

**THE JUSTIFICATION OF SDI BEFORE  
AND AFTER THE DISSOLUTION OF THE USSR**

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Certified that the dissertation entitled **The Justification of SDI Before and After the Dissolution of the USSR** by **Lalit Mohan Misra** is in partial fulfilment of the requirements for the award of the degree of **Master of Philosophy** of this University. This dissertation has not been submitted for any other degree of this University, or any other University and is his own work.

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*Lalit Mohan Misra*  
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## PREFACE

SDI was conceived on 23 March 1983 when president Reagan in his televised address called upon the scientists to fight nuclear weapon by the means of rendering this weapon impotent and obsolete. He announced that he was initiating a comprehensive and intensive effort to define a long term research development programme to achieve ultimate goal of eliminating a threat of strategic nuclear arsenal. The President did not, however, say that the system he was hypothesing should have space-based component but he did not rule them out either. He simply said that he wanted to look at the various possibilities of defending against the srategic threat posed primarily by the Soviet Union.

The first chapter focuses on the history of the origin of the SDI. Although President Ronald Reagan announced and opted for SDI programme, the origin of SDI can be traced even earlier. Its origin and its driving force lay in the quest for the ultimate weapon and an attainment of strategic superiority over the Soviets since the inception of the nuclear arms race. In 1967 when Reagan was the Governor of California, he learned first-hand about missile defenses from physicist Edward Teller, a key figure in the SDI programme. Laser lobby, comprising senator Malcom Wallop, Codevilla and Harrison Schmidt influenced a lot in convincing Reagan to pursue SDI research. In 1981 the Laser Lobby vigorously advocated developing and deploying Laser technology on orbiting platforms. However Teller who was the

initial promoter of the Laser Lobby later broke from the lobby to argue for expanded research on compact, short-wave length nuclear pumped lasers, while Wallop favoured long wave length, chemically powered lasers. As a result of this schism 'laser wars' broke out in Congress in early 1982 with House members backing Teller's concept, and senators backing Wallop's. This two streams of approaches toward defending the nation against missile attack prompted President Reagan to carry forward his ideas of SDI. The first chapter has tried to give the account of debate of both the votaries and detractors of the SDI. A modest attempt has been made in this first chapter to analyse the prologues to the strategy of the SDI. The second chapter 'SDI and European Allies' deals with the facts that how the US had not only to justify its domestic and foreign policy constraints but also to promote the interests of its European allies. In this chapter, it has been examined that the US manipulation of coopting European allies in to the SDI research programme could be possible in the name of the soviet threats. Efforts also have been made to put forth categorically the European objection to SDI programme specifically those relating to ABM treaty. European powers like Britain and France feared that the SDI race between USA and USSR would completely neutralise the benefit of their own nuclear missile.

In the Third chapter "SDI-Before and the After the Dissolution of U.S.S.R(1985-onwards)"-An attempt has been

made not only to justify the SDI programme before the dissolution of USSR, but also to justify the scenario of non-existing soviet nuclear missile threats following the dissolution of the soviet union. After the dissolution of the USSR, US seems to anticipate threats from some countries like Iraq, Iran, North Korea and ~~Libya~~<sup>L</sup> Libya. Some administrative officials and Senators also upheld the view of possible Chinese threats to the US in the form of existing Chinese ICBM. The role of powerful lobby of political-military-industrial complex has been highlighted in this chapter.

The whole disertation is an attempt to justify the SDI after the dissolution of the USSR without loosing sight on the problems and prospects of SDI programme since its inception. Efforts also have been made to throw lights on the various turns and twists SDI programme has under gone in course of its progress. Both political and Technological aspects of SDI have not been ignored in our attempts in writting this dissertation. I have also tried not only to present the precious views of defense experts of U.S.A, but also to review the commitment of U.S.A leaders towards SDI.

## CHAPTER I

### THE INTRODUCTION - THE ORIGIN OF SDI

Technological exuberance, worry about antinuclear protest, and the hope that the space would provide an end run around the strategic state mate were behind the campaign that gave birth to the strategic defence initiative. On 23rd March 1983, President Ronald Reagan in his televised address to the nation called upon the scientists to break the strategic statement by shifting the nuclear battle ground from the Earth into the neutral arena of outer space.<sup>1</sup> President further held that the out come would change the course of human history by rendering the nuclear weapons "impotent and absolute."<sup>2</sup> Thus behind the origin of Strategic Defence Initiative lies the ultimate quest for the all powerful alternative weapon maximising strategic superiority that have defined the nuclear arms race since its inception from the Second World War era.

Although theoretically the SDI programme was launched on March 3, 1983 as per United States official records, its history of origin can be traced back to 1967. After being

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1. Speech by Mr. Ronald Reagan. President United State on march 23, 1983, USIS Information Bulletin, march 28, 1983, page 2.
  2. ibid. page 3.



elected as the Governor of California Reagan learned his first hand lessons about missile defence from a strategic defence scientist teller who gave him a guided tour through the Lawrence Liver mere nuclear weapons laboratory located South-East of San Francisco.<sup>3</sup>

The "laser lobby" senators Malcolm Wallop and his legislative aide, Angelo Codevilla way back in 1979 sent the draft of their article "opportunities and imperatives of Ballistic Missiles Defence" to Reagan which the later returned with comments and annotations.<sup>4</sup> During his second bid for President-ship in the same summer, Reagan visited the North American Aero Space Defence Command at Cleyenne Mountain Colorado, where he learned that the United State, had no defence existing or planned against Soviet missiles.<sup>5</sup>

After his colorado visit Reagan received a memorandum from his Domestic Policy adviser Martin Anderson urging him to propose a U.S. anti missile shield.<sup>6</sup> The argument of the

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3. Edward Teller, "SDI: The Last Best Hope" In sight, October 28, 1985, pp. 75-79.

4. William Broad, Star Warriors New York: Simon and Schostr, 1985, pp. 185-189.

5. ibid., p. 196.

6. William Broad, Anderson's Perception of SDI, New York Times, March 4, 1985, Page 23.

former was to design defence system in conjunction with a reasonable build up in conventional forces and to accelerate the development of cruise missiles and conventional missile like Mx.<sup>7</sup>

The themes of defence and space were again brought before Reagan soon after his inauguration by Wallop and New Mexican Republican Senator Harrison Schmidt, another member of the Laser lobby. At the instigation of Wallop and his allies, the Senate in 1981 voted 91-3 to increase the funding for the development of laser defence against Ballistic Missiles.<sup>8</sup>

The approach for origin of SDI was made on January, 1982 by Edward Teller and three of Reagan's long time friends, members of the President's so called kitchen cabinet, retired business man Karl Bendesten, Oilman William Wilson and Brewer Joseph Coor recommended that Reagan initiate a new Manhattan Project to develop high tech- Weapons for neutralizing the Soviet missiles.<sup>9</sup> The

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7. ibid.

8. Richard Halloran, "3 of 5 Joint Chiefs Asked Delay on OIX" New York Times, Dec. 9, 1982, p. 1.

9. Karl Bendetsen, Personal Communication, Aug. 6, 1983, p. 24.

10. ibid. p. 29.

data based informations were supplied by conservative heritage foundations. They discussed the looming threat to the U.S cities and strategic deterrents by Soviet missiles and bombers.<sup>10</sup>

The January 1982 meeting was only first of the four, where Teller, Bendesten, Coors and Wilson met with the President and close aids to discuss strategic defense. In addition to apprising Reagan at this meeting of the technological advances that made missile defence viable, they also focussed on people's perception and enthusiasm over the issue.<sup>11</sup>

The September 14, 1982, meeting in the oval office, although Scheduled to last a half an hour, was cut short by the President aide when Teller began the session by warning that the recent Soviet advance in high-tech weaponry meant that Moscow might soon be able to black mail the United States and went on to make a frank appeal for dramatically increase the funding of the x-ray laser project at Livermore.<sup>12</sup>

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11. George Key Worth, Personal Communication, April 16-22, 1986.

12. William Broad, "Simon and Schoster, Star Warriors" New York Times, Feb. 23, 1985, p. 6-7.

The project dubbed 'excalibur' was conceived at the laboratory in the late 1960's and was considered the most promising of the various nuclear directed-energy Weapons being developed there for strategic defence.<sup>13</sup> After Reagan's assumption of office Teller and his protege Wood who headed the x-ray laser development team began briefing congressional leaders on the promise of such third generation nuclear weapons held for the defence. Teller also had periodical meetings with members of the Joint Chiefs of Staff and senior civilian officials of the Defence Department to keep them abreast of the Lever more Progress towards the new weaponry.<sup>14</sup>

In fact, this tiny group of Kitchen Cabinet was instrumental in pushing through the SDI Programme in to primary national agenda of the US defence system. Herbert York opined,

"An instance of exceedingly expensive technological exuberance sold privately to an uninformed firm leadership by a tiny in-group of especially privileged advisors".<sup>15</sup>

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13. ibid.

14. ibid., pp. 145-147.

