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PREM 19/2068

42-55 PART 4 127 MT

CABINET ONE

TOP SECRET

CODEWORD

Confidential Filing

Military Uses of Laser Technology in Space.

The U.S. Strategic Defence Initiative.

DEFENCE

Part 1: Dec. 1979

Part 4: Dec. 1985

Referred to	Date	Referred to	Date	Referred to	Date	Referred to	Date
~~6.12.85~~		~~24.11.86~~		~~3.8.87~~			
~~10.12.85~~		~~2.12.86~~		~~21.4.87~~			
~~9.12.85~~		~~24.12.86~~		~~28.8.87~~			
~~11.12.85~~				10-9-87			
~~12.12.85~~		~~24.1.87~~		2-10-87			
~~17.12.85~~		30.1.87					
~~21.12.85~~		~~4.2.87~~		ENDS.			
~~31.1.86~~		~~5.2.87~~					
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~~11.7.86~~		27.4.87					
14.7.86		29.7.87					
~~21.7.86~~		~~31.7.87~~					

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PART 4 ends:-

CDP to PM 2-10-87.

PART 5 begins:-

MOD to CDP. 2-10-87.

TO BE RETAINED AS TOP ENCLOSURE

Cabinet / Cabinet Committee Documents

Reference	Date
CC (85) 35th Conclusions, Minute 2	05/12/85
CC (85) 36th Conclusions, Minute 2	12/12/85

The documents listed above, which were enclosed on this file, have been removed and destroyed. Such documents are the responsibility of the Cabinet Office. When released they are available in the appropriate **CAB** (CABINET OFFICE) CLASSES

Signed A Wayland Date 29 March 2017

PREM Records Team

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PRIME MINISTER

A PROPOSAL FOR UK PARTICIPATION IN SDI RESEARCH

You will recall that the Defence Secretary earlier proposed that we should offer the Americans a Poseidon missile equipped with various dummies and decoys which we have developed so that they could test their detection and discrimination devices for SDI against it.

You expressed some reservations that such an experiment might give the Russians useful intelligence on our existing techniques and thus diminish the effectiveness of our deterrent. You pointed out that if the Americans could show that they could successfully intercept our Poseidon, it would reduce confidence in our deterrent. You also saw a risk of getting embroiled in the controversy over the ABM Treaty.

The Defence Secretary has now replied with a minute of stunning obscurity. I think that what it says is:

(i) that the decoys and dummies which we would use would be redundant ones, and so not give away any useful intelligence;

(ii) because we would not be using a deployed or operational system, the successful demonstration of an ability to counter it would not undermine confidence in the systems which we actually use;

(iii) by participating in the US programme we shall get access to technology which will be vital for designing our future counter-measures and penetration aids against Russian ABM and SDI systems;

(iv) the proposal would not involve us in controversy over the ABM Treaty because it will now be several years at least before the US move to the broad

interpretation (but that must mean that the proposed experiment could not be conducted for several years).

He concludes that the balance of advantage is in favour of opening exploratory discussions with US officials.

I think the crucial question is: would this experiment really offer the best and only way for us to acquire the technology necessary to stay in the game of effective penetration aids and counter-measures? You need to see a much more convincing case made before you can tell. At the moment one is tempted to say that, if they cannot explain their proposal better, it cannot be a very good proposal.

Prepared to ask for further explanation as suggested?

CDP

C. D. Powell

2 October 1987

PMMAHV

I think they are saying two very different things at the same time

(1) - one the system they would offer is no longer useful as because others have superseded it. but (Para 2)

(2) we haven't got a practical new one - only a theoretical possibility which would need to be tested in flight. (para 3)

(3) We have a duty of need to keep ahead of penetration techniques and this is the only way we can do it, because we gain access to new information PMD

On that basis – I think we had better go ahead.

What alarms me is that we have no penetration aids for Trident and we many need some

MB

cc PC

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MO 30/1E

PRIME MINISTER

A PROPOSAL FOR UK PARTICIPATION IN SDI RESEARCH

Your Private Secretary wrote to mine on 3rd August giving your reactions to the proposal in my minute of 30th July for extending United Kingdom participation in the United States' SDI research programme.

2. I take your point that we could be exposed to risk if the payload of the experiments were closely to resemble systems we actually deploy. An earlier version of the proposal would have involved the use of Chevaline A3TK components, and was discarded for the very reasons mentioned in Mr Powell's minute. But the UK has been carrying out research at a modest level for some years into novel types of penetration aid, as an insurance against improvements in Soviet defensive capability both against Chevaline and now extending into the timeframe when the UK Trident force is deployed. This research includes new ideas for chaff and items such as thrusted replica decoys which could simulate a Trident type re-entry body during the re-entry phase. It is both the differences between Chevaline and Trident, and the need to target UK research towards countering more advanced Soviet defences than are currently deployed, that clearly separate the proposed offer to the US from Chevaline. It has also become apparent from routine contacts with US officials that they would be interested in using both US and UK penetration aids in the same flight trial package, thus further distancing the experiments from any deployed system or specific development programme.

3. The UK research is already shared with the US under the terms of the 1958 US/UK Agreement on the Uses of Atomic Energy for Defence Purposes. There have been some trials of experimental UK chaff packages on US test missile flights, on an opportunity basis and at marginal cost to us. Work on the new decoys, however, has been largely theoretical with some ground testing, and no steps have been taken to develop them for flight testing. Such testing would be essential if a firm requirement were to emerge to enhance the capability of UK Trident to penetrate (upgraded) Soviet ballistic missile defences. It is worth recalling that Trident, on entry into service, will carry no penetration aids (leaving out of account the limited number of inert replica re-entry bodies); and so any necessary enhancement of Trident's penetrability would require a new development programme.

4. I hope that this additional background, taken with my earlier minute, explains why we should be able to make a proposal to the US which they could be expected to find attractive, whilst keeping the detail of the proposal well clear of deployed UK systems. We would have a solid background of fact against which to refute any suggestion that this kind of participation in SDI research puts at risk public confidence in the integrity of our nuclear deterrent. If the need to answer charges of this kind were to arise, I believe that a convincing response could be given along the lines that we have supported SDI research as a prudent hedge against Soviet developments in the same field; and that this particular UK involvement will contribute directly to that aim. (In this connection, I was glad to see that the 'prudent hedge' argument was supported by the Defence Committee in their recent report as the most important justification for British participation in SDI research).

5. I understand how it might be thought of as odd for us to be co-operating in an experiment which is part of a programme designed to render nuclear deterrence obsolete. But the US and Soviet Union have been carrying out ballistic missile defence research for at

least a quarter of a century, carrying this work close to the point of deployment in the US case and to actual deployment in the Soviet case. The Soviet deployment left us with no alternative but to develop and deploy the Chevaline system as a countermeasure, with considerable US assistance. For the time being, the SDI research programme provides us with a unique opportunity of assessing from a sound technical baseline what the Russians may in the fullness of time develop and deploy against us and the countermeasures required to defeat such advances.

6. As regards the ABM Treaty issue, the course of the debate in the US suggests that the risk that the proposal would involve us directly in the controversy over interpretation may have receded since my earlier minute. I note Cap Weinberger's remarks to you in Washington on 17th July; but Lt Gen Abrahamson has told us privately that in his view at least no decision on moving to the broad interpretation will be taken for another two or three years. There are other signs that the US Administration recognises that it is not likely to be able to secure a decision to move to the broad interpretation in the near future, owing to Congressional opposition. The ABM Treaty will certainly remain politically sensitive, in Congress and in relation to continuing negotiations in Geneva, but I still believe that there is nothing here that need prevent exploratory discussions with the US about the experiments.

7. You asked particularly that further thought should be given to where the balance of advantage to us lay in all this. I believe it is important to keep the UK in the best possible position to respond in a timely fashion to future improvements in Soviet ballistic missile defences - over which, of course, we can have no control. The deployment of the Soviet radar at Krasnoyarsk caused us to introduce a modification to Chevaline which it would not have been possible to do so rapidly had we not maintained a background R&D capability on penetration aids. We cannot be certain that similar challenges will not arise in future: indeed, they probably will, and

very likely will present more difficult technical problems, at some stage. I would feel much more comfortable if we had, meanwhile, taken every opportunity within our limited means of staying abreast, or even getting ahead of the technology competition between missile and anti-missile systems. The proposal also includes the use of UK developments in the sensor field, an area in which collaboration with the US has been difficult in the past since many of their programmes have been declared black. The advent of SDI has enabled us to open some of these previously closed channels and the possible benefits to be derived from the use of multiple sensors in a discrimination experiment extend well beyond our interest in SDI.

8. These benefits seem to me to decide the balance in favour of the proposal, provided the exploratory talks between officials do not throw up reasons not to proceed. There is no immediately available alternative route to broadening our understanding of the operation of penetration aids or spaced based sensors. At the same time, the experiments provide an opportunity to enhance and broaden our special relationships with the US in the fields of nuclear exchange and technical intelligence. The vitality of both depend upon our capacity and willingness to make contributions to the exchange, to the extent that we are able, and experience has indicated that when we provide an input of interest and originality we invariably gain in the exchange by a significant ratio.

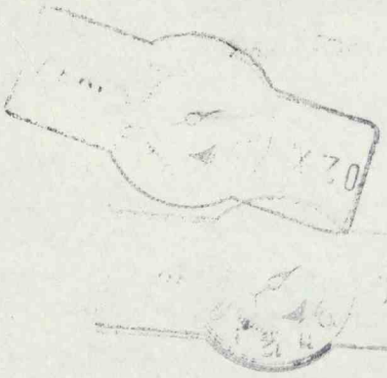
9. To sum up, I think that the balance of advantage is in favour of opening exploratory discussions with US officials, on the basis set out in my earlier minute. There is no doubt that opponents of the UK deterrent could find some scope for making mischief, as Mr Powell's minute says. But their position would lack substance, as it invariably does; and could, if need be, be dealt with in a straightforward and convincing fashion.

10. I hope that you now feel able to agree with the proposal. If you still have misgivings, I should of course be very happy to discuss.

11. I am copying this minute to the Foreign and Commonwealth Secretary and to Sir Robert Armstrong.

G.Y.

Ministry of Defence
1 October 1987



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MIPT: NAC MEETING 10 SEPTEMBER: START/SPACE AND DEFENCE

SUMMARY
1. ON START, PROGRESS MADE IN NEGOTIATIONS BUT NO MOVEMENT YET ON MAIN AREAS OF DISAGREEMENT. LITTLE DEVELOPMENT ON SPACE AND DEFENCE ISSUES. NEED FOR FURTHER PROGRESS IN START NEGOTIATIONS TO BE EMPHASISED BY SHULTZ DURING TALKS WITH SHEVARDNADZE.

DETAIL
START
2. REPORTING ON THE START NEGOTIATIONS, LEHMAN OUTLINED THE PROVISIONS OF THE DRAFT SOVIET TREATY (WHICH WERE SUMMARISED IN THE NOTE CIRCULATED BY THE US MISSION TO NATO ON 14 AUGUST AND SENT TO THE DEPARTMENT). HE CONFIMED THAT THERE HAD BEEN NO SOVIET MOVEMENT ON THE MAJOR ISSUES OF SUB-LIMITS, THROW-WEIGHT, MOBILE ICBMS AND SLCMS. HE ALSO CONFIRMED THE DRAFT TREATY PROVISIONS FOR A FIRM LINKAGE WITH A SPACE AND DEFENCE AGREEMENT. THE ISSUE OF SUB-LIMITS WAS OF PARTICULAR CONCERN SINCE THE SOVIET PROPOSALS WOULD ALLOW THEM TO INCREASE THE PROPORTION OF ICBMS IN THEIR INVENTORY WITH ALL THE IMPLICATIONS THIS WOULD HAVE FOR FUTURE STRATEGIC STABILITY. SOVIET PROPOSALS FOR SUB-LIMITS OF 5,100BM WARHEADS AND 3,600 WARHEADS ON ANY LEG OF THE TRIAD WERE AN INDICATION THAT THEY WERE PREPARED TO RECONSIDER THE POSSIBILITY OF SUB-LIMITS. BUT THIS PROPOSAL WAS AT PRESENT LINKED TO AN INSISTENCE THAT THE US DROP THE PREVIOUSLY AGREED COUNTING RULE FOR HEAVY BOMBERS, A CONDITION WHICH WAS UNACCEPTABLE TO THE AMERICAN SIDE. THE VERIFICATION PROPOSALS IN THE DRAFT SOVIET TREATY PARALLELLED THE GENERAL PRINCIPLES OF THE US DRAFT WITH EMPHASIS ON NATIONAL TECHNICAL MEANS, ON-SITE INSPECTION AND DATA EXCHANGE. HOWEVER, SOVIET PROPOSALS WOULD NOT ALLOW SHORT NOTICE INSPECTION OF ANY SITES NOT LISTED IN AN AGREED MOU. NOR WOULD THEY ALLOW INSPECTION TO VALIDATE EVERY SINGLE ITEM OF INFORMATION (AS OPPOSED TO A QUOTA) IN THE INITIAL EXCHANGE OF

DATA. NOR WAS THE SOVIET SIDE PREPARED TO DISCUSS DETAILS OF OSI PROCEDURES SMICLN THEY PREFERRED THE CONCEPT OF VAGUE PROVISIONS TO BE ELABORATED AFTER SIGNATURE OF THE TREATY.

3. DESPITE THE FAILURE TO AGREE ON MANY VITAL ISSUES, LEHMAN BELIEVED THAT MUCH PROGRESS HAD BEEN MADE IN THE START NEGOTIATIONS. THE START NEGOTIATIONS WERE NOW APPROACHING THE POSITION THE INF TALKS HAD REACHED IN JUNE. AS IN INF THE SOVIET UNION COULD MOVE QUICKLY ON THE MAIN ISSUES ONCE IT CHOSE TO DO SO BUT THE DETAILS, PARTICULARLY ON VERIFICATION, WOULD INEVITABLY TAKE TIME TO RESOLVE. (THE VERIFICATION REGIME FOR START WOULD BE MORE COMPLEX, AND MORE DIFFICULT TO AGREE, THAN THAT FOR INF SINCE THE LATTER WOULD NOW BE VERIFYING A GLOBAL ZERO AGREEMENT). LEHMAN STRESSED SUBSEQUENTLY THAT THE US WANTED A QUOTE SPECIFIC AGREEMENT UNQUOTE NOT A FRAMEWORK AGREEMENT OF THE KIND WHICH SOME SOVIET SPOKESMEN ARE STILL ADVOCATING.

4. NITZE ADDED THAT THE SOVIET SIDE HAD BEEN EXPLICIT ABOUT THEIR DESIRE FOR PROGRESS ON START. AT NEXT WEEK'S MEETING SHULTZ WOULD EMPHASISE THE IMPORTANCE ATTACHED BY THE US TO AN AGREEMENT CONSTRAINING STRATEGIC FORCES ELIMINATED UNDER AN INF ACCORD. IT WAS HOPED THAT PROGRESS MIGHT BE MADE DURING THE SHULTZ/SHEVARDNADZE TALKS ON SOME OF THE MAIN START ISSUES.

SPACE AND DEFENCE

5. COOPER HAD NOTHING NEW TO REPORT ON SPACE AND DEFENCE ISSUES. HE OUTLINED THE MAIN POINTS IN THE SOVIET PAPER TABLED ON 29 JULY (SUMMARISED IN THE NOTE CIRCULATED BY THE US MISSION TO NATO ON 20 AUGUST AND SENT TO THE DEPARTMENT) AND CONFIRMED THAT THERE WAS NO CHANGE IN THE BASIC SOVIET POSITION WHICH INCLUDED HOLDING A START AGREEMENT HOSTAGE TO SDI.

6. COOPER SAID THAT THERE WERE THREE MAIN OBSTACLES TO AGREEMENT. FIRST, UNILATERAL WITHDRAWAL RIGHTS IN THE EVENT OF A MATERIAL BREACH OF ANY AGREEMENT WERE NOT ACKNOWLEDGED BY THE SOVIETS WHO ARGUED THAT THERE WOULD HAVE TO BE CONSULTATION AND AGREEMENT BEFORE TERMINATION. SECONDLY, THE SOVIET PROPOSALS TO LIMIT RESEARCH TO LABORATORIES ON EARTH AND THEIR PROPOSED LIST OF RESTRICTIONS ON SPACE BASED DEVICES WOULD IMPOSE GREATER CONSTRAINTS ON THE SDI PROGRAMME THAN WERE CURRENTLY IN FORCE UNDER THE ABM TREATY. THERE HAD, HOWEVER, BEEN INDICATIONS THAT SOME SOVIET SCIENTISTS BELIEVED THAT THE CONCEPT OF A LIST OF PERMITTED AND PROHIBITED DEVICES WAS TECHNICALLY UNWORKABLE IN TERMS OF ITS COMPLEXITY AND VERIFICATION IMPLICATIONS. THE THIRD MAJOR OBSTACLE WAS THE SOVIET INSISTENCE ON

AUTOMATIC TERMINATION OF A START AGREEMENT IF EITHER SIDE WENT ON TO DEPLOY ABM SYSTEMS OUTSIDE THE AMBIT OF THE ABM TREATY ONCE THE NON-WITHDRAWAL PERIOD WAS COMPLETED. NEVERTHELESS, THERE WAS SOME COMMON GROUND SMICLN IN PARTICULAR THE AGREMENT BY BOTH SIDES THAT THERE SHOULD BE A PERIOD OF NON-WITHDRAWAL FROM THE ABM TREATY AND ACCEPTANCE THAT BEFORE THE END OF THAT PERIOD DISCUSSIONS SHOULD BE HELD ON THE WAY AHEAD THEREAFTER.

ALEXANDER

YYYY

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CDP
4/9

The Rt. Hon. Margaret Thatcher, F.R.S.,M.P.,
10 Downing Street,
London,
SW1A 2AA.

3rd September, 1987.

Dear Prime Minister,

Here is a copy of Edward Teller's book, as promised. I hope you find it interesting. I'll be in touch with you again on SDI shortly.

Yours

David Hart.

Encl:

CCBL/P.

PRIME MINISTER

MEETING WITH MR EDWARD TELLER

You agreed to a suggestion from Mr David Hart that you should see Mr Edward Teller, commonly known as the father of the hydrogen bomb. Mr Teller is coming on Tuesday afternoon, accompanied by Mr Hart. I attach a biographical note.

Although Mr Teller is now nearly 80, I understand that he is still very active in nuclear matters. You may like to discuss:

- the prospect for the further development and refinement of nuclear weapons. Does he foresee particular improvements as likely and obtainable? Or have we more or less reached the optimum in efficiency and effectiveness;

- his assessment of the prospects for the SDI (of which he is a supporter);

- the possible role of nuclear weapons/nuclear explosions in the SDI. This is highly controversial in the US. In theory there are at least two ways nuclear explosions could be used:
(a) nuclear warheads on interceptor missiles, for intercepting re-entry vehicles within the atmosphere; and (b) use of X-ray lasers powered by nuclear explosions. I believe that Mr Teller is a protagonist of the latter, but there is considerable scepticism in the scientific community;

- the effects of nuclear explosions, eg. the concept of nuclear winter.

C.D.P.

Charles Powell
28 August 1987

MJ2BHK

telalters 1957, Kaisertum, Papsttum und Europa im hohen Mittelalter, Historia Mundi VI 1958, Neue Forschungen über Cluny und die Cluniacenser 1959, Repertorium Germanicum II 1933–61, Der Sybyllinische Preis, Schriften und Reden zur Hochschulpolitik 1946–1963 1963, Empfehlungen zur Neuordnung des Studiums in den Philosophischen Fakultäten 1966, Saeculum Weltgeschichte III und IV 1967, V 1970, Aus erin[redacted]er Zeitgeschichte 1981; Ed.: Monumenta Germaniae historica: Lib[redacted]emorialis Romaricensis (with E. Hlawitschka and K. Schmid) 1970. *Address:* Hintere Steige 4, 78 Freiburg/Br., Federal Republic of Germany (Home). *Telephone:* 56497.

TELLER, Edward, PH.D.; Hungarian-born American scientist; b. 15 Jan. 1908, Budapest, Hungary; s. of Ilona and Max Teller; m. Augusta Maria Harkanyi 1934; one s. one d.; ed. Karlsruhe Technical Inst., and Univs. of Munich and Leipzig; Research Assoc., Leipzig 1929–31, Göttingen 1931–33; Rockefeller Fellow, Copenhagen 1934; Lecturer, Univ. of London 1934–35; Prof. of Physics, George Washington Univ. 1935–41, Columbia Univ. 1941–42; Physicist, Manhattan Engineer Dist. 1942–46; Prof. of Physics, Univ. of Chicago 1946–52; Physicist, and Asst. Dir. Los Alamos Scientific Lab. 1949–52; Consultant, Univ. of Calif. Radiation Lab. Livermore 1952–53, Assoc. Dir. Lawrence Livermore Radiation Lab. 1954–75, Dir. 1958–60, Dir. Emer. 1975–; Prof. of Physics Univ. of Calif. 1953–60, Prof. of Physics-at-Large 1960–70, Univ. Prof. 1970–, Prof. Emer. 1975–; Chair. Dept. of Applied Science, Univ. of Calif. 1963–66; Visiting Prof., Arthur Spitzer Chair of Science, Pepperdine Univ. 1975–77; mem. N.A.S., American Acad. of Arts and Sciences, U.S.A.F. Scientific Advisory Bd., etc.; Fellow, American Nuclear Soc.; Sr. Research Fellow, Hoover Inst. for War, Revolution and Peace 1975–; Joseph Priestley Memorial Award 1957, Albert Einstein Award 1958, Mid-West Research Inst. Award, Living History Award 1960, Enrico Fermi Award 1962, Robins Award of America 1963, Harvey Prize 1975, Nat. Medal of Science 1983, Sylvanus Thayer Award 1986; Hon. D.Sc. (Yale, Alaska, Fordham, George Washington, S. Calif., St. Louis, Clarkson Coll. Clemson Univ., Maryland); Hon. LL.D. (Mount Mary). *Publications:* The Structure of Matter (with F. O. Rice) 1949, Magneto-Hydrodynamic Shocks (with F. de Hoffmann) 1950, Theory of Origin of Cosmic Rays 1954, Our Nuclear Future (with A. Latter) 1958, Legacy of Hiroshima (with Allen Brown) 1962. The Reluctant Revolutionary 1964, Constructive Uses of Nuclear Explosives (with Talley, Higgins & Johnson) 1968, Great Men of Physics (with others) 1969, General Remarks on Electronic Structure 1970, The Hydrogen Molecular Ion 1970, General Theory of Electron Structure 1970, Energy from Heaven and Earth 1979, The Pursuit of Simplicity 1980, ed. Fusion, Magnetic Confinement (Vol. 1), Better a Shield than a Sword 1987. *Leisure interests:* chess, swimming, piano. *Address:* University of California, Lawrence Livermore Laboratory, P.O. Box 808, Livermore, Calif. 94550, U.S.A. (Office). *Telephone:* (415) 422-4171.

TEMBO, John Zenas Ungapake; Malawi politician; b. Sept. 1932; ed. senior primary school, Kongwe, Mlanda School, Ncheu, Blantyre Secondary School and Roma Univ. Coll., Basutoland; worked for Colonial Audit Dept. Zomba 1949–55; studied at Roma Univ. Coll. 1955–58; fmr. mem. African Students' Rep. Council; attended course for educational diploma, Salisbury, S. Rhodesia 1958–59; teacher Kongwe Secondary School 1959–61; mem. Legis. Council for Dedza 1961–62; Parl. Sec. for Finance 1962–64; M.P. for Dedza North 1964, resgnd. May 1970; Minister of Finance 1964–68, concurrently Minister of Trade, Industry, Devt. and Planning 1964–68; Minister of Trade and Finance 1968–70; Gov. Reserve Bank of Malawi 1970–84; mem. Nat. Cttee. Malawi Congress Party 1987–. *Address:* Malawi Congress Party, Lilongwe, Malawi.

TEMIN, Howard M., PH.D.; American professor and virologist; b. 10 Dec. 1934, Philadelphia, Pa.; s. of Henry and Annette (née Lehman) Temin; m. Rayla G. Greenberg 1962; two d.; ed. Swarthmore Coll., Calif. Inst. of Tech.; Postdoctoral Fellow, Calif. Inst. of Tech. 1959–60; Asst. Prof. of Oncology, Univ. of Wis., Madison 1960–64, Assoc. Prof. 1964–69, Prof. 1969–, Wis. Alumni Research Foundation Prof. of Cancer Research 1971–80; American Cancer Soc. Prof. of Viral Oncology and Cell Biology 1974–, Harold P. Rusch Prof. of Cancer Research 1980–, Steenbock Prof. of Biological Sciences 1982–; mem. NAS/IOM Comm. for a Nat. Strategy for AIDS 1986; mem. Editorial Bd. Annual Review Genetics 1983–, Molecular Biology–Evolution 1983–, Rapid Communications Section 1984–, Journal of Virology 1971–; Herz Memorial Lecturer Tel-Aviv Univ. 1985, Amoroso Memorial Lecturer, Univ. of the West Indies 1986; mem., American Acad. of Arts and Sciences 1973, N.A.S. 1974, American Philosophical Soc. 1978, American Soc. of Microbiology, American Assn. of Cancer Research, American Soc. of Virology; U.S. Steel Foundation Award in Molecular Biology, N.A.S. 1972, Griffuel Prize, Assn. for Research against Cancer, Villejuif 1973, American Chem. Soc. Award in Enzyme Chem. 1973, G. H. A. Clowes Award and Lectureship, American Assn. for Cancer Research 1974, Gairdner Foundation Int. Award (shared) 1974, Albert Lasker Award in Basic Medical Science 1974, Nobel Prize in Physiology or Medicine (shared) 1975, Lucy Wortham James Award in Basic Research, Soc. of Surgical Oncologists 1976, Alumni Distinguished Service Award, Calif. Inst. of Tech. 1976, Lila Gruber Research Award, American Acad. of Dermatology 1981 and other awards; Hon. D.Sc. 180 articles and contributions to books. *Address:* McArdle Laboratory for Cancer Research, University of Wisconsin, 450 North Randall Avenue, Madison, Wis. 53706, U.S.A. *Telephone:* (608) 262-1209.

TEMIRKANOV, Yuriy Chatuyevich; Soviet conductor; b. 1938; ed. Leningrad Conservatoire; first violinist with Leningrad Philharmonic Orchestra 1961–66; Conductor for Maly Theatre and Opera Studio, Leningrad 1965–68; Chief Conductor, Leningrad Philharmonic Orchestra and Kirov Theatre 1968–76; Prof. Leningrad Conservatory 1979–; guest conductor in a number of countries, including Scandinavia (Sweden 1968), U.S.A. and G.B. (BBC Symphony Orchestra 1981–); Soviet People's Artist 1974, Glinka Prize 1975; *Operas:* Porgy and Bess (at Maly), Peter the Great (at Kirov), Shchedrin's Dead Souls (at Bolshoi), Tchaikovsky's Queen of Spades 1979.

TEMPLE, George, C.B.E., F.R.S., D.SC., M.A.; British mathematician; b. 2 Sept. 1901, London; s. of James Temple and Frances Compton; m. Dorothy Carson 1930; ed. Birkbeck Coll., and Trinity Coll., Cambridge; Asst. at Birkbeck Coll. 1922–24; Asst. Lecturer in Mathematics City and Guilds Coll. 1924–28; Asst. Prof. Royal Coll. of Science 1930–32; Prof. of Math. King's Coll. London 1932–53; Chief Scientific Adviser to Minister of Civil Aviation 1947–49; Sedleian Prof. of Natural Philosophy, Oxford Univ. 1953–68, now Prof. Emer.; Hon. Fellow, Queen's Coll., Oxford 1966; Chair. Aeronautical Research Council 1961–64; Leverhulme Emer. Fellowship 1971–73; Hon. D.Sc. (Dublin, Louvain, Reading Univs.) 1966; Hon. D.Lit. (Western Ont.) 1969. *Publications:* Introduction to Quantum Theory 1931, Rayleigh's Principle 1933, General Principles of Quantum Theory 1934, An Introduction to Fluid Dynamics 1958, Cartesian Tensors 1960, The Structure of Lebesgue Integration Theory 1971. *Address:* Quarr Abbey, Ryde, Isle of Wight, England.

TEMPLE, Shirley (see Black, Shirley Temple).

TEMPLEMAN, Baron (Life Peer), cr. 1982, of White Lackington in the County of Somerset; **Sydney William Templeman,** P.C., Q.C., M.B.E., M.A.; British judge; b. 3 March 1920, London; s. of Herbert W. and Lilian (née Pheasant) Templeman; m. Margaret Rowles 1946; two s.; ed. Southall Grammar School and St. John's Coll., Cambridge; served 4/1st Gurkha Rifles 1941–46; mem. Middle Temple 1946–, Deputy Treas. 1986–; mem. Bar Council 1961–65, 1970–72; Q.C. 1964; Attorney-Gen., Duchy of Lancaster 1970; Judge, Chancery Div., 1972; Pres. Senate of Inns of Court and Bar 1974; mem. Royal Comm. on Legal Services 1976; Lord Justice of Appeal 1978–82; Lord of Appeal in Ordinary 1982–; Hon. Fellow, St. John's Coll., Cambridge 1982; Hon. mem. Canadian Bar Assn. 1976, American Bar Assn. 1976, Newfoundland Law Soc. 1984; Hon. D.Litt. (Reading) 1980, Hon. L.L.D. (Birmingham) 1986. *Address:* Manor Heath, Knowl Hill, Woking, Surrey, GU22 7HL, England. *Telephone:* (04862) 61930.

TEMPLETON, Hugh Campbell, B.A.; New Zealand politician; b. 1929, Wyndham; m.; two c.; ed. Univ. of Otago, Dunedin and Oxford Univ.; joined Ministry of Foreign Affairs 1954, served London, Western Samoa 1960–62, N.Z. Mission to UN 1962–64, and at Ministries of Foreign Affairs and Defence 1965–69; M.P. 1969–; Minister of Broadcasting, Minister in charge of Public Trust Office and Postmaster-Gen. 1975–77; Minister of Broadcasting, Assoc. Minister of Finance, Minister of Statistics and Minister in charge of Inland Revenue Dept. and Friendly Socs. 1977–81, also Minister for Customs 1978–82, Minister of Trade and Industry 1981–84; National Party. *Leisure interests:* cultural affairs, history and literature. *Address:* 96 Bolton Street, Wellington, New Zealand.

TEMPLETON, Sir John M., Kt., M.A.; British investment counsellor; b. 29 Nov. 1912, Winchester, Tenn., U.S.A.; s. of Harvey Maxwell and Vella Handly Templeton; m. 1st Judith Dudley Folk 1937 (died 1951), two s. one d.; m. 2nd Irene Reynolds Butler 1958; ed. Yale Univ., Balliol Coll., Oxford Univ. (Rhodes Scholar); Sec.-Treas., Vice-Pres. and Dir. Nat. Geophysical Co., Dallas and New York 1937–41; Pres. and Dir. Templeton, Dobbrow and Vance, Inc., New York 1941–65, Templeton Growth Fund Canada Ltd., Toronto 1954–85, Templeton Funds, Inc. 1977–86; Templeton Global Funds, Inc. 1981–86; Chair. Templeton Damroth Corpn. 1959–62; Vice-Pres. and Dir. First Trust Bank Ltd., Bahamas 1963–; Dir. Magic Chef, Inc., Cleveland, Tenn. 1965–86; Chase Manhattan Trust Co. 1972–82, British-American Insurance Co. 1973–82; Chair. Templeton, Galbraith and Hansberger Ltd. 1986–; Chair. Bd. of Trustees Princeton Theological Seminary 1967–73, 1979–85; Pres. and Trustee Templeton Theological Seminary 1985–; Trustee Templeton Foundation Inc. 1952–, Wilson Coll. 1951–73, Englewood Hosp. 1953–56, Center of Theological Inquiry, Princeton 1967–, Buena Vista Coll. 1981–, Soc. for Promoting Christian Knowledge (U.S.A.) 1984–, Balliol Coll. Oxford Endowments Fund 1984–, Templeton Project Trust (England) 1984–, America European Community Assn.; mem. Bd. of Visitors Harvard Divinity School, Advisory Bd. Harvard Center for Study of World Religions, Council on Theological Seminaries, United Presbyterian Church of the U.S.A. 1959–84, Bd. Corporators Presbyterian Ministers' Fund Inc. 1960–, Comm. on Ecumenical Mission 1961–70; Bd. of Mans. American Bible Soc.; Man. Council Templeton Coll. (Oxford); mem. New York Soc. of Security Analysts 1942–; Hon. Rector Dubuque Univ.; Hon. LL.D.

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SDI AND THE ABM TREATY
SUMMARY

1. WEINBERGER REOPENS DEBATE ON EARLY DEPLOYMENT OF SDI.

DETAIL

2. AS WE HAVE REPORTED TO THE DEPARTMENT (CLARKE'S TELELETTERS OF 9 JULY AND 12 AUGUST, NOT COPIED TO ALL) A NUMBER OF FACTORS CAUSED THE PRESSURE FOR A MOVE TO THE BROAD INTERPRETATION OF THE ABM TREATY TO EASE OFF DURING JUNE AND JULY. THE THIRD VOLUME OF THE SOFAER REPORT ON THE ABM TREATY, ON SUBSEQUENT PRACTICE, DID NOT EMERGE ON TIME THANKS TO EXTENSIVE REDRAFTING (AND WILL NOT NOW BE TRANSMITTED TO CONGRESS UNTIL IT RECONVENES IN SEPTEMBER). THE SDIO'S CREDIBILITY WITHIN THE DEFENCE COMMUNITY WAS DAMAGED BY ITS MALADROIT HANDLING OF THE DEFENCE ACQUISITION BOARD'S SCRUTINY OF THE SDI PROGRAMME (CLARKE'S TELELETTER OF 13 JULY). NUNN'S GRIP OVER CONGRESSIONAL OPPOSITION TO THE DOD'S SDI FUNDING BID FOR THE MOVE TO THE BROAD INTERPRETATION BY THE ADMINISTRATION WAS SEEN TO HAVE TIGHTENED. AND THE NEED TO KEEP US/SOVIET RELATIONS, AND IN PARTICULAR THE INF NEGOTIATIONS, ON AN EVEN KEEL CAME TO BE THAT MUCH GREATER FOR A PRESIDENCY WEAKENED BY THE IRAN/CONTRA HEARINGS.

3. WEINBERGER, IN COMMON WITH SENIOR WHITE HOUSE OFFICIALS, THEREFORE ADOPTED A LOW PROFILE ON HIS CAMPAIGN FOR A MOVE TO THE BROAD INTERPRETATION THROUGHOUT THE EARLY SUMMER JUDGING THAT THE TIME WAS NOT PROPITIOUS. HE DID, HOWEVER, COMMISSION AN ARTICLE TO BE PUBLISHED UNDER HIS NAME IN ORDER TO SET OUT THE CASE BOTH FOR A MOVE TO THE BROAD INTERPRETATION AND EARLY SDI DEPLOYMENT. AS CIRCUMSTANCES CHANGED, AND AS WEINBERGER BEGAN TO REALISE THAT THE ODDS WERE STACKED AGAINST HIM, THAT ARTICLE UNDERWENT A NUMBER OF REDRAFTS, EACH TIME DILUTING ITS BASIC MESSAGE. BUT HIS INTENTION TO GO PUBLIC AT SOME POINT APPARENTLY NEVER WAVERED.

4. THE ARTICLE WAS FINALLY PUBLISHED IN THE NEW YORK TIMES OF 21 AUGUST UNDER THE HEADLINE ''ITS TIME TO GET SDI OFF THE GROUND'' (FAXED TO DEPT). SIGNIFICANTLY THE ARTICLE MAKES NO MENTION OF THE ABM TREATY, POINTING INSTEAD TO THE TECHNOLOGICAL ADVANCES THAT, IF HARNESSED TO ''ADEQUATE FUNDING'' COULD ENABLE PHASED DEPLOYMENT OF SDI TO BEGIN ''AS EARLY AS 1994 OR 1995''. OFFICIALS WHO WERE INVOLVED IN DRAFTING THE ARTICLE SAY THAT THE ABSENCE OF AN EXPLICIT CALL FOR A MOVE TO THE BROAD INTERPRETATION REFLECTS THE JUDGEMENT THAT THE EARLIER EXPLICIT LINKAGE BETWEEN INCREASED, DEPLOYMENT-ORIENTED SDI FUNDING AND US OBLIGATIONS UNDER THE ABM TREATY HAD BEEN COUNTER-PRODUCTIVE. THE NEW YORK TIMES ARTICLE SHOULD THEREFORE BEEN SEEN AS A CAUTIOUS OPENING GAMBIT IN A CAMPAIGN THAT WILL COME TO LIFE IN SEPTEMBER ONCE CONGRESS COMES TO CONSIDER SDI FUNDING AND THE COMPLETED VERSION OF THE SOFAER REPORT.

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3 August 1987

From the Private Secretary

A PROPOSAL FOR UK PARTICIPATION IN SDI RESEARCH

The Prime Minister has considered the Defence Secretary's minute of 30 July, setting out a proposal which MOD officials have devised for extending United Kingdom participation in the United States' SDI research programme.

The Prime Minister is not, or not yet, convinced that this is a wise proposal. She would give more weight to the security and political considerations set out in paragraphs 6-8 of the Defence Secretary's minute. She notes for instance the assertion that it is not intended to use any of the components of our strategic deterrent system, so there will be no risk from hostile intelligence gathering. But presumably if what we are offering the Americans is to be reasonably sophisticated, it will bear a close resemblance to the systems we actually deploy. Moreover, she thinks that, if the Americans can demonstrate that they are able successfully to discriminate between our live warheads and decoys, then it would indeed risk undermining public confidence in the effectivenss of our nuclear deterrent. She also considers that the other arguments which are touched on in the Defence Secretary's minute, namely that it would look odd for us to be co-operating in an experiment designed to render nuclear deterrence obsolete and that we would get embroiled in the controversy in the United States over interpretation of the ABM Treaty, both deserve greater weight in reaching a conclusion. In short, she thinks that a good deal of capital could be made out of this proposal by opponents of our independent nuclear deterrent; and she rather doubts that the benefits will be as great as forecast, given that there must be some risk that Congress and/or a successor United States Administration will reduce or limit the SDI programme before it reaches the stage when an experiment on these lines could be mounted.

The Prime Minister would therefore like further thought to be given to this and in particular to where the balance of advantage to us lies. Her mind is not finally made up,

but she is sceptical at this stage.

I am copying this letter to the Private Secretaries to the Foreign and Commonwealth Secretary and Sir Robert Armstrong.

Charles Powell

John Howe Esq
Ministry of Defence.

20.

PRIME MINISTER

A PROPOSAL FOR UK PARTICIPATION IN SDI RESEARCH

The attached minute by the Defence Secretary contains an interesting proposal for increasing the UK's participation in SDI research.

In essence, he suggests that we should offer the Americans a Poseidon missile equipped with various dummies and decoys which we have developed, so that they could test their detection and discrimination systems for the SDI against it.

The arguments in favour are that it would gain us access to technical information from the United States, because we would learn a great deal about the technology of detection. We might gain some useful insights into how to improve the decoy systems on Trident. It would also be useful in terms of orders for British industry.

But there are some drawbacks. If the Americans can demonstrate that they are able successfully to discriminate between our warheads and decoys, it could undermine public confidence in the effectiveness of our nuclear deterrent. It would look rather odd that we, with our belief in nuclear deterrence, were cooperating in an experiment designed to render it obsolete (or nearly). There is also a risk that we will get embroiled in the controversy in the United States over interpretation of the ABM treaty. These points could be overcome by careful and skilful presentation. But it would not be easy.

The Defence Secretary clearly believes that we can cope with these problems, and recommends that MOD officials should be authorised to enter into exploratory talks with the Americans, ad referendum to Ministers. I have to say that my instinct is

rather against it: I think a lot of political capital could be made out of it by our opponents, and I rather doubt that the benefits will be as great as forecast (let alone the risk that a new United States Administration will cancel or diminish the SDI programme). Somehow it just seems too clever by half.

Agree to Mr. Younger's proposal?

Or

Prefer to put the counter-arguments? Yes MS

C.D.P.

CDP

31 July, 1987.

MO 26/7/4E

PRIME MINISTER

A PROPOSAL FOR UK PARTICIPATION IN SDI RESEARCH

The purpose of this minute is to seek your agreement and that of the Foreign and Commonwealth Secretary to the very early initiation of discussions between officials of my SDI Participation Office and their US opposite numbers on a sensitive proposal which MOD officials have devised for extending UK participation in the US SDI research programme.

2. The proposal is that the UK should offer to make available to the US on reimbursement advanced ballistic missile defence penetration aids (and sophisticated sensor devices) under study as part of our continuing programme of work directed to the maintenance of the effectiveness of the UK strategic deterrent.

3. The essence of the proposal is to offer to provide for the SDI research programme a multi-element threat against defensive systems being developed as part of the programme. The space platform would be a Poseidon missile front end with a jointly developed US/UK payload which, when deployed, would present the defensive systems with multiple targets in the form of suitably disguised decoys and one or more dummy re-entry vehicles. A series of missile firings on US ranges would take place in a programme of experiments to evaluate

the capabilities of multiple sensors to track and discriminate in real time, and possibly finally to guide an interceptor to the chosen target.

4. The US can be expected to welcome such a proposal because it will enable them to undertake realistic tests against the kind of targets which the Soviet Union might decide to develop a counter to any US deployment of strategic defences. For the US, in other words, there is, in SDI terms, a need to establish the feasibility of discriminating between live warheads and decoys and other penetration aids which might be deployed to maintain the effectiveness of Soviet strategic nuclear systems. The UK has established through its ongoing research programmes a strong (although now declining) capability in the field of penetration aids, and we are in a position to offer to develop for the US a package of experimental systems which they would find it more expensive and time-consuming to develop themselves.

5. For the UK, access to flight trials data of the quality which should result from SDI discrimination experiments will considerably strengthen and broaden the authority with which our experts assess, on a continuing basis, the credibility of our strategic nuclear deterrent. For one thing, the sensor systems and range instrumentation facilities to be fielded in the SDI experiments would be in the forefront of technology and beyond the resources of the UK to provide. For another, the proposed experiments come at a time

when UK capability in the field of penetration aid research and development is beginning to decline as experienced experts approach retirement. An effective focus for this work, such as the SDI discrimination experiments would provide, will ensure that this capability is renewed at minimum cost to the UK. Finally, the proposed participation should give a much needed fillip to the level of British participation in SDI research, with major contracts to UK industry.

6. The proposal raises both security and political issues. On security, no components of our strategic deterrent system will be used in the experiments: intelligence gathering by the Russians could not therefore be used to assess the capability of our systems, although to the UK the results would still have the value already described.

7. Turning now to the question of political sensitivities, it has been suggested that any US announcement of the success of a discrimination experiment where UK developed advanced penetration aids were involved would be seen as casting doubt on the effectiveness of the UK deterrent, and expose Ministers to the charge of 'contributing to our own execution' - to quote from one of the background official papers. For the reason which I have given, there would be no substance in any such allegations. But we will need to make sure that our participation in SDI experiments is not misunderstood: it is for the sake of maintaining the effectiveness

of our nuclear deterrent, not because we subscribe to the objective of rendering nuclear weapons obsolete. Clearly we would need to ensure that the terms of any US announcement which might refer to UK involvement in such experiments would be subject to the approval of Ministers, and I intend to make this a condition of any UK proposal to participate which may be made. In practice, I would not expect any difficulty with the Americans over co-operating in the working out of effective security measures to protect sensitive technical data. Equally, we would wish to claim credit for any significant growth in UK participation in SDI research, without exposing the nature of this increased involvement. The time to do this would be linked to the successful completion of contractual negotiations with the US, many months ahead at least. Meanwhile, during exploratory discussions between US and UK officials, and whilst any subsequent contractual negotiations are in progress, the nature and content of these talks could be treated as classified in their entirety. Any speculative enquiries about the scope of UK proposals for building up our participation effort could be fended off as concerning confidential matters under discussion.

8. We need also to be mindful of the potential which there is for a UK proposal of this significance to be used to involve us in the continuing controversy over the broad versus restrictive interpretations of the 1972 ABM Treaty. My officials are clear that this UK participation could slot into several of the SDI experiments already planned and publicly announced (in the US Administration's

annual Report to Congress): these experiments have been publicly stated by the US Administration as falling within the restrictive interpretation of the Treaty. There are no evident grounds on which the Administration could claim that this UK proposal only made sense if there were to be a restructuring of the SDI research programme in accordance with the broader interpretation of the Treaty. If such grounds were unexpectedly to emerge in the exploratory discussion, it would be open to us to modify the proposal or to withdraw. But I should also stress that this UK proposal could become a part of the experiments already mentioned, but revised to take advantage of the broad interpretation of the ABM Treaty; or the argument might be made that the proposal would be more effective and useful if it involved experiments conducted under this interpretation. Either way, we could find the proposal enmeshed in an area of considerable political controversy, as the recent House of Commons Select Committee Report illustrates. We will need to gauge the extent of this potential complication for our wider interests in the ABM Treaty in our exploratory discussions.

8. If you agree with me that the proposal should be pursued, it will be necessary for MOD officials led by the SDI Participation Office to enter into detailed discussions with their US opposite numbers to establish precisely what UK technical and industrial contributions would be welcome and into what SDI experiments these would fit. They would, of course, make clear that these were merely exploratory talks and that the question of eventual participation was

ad referendum to UK Ministers. The scope of the discussions would need to be broad enough to enable officials to report back in full on the matters of potential political sensitivity to which I have referred, as well as on the likely demands on UK technical and industrial capabilities and the timescales of the work which the United States would wish to commission us to undertake. At that stage, I would minute again, and we could then consider against a more specific background whether to make formal offers to the US, and, if so, at what level and on what terms.

9. I should be grateful for your agreement that I may instruct my officials to proceed as indicated, ad referendum to Ministers.

10. I am sending a copy of this minute to the Foreign and Commonwealth Secretary, with whom I have discussed the proposal, and to Sir Robert Armstrong.

G.Y.

Ministry of Defence

30 July 1987



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OUR TELNO 1614: GENEVA NST: DEFENCE/SPACE
SUMMARY

1. SOVIET DRAFT SPACE DEFENCE AGREEMENT TABLED IN GENEVA. CODIFICATION OF PREVIOUS PROPOSALS. ADMINISTRATION EXPRESSES DISAPPOINTMENT, BUT UNDERTAKES TO STUDY. THAT STUDY MAY REOPEN ADMINISTRATION DEBATE ON ''PROHIBITED/PERMITTED ACTIVITIES''.

DETAIL

2. THE SOVIET DELEGATION TO THE GENEVA NST TABLED A DRAFT DEFENCE IN SPACE AGREEMENT ON 29 JULY. THE DRAFT REPRESENTS A CODIFICATION OF PROPOSALS THAT HAVE BEEN PREVIOUSLY TRANSMITTED TO THE US ADMINISTRATION, BOTH OFFICIALLY AND INFORMALLY, PRIMARILY DURING SHULTZ'S VISIT TO MOSCOW IN APRIL. THE CENTREPIECE IS A LIST OF SPACE-BASED ''DEVICES'' THAT WOULD BE PROHIBITED UNDER THE TERMS OF THE DRAFT AGREEMENT (THEREBY SIDESTEPPING THE ABM TREATY). THE US REACTION HAS BEEN MEASURED, BALANCING DISAPPOINTMENT WITH A READINESS TO STUDY AND PARTICIPATE IN DETAILED EXCHANGES (SEE MIFT).

3. THE QUESTION OF NEGOTIATING LISTS OF PERMITTED OR PROHIBITED SPACE-BASED ACTIVITIES/DEVICES HAS BEEN DORMANT WITHIN THE ADMINISTRATION FOR THE LAST COUPLE OF MONTHS. FOLLOWING THE SHULTZ VISIT TO MOSCOW, NITZE TOOK THE LEAD IN INTER-AGENCY DISCUSSION WHERE IN PUSHING FOR A US/SOVIET DIALOGUE ON THIS IN GENEVA AS A MEANS OF ADDRESSING SOVIET CONCERNS ON THE INTERPRETATION OF THE ABM TREATY AND AS A WAY OF ENSURING CONTINUED CONGRESSIONAL SUPPORT FOR THE SDI PROGRAMME. IN THE EVENT HE WAS UNSUCCESSFUL, WITH THE PRESIDENT DECIDING AGAINST SUCH A DIALOGUE ON THE GROUNDS THAT IT COULD BE USED TO BLOCK OR DELAY THE SDI PROGRAMME. NOW THAT THE RUSSIANS HAVE MADE A FORMAL PROPOSAL FOR SUCH A LIST AS AN INTEGRAL PART OF A NEW DRAFT AGREEMENT, RATHER THAN IN THE CONTEXT OF A DIALOGUE ON THE ABM TREATY ITSELF, OUR CONTACTS IN STATE EXPECT THAT NITZE MAY WELL MAKE ANOTHER BID TO CHANGE ADMINISTRATION POLICY. THE STRONG LIKELIHOOD OF A MAJOR CONFRONTATION BETWEEN CONGRESS AND THE ADMINISTRATION IN THE COMING MONTHS ON BOTH SDI FUNDING AND THE INTERPRETATION OF THE ABM TREATY COULD STRENGTHEN HIS HAND ON THIS OCCASION.

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STRATEGIC DEFENSE INITIATIVE

SDI Finds Staged Deployment Would Inhibit Soviet Attack

By Brendan M. Greeley, Jr.

Washington—Deployment of the initial phase of a layered ballistic missile defense could severely restrict Soviet attack timing by denying cross-targeting flexibility, imposing launch window constraints and confounding assignments for weapons targeted against hardened U. S. facilities, according to last week's Strategic Defense Initiative 1987 report to Congress.

Incremental deployment "is the only likely means of deployment," but no decision has been made nor has the program been restructured to implement any such deployment, USAF Lt. Gen. James A. Abrahamson, SDI director, said while discussing the report.

A recent congressional staff report alleging that SDI has been covertly reoriented from antiballistic missile research to possible early deployment of a strategic defense is "false," according to an SDI official (AW&ST Apr. 13, p. 24). A milestone 1 decision on whether to proceed from the present concept evaluation phase into the demonstration and validation phase of the overall SDI program is possible this summer, Abrahamson said.

Given a decision to deploy a defensive system, a first deployment phase of what might eventually become a layered ballistic missile defense could use kinetic energy weapons and known sensor system technologies to concentrate on destroying targets in the boost, post-boost and late-midcourse intercept layers. The boost and post-boost layers might consist of space-based kinetic-kill interceptors combined with surveillance and targeting sensors in geosynchronous orbit. The late midcourse phase intercept layer could consist of ground-launched interceptors combined with ground-launched surveillance probes, according to the report.

Specific Objectives

Subsequent phases would be given the size and capability to achieve specific military and policy objectives, and there is no reason to consider SDI as a given number of weapons and sensors, according to Abrahamson. The system will evolve, he said, and its configuration will depend on Soviet reactions. "SDI responds to the threat and is not a fixed system," Abrahamson said. If the Soviets attempted to develop fast-burn boosters to counter U. S. deployment of space-based kinetic-kill vehicles (SBKKVs), the U. S. might then demonstrate a directed energy capability to cope with the boosters, negating further developments by the Russians in this area, Abrahamson said by way of example.

SDIO does not plan to use the space station during the research phase, according to Abrahamson.

Depending on Soviet responses to first-phase deployment, a second phase might augment late-midcourse and boost layers with space surveillance sensors and upgraded battle management capabilities. Increased numbers of space-based kinetic-kill vehicles could provide the space-based systems with self-defense against Soviet antisatellite weapons.

A third phase could employ advanced systems capable of attacking ballistic missiles throughout their entire flight trajectory.

Red/Blue countermeasures teams are pitting systems against each other in war games in an attempt to expose weaknesses, but "the accepted conclusion thus far is that there are no simple, cheap, quick countermeasures," according to an SDI official. A mock Soviet Politburo also has been created to provide greater insight into possible Soviet responses to SDI deployment.

The systems analysis and battle management program element is playing a greater role within SDI in recognition of its emergence as the key to any defensive system. The Fiscal 1988 budget request of $627.3 million is triple what it was in Fiscal 1986. Much of the increase will go to developing experimental battle management/command and control systems and to establishing the National Test Bed, which will link widely separated SDI test facilities. (See p. 39).

Three Classes

Three classes of ballistic missile defense architectures have emerged:

- Combined architecture class using both space-and ground-based sensors and weapons.
- Ground-based kinetic energy weapons class.
- Regional defense architecture to counter short-range tactical ballistic missiles.

In the combined and the regional architectures, the basic versions rely on kinetic energy weapons while the more advanced versions would integrate directed energy weapons into the overall defense.

The report emphasizes the need to establish a Strategic Defense Initiative Institute to provide unbiased technical advice. Establishing a new federally funded research and development center would be slightly more expensive than using some of the other options considered but the benefits "far outweigh any differences in cost," according to the report. Funds to establish this center have yet to be authorized by Congress.

Surveillance, acquisition (including battle management) and intercept remain the fundamental requirements in any given layer of a ballistic missile defense.

In the boost phase, the SDIO has confidence that technology is available to develop the required surveillance and acquisition sensors. Generic weapons concepts that would be used for the intercept include thermal kill lasers, particle beams and kinetic energy projectiles such as chemical rockets and electromagnetic guns.

In the post-boost phase, when reentry vehicles and decoys are still packed to-

LTV Missiles Group Wins Erint Contract

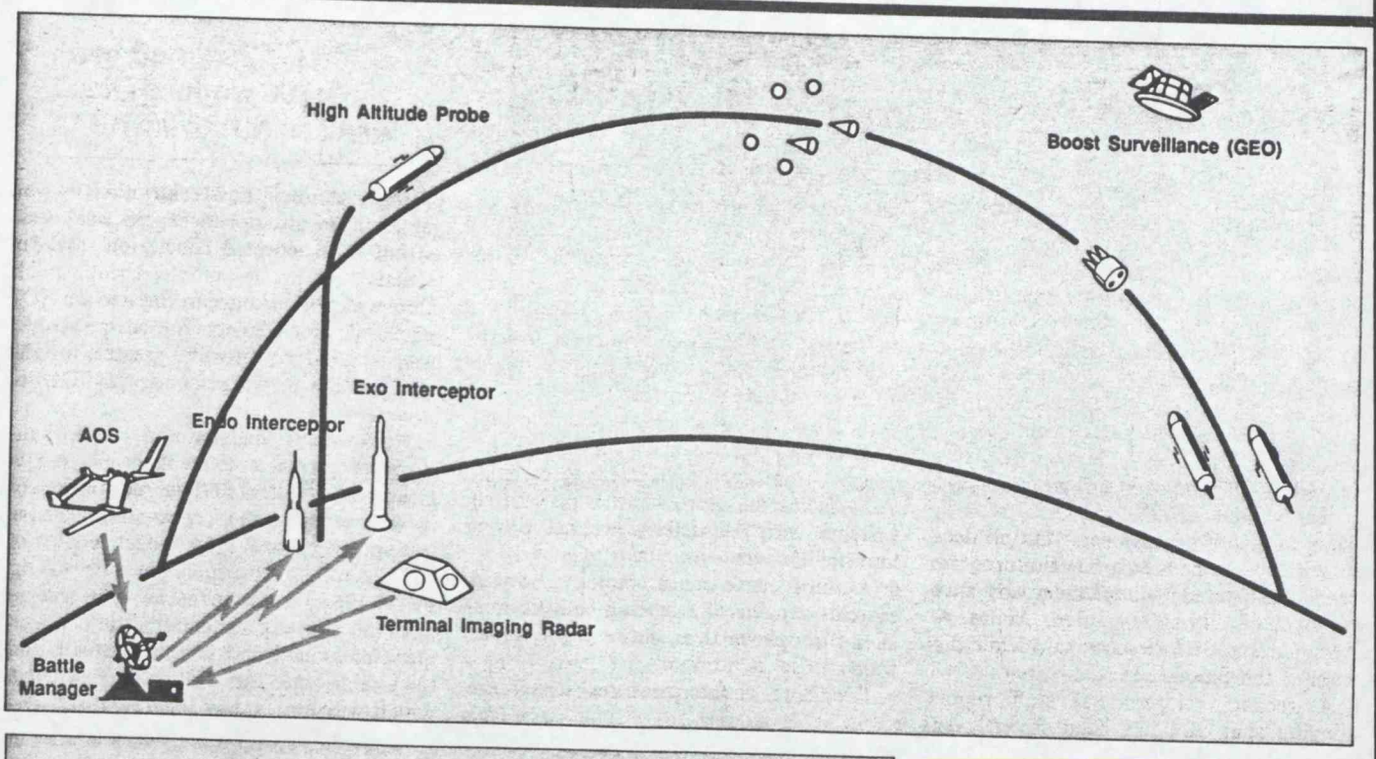
Dallas—LTV Missiles and Electronics Group has received an $80-million, three-year contract for continued development of extended-range intercept technology (Erint) for the antitactical ballistic missile defense program sponsored by the Strategic Defense Initiative.

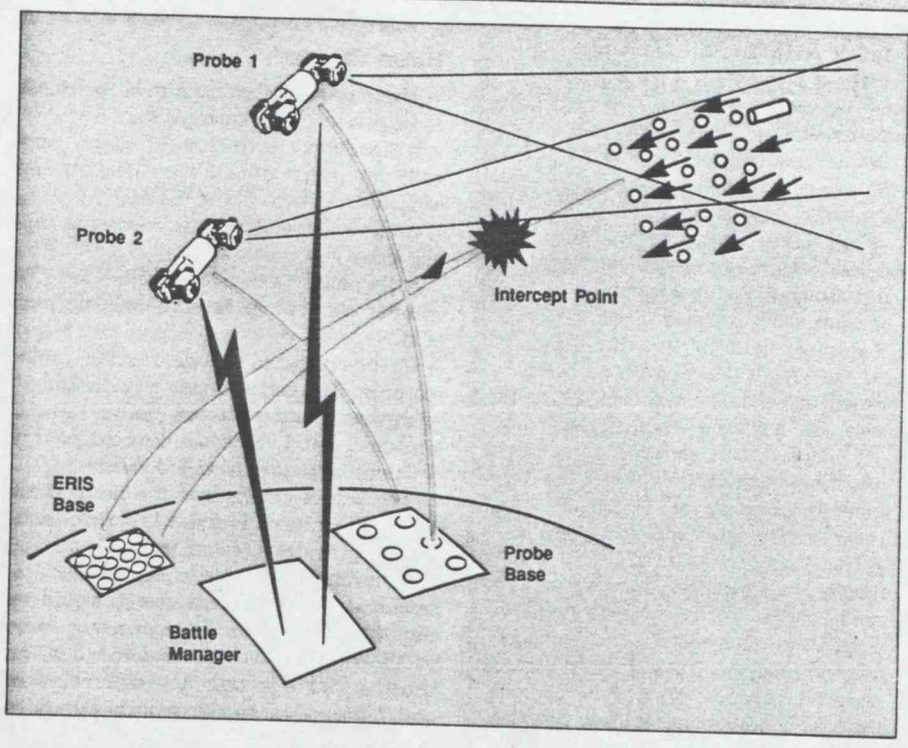
Erint is an extended-range version of the Army's flexible lightweight agile guided experiment (Flage) program, which is aimed at validating technologies to assure that guidance accuracy would permit nonnuclear intercept of tactical missiles within the atmosphere. The Flage program originally was known as small radar homing intercept technology.

The Defense Dept. said LTV would modify Flage technologies with increased radar seeker performance, a reduced-weight warhead with a fuzing function, larger attitude control motor and a more powerful rocket motor. While Flage intercepts have taken place at lower altitudes, such as 12,000-15,000 ft., Erint is designed for intercepts at higher altitudes, such as 35,000-50,000 ft., and at higher velocities.

Under the contract, which runs through April, 1990, LTV will perform six test flights to demonstrate Erint's ability to home in on and destroy tactical targets. Flight tests are expected in 1989.

The Flage and Erint programs began in 1983. To date, six of nine Flage test flights have been performed. The remaining three will be against ground-launched targets such as the Lance, which is similar to Soviet short-range tactical ballistic missiles.





Artist's concept above shows a ground-based kinetic energy weapons architecture that, except for a small number of surveillance satellites, relies on active elements not deployed in space. High-altitude sensor probes pop-up on launch warning and coordinate exo-interceptor attacks against reentry vehicles. An airborne optical surveillance (AOS) platform is equipped with wide field-of-view, high-resolution sensors that are essential for late-midcourse and terminal detection, discrimination and designation of reentry vehicles. The AOS hands off data to the terminal imaging radar, which in turn coordinates attacks by endo-interceptors. Battle manager controls overall defensive system. At left, ground-based probes with long-wave infrared sensors could be launched to supplement the space surveillance and tracking system, which has been delayed by lack of funding. The probes would coordinate attacks by the Army/Lockheed exoatmospheric reentry-vehicle interceptor system (ERIS), which is also ground-based. Artist's concept depicts an engagement during the late-midcourse portion of incoming reentry vehicles and decoys.

gether in a post-boost vehicle or bus, surveillance devices will include multispectral sensors of many different wavelengths, according to the report. Acquisition and intercept technologies will be similar to those used in the boost phase.

The midcourse phase begins when the reentry vehicles and decoys leave the bus and ends as they begin to reenter the atmosphere at an altitude of approximately 100 km. This is the most challenging phase for the surveillance and acquisition sensors because they must be capable of discriminating between the reentry vehicles and decoys.

The SDIO is emphasizing use of a neutral particle beam for what it calls "interactive discrimination," and believes that a reliable midcourse discrimination capability can be developed before 2000.

The particle beam test facility at Brookhaven National Laboratory, which became operational last year, will be used for future interactive discrimination experiments.

Technologies to support a terminal phase "are well defined and relatively mature," as a result of research that dates back to the 1950s. An airborne optical surveillance system would detect incoming reentry vehicles and initiate tracking on those above an established threshold. Ground-based interceptors would be used extensively in this phase.

Submarine-launched ballistic missiles (SLBMs) and intermediate-range (IRBMs) and tactical ballistic missiles pose special problems for defensive systems. The lower apogees associated with some IRBMs or with depressed-trajectory SLBMs make midcourse intercept difficult. Slower reentry speeds and fewer penetration aids and decoys might provide offsetting advantages for a defensive system, according to the report. In addition, most shorter-range

missiles carry a single warhead rather than the multiple-warhead payload of an ICBM.

The governments of the United Kingdom and Israel and seven multinational contractor teams are conducting theater architecture studies under SDI research awards (AW&ST Dec. 8, 1986, p. 18).

The surveillance, acquisition, tracking and kill assessment program element continues to receive the single largest allocation of funds since this technology is fundamental to all layers of any ballistic missile defense. Research is focused on radar and optical discrimination, imaging and laser radar, infrared sensing, interactive discrimination and signal processing.

Significant directed-energy experiments are being given priority in order to improve boost-phase intercept and midcourse discrimination capabilities. Key technology integration experiments include:

- Ground-based free electron laser.
- Neutral particle beam integrated space experiment.
- Space pointing and tracking experiments. Both shuttle-launched (Starlab) and expendable-vehicle-launched (Pathfinder) experiments are under way.

Kinetic Program

The kinetic energy weapons program is defining a space-based kinetic-kill vehicle (SBKKV) experiment, continuing work on the Army/McDonnell Douglas high endoatmospheric defense interceptor (HEDI) and the Army/Lockheed exoatmospheric reentry-vehicle interceptor system (ERIS), and is developing miniature projectiles for ground- or space-based systems. The Sagittar and Gremlin programs have been combined to form a single research effort into lightweight exoatmospheric advanced projectiles.

SDI plans to test fully functional projectiles by the summer of 1989. The Air Force Armament Laboratory is conducting hypervelocity launcher research.

The next significant technical milestone flight, Delta 181, is scheduled for Fiscal 1988 to collect the data required to support the space-based kinetic kill vehicle early flight experiment.

The kinetic energy weapons program element also is conducting research into theater missile defense via a foreign technology effort. The United Kingdom is concentrating on electromagnetic railgun technology, Israel is evaluating a combined chemical and electrical propulsion scheme and Italy is developing a pop-up exoatmospheric millimeter-wave radar system.

Lethality testing is continuing at White Sands Missile Range and Brookhaven and will begin at Los Alamos National Laboratory this year.

All test results are being compiled into a lethality assessment that will be revised annually. □

USAF, Aerojet Revive Concept Of Integrated Rocket Stages

By Richard G. O'Lone

San Francisco—The Air Force and Aerojet General have revived the integrated stage concept that allows more efficient packaging of multistage solid rockets and is expected to produce performance, reliability and cost improvements in weapons systems—particularly ballistic missiles.

The concept, first explored for liquid-fuel rockets two decades ago, has been given new life in recent years by propellant and material improvements, which in turn have allowed use of nozzles one-third the conventional length. This is the key element that permits the nesting of first and second stages, eliminating the need for an interstage linking the two.

The Aerojet Strategic Propulsion Co. recently was awarded a $10-million contract to continue work it began in 1979 on the integrated stage concept. Between 1979 and 1981, the company spent a "substantial amount" of its own funds on the effort, USAF officials said. Government support began in 1981 and has amounted to $2.5 million, they said.

The program has been highlighted by three firings, called Super BATES (ballistic and test evaluation) motor tests, in the Air Force Astronautics Laboratory high-altitude facility at Edwards AFB, Calif. The recently launched five-year effort is expected to culminate in two or three firings of a more complete motor system.

Lt. Rich Walker, Astronautics Laboratory integrated stage program manager, said past work with Aerojet has been devoted to developing and demonstrating the individual technologies required by the concept. "The objective now is to tie together the work that has been done in the past, bring it into a motor environment and test it as one integrated system, using near-flightweight components," he said.

The concept's three primary advantages—increased performance, lower cost and higher reliability—represent an un-

Panel Disputes SDI Timetable

Washington—Another decade of intensive research in lasers and other directed energy weapons will be needed before an "informed decision" can be made as to their potential effectiveness for ballistic missile defense, according to a 21-month study by an American Physical Society panel.

The originally stated objective of the Strategic Defense Initiative program was to enable a future president and Congress to make such a decision by the early 1990s.

The 17-member panel, which included several scientists at government laboratories who work in the directed-energy field, was given access to classified information to aid in making a realistic assessment.

The APS group focused its study on the science and technology of directed energy weapons and did not consider kinetic energy weapons. The panel also intentionally avoided the issue of whether an SDI type system could be cost-effective or should be deployed.

Despite the controversial subject, there was sufficient agreement among the diverse panel members to enable their findings to be published without any dissenting minority report. The panel was headed by Kumar Patel of AT&T Bell Laboratories and Nicolaas Bloembergen of Harvard University, who received a Nobel prize for his early research in lasers.

The panel's report was reviewed and approved by a six-person committee that included Charles H. Townes and Arthur L. Schawlow, both Nobel Laureates for laser research.

The APS study group acknowledged that "predicting the course of technological progress can be particularly difficult." It noted that "very optimistic predictions often are made for technologies or schemes that are at very early stages of development."

The study pinpointed "significant gaps in the scientific and engineering understanding of many issues. . . ." The panel added that "successful resolution of these issues is critical for the extrapolation to performance levels that would be required in an effective ballistic missile defense system."

The APS panel noted that the "most crucial elements required for a DEW [directed energy weapons] system need improvements of several orders of magnitude."

"At present, there is insufficient information to decide whether the required extrapolations can or cannot be achieved," the report said.

The APS study group concluded that DEW technology faces so many challenges at this point that "deployment of a substantial DEW component in a ballistic missile defense system cannot be foreseen before the year 2000."

file

NFJ

cc FCO

10 DOWNING STREET

LONDON SW1A 2AA

THE PRIME MINISTER

23 April 1987

Dear Cap.

Thank you so much for your kind letter of 6 April about my visit to Moscow. I was very grateful to you for sending over General Abrahamson to bring me up-to-date on developments with the SDI. This was enormously helpful.

I hope that we shall get a chance to meet before long. In the meantime I send you my warm regards.

Yours ever

Margaret

The Honorable Caspar W. Weinberger.

D85

THE SECRETARY OF DEFENSE

WASHINGTON, THE DISTRICT OF COLUMBIA

6 APR 1987

The Right Honorable
Margaret Thatcher, M.P.
Prime Minister
10 Downing Street
Whitehall
London SW1, England

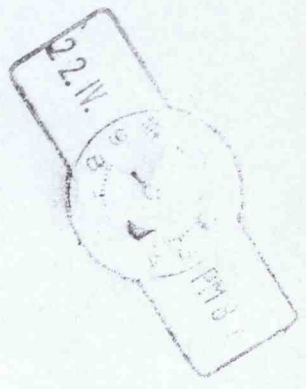
Dear Prime Minister:

This letter is to congratulate you on what appears to be a very successful diplomatic initiative in Moscow. I also wanted to thank you for giving Lieutenant General Abrahamson so much of your valuable time prior to your trip.

Your interest in President Reagan's Strategic Defense Initiative and your steadfast support have been wonderfully gratifying to all of us. We are making very substantial progress, but too few fully appreciate the potential contribution SDI can make to world stability and to deterrence. Your support helps shore up public opinion for SDI in the West. More importantly, your leadership, here, as in so many areas, is vital to our collective security.

General Abrahamson also wanted to thank you for your hospitality and your support, and I have enclosed his personal note.

Sincerely,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10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

SIR ROBERT ARMSTRONG

THE STRATEGIC DEFENCE INITIATIVE AND THE ABM TREATY

Your minute of 2 April on the Strategic Defence Initiative and the ABM Treaty proposed setting up a group of experts to prepare the ground for a technical appraisal of the restructured SDI programme and advise Ministers on how to react.

The Prime Minister sees this as unnecessary. The Government's position on the main issues is clear. Of course we must ask the Americans the right questions. But she is entirely satisfied with existing arrangements for handling these questions in the Foreign and Commonwealth Office and the Ministry of Defence. As you know, she takes a close personal interest in this subject and is in direct touch with General Abrahamson among others. She has said that she emphatically does not wish present arrangements to be disturbed and that she does not want any additional committees or working groups established.

CHARLES POWELL

3 April 1987

GA

(1)

PRIME MINISTER

I am very suspicious of this minute.

It tells us nothing that we do not know. It represents an attempt by the Cabinet Office to get into an area where it has not previously been involved - which is unnecessary since FCO/MOD coordination is reasonably effective. And I think its real purpose is to try to counter No.10's influence on matters concerned with the SDI, which you have made very much your preserve. Of course the right questions have to be asked of the Americans. But I do not think that yet another Committee is needed to do that, and to advise Ministers how to react.

In short, it smells to me of bureaucratic gamesmanship. I suggest that I reply:

(a) that you are satisfied with existing arrangements; and
(b) in any case will wish to continue your own direct supervision of this work.

Agree?

Emphatically Yes

CDP

CDP
2 April 1987

JAlBGS

Ref. A087/916

MR POWELL

The Strategic Defence Initiative and the ABM Treaty

The Prime Minister has said in public that we support the SDI research programme; that the interpretation of the ABM Treaty is for the parties but, as a matter of commonsense, research should be taken to the point of establishing feasibility; and that deployment is a matter for negotiation. Privately, the Prime Minister told Messrs Nitze and Perle on 25 February that, if the study now being undertaken by the United States Department of Defense demonstrated that feasibility could only be established on the basis of the broader interpretation of the ABM Treaty, she would wish to see the programme go ahead on that basis; but she counselled against a move to the broader interpretation for political effect and before it was absolutely necesssary, ie before the restraints imposed on research by the narrow interpretation had made themselves felt in practice.

2. The legal and technical studies now in hand in Washington are likely to lead to proposals for a restructured SDI research programme, which would concentrate on achieving a first phase SDI system based on terminal defences and on the use of kinetic kill vehicles against oncoming missiles in the boost phase. The United States may be ready for further consultations with us at the end of April. Delay is, however, possible, since there are two factors which might cause the President to think twice about pursuing the idea of moving to the broader interpretation of the Treaty. The first factor is Senator Nunn's recent report, which came out strongly in favour of the narrow interpretation. The second factor is that a possible INF agreement might be seen by the President as the foreign policy success which could put the

RTAADC

Iran/Contras affair behind him; an effort to achieve such an agreement in 1987 might be hindered by the political side-effects of applying the broader interpretation.

3. In the next set of consultations with the Americans, we shall need to satisfy ourselves that they have fully thought through the question whether the requirements of the SDI research programme make necessary an early move to apply the broader interpretation of the ABM Treaty. One question will be whether the restructured research programme could have been designed deliberately to make this move appear necessary. It will be difficult to separate the political and technical motives behind the proposals about which the Americans will be consulting us.

4. Given the importance and complexity of these questions, I suggest that we should prepare with especial thoroughness for the next set of consultations with the Americans. If the Prime Minister agrees, I propose, in consultation with the Ministry of Defence and the Foreign and Commonwealth Office, to arrange for a group of experts to meet to prepare the ground for a technical appraisal of the restructured SDI programme, inter alia by drawing up a list of the questions which we should put to the Americans in the consultations. Once we know about the restructured SDI research programme, the same group of experts could advise Ministers on how to react.

RCA

ROBERT ARMSTRONG

2 April 1987

RTAADC

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SECRET AND PERSONAL

SUBJECT
CC MASTER

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

14 March, 1987.

Dear John,

PRIME MINISTER'S MEETING WITH GENERAL ABRAHAMSON

The Prime Minister had a meeting today at Chequers with General Abrahamson, Director of the SDI programme, and Mr. James McCrery of the Defence Intelligence Agency.

The meeting consisted partly of an updated and very highly classified briefing on Soviet capabilities in both offensive weapons and strategic defence research; and partly of a progress report on the SDI.

I do not intend to record anything from the first half of the briefing, except to say that the Prime Minister expressed particular concern at the development of the new Soviet ground-launched Cruise missile, the SSC-X-4, to be targetted against Western Europe. Its deployment in parallel with INF negotiations intended to lead to the removal of American Cruise missiles from Europe underlines, in her view, the risks which an INF agreement poses for the United Kingdom and Western Europe.

A number of points emerged from General Abrahamson's briefing on the SDI which may be worth recording:

- despite the sceptical views of the Director General of our own SDI Project Office recorded in your letter of 13 March, General Abrahamson was adamant that 'informed full-scale engineering development' of the SDI would be possible by the early 1990s, with phased deployment feasible from the mid-1990s. This was not to say that phased deployment would start then, only that it could do so.

- some experts argued that the United States should start by constructing terminal defences and build out from there. His approach was to start with a layered defence which would give a capability first against the boost phase and then against the mid-course phase of offensive missiles.

- interception and destruction in the boost phase would initially be achieved by kinetic kill vehicles in space-based garages. The vehicles were small chemical

rockets, about man-size, not much more complex than current air to air missiles, but very fast. Target acquisition and warning would be done by satellites in geosynchronous orbit.

- the reply to the Prime Minister's question how such a system could safely be programmed not to react against peaceful launches, such as Soviet space shuttles, was that if only one or two missiles/rockets were fired, the system could afford to sit back and wait, and destroy them in a later phase of their trajectory if necessary. If several hundred missiles were launched simultaneously, the system would naturally assume and respond to an attack. (If it turned out that the Russians were simultaneously launching several hundred space shuttles, you apparently sack the CIA!)

- one advantage of the system was that you could use it to deliver a warning to the Soviet Union. If they engaged in military activities which suggested an impending attack, you could warn them that you were increasing the alert status of your SDI system and putting it on to automatic. At the same time you could manoeuvre the space-based garages into different positions to confuse plans to attack them.

- discrimination between warheads and decoys in the mid-course phase would be by heat sensors and by lasers. A decoy struck by a laser beam would move, thus distinguishing it from a warhead. Tests of such systems were permissible within the narrow interpretation of the ABM Treaty.

- the United States had acquired 'amazing' intelligence on Soviet re-entry vehicles and were able to construct full mock-ups.

- some 300 battle stations or garages would be needed initially, although this number might rise later to as high as 1000 . General Abrahamson admitted, in reply to the Prime Minister's scepticism, that the United States did not currently have any adequate launch capability. That was why the SDI programme gave priority to the development of a heavy lift capability. The Russians were about to move to a new generation of heavy lift vehicles.

- on the question of the broad versus the narrow interpretation of the ABM Treaty, General Abrahamson said that he would be presenting to the President by 30 April a carefully restructured testing programme. This would show that very significant savings of time and money could be achieved by moving to testing in accordance with the broad interpretation (he took the Prime Minister through some specific examples). It might not actually be necessary to move from the narrow to the broad interpretation for some years, but tests

had to be planned and money spent now. This explained why the President was prepared to consider a compromise with Congress under which the Administration would guarantee not to move beyond the narrow interpretation for a fixed period (Abrahamson hoped only 9 months or a year) in return for which Congress would give the SDI programme the funds it required. His intention, under such a compromise, would be to conduct tests now which would be preliminary to moving to full tests permitted by the broad interpretation (i.e., to shift the programme on to a track which required tests in accordance with the broad interpretation in a year or two's time).

- there was considerable discussion of the likely Soviet response to continued American refusal to constrain development of the SDI. The US assessment was that Soviet SDI programmes would go ahead irrespective of what the United States did. They would step up their effort into devising offensive systems designed to destroy SDI installations in space (General Abrahamson took us through United States calculations showing the considerable difficulties for the Soviet Union in making such counter-SDI systems effective). And they would try to devise tactics and techniques to enable their offensive missiles to evade US defensive systems.

- finally, in discussing technical breakthroughs in the SDI programme, General Abrahamson listed not only infra-red detection systems and vector control of high speed missiles (mentioned in your letter) but also signal processing.

I should be grateful if this letter could be given a very limited distribution only. On no account should the particular meeting which it records be referred to in any contacts with American officials. If it would be any help, I would be happy to go through my notes with one of your experts.

I am copying this letter on a personal basis to Tony Galsworthy.

Yours sincerely,

Charles Powell

C.D. Powell

John Howe, Esq.,
Ministry of Defence.

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PRIME MINISTER

MEETING WITH GENERAL ABRAHAMSON

General Abrahamson will be coming to Chequers tomorrow to brief you on progress with the SDI. He will bring with him Mr. McCrery of the Defence Intelligence Agency, who will give a briefing on Soviet progress in this area.

The fact of General Abrahamson's visit is known to some in MOD (and FCO). This is the Americans' fault. They discussed the practical arrangements for the visit with the military staff of our Embassy in Washington.

I enclose a note by the Director-General of our own SDI office. As you will see he is very sceptical of some of the claims being made by General Abrahamson. I also enclose the note of your last meeting, in which you pressed General Abrahamson particularly hard on the subject of launch vehicles.

You may also have seen the telegram from Washington saying that the US Administration are considering a deal with Congress whereby SDI testing would remain within the narrow interpretation of the ABM Treaty for (at least) another year or eighteen months, in return for which Congress would grant the appropriations which the Administration want.

Points on which you might probe General Abrahamson are:

- launch vehicles. The US had another failure just the other day with an experimental rocket. When do they expect to be able to resume regular launches?

- is it really feasible to think of developing space-based kinetic kill vehicles by the mid-1990s? Our own assessment is that such vehicles are still at the visionary stage and no development work has been done on space-based missiles. How can the Russians be convinced that the space-based launch

platforms would not be capable of launching offensive weapons?

- what prospect is there of breakthroughs in artificial intelligence needed for battle management systems?

- what precise difference would it make to the SDI programme to be able to test in accordance with the broad interpretation of the ABM Treaty?

- what counter-measures to SDI does he expect the Russians to concentrate upon.

CDP

CHARLES POWELL
13 March 1987

EL3BVM

MINISTRY OF DEFENCE
MAIN BUILDING WHITEHALL LONDON SW1
Telephone 01-~~930 7022~~ 218 2111/3

MO 26/7/4E

13 March 1987

Dear Charles,

THE PRIME MINISTER'S MEETING WITH GENERAL ABRAHAMSON, 14TH MARCH

I mentioned to you yesterday evening that our own SDI project office, having heard that General Abrahamson was meeting the Prime Minister tomorrow, wished the Prime Minister to be aware that our own experts do not share the sanguine view which we feel General Abrahamson may present of the prospects of early deployment of elements of the SDI system. I attach extracts from a briefing that General Abrahamson gave to the Sub-Committee on Research and Development of the House Armed Services Committee on 10th March, the sidelined paragraphs in which we believe to give an exaggerated impression of the progress that has been made. We believe that the same exaggerated impression may lie behind recent statements by the President and Mr Weinberger about deployment of elements of the SDI system. You will recall that Mr Weinberger has said that elements of the SDI may be deployed as early as 1993 to 1994. We treat this with considerable reserve, at least so far as self-sufficient weapons systems are concerned, although sensors may be available well within that timescale. The Director General of our Project Office advises that:

> "It should be recognised that deployment of a fully layered defence would take about 30 years to complete from deployment of the first elements. Initial thinking was that this would occur from a ground based terminal defence with space borne and airborne sensors through a mid course phase defence, eventually reaching the capability of attacking weapons in the boost phase using the more exotic directed energy techniques. US architecture studies indicate to them that the battle management complexity would make such a system untenable until breakthroughs occur in artificial intelligence. UK studies had also revealed that the imposition of a nuclear environment by the attacking forces could similarly render such a deployment militarily useless; thus both sides recognise the

Charles Powell Esq
No 10 Downing Street

essentiality of boost phase defence at the initial deployment phase. This has led to the sudden emergence of space based kinetic kill vehicles (SBKKV) but despite claims from SDIO, such entities are only at the envisionary stage. No development work has yet been done on space based missiles.

"The programme so far can claim two major technical breakthroughs. One is in the in the field of tracking and guidance, using infra red and millimetric wave seekers, the other is in vector control of high speed missiles. The other significant breakthroughs claimed by SDIO fall into the category of technology developments which aid a programme but do not provide a step function. These include items such as lightweight gyros, control motors, computer s and also improved techniques for manufacturing high reliability electro optic materials. Further progress is required in applied research and sub-system proving before development decisions could sensibly be faced on what, by any standards, would be a complex system comprising several very advanced defence projects. It is this further work that is leading to US to argue the need for the broader interpretation of the ABM Treaty."

I am copying this to Tony Galsworthy in the Foreign and Commonwealth Office.

Yours sincerely,

John Howe.

(J F HOWE)
Private Secretary

tunities effective defense offers. Based on progress to date, I believe our optimism about the prospects for success is warranted. Let me mention briefly some of this progress.

o We have greatly increased our confidence in the prospects for achieving a flexible, effective boost phase intercept capability. Ballistic missiles are very vulnerable in this phase of flight because of their highly visible tail of fire through the boost phase and because they still hold all their deadly warheads.

o We are encouraged by enhanced prospects for success in achieving midcourse interactive discrimination. The capability to discriminate warheads from the many forms of decoys and penetration aids that the attacker can dispense to accompany the attack is essential for effective ballistic missile defense.

o We are making excellent progress in several key technologies that would facilitate achievement of the system capabilities I just mentioned. Let me first briefly summarize these technologies.

First, we have made excellent progress with small homing hit-to-kill warheads. Their importance lies in the fact that they are of small size and volume and can be launched to high velocities either from a space platform or the ground with relatively small boosters and maneuver to hit

the target. For ground-based lasers, advances in free electron lasers have opened the doors to initiation of a much more aggressive technical program to achieve high performance levels.

In addition, dramatic advances in particle beam accelerator technologies and the validation of a technique for determining the location of the particle beam in relation to the target have encouraged major new efforts for an early space-based experiment to demonstrate interactive discrimination.

A third key technology that we are pursuing is multispectral sensors and associated signal and data processing. These systems can act as the eyes and brains of a large complex set of actions and counteractions as well as providing an unprecedented view of where things are and what they look like. In doing so, they satisfy the demands of identification, discrimination, and decision-making for individual weapons.

Over the past year, sensor technology developments continued vigorously in five areas: radar technology, IR sensors, laser sensors, interactive discrimination, and signal processing. Several specific accomplishments are worth relating. Work has progressed on the installation of a real time discrimination system. This is the first system to demonstrate real time radar imaging of ballistic missiles.


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SDI/ABM TREATY INTERPRETATION

SUMMARY

1. NEGOTIATIONS POSSIBLY TO OPEN ON AN ADMINISTRATION/CONGRESS DEAL SETTING GENEROUS SDI FUNDING AGAINST CONTINUED OBSERVANCE OF THE NARROW INTERPRETATION OF THE ABMT.

DETAIL

2. EARLY AND INFORMAL CONSULATIONS BETWEEN THE ADMINISTRATION AND CONGRESS ON SDI/ABM TREATY INTERPRETATION ISSUES NOW SEEM LIKELY, AND THE ADMINISTRATION ARE CONSIDERING PROPOSING A DEAL THAT WOULD INVOLVE LINKING THE LEVEL OF SDI FUNDING FOR FY 88 WITH A PERIOD OF CONTINUED CONDUCT OF THE SDI PROGRAMME WITHIN THE NARROW INTERPRETATION OF THE ABM TREATY.

3. WE UNDERSTAND THAT A SOLUTION ON THESE LINES WAS DISCUSSED BETWEEN SENIOR CONGRESSIONAL FIGURES AND SENIOR ADMINISTRATION OFFICIALS (INCLUDING NITZE AND PERLE) DURING A VISIT TO GENEVA ON 28 FEBRUARY - 1 MARCH BY MEMBERS OF THE SENATE ARMS CONTROL OBSERVER GROUP. MEMBERS OF THE GROUP APPARENTLY INDICATED THAT CONGRESSIONAL SENTIMENT WAS RUNNING STRONGLY AGAINST ANY MOVE TO THE BROAD INTERPRETATION OF THE ABM TREATY AND SUGGESTED THAT SUCH A MOVE WOULD PRODUCE SHARP CUTS IN SDI FUNDING AND PROBABLY ALSO LEGISLATION DESIGNED TO PREVENT ANY SDI TESTING NOT IN LINE WITH THE NARROW INTERPRETATION. THE ADMINISTRATION HAVE SINCE THEN BEEN CONSIDERING A DEAL WITH CONGRESS UNDER WHICH THE SDI PROGRAMME WOULD REMAIN WITHIN THE NARROW INTERPRETATION OF THE TREATY FOR A PERIOD IN EXCHANGE FOR CONGRESSIONAL AGREEMENT TO A GENEROUS LEVEL OF SDI FUNDING FOR FY 88. THERE IS SOME DISAGREEMENT WITHIN THE ADMINISTRATION ABOUT HOW LONG ANY PERIOD OF CONTINUED COMMITMENT TO THE NARROW INTERPRETATION OF THE TREATY SHOULD BE, WITH OSD ARGUING THAT THE COMMITMENT SHOULD BE UNTIL THE END OF 1987, AND STATE ARGUING THAT IT SHOULD BE UNTIL 31 MARCH 1988. IN EXCHANGE, THE ADMINISTRATION WILL PROBABLY BID FOR CONGRESSIONAL APPROVAL OF THE PRESIDENT'S FY 88 SDI FUNDING BID OF DOLLARS 5.2 AND OF HIS SUPPLEMENTAL FY 87 APPROPRIATION REQUEST OF DOLLARS 0.5 BILLION (RAISING THIS YEAR'S ALLOCATION TO DOLLARS 3.7 BILLION). OUR STATE DEPARTMENT CONTACTS BELIEVE THAT THE PRESIDENT MAY DECIDE ON AN ADMINISTRATION NEGOTIATING POSITION FOLLOWING DISCUSSION AT AN NSPG MEETING ON 11 MARCH.

4. THE SITUATION ON THE CONGRESSIONAL SIDE IS UNCLEAR. SENATORS REPORTED TO BE LEADING THE SEARCH FOR A DEAL ON THESE LINES INCLUDE GORE (D-TENNESSEE) AND PELL (D-RHODE ISLAND AND CHAIRMAN OF THE SENATE FOREIGN RELATIONS COMMITTEE). THEY

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ARE SAID TO BE AIMING FOR AN ADMINISTRATION COMMITMENT TO THE NARROW INTERPRETATION OF THE ABM TREATY UNTIL 31 SEPTEMBER 1988 IE THE END OF FY83. WE UNDERSTAND THAT SOME SENATORS ARE ALSO INTERESTED IN OBTAINING AS PART OF THE PACKAGE, A PRESIDENTIAL COMMITMENT TO EXPLORING WITH THE RUSSIANS IN GENEVA WHAT LIMITS MIGHT BE PLACED ON THE TESTING AND DEVELOPMENT OF SDI-TYPE

3. SENATOR NUNN (D-GEORGIA AND CHAIRMAN OF THE SENATE ARMED SERVICES COMMITTEE) MEANWHILE ON 11 MARCH DELIVERED THE FIRST OF THREE LENGTHY STATEMENTS (THE OTHERS ARE TO FOLLOW ON 12 ABD 13 MARCH) ON ABM TREATY INTERPRETATION ISSUES. FULL TEXT AND COMMENT FOLLOW, BUT NUNN'S MAIN POINT WAS THAT STATEMENTS BY SENIOR EXECUTIVE BRANCH OFFICIALS DURING THE ABM TREATY RATIFICATION PROCESS IN 1972 MAKE UNAMBIGUOUSLY CLEAR THAT THE SENATE WAS THEN LED TO BELIEVE, AND RATIFY, THE NARROW INTERPRETATION, AND WAS TOLD IN TERMS THAT THE TESTING AND DEVELOPMENT OF MOBILE SPACE-BASED EXOTIC ABM SYSTEMS WOULD BE PROHIBITED. JOINT HEARINGS BY THE SENATE FOREIGN RELATIONS AND JUDICIARY COMMITTEES ON ABM TREATY INTERPRETATION ISSUES ALSO OPENED ON 11 MARCH.

6. COMMENT. AN ADMINISTRATION/CONGRESS DEAL BALANCING GENEROUS FY 88 SDI FUNDING AGAINST AN ADMINISTRATION UNDERTAKING ON CONTINUED OBSERVANCE OF THE NARROW INTERPRETATION OF THE ABM TREATY MAY BE POSSIBLE. BUT THERE WILL BE CONSIDERABLE RELUCTANCE ON THE HILL (PARTICULARLY IN THE HOUSE) TO CONCEDE THE FULL FUNDING INCREASE WHICH THE ADMINISTRATION WANT. AND THE ADMINISTRATION FOR THEIR PART CAN BE EXPECTED TO RESIST ANY DEAL THAT WOULD REQUIRE THEM TO WORK WITHIN THE NARROW INTERPRETATION UNTIL THE END OF FY 88 (31 SEPTEMBER 1988), AND IT REMAINS TO BE SEEN WHETHER THE PRESIDENT WILL BE ABLE TO NEGOTIATE A SHORTER PERIOD. IT ALSO REMAINS TO BE SEEN WHETHER THE MODERATE CONGRESSIONAL FIGURES APPARENTLY MOST INVOLVED IN TRYING TO WORK UP A DEAL ON THESE LINES WILL BE ABLE TO HOLD OFF ATTEMPTS BY LIBERAL DEMOCRATS TO ENFORCE THE NARROW INTERPRETATION OF THE TREATY BY LEGISLATIVE MEANS. NUNN'S STATEMENT TODAY CERTAINLY APPEARS TO PLACE A SIZEABLE QUESTION MARK OVER THE SOFAER THESIS, WHEREAS THE ESSENCE OF THE PROPOSED DEAL WOULD BE TO LEAVE ASIDE FOR THE MOMENT THE STRICTLY LEGAL QUESTIONS OF ABM TREATY INTERPRETATION.

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US/SOVIET ARMS CONTROL TALKS
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NEWS D
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PLANNING STAFF
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PS
PS/LADY YOUNG
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PS/PUS
MR DEREK THOMAS
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File

JA
(not to be copied to PC)

MRS. GOODCHILD

MEETING AND LUNCH AT CHEQUERS: SATURDAY 14 MARCH

General Abrahamson will be meeting the Prime Minister at Chequers at 1130 on Saturday 14 March and subsequently staying for lunch. He will now also be bringing a Mr. MacCreary, who will also stay for lunch (as will I). The United States Ambassador will not be coming: I have spoken to him.

General Abrahamson and Mr. MacCreary will have some simple equipment, which they will set up and operate themselves. I should think that upstairs in the Library is the best place for a meeting with the Prime Minister's study as an alternative.

Could you please contact Lieutenant-Colonel Bush at the US Embassy for details, notably:

- correct spelling of Mr. MacCreary's name;
- car registration etc.

Could you also tell him what can be done for the driver.

Charles Powell
11 March 1987

JA2AMA

The National Archives

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PERSONAL

PRIME MINISTER

GENERAL ABRAHAMSON

General Abrahamson is coming to Chequers on Saturday to brief you on SDI, and staying for lunch.

He has asked whether he might bring a Mr. MacCreary, a Defence Intelligence Agency analyst, who is the expert on what the Soviets are doing in this field. He has briefed you before. They would also bring some equipment, which they would operate themselves.

That would make a party of four for lunch.

There is then the question whether to include Charlie Price. He has not attended the briefings with you in the past; they have been very restricted indeed. He might be a bit of a distraction. I am ready to try to fend him off. But you may elect to let him come.

Agree Abrahamson plus MacCreary? Yes

Agree also Charlie Price? I thought no-one else knew. I would rather it were very restricted.

CDP

CDP
10 March 1987

JA(53)

PERSONAL

SECRET

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

6 March 1987

START/SDI

I have seen a copy of Washington tel. no. 494, proposing that the Prime Minister should send President Reagan a message following up her recent meeting with Ambassador Nitze. The Prime Minister agrees that this would be useful. I enclose a draft of the sort of message which she would wish to send. There is much to be said for getting it off quickly. I should be grateful for comments in the course of this afternoon if possible.

I am copying this letter to John Howe (Ministry of Defence).

(C.D. Powell)

A.C. Galsworthy, Esq., C.M.G.,
Foreign and Commonwealth Office

SECRET

Please pass following message from the Prime Minister to President Reagan.

BEGINS

"Dear Ron,

It was very good to talk to you on the telephone the other day, and I congratulate you on your dignified and successful response to the Tower Commission report. It has been very favourably reported over here. I know that you more than anyone are anxious to concentrate on the future, and above all on the important issues which lie ahead of us in East/West relations and on arms control.

On this I was grateful to you for sending Paul Nitze and Richard Perle to see me to discuss the START/SDI problem. We had a very useful talk. I recalled that the question of the broad versus the narrow interpretation of the Treaty had not arisen when you and I discussed these matters at Camp David in December 1984. The important point which we decided then was that SDI-related deployment should be a matter for negotiation. I repeated my firm view that the SDI research programme must go ahead; and that research should be taken to the point of establishing feasibility. If the studies which you are conducting show that feasibility can only be established by tests conducted in accordance with the broad interpretation of the ABM Treaty, then I would support going ahead on that basis.

However, we also have to consider the effect of an actual decision to conduct tests in accordance with the broad interpretation on START negotiations in Geneva.

There is much to be said for giving Gorbachev some practical reassurance about the pace of the SDI research

programme, to enable him to go ahead with the 50% reduction in strategic nuclear weapons, which you and I agreed should be a priority when we met at Camp David in November. Such reassurance need not impose any new or additional constraint on the SDI programme, because there are bound to be some purely practical limitations on it anyway. These could be expressed as milestones, which would mark the likely progress of the programme according to a realistic time-table. The offer which you have already made not to deploy SDI for a certain number of years would also stand. Taken together, these two points would give Gorbachev a sense of predictability and hence improve the START prospects. There is of course no question of giving the Soviet Union a veto over SDI.

I hope very much that you will agree that your negotiators should discuss ideas on these lines with the Soviet Union in Geneva. The issues seem bound to come up in my talks with Gorbachev at the end of the month.

Gorbachev's latest move on INF is a vindication of your own determination and of the Alliance's firmness. We must now ensure that an agreement is supported by really strict verification and by measures to deal with the imbalance in shorter-range systems. These are vital to our security.

I shall be letting you have some thoughts shortly about my Moscow visit. I should as always welcome your advice.

Warm regards.

MARGARET"

SECRET

10 DOWNING STREET
LONDON SW1A 2AA

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Warm regards.

MARGARET"

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18

US/SOVIET ARMS CONTROL TALKS/ EAST WEST & US/SOVIET RELATIONS

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19.11.E

SENT - 6 MAR 1987

SECRET
FM WASHINGTON
TO IMMEDIATE FCO
TELNO 494
OF 0523552 MARCH 87

YOUR TELNO 40 TO UKDEL NATO: SDI/ABMT: PRIME MINISTER'S MEETING WITH NITZE AND PERLE

1. INFORMAL CONTACTS WITH ADMINISTRATION OFFICIALS SUGGEST THAT SOME PARTS OF THE MESSAGE DELIVERED TO NITZE AND PERLE BY YOU AND THE PRIME MINISTER ON 25 FEBRUARY MAY NOT HAVE BEEN RECEIVED WITH FULL CLARITY HERE.

2. IN PARTICULAR, US REPORTING MAY NOT HAVE BROUGHT OUT THE POINTS YOU AND THE PRIME MINISTER MADE ABOUT THE NEED TO TRY TO NEGOTIATE WITH THE RUSSIANS PRACTICAL LIMITATIONS ON THE TIMETABLE AND SCOPE OF BOTH SIDES' SDI PROGRAMMES, TO PROVIDE A SENSE OF SECURITY AND PREDICTABILITY, AND HENCE IMPROVE START PROSPECTS. IT MAY BE THAT NITZE AND PERLE FOUND IT DIFFICULT TO AGREE ON A JOINT REPORT OF UK VIEWS ON THIS ISSUE (ON WHICH THEIR OWN VIEWS DIFFER SHARPLY): CERTAINLY THEIR REPORT SEEMS TO CONTAIN NO CLEAR STATEMENT OF THE PRIME MINISTER'S ARGUMENTS ON THE GENEVA POINT (PARAS 5 AND 6 OF TUR).

3. I THEREFORE REMAIN OF THE VIEW THAT A MESSAGE TO THE PRESIDENT, SPECIFICALLY ON THE GENEVA POINT, IS HIGHLY DESIRABLE.

4. TO HAVE MAXIMUM IMPACT, IT SHOULD ARRIVE SOON. KAMPELMAN AND CO GET BACK HERE TOMORROW, TO SEE THE PRESIDENT, AND A REVIEW OF KAMPELMAN'S INSTRUCTIONS WILL THEN START. IF START IS NOT TO REMAIN BLOCKED, HE WILL NEED NEW INSTRUCTIONS BEFORE HE GOES BACK TO GENEVA (ON 23 APRIL) ALLOWING HIM TO CONDUCT THE KIND OF DIALOGUE YOU AND THE PRIME MINISTER HAVE IN MIND. BUT THIS WILL REQUIRE IMPETUS FROM THE TOP, AND THE SOONER THE BETTER. AND WE RISK MISSING THE BUS IF WE WAIT UNTIL THE SECOND ROUND OF SDI/ABMT CONSULTATIONS (WHICH WILL ALMOST CERTAINLY NOT BE UNTIL

SDI/ABMT CONSULTATIONS (WHICH WILL ALMOST CERTAINLY NOT BE UNTIL MAY AT THE EARLIEST) BEFORE GIVING THE PRESIDENT A CLEAR STATEMENT OF THE UK VIEW ON THE GENEVA POINT.

5. A MESSAGE NOW COULD BE SHORT, FREE-STANDING, AND CONFIRMATORY IN FORM. DELAY MIGHT MEAN HAVING TO ADD SUBSTANTIVE NEW MATERIAL ABOUT OUR MOSCOW AIMS.

6. A MESSAGE NOW COULD ALSO CONGRATULATE THE PRESIDENT ON HIS RESPONSE (MY TELNOS 484 AND 485) TO THE TOWER REPORT. IT COULD SAY THAT THE PRIME MINISTER HAD NOT WISHED TO TROUBLE THE PRESIDENT WITH HER VIEWS ON THE START/SDI ISSUE UNTIL AFTER HIS SPEECH, BUT THAT SHE NOW WANTED TO CONFIRM TO HIM THE VIEWS ON IT WHICH SHE PUT TO NITZE ON 25 FEBRUARY, AND THE IMPORTANCE SHE ATTACHES TO THEM. SDI MUST GO AHEAD, AND NEED NOT BLOCK A START AGREEMENT: BUT IT WAS IMPORTANT THAT IT SHOULD NOT BE PERCEIVED AS BLOCKING ONE, AND WORTH WHILE NOW TO SEE WHETHER THIS COULD BE ACHIEVED BY OFFERING MUTUAL CONSTRAINTS WHICH SIMPLY REFLECTED THE REALISTIC SDI TIMETABLE.

7. FCO PLEASE ADVANCE TO PS/SOFS, PS/PUS, FALL, PS/SECRETARY OF STATE FOR DEFENCE, AND POWELL (NO 10).

ACLAND

Secret

YYYY

ORWBAN 0100

NNNN

Congress Questions Wisdom, Savings Of Expanded Antimissile Tests

By Paul Mann

Washington—Congress is pressing the Administration for cost estimates on antimissile research, skeptical of Defense Dept. claims that shifting to a permissive testing regime under the Anti-Ballistic Missile Treaty would save time and money.

The head of the department's Strategic Defense Initiative Organization, Lt. Gen. James A. Abrahamson, told a House panel last week there is no question that permissive testing and development would save money, permit more efficient planning and test integration, and raise confidence in the results.

He said his Fiscal 1988 budget request is designed to remain within the narrow, more restrictive interpretation of the 1972 ABM treaty, "but if the decision is to go with the broader interpretation, we are in a position now to alter some of these planned tests."

Abrahamson declined to estimate how much might be saved by restructuring the tests. Testifying before the House Armed Services research and development subcommittee, he also declined to project how much a deployed SDI system might ultimately cost. He said it is impossible to make a responsible estimate at so early a date in the life of the program.

Calculated Maneuver

These statements, and similar ones by Defense Secretary Caspar W. Weinberger and Assistant Defense Secretary Richard N. Perle, are feeding suspicions on Capitol Hill and in foreign capitals that the promise of economy and efficiency is a calculated maneuver to defuse political opposition to two highly controversial Administration proposals: the prompt shift to a broad interpretation of the ABM treaty, first promulgated in October, 1985, but held in abeyance, and provisional endorsement of an early, phased deployment of antimissile defense (AW&ST Feb. 16, p. 16; Feb. 9, p. 24).

Informed congressional officials believe the Administration's actions risk a boomerang that will lead to slashing the Fiscal 1988-89 SDI budget requests. "I don't have any doubt that we'll have some amendments proposed to the military authorization bill relating to the Strategic Defense Initiative and relating to both testing and also development," Sen. Sam Nunn (D.-Ga.), the Senate Armed Services Committee chairman, said last week.

Rebutting Abrahamson's complaints about "devastating" past congressional cuts in the SDI budget, research and development subcommittee aide Anthony R. Battista accused the Administration of sending mixed signals. "You've got the Secretary [of Defense], your boss, running around talking about early deployment," Battista told Abrahamson. "You can't have it both ways. Either Congress caused devastating effects to your program, which slow you down, or these cuts really didn't impact to the extent that is being advertised, because surely he [Weinberger] couldn't talk about early deployment if these cuts were so devastating."

Legitimate Concern

There is a danger SDI could collapse of its own weight in three to five years if the program is rushed, so it is important to conduct it in an orderly way, Battista said. Concern in the White House that the next Administration might seek to end the program is legitimate, he said, but far less likely "than the prospects of its committing suicide by early deployment."

Foreign diplomatic officials assigned here said their governments are apprehensive that tampering with the treaty will lead to the collapse of U. S./Soviet talks in Geneva on reducing strategic weapons, reductions Abrahamson voiced hopes for in his testimony.

In Canada, for example, the independent Center for Arms Control and Disarmament, partially government funded, last week renewed its call for a halt to U. S. testing of air-launched cruise missiles in Canada (AW&ST June 30, 1986, p. 44).

"The security basis for cruise testing in Canada was sorely tested by the Reagan Administration's unilateral abandonment of SALT 2," the center said. "Now, however, this unilateral first step in the implementation of a broad interpretation of the ABM treaty eliminates completely the arms control underpinning of Canada's cruise testing program."

SDI will be expensive, Abrahamson admitted, but how expensive will depend first of all on the Soviet offensive threat, and "I hope we'll negotiate a reduction in that threat." A substantial portion of SDI research is aimed at making strategic defense affordable, he said, and if the research is successful, "hopefully we will not have to invest in the future in follow-

Strategic Defense Initiative Fiscal 1988-89 Budget Requests*

	Fiscal 1986	Fiscal 1987	Fiscal 1988	Fiscal 1989
Surveillance, Acquistion, Tracking and Kill Assessment				
Total	**$847.0**	**$911.0**	**$1492.7**	**$1859.5**
Directed Energy Weapons				
Technology Base Development	435.5	339.7	340.5	408.6
Technology Integration Experiments	329.4	402.1	587.9	646.1
Concept Formulation & Technical	18.7	26.8	32.3	28.0
Support Programs	19.7	62.4	115.0	128.2
Innovative Science & Technology	0.0	12.7	28.0	35.0
Total	**803.4**	**843.6**	**1,103.7**	**1,245.8**
Kinetic Energy Weapons				
SBKKV Systems	134.4	126.8	303.5	357.4
EXO KKV Systems	61.6	107.6	220.6	307.6
ENDO KKV Systems	76.7	111.3	237.6	238.8
Mini Projectiles	56.0	74.5	102.9	134.7
Test and Evaluation	185.9	252.1	109.3	46.9
Allied/Theater Defense	69.9	44.3	72.9	79.2
Innovative Science & Technology	61.4	13.0	28.0	35.0
Total	**595.8**	**729.6**	**1,074.7**	**1,199.7**
Systems Analysis and Battle Management				
SDI Strategic Architecture	63.5	58.4	91.0	78.0
SDI Systems Engineering	12.1	20.2	39.0	53.6
Theater Architecture	1.7	39.8	38.4	37.9
BM/C³ Technology	70.9	88.5	121.8	134.1

on offensive systems, and there will be areas of the budget that you can reduce to make room for these kinds of [defensive] systems."

Abrahamson sought to alleviate domestic and foreign anxieties by proclaiming again the Administration's intent that SDI provide strategic protection for the general U. S. population, in tandem with theater defense for U. S. allies.

As promised by the Administration, senior U. S. arms control and defense officials undertook consultations last week with congressional leaders and alliance officials about the status of the treaty. At the same time, Abrahamson's office is proceeding to flesh out a list of options for what the White House calls a reconfigured SDI test and development program. These options will comprise tests and development work that would fall beyond the narrow traditional interpretation of the ABM treaty.

Abrahamson said he had been asked to complete the list for President Reagan by Apr. 30. He agreed to furnish the Armed Services Committee a counterpart list. He said it would not be confined to specific, defined tests, but could describe the integration of many tests and single out technologies that need testing. All this, he stated, could result in "a much higher level of confidence than some of the individual kinds of partial tests that would have been planned in the future. So it is not merely a list of individual tests but it is in fact how you would readjust a program" to a broad interpretation.

Advance Planning

Although less funding might be required, Abrahamson said, "it doesn't mean that in the near-term all of that money can be taken out." But over the life of the SDI program, testing and development could be planned more efficiently, he said. Many elements must be planned three and four years in advance "and therefore, how testing can occur at the end of a three-year period is a vital element in the way you go on contract."

Abrahamson made these other points in his congressional testimony:

- Kinetic kill vehicles, projectiles to destroy ballistic missiles by force of impact, are the most mature technology under consideration in SDI and a leading candidate for early deployment (AW&ST Jan. 26, p. 22). But there is no budgetary trend toward kinetic kill and away from directed energy weapons, an assertion disputed by Battista, who said indeed there is such a trend. Abrahamson argued, however, that he is funding a broad array of directed energy systems, whereas kinetic kill technology for boost-phase interception of ballistic missiles is singular. The electromagnetic rail gun (miniprojectile technology), "a promising technology," was cut nonetheless in hopes it would be picked up elsewhere in the Pentagon, given its antiarmor and extended air defense applications.
- The directed energy weapon with the most promise remains the free electron laser. Both the Lawrence Livermore project (shortwave, ground-based laser) and the radio frequency-generated projects at Los Alamos and Stanford University (ground- or space-based) have registered impressive results and are being pushed in competition with one another.
- Diminished funds for the X-ray laser do not reflect diminished expectations. The overall effort has been slowed in terms of the number of tests performed, but the technology still is promising.
- Multimegawatt space nuclear reactor could be used for many space-based activities, as a power source for large battle stations (to maintain a kinetic kill vehicle garage in orbit) or to power some surveillance satellites. The reactor would be linked to a platform, but only for use with larger versions of kinetic kill vehicle garages.
- Kinetic kill vehicles are susceptible to Soviet countermeasures, but the Soviets would suffer a lag time such that, by the time their countermeasures were effective, the U. S. would have deployed another phase of its ABM system, confounding the Soviet response. The Soviets will fund countermeasures in anticipation of a U. S. kinetic kill system, but they do not possess anything they could deploy simply or easily, in Abrahamson's view.
- The Soviets would react strongly to U. S. deployment of several hundred kinetic kill platforms orbiting within 400 km. of their territory on a constant basis, but it is feasible for the U. S. to assure them that the platforms would be equipped only to destroy Soviet ballistic missiles in flight, not to inflict mass destruction on Soviet territory by way of nuclear attack.
- A boost-phase intercept layer is critical to the viability of an SDI system. □

	Fiscal 1986	Fiscal 1987	Fiscal 1988	Fiscal 1989
Systems Analysis and Battle Management *continued*				
BM/C³ Experimental Sys	$23.4	$80.7	$172.9	$203.5
National Test Bed	12.0	60.6	119.2	228.4
Countermeasures	6.1	5.0	0.0	0.0
Innovative Science & Technology	13.4	18.1	28.0	35.0
Civil Applications	0.0	2.0	2.0	2.0
Medical Free Electron Laser	9.2	13.5	15.0	15.0
Total	**212.3**	**386.9**	**627.3**	**787.5**
Survivability, Lethality & Key Technology				
Systems Survivability	59.4	60.0	94.2	98.3
Lethality and Target Hardening	78.3	78.0	102.5	98.4
Power & Power Conditioning	50.0	85.7	158.0	186.9
Space Transportation & Support	20.7	36.4	433.8	606.2
Materials and Structures	0.0	14.2	22.5	40.5
Countermeasures	8.7	26.7	42.8	78.4
Innovative Science & Technology	0.0	18.2	28.0	35.0
HELSTF	0.0	18.8	18.5	18.5
Total	**217.1**	**338.0**	**900.4**	**1,162.2**
Total RDT&E Resources	**2,675.1**	**3,229.0**	**5,220.8**	**6,282.0**
Military Construction	3.0	10.0	125.0	18.0
Total Defense Dept.	**2,678.1**	**3,239.0**	**5,345.8**	**6,300.0**
DOE SDI Program	285.0	514.0	569.0	390.0
Total SDI Program DOD/DOE	**2,963.1**	**3,753.0**	**5,914.8**	**6,690.0**

*In millions of dollars.

CONFIDENTIAL

P 02541

From: J B UNWIN
27 February 1987

SPACE

At yesterday's meeting the Prime Minister queried the expenditure by MOD on Skynet (as shown in the attached table circulated by Mr Younger as E(A)(86)61). I think the Prime Minister was surprised that such substantial expenditure was still being incurred.

2. The MOD table is described as "approximate annual spend", unrelated to a particular year; and MOD, for a number of reasons, are reluctant to provide details about this area. My understanding of the current position, however, is that, following the commissions in the early 1970s, two more Skynet (military communication) satellites were ordered in 1981 with the intention that they should be launched in the Space Shuttle. They may now have to be adapted for Ariane. A third was ordered from BAe in 1985, for launch in 1988, and has always been intended for Ariane. So substantial expenditure is being incurred, which must account for the £78 million attributed to Skynet in the MOD table. The second largest item on that table, Ship Satcom Terminals (SCOT), is also related to Skynet, being the equipment needed on ships to get messages from it.

3. On space generally, following yesterday's meeting Mr Guise and I discussed with Mr Channon the shape of a further paper for E(A), on the lines agreed at the meeting. We are tentatively pencilling this in on the agenda for E(A) on 12 March, but it might slip to the following week. I think Mr Channon will want to show the paper to the Prime Minister before he circulates it.

J B UNWIN

Cabinet Office

DEFENCE EXPENDITURE ON SPACE - APPROXIMATE ANNUAL SPEND

			£
*	1.	Space Research Programme (RAE Space Dept and RSRE)	circa £10M
	2.	Satcoms - satellites and ground segment (of which Skynet accounts for £78M)	£100M
	3.	Ship Satcom Terminals (SCOT))	£15M
	4.	Land forces satcom receivers	£4M
	5.	Satellite ground stations operating costs (RAF Oakhanger, RAE Lasham, RSRE Defford)	£7M
*	6.	Met Office - support for operational satellites and development of related sensor equipment (excluding staff costs)	£9M
		TOTAL	£145M

*

NB. £6m of item 1, & all item 6 are counted as part of the National Space Plan (civil), so that military space expenditure is about £130m a year.


27.11.
PM 8 7

SECRET

file DAS (67) 17

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

23 February 1987

DEFENCE SECRETARY'S VISIT TO WASHINGTON

The Prime Minister has read with interest the Defence Secretary's report, in his minute of 19 February, of his recent visit to Washington. She has commented that the visit was evidently very useful.

I am copying this letter to the Private Secretaries to the Foreign and Commonwealth Secretary and to Sir Robert Armstrong.

C D POWELL

John Howe, Esq.
Ministry of Defence

SECRET

ADVANCE COPIES 20

US/SOVIET ARMS CONTROL TALKS/ EAST WEST & US/SOVIET RELATIONS

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HD/DEFENCE DEPT
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RESIDENT CLERK

MR POWELL No.10 DOWNING STREET

MR D NICHOLLS DUS(P)
NPS
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SENT 21 FEB 1987

PLEASE ADD HD/NAD IF EAST/WEST DIST

19.11.8

SENT 21 FEB 1987

SECRET
FM WASHINGTON
TO IMMEDIATE FCO
TELNO 392
OF 210100Z FEBRUARY 87
INFO PRIORITY BONN, PARIS, UKDEL NATO, MODUK

MODUK FOR DACU
MY TELNO 369: ABMT/SDI
SUMMARY

1. PRESIDENTIAL DECISIONS (ON FURTHER LEGAL, SDI PROGRAMME RESTRUCTURING, AND CONSULTATION) AS EXPECTED. BUT NO DISCUSSIONS WITH THE RUSSIANS ABOUT PERMISSIBLE/IMPERMISSIBLE SDI-TYPE ACTIVITY ENVISAGED. INITIAL CONSULTATIONS WITH CONGRESS AND ALLIES TO BE COMPLETED BY 2 MARCH. MESSAGE FROM SHULTZ TO ALLIED FOREIGN MINISTERS IN DRAFT. EMISSARIES ABOUT TO SET OUT, BUT NITZE STILL UNHAPPY WITH HIS INSTRUCTIONS.

DETAIL

2. THE PRESIDENT'S DECISION DOCUMENT (NSDD) HAS NOW ISSUED. ACCORDING TO STATE DEPARTMENT CONTACTS, THE THREE DECISIONS IN THE DOCUMENT ARE AS DESCRIBED TO THE DEFENCE SECRETARY BY CARLUCCI (MY TUR), IE THAT MORE LEGAL WORK ON ABMT INTERPRETATION SHOULD BE DONE: THAT THE PENTAGON SHOULD PRODUCE A REPORT ON HOW AND WHY THE SDI PROGRAMME SHOULD BE RECONFIGURED: AND THAT A CONSULTATION PROCESS WITH ALLIES AND CONGRESS SHOULD BE QUICKLY INITIATED. THE WHITE HOUSE HAVE ASKED THAT THE OUTCOME OF QUOTE INITIAL UNQUOTE CONSULTATIONS SHOULD REACH THE PRESIDENT BY 2 MARCH. THE TIMING OF THE LEGAL WORK AND OF THE PENTAGON STUDY ON THE RESTRUCTURING OF THE SDI PROGRAMME APPEARS TO BE LEFT OPEN, BUT STATE DEPARTMENT OFFICIALS BELIEVE (AS CARLUCCI AND WEINBERGER INDICATEDTO THE DEFENCE SECRETARY) THAT THERE WILL BE PRESSURE TO COMPLETE BOTH IN 2-3 MONTHS. NO END DATE IS GIVEN FOR THE CONSULTATIONS WITH ALLIES AND CONGRESS AND NOTHING SPECIFIC IS SAID ABOUT WHAT FURTHER CONSULTATIONS, IF ANY, WOULD FOLLOW THE QUOTE INITIAL UNQUOTE ROUND.

3. ACCORDING TO STATE DEPARTMENT CONTACTS, THE NSDD HAS TWO OTHER IMPORTANT FEATURES:

(A) THE STRONG IMPLICATION (ALTHOUGH THERE ARE NO FORMAL DECISIONS) IS THAT THE PRESIDENT DOES INDEED WISH TO RESTRUCTURE THE SDI PROGRAMME TO TAKE ADVANTAGE OF THE BROAD INTERPRETATION OF THE ABM TREATY:

(B) THE DOCUMENT COMES DOWN AGAINST ANY DISCUSSION WITH THE RUSSIANS ABOUT DISTINCTIONS BETWEEN PERMITTED AND PROHIBITED SDI-TYPE ACTIVITY, AND DOES SO IN SUCH BROAD TERMS AS TO RULE OUT LEGAL DISCUSSION OF ABMT

(B) THE DOCUMENT COMES DOWN AGAINST ANY DISCUSSION WITH THE RUSSIANS ABOUT DISTINCTIONS BETWEEN PERMITTED AND PROHIBITED SDI-TYPE ACTIVITY, AND DOES SO IN SUCH BROAD TERMS AS TO RULE OUT LEGAL DISCUSSION OF ABMT INTERPRETATION ISSUES, DISCUSSION OF POSSIBLE PROGRAMMATIC CONSTRAINTS OR TIMINGS, AND DISCUSSION OF POSSIBLE NEW UNDERSTANDINGS ADDITIONAL TO THE ABMT ON THE PACE AND SCALE OF DEFENSIVE ACTIVITY (STATE DEPARTMENT OFFICIALS ARE CLEAR THAT THIS SECTION OF THE NSDD WILL DEPRIVE KAMPELMAN OF HIS PRESENT ALREADY LIMITED ABILITY TO DISCUSS ISSUES OF THIS SORT IN THE GENEVA DEFENCE AND SPACE QUOTE POST-PLENARY MINI GROUP UNQUOTE).

4. GIVEN THE CALL FOR A REPORT FOR THE PRESIDENT ON QUOTE INITIAL UNQUOTE CONSULTATIONS WITH ALLIES BY 2 MARCH, STATE HAVE DRAWN UP A PLAN (MY TELNO 348) UNDER WHICH NITZE WOULD VISIT LONDON (ON 25 FEBRUARY), BONN, THE HAGUE, BRUSSELS (FOR A NAC, PROBABLY ON 27 FEBRUARY), ROME, PARIS AND OTTAWA (ROWNY WOULD SIMILARLY VISIT CANBERRA, TOKYO AND PEKING). HOWEVER, WE UNDERSTAND THAT NITZE REMAINS UNHAPPY ABOUT TWO ASPECTS OF HIS LIKELY INSTRUCTIONS: HAVING TO MAKE CLEAR THAT THE PRESIDENT IS NOT PREPARED TO ENGAGE THE RUSSIANS IN A DISCUSSION OF PERMISSIBLE/IMPERMISSIBLE SDI-TYPE ACTIVITY (NITZE BELIEVES THAT SUCH A DISCUSSION IS ESSENTIAL IF A START AGREEMENT IS TO BE OBTAINED): AND HAVING TO ARGUE THAT THERE HAS BEEN SUFFICIENT PROGRESS IN THE SDI PROGRAMME SINCE 1985 TO NECESSITATE A CHANGE NOW TO CONDUCTING THE PROGRAMME WITHIN ONLY THE BROAD INTERPRETATION OF THE ABMT, (WHICH NITZE REGARDS AS NOT DEMONSTRATED).

5. A MESSAGE FROM SHULTZ TO ALLIED FOREIGN MINISTERS, TIMED TO ARRIVE BEFORE THE VISITS BY NITZE AND ROWNY IS IN PREPARATION. THE PRESENT DRAFT SAYS THAT THE PRESIDENT BELIEVES THAT THE BROAD INTERPRETATION OF THE ABMT IS LEGALLY CORRECT AND THAT PROGRESS IN THE SDI PROGRAMME SINCE 1985 HAS BEEN SO RAPID AS TO CHANGE THE COST/BENEFIT RATIO OF CONDUCTING THE SDI PROGRAMME WITHIN THE NARROW INTERPRETATION OF THE ABMT. WE UNDERSTAND THAT THE DRAFT GOES ON TO SAY THAT THIS REQUIRES THE PRESIDENT TO TAKE EARLY DECISIONS ON WHETHER OR NOT THE SDI PROGRAMME SHOULD BE RESTRUCTURED TO TAKE ADVANTAGE OF THE BROAD INTERPRETATION OF THE TREATY. THE DRAFT APPARENTLY ALSO SAYS THAT THERE IS A PROSPECT OF A US CAPABILITY TO DEPLOY A TWO-LAYERED INITIAL SDI SYSTEM (ERIS AND KKV) IN THE EARLY 1990S AND THAT, ALTHOUGH NO DEPLOYMENT DECISIONS ARE NEEDED NOW, THIS REQUIRES EARLY DECISIONS ABOUT POSSIBLE CONSEQUENTIAL RESTRUCTURING OF THE SDI PROGRAMME IN PREPARATION FOR DEPLOYMENT DECISIONS LATER. THE PRESENT DRAFT GOES ON TO SAY THATTHE PRESIDENT WILL CONTINUE TO CONDUCT THE SDI PROGRAMME WITHIN THE ABMT (BROAD INTERPRETATION), IN CONTRAST WITH THE SOVIET UNION, WHICH HAS ALREADY BREACHED THE TREATY. THE DRAFT INVITES COMMENTS, BUT DOES NOT INDICATE THAT ANY OTHER OPTIONS ARE ON THE TABLE.

ACLAND

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ORWBAN 9783

NNNN

[Ian Lord a private briefing with Abraham on 12 March]

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CCPC 16

Prime Minister

CDP 20/2.

Very useful. MS

MO 14/2L

PRIME MINISTER

VISIT TO WASHINGTON, 16TH-18TH FEBRUARY

In my routine visit to Washington this week I had extensive discussions with Cap Weinberger and meetings with Frank Carlucci, the new Director of the NSC, and with the Senate and House Armed Services Committees and with the House Appropriations Committee.

2. The atmosphere of the visit, and particularly of my talks with Weinberger, was extremely cordial. A major talking point was the SDI. I made it clear to Weinberger that while it was not my business to express a view on treaty interpretation, it was very important that the US should consult allies before any change in US policy. He gave me a firm undertaking that there would be prior consultation, and that this would extend to a decision to implement the broader interpretation of the ABM Treaty. The timing and modalities of this consultation are not yet clear. Cap Weinberger for his part would clearly like a change to be made as soon as the studies which the President has commissioned are completed, so that planning for future tests can be based on the broad interpretation, but Paul Nitze, to whom I spoke, and who expects to be used as an emissary for the consultation, is arguing that he should not travel to Europe until he has a clear plan to put to allies, which takes account of the arms control dimension.

3. Cap Weinberger has been widely quoted recently as saying that elements of the SDI system may be deployed soon. He emphasised to me that this is a misreading of what he had said; he foresees a phased approach under which some elements of the system are deployed before others, but he made it absolutely clear that in his view first deployment is some way ahead - 1993-4 at the earliest.

4. We have to decide what line to take when the US consult us. That will depend on what proposals they put. Weinberger's argument, that the line between research and development is an artificial impediment to the validation of the system, seems to me reasonable in itself; the problem is how to address the issue in the arms control context without on the one hand giving the Russians a veto over the SDI or on the other frustrating the arms control process at Geneva, including the achievement of the priorities you agreed with the President at Camp David in November. Weinberger and others are strongly resistant to discussing with the Russians what is or what is not permissible under the ABM Treaty. I think there is substance in Nitze's private suggestion (reported in Washington telegram no 369) that the sides should accept that the Treaty, now 15 years old, simply does not legislate fully in respect of systems based on new technology and that both sides have a common interest in discussing where the line should be drawn, getting away where necessary from distinctions such as those between research and development. This would be a debate not about treaty interpretation, but about the future.

5. In my meetings with the Congressional Committees I emphasised the contribution of the Europeans in general and of Britain in particular to burden-sharing within the Alliance, and gave some facts and figures. I also, in the wake of our AWACS decision, emphasised the importance of a free flow of defence trade and the disadvantages of protectionism. Both of these points respond to current concerns in Washington. I was particularly impressed by Senator Nunn and his colleagues on the Senate Armed Services Committee, who were receptive to what I said while critical of shortcomings in NATO's conventional capabilities. I was left with a feeling that so far as that committee is concerned, it would not hinder Cap Weinberger from securing funding for the SDI if he proceeded at a measured pace that took account of the arms control dimension.

6. I am copying this minute to the Foreign and Commonwealth Secretary and to Sir Robert Armstrong.

G.H.

Ministry of Defence

19 February 1987



ADVANCE COPIES 20

15

US/SOVIET ARMS CONTROL TALKS/ EAST WEST & US/SOVIET RELATIONS

PS
PS/LADY YOUNG
PS/MR RENTON
PS/PUS
MR THOMAS
MR BOYD
MR RATFORD
MR FALL
MR FEARN

MR POWELL No.10 DOWNING STREET

MR D NICHOLLS DUS(P) } MOD
NPS
DACU
CDI

IMMEDIATE

HD/DEFENCE DEPT
HD/ACDD
HD/SOVIET DEPT

RESIDENT CLERK

[PLEASE ADD HD/NAD IF EAST/WEST DIST]

19.11.8

SECRET
FM WASHINGTON
TO IMMEDIATE FCO
TELNO 369
OF 190105Z FEBRUARY 87
INFO IMMEDIATE MODUK
INFO PRIORITY BONN, PARIS, UKDEL NATO

SIC
MODUK FOR DUS(P) AND DACU
MY TELS NOS 348 AND 180120Z (TO MOD): ABMT/SDI
SUMMARY

1. CARLUCCI CONFIRMS (A) OUR UNDERSTANDING OF POSITION REACHED FOLLOWING NSPG 10 FEBRUARY MEETING AND (B) CONTINUING STRONG ADMINISTRATION RELUCTANCE TO DISCUSS THE ABMT/SDI ISSUE WITH THE RUSSIANS. NITZE WORRIED.

DETAIL

2. FOLLOWING HIS MEETING WITH WEINBERGER (SECOND TUR), THE DEFENCE SECRETARY SAW CARLUCCI LATE ON 17 FEBRUARY. HE SAID THAT HE HAD BEEN PLEASED TO RECEIVE FROM WEINBERGER THE ASSURANCES WE NEEDED THAT THERE WOULD BE FULL CONSULTATION WITH ALLIES BEFORE DECISIONS ON ABMT INTERPRETATION/SDI DEVELOPMENT WERE TAKEN. OUR POSITION WAS CLEARLY SET OUT IN THE 1984 AND 1986 CAMP DAVID STATEMENTS. IT WAS NOT FOR US TO TRY TO INTERPRET THE TREATY, TO WHICH WE WERE NOT A PARTY. BUT IF THERE WAS TO BE ANY ISGNIFICANT CHANGE IN THE ADMINISTRATION'S POLICY TOWARDS SDI, WE SHOULD WANT TO BE CONSULTED IN ADVANCE. WE STRONGLY SUPPORTED SDI RESEARCH, AND SO DID PUBLIC OPINION IN THE UK. BUT MISLEADING SUGGESTIONS THAT DEPLOYMENTS WERE IMMINENT WERE UNHELPFUL TO THE MAINTENANCE OF THIS PUBLIC SUPPORT, AND SHOULD BE AVOIDED.

3. CARLUCCI (WHO HAD ALREADY RECEIVED A REPORT OF THE YOUNGER/ WEINBERGER TALKS) CONFIRMED (FIRST TUR) THAT THE PRESIDENT HAD NOT YET APPROVED A DECISION DOCUMENT (NSDD) ON THE OUTCOME OF THE 3 AND 10 FEBRUARY NSPG MEETINGS. BUT HE WOULD DO SO VERY SHORTLY, AND THE DOCUMENT WOULD SET OUT THREE DECISIONS, VIZ:

(A) THAT MORE LEGAL WORK ON ABM TREATY INTERPRETATION SHOULD BE DONE, PARTICULARLY ON THE SENATE RATIFICATION DEBATE AND SUBSEQUENT QUOTE CASE LAW UNQUOTE. THIS MIGHT TAKE 2-3 MONTHS (THOUGH THE LAWYERS HAD BEEN SAYING THAT THEY MIGHT NEED 6);

(B) THAT THE PENTAGON SHOULD PRODUCE A DETAILED REPORT ON HOW AND WHY THE SDI PROGRAMME NEEDED TO BE RECONFIGURED AND WHICH INTERPRETATION OF THE TREATY WOULD BE REQUIRED FOR EACH PART;

(C) THAT A CONSULTATION PROCESS WITH ALLIES AND CONGRESS

BE REQUIRED FOR EACH PART.

(C) THAT A CONSULTATION PROCESS WITH ALLIES AND CONGRESS SHOULD BE INITIATED, PERHAPS WITHIN THE NEXT 2-3 DAYS.

(THIS CONFIRMS THE REPORT IN OUR TELNO 306.)

4. CARLUCCI THOUGHT THAT THE RESULTS OF ALL THREE LINES OF ACTION WOULD BE AVAILABLE WITHIN 2-3 MONTHS (WHICH SQUARES WITH WEINBERGER'S ESTIMATE (PARA 4 OF SECOND TUR) OF THE LIKELY TIME-TABLE FOR THE PENTAGON STUDY: B ABOVE). ONLY THEN WOULD IT BE POSSIBLE TO SEE WHAT SUBSTANTIVE DECISIONS THE PRESIDENT MIGHT NEED TO TAKE. HE WAS DETERMINED TO PRESS AHEAD WITH THE SDI PROGRAMME, BUT HE ALSO WANTED ARMS CONTROL AGREEMENTS WITH THE RUSSIANS. THE CHANCES OF SUCH AGREEMENTS WOULD BE INCREASED IF THE RUSSIANS WERE BROUGHT FINALLY TO REALISE THAT THEY COULD NOT STOP SDI. THE PROCESS OF ALLIED CONSULTATION WOULD OF COURSE INCLUDE THE UK, BUT IF THE PRIME MINISTER WANTED ANY SPECIAL ARRANGEMENTS FOR ADDITIONAL INFORMATION BEFORE HER VISIT TO MOSCOW, THE ADMINISTRATION WOULD BE HAPPY TO HELP.

5. CARLUCCI ADDED THAT THE ADMINISTRATION WAS EXTREMELY RELUCTANT TO ENTER INTO ANY NEGOTIATION WITH THE RUSSIANS ON WHAT WAS AND WAS NOT PERMITTED BY THE ABMT.

6. IN PRIVATE DISCUSSION AT MY DINNER FOR MR YOUNGER, NITZE CONFIRMED TO US THAT:

(A) DESPITE CARLUCCI'S REFERENCE TO ALLIED CONSULTATION STARTING WITHIN THE NEXT 2 TO 3 DAYS, HE HAD NOT YET BEEN ASKED TO PLAN A EUROPEAN TOUR, OR TOLD WHAT HE COULD SAY IF HE WENT: HE IMPLIED THAT HE THOUGHT THAT THE US POSITION NEEDED TO EVOLVE FURTHER (SEE BELOW) BEFORE CONSULTATION COULD BE SENSIBLE AND PRODUCTIVE.

(B) HE PERSONALLY BELIEVED THAT IT MIGHT BE POSSIBLE TO SECURE AN ARMS CONTROL AGREEMENT WITH THE RUSSIANS, INCLUDING SUBSTANTIAL (PERHAPS 50 PER CENT) REDUCTIONS IN STRATEGIC OFFENSIVE SYSTEMS, WITHOUT ACCEPTING DAMAGING CONSTRAINTS ON SDI, BUT WAS INCLINED TO THINK THAT SECURING THE START AGREEMENT WOULD REQUIRE PRIOR DISCUSSION WITH THE RUSSIANS ON THE SCOPE (AND TIMETABLE) OF EACH SIDES STRATEGIC DEFENSIVE PROGRAMMES.

(C) AS TO THE FORM OF THIS DIALOGUE, HE DID NOT FAVOUR A LEGAL DISCUSSION OF THE PRECISE INTERPRETATION OF THE ABMT. HIS PREFERENCE WOULD BE FOR BOTH SIDES TO ACCEPT, AS HE BELIEVED THE RUSSIANS MIGHT, THAT THE TREATY WAS IN SOME RESPECTS DEFECTIVE, OR OVERTAKEN, IN RESPECT OF NEW TECHNOLOGY AND SYSTEMS USING QUOTE OTHER PHYSICAL PRINCIPLES UNQUOTE. THIS WAS NO CRITICISM OF THE ABMT-DRAFTERS: TECHNOLOGY HAD MOVED ON IN THE LAST 15 YEARS. THE NEED NOW WAS TO MAINTAIN STABILITY BY ADDING TO THE ABMT NEW JOINT UNDERSTANDINGS ABOUT THE PACE AND SCALE OF DEFENSIVE DEVELOPMENTS.

(D) HE WAS CONCERNED AT THE EFFECT ON THE ALLIANCE IF THE US WERE SEEN TO PLAN TO MOVE FROM THE NARROW TO THE BROAD INTERPRETATION WHILE REFUSING TO ENTER INTO A REAL DIALOGUE, ON THESE LINES, WITH THE RUSSIANS. HE WOULD BE SAD IF HIS HUNCH PROVED WRONG, AND THE RUSSIANS REJECTED SUCH A DIALOGUE, FOR HE DID NOT SEE HOW A START AGREEMENT COULD THEN BE ACHIEVED: BUT AT LEAST US PUBLIC DIPLOMACY, AND ALLIANCE SOLIDARITY, WOULD BE IMPROVED IF THE ADMINISTRATION HAD CLEARLY MADE THE OFFER.

COMMENT

7. CARLUCCI'S REMARKS PROVIDE HELPFUL CONFIRMATION OF THE ADMINISTRATION'S APPROACH TO SUBSTANTIVE ABMT/SDI DECISIONS THIS SPRING, AND OF THE GENERAL ADMINISTRATION RECOGNITION THAT ALLIANCE CONSULTATION WILL BE PART OF THE PROCESS. IT SEEMS LIKELY THAT AN EMISSARY WILL BE SENT TO BRUSSELS AND OTHER NATO CAPITALS BEFORE LONG, BUT PROBABLY NOT AS SOON AS CARLUCCI IMPLIED.

8. AS IS EVIDENT, NITZE WAS SPEAKING ON A PERSONAL BASIS, AND SHOULD NOT BE QUOTED BACK TO OTHER AMERICANS. BUT HIS REMARKS FULLY CONFIRM WHAT WE HAD HEARD (PARA 4 OF FIRST TUR) ABOUT HIS CURRENT WORRIES.

ACLAND

(4)

cc BLVP

10 DOWNING STREET

Prime Minister

You might glance at the attached pieces from Aviation and Space Weekly.

They show that kinetic kill vehicles can be developed quite rapidly: but its a very big step from that to putting a system into space.

CDP 10/2.

SDIO on Verge of Producing Kinetic Kill Vehicle

Washington—The Strategic Defense Initiative Organization is on the verge of producing a cost-effective space-based kinetic kill vehicle capable of destroying intercontinental ballistic missiles during their boost phase, SDI officials believe.

"The optimum weight for a space-based kinetic kill vehicle [SBKKV] is approximately 250 lb.," an official said. "We know that within 24 months from go-ahead we could build a 500-lb. SBKKV that would be 100% capable against an ICBM.... After that the only challenge left is weight," the SDI official told AVIATION WEEK & SPACE TECHNOLOGY.

SDIO confidence is high because of what was demonstrated on the SDI Delta 180 space experiment last Sept. 5, when a kill vehicle—equipped with a Navy/Hughes Phoenix air-to-air missile radar tracker—acquired, tracked and then actively maneuvered to intercept and destroy another satellite (AW&ST Sept. 15, 1986, p. 19).

SDIO has no plans to fly a 500-lb. SBKKV because "That's just a drill... we know we can do that," the official said. "We didn't know we could do [the Delta] 180 [the Sept. 5, 1986, mission test]... There was a lot of doubt in our minds whether we could really pull that off, but flying this 500-pounder is a piece of cake."

The significance of the 250-lb. SBKKV lies in its cost-effectiveness. "You've got to make killing boosters cheaper than building boosters so that the guy's on the wrong side of the cost curve," the official said. If the weight could be lowered to 220 lb. [100 kg.], "there is no way they can build boosters... cheaper than our interceptors."

The problem is not the price of the interceptor but the cost of putting it in orbit, according to the official.

The small SBKKVs would be clustered in low-flying satellites that the SDIO calls "garages." How many SBKKVs are clustered in each garage depends on how lucrative a target the garage can be allowed to represent to the enemy. "Maybe six, maybe 12, maybe 24," the official said.

SDI's rough requirement to park 5,000-10,000 SBKKVs in garages in low Earth orbit equates to 200-400 garages as a minimum—using the arbitrary figure of 24 SBKKVs per garage. The garages would have to be spaced tactically to account for those absent from the fight due to their position in orbit, a factor referred to as the absentee ratio. Total U. S. launch requirements will depend on many variables including the acceptable absentee ratio, orbits varying from equatorial to polar and the actual number of SBKKVs per garage.

Such a kinetic energy weapon system also would require surveillance and battle management systems in space. The surveillance systems would be used to acquire the ascending ICBMs and work with the battle management system to assign targets to interceptors. Some of the battle management satellites might be in geostationary orbit, while others might be lower, the official said.

Target Discrimination

This layer of the defense, however, which is designed to go after both the boosters and the buses carrying reentry vehicles, does not require any assistance in discriminating targets from decoys since everything it sees is a target.

Divert systems that will enable the interceptors to maneuver rapidly as they home on their targets are another critical factor in the SBKKV equation. Lateral acceleration rates of 2-3gs are required. "They have to be fast and they have to be powerful," he said.

Fast-burn boosters, often cited by critics as a defense against such a system, are not a credible or realistic counter, the official said. The chief effect of a Soviet decision to build them would be to decrease reentry vehicles that could be launched, thus decreasing the number of targets the defense would be required to destroy. □

Satellite Reactivation

San Francisco—A communications satellite built for the North Atlantic Treaty Organization has been reactivated after 7.5 years in orbital storage, according to Ford Aerospace and Communications Corp.

Officials of Ford, the manufacturer of the NATO-3C satellite, said that this was the longest period that a satellite has been inactive and then restored to service.

NATO-3C was launched in November, 1978, as the third in a series of four NATO satellites, and was placed in storage until needed to replace its predecessor, NATO-3B. However, the storage time was extended because NATO-3B's performance exceeded expectations, Ford officials said.

The satellite was reactivated late last year by a signal sent from USAF's Satellite Test Facility in Sunnyvale, Calif., and relayed through a New Hampshire ground terminal. NATO facilities in Europe confirmed the reactivation.

Firms Report Losses Or Lower Profits For Fourth Quarter

Dallas—Four major aerospace companies last week reported reduced earnings or net losses in the fourth quarter of 1986.

LTV Corp. reported a $453.4-million net loss for the fourth quarter because of a $600-million special charge related to potential claims that may arise during its Chapter 11 bankruptcy proceedings. Without the charge, the company earned $146.6 million, compared with a fourth-quarter 1985 loss of $75.7 million.

The Dallas-based company's net losses for the year rose to $3.3 billion, compared with a $723.9-million loss in 1985.

Operating income for the steel, energy and aerospace and defense company totaled $164 million in the last three months of 1986, compared with a $4.4-million loss in the 1985 period.

Operating income in LTV's aerospace and defense operations fell to $38.5 million in the quarter from $47.5 million a year earlier. For the year, operating income fell 31% to $112.5 million, from $163.9 million in 1985, because of completion of the A-7P aircraft program and reduced military vehicle sales. The division's total backlog stood at $3.8 billion at the end of 1986, compared to $4.7 billion for 1985.

General Dynamics Corp. also reported a fourth-quarter 1986 net loss of $326.1 million, as a result of a $420.2-million write-off for its purchase of Cessna Aircraft Co. The St. Louis-based company

New Cruise Missile Study

Los Angeles—The Defense Advanced Research Projects Agency (DARPA) has awarded Phase 1 contracts to seven aerospace companies to study an autonomous air vehicle (AAV) cruise missile that would search for targets of opportunity, and then drop terminally guided submunitions on them.

AAV guidance would be more adaptive than conventional guidance, being capable of mission replanning as events dictate.

General rules and tactical scenarios would be programed for each mission instead of using fixed target coordinates.

Half-year study contracts were awarded last August to Hughes, Texas Instruments, Northrop, General Dynamics, Avco, Lockheed-Georgia and Martin Marietta (AW&ST Jan. 26, p. 30).

Total program will be three years long with selection of 2-3 Phase 2 contractors set for next month, and the final Phase 3 may include demonstration of the AAV concept on a flying testbed.

SDI Obfuscation

The controversy over early deployment of a first-generation strategic missile defense system has confused rather than clarified the issue—a common occurrence in the highly politicized Washington environment—and could do serious damage to the U. S. Strategic Defense Initiative program if it continues to devolve from self-serving interest groups more concerned with rhetoric than facts.

The fact is, it is too early to seriously propose or oppose deployment of even an interim system to counter ballistic missiles launched against the U. S. and its allies by the Soviet Union or any other adversary. To argue the point at this juncture is ludicrous because the technology base SDI proponents need to support a deployment decision has yet to be completed. SDI opponents are in no better position to contend that a missile defense system is unfeasible, whether it is to be deployed by the mid-1990s or any other date.

Promising Options

Based on recent successful tests and technology breakthroughs, however, it is not too early to begin focusing on some of the more promising options for developing a system to counter intercontinental and intermediate range missiles and their reentry vehicle payloads in the boost, midcourse and terminal phases of their flights.

Officials from the Strategic Defense Initiative Organization are encouraged by the successful SDI Delta 180 space experiment last September, during which they demonstrated that tracking a missile hard body in the middle of a large rocket plume was much easier than they thought, as was tracking a simulated high-speed missile target and guiding an interceptor to collide with it.

Coupled with the SDI Delta test have been some significant breakthroughs in advanced rocket motor technology, which Aerojet General has demonstrated under contract to the Edwards AFB, Calif., Rocket Propulsion Laboratory. These and other developments have led SDI officials to conclude that kinetic kill vehicles can be effectively used to attack ballistic missiles and their reentry vehicles during all three phases of flight.

But one successful SDI Delta 180 test does not a program make. It also must be noted that SDIO officials have waxed enthusiastically about technology breakthroughs before. They have touted antiballistic missile weapons based on such other technologies as high-energy particle beams, rail guns and free electron lasers only to encounter formidable roadblocks once they had traveled some distance down the various technology pathways. But again, that's what the Strategic Defense Initiative is all about—detailed examinations of all potentially applicable technologies.

This is not to say kinetic kill vehicles are just another technology flash-in-the-pan and that SDI supporters are exploiting them to force an early deployment decision that will commit future U. S. administrations to fielding an all-up system. SDIO officials contend that within 24 months they could develop a space-based kinetic vehicle in the 500-lb. class, and that it would be relatively easy to refine this into a 250-lb. system that would be inexpensive enough to deploy in the large numbers needed to ensure a credible first line of defense against missiles in the boost phase. Ground-based versions would be used for the midcourse and terminal phase lines of defense.

However, even an interim system based on simple cost-effective kinetic vehicles would need a vast new command and control, surveillance, and tracking and targeting infrastructure to support it. The U. S. Air Force's proposed Boost Surveillance Tracking System, an integral part of such an infrastructure, is in early research and development and is not scheduled to enter full-scale development until 1989.

SDI program officials are striving to master the technologies and define the hardware as soon as possible to support a timely decision on deployment. That is their job. That is the charter they were given when President Reagan initiated the SDI program three years ago. It also was what motivated the Defense Dept. to announce its heavy-lift launch vehicle project—a proposal Defense Secretary Caspar Weinberger and SDI director Lt. Gen. James Abrahamson cleared in such haste with President Reagan that they failed to inform either Air Force Secretary Pete Aldridge or NASA Administrator James Fletcher.

These activities, coupled with Weinberger's congressional testimony last month that it was vital to proceed with deployment as rapidly as possible and recent National Security Council reviews of the 1972 Antiballistic Missile Treaty, were interpreted as signals the Reagan Administration was preparing to commit to early deployment of an interim system. Whether that was the intent or not, the developments generated a political ballyhoo that forced an Administration denial.

No Simple Answers

The question is where does this leave the SDI program? The answer is somewhere between the proverbial rock and a hard place. Congress, apparently not fully understanding Abrahamson's SDI charter to evaluate a broad range of technologies, has pressed for early answers on what the system will entail. When simple answers to complex questions have not been forthcoming, legislators have evidenced their impatience by cutting the SDI budget and lecturing program officials on the need to decide what they want to do.

Some of these same individuals have joined in raising the alarms in recent weeks when it appeared to them that SDI officials were zeroing in on kinetic kill vehicles as the basis for the first phase of an operational system. They cannot have it both ways.

It is time to get the SDI program out of the political hot air arena and back on track. This means providing SDI officials with sufficient funds, and time, to investigate the maximum number of technical options on which a learned decision to deploy or not deploy an operational system can be based.

—Donald E. Fink/Washington

Arms Control Protests Force Delay In Next Stage of SDI Research

By Paul Mann

Washington—President Reagan has postponed a decision on the test-and-development phase of antimissile research, bowing to official arms control protests here and abroad that the Administration is risking abrogation of the 1972 Antiballistic Missile Treaty.

The delay in where to steer the research could last weeks, months or years, pending further Administration consultation with Congress and the allies. At issue is how the Administration is going to administer Strategic Defense Initiative research in concert with the ABM treaty, which bans testing and development as well as deployment of nationwide U. S./Soviet missile defenses, whether sea-based, air-based, space-based or mobile land-based.

The Administration insisted last week that early deployment is not the issue before the President, but rather testing and development.

There have been suggestions here that the Administration might be positioning itself for a unilateral shift soon to the broad, more permissive interpretation of ABM testing and development that it theorized 16 months ago, but held in abeyance. The threat that the Administration was about to make that shift helped fuel the latest outcry over the risks SDI poses for the ABM treaty's survival.

The protests have drawn strength from other developments. These included Defense Secretary Caspar W. Weinberger's provisional endorsement in January of prompt phase-one deployment of an antimissile defense. His thinking became known shortly before congressional suggestions that an incipient shift was underway from long-term to near-term technology in the SDI program (AW&ST Feb. 9, p. 24; Jan. 19, p. 22). Speculation about gearing up SDI also has been fed by indications that research is progressing faster, and appears more promising, than expected (AW&ST Feb. 9, p. 24).

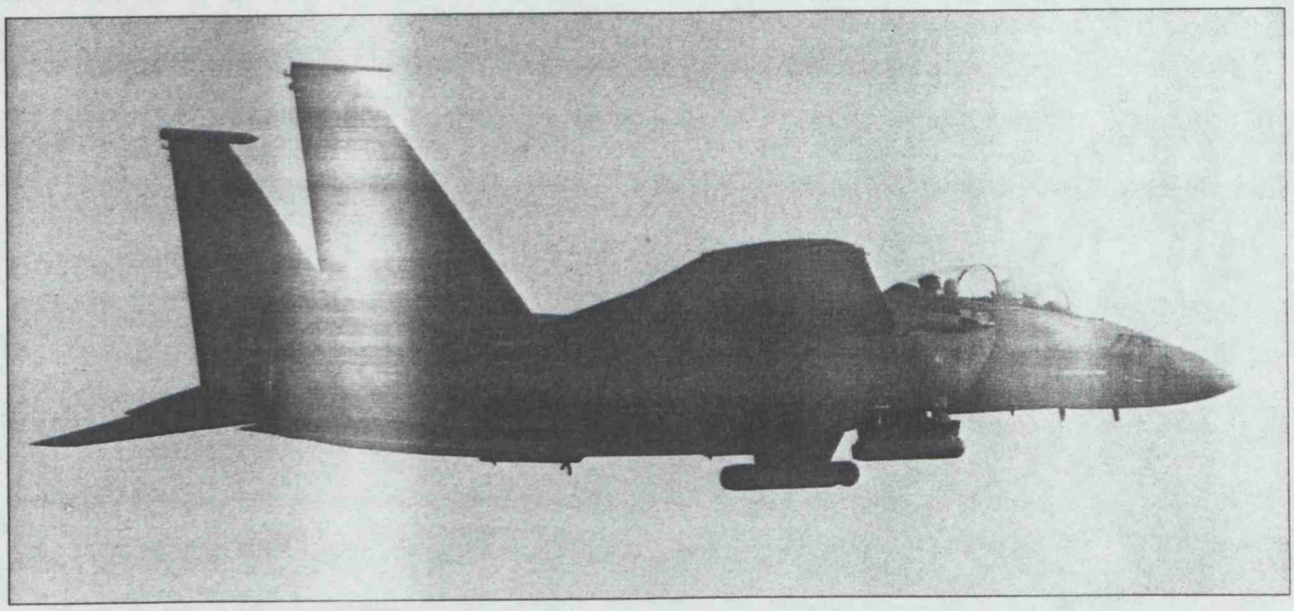
Administration officials are weighing what the White House calls a different pattern or configuration of SDI testing. They believe more advanced forms of testing and development are permissible under the Administration's broad, but belated and unilateral, interpretation of the ABM treaty. The State Dept. first tabled the permissive construction in 1985, only weeks before President Reagan's first summit in Geneva with Soviet General Secretary Mikhail S. Gorbachev. SDI proponents are arguing, however, that it has been the Soviets' political drive to confine U. S. ABM research to the laboratory that has made salient the distinction between broad and narrow.

The broad interpretation holds the treaty to be ambiguous enough to permit divergent interpretations of permissible testing and development. This reading stemmed from the State Dept.'s 1985 review of the secret negotiating record and what it revealed about the interpretations that the negotiators originally assigned to the treaty text 15 years ago.

When the broad interpretation became known in 1985, the Administration assured Congress that for the time being SDI would be confined to research within the framework of the strict, traditional interpretation (AW&ST Sept. 1, 1986, p. 45; Nov. 18, 1985, p. 15).

Secretary of State George P. Shultz told a House subcommittee last week that the Administration had reopened the examination of the treaty's history, extending its

F-15E Fighter Carries Fuel Tanks Equipped With Lantirn Pods



McDonnell Douglas F-15E dual-role fighter, shown undergoing tests, has been fitted with conformal fuel tanks and equipped with prototype Martin Marietta Low Altitude Navigation and Targeting Infrared for Night (Lantirn) system pods. The pods, one for navigation and one for targeting, will provide the F-15E with an under-the-weather, autonomous day/night capability. New conformal fuel tanks allow the F-15E to carry an additional 9,000 lb. of fuel and feature stub pylons rather than conventional carriage racks for external weapons stores, providing reduced drag and increased range. The F-15E made its first flight on Dec. 11, 1986. USAF wants 392 of the new dual-role fighters for long-range interdiction missions.

reach beyond the negotiation record to the Senate ratification record and pertinent case law. The renewed examination is being made by Abraham D. Sofaer, State Dept. legal adviser, who performed the 1985 study. On Capitol Hill, Sen. Sam Nunn (D.-Ga.), chairman of the Senate Armed Services Committee, is making an independent review of the negotiating record that he intends to conclude within days.

Further Insight

Concerning early deployment options, Shultz last week cited Defense Secretary Caspar W. Weinberger's assertion that there will be no technical basis for a decision this year or next.

Shultz offered further insight into current Administration thinking, however, saying progress in SDI research had been such that it had become useful to ask, "in a sense as a research question, how would you go about deployment if you decided to do it. That's what's caused all of this discussion, the fact that that question needs to be raised."

Deploying a strategic defense all at once is inconceivable, Shultz testified, so the issue becomes how to characterize sequential phases of deployment such that each phase, by itself, would lend stability to the U. S./Soviet military balance.

Because the phases are intended to culminate in an overall system, he added, "you don't want to start [deployment] until you have a clear, confident idea of where you're going. That's the kind of thing that's come out of asking that [research] question and that's where we stand."

The White House joined Shultz in playing down Weinberger's January call for early deployment. "The issue before the President is not one of deployment," White House spokesman Marlin M. Fitzwater told reporters last week. "That word has been used a lot by cabinet officers and government officials and others, and it has tended to lead the story in directions that it's not really going. Rather, the President is now considering the proper configuration of our research and development testing program. So the issue is . . . should we change the research and development program in a way that will make it subject to the broader, legally correct interpretation?"

Nunn, a possible presidential candidate in 1988, warned the President not to terminate U. S. compliance with the traditional interpretation. Unless there is a consensus in Congress and the North Atlantic Treaty Organization that such action is warranted, Nunn said, termination would trigger intense political reactions in Europe and NATO and cause far deeper congressional cuts in SDI funding than might otherwise occur.

"Such a decision would also very likely be taken on Capitol Hill as the end of arms control under your Administration," Nunn said. "Finally, I am concerned that absent due consultation, a unilateral executive branch decision to disregard the interpretation of the treaty which the Senate believed it had approved when the accord was ratified in 1972 would provoke a Constitutional confrontation of profound dimensions."

This language drew a partisan rebuke from a Republican presidential prospect, Rep. Jack F. Kemp (N. Y.), an SDI advocate. "While you are debating technology, the Soviets are deploying strategic defenses," Kemp wrote Nunn, asking: "Where was the hue and cry about the Senate's [treaty ratification] prerogative when the Administration made the unilateral decision to abide by the SALT 2 treaty for five years—a treaty the Senate had refused to consent to ratify?" □

Next-Generation Trainer

Paris—Two European manufacturers are preparing to enter their aircraft in the widening competition for a multibillion-dollar contract to build the U. S. Air Force's next-generation trainer (NGT).

France's Dassault-Breguet will offer the Alpha Jet trainer light attack aircraft, and Italy's Aer Macchi is completing its strategy to propose the MB-339.

The U. S. decided to recompete the NGT as the result of congressional disagreement on whether the USAF/Fairchild Republic T-46A should be fully funded or canceled (AW&ST Oct. 27, 1986, p. 16).

USAF requirements for the NGT mandate two engines and side-by-side seating.

The Alpha Jet, developed by Dassault-Breguet and West Germany's Dornier, is a twin-engine aircraft with tandem seating. Approximately 500 have been sold to the air forces of France and Germany and on the export market.

Aer Macchi's MB-339 is a single-engine, tandem-seat trainer. The company is ready to provide its basic MB-339 for an NGT flyoff, although a twin-engine version—designated the MB-339D—has been defined for consideration in the competition, Aer Macchi officials said.

USAF Seeks New RPVs By 1993

By John D. Morrocco

Washington—Tactical reconnaissance plans under consideration by the Air Force call for the introduction of new remotely piloted vehicles by 1993 and a follow-on manned reconnaissance aircraft to replace the McDonnell Douglas RF-4C by 1997.

The reconnaissance modernization package also calls for the development of a common electro-optical sensor package that could be employed on RF-4Cs, follow-on reconnaissance aircraft and the new RPVs. A request for proposals (RFP) for the new electro-optical sensor system is scheduled to be released to industry in early March, and a full-scale development contract is expected to be awarded before the end of Fiscal 1987.

Early Stages

Gen. Robert D. Russ, commander of the Tactical Air Command, said the plan is merely a "road map" in the early developmental stages and has not yet been fully defined.

"We hope to build initially at least five squadrons of unmanned vehicles," Russ said. "The concept is they would be tied to individual RF-4C squadrons as a total package."

Service officials said they are looking to field a force of about 20 RPV systems per squadron plus 100 additional systems to provide a replacement force.

In its Fiscal 1988 report to Congress, the Air Force stressed that the new unmanned air reconnaissance system will "complement, not replace, current and future, manned, tactical reconnaissance systems." The Air Force will continue to upgrade its RF-4C fleet with a new electro-optical system that also will be developed for a follow-on, manned reconnaissance aircraft.

Despite reluctance to go to a totally unmanned reconnaissance force, the Air Force's new proposal represents a significant shift in the service's attitude toward RPVs. The Air Force experimented with unmanned reconnaissance drones during the Vietnam war. But problems with navigation and reliability left a lingering skepticism that has been slow to evaporate despite recent advances in RPV technology and renewed Army and Navy interest.

The Air Force plans to use an RPV being developed by the Navy for the unmanned air reconnaissance mission (AW&ST Sept. 1, 1986, p. 48). Under the terms of an Air Force-Navy memorandum of agreement, the Navy will develop

PRIME MINISTER

SDI/ABM TREATY

The Foreign Secretary took a number of questions on this in the House this afternoon. He was pressed hard on the "restrictive interpretation" and went quite far. His tactics were to quote Shultz to the effect that the SDI programme would be conducted in accordance with a restrictive interpretation of the Treaty: and to juxtapose that with what you said yesterday, namely "if they change what has hitherto been understood to be the interpretation" to imply strongly that you had endorsed the restrictive interpretation. He later referred to his own endorsement of the restrictive interpretation as recently as last week.

This may cause you some difficulty in the House. I will try to devise a line in the morning.

CDP

CHARLES POWELL

18 February 1987

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MODUK FOR DUS(P), DACU
FCO TELNO 240 AND OUR TELNO 348: ABMT/SDI
SUMMARY

1. WEINBERGER CONFIRMS THAT ALLIANCE CONSULTATION WILL PRECEDE PRESIDENTIAL DECISIONS, BUT STRESSES HIS VIEW THAT SDI PROGRAMME PLANNING SHOULD IN FUTURE TAKE ACCOUNT ONLY OF THE BROAD ABMT INTERPRETATION.

DETAIL

2. THE DEFENCE SECRETARY DREW WEINBERGER'S ATTENTION ON 17 FEBRUARY TO THE INSTABILITY, IN THE UK AND ALLIANCE-WIDE, WHICH WOULD BE CREATED BY A REVERSAL OF THE DECISION TO CONDUCT SDI RESEARCH IN COMPLIANCE WITH THE NARROW ABMT INTERPRETATION. THE UK WAS A STRONG SUPPORTER OF, AND KEEN PARTICIPANT IN, SDI RESEARCH: WE HAD WELCOMED THE 1985 DECISION TO REMAIN WITHIN THE RESTRICTED INTERPRETATION: AND WE SHOULD LIKE TO BE CONSULTED IN ADVANCE ABQUT ANY CHANGE IN THE RULES OF THE GAME.

3. WEINBERGER SAID THAT A CONSULTATIVE PROCESS WAS CERTAINLY ENVISAGED, FOR THE ADMINISTRATION WISHED TO EXPLAIN THEIR BELIEF THAT THE BROAD INTERPRETATION WAS THE LEGALLY CORRECT ONE, AND THAT THE CONSTRAINTS OF THE NARROW INTERPRETATION - QUOTE THE INTERPRETATION FAVOURED BY THE NARROW-MINDED UNQUOTE - WOULD PROGRESSIVELY HINDER THE PROGRAMME. FOR EXAMPLE, SOME TESTS WOULD BE MORE USEFUL IF CONSTRAINED ONLY BY THE LEGALLY CORRECT INTERPRETATION. IN ORDER TO FACILITATE THE PLANNING OF THE FUTURE PROGRAMME, THE PRESIDENT MIGHT SOON INSTRUCT THAT IT BE STRUCTURED IN ACCORDANCE WITH THAT INTERPRETATION. HE HAD ASKED FOR, AND WOULD BE GIVEN, A DETAILED ACCOUNT OF HOW THE PROGRAMME COULD BE RESTRUCTURED, AND TESTS MADE MORE USEFUL, FOLLOWING SUCH A MOVE, AND WHAT SAVINGS WOULD THEREBY ACCRUE. BUT THERE WAS NO QUESTION OF ANY DEPLOYMENT BEFORE 1993 AT THE EARLIEST. NOR WAS THERE ANY OVER-RIDING SHORT-TERM REQUIREMENT TO DO ANYTHING BANNED BY THE NARROW INTERPRETATION.

4. THE DEFENCE SECRETARY ENQUIRED WHETHER WEINBERGER ENVISAGED AN ANNOUNCEMENT OF A MOVE FROM THE NARROW TO THE BROAD INTERPRETATION, HOW HE THOUGHT THIS MIGHT AFFECT THE MAY NPG/DPC MEETINGS, AND HOW IT WOULD SQUARE WITH THE ALLIANCE CONSULTATION TIMETABLE. WEINBERGER SAID THAT THE STUDY WHICH THE PRESIDENT HAD COMMISSIONED WOULD BE READY IN TWO OR THREE MONTHS TIME. BUT

/THE

THE PRESIDENT WOULD TAKE NO FINAL DECISIONS UNTIL ALLIANCE CONSULTATIONS HAD BEEN COMPLETED. THERE MIGHT INDEED BE DIFFICULTIES WITH SOME EUROPEAN ALLIES. HE WAS UNCERTAIN WHETHER THERE WOULD BE A FORMAL US ANNOUNCEMENT.

5. ASKED WHETHER ANY DECISIONS WOULD BE PRECEDED BY DISCUSSIONS WITH THE RUSSIANS, WEINBERGER SAID THAT HE WAS NOT OPPOSED TO DIALOGUE IN GENEVA, BUT WAS NOT PREPARED TO GIVE THE RUSSIANS A VETO OVER SDI. IN PARTICULAR, HE WAS NOT PREPARED TO AGREE TO TO A US/SOVIET DISCUSSION OF ABMT-PERMISSIBLE/IMPERMISSIBLE ACTIVITIES. HE ACKNOWLEDGED THAT THE POLITICAL IMPACT ON THE ALLIANCE OF A MOVE TO THE BROAD INTERPRETATION COULD CONCEIVABLY BE IMPROVED IF THE ALLIES COULD SEE THAT A FULL DIALOGUE WITH THE RUSSIANS HAD BEEN, OR WAS BEING, ATTEMPTED: BUT HE WAS ADAMANT THAT SUCH A DIALOGUE WOULD INEVITABLY BE UNPRODUCTIVE, FOR THE SOVIET AIM WAS SIMPLY TO STOP SDI.

COMMENT

6. UNLIKE HIS REMARKS TO LORD CARRINGTON ON 11 FEBRUARY (UKDEL NATO TELNO 49) WEINBERGER DID NOT ARGUE THAT A DECISION TO MOVE TO THE BROAD INTERPRETATION HAD ALREADY BEEN TAKEN. AND WHAT HE SAID ABOUT THE TIMING OF CONSULTATION (IE PRECEDING ANY ANNOUNCEMENTS) WAS MILDLY REASSURING. BUT HE IS CLEARLY CONFIDENT THAT A MOVE IS INDEED IN THE OFFING, AND THAT ALLIANCE CONSULTATION WILL NOT STOP IT. AND THE STRENGTH OF HIS OPPOSITION TO THE (NITZE/KAMPELMAN) IDEAS FOR A SUBSTANTIVE US/SOVIET DIALOGUE IN GENEVA ON ABMT-PERMISSIBLE/IMPERMISSIBLE SDI ACTIVITIES WAS VERY EVIDENT.

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PRIME MINISTER

cc. Mr. Sherbourne

Thank you
MT

SDI: EARLY DEPLOYMENT

Mr. Hart's note attached. I have some comments.

There are more than three schools of thought in Washington. The strongest school, not mentioned in Mr. Hart's note, is that which wants to move to the broad interpretation of the ABM Treaty, in order to conduct the tests which will show whether SDI is really feasible and can meet the essential criterion of cost-effectiveness at the margin (i.e., cannot be overwhelmed more cheaply than the cost of constructing it). This school will probably win. It has much to commend it, both in its own right and as a way of squeezing the Russians even harder in the arms control negotiations.

Kinetic kill weapons, known in the jargon as "smart rocks" since they are just projectiles which will bang into enemy missiles, are a very long way from successful deployment. To put a system up would need something like 125 space-shuttle loads. That's a lot for a country which only managed 2 successful launchings last year. It would cost about $100 billion. It can also be argued that kinetic weapons are not based on 'new physical principles', in which case testing a system would not be compatible with the ABM Treaty.

There is a genuine problem in the difference between you and the Foreign Secretary on the 'restrictive' interpretation of the Treaty. But it is too arcane for most people. The real political problem will arise if Gorbachev uses an explicit American decision to move to the 'broad' interpretation as an excuse for breaking off the Geneva arms control negotiations. He might: it would certainly gain him propaganda advantage in Europe. But it wouldn't actually solve his main problem for him, the need to avoid having to compete with the US. My guess is that he will become even more keen to agree some definition with the Americans about what is and is not

permissible under the ABM Treaty.

I do not recommend Mr. Hart's formulation at X on page 2 because I don't think we want to focus people's minds on deployment. Research is a prudent hedge. It does not pre-judge a decision on deployment. And you can't actually say that there would be no deployment if there was an arms control agreement. President Reagan's position is that deployment is an essential part of an arms control agreement.

Lastly, I do not think David Hart's proposition on page 3 would cut any ice with public opinion here or with the Russians. It would look like what it is: a stunt.

CDP

17 February, 1987.

JD3AVJ

(2)

Prime Minister,

1. Mr Powell comments attached <DP

2. Prime Minister

SDI: EARLY DEPLOYMENT.

SS 17/2.

The early deployment issue demonstrates the astonishing and depressing change in the coherence of the Reagan presidency. And it provides you with an opportunity to fill some of the vacuum.

The issue is not as confusing as the Administration is making it seem. Proponents divide into three schools.

The first school, led by Jack Kemp, wants the deployment of one hundred ground-based ABM missiles for terminal defence as permitted by the ABM treaty and as deployed by the Soviets.

The second school, led by Mr Weinberger and the SDI office, want research to be directed so that an early decision can be made to deploy in 1993 or 1994 a space-based system using similar 'intelligent' kinetic kill missile technology but designed to attack Soviet missiles in the boost-phase. This would tend to anaesthetise the present Soviet first-strike capability provided, largely, by their SS 18s.

The third school, simply want Reagan to order the earliest possible deployment of whatever technologies seem to be most promising, and if necessary, to give the required six months notice and withdraw from the ABM treaty on the grounds of 'supreme national interest' citing Soviet violations.

The terminal defence proposal would be desperately expensive for the limited protection it would provide and is most likely to be deployed to protect American missiles, anathema to the spirit of SDI which seeks a transfer from offensive to defensive deterrence. It would also underscore the Soviet argument that the SDI is intended to provide a shield for American offensive missiles.

Keyworth (Reagan's science advisor until January 1986) thinks the kinetic kill missiles can be countered by the Soviets, though at considerable cost. Dr Orman, the excellent MOD director of SDI, does not believe that there is enough information available for a second-school decision to be taken now. Cap Weinberger seemed to confirm this on BBC television on Sunday February 8th, saying that a decision did not need to be made, indeed could not be made, for a year or two. But my friends think he may have said this as part of a deal with Schultz to get him on side on the ABM treaty.

Schultz made it clear on American television on the same Sunday that he has been converted to the broad interpretation of the treaty. This means that on this ~~issue, at~~ least, the Administration is, publicly, ad idem.

While the West is agonising over interpretation of the ABM treaty, the Soviets are in flagrant breach at Krasnoyarsk and, according to Bob Gates, the widely respected new ~~CIA~~ director, will soon be in a position to deploy a new nationwide ABM system which, if commissioned, would amount to an abrogation.

If research indicates that it might be possible to deploy a limited system in the mid 1990's, not to pursue development and testing to the point where this or the next President is in a position to take a decision would be irresponsible. The position you took at Camp David last time is consistent with this argument. As is the position you took in the Commons today.

As long as Western political leaders and commentators urge the Americans to 'adopt the Soviet agenda' as the President has put it, in other words, to restrict the SDI, the Soviet Union's incentive to negotiate in good faith for an arms control agreement must be weakened.

This may explain last week's outburst from Mr Adelman, subsequently withdrawn. Although he is head of the Arms Control Agency he is not as influential as his job description might indicate.

Geoffrey Howe recently made a speech that was taken as being negative about the SDI, presumably because of the way it was briefed. Past experience, notably the INF deployment, indicates that the Soviets only seek arms control agreements when put under pressure. Although, according to Bukovsky and others they are under very great economic pressure at home.

Since all is so cloudy, (even your clarification in the Commons today is unlikely to get through to the electorate) there is an opportunity for you to create a platform where you can spell the policy out.

i) that SDI research is being undertaken so that the earliest possible deployment of space based, boost phase population defences could be ordered, if this or a future President, in consultation with the Allies, feels it is necessary in order to protect Western populations.

ii) that when the moment for a deployment decision arises discussions with the Soviets will, of course, be undertaken under the terms of the ABM treaty. (Weinberger confirmed this on the same television programme).

iii) that, if at that time, a proper arms control agreement is reached, deployment, of course, would not be ordered.

So paralysed is the Administration that Meyer (ex Vice Chairman National Intelligence Committee) believes that Reagan may well think that he has already taken this position and that his

administration is simply too confused and disputatious to articulate it.

You could, however. It would probably require direct contact with Reagan. If you do speak to him and it is clear that the above is his position and that he is not aware of the confusion, you could tell him that his policy is not being clearly explained by his people. One of his gravest problems at the moment is isolation.

The proposed visit of Nietze to explain things may illuminate American thinking but bear in mind that he is very opposed to the SDI, an enthusiastic Arms Controller as well as a widely respected and tough negotiator and is unlikely to know exactly what is in the President's mind.

Why not create a platform for yourself by agreeing with Reagan that Nietze be briefed to put the position as set out above?

You could announce it at a joint press-conference during the Nietze visit, and explain it as an attempt to improve western security by improving the chances of an arms control agreement with the Soviets, or, failing that, by providing some defence against Soviet missiles.

Your view would be very widely reported and respected in Washington, particularly now, and since it would demonstrate that Reagan had not lost his nerve and was capable of getting his Administration to adopt a coherent policy position, would help the Reagan presidency back onto its feet.

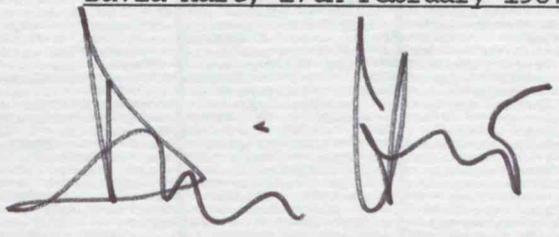
Positive for you here, since the electorate associate you closely with Reagan and his weaknesses must reflect somewhat on you.

It would demonstrate to the British electorate that you are in favour of arms control. (There is a residual, though declining feeling that your heart isn't really in arms control).

Since you would, in fact, be clarifying if not making Administration policy it would enhance your reputation everywhere as an important player on the international stage.

Which would greatly strengthen your hand in Moscow. Above all things the Russians admire strength. If they perceive you as the entrepreneur of this position they will be made aware of your increasing importance as the only coherent and determined political leader in the West.

David Hart, 17th February 1987.



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BONN FOR FALL
MY TELNO 283: ABM TREATY AND SDI
SUMMARY

1. NSPG DECIDES ON CONSULTATION WITH ALLIES AND CONGRESS ON ABM TREATY INTERPRETATION. TIMING, MODALITIES AND BASIS OF CONSULTATIONS UNCERTAIN, BUT NITZE MAY VISIT EUROPEAN CAPITALS IN LATE FEBRUARY.

DETAIL

2. THERE IS CONSIDERABLE UNCERTAINTY WITHIN THE ADMINISTRATION ABOUT WHAT EXACTLY TRANSPIRED AT THE NSPG MEETING ON 10 FEBRUARY. FOLLOWING THE LEAK OF DISCUSSION AT THE 3 FEBRUARY MEETING (MY TELNO 268), PARTICIPANTS YESTERDAY WERE PROHIBITED FROM TAKING NOTES ON GIVING ACCOUNTS OF THE PROCEEDINGS.

3. OUR STATE DEPARTMENT CONTACTS BELIEVE, HOWEVER, THAT THREE DECISIONS WERE TAKEN, VIZ:

(A) CONSULTATIONS SHOULD BE UNDERTAKEN WITH CONGRESS AND ALLIES ABOUT RESTRUCTURING THE SDI PROGRAMME AS PERMITTED BY THE BROAD INTERPRETATION OF THE ABM TREATY. CARLUCCI APPARENTLY SPOKE OF CONDUCTING CONSULTATIONS WITH ALLIES QUOTE WITHIN THE MONTH UNQUOTE:

(B) THE PENTAGON SHOULD DRAW UP A DETAILED SCHEDULE OF THE SDI TESTING AND DEVELOPMENT ACTIVITIES THAT THEY NOW CONSIDER NECESSARY AND WHICH WOULD REQUIRE A MOVE TO THE BROAD INTERPRETATION OF THE TREATY. THE SCHEDULE IS TO STATE PRECISELY WHY THE MOVE IS THOUGHT NECESSARY.

(C) SOFAER SHOULD COMPLETE HIS STUDY OF THE IMPLICATIONS FOR TREATY INTERPRETATION OF STATEMENTS MADE DURING THE SENATE RATIFICATION DEBATE AND SUBSEQUENT US STATEMENTS AND PRACTICES. THE STUDY IS TO BE CONDUCTED IN CLOSE CONSULTATION WITH CONGRESS.

4. STATE DEPARTMENT OFFICIALS HAVE TOLD US THAT PRECISELY HOW THESE DECISIONS ARE TO BE IMPLEMENTED, AND HOW THEY RELATE TO EACH OTHER, SEEMS NOT TO HAVE BEEN ADDRESSED AT

OTHER, SEEMS NOT TO HAVE BEEN ADDRESSED AT YESTERDAY'S MEETING. THE MODALITIES AND TIMING OF CONSULTATIONS WITH ALLIES IS THEREFORE UNDECIDED. BUT THE EUROPEAN BUREAU HAVE TODAY DRAWN UP A TENTATIVE PLAN FOR NITZE TO VISIT LONDON, BONN, PARIS, THE HAGUE, ROME, BRUSSELS AND OTTAWA IN THE WEEK BEGINNING 23 FEBRUARY (LONDON WOULD BE THE FIRST STOP), AND FOR ROWNY TO VISIT TOKYO, CANBERRA AND PEKING AT THE SAME TIME. OTHER STATE DEPARTMENT OFFICIALS HAVE SUGGESTED TO US, HOWEVER, THAT ANY SUCH VISITS TO ALLIED CAPITALS MIGHT COME LATER, IN LINE WITH SHULTZ'S WISH NOT TO RUSH MATTERS.

5. THE EXACT BASIS ON WHICH ALLIES AND THE CONGRESS ARE TO BE CONSULTED IS EVEN LESS CLEAR. SOME STATE DEPARTMENT OFFICIALS BELIEVE THAT THE BIAS OF YESTERDAY'S MEETING WAS IN FAVOUR OF MOVING FAIRLY RAPIDLY TO THE BROAD INTERPRETATION OF THE ABM TREATY, WITH ONLY SHULTZ AND ADMIRAL CROWE ARGUING IN A CONTRARY SENSE. THESE OFFICIALS INCLINE TO THE VIEW THAT CONSULTATIONS WITH ALLIES MAY THEREFORE BE ON THE BASIS THAT THE PRESIDENT IS INCLINED TO MAKE SUCH A MOVE AND IS SEEKING ALLIED REACTIONS BEFORE TAKING A FINAL DECISION. BUT IT SEEMS THAT THERE HAS AS YET BEEN NO WHITE HOUSE GUIDANCE ON THIS POINT, AND OTHER OFFICIALS HOPE THAT CONSULTATIONS WOULD BE MORE OPEN-ENDED, WITH THE ALLIES BEING GIVEN AN ACCOUNT OF WHERE THE SDI PROGRAMME STANDS, OF ALTERNATIVE WAYS FORWARD, AND OF THE ADVANTAGES AND DISADVANTAGES OF ALTERNATIVE COURSES OF ACTION. ON THIS SCENARIO, THERE COULD BE MORE THAN ONE ROUND OF ALLIED CONSULTATIONS.

6. THE MODALITIES AND TIMING OF CONSULTATIONS WITH CONGRESS WERE ALSO LEFT OPEN AT YESTERDAY'S MEETING, AND NONE OF OUR CONTACTS IS SURE HOW CONGRESSIONAL AND ALLIED CONSULTATIONS WILL RELATE TO EACH OTHER, OR HOW BOTH WILL RELATE TO SOFAER'S STUDY (PARA 3 (C) ABOVE).

COMMENT

7. IT IS SATISFACTORY THAT THE PRINCIPLE OF CONSULTATIONS WITH ALLIES IS NOW FIRMLY ESTABLISHED. IN WHAT TERMS WE (AND CONGRESS) WILL BE CONSULTED IS STILL UNCLEAR, AND THERE REMAINS A RISK THAT CONSULTATIONS WILL BE PRO-FORMA. BUT SHULTZ APPEARS TO HAVE MAINTAINED HIS PREFERENCE FOR TAKING MATTERS AT A STEADY PACE, AND TO HAVE MADE SOME HEADWAY, FOR THE PENTAGON STUDY ON SDI TESTING REQUIREMENTS AND THE NEW SOFAER STUDY WILL TAKE SOME TIME. (SOFAER BELIEVES THAT HE WILL NEED 2-3 MONTHS TO COMPLETE HIS STUDY.)

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19.11.8

SECRET

FM UKDEL NATO
TO DESKBY 121615Z FCO
TELNO 49
OF 1215352 FEBRUARY 87
AND TO IMMEDIATE MODUK
INFO IMMEDIATE WASHINGTON, BONN, PARIS

SENT 12 FEB 1987

MODUK (FOR NICHOLLS)

WASHINGTON TELNO 306: ABM TREATY AND SDI

SUMMARY

1. US SECRETARY OF DEFENCE TELLS SECRETARY GENERAL THAT US ADMINISTRATION HAS TAKEN A DECISION TO GO FOR THE BROAD INTERPRETATION OF THE ABM TREATY.

DETAIL

2. SECRETARY GENERAL GAVE PUS AND COWPER-COLES A GENERAL ACCOUNT OF A TELEPHONE CONVERSATION BETWEEN HIMSELF AND WEINBERGER YESTERDAY WHICH BRIGHTY LATER CONVEYED TO MINISTER IN CONFIDENCE IN MORE DETAIL. (I SHOULD BE GRATEFUL IF WHAT FOLLOWS IS CAREFULLY PROTECTED SINCE IT IS BEING PASSED TO US ALONE AT THIS STAGE).

3. WEINBERGER SAID THAT THE UNITED STATES HAD TAKEN A DECISION ON 10 FEBRUARY TO GO FOR THE BROAD INTERPRETATION OF THE ABM TREATY. (ALTHOUGH HE ADMITTED THAT NOT EVERYONE ELSE INVOLVED IN THE DECISION MIGHT ACCEPT THIS READING OF THE OUTCOME OF THE NSPG MEETING). US RESEARCH HAD DEMONSTRATED THAT THE AMERICANS WOULD SOON NEED TO CONDUCT EXPERIMENTS GOING BEYOND THE NARROW DEFINITION ALTHOUCH THEY WOULD STAY WITHIN THIS FOR THE IMMEDIATE FUTURE. WEINBERGER ADDED THAT THE DECISION WOULD ALLOW PRESIDENT REAGAN TO STAY WITHIN THE NARROW DEFINITION BUT WOULD ENABLE HIM TO BREAK OUT OF IT IF NECESSARY: THE POINT WAS THAT IT WAS IMPOSSIBLE TO KNOW IF SDI SYSTEMS WERE WORTH DEVELOPING, MUCH LESS DEPLOYING, UNLESS FULL TESTING COULD BE CARRIED OUT.

4. WEINBERGER WENT ON TO TELL LORD CARRINGTON THAT THE DECISION DID NOT REPRESENT A DECISION TO DEVELOP, AND CERTAINLY NOT TO DEPLOY, SDI ALTHOUGH HE, FOR ONE, WANTED DEPLOYMENT TO TAKE PLACE. HE CLAIMED THAT THE DECISION WOULD NOT BE MADE PUBLIC, ADDING THAT THE LEGAL EXPERTS WERE STILL WORKING ON THE JUSTIFICATION FOR THE BROAD INTERPRETATION OF THE TREATY.

5. LORD CARRINGTON TOLD WEINBERGER THAT THE ALLIES WOULD REQUIRE AN EXPLANATION FOR THE AMERICAN DECISION TO ALTER THEIR DEFINITION OF THE TREATY, EVEN THOUGH THERE APEARED TO BE NO OBLIGATION ON THE

5. LORD CARRINGTON TOLD WEINBERGER THAT THE ALLIES WOULD REQUIRE AN EXPLANATION FOR THE AMERICAN DECISION TO ALTER THEIR DEFINITION OF THE TREATY, EVEN THOUGH THERE APEARED TO BE NO OBLIGATION ON THE UNITED STATES TO CONSULT ALLIES BEFORE REDEFINING IT. HE ALSO REMINDED WEINBERGER OF THE IMPACT WHICH THE DECISION WOULD HAVE ON THE GENEVA NST TALKS. WEINBERGER CONTENDED, HOWEVER, THAT THERE WAS NO CONNECTION BETWEEN THE DECISION AND THE GENEVA NEGOTIATIONS. BUT HE FINALLY AGREED THAT NATO CAPITALS WOULD BE INFORMED OF THE DECISION.

6. IN LATER CONVERSATION WITH BARKER (ASSISTANT SECRETARY OF DEFENCE FOR ATOMIC ENERGY, DOD, WHO CALLED HIM ON HIS WAY BACK FROM US/SOVIET TALKS ON NUCLEAR TESTING IN GENEVA) LORD CARRINGTON SAID THAT WEINBERGER HAD ALSO TOLD HIM THAT HE DID NOT BELIEVE THAT THE US WAS LEGALLY COMMITTED TO CONSULT ALLIES ON THE MOVE TO A BROAD INTERPRETATION OF THE ABMT AS DISTINCT FROM A DECISION ON SDI DEVELOPMENT AND DEPLOYMENT. CARRINGTON HAD, NEVERTHELESS, URGED ON HIM THE NEED FOR CONSULTATION.

ALEXANDER

YYYY

UBLNAN 1481

NNNN

File

I have invited Gen Abrahamson for 14 March. Reply awaited. CDR.

PRIME MINISTER

You said you would like General Abrahamson to come to Chequers to talk to you about SDI before you to go Moscow. The optional dates are:

Saturday 21 February: You have got Jimmy Savile and a few nurses from Stoke Mandeville coming for a drink at 12 o'clock that day. General Abrahamson could come for lunch.

Saturday 28 February: Lunch for Signor Agnelli at Chequers that day. General Abrahamson could join this lunch and stay on for talks afterwards. (This follows an all-day seminar at Chequers on the Soviet Union).

Saturday 14 March: (You have the following day blocked out for Central Council speech).

Could you indicate which day you would prefer.

Tessa Gaisman
9 February 1987

GRS 380

Confidential

F.6

CONFIDENTIAL
FM BONN
TO IMMEDIATE FCO
TELNO 104
OF 091608Z FEBRUARY 87
INFO IMMEDIATE MODUK, WASHINGTON
INFO PRIORITY PARIS, UKDEL NATO

EARLY DEPLOYMENT OF SDI.

1. WASHINGTON TELNO 260 INDICATED THAT KOHL HAD WRITTEN TO REAGAN. AUSWAERTIGES AMT ASSURE US THAT THIS IS NOT (REPEAT NOT) THE CASE, BUT THAT GENSCHER WROTE TO SHULTZ ON FRIDAY 6 FEBRUARY. GIVEN DEVELOPMENTS OVER THE WEEKEND AUSWAERTIGES AMT SAY TELTSCHIK WILL NOW EXPRESS CONCERN TO CARLUCCI TOMORROW (I.E MORE FORMALLY AND FOCUSSED THAN APPEARED TO BE THE INTENTION WHEN I SAW TELTSCHIK ON FRIDAY - MY TELNO 97). THE GERMANS ARE KEEPING IN RESERVE THE POSSIBILITY OF A KOHL LETTER TO REAGAN.

2. AUSWAERTIGES AMT HAVE ASKED TO BE KEPT INFORMED OF OUR OWN JUDGEMENT ABOUT WHEN THE MOMENT IS RIGHT FOR A LETTER FROM THE PRIME MINISTER. AS USUAL, THEY WISH TO KEEP IN CLOSE STEP WITH US.

BULLARD

YYYY

BPLNAN 3547

SDI PARTICIPATION
LIMITED

ADDITIONAL DISTRIBUTION
SDI

ACDD	PS
DEF D	PS/MRS CHALKER
NAD	PS/MR RENTON
WED	PS/LADY YOUNG
PUSD	PS/MR EGGAR
PLANNING STAFF	PS/PUS
SOVIET D	MR DEREK THOMAS
ESSD	MR BOYD
ECD(E)	MR FALL
NEWS D	MR BRAITHWAITE
	MR SLATER
	MR RATFORD

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US/SOVIET ARMS CONTROL TALKS/ EAST WEST & US/SOVIET RELATIONS

PS(2)
PS/LADY YOUNG
PS/MR RENTON
PS/PUS
MR THOMAS
MR BOYD
MR RATFORD
MR FALL
MR ~~[redacted]~~ GILLMORE

MR POWELL No.10 DOWNING STREET

MR D NICHOLLS DUS(P) } MOD
NPS
DACU
CDI

HD/DEFENCE DEPT
HD/ACDD
HD/SOVIET DEPT

RESIDENT CLERK

[PLEASE ADD HD/NAD IF EAST/WEST DIST]

19.11.8

CONFIDENTIAL
FM WASHINGTON
TO IMMEDIATE FCO
TELNO 283
OF 092355Z FEBRUARY 87
INFO IMMEDIATE UKDEL NATO, BONN, PARIS, MODUK

MY TELNO 269 AND YOUR TELNO 210 (NOT TOA LL) : ABM TREATY/SDI DEPLOYMENTS

SUMMARY

1. CARLUCCI CONFIRMS THAT THE IMMEDIATE DECISIONS ARE WHETHER AND, IF SO, WHEN TO BEGIN CONDUCTING THE SDI PROGRAMME IN LINE WITH THE BROAD INTERPRETATION OF THE ABM TREATY. CONSULTATIONS WITH ALLIES PROMISED BUT MODALITIES AND TIMING STILL TO BE DECIDED.

DETAIL.

2. I SAW CARLUCCI THIS AFTERNOON. I SAID THAT I HAD BEEN INSTRUCTED TO MAKE ONE KEY POINT ON THE PRESENT SDI/ABMT DEBATE. THIS WAS THAT BOTH THE PRIME MINISTER AND YOU VERY MUCH HOPED THAT THE US WOULD CONSULT FULLY WITH ITS ALLIES BEFORE ANY DECISIONS WERE TAKEN ON THE INTERPRETATION OF THE ABM TREATY OR ON STEPS TOWARDS SDI DEPLOYMENTS. CARLUCCI SAID THAT THERE WOULD (WOULD) BE SUCH CONSULTATION. HE HAD SENT A MEMORANDUM TO THE PRESIDENT OVER THE WEEKEND ON THE ABM TREATY/SDI DEPLOYMENTS ISSUE. THIS HAD COVERED THE NEED FOR CONSULTATIONS WITH ALLIES AND CONGRESS. THE PRESIDENT HAD AGREED WITH THE MEMORANDUM. WEINBERGER ALSO AGREED THAT SUCH CONSULTATIONS WERE NECESSARY.

3. I ASKED ABOUT THE LIKELY FORM AND MODALITIES OF THE CONSULTATIONS WITH ALLIES. WOULD THEY, FOR EXAMPLE, BE CONDUCTED BEFORE, OR SIMULTANEOUSLY WITH CONSULTATIONS WITH CONGRESS? I SAID THAT WE THOUGHT IT IMPORTANT THAT CONSULTATIONS SHOULD BE FULL AND SUBSTANTIVE AND NOT BE RUSHED. THIS WAS PARTICULARLY SO GIVEN THAT THERE WAS A CONSIDERABLE DEGREE OF CONCERN WITHIN THE ALLIANCE THAT EARLY DECISIONS MIGHