about 20 Kilometers and there they stopped on non-defensive terrain.

(i) **An Opportunity Lost.** The Egyptians did not increase the advantage that had
been gained in point of time over Israelis by establishing the bridgeheads much before
Israelis mobilization was complete. By indulging in inconsequential manoeuvres they lost
time, allowing the Israelis to rush reinforcements to defend the Sinai Passes.

(j) **Israeli Riposte - An Example of Operational Strategy.** Israelis exploited the
lack of Egyptian perimeter of security on the east bank of canal and gap between Egyptian
2nd and 3rd Armies thus creating conditions for manoeuvre. The manoeuvre achieved a
complete surprise and was inherently protected because of its superior direction.

(k) **Egyptian Failure to Eliminate the Israeli Bridgehead.** Due to following
factors Egyptians failed to eliminate Israeli bridgehead:-

(i) Lack of co-ordination between the two armies.
(ii) Slow reaction.
(iii) Inadequate strategic reserves.
(iv) Quick Israeli build up.

(l) **Bargaining Position.** The bold Israeli venture paid rich dividends, putting them
in a better position of bargain. It accrued following benefits for issued:-

(i) Occupation by Israel of additional Egyptian territory on the West Bank of the
Suez Canal.

(ii) Virtual encirclement of the Egyptian 3rd Army and the town of Suez.

(iii) Destruction and capture of numerous SAM batteries, thus opening the
way for Israeli air action in support of their ground forces which so far had been
difficult and costly.

(m) **Attrition.** The war demonstrated that the clash of modern armies can consume
men and equipment at staggering rate. In less than 20 days both sides had lost more than 1/3
of their tanks and aircrafts. As far as attrition to manpower is concerned the casualties
suffered by Arabs only were in an appreciable proportion of those suffered by the US in 10
years of fighting in North Vietnam. Israel on the other side suffered the highest casualties as
compared to previous wars and that was one of the reasons for accepting the cease fire.
RUSSO - AFGHAN WAR (1979 - 88)

Introduction

1. Not for the first time had a super power invaded a defenceless country to advance its national interests; the Americans in the past had done so several times and so had the Russians. Soviet invasion of Afghanistan sent shock waves throughout the world in general and Muslims in particular. The Soviet invasion of Afghanistan was a repeat of their invasion of Czechoslovakia. For months after the invasion, hardly a political or military expert in the world doubted that Afghanistan was now for ever incorporated as a part of the Soviet Empire and that nothing short of a large-scale global war could alter the status quo. However, the sons of the soil made the erstwhile USSR taste its Waterloo; some remarked that the Soviets met their Vietnam in Afghanistan. In defiance of the wisdom of conventional warfare, the citizens armed themselves, gathered into guerrilla bands and began to attack and sabotage the superior occupying forces, installations, depots and transport, which soon took the shape of limited warfare. Afghan resistance to Soviet attack was a quintessential, irregular or asymmetric warfare in which the lightly armed mobile Afghans rendered a road bound heavily armed and ponderous army ineffective by concentrating their strength against the weaknesses of the enemy. This battle was of human spirit versus weapons, of liberty versus imperialism, and of right versus might.

2. **Aim**
   To analyze the Russo Afghan War with emphasis on following:-
   (a) Reasons for the failure of modern Soviet Army.
   (b) Afghan guerrilla tactics.
   (c) Logistic aspects of the campaign.

3. **Sequence**

   (a) **Part – I.** Topography and Events Leading to Invasion
   (b) **Part – II.** Soviet Invasion
   (c) **Part – III.** Afghan Struggle – The Peoples’ War
   (d) **Part – IV.** Logistic
   (e) **Part – V.** Analysis
   (f) **Part – VI.** Lessons

**PART - I - TOPOGRAPHY AND HISTORICAL PERSPECTIVE**

4. **Topography.** Afghanistan is a land locked country in South West Asia at the Western extremities of the Great Himalayan Range. It covers an area of 796,095 square kilometres and stretches 1,300 kilometres from South West to the North East and has a width of about 600 kilometres. It is bordered by Tajikistan, Turkmenistan and Kyrgyzstan in the North, and Chinese Sinkiang province in the North East.

   (a) The country can be divided into four regions :-
   (i) The mountain region in the East and North.
(ii) The flat open desert in the South West.
(iii) The central highlands of Hazarajat.
(iv) The plains of North.

(b) Major four rivers in the country are as under:-

(i) The Oxus in the North.
(ii) Hari Rud in the West.
(iii) Helmand in the South.
(iv) Kabul in the East.

5. **Events Leading to the Invasion** Soviets signed a treaty with British India in 1907 for the maintenance of status quo in Afghanistan as a buffer between two super powers. After the independence of Indian subcontinent from British rule, Soviets started taking interest in Afghanistan in post Stalinist era, economic aid began to flow from former to later and for next 25 years or so there was a complete influence of Russians on Afghanistan. With the increased Russian influence in Afghanistan, educated middle class became influenced with Marxists – Leninist ideas. The people of this class formulated a political faction in 1963 as PDPA (People’s Democratic Party of Afghanistan), the party had pro Soviet stance. Saur revolution came in Afghanistan in 1973 when King Zahir Shah was deposed by Muhammad Daud with Soviet help, however Daud did not come up to the expectations of Soviets. In 1978 Daud’s government was toppled by pro communist PDPA faction masterminded by Hafizullah Amin, the revolution is called Saur revolution. After the Saur revolution Afghanistan was ruled by Noor Mohammad Taraki, his anti Islamic policies were not liked by Afghan population and soon an insurgency started in Afghanistan. In September 1979 Taraki was killed in a coup organized by Hafizullah Amin who became new leader of Afghanistan, however the ongoing revolt against Soviets was increased and Hafiz ullah Amin was unable to quell the insurgency. In 1979 Soviet troops poured across the Afghan border to help the Marxist regime in Kabul by installing Babrak Karmal in place of Hafizullah Amin who was going against the interest of Russians. The new Afghan government requested the Soviet Union to help in fighting against the external aggression to which they agreed.

**PART – II - SOVIET INVASION**

6. **The Soviet Stance.** The official Soviet views given by the Foreign Relations Committee of USSR for the military intervention were:-

(a) Fear of USA gaining a position of influence in Afghanistan after the fall of Shah of Iran.

(b) To strengthen USSR’s security along its Southern borders.

(c) To prevent rebels from overthrowing the Peoples Democratic Party of Afghanistan (PDPA), the then regime.

(d) To accede to a request made by the Afghan regime.

(e) To support a pro- Marxist government.
7. **Military Objectives.** Military objectives were:-

(a) Stabilizing the country by garrisoning the main routes, major cities, airbases and logistic sites.

(b) Relieving the Afghan government forces of garrison duties and pushing them into the countryside to battle the resistance.

(c) Providing logistic, air, artillery and intelligence support to the Afghan forces.

(d) Providing minimum interface between the soviet occupation forces and the local populace.

(e) Accepting minimal soviet casualties.

(f) Strengthening the Afghan forces, so once the resistance was defeated, the soviet Army could be withdrawn.

(g) **Conduct of Operation.** On 17 December Soviet troops moved out from Bagram to secure the highway at Salang Pass. Early on 24 December a brigade from 105 Air Assault Division took control of key points in Kabul.

(h) **Attack Plan.** Air-Land Operation planned and conducted in four phases:-

(i) **Phase – I.** Securing of air fields at Bagram and Kabul by advance units sent into Afghanistan comprising troops ex 105 Air Assault Division.

(ii) **Phase – II.** Airlifting and landing of one air assault brigade each from 103 and 104 Air Assault Divisions at Kabul, Shindand and Bagram air bases. One hundred and fifty military transport planes were used for this lift.

(iii) **Phase – III.** Move of two separate ground forces comprising mechanised infantry divisions, supported by armour and provided with air cover into Kabul.

(iv) **Phase – IV.** Softening up.

(i) **Sequence of Events.** Salient events were:-

(i) 5,000 Soviet airborne troops landed at Kabul, Bagram and Shindand air bases on 24 December 1979 at 2300 hours.
(ii) Kabul airport was secured by 0400 hours 25 December. Two hundred flights brought in 10,000 Soviet troops into Afghanistan the same day.

(iii) Move of four motorised rifle divisions comprising 12,500 men each towards Kandhar and Kabul on 26 December under air cover.

(iv) Capturing of key points by Soviet Special Forces (Spetsnaz) in and around Kabul on 27 December.

(v) Occupation of all major towns, airfields and critical points on the main highways by Soviet troops on 31 December.

(vi) Daily 22 to 24 flights were flown for Russian Reinforcement and supplies till 1st January 1980.

(vii) By the middle of January 1980, 16 and 54 Motor Rifle Divisions had entered Afghanistan. The 40 Army Headquarter had also shifted to Kabul to assume overall control of the operations.

(j) **Strategic/Tactical Concept** The initial strategic concept, operational plans and tactical methods used by the Soviet military in Afghanistan did not markedly differ from what they or any strong modern army would have undertaken anywhere else in the world. Massive firepower delivered from fixed-winged aircraft, with helicopters, artillery, rocket launchers and tanks preceded all advances. Tanks and armoured vehicles would cautiously start moving only after their commanders were convinced that no functioning enemy weapons remained in the zone of advance. The Soviet force would then overrun the contested area, firing indiscriminately at any moving object or even just into the air until they were satisfied that their mission was achieved.

(k) **Intelligence Means**. Soviet intelligence agencies operated through a network of greedy agents pursuing financial motives. KHAD tried to infiltrate Mujahideen organizations but mostly failed.

(l) **Training Standards**. Soviets formations were trained to fight conventional war against modern armies but this method of warfare was unsuitable to fight guerrillas in hostile and unfavourable terrain. Moreover, Tajik and Uzbek recruits with only 4 to 6 weeks of training were sent to Afghanistan. They lacked requisite anti-guerrilla training. However, ethnic Russian, Spetsnaz, Air Assault troops and Reconnaissance Units were well trained.

(m) **Soviet Tactics**

(i) **Use of Specialized Troops (Spetsnaz)**. By 1983 it became obvious to the Soviets that fighting against partisans in difficult terrain required specialized forces. Moreover at the same time the Soviet soldiers began receiving better
equipment in accordance with the environment under which they were fighting. Forces like air assault forces (VDV) and Spetsnaz were formed and employed. Spetsnaz were highly trained, hardened commandos who performed long-range reconnaissance, close combat and Special Forces functions.

(ii) **Interdiction.** Moscow’s policy in 1985 took another turn when they started carrying out intensive bombardment on possible supply routes along the Pak-Afghan border. Mujahideen strong points along the supply lines were attacked. Millions of PFM-1 butterfly anti-personnel mines were dropped in the country.

(iii) **Search And Destroy.** Soviets extended their area of operations in 1986 using air mobility to reach out to far-flung areas. The new strategy of search and destroy using helicopters to drop troops behind enemy lines was adopted.

(iv) **Use of Gunship Helicopters**

Air assault tactics and helicopter gunship tactics changed and improved steadily throughout the war. Air assault forces were often quite effective when used in support of a mechanized ground attack. Heliborne detachments would land deep in the rear and flanks of Mujahideen strongholds to isolate them, destroy bases, cut Lines of Communication and block routes of withdrawal. The ground force would then advance to link up with heliborne forces. The heliborne force would not go deeper than supporting artillery range or would take its own artillery with it. The combination of heliborne and mechanized forces worked well at the battalion and brigade level.

(n) **Soviet Tactical Innovations**

(i) **Non Linear Battlefield.** The Soviets first formulated the concept for waging war in non-linear fashion, suited to operating on battlefields dominated by more lethal high-precision weapons. This new non-linear battlefield required the abandonment of traditional operational and tactical formations, a redefinition of traditional echelon concepts, and a wholesome reorganization of formations and units to emphasize combat flexibility and, hence, survivability.

(ii) **Bornegruppa.** The Soviet Ground Forces developed the bornegruppa concept to use the firepower of the personnel carriers as an independent reserve once the motorized rifle soldiers had dismounted. This concept involves a temporary grouping of four to five tanks, BMPs or BTRs, or any combination of such vehicles. The BMPs (tracked) or BTRs (wheeled) are deployed without their normally assigned infantry squad on broad frontage and fight away from their dismounted troops. The grouping has a significant direct-fire capability and serves as manoeuvre reserve. It was a bold step, much to the dislike of commanders of mechanized forces, of separating their dismounted infantry from their carriers. However, terrain often dictated that the BMPs, BMDs and BTRs could not follow or support their squads. The bornegruppa concept gave the commander a potent, manoeuvrable reserve which could attack independently on the flanks, block expected enemy routes of withdrawal, serve as a mobile fire platform to reinforce elements in contact, serve as a battle taxi to pick-up forces (which had infiltrated or
air-landed earlier and had finished their mission), perform patrols, serve in an economy-of-force role in both the offence and defence, and provide convoy escort and security functions.

(iii) **Bounding Over Watch.** The Soviet Ground Forces adopted *bounding overwatch* for their mounted ground forces. One combat vehicle or a group of combat vehicles would occupy dominant terrain to cover another vehicle or groups of vehicles as they would advance. The advancing group would then stop on subsequent dominant terrain to cover the forward deployment of their covering group. When dismounted, however, the Soviet motorized rifle units normally placed some crew-served weapons in overwatch positions, but did not usually bring them forward periodically to cover the advance. Reconnaissance forces, however, used bounding overwatch when dismounted.

(iv) **Enveloping Detachments.** Enveloping detachments were used frequently in Afghanistan. Battalion or company-sized forces were split off from the main body and sent on a separate route to the flank or rear of the Mujahideen to support the advance of the main body, perform a separate mission, prevent the withdrawal of Mujahideen forces, or conduct a simultaneous attack from one or more unexpected directions. If the enveloping detachment was *dismounted*, it was usually composed of airborne, air assault or reconnaissance forces. If the enveloping detachment was *mounted*, it was frequently just the unit's Bornegruppa.

**PART - III - AFGHAN STRUGGLE – THE PEOPLE’S WAR**

8. **Mujahedeen’s Peculiarities and Shortfalls**

(a) **Peculiarities.** The Mujahideen warrior fought for his family, tribe and his religion. He did so as a volunteer out of love for freedom and a sense of responsibility. As such, the Mujahideen were untrained and necessarily part-timers. As the war dragged on, the mobile groups emerged. These comprised mostly young, unmarried men with higher standards of training. They were hardy, courageous and accustomed to the use of weapons in a land where conflict was endemic. They knew the terrain intimately, enjoyed the support of the local population and could move rapidly over considerable distances. They were excellent in night combat, a tactics, feared by their foes.

(b) **Shortfalls.** The Mujahideen also suffered from the drawbacks common in a guerrilla force. While enthusiasm was considerable, discipline was generally poor. It was often difficult to persuade volunteers, who wanted their share of the honour which came from fighting, to perform the unglamorous tasks of logistic support, flank and rear area security. Poor fire discipline sometimes compromised good plans. Prolonged operations were affected by the tendency of fighters to drift home after a tactical success. Exploitation to build on a tactical victory thus lacked at large.

(c) **Articulation of Command.** The Mujahideen were organized into various ethnic and tribal groups and operated under one commander on area basis. Although they were flexible and cooperative within groups, they lacked cooperation and integration
amongst various groups and factions.

(d) **Asymmetric Warfare** Mujahideen adopted unconventional tactics against a technologically and numerically superior force which was a combination of defensive and offensive actions. Their ability to strike and melt in the local environments was an important tactical advantage over Russians. Essentially, the minor operations supported by terrain and surprise were very successful against static and conventional Soviet forces.

(e) **Offensive Actions**

(i) **Ambushes**. Ambushes were used to a great extent to interdict Soviet Army’s Lines of Communication, tying down bulk of the Soviet forces in security tasks, thereby reducing their fighting potential. It also provided the Mujahideen with much needed supplies. Ambush sites were selected where terrain offered good fire positions and withdrawal routes and where enemy manoeuvre or escape would be difficult.

(ii) **Raids**. Raids served several purposes. High profile attacks on key command and communication centres demonstrated Mujahideen’s ability to strike anywhere with significant effects on Soviet morale. These also served as a primary source of arms and ammunition for the guerrillas. The Soviet outposts were always the preferred targets.

(iii) **Attacking Strong Points**. Attacks on strong points were similar in execution to raids, though they usually employed greater numbers of fighters. Government administrative centres were occupied for days for propaganda value of the act. However, the Mujahideen leaders found it difficult to co-operate with each other, to organize and keep their forces together. The resultant counter-attacks were therefore usually successful and inflicted heavy casualties on the guerrillas.

(iv) **Urban Combat**. The Mujahideen's main interest and base of support lay in
the countryside and not in the towns. Indeed, often indiscriminate Soviet shelling of urban areas antagonized many town dwellers. The DRA was never in full control of major Afghan cities. Urban guerrilla groups were therefore usually small and lacked the same level of organization, command and control, equipment and training as their rural counterparts. For these reasons, actions remained small-scale in nature and of short duration.

(f) **Defensive Actions.** Like all successful guerrilla movements, the Mujahideen preferred to keep the initiative. However, in certain circumstances they were forced onto the defensive. This happened during the course of Blocking Actions and Siege Operations. In defence, the guerrillas exploited rugged mountainous terrain and their detailed knowledge of it. These included:-

(i) **Cordon and Search Operations.** Rather than seeking to defeat the guerrillas through cumulative effect of successful tactical actions, the Soviets preferred large-scale Cordon and Search operations. In the early days, Mujahideen were vulnerable to such operations. They however, established outposts for the early warning and learned to melt in the local environments.

(ii) **Defence against Raids.** Mujahideen were vulnerable to successful Soviet raids especially in areas where the enemy had not visited for some time. However as the time passed, they learned to create quick reaction force and establish standard drills to cope with emergencies.

(iii) **Response against Gunship Helicopters.** The Mujahideen had great difficulty in coping with heliborne assaults by gunship helicopters. Their arrival, therefore, often silenced heavy weapons and forced Mujahideen to break-off and withdraw. Unconventional use of small arms and Rocket Propelled Grenades could not provide them adequate protection against such attacks. However, supply of Stingers made it unsafe for the Soviet low-level flights. Mujahideen used to destroy these invincible machines at their bases. Early warning from outposts, air defence ambushes and destruction of the assault force as it was landing were the effective defensive measures against Gunship attacks.

(iv) **Counter-Ambush.** A favourite Soviet tactics was to interdict guerrilla Lines of Communication and long columns of packed animals by heliborne forces. To counter these ambushes, the Mujahideen often established route security outposts and sent out forward and flank security patrols. Columns would move well spread out on varying routes and time of travel.
PART-V - ANALYSIS

9. Analysis of war

(a) Limited War. Although violent and destructive, the war was limited and protracted. Its tempo did not match that of Arab-Israel wars and lacked the well-defined, large-scale military operations of the Korean War. It remained limited in its political and military objectives.

(b) Air and Ground Operations. Soviets sometimes inserted heliborne troops beyond the range of supporting artillery and harvested the consequences. Though the combination of heliborne and mechanized forces worked well at the battalion and brigade level, the Soviet preference for large scale operations often got in the way of tactical efficiency. Ten, large, conventional offensives involving heliborne and mechanized forces swept the Panjshir Valley with no lasting results.

(c) Fighting Technique

(i) Inept Tactics. Soviets conventional method of massive aerial and artillery strikes followed by armour thrust failed in Afghanistan. Mujahideen would temporarily withdraw from the Soviet strike areas returning in hours, days or weeks to strike the enemy where he was exposed. The rugged terrain of Afghanistan and evasive strategy of Mujahideen made this technique impracticable. The Soviets were slow in adapting to these realities.

(ii) Evolution of Military Methodology. Soviets devised new concepts of non-linear fashion, Bornegruppa, bounding over-watch and enveloping detachments. They also tested new force structures but failed against Mujahideen’s Asymmetric Warfare.

(iii) Mujahideen’s Asymmetric Warfare. The Mujahideen adapted to the environments and did not confront the Soviet Army by fighting a conventional war. They refused to dig in and wait for Soviet artillery, rather they moved freely acting on Mao’s maxim of moving the fronts to avoid enemy.

(iv) Use of Gunship Helicopters and Mujahideen Response. Without helicopter gunship, the Soviets may have withdrawn years earlier. Its ruthlessly employment combined with firepower, mobility and initial invulnerability pushed the unprotected guerrillas on the defensive. But the guerrillas adapted. They choose night hours for their strikes when the gunships were comparatively ineffective. Later, the Afghans received suitable weapons, specially the Stingers. This tilted the balance against the Soviets. Even the Soviet trans-frontier airpower could not help them to regain their composure.

(d) Training Standards. Westerners often decry the youth and inexperience of Soviet soldiers and NCOs, but the Mujahideen found that the training standard of the Soviet
soldier, especially the ethnic Russian and troops belonging to Spetsnaz, Air Assault Troops and Ground Reconnaissance Units were comparatively high. Some had good technical knowledge and practical skill. But these qualities were not properly used in Afghanistan due to adverse psychological and environmental conditions. Others, especially Motorized Infantry were most poorly trained. Culturally, Mujahideen were accustomed to small arms and due to their natural instinct they were quick to adapt to sophisticated weapons.

(c) **Organizational Imbalance.** The terrain, climate and the enemy were entirely different from what Soviets had prepared for. In this locale, their equipment functioned less than optimally, their force structure was clearly inappropriate and their tactics obviously wrong.

(f) **Unity of Command.** Mujahideen were divided into seven groups. Mostly, they used to act independently and had local commanders. This made the organization within the group extremely flexible. The operations were planned centrally but execution was decentralized. Soviets divided Afghanistan into seven regions under a military commander but super imposed an adviser. These advisers were directly responsible to Moscow. This retarded the independence of action by military commanders.

(g) **Inadequate Intelligence.** Ground reconnaissance personnel were better trained and better quality soldiers than the average motorized rifle soldier. But, they appear to be used for more active combat than reconnaissance duties. The Mujahideen did a better job of reconnaissance than the Soviets. Their country-wide net of observers and messengers maintained constant observation of Soviet forces. The Soviets relied primarily on aerial reconnaissance, radio intercept, and agent reconnaissance for their intelligence production. Quite often, these reconnaissance sources failed to produce usable tactical intelligence.

(h) **Logistic System.** Soviet logistic tail stretched till USSR. The system was cumbersome and restricted to roads and required substantial forces for its protection yet it was vulnerable to Mujahideen ambushes. Mujahideen logistic was simple and commensurate with the country that lacked communication infra-structure. They were supported by logistic bases located closer to their bases of operations. Certain aspects relating to logistic are as under:-

(i) **Combat Dress, Load and Equipment.** The concept of the motorized rifle force was a marriage of soldiers and armoured personnel carriers. The soldier was never supposed to be more than 200 meters from his carrier. His load-bearing equipment, uniform, weaponry, and other field gear reflected this orientation. Yet, Afghanistan was a light- infantryman's war. In general, the Soviet ground soldier remained tied to his personnel carrier and to the equipment which was designed to be carried by that personnel carrier.
Consequently, the standard flak jacket weighed 16 kilograms. This was acceptable when dismounting a carrier and assaulting for less than a kilometre. However, a dismounted advance of three kilometres in flak jackets would stall due to troop exhaustion. The reconnaissance flak jacket was lighter and better, but in short supply. The Soviet field uniform was inappropriate for Afghanistan. It was restrictive and uncomfortable. The camouflage pattern was designed for northern Europe and not for the arid mountains of Afghanistan. Soviet boots were noisy and unsuited for climbing mountains. The Soviet sleeping bag was made of cotton. It was also not waterproof getting soaked during rains. The premier trophy for a Soviet soldier was a Mujahideen sleeping bag from the West. They were lightweight, waterproof and warm. The dress of Mujahideen was simple, mostly *shalwar kamiz*. Their weapons were light and ammunition tucked around. This made them light, well camouflaged and highly mobile.

(j) **Dry Rations.** Dry rations (field rations) were also a problem. They were tasteless and consisted of a series of shiny tin cans which reflected sunlight. Digging garbage pits in the mountains was difficult and the Soviet soldier would usually throw his empty cans around his fighting or ambush position. This aided Mujahideen reconnaissance. The heat tabs for heating rations frequently crumbled or were not available.

(k) **Medical Problems.** Poor field sanitation practices and poor diet contributed to the spread of disease. From 1/4 to 1/3 of a unit's strength was often sick with hepatitis, typhus, malaria, dysentery, and meningitis. From October through November 1981, the entire 5th Motorized Rifle Division was combating ineffective since over 3,000 of the division’s personnel were sick with hepatitis.

(l) **Vulnerability of Line of Communication.** Base-camp, airfield, city and Lines of Communication (L of C) security tied up most of the motorized rifle forces, but still, the Mujahideen constantly interdicted the supply road and pipelines. The Soviets were unable to completely control their Lines of Communication. Consequently, they were unable to consistently transport sufficient supplies into the country to support a larger force. The guerrilla mastery of the roads strangled the Soviet efforts.

(m) **Discipline Problem.** Many conscripts developed narcotics habit in Afghanistan. They financed their habit by selling equipment, ammunition and weapons. Officers’ discipline also suffered and violent fights were a routine on petty matters.

(i) **Surprise.** The Afghans were rightfully proud of having achieved ‘the Miracle of the Century’. The hallmark of Mujahideen success in the war was attainment of surprise in mountainous country which lacked communication infra-structure against a far superior enemy. They struck and vanished before Soviets could realize. A daring raid on Bagram air base in April 1982 by Ahmed Shah Masud destroyed 23 aircraft and killed 70 Soviet soldiers. Panjsher valley witnessed 300-400 Soviets and 1000 Afghan soldiers perishing in various
ambushes laid by Masud during 1982, which were classic examples of surprise.

(ii) **Media.** The Soviets managed to control the press throughout the war. Journalists were allowed contact with the Soviet forces after being screened by communist news agencies and reported only what they were told to report. Thus, the war grew to serious proportions before the average Soviet citizen realized that Soviet troops were actually involved in daily combat. By the end of 1983, the Soviet press had only reported six dead and wounded soldiers, although by that time, the 40th Army had suffered 6,262 dead and 9,880 combat wounded. It was only under Gorbachev’s Glasnost policy, that the press began to report more accurately on the Afghanistan war.

(iii) **Force Structure.** Soviet armed forces were designed to fight modern conventional enemy. They tried various force structures to fight unconventional Mujahideen, who were extremely flexible within groups but rigid in overall context.

(iv) **Intangible Factors.** More than half of Afghanistan’s populace belongs to tribal origin. They are vigorous, courageous and hardy people well adapted to live off the land. The fact is that they exhibit a phenomenal physical courage and a stoical disregard to hardship. This inherent quality of an Afghan gave him the ability to fight and sustain the overwhelming strength of the Soviets for over ten years. The harsh and inhospitable land and the deadly treatment that the Soviets received from the people in towns and countryside gradually affected the Soviet soldiers’ psyche, and the indoctrination soon melted away as they increasingly faced the grim realities of the real war. Mounting casualties in the field, non-combat casualties due to diseases and desertion by Afghan army were contributing factors in low morale of Soviets and their clients. Soviets sought refuge in fortified garrison and armoured vehicles. Drug addiction was a common feature in Soviet conscripts. In USSR bribes were paid to exempt or safeguard the children of the privileged. Unlike their fathers who fought the Nazi invaders, the returning soldiers were not welcomed as heroes or treated with respect. They were shunned and often scorned by their fellow citizens.

**PART – VI – LESSONS**

10. Modern, mechanized forces are still in peril when committed to fight guerrillas on rugged terrain. The Russo– Afghan War demonstrated this fact. Few lessons drawn from this campaign are:-

   (a) Conventional tactics and Doctrine do not help in guerrilla / anti guerrilla warfare. You have to devise new methods and mechanics to achieve success.

   (b) Adaptability to changing environment and merge with the background are the hallmark of guerrilla warfare.

   (c) A guerrilla war is a contest of endurance and national will. The side with greatest moral commitment (ideological, religious and patriotic) will hold the ground at the end of the conflict.
(d) Forces need to be re-equipped, re-structured and re-trained for fighting guerrillas or for fighting as guerrillas. The most effective force for this mission is Light Infantry.

(e) Tanks have limited utility for counter guerrilla force, but can serve as effective reserve on suitable terrain.

(f) Infantry fighting vehicles and helicopters can play an important role in mobility and fire support. Mechanized forces usually fight effectively only when dismounted and when using their carriers for support.

(g) “Helplessness induces hopelessness and history attests that loss of hope and not loss of lives is what decides the issue of War”, Liddell Hart. The maxim amplifies the importance of morale. Our soldiers can perform in an un-precedented manner, if they are led from the front.

(h) Information warfare is the fourth dimension for any nature of warfare; correspondingly media plays a key role in guerrilla warfare. The successful struggle can be effectively projected by the world opinion.

(i) Logistic determines the scope of activity and size of force either side can field. An effective and efficient logistic system will support all types of operations.

(j) Lines of Communication of an offensive force are highly sensitive and their timely disruption can pay rich dividends. Therefore, secure Lines of Communication are essential for the guerrilla and non-guerrilla forces.

(k) Offensive spirit is the essence of guerrilla warfare.

(l) In the present electronic warfare environment, surprise can be achieved by unconventional warfare.

(m) Minor operations can never lose their efficacy.

(n) Domination of the air is irrelevant unless air power can be precisely employed. Seizure of terrain can be advantageous but is usually of temporary value. Control of the cities/towns or villages can be gainful, but can also prove disadvantageous. Support of the population is essential for the winning side.

**Conclusion**

11. This war was a contest of endurance and will. The Mujahideen did not fight in the expectation of victory on the battlefield. They fought because it was the right thing to do. They were prepared for a long, perhaps endless, struggle in which they, and the Afghan people, would suffer many more casualties than their enemies. The Soviets tried to win through the largely indiscriminate use of overwhelming firepower. However, at the end of the day, sensitivity to casualties and Third World
opinion combined with the difficulty of maintaining larger forces in theatre and the fact that Afghanistan was not of fundamental importance to the USSR, prevented the Soviets from deploying sufficient strength to destroy their implacable foe. No army however sophisticated, well trained, materially rich, numerically overwhelming and ruthless can succeed on the battle field if it is not psychologically fit and motivated for the fight. The force, however, destitute in material advantages and numbers, which can rely on moral qualities of a strong faith, stubborn determination, individualism and unending patience, will always be the winner.
PART-III
NUCLEAR AGE

IMPACT OF NUCLEARIZATION ON CONVENTIONAL WARFARE

Introduction

1. Human history is replete with conflicts of varying dimensions and intensities. War is used to resolve the issues that cannot be decided on table. A passage through military history reveals that principal objective of any war has been dominance over the opponent. This quest for supremacy has led to the development of such devastating means, which can completely cripple the adversary. Emergence of the most modern military hardware of today is an explicit evidence of this pursuit. The modernization of means has also brought about a radical change in the techniques of fighting. The era of sword was replaced by gun powder, the horse cavalry by armoured fighting vehicles and a third dimension i.e. air power was added after the first World War. The most horrifying development, however, came about with the advent of nuclear power. The architect of atomic bomb would never have imagined the amount of destruction it would cause; until it was practically displayed during the attacks on Hiroshima and Nagasaki. Such was the devastation caused by those explosions that never again did anybody dare to employ this means. On the other hand efforts to attain more and more sophistication, continued to deter the rivals. This deterrence worked and on a number of occasions the cold war was prevented from becoming hot. The fear of devastation also forced atomic powers to engage in various strategies and treaties, which could eliminate the danger of any recurrence. An interesting debate after the nuclearization was the future of conventional warfare, which then appeared very bleak. As a matter of fact the employment of nuclear arsenal destroys the ends, which are intended to be achieved through its use. That, probably, is the reason of conventional means still remaining in vogue.

Aim

2. To study the impact of nuclearization on conventional warfare while tracing the evolution and effects of different nuclear strategies, theories and treaties during the last fifty years or so; to proffer viable recommendations to meet the challenges of modern day battle field.

Sequence

3. This paper has developed in the following sequence:-

(a) Part – I. The Inception and Quick Progression Period.
(b) Part – II. The Era of Arms Reduction.
(c) Part – III. Emergence of Nuclear Treaties as Response to Nuclear Development.
(d) Part – IV. Impact of Nuclearization on Conventional Warfare.
PART – I

THE INCEPTION AND QUICK PROGRESSION PERIOD

The Inception Period

4. The first nuclear weapons were developed, constructed and tested by the Manhattan Project, a massive United States enterprise that was established in August 1942 during World War II at a cost of two billion dollars at that time. The subsequent dropping of bomb on Hiroshima and Nagasaki displayed the bomb’s power and more importantly its strategic impact. To preserve the American nuclear advantage, the United States tested Hydrogen or Thermonuclear bomb in 1952. This test code-named Mike, produced an explosion with power equivalent to several megatons of TNT. The Soviet responded by detonating a thermonuclear weapon in the megaton range in August 1953. Matching Soviet nuclear capacity meant that the decision on the role of these weapons was no longer the prerogative of the United States.

(a) Strategy Of Massive Retaliation During the first decade after the end of World War II, the United States enjoyed first, a real nuclear monopoly, and then an overwhelming nuclear superiority. The USSR, on the other hand, had large-scale conventional forces. The Soviet Union, however, succeeded in manufacturing a few atomic bombs, and in forming an embryonic striking force. Faced with these initial Soviet steps towards development of a nuclear threat and an air defence system, the United States declared the doctrine of Massive Retaliation; which is defined as, “A great capacity to retaliate instantly by means and at places of own choosing”. In other words, it will be an all out nuclear response to an enemy attack.

(b) New Look or The Balanced Terror Theory When the Soviet nuclear stockpile developed to a level to create nuclear parity with the United States, a new era of nuclear doctrine emerged. A situation arrived where neither side could eliminate the retaliatory power of the other. Restraint was considered a more prudent option as compared to massive retaliation. The theory was mainly revised because the United States itself faced an unlimited nuclear destruction if it pursued the confrontation with the communist world. In view of these factors and the Korean War, NATO carried out reappraisal of its policies and began developing and coordinating its military capabilities. Although this led to a substantial increase in conventional forces, it was not to the level that had been deemed necessary. The reappraisal led to the concept of New Look or Balanced Terror.

(c) Quick Progression Period: By 1954, it became clear to the Western Block and United States in particular that the increase in Russian nuclear arsenal was undermining the situation of effective deterrence. The natural response was to go for an increase in the conventional forces, which was not likely to happen due to political and economic compulsions. It was for this reason that between mid 1950s and early 1960s attempts were made to develop strategic formulations to
support American foreign policy by drawing on what still was West’s advantage in nuclear weapons. These formulations became foundations for efforts in subsequent decades to solve the basic dilemma of nuclear strategies.

5. **Emerging Role of Tactical Nuclear Weapons - NATO’s Perspective.** The first shift in the strategy of massive retaliation became apparent as a result of the development of tactical nuclear weapons, which caused switching over to the strategy of limited nuclear response. It had become clear by then that NATO was unlikely to raise its nuclear forces to the level deemed necessary to meet any Soviet challenge on its own terms. There was natural interest in the possibility of using tactical nuclear weapons to redress nuclear deficiencies. This gave birth to the strategic bombardment theory. The arguments supporting this strategy were based on three factors:-

(a) Tactical nuclear weapons would remain in the western advantage for quite some time.

(b) Their use would favour defence.

(c) They could be used without exceptional damage to civil population.

6. **Pre-emptive, First Strike and Second Strike Concept.** The concepts of First and Second Strike Capability were introduced by Albert Wohlstetter. These concepts have been at the centre of strategic debate ever since and are particularly relevant to the questions of pre-emption and vulnerability. A first strike refers not simply to the first shots in a nuclear war but to an attack directed against the enemy’s means of retaliation. A successful First Strike would be one that either destroys all the enemy’s nuclear forces on ground or else intercepts them en-route before they could reach their targets. A Second Strike Capability represented the ability to absorb a first strike and still inflict a devastating retaliation on the enemy.

7. **Concept of Mutual Assured Destruction (MAD).** United States Secretary of Defence Robert McNamara advocated the policy of an offensive based strategy in the above said context. He introduced the concept of mutual assured destruction. In 1964 Assured destruction was defined as, ‘the ability to deter a deliberate nuclear attack upon United States or its allies by maintaining at all times a clear and unmistakable ability to inflict an unacceptable degree of damage upon any aggressor, or combination of aggressors, even after absorbing a surprise first attack’. The main threat to assured destruction came from anti ballistic missiles. In response to Soviet development in this field, United States had to go a step further towards the offensive. This led McNamara to give authorisation for deployment of Anti Ballistic Missiles in 1967.

**PART - II - THE ERA OF ARMS REDUCTION**

8. The efforts to limit the spread of nuclear weapons started soon after World War II in 1945. The arms control negotiations between the two super powers started in 1962 and continued till the end of Cold War. The United States first approached the Soviet Union in 1964 to suggest bilateral arms control talks. At that time United States had a clear superiority in nuclear arms, but indications showed that the Soviet Union had developed
weapons that could undermine the American posture. This, along with the acquisition of nuclear weapons by Communist China, created additional complications for US strategy makers. These two factors along with an abiding American interest on arms control, led to a search for negotiated limits to the growth of the Soviet arsenal. Meanwhile, few important theories were conceived in the realm of nuclear strategy.

(a) **Escalation Ladder Theory.** The basic theme of Escalation Ladder Theory is that the stakes in a future nuclear war could be raised step by step rather than through sudden jump to an all out war. The prime architects of the theory identified forty four rung on “an Escalation Ladder” with nuclear weapons needs elaboration. First used on rung fifteen. However, truly speaking, the nuclear threshold had not been reached before rung twenty two. It was also emphasised that even after the outbreak of nuclear war, control could still be exercised by policy makers. However, how easily each threshold would be crossed and whether the move up the escalation ladder would be deliberate or involuntary were some of the unanswered questions.

(b) **Flexible Response Strategy.** This strategy was adopted by NATO in late 1960s in an attempt to remedy perceived flaws in the previously espoused policy, which rested, primarily, on nuclear retaliation. The strategy aimed at holding back the aggression with conventional means. Should that fail there would be a move to tactical nuclear weapons. If this did not terminate the conflict on satisfactory terms, there would be recourse to the US strategic nuclear arsenal. This was no more than a restatement of the concept and simplified view of the escalation ladder.

(c) **Strategy of Great Deterrence** Within the framework of containment, the key function of nuclear weapon was presented as deterrence. Ultimately deterrence could be achieved by convincing the Soviet Union that it would lose World War III. The introduction of nuclear weapons raised deterrence to a new level of strategic thinking. Three chief features of nuclear weapons accounted for this change were:-

(i) Effective defense against massive nuclear attacks was virtually impossible; hence safety could be achieved only by averting an attack.

(ii) The destructive power of nuclear weapons increased the threat of retaliation by nations who possessed such weapons.

(iii) The scale of destruction achievable in a nuclear retaliation could greatly exceed the value of any gains likely to be achieved by the initial attack.

(d) **Strategy of Limited Nuclear Warfare.** This concept was based on the use of low yield tactical nuclear weapons in support of ground combat troops. The argument in favour of this concept included: -

(i) Confined destruction.

(ii) No loss to civilizations.

(iii) Necessarily a defensive option.
(e) **Strategic Defence Initiative (SDI)**. This was an anti-missile defense system introduced by United State in 1983 based on space technology. It employed defense in two stages. In the first, or space based portion, orbiting sensors would detect the launch of attacking Soviet missiles and provide target data to interceptors fired against them. The second phase would begin in late mid course phase of flight, when ground based sensors and interceptors would attack surviving missiles as they approached re-entry into the Earth’s atmosphere. Critics of SDI believe that such a potent defense against Nuclear Strike would rather encourage their use. This could not materialize as it involved huge amounts of capital.

9. **Nuclear Strategies- USA Vs USSR (Cold War Era)**

(a) **Post Cold War Era**. Between 1989 and 1991, two major events took place; the German reunification within NATO and the disintegration of Soviet Union. The end of cold war appeared to leave the US Nuclear Strategy without a purpose. The current US thinking envisages emphasizing selective, flexible and, in theory at least, tightly controlled targeting thus initiating steps towards arms reduction.

(b) **START I**. In May 1990, President Gorbachev and the US president George Bush approved a treaty to end production and reduce stockpiles of chemical weapons, and in July 1991 the two leaders signed the START I agreement requiring both nations to reduce their strategic nuclear arsenals by about 25 per cent. Both sides also moved to reduce conventional weapons and to continue phased withdrawal of their forces from Europe.

(c) **START II**. The collapse and break-up of the Soviet Union in late 1991 raised new complex problems, as strategic nuclear weapons were located at sites in Russia, Ukraine, Kazakhstan, and Belarus. The establishment of the Commonwealth of Independent States, with a single unified command over such weapons, calmed immediate fears. There was, and still is, concern that the Soviet break-up might hasten the spread of sophisticated weapons to the Middle East, and other world trouble spots. The START II Treaty, signed by George Bush and Russian president Boris Yeltsin in January 1993, limits submarine- launched ballistic missiles, and calls for the elimination of almost three quarters of the nuclear warheads and all the multiple land-based warheads held by the United States and the former republics.

(d) **Current Trends**. By the year 2003 the strategic warheads of each power are to be reduced to around 3,000. While START I came into force in December 1994, START II is yet to be ratified by the United States and Russia; in particular, the Dumas is reluctant to ratify it in its present form. There are also current moves to effect a ban on battlefield laser weapons: the October 1995 Review Conference for the 1977 Protocol, relating to the protection of victims of international armed conflict, banned laser weapons specifically designed to cause permanent blindness. On July 8, 1996, the World Court also declared that the use of, and the threat of the use of, nuclear weapons, was illegal. The Court was, however, unable to make a decision regarding situations where the survival of the
state was threatened.

(e) **Current United State Policy.** Current U.S. nuclear policy focuses on Russian ratification of START II and maintenance of the existing targeting policy, which requires the capacity to destroy large numbers of Russian targets in the event of a large nuclear attack. After the Dumas ratified START II, the United States would consider moving to lower levels of perhaps 2,000 warheads. The United States might continue to store tactical nuclear weapons in Europe, and it would resist efforts to move closer to a no first use agreement and would continue to make ambiguous statements about the possibility that nuclear weapons might be used in response to the use of chemical or biological weapons by other states.

**PART III - EMERGENCE OF NUCLEAR TREATIES**

10. The Cold War lasted for many years. It was a war of ideology and propaganda that resulted in the creation of nuclear arsenals still in existence and capable of destroying the world. Tensions during the Cold War sparked many critical situations including the 1962 Cuban Missile Crisis. In the early days of Cold War, while the US maintained monopoly over nuclear weapons, it made overtures in the UN for the control and elimination of atomic energy for military purposes. In June 1946, American representative Bernard Baruch presented a plan to the UN Atomic Energy Commission calling for:

(a) Abolition of nuclear weapons.
(b) International control over processing of nuclear materials
(c) Full sharing of scientific and technological information concerning atomic energy.
(d) Safe guards to ensure that atomic energy would be used only for peaceful purposes.

11. USSR vetoed the Baruch Plan in the Security Council objecting to the UN's authority over disarmament and citing domination of UN by US and Western Europe. Thereafter, in 1949 and 1954, USSR exploded its own atomic bomb and thermo nuclear devices. This parity of nuclear weapon acquisition started an era of various treaties and agreements. All the treaties are first signed, usually by the political head of state, and then ratified (approved) by a country’s parliament. Details of some important treaties are listed below:-

(a) **Limited Test Ban Treaty (1963).** It was a trilateral agreement negotiated by the US, USSR, and UK prohibiting tests of nuclear devices in the atmosphere, in outer space, and underwater. It allowed nuclear testing to continue underground, so long as radioactive debris was not allowed "outside the territorial limits" of the testing state. The treaty has since been signed by a total of 116 countries, including potential nuclear states; Argentina, Brazil, Israel and South Africa. Though two major nuclear powers, France and the People's Republic of China, have not signed, they are now abiding by its provisions. In 1992, China exploded a bomb beyond the LTBT limits.
(b) **Outer Space Treaty (1967).** It was a multilateral agreement signed and ratified between the US, USSR, and UK banning:-

(i) Placement of nuclear weapons or "weapons of mass destruction" in orbit around the Earth.

(ii) Installation of nuclear weapons or "weapons of mass destruction" on the moon, on any other celestial body, or in outer space itself including use of the moon or any celestial body for military purposes and weapon testing of any kind. Ninety-five nations have ratified the treaty.

(c) **Non-Proliferation Treaty.** This treaty was initiated in 1968 and was enforced by 1970. It embodies a basic international consensus that proliferation poses a serious threat to global well being and should be contained. The treaty was designed to prevent the diversion of nuclear material in commercial power systems to weapon purposes by the imposition of safe guards and to gain a formal commitment by the non-weapon states to remain weapon less. It is discriminatory in nature and restricts the development, deployment and testing of Nuclear weapons to the five nuclear weapon states (USA, UK, France, China, Russia ). By 1995 more than 170 countries agreed to extend the treaty.

**PART IV - IMPACT OF NUCLEARIZATION ON CONVENTIONAL WARFARE**

12. **General.** Since the beginning of the nuclear age, there have been no nuclear wars, and none fought under the shadow of the possible use of nuclear weapons, though their existence may have influenced both the United States and the Soviet Union to limit their involvement in Korea, Vietnam, and the Middle East. Nuclear-age wars have therefore, all been conventional.

13. **Doctrinal Implications**

(a) **Changed Design of Battlefield.** In 1962, the authors of Military Strategy declared that battles will be fought at local points or only at vitally important regions and centres that will not be demolished by nuclear missile strikes. While hitherto the troops broke through the enemy front with the intention of seizing the entire zone within the boundaries of the attack, separate units will in future fight independently against other separate units for the possession of key areas and centres. Ground combat operations’ inland theatres will be conducted by rocket and gun artillery as well as tank and motorized rifle troops; dismounted attack will be rare. The troops will frequently be transported by air and the importance of special airborne forces will increase considerably.

(b) **Dispersion.** An alternative concept, which was more sensitive to the
vulnerability of NATO forces to enemy nuclear strikes, was to disperse the defending force in a series of well protected static positions in depth. A more ambitious idea was to drop nuclear weapons on the cities and military bases of Soviet Union, followed by the airborne landings that would occupy the area, and it was hoped to overthrow the discredited ruined communist regime.

(c) **Necessity to Concentrate.** There are definite limits: concentrations cannot be avoided altogether. Before the offensive the attacker will have in his forward area, not only a portion of his striking force and part of his reserves but also troops which will stay in the area, ready to meet a counter-attack, infiltration and rear operations by the enemy air patrols. Reconnaissance elements must skillfully locate ruptures and gaps in the enemy’s combat dispositions, boldly penetrate his defense in depth, determine the location of nuclear means, fix their coordinates and transmit this data rapidly.

(d) **Expediency of Air.** In the vastness of the battlefield air reconnaissance will be particularly useful in locating enemy nuclear weapons and bases, observing enemy troop movements and concentrations, spotting supply lines and depots, and especially also in assessing the effect of one’s own and the enemy’s nuclear strikes. After an enemy nuclear strike the air force may provide the only link between the devastated area and the higher command. The other functions of the air force are to deliver nuclear weapons, transport troops, weapons, equipment and supplies, give direct battle support, and so on; helicopters will move troops within the battlefield, especially over obstacles.

(e) **Limited War.** At the end of 1950, re-examination of employment of armed forces was carried out and Britain concluded that large conscripted armies have become obsolete. She declared total war as a mean of total destruction. She advocated resorting to limited war for achieving limited aims. During that period, subversive moves were being backed by the Soviet Union against West. Within USA and France debate still existed on “very limited nuclear war”. Vietnam War nullified the idea of the limited war and showed the world that it depends upon the willingness of the opponents to go to an extent and not the wishes of the initiator of war.

14. **Effects on Conventional Force Structure**

(a) **Importance of Conventional Means.** The conventional forces will predominantly play an increasingly important role in future arms struggles. It is not likely that even with possession of large amount of nuclear weapons, in the present state of parity, anyone is going to resort to their use unless when conventional defense has virtually broken down.

(b) **Sophistication of Conventional Weapons.** Today's sophistication and lethality of conventional weapons can be called a spin-off of nuclear weapon production. The spin-off of nuclear research and development enhanced the
accuracy and effectiveness of conventional weapons. Now smart and intelligent munitions can be employed with surgical accuracy to attack military targets without fear of much collateral damage.

(c) **Structural Changes.** As regards to structural changes, their effectiveness, long employment range combined with a smaller size of weapons brought out a conceptual change in the art of waging conventional war. For a conventional force to meet the challenges of a nuclear environment is by no means an easy task. It needs to re-evaluate its war-fighting concepts, create its organizational structure and enhance its ability to operate under the threat of a nuclear strike. These would be in the form of Organization, Survivability, Mobility, Command, Control, Communication, Intelligence and Electro-Magnetic Spectrum:-

(d) **Organization.** The essence of organizational changes would encompass the following:-

(i) Reducing the size of existing units without degrading the existing kill potential/operational efficiency. This would entail greater mechanization and increased firepower.

(ii) Integration of the all arms concept at the unit level to give it greater autonomy.

(iii) Rehashing the entire training infrastructure would be required to meet new doctrinal compulsions. This would include special psychological training programme, including confidence building for troops to operate in the new scenario.

(iv) Introduction of specialist units to cater for detection, monitoring, damage limitation and casualty evacuation for troops operating in areas where nuclear strikes may be initiated.

(e) **Survival.** To increase the survivability factor and generate adequate confidence level in the conventional forces, it would be essential to do the following:-

(i) Provision of Nuclear-Biological-Chemical (NBC) defensive equipment for personnel and combat vehicles.

(ii) Hardening of communication systems to reduce collateral failures and maintenance of command and control centre and posts.

(iii) Creation of hardened command posts in pre-selected areas.

(iv) Suitable equipment to monitor radioactive fallout.

(v) Introduction of special camouflage and concealment equipment to reduce the chances of exposure.
(f) **Mobility.** Under nuclear environment, the smaller units and larger area equation have greater emphasis on mobility. Hence, mobility on the battlefield has become essential for rapid concentration, dispersal and a greater dependence on mechanization and aerial mobility.

(g) **C3I Network.** Command and control of these smaller but spread out units will have to be tightened up considerably if they are to be employed to maximum advantage. To make the command and control meaningful, a comprehensive C3I network is essential. The command and control problems associated with the employment of strategic nuclear forces were tackled through extensive (Research and development). Airborne Command Post, Joint Surveillance Target Acquisition Radar System (J-STARS) and Joint Tactical Information and Distribution System (J-TIDS). These types of C3I systems have become a reality.

(h) **Electro-Magnetic Spectrum (EMS).** Deception units, equipped to generate audio-visual and electronic emission to deceive the enemy on actual battle plans and movements, would increase the degree of difficulty in the decision making process for the adversary. The efficient use of EMS or successful denial of its use to the enemy has become a battle-deciding factor.

(i) **Use of Tactical Nuclear Weapons.** Tactical nuclear weapons, today, are considered as important as a conventional force structure. The modern state-of-the-art weaponry and tactical nuclear weapons have had a profound effect on small states' force structure as well. Those countries, which can develop nuclear weapons, would like to possess them on their inventory for deterrence purposes, but not without possessing a viable conventional force structure.

**Conclusion**

15. The disproportionate dangers produced by Nuclear Weapons have now become such that it is very difficult to conceive an open war in the areas where a minimum of credibility is still attached to the use of Nuclear Weapons. As a result, in these areas the role of armed forces and in particular nuclear forces must not be considered from the point of view of their possible employment in war, but from that of the prevention of war. The fundamental transformation in character and influence of armaments entails an almost complete reversal of our concepts, that is, the danger of destruction creates stability, whereas too great stability recreates the danger of war. So the subtle rules of the new game of international relationships begin to emerge with increased clarity: the object of the game is to maintain deterrence effectively by a judicious admixture of danger and stability.
Nuclearization of South Asia

1. The global concerns regarding the dangers posed by nuclear proliferation have aggravated since Pakistan and India joined the nuclear club as de-facto members. The NPT was introduced as a cornerstone to curb the proliferation of nuclear weapons, however, it has lost its efficacy because of the superpowers’ interests and priorities. Current status of South Asia, where the nuclear conundrum prevails, is the result of fluctuating US Non-Proliferation policy towards the region. However, NPT is the only effective tool available to contain the aspirations of more states to follow the South Asian example. Therefore, international community should devise a comprehensive strategy for the imposition of true spirit of NPT both vertically and horizontally. This paper covers three areas concerning nuclear proliferation: the evolution of non-proliferation efforts, the implications of South Asian nuclearization and the future of non-proliferation in the wake of South Asian nuclearization.

2. In the contemporary security environment, the most potent challenge to global peace and security is the spread of nuclear weapons. The international security environment remained tense during the 40 years of the Cold War under the fear of a possible nuclear war. The end of the Cold War mitigated the fear of nuclear annihilation but the global concerns were revived by the nuclearization of the South Asia in May 1998 when India conducted its nuclear tests and Pakistan followed suit to maintain the regional balance of power. The instruments of US nuclear non-proliferation policy, sanctions and incentives towards South Asia appeared to have failed. However, the events of 9/11 put across new considerations regarding nuclear proliferation. On the one hand, the concerns regarding further proliferation and fear of possible acquisition of nuclear weapons by terrorists or rogue regimes enhanced. While on the other hand, in the aftermath of these events the US reversed its non-proliferation policy towards South Asia keeping in view the geopolitical realities. The US disregarded proliferation concerns and entitled India as a “Strategic Partner” and Pakistan as a “Major Non-NATO Ally.” Acquisition of nuclear weapon by two South Asian rivals has far-reaching implications for the NPT and NPR (Non-Proliferation Regime). However, for the time being, nuclearization of South Asia has put forward three major challenges that are required to be managed at the earliest, which are prevention of proliferation, spread of nuclear weapons and arms race. Keeping in view these realities, this paper would briefly discuss the evolution of global non-proliferation efforts and future of non-proliferation in the light of South Asian nuclearization.

Evolution of Non-Proliferation Efforts

3. The harrowing events of Hiroshima and Nagasaki jolted the minds and hearts of the international community. World’s visualization about the dangers posed by possible use of nuclear weapons set the stage to carry out the efforts to avoid such eventualities in the future. As nuclear technology can be used for dual purposes and its peaceful look is even more valuable than destructive, so the major challenge for global efforts was how to manage the balance between civility and incivility in the flow/use of this technology. To serve such purposes, the US introduced the ‘Atom for Peace’ program in the 1950s, ‘aimed at fostering civil cooperation and gaining control over the inevitable spread of nuclear activities’ but conversely, this arrangement aggravated the situation and set the stage for
further proliferation. Resultantly, the Nuclear Non-Proliferation Treaty (NPT) came into being about four decades ago aimed at enhancing civil nuclear cooperation, curtailing further spread of nuclear weapons and with the ultimate objective of comprehensive global disarmament. Despite too many loopholes it covers 190 states and constitutes the only effective check to counter and restrict the further spread of this lethal technology. In the past this treaty proved successful but at present it has lost its efficacy and its future seems dim especially after the Indo-Pakistan nuclear tests of May 1998. The International Atomic Energy Agency (IAEA) was established in 1957 as a policing authority to regularize and manage the worldwide nuclear activities. But unfortunately it neither has the credibility nor the legal grounds to make sure the implementation of NPT, because almost all the relevant arrangements are in the hands of five Nuclear Weapons States (NWS) recognized by the NPT. However, the UN and IAEA tried to restore the credibility of Non-Proliferation efforts. In 2004, the United Nations Security Council (UNSC) passed resolution 1540, stressing upon the states to formulate norms and laws and tight domestic administrative structure to avoid the proliferation of illicit nuclear technology. Nonetheless, the role of these de-jure states in the entire game remained dual and discriminatory and these states always undermine the issue of non-proliferation for the sake of their national interests, as recently transpired by the Indo-US nuclear deal.

**Nuclearization of South Asia: Ramification**

4. Since the enforcement of Non-Proliferation Treaty in 1971 and Indian ‘Peaceful Nuclear Explosion’ in 1974 up to May 1998 Indo-Pakistan nuclear tests, South Asia was the focal point of Non-Proliferation efforts. The events of May 1998 further aggravated the situation and turned the region into as President Bill Clinton once said “the most dangerous place on earth.” As a result of these nuclear tests, global non-proliferation efforts received a serious set back. The resultant chain reaction, the undeclared arms race and the likelihood of nuclear weapons being used in war, immensely increased the global non-proliferation concerns. In the South Asian context we can not rule out the possibility of these weapons being used during the war, however, diverging views are being forwarded on the issue. For some, nuclearization of South Asia has built up the deterrence, possibility of conflict has been reduced in the region and peace has become a strategic compulsion. For others, the nuclearization has increased the possibilities of entirely destructive conflicts. People from the second school of thought explain four such possible scenarios in which nuclear weapon can be used; ‘First would be the situation in which one country with the intention to destroy the other initiates a nuclear war. In the second scenario, the two countries can drift into such a war without intentions. In the third, one adversary can start a nuclear war due to an inaccurate information and miscalculation about the intention of the other. And finally, it can occur accidentally due to the failure of some technical device.

**Future of Non-Proliferation**

5. Future of non-proliferation depends on the efficacy of Non-Proliferation Treaty and the strength of Non-Proliferation Regime. In the wake of South Asian nuclearization, the efficacy of NPT has been seriously eroded, as the confidence of member states has been shattered. The situation has been further deteriorated because of the double standards of the US nuclear non-proliferation policies and discrimination in the implementation of NPT. Recent conclusion of Indo-US nuclear deal could prove a last blow to the Non-Proliferation
efforts, as the very nation that created the NPR is itself violating its values and norms. The US policy is dual; on the one hand it has adopted preemptive doctrine to curtail the nuclear efforts of some states such as Iran and North Korea; the NPT signatories, and on the other hand it has turned blind eyes over the acquisition of nuclear weapons by India and Israel; the non-NPT signatories. As recently US has lifted thirty years bar on the sale of civil nuclear technology to India by describing it as “a responsible state with advanced nuclear technology”. “The US reliance on the nuclear weapons as a core element of its national security has always created serious tension within the non-proliferation regime, because it reinforced the double standards; some countries can have nuclear weapons, other can not. But the Bush Administration antagonism to multilateralism, articulation of an aggressive doctrine of preventive war and the aggressive statements about possible use of nuclear weapons have placed enormous strain on non-proliferation negotiations, so much so that many fear for its survival.”

6. In the past NPT produced significant results in restricting the spread of lethal nuclear technology. Although, there is divergent views regarding the efficacy of NPT but there is greater consensus on the evenhanded success of NPT. Those who believe on the success of NPT forward the rationale that the rate of proliferation has declined with the implementation of NPT, only few countries became member of the nuclear club, and only few countries now are interested in acquiring nuclear weapons. There is a common perception that if there had been no NPT, the total number of nuclear weapons states (NWS) might have reached 30 or 40 by now. Today we have only eight, with one or two still trying to reach nuclear weapons status.

7. However, the future of NPT is highly uncertain because of its inherent flaws. The most important is that since its enforcement 37 years have gone but its obligation regarding the disarmament is still not implemented. And secondly, NPT has too many dual clauses such as its exit clause reveals the right of states that they can withdraw from the treaty if extraordinary events jeopardize their supreme interests. This reflects that all states have a right to develop nuclear weapons to ensure their security. This is also accepted by the US; “After the NPT, many nations can be expected to take advantage of the terms of the treaty to produce quantities of fissionable material...In this way; various nations will attain a well developed option on a bomb. A number of nations will be able to detonate a Journal of Political Studies 5 bomb within a year following withdrawal from the treaty; other may even shorten this period.” Whereas the future of non-proliferation is concerned, it seems highly uncertain and we cannot forecast successes or failure of non-proliferation efforts. However, day by day the situation is getting worse due to irresponsible and dual behavior of P-5s. According to Ronald Trimberbaev, “we have been witnessing increased international cooperation in combating the proliferation of nuclear weapons and the spread of dangerous material. However, one has to admit that this continuous struggle is becoming more and more complex and demanding.” In this regard one UN report also indicated that “we are approaching a point at which the erosion of the non-proliferation regime could become irreversible and result in a cascade of proliferation.” Nuclear weapons, which are millions time more powerful than the same mass of conventional explosives, can kill thousand or more people in blinking of an eye, can ruin a large city and with a spillover ramifications of contaminated radioactive waves that can turn even the generations into sufferers. The only solution to restrain such obliteration is the abolition of nuclear weapons from the earth. In this regard Robert McNamara rightly said that “human fallibility means that a nuclear war,
which could destroy the present civilization, was ultimately inevitable unless the goal of universal nuclear disarmament was pursued to its logical end.” Andrei Sakhrov said that “A very large nuclear war would be a calamity of indescribable proportion and absolutely unpredictable consequences, with the uncertainties tending towards the worst... all out nuclear war would mean the destruction of contemporary civilization, throw man back centuries, cause death of hundreds of millions or billions of people, and with a certain degree of probability, would cause man to be destroyed as a biological species.

Conclusion

8. The international community has failed to manage the issue of non-proliferation in an appropriate manner. As NPT is the only tool available to control the spread of nuclear weapons, therefore it is essential to implement it in a comprehensive manners. NPT has two objectives to achieve; Non-Proliferation and Disarmament. There is a need to give equal preference to both and the ultimate objective should be the elimination of nuclear weapons rather than limiting their possession. Nuclearization of the South Asia coupled with the rise of terrorism has given a new foresight to the issue and now it requires comprehensive and multilateral approach for settlement. The issue requires new approach by the P-5s, especially the US, who is exploiting the condition rather than containing it. These countries should revise their present nuclear policies. The NPR is passing through the most critical time because the priorities of super powers have changed significantly in the aftermath of 9/11. The US refusal to sign CTBT and its encouragement of nuclear hegemonic states like India and Israel compelled many other states to follow the South Asian example. However, in the case Nuclearization of South Asia and the future of Non-Proliferation 6 of South Asia, nuclearization of the region would unlikely result in the growth of more states aspiring to have nuclear weapons in the near future but the recent developments within the region and elsewhere have serious impact on the global non-proliferation regime. This is both in terms of other states contemplating the acquisition of nuclear weapons and increased risks of their use during the wars and conflicts.

Recommended Readings


Rana, Netra RL, The Anglo Gorkha War (1814-16).