15. Herbert York, Kitchen Cabinet and SDI, Daedulus, Spring, 1985.

By the end of 1982 Reagan had reasons to welcome the fundamental shift in US Nuclear Strategy promised by Teller and Bendesten's group. The Pentagon had yet to bind a place to put the 10 war head Mx - the avowed centre piece of the administration's strategic modernisation programme. The "Densepack" out of Pentagon's basing options had its critics ridiculing the scheme as "Dunce Pack" and "Six Pack". The objection was suited to an active ABM defence of the Mx, and was only a prelude to re-opening the missile defence controversy supposedly settled by the 1972 ABM treaty. Such objections became academic however after November 1982, when General John Vessel, Chairman of the Joint Chiefs, admitted during a Senate hearing that many US military leaders were also unenthusiastic about Densepack.<sup>16</sup> In fact opposition to the Mx and Densepack was only the latest most glaring example of the chronic trouble plaguing the administration's Five Year Plan to modernize and expand the US strategic deterrent.

The political significance of the of the public's nuclear concern was, evident in the growing popularity of the 'freeze movement', which sought a negotiated halt to the

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16. Richard Halloran, "3 of 5 Joint Chiefs Asked Delay on Mx", New York Times, Dec 9, 1982, p. 13-15.

testing, production and deployment of nuclear weapons. In mid June 1982, an anti nuclear rally in Central Park attracted more then 500,000 protesters. Several weeks later, on August 6, the house of representatives defeated a resolution supporting the freeze by the exceedingly narrow margin of two votes.<sup>17</sup>

By early 1983, a convocation of Roman catholic church was engaged in drafting a letter that would call for a halt in the production of the nuclear weapons. That draft condemned any form of nuclear war as unjustifiable.<sup>18</sup> The contents of the bishops letter awakened fears in the pentagon and the administration that the nation's shift from the decade long dependence upon nuclear weapons and deterrence might suddenly change the attitudes of electorates.<sup>19</sup> Eugene Rostow, the then director of the Arms Control and disarmament Agency, proposed a series of stage media events designed to counter act the forthcoming Ground Zero week.<sup>20</sup> Admiral James Watkins the Chief of the naval

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17. Robert Toth, "Enhanced Role of Religious Faith at Pentagon Raises Question, doubts" Los Angels Times, March 7, 1985, Page 1.

18. ibid., page. 2.

19. Robert Scheey, With enough shavels: Reagan, Bush and Nuclear War, New York, Vintage, 1983, pp. 84-86.

20. ibid., pp. 168-71.

operations and a devout of Catholic, who according to Friends, was particularly troubled by the bishops letter, reportedly discussed his doubts about the ethicis of deterrence with the President, and made them the focus of a secret Navy White Paper. Watkins was also among those to whom teller had briefed at length on the x-laser.<sup>21</sup>

Ironically, Reagan himself was perhaps the first in his administration to voice growing unease with nuclear strategy.<sup>22</sup> "He felt extremely uncomfortable in an ethical sense, in a stability sense, from the point of view of the man who controls the button".<sup>23</sup> Key worth recalls that Reagan was not concerned with the Present situation but the world his successors would inherit and the eroding trend of strategic stability.<sup>24</sup>

The rising protest against nuclear weapons also had a surprising and ironic tie. The freeze movement contained sincere and dedicated people who were otherwise supporting

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21. Frank Greve "Star Wars: How Reagans Plan Caught Many Insiders By Surprise", "San Jose Mercury News, Nov. 17, 1985, page. 1.

22. George Key Worth, Personal Communications, February 18, 1982, pp. 12-13.

23. ibid., pp. 15-16.

24. ibid., pp. 25-28.

strategic defence enthusiastically. The public were also rapidly losing patience with the bleak mutual hostage relationship of deterrence.<sup>25</sup>

Beyond technological exuberance and worry over domestic protest, there was a final often hidden impetus behind strategic defense in the Reagan administration: the hope that space would provide both an end run around the stalemated strategic situation on Earth, and an untrampled last frontier for the arms race, where victory might still be possible. But Teller vehemently denied the obensive potential of SDI in its origin.<sup>26</sup> An anthology by Teller published in 1980 by Hoover Institution is widely regarded as a blue-print of Reagan's first term. Teller acknowledge the inherent duallity of the space based weapons, space craft could emit laser beams or be used to carry nuclear weapons. In the latter case, it is less likely that these weapons would ultimately be used near the ground, which requires expensive deorbiting, more likely by use of lasers, other forms of beams, or nuclear weapons. Space craft will be equipped to destroy enemy space craft. In addition to the nuclear weapons, exploded in a space craft would have a

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25. Pollster George Gallup, Atomic Scientist, page 23

26. Phillip Boffey "Dark Side of Starwars: System could also attack": New York Times, March 7, 1985, p.1.



great influence on the high layers of the atmosphere, especially the ionosphere. Thus normal means of communication would be disrupted.<sup>27</sup>

On February 11, 1983, the multiple factors Private lobbying, antinuclear fears and protest, and the desire to trump the Soviets - coalesced in the radically new strategic vision proposed to Reagan by his policy makers during the monthly meeting.<sup>28</sup> Out of many options the Chiefs recommended to the President Choices that included shifting the emphasis on deterence from land based ICBMS to submarine launched ballistic Missile, bolstering conventional forces and increasing reliance on an expanded navy.<sup>29</sup>

Strategic defense also secured foremost in the mind of Robert M C Farlane, the President's Deputy National Security advisor. He elaborated a theme of a new strategic vision.<sup>30</sup>

The contrasting situations of crowded demonstrations at Central Park and unique quality of Soviet Systems coming on

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27. ibid., p.3-4.

28. Assessment of Strategic Defence Initiative Tedhnology washington D.C., American Institute of Aerobatics and Astronaunts 15 March, 1989.

29. ibid., pp.24.

30. M.Brower, 'The confused course of SDI' Technology Review, October 1987, pp.65-67.

the line were frustrating. The new generation of mobile ICBMS then tested by the Soviets was an omminent threat. Those weapons theoretically threatened the strategic balance by putting the US land based weapons at risk while remaining invulnerable themselves to a first strike.<sup>31</sup>

For many reasons, including the east west political dynamics, congressional politics, trends in domestic thinking and arms control strategy the initiative was progressing in a rare with care policy.

In the days afterwards it was decided that the announcement of SDI would come at the end of what is known as the grim and depiction of enemy capabilities that almost ritualistically precede an administrations appeal for more militant spending. The timing of star war announcement in presidential speech of March 8, described Soviet Union as the focus of evil in the modern world.<sup>32</sup>

In mid March Reagan repeatedly told National Security advisor william clerk and Mc Ferlance that the SDI should be supplemented with more positive and compensating vision of

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31. ibid., p.68.

32. T.M. Foley SDI takes Initial Deployment of Success of Four Programmes, Aviation and Space Technology, New York, 12 Oct., 1987.

the future. The battle line was now drawn and the announcement of SDI was known.<sup>33</sup> Keyworth was directed to draft the short speech for the purpose. "This threat hangs over all of us world wide and some day there may come along a madman in the world, some place every body knows how to make it any more - that use of these nuclear weapons. We think it like when we met in 1925 after the horror of world War I and in Geneva we decided against poison gas any more as a weapon in war and we went through World War II and down to defeat our enemies without anyone using them because they knew that every one had it. But they also knew something else. We out lawed poison gas in 1925 but everybody kept their gas mask. I think SDI is a kind of gas mask.<sup>34</sup>

This initiation of SDI was largely based on a report of January 1982 on strategic defence given to Reagan by the Kitchen Cabinet. It was almost uniformly pessimistic about the prospects of any significant break through in defence technologies occurring in the next five to ten years. It said in very very specific terms that there is nothing in the near time that will allow change.<sup>35</sup>

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33. *ibid.*

34. Response to Reporters during 1985 Sept. 25, Press Conference, U.S.I.S. Bulletin 3rd Oct., 1985.

35. C.Norman, 'Debate over SDI enters New Phase, Science, vol.235, 1984, pp.227-228.

The report none the less identified one particularly promising area where un-expectedly rapid progress had occurred. This was adoptive optic where computers and deformable, or so called rubber mirrors are used to almost instantly compensate for the distortion of laser light as it passes through the atmosphere.<sup>36</sup> With the understanding the rubber mirror dynamics, at last a answer to the question was found.

Despite the nearly unanimous misgivings to the Scientific Colleagues and Peers about negative aspect of SDI. Keyworth kept on prodding Reagan to go in for it. He became the messenger to reveal the President's intention to senior Defense Department officials, and few of them were stunned and deeply upset at being left out of Reagan's decision. Subsequent attempts by administrations to change the speech out of concern over SDI's effect on NATO allic and on future military budget were apparently rebuffed by Reagan who proved un-yielding in defense.<sup>37</sup>

From Reagan's approach of SDI, the greatest difficulty was to strike a right balance between the specific and the

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36. ibid., p.230-32.

37. William Broad, "Doubts expressed on Space Weapons", New York Times, Aug. 13. 1987, p.9.

general. The initial emphasis of the speech was divided between the promise of hightech conventional weapons the strategic defence. The most controversial phrase of the entire ten minute address was a reference to rendering not only ballistic missiles but nuclear weapons impotent and obsolete.<sup>38</sup> Keyworth stressed that the words "nuclear weapons" were not un-intentional. They stayed because that's what they President wanted. It was some kind of a string of terminal defences around the United States.<sup>39</sup> Lingering concern of those writing the dual nature of strategic defence. Scientists had long speculated about the feasibility of destroying un-protected target on the ground. M.C Farlance and Keyworth discussed the Possibility that laser might even be used to assassinate leaders like Mohammed Gaddafi.<sup>40</sup>

When both the State Department and Pentagon continued to worry about SDI's offensive use, M.C. Farlance agreed to append a few lines to the insert alluding to this concern.

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38. ibid., p.9.

39. ibid., p.10.

40. D.Blum, "Weird Science: Livermores X-ray Flap", Bulletin of the Atomic Scientists, July/August 1983, pp.4-5.

The final version recognized "Defence system".<sup>41</sup> The cryptic concession was followed by an immediate disclaimer, "If paired with offensive an aggressive policy and no one wants that"<sup>42</sup> However asserted key worth that the speech came from the president's Heart towards the end to President himself wrote.

On the evening of March 23, at the end of a nationally televised address that focussed on Moscow's strategic build-up and a long term Soviet threat to Central America, Reagan announced his new strategic vision for the nation. Borrowing a line from Watkins white paper on deterrence the president Prefaced his announcement of SDI with a rehtorical question "wouldn't it be better to save live than to avenge them? He offered strategic defense as the answer."<sup>43</sup>

Reagan's revelation that his administration would embark on a programme to counter the awesome Soviet missile threat with measures that are defensive was followed by his disclaimer of any aggressive intent behind S.D.I., and assurance the interest of the U.S. allies or violate, the

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41. God Win, "SDI loosing momentum over what is possible and affordable, Physics Today Nov.1983, pp.23-24.

42. ibid., p.26.

43. Speech of President Reagan on March 23, 1983, USIA Information Bulletin, March 28, p.3.

1972 ABM Treaty.<sup>44</sup>

These optimistic tenor of his original speech in particular its emphasis on using technology to aid in achieving truly a lasting stability remained un-diluted. He called upon the scientific community to turn their talents for the welfare of the mankind and the world peace.<sup>45</sup>

Only after one week of President Reagan's speech the wisdom of Reagan's strategic vision was debated by two physicists who had long been taking opposing sides in nuclear debate. While Teller welcomed SDI as a first step towards the conversion from mutually assured destruction to mutually assured survival, Physicist Richard Garwin echoed the view of the majority opponents who characterized the project as "a will- of the wisp far more likely to lead Soviet offensive forces than to reduction of the threat to our lives."<sup>46</sup>

Some eleven years after Reagan's new historic speech, few of the scientists are willing to claim that SDI will

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44. ibid., p.4.

45. William Broad "Can S.D.I. Serve the Purpose", New York Times, Aug. 20, 1987, p.5.

46. R.Jeffrey Smith, "Lab officials squabble over X-ray Laser" Science, New York, Nov. 22, 19986, p.9.

render nuclear weapons obsolete. However still doubts remain whether the space-shield of Reagan's imagination can be achieved within the parameter of his dream.



## CHAPTER II

### SDI AND EUROPEAN ALLIES

Among traditional European allies of the United States, President Reagan's strategic defense initiative provoked strong debates. With coming in of SDI the future of ground based ballistic missile was at stake. The intensity and duration of alliance debate regarding BMD became unprecedented. European support for the SDI remained quite qualified for the apprehension that the process would imply a trend towards the disengagement of US nuclear commitment regarding European security. Major European forces such as Britain, west Germany and France had their objective perceptions against the back drop of their ground realities. The essential difference of features, previous US BMD research programme vis-a-vis SDI set the agenda for this debate.<sup>1</sup>

In addition to the change in organizational structure SDI differed from preceding BMD efforts in two ways. First on finding support that it could generate. In 1986 January France's officially chartered commission study of space weapons concludes that if the budget lines for the BMD research had remained distributed among various US agencies and services the total amount allocated in 1985, probably

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1. Pave Nieze, The objectives of Arms Control, Current Policy, No.677, Washington D.C., Bureau of Public Affairs, US Department of State, 28 March 1985, pp.5-7.

would have been in the same order of magnitude as the training granted to the SDI in 1985,<sup>2</sup>. The second difference lie in scope of objective. In 1967 when US secretary of Defence Robert Mc Namara announced the plan to build the sentinel Anti Ballistic missile system (ABM) and there by launched the BMD debate of the late 1960s and early 1970s, he said, "It is important to understand that none of the system at present or foreseeable state of the art provide an impenetrable shield over the United States were such a shield possible, we would certainly want it and we would certainly build it'<sup>3</sup>. But the statement suggest that Mc Namara regarded the "in penetrable shield" vision as infeasible and recommended only a limited cability BMD deployment.

In contrast President Reagan's Secretary of Defense Casper Weinberger and other high level officials had repeatedly suggested that the SDI is intended to "ensure that no missile could set through<sup>4</sup>, the June 1986 department of defense Report to the congress on the SDI indicated that

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2. Commission d' Etudes Surles Armes Spaliales, Rapoort de Synthese Presente Auministre de la defense, 30 January 1986, p.4.
  3. Address by Robert S. McNamara San Francisco, 18 September 1967, The essence of Security: Reflections in Office (New York: Harper and Row, 1968), p.63.
  4. Secretary of Defense Caspar Weinberger, "Meet the Press" NBC 27 March 1983, page 1 of the Tr.

the SDI's aim "is to determine the feasibility of a thoroughly reliable defense against soviet strategy and shorter range missile... our ultimate goal is to eliminate nuclear weapons entirely".<sup>5</sup>

Some statements of the US policy have suggested that limited capability partial defenses could be useful in the Interim to defend the U.S. retaliatory forces from Soviet attack.<sup>6</sup> Other US policy articulations have however continued to highlight the perceptions and vision of President Reagan.<sup>7</sup>

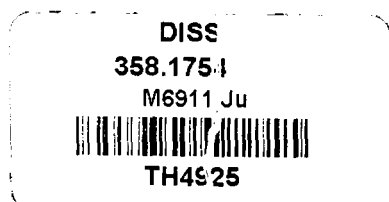
The US administration frequently underscored the aim of ending the existing situation of several vulnerability to nuclear attack. The situation was called "Mutual Assured Destruction", a phrase associated with Defense Secretary Mc Namara's assessment of US and Soviet requirements for stable and mutual deterrence in the late 1960's.<sup>8</sup> According to President Reagan "the only Programme we have is MAD.. why

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5. Department of Defense Report to the Congress on the Strategic Defense initiative, June 1986, p.VIII-I.
  6. Speech by Weinberger, Pittsburgh World Affairs Council, 30 October 1984, Office of the Assistant of Defense, Public Affairs, News Release, No.504-84, p.2.
  7. Ibid.
  8. Casper Weinberger, Department of Defense Annual Report Fiscal Year 1987 (Washington D.C., Government Printing Office, 1987), p.287.

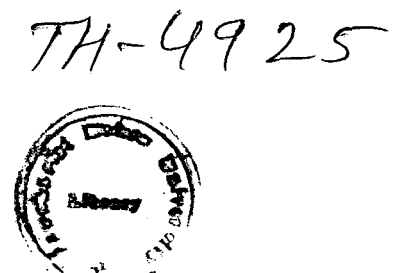
don't we have MAD instead, Mutual Assured Security".<sup>9</sup> Endorsing the concern of the President Weinberger added, "A truly stable super power relationship would be one in which both sides were protected from the attack"<sup>10</sup> However, no programme to deploy BMD in the United States were proposed by the US administration contrary to popular media impression.

The initial reactions of West European elites were overwhelmingly critical partly owing to long standing European views about BMD first appeared in the late 1960's and partly because of some features of the president's speech and circumstances.<sup>11</sup> with apparently the sole exception of Prime Minister Margaret Thatcher of Britain no allied leaders were informed in advance of President Reagan's announcement of SDI programme and Mrs. Thatcher rather pointedly noted "on consultations none"<sup>12</sup>. European leaders were startled by the ambitious breadth of Reagan's

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9. Reagan interview with New York Times Correspondents, 11 February 1985 in Weekly Compilation of Presidential Documents 21 (18 February 1985), p.174.
  10. Weinberger cited in Whitt Flora, "Weinberger: Star Wars Defense Plan is no Fantasy", Washington Times, 12 April, 1985, p.4.
  11. David S.Yose, "European Anxieties about Ballistic Missile Defense", Washington Quarterly 7, No.4, (Fall 1984), 111-129.
  12. Thatcher quoted in Guardian, 30 March 1993.



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goal. Many felt that they already had their hands full in 1983 with the first deployments of Pershing II, and ground based cruise missile and therefore reluctant to see another strategic debate initiated. West European carried the impression that the United States was initiating a new round of Arms race and was forcing the Soviet Union to intensify its own BMI activities.

Since 1984 the SDI was gradually accepted as a political reality by European allies. The Reagan-Thatcher Agreement at Camp David in December 1984 was a major landmark in this connection. This agreement came about when President Reagan approves four points regarding SDI and arms control proposed by Thatcher, described as follows.

"First United States and Western aim was not to achieve superiority but to maintain balance, taking account of Soviet developments. Second, the SDI related deployments would in view of treaty obligations, have to be a matter of negotiations with USSR. Third, the overall aim is to enhance and not to undermine deterrence. And fourthly, East West negotiations should aim to achieve security with reduced levels of offensive system on both sides<sup>13</sup> The US approval of these four points clarified US intentions

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13. Thatcher cited in Bernard Weinraub, "Thatcher sees No. difference on Star Wars", New York Times, 23 December 1984, p.13.

regarding the SDI and defined a political framework acceptable to most west European Governments.

President Francois Mitterrand of France and others have, however, contended that the US intentions in the SDI was to obtain a "margin of superiority" that could upset the existing equilibrium of power<sup>14</sup>. Although this commitment was explicit in Reagan's speech of March 1983 and was repeatedly confirmed by camp David agreement the West European governments supported the SDI conditioned by US observance of ABM treaty.

"We support the United States Research Programme in to these BMD technologies, the aim of which is to enhance stability and deterrence at reduced levels of offensive nuclear forces. This research conducted within the terms of the ABM treaty is in NATO's security interest and would continue"<sup>15</sup>

Given the ongoing nuclear arms control negotiations which were resumed in March 1985 after a fifteen month Soviet initiated moratorium, most West European governments felt an obligation not to erode the US negotiating position in the interest of Alliance cohesion and public reassurance.

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14. Francois Mitterrand, 'Reflections Sur la politique exterieure de la-France (Paris: Arthem Fayard, 1986, pp.65-66.

15. Final Communique, NATO Defense Planning Committee, 22 May, 1986, Paragraph 10.

West Europeans were also reassured by US policy articulation in which the United States promised not to deploy BMD system unless they could satisfy demanding criteria of surviability and cost effectiveness and emphasized that the "key element" of US strategic policy for many many years will remain retaliatory deterrence based on offensive nuclear weapons"<sup>16</sup>

In December 1985 Britain concluded an agreement with United States on SDI Research, followed by West Germany in March 1986 and Italy in September 1988. The British Secretary for State for Defense at that time Michael Heseltine noted that the SDI research, Programme was "US funded and added that "participation will enhance our ability to sustain an effective British Research capability in areas of high technology relevant to both defense and civil programmes"<sup>17</sup>

Similarly the West German Government indicated that while it will not spend any of its own fund on SDI, participation would give the Federal Republic access to US

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16. Paul Nitze, 'The Objectives of Arms Control, Current Policy, No.677 (Washington, D.C, Bureau of Public Affairs, U.S.Department of State, 28 March 1986, pp.5-7.

17. Heseltine, cited in U.K., at the beginning of Star War Research" The Times (London, 10 December 1985 (A Summary of House of Commons Debate on December 9).

technology and a means "to exercise influence on the over all project"<sup>18</sup>.

Some West Europeans were initially concerned that the SDI might represent a sort of "decoupling". They had been reassured to learn that the SDI would take West European interest into account. Officials such as Manfred Worner, the then West German minister for Defense expressed satisfaction that neutralization of Soviet Nuclear short Range and medium range missiles would be an integral part of conceptual over all architecture of any SDI system<sup>19</sup> On the other hand, efforts to improve NATO air defenses by developing anti-missile capabilities long preceded SDI<sup>20</sup> Moreover many West European officials favoured enhanced air defenses - including anti-missile capabilities - an "imperative" that must be pursued "irrespective of ultimate decisions that may be made in the United States with respect to the SDI".<sup>21</sup>

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18. Policy statement of Chancellor Helmut Kohl to the Bundestag in Bonn of the SDI, 18 April 1985 in Statements and Speeches VII, No.10, (New York: German Information Centre 1985), p.5.

19. Manfred Worner cited in "German Minister discusses NATO Defense Options" Aviation Week and Space Technology, 17 November 1986, p.77.

21. David S.Yost "Ballistic Missile Defense and the Atlantic Alliance", International Security 7, No.2 (Fall 1982), pp.143-174.



The principal strategic reservation of West Europeans had been that any large scale US BMD effort would probably elicit a corresponding Soviet effort, thus starting an intense offense defensive competition. West Europeans had been further discouraged by some of the rhetoric to promote the SDI.<sup>22</sup>

For this reason, West German foreign Minister Hans-Dietrich Genscher had included in several of his statements NATO's strategy of "Flexible Response". Sir Geoffrey Howe, the British foreign secretary also added "We must be especially on our guard against raising hopes that it may be impossible to fulfill. We would all like to think of nuclear deterrence detasteful but temporarily expedient, unfortunately we have to face the harsh realities of a world in which nuclear weapons exist and can not be disinvented. Words and dreams cannot by themselves justify what the Prime Minister described to the United Nations as Perilous Pretention that a better system than nuclear deterrence is within reach at the present time."<sup>23</sup> France's defense Minister Paul Quiles argued that "the realization of a leak

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22. Worner "A Missile Defense for NATO Europe", Strategic Review, 14 No.1 (Winter 1986), p.19.

23. Sir Geoffrey Howe, "Defence Security in Nuclear Age", RUSI Journal 130, No.2, June 1986, p.7.

Proof defensive shield is hardly credible today" in view of the systems enormous Complexity cost and vulnerability to counter measures. In his view "the swords always triumph over the shield in the end.... surface to air defensive systems have not condemned air craft"<sup>24</sup>

Similarly, Howe also asked "would the supposed technology actually work?... there would be no advantage in creating a new maginot line of the twenty-first century, liable to be out flanked by relatively simpler and demonstratably cheaper counter measures."<sup>25</sup>

The possible diversion of US, British and French resources away from the conventional forces had been regarded un-reliable on two grounds. First it could have helped to aggravate NATO-WARSAW pact imbalance in conventional Strength in circumstances in which the deterrent effect of nuclear forces might be reduced. Secondly, it placed new pressure on the non-nuclear NATO allies to increase their defense efforts to prevent a further widening of the East-West gap in conventional capability. These pressures affected West Germany more than

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24. Paul Quiles, "L'avenir de not re concept de defense face au progres technologiaces" Defense National 42 (January 1986), p.14-16.

25. Howe, p.6 Quiles repeated the Maginot Line Metaphor in his interview in La Monde, (18 December 1985, p.6.

any other country. In view of the alliances wide political limit on increasing defense spending many Europeans asked the question if there was an alternative cost effective affordable way to enhance deterrence?<sup>26</sup>

In European political circles, SDI had frequently been portrayed as a threat to Arms control and strategic stability. The ABM treaty was believed to be threatened because in the eyes of many Europeans, the SDI's goal implied US intentions to scrap the ABM treaty or to modify it radically to permit wide spread BMD deployment. In Howe's words the treaty represented a political and military key stone in the still shaky arch of security we have constructed with the east over the past decade and a half<sup>27</sup>

According to the then secretary of state George Shultz, the allies displayed universal happiness when he advised them that the US government would continue to conform to a restrictive interpretation of the ABM treaty<sup>28</sup>.

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26. Resolution 170 on strategic Defense and the Alliance in North Atlantic Assembly, Policy Recommendations: Thrity First Annual Session, San Francisco, 10-15, 1985 (Brussels: North Atlantic Assembly, October 1985), p.18.

27. Howe, p.7.

28. Shultz cited in William Drozdiak, "Arms offer urged, Washington Post 16, October 1985, p.25.

The reaction to many West Europeans had been to the questions whether SDI deployments had advanced the goal of offensive force reductions. The Soviets had already declared that they could not agree to make strategic offensive force reductions until the future of the SDI was settled because the offensive forces might be needed to threaten to penetrate the US defense and thus meet Soviet criteria for deterrence<sup>29</sup> The Soviet argument had struck many West Europeans as plausible. The memorandum of the then Secretary of defense in November 1985 is cited as an example for this "Even a probable Soviet territorial defense would require us to increase the number of our offensive forces and their capability to penetrate Soviet defense to ensure our operational plans could be executed".<sup>30</sup>

Although West European government had been relatively discreet in voicing their doubts about the manner in which the United States had handled SDI they continued to emphasize reliability, calculability, and predictability in their own behaviour".<sup>31</sup>

West Europeans had also been concerned about the US government tendency to identify the SDI with the President

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29. Ibid.,

30. Ibid.

31. David S.Yost, "The Reykjavik Summit and European Security, SAIS Review, 7, No.2, Summer/Fall 1987, pp.1-22.

It was usual for a US official to refer repeatedly "Reagans initiative", "one of his boldest steps" his "strategic vision", his "INSPIRED VISION", A "vision for all humanity" and so forth in a single speech".<sup>32</sup> The impression that the SDI stems from proffered Yearning in certain sectors of American society is rooted in the moral claims more for it, coupled with the goal of an infallible defense.

From an European perspective the SDI vision of US and Soviet defense dominance has entailed a perplexing endorsement of on going strategic defense programme by both the United States and the Soviet Union.

Many West Europeans were pleased to see this as a reduction in the US strategic vulnerability. Despite the continuing misgivings about the SDI the West European governments recognized the gravity of the issue then posed by the Soviet Union".<sup>33</sup>

They recognized more clearly the need to place Soviet BMD activities in the context of other Soviet capabilities. France supported it because of the growing threat from Soviet ABM system.

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32. Ibid., pp.25-27.

33. Worner, "A Missile Defense for NATO Europe", Strategic Review, 14 No.1, Winter 1986, pp.2-5.

The long standing conviction of many west European observers was that, the reduced US vulnerability could not be obtained through BMD, without provoking parallel Soviet BMD deployments that could reduce the credibility of US nuclear guarantees helped then to cope with the US option.

The French foreign Minister Quoted that it is a paradox that the United State has adopted "what has been since the 50's the Stated objective of the Soviets, namely the abolition of all nuclear weas". He called upon the West to "break out of the Soviet logic of denuclearization, because it is aimed at eliminating the US nuclear presence in Western Europe and placing the alliance in a more vulnerable position". He called for the alliance to cultivate public awareness of the objective limits to any quest for technical solutions to fundamentally antagonism.<sup>34</sup>

Despite the difficulty in US European relations associated with SDI, the US interest in strategic defense had provided certain benefits for Western society.

Research undertaken by the SDI has helped to bring practical defense measures with military value. The policy debate within the alliance in strategic defenses has

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34. Speech by Jean-Bernard Raimond at the Council of Foreign Relations, New York 22 Sept. 1987, French Foreign Ministry Text, pp.5-10.

heightened awareness of the threats posed by the then deployed Soviet BMDS. Because of SDI the West has been able to narrow down its gap in capabilities to deploy and benefit from traditional ground based BMD systems while vigorously pursuing Research and development in advanced technologic and reconstructing military space assets. It has certainly improved the penetration capabilities of the defensive counter measures"<sup>35</sup>.

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35. David S.Yost "Strategic Defnse, in Soviet Doctrine and Force Posture" (Lexingon, Mass, DCteath Lexigton Books 1991), pp.123-151.

### CHAPTER III

#### SDI BEFORE AND AFTER THE DISSOLUTION OF THE USSR

The American policy makers had always proclaimed that the SDI Programme was primarily meant to eliminate the threat of the USSR land based Inter Continental Ballistic Missiles (ICBM). The appearance of more precise mobile and multiple war headed missiles like the SS-17, 18 and 19 was perceived by the Americans to be lending a tilt to the strategic balance in favour of the soviet union. The option left for the Americans was thought to have been in favour of more and more offensive missiles of the class of highly mobile Mx ICBM. The continued improvements in accuracy of USSR's land based missiles permitted under SALT Treaties was perceived to be providing the USSR a capability of launching a preemptive strike against the US land based ICBM while keeping its own land as well as sea based forces intact<sup>1</sup>. The soviet reliance on ICBM based on land is a product of its geography. Unlike the US whose nuclear forces are in sea based submarines.

The soviet response to the US SDI Programme had been to launch a more vigorous and effective research and development of space missiles reaching up to 65 in 1990<sup>2</sup>. Most of West

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1. I.H. Leatherman, "Star Wars and Soviet Technological Lag", Bulletin of Atomic Science (Chicago), November 1985, P.41.
  2. James M. Mc Connell, "SDI, The Soviet Investment Debate



European countries feared that SDI had heralded the start of an accelerated arms race<sup>3</sup>. The Soviet clarified that it might, on the other hand, be obliged to increase its offensive force capabilities in response to SDI deployment. In the course of pursuit of SDI and in the game of one-upmanship over the other both the USA and the USSR continued to deploy BMD and ASAT (anti satellite) in a fairly large scale.

After the 1972 SALT-I agreement, strategic balance was deteriorating against the US interests. At that time the assumption was that the nuclear relationship would be stable if each side had survivable retaliatory offensive forces. Since nobody would have an incentive to strike first, it would be possible to limit the offensive arms<sup>4</sup>. Instead of this, strategic offensive arsenals greatly expanded since 1972. Within the scope of SALT(I) and (II) the Soviet Union deployed a combination of multiple war head, large ballistic missiles with increasing missiles accuracy. It also enacted a ballistic missile force that was capable of threatening the entire fixed land based retaliatory forces of the US. The Soviet also developed extensive air defences and developed operational ABM and anti-satellite system. In response to this USA claimed to make SDI research as a hedge against possible Soviet technological break through and to provide

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3. Elizabeth Bond, "Western Europe Decides to Pull Together on Defense Research", Christian Science Monitors (Louisville), June 1985, P.9.

4. Craug Snyder, ed., The Strategic Defence Debate (Philadelphia : The University of Pennsylvania, 1986). P.67.

future president with greater options in the field of strategic defenses.

Though the administration spokesmen and the supporters of SDI have argued in favour of limited objectives, the US President Ronald Reagan had continuously stressed the goal of achieving the total defence of the US and its allies<sup>5</sup>. By emphasizing the exploratory nature, non nuclear character and the defensive goals of the SDI the US administration tried to shift the burden of Proof unto the Soveit Union for lack of progress in the Geneva Arms Control talks.

With the disintegration of USSR, United States foreign and millitary policies have lost the conceptual framework within which they operated. The old bipolar world that had persisted for nearly half a century has been replaced by a new world order dictated by the USA. In the new geo-political reality simple formulation and manipulation has been replaced by unbalanced international political system. Many new players have entered into the arena of international policies offsetting the designs of previous players. The unipolar world has threatened if not deprived the independance and sovereignty of vast majority of other states. What is worse that these states have lost even the little maneouverability they had during cold war years. This has prompted the regional bullies to seek weapons of mass

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5. Grey Herkin, "The Earthly Origins of Star Wars", Bulletin of the Atomic Scientists (Chicago), October 1987, PP.20-2

destruction.

An image developed in the late 70's that had a powerful effect on American Policies. This was the picture of the Soviet Union as an aggressive power, an "evil empire". The Soviet Union was seen as having taken advantage of detente in the early 1970's - steadily building up its military forces across the board. It created a suspicion of Soviet behaviour that contributed to the victory of President Ronald Reagan in the 1980 election<sup>6</sup>. However, with the collapse of the Soviet Union, this image also got collapsed giving a determining effect on the progress of SDI.

SDI programme of the USA got a new twist at the time of Gorbachev. Unlike his predecessors, he tried to maintain security with minimum defence arrangements<sup>7</sup>. His universal security idea regards the world as integral and independent in which there can be no zero-sum approach to security matters. The security of any one country can't be at the expense of another. In a world threatened with nuclear annihilation it is the 'unity of opposites that should be the guiding tenet of international relations rather than the struggle of opposites'<sup>8</sup>. His concept of Security must be viewed from the angle of mutual dependence and co-operation.

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6. K.K. Sinha, "Concept of Strategic Defence Initiative", Infantry (Fort Benning), April 1988, PP.22-23.

7. Arvind Gupta, "Soviet perspective on Security", Strategic Analysis, February 1990, VOL X 11, No. XI p.1155.

8. ibid

He emphasized that no state was in a position to ensure its own security by unilateral efforts and military defence<sup>9</sup>. There must be mutual co-operation for maintaining the security of a nation.

Gorbachev is the first person who rejected the old notion of confrontation for ensuring the security of the world. In his words "in our age genuine and equal security can be guaranteed by constantly lowering the level of strategic balance from which nuclear and other weapons of mass destruction should be completely eliminated"<sup>10</sup>. Again he observed that a new dialectic of strength and security follows from the impossibility of the military solutions<sup>11</sup>. Gorbachev ideas of common security was mirrored in his new military doctrine of 'reasonable sufficiency or non-offensive defence which highlights the lowest possible level of strategic parity for maintaining genuine security. Gorbachev categorically mentioned that the parity at the strategic level had already been achieved and that therefore the existing co-relation of military forces had to be maintained. Although he acknowledged that a number of asymmetrics existed in both sides but steps had to be taken

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9. Gerhard Wettig, "New Thinking on Security and East West Relations, Problems of Communism. March, April, 1988 PP 1-2

10. Mikhail Gorbachev, "Perestroika, New thinking for our country and the world", Fontana/collins, London, 1987, P.141.

11. *ibid*

to correct it. There must be reasonable parity between two military blocks i .e. NATO and W.T.O. Defence Minister of Soviet Union Yazov stated that the disproportion of military strength between NATO and W.T.O. could be eliminated if west took a decision to cut more of its military potential<sup>12</sup>.

The premise that correction of military asymmetries to be undertaken by both the sides, led the Soviet to conclude that reduction in military weapons solely rely on reciprocity. Here they postulated that NATO would cut its military forces to meet the sacrifice made by W.T.O countries in order that correlation between two military forces could be maintained at the lower level<sup>13</sup>.

Besides the military spheres, Gorbachev also brought changes in the political and economic aspects of security. In the political spheres, he stressed on 'summit diplomacy'. He concluded various treaties like Reykjavik, Washington, INF and Malta with the U.S.A. leaders. He emphasized on mutual co-operation instead of con-frontation. In the economic sphere he tried to bridge up the gap between two antagonistic blocks through mutual frindship, co-operation and trade relationship. His emphasis on North-South dialogue and restructuring of international economic system towards

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12. Gerhard Wetting, O.P.Cit P.3.

13. SDI progress and promise, Current History, Vol. 86, No. 2115, P.1.(Department of State Bulletin)

the establishment of NIEO based on Sovereign equality. Justice mutual interest and benefit needs special mention in this context.

With response to the changes in the Soviet Union by Gorbachev, American leaders particularly Reagn did not change his stand on 'Star War programmes'. Reykjavik summit was not successful as Reagan did not like to change his decision on star War Programme. Gorbachev categorically mentioned that S.D.I. programme should be confined to research laboratory not beyond that. But Reagan who was sceptical about Soviet move on disarmament said "I am fully aware of the Soviet campaign to convince the world that terminating our S.D.I programme is a pre requisite to any arms agreement. This clamoring is nothing new. It also has preceded steps we've taken to modernize our strategic forces. It was especially loud for example, as we moved to offset the unprovoked and un acceptable soviet build up of intermediate range missiles aimed at our allies by deploying pershing II and cruise missiles"<sup>14</sup>.

As for SDI, let me again affirm, we are willing to explore how to share its benefits with the soviet Union which it self has long been evolved in strategic defence programmes. This will help to demonstratic what I have been emphasizing all along that we seek no unilateral advantage

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14.    ibid, PP.1.2.

through the S.D.I"<sup>15</sup>. About S.D.I. programme, Reagan said let me reassure you right here and now that our response to demands that we cut off or delay research and testing and close shop is no way. S.D.I. is no bargaining chip; it is the number of offensive missiles that needs to be reduced, not efforts to find a way to defend mankind against these deadly weapons<sup>16</sup>. In his address to white house he told "if we cut back on our own forces unilaterally, we will leave our adversaries no incentive to reduce their own weapons. And we will leave the next generation not a safer, more stable world but a far more dangerous one. The future is literally in our hands. And it is SDI that is helping us to regain control over our own destiny"<sup>17</sup>. Like Reagan Bush did not change his attitude towards U.S.S.R. He also stressed on the 'Star War' programmes. But Bush did not play it as a political card"<sup>18</sup>. But Vice President Quale had stronger pro S.D.I. Credentials, having supported early deployment of space based S.D.I weapons on the Senate Armed Services Committee<sup>19</sup>. From it is clearly revealed that SDI had its strong hold at the time of Bush. In this context Bush said "I have directed that the SDI programme be refocussed on providing protection

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15. *ibid*, P.2.

16. Text from weekly compilation of presidential Document of Aug. 11, 1986.

17. Political Struggles over SDI Set to enter New Phase, "Defense and Foreign Policy April 1, 1989, P.705.

18. *ibid*

19. President Bush's state of the Union address, Jan 29,

from limited ballistic missile strikes whatever their source. Let us pursue a SDI programme that can deal with any future threat to the United States, to our forces overseas and to our friends and allies<sup>20</sup>. The then defense secretary Dick Cheney also gave the same opinion and supported the programme in his televised interviews given to CNN "I expect that at the same point that United States will deploy SDI". But he said that the programme had been "over sold" during the Reagan administration and dismissed the likelihood of developing leak proof, nation wide shield<sup>21</sup>.

Representative Jon Kyl also favoured this Star war programmes when he said "this is growing expanding programme. If you don't continually allow the programme to grow, it dies"<sup>22</sup>. But at the time of Bush, congress has approved smaller budgets for SDI than requested by them. From the 1988 onwards, budget allocation on SDI went on decreasing. Reduction in military investment, number of interceptors and war heads clearly revealed that the attitude of the congress was changed during this phase. They realised the significance of the changing world and tried to change the approach to SDI though not its contents.

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20. Political struggle over SDI Set to Enter New Phase, "Defense and Foreign policy. April 1, 1989, P.705.

21. *ibid*, P.706.

22. Robert Jastrow and Kampalman, "Why We Still Need SDI", Commentary, November 1992, PP.23-24.



From the above analysis, it is cleared that SDI programme was justified by American leaders when Gorbachev was in power but they changed their attitude towards SDI in early 90s.

With the collapse of Soviet Union did SDI loose its relevance? Ofcourse the programme which was undertaken by USA to counter USSR's missile strategy has lost its momentum. However, USA is afraid to lower its guard, it intends to continue the strategic defence initiative.

Justifying the SDI in the present context, Frank I. Guftney Jr, states, "The nation can not provide comprehensive missile defense protection to its forces overseas or to its allies already at risk of at least primitive missile strikes. Within the next four years the united states may it self be exposed. Unless the new administration takes steps to render the country less vulnerable to missile attacks, it is likely that hostile power will try to exploit that vulnerability"<sup>23</sup>. The defence policy makers of the US still believe that the danger of a deliberate missile attack on the United States can not be ruled out from some of the CIS countries and countries like Iraq, Iran, North Korea, and Libia which have long range missiles capable of attacking North America.

During Bush period GPAL (Global protection against limited attacks,) was conceived to give a new demension to

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23. *ibid*, P.27.

the GPAL Programme. After the dissolution of the USSR many experts feel that the GPAL programm should not be given up due to nuclear capability of some third world countries. Realising the real potentials of CIS countries for missile attack, Senator sam Nunn warned that U.S. should not close its eyes on the sleeping piles of nuclear war heads<sup>24</sup>.

The gulf war, a panaroma of star war proved the effectiveness of the SDI programme. Due to continuation of SDI programme US made a triumphant march over space. The performance of the patriot missile system gave a fillip to the SDI idea. United Nations experts, studying the evidence collected on the Iraq nuclear weapons programme, have concluded that at the out break of the Gulf War, Iraq was only a year or two from completing a Hiroshima sized device- the explosive equivalent of 10,000 tons of TNT packed into a war head small enough to launch from a scud. The Iraq bomb-building programme was drastically disrupted by the war, but Iraq is already reconstructing some of the nuclear sites bombed by the US and its allies<sup>25</sup>.

As the US did in the Manhattan project, Iraq under Sadam Hussein simultaneously pursued several parts in an all out drive towards the ultimate weapon. The French and

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24. Frank.J. Gaffney, "Why We Still Need Missile Defense, Star War I", The New Republic, 12 Feb. 1993, PP.10-11.

25. Robert Jastrew, and Kampalman, "Why We Still Need SDI", Commentary, November 1992, PP.26-27.

Russians had provided Iraq with a substantial amount of Uranium-235 for use in a research reactor. These Uraniums had been diverted to illicit weapons project. Iraq had signed the Non-proliferation Treaty designed to Prevent the spread of nuclear weapons. In hindsight it is clear that Saddam used the respectability he achieved as a signatory of the treaty as a cover for an enormous secret weapons programme. The US anticipation about Iraq's continuation of nuclear project after Gulf War has been confirmed by the UN inspection teams discovered that Iraq had built plants with a capacity for manufacturing 20,00 pounds of anthrax a year, and 500 tons a year of nerve gas and mustard gas. In future conflicts and peace keeping operations, American forces situated overseas would be vulnerable to chemical attacks<sup>26</sup>.

Iran, Libya, Algeria, and North Korea also have large scale nuclear weapons projects in progress. China has announced that it will build a 300 million -watt nuclear reactor in Iran sufficient to produce plutonium for several atomic bombs a year. The Iranians are reported to have received a calutron from China. While a single calutron can not produce enough Uranium-235 to make a bomb in a reasonable time, the one calutron the Iranians possess can readily be cloned by them into a large number.

Algeria has also received massive assistance from China in its atomic-bomb programme, particularly in the

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26. *ibid*

construction of a large nuclear reactor, suitable for manufacturing plutonium. Plutonium is a nuclear explosive as powerful as Uranium-235 and much easier to produce. The Algerian reactor under construction by Chinese technicians is reported to have a power level of tens of millions of watts and a plutonium output sufficient for two three bombs a year when completed. Even more disquieting developments stem from the economic and political turmoil in the former Soviet Union. Russian nuclear scientists, who know all the tricks of designing and building the most advanced nuclear weapons are paid between \$5 and \$10 a month at current exchange rate. According to science, they have been offered up to \$ 400, 00 a year to share their knowledge with third world countries.<sup>27</sup>.

The same countries that have been pushing their nuclear programme hardest also have been the heaviest investors in ballistic missiles. Several have built factories, with assistance from North Korea and China, for turning out large numbers of ballistic missiles in their own countries. When these states also acquire weapons of mass destruction, they will have the means in hand for delivering them to the territories of their traditional enemies. The temptation to settle old quarrels with the ultimate weapons may well be irresistible.

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27. B.Keith, "Yeltsin's Global Shield", Policy Review (Washington, D.C.), Fall 1992, PP.78-79.

Many nations also have or will to have the capability for manufacturing equally fearsome chemical and biological weapons. These weapons are agents of mass destruction so much so as nuclear weapons and considerably cheaper to make. Chemical and biological weapons like nerve gas and anthrax are not only much cheaper than nuclear weapons but also far easier to produce. An Iranian government official called them 'the poor man's atomic bomb'.

A unique situation has developed in the world after the disintegration of the USSR. The columnist Charles Kramthammer says, "Missiles shrink distance, weapons of mass destruction multiply power",<sup>28</sup>. Through the spread of these devices and the technology required for their manufacture smaller states can bring to heel the greatest military power the world has ever known. US anticipates that applying nuclear, chemical and bacteriological blackmail, the small nations can prevent the US from using its power in defence of its interests and for the protection of its allies.

Israel and other friends of the US in the middle east are also in jeopardy. Some members of US administration fears that the capitals of European allies and US naval and ground forces in the middle east will also soon be at risk from chemical attacks originating in the radical terrorist states of the middle east. The threat will increase as some of these states acquire nuclear weapons.

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28. Times of India, New Delhi, 18 Feb. 1994.

Senator Lerry Pressler stated that China is making a new ICBM on the model of soviet SS-26. He felt that it would be a more accurate version of of China's current ICBM, the DF-6 which has a range of about 8,000 miles and could reach the United States. He said "The Chinese and Russian military establishments are hand in glove. Their co-operation is in all over the place. It has a big stuff"<sup>29</sup>. He got worried because China with the new ICBMs can complicate the calculus of Washington if the United States should want to intervene millitarily some where around China's periphery.

The fact that perturbs the US defence experts that the nuclear arsenal of the CIS countries is closed to thirty thousands nuclear war heads and that these are concentrated for the most part in the Russian Republic, with about quarter distributed among the three republicans of Ukraine, Byelorussia and Kazakhstan. These account for majority of the strategoc arsenals (whose primary function was to target the USA according to the logic of cold war deterrence). A small number of tactical nuclear weapons are scattered in other parts of the Soviet Union. Senator Jesse Helus said, "The nuclear war head possessed by CIS countries constitute far greater threat for the USA".

All those problems discussed above have prompted USA defence policy makers to seriously think about the future of SDI. As very often arms control treaties have turned out to

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29. Robert Jastrew, and Kampalman, "Why We Still Need SDI", Commentary, November 1992, PP.28-29.

be farce, the continuation of SDI sounds to be a viable alternative. Experience with treaties relating to chemical and biological warfare-the 1925 protocol for bidding the use of poison gases, and the 1972 convention on Bacteriological and Toxin weapons-has also been disappointing. Iraq signed the 1925 protocol, but then used poison gas extensively during its war with Iran <sup>30</sup> After the gulf war, an investigator discovered that Iran had stockpiled thousands of bombs and artillery shells, filled with nerve gas and mustard gas. Iraq also signed the 1972 convention forbidding the production of biological weapons, but admitted to the UN inspection team that it had been working on anthrax as well as botulim toxin. The inspection team unearthed facilities in Iraq for production, testing and storage of these deadly poisons<sup>31</sup>. From these above discussion it is clear that arms control treaties have not been effective. The other alternative solution to the problem cropped up in the present international security environment is the threat of divastating retaliation. This strategy Mutual Assured Destruction, or MAD, in its superpower context demonstrated its effectiveness during the stand off between the US and USSR that endured for more than 40 years <sup>32</sup> experts opinion, however, is divided, on the value of nuclear deterrence in

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30. ibid

31. C.W. Weinberger, "SDI Weekened, But Not Killed", Forbes, March 1991, P.147-148.

32. Frank.J. Gaffney, "Star War 1", The New Republic, February, 1993.

regional conflicts. On the one hand, Saddam Hussein was apparently undaunted by the nuclear arsenal of the United States and had to be driven out of Kuwait. He appeared confident that the US would not initiate the nuclear weapons in the middle East. On the other hand Iraq did not use chemical weapons against Israel although it possessed them. While deterrence may have worked for Israel in the Gulf war, however the Israelis can not count on its working in the future. Saddam Husain might have gambled by a surprise attack with nuclear tipped missiles on Israel military bases. No sane leader is supposed to make that gamble, but that is the weakness in the MAD strategy. It assumes that hostile leaders will be rational and governed by reasonable standards of prudence. If that assumption ever proves wrong, the strategy will fail. When it fails, the failure will be catastrophic.

The US administration had estimated to spend \$18-27 bn for years 1985-89 for pursuing SDI research. It was clearly pushing up over all defense department research and development spending. President Reagan was quite enthusiastic in requesting Congress \$ 4,020 millions in 1986. In the following years the budgetary allocation continued to increase. In 1989 the \$ 4.1 bn was appropriated for SDI. However in that year congress reduced on the bunding for one of SDI project (Space based interception). The reduction could be attributed to the absence of ardent votary of SDI, Ronald Reagan in the white House. In 1990, approval of a \$4bn for SDI programme as against requested \$ 5.3 bn was a



definite indicator that US is making shift to changes in Europe. After dissolution of the USSR the budgetary allocation for SDI had been gradually decreasing. The US is making visible response to "Peace dividends" and president Clinton pledged to reduce SDI spending over the next five years. Hence, the recent trend of budgetary allocation on SDI envisages the fact that the importance of SDI has decreased but it has not lost its relevance.

In response to the debate over the justifications of SDI after the dissolution of USSR, Bill Clinton, the president of US expressed, at Los Angeles world affairs council, "fresh assessment of the new dangers that could threaten our interests..... including the spread of weapons of mass destruction" He observed that the US "Can not afford to wait until a host of third world nations acquire arsenals full of first world weapons"<sup>33</sup>.

Indeed, the United States can no longer remain confident of its ability to deter attacks through the threat of retaliation. Countries now arming with ballistic missiles and animated by messianic or megalomaniacal ambitions may prove indifferent to, or undissuaded by the coldwar prospect of mutual assured destruction. Hence, in this context the justification of SDI, in the absence of Soviet Union can not be uncalled for.

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33. Pat. Towell, "Bush Carriers on Fight for SDI: But Space Weapon in Doubt", Defense and Foreign Affairs (Alexandriya), P.18-36.

However, recently congress's attitude towards SDI programme is not encouraging. Since the conception of SDI congress had been playing a very important role, most particularly in the area of funding. During Regan period, US administration initially had to try hard to convince congress in support of SDI funding. In the later phase of Regan period congress was overwhelmingly supporting for massive funding for SDI. However, during Bush period "Brilliant Pebbles" remained a bone of contention between Bush and such potential Democratic allies, who not only questioned whether the complex weapon would work but also challenged the wisdom of reopening the US-soviet ABM Treaty in order to permit deployment of antimissile weapon in space. Against a backdrop of annual funding struggles, Senate Armed Service committee Republican John W. Warner and william Cohen Vehemently comment against GPALS Programme <sup>34</sup>. Ultimately this programme got financial support by congress giving a new turn to the march of SDIprogramme. Despite the Gulf war's grafic demonstration of the power of ballistic missiles, just a year after congress passed the missiles Defense Act of 1991-which stipulated that deployments of strategic missile defences should begin by 1996, or as soon as possibel there after, it acted to set aside a firm deployment date and stripped the project of roughly 30 percent-of the funds requested by the US

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34. ibid

administration. Congress, recently spectacularly responding to 'peace dividends'.<sup>35</sup>

In January 1992 Russian President Boris Yeltsin completely rewrote the terms of debate over the Strategic Defence Initiative (SDI) by proposing a 'Global Protection System' to defend against limited missile strikes.<sup>36</sup> Yeltsin's proposal which has support in the Russian military, agrees with the direction President George Bush had taken SDI in 1991-towards a global capability to defend against small scale missile attack. The Russian President's initiative means that Russia now officially supports cooperation with the US on missile defences. This is in dramatic contrast to the long history of hostility towards SDI on the part of soviet leaders. Yeltsin's turn-about has enormous implications for the US debate on missile defence. The standard arguments against defences, which were all based on the assumption of soviet hostility, are now without foundation.

Immediately following the introduction of this 'Global Protection System' domestic critics pointed out some of the flaws in it. They also declared the ABM treaty to be sacrosanct. Pointing a finger at the programme, Mathew Bunn of the Arms control Association observed that there existed some evidence of a potential shift in the soviet position, were 'egregious nonsense' and represented "either shoddy

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35. B.Keith, "Yeltsin's Global Shield", Policy Review (Washington, D.C.), Fall 1992, PP.78-81.

36. *ibid*

In late January 1992, Russian President Yeltsin announced his country's readiness to 'jointly work out and subsequently to create and jointly operate a global system of defense in place of SDI.'<sup>37</sup> The Russian President repeated this proposition in several fora, including his address at the United Nations. Yeltsin also reaffirmed government's commitment to the ABM Treaty.

In broad terms, Yeltsin advocated holding open discussions on a cooperative system for global defense against ballistic missiles that would employ contributions from the Russian defense complex. To Yeltsin's mind, such cooperation would make defenses more affordable and less complicated. Joint development, according to Yeltsin would begin with US Russian conceptual and technical definition. Ultimately this system would involve other states. To underscore the seriousness of his initiative, Yeltsin appointed a special commission to work out a concept of a global defense system, to establish a joint Russo-American centre for early warning of ballistic missile attacks, and to organise exchange of defense technology. This commission, which helped brief Yeltsin for the June 1992 Summit in Washington DC was led by noted Russian scientist and academician Evgenic Veliknov, a former opponent of ballistic missile defense (BMD) expansion. Under the proposal, the US and Russia would establish a

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37. *ibid*

multinational centre as a part of a Global Protection System (GPS). 38

The debate in the US and the congress continues. How best to deploy land based intercept missiles? How efficient is the SDI programme? Are administration's claims about SDI successes exaggerated? Should US unilaterally move to end the ABM treaty restrictions on SDI testing and deployment or should it wait until it can negotiate satisfactory ammendments with the Russians? Is the administration faithfully and conscientiously carrying out the provisions and philosophy of the 1991 Missile Defense Act, ably formulated and consesus driven by senator Nunn, which provides for a single land-based intercept site with 100 advanced interceptory in Grand Forts, North Dakota-the first of six sites designed to protect the whole country from missile attack?

The end of the cold war has created a millennial opportunity to build a safer and better world. It is clear as the new dangers arising out of bitter regional conflicts in Europe, the middle East, and Asia, that the difenses developed but SDI have become an essential component of new world order.

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38. "US-Russia Discuss Shared SDI", Aviation Week and Space Technology, 25 September 1992, P.2.

## CONCLUSION

The strategic defence initiative is still on the public agenda. During the initial phase of this programme reputed scientists had mentioned that it was a scientific and technological impossibility to develop. They had also warned that even it should turn out to be feasible, it would be too expensive. Ronald Reagan talked about a shield to protect US from nuclear missiles. Experts ridiculed by calling it as "Star Wars" Though the cold War is over, US no longer feels any enemy at par with its potentials, still US pursues this programme.

The US research programme on strategic defence has been the recipient of substantial sums of money since president Reagn made it a high national priority in 1983. As a result, many of the stratesic Defence Initiative (SDI) programme's technological options have come to be better understood. At the same time, however, the broad political context of the Strategic Defence debate has been changing repidly. In the US, Reagan who was personally committed to a strategy of defence against missile, Bush was more pragmatic in that context time to time, the US congress slashed spending on strategic defence research under certain circumstances. There is still strong interest in many quarters of the US for strategic defence deployment, some would deploy defences to protect missile silos or bomber bases, while other would live to deploy an Accidental launch protection system (ALPS). On the soviet side, president Mikhail Gorbachev had softened his stance on permissible

strategic Defence Research. Due to his significant role strategic Arms Reduction Talks (START) was an outstanding outcome.

On 23rd March 1983, President Reagan called upon the scientists to render the nuclear weapons impotent and absoletes. The idea behind the conception of SDI was to make a shield around US and its allies against possible missile attacks. It is both interesting and instructive to dwell on this US threat perception. The soviet reliance on ICBM based on land was a product of its geography. The USSR does not have access to open seas, a fact that it is acutely conscious of since the days of the peter the Great. Its Black Seas, Arctic and pacific ports are chocked by narrow straits controlled by Turkey, scandanavian countries and Japan respectively. All these countries were undoubtedly in the Anti-soviet camp. In addition to this the East West spread of its hugeland mass offers it an excellent opportunity for dispersions and deployment. Also, the USSR had an early lead in the heavier form of missiles, while it had lagged behind the US in bombers and submarines technologies. The soviets had been actively engaged in ABM research and development programme. In the late 1960s, the USSR initiated a substantial research programme in to adverse technologies applicabel to ballistic missile system. Around the seventies the concept of Multiple Targeted Recentry Vehicles (MTRVs) grew out of the miniaturisation made possible through advances in electronics and other technologies. The soviet

lead in the land based ICBM was thus a product of geography and technological advances and need not necessarily signify an intent-of a first strike. This is all the more so as no serious soviet decision maker could afford to ignore the counter-threat posed by nearly 592 US nuclear submarines carrying nearly 6,300 warheads. Furthermore, the intermediate and medium range missile deployed in western Europe, that could not be taken out in a preemptive strike posed a credible threats to deter USSR.

After the 1972 SALT-I. Agreement, strategic balance was going against US interests. Within the scope of SALT-I and SALT-II an accelerated arms race. The USSR created a ballistic missile force that was capable of threatening the entire fixed land based retaliatory forces of the US. The soviet also developed extensive defenses and developed operational ABM and Antisatellite system. In this context of USSR, US wanted to possess a better deterrent. Though the administration and votaries of SDI have argued in favour of limited objections, the US president had continuously stressed the goal of achieving a total defense of the US and its allies.

The reaction of the soviet union to SDI was hostile from the outset. It was not clear whether they regarded it as threat to peace or to there own deterrent or war fighting capability. However, it was undoubtedly reflecting the then climate of political mistrust between the soviet Union and the United State. The US was concerned at what it saw as the



USSR drive for strategic superiority. The USSR had a similar perception of the US and saw the strategic defence initiative as part of it. USSR had a fear that the US was trying to drive it into an arms race that would put unbearable pressures upon their already strained economy. Yet one of the guidelines agreed by the President Reagan with British Prime minister Thatcher at camp David in December 1984 was that the aim of the United States and of the West was not to achieve superiority but to maintain balance.

West European endorsements of SDI research should not be mistaken for approval of all the objectives. Indeed, some important political parties i.e. Britain's Labour party and West Germany's social Democratic party (SDP) have been sharply critical of the SDI. It appeared that relatively large number of West Europeans support the SDI research programme because they were anti communist and generally disposed to favour US defense programmes, few had offered unqualified support for the most ambitious portrayals of the SDI's possible future accomplishments. Despite their continuing misgiving about the SDI, West European Governments have increasingly recognised the gravity of the issues posed by soviet strategic defense. West European Governments also recognised more clearly the need to place soviet BMD activities in the context of other soviet capabilities, offensive and defensive. The soviet interest in eroding West European security by degrading the credibility of US "guarantees" had long been acknowledged. So why many West

European Government wanted reduced US vulnerability.

Despite the difficulties in US West-European relations associated with the SDI, the US interest in strategic defences provided certain benefits for western security. Research undertaken in the SDI helped to bring practical defense measures with military value (e.g. defenses of retaliatory forces and command and control capabilities) closer to concrete realization in Western Europe and North America. The policy debate within the alliance on strategic defenses heightened awareness of the threats posed by Soviet BMD developments.

SDI has now been under way for almost eleven years. Technological developments affected the US strategic defence programme even before the start of the SDI programme itself. The ABM deployment of the 1970s was halted largely because it was technologically primitive and of little strategic worth. While Reagan's original SDI proposal of 1983 was inspired by a variety of geostrategic, political and moral considerations, it also seemed to have been supported by the technological optimism of some scientists regarding the x-ray laser. Early in 1987, the SDI developed a three phase plan for the development and deployment of strategic defences. However in the present context, the development of theatre missile defenses with at least minimally adequate funding has been undertaken. Congress has been warm to ground-based defenses but cool to defenses using interceptors based in space. SDI has under development several intercepting missiles. The first

ballistic missile interceptor that will be available to the US is an improved version of the patriot, scheduled for early deployment. The other interceptors under development by SDI- which so be the names, LEAP, THAAD, Erint and E21-use more advanced technology and will take longer to develop. All these defenses are based on the ground.

After the collapse of the soviet union, the SDI programme which was undertaken to counter USSR's missile strategy would obviously lose its momentum. However, until to date, the USA has not made up its mind to give it up and thus continues with the strategic Defence Initiative. Russian President. Boris Yeltsin's proposal for "Global protection system" to defend against limited missile strikes agrees with the direction given by George Bush's 'GPAL'. A number of talks have been held to materialise the proposal. Under this proposal, the US and Russia would establish a multinational centre as a part of a Global protection system. Through the centre, member nations would share informations on weapons proliferation, notify each other of their own intended space launchers and share detection of all other launchers. Further more they would develop cooperative antimissile defense tactics and assist each other in procuring or developing antiballistic Missile (ABM) technologies.

Indeed, the Gulf war and the performance of the patriot missiles system gave a further boost to such weapon system. It became a good occasion and sufficient rationale to

inaugurate a new threat perception in the form of nations such as Iraq, Iran, North Korea and Libiya, which it was publicly disclosed, had long range missiles capable of attacking North America. The US exaggerated the destabilisation effect that it entailed and highlighted the grave threat to the humanity. Such as eventuality posed and infused in the mind of the people with a fear that the nuclear weapon which existed may fall into the hand of mad political leader or a guerrilla group., The administration officials and some senators also upheld the views of possible chinese nuclear threat to the US in the form of existing chinese ICBM. While the facts were presented for the public justification, the influence of the powerful lobby of political-military-industrial complex could not be underestimated in promoting the course of SDI programme too.

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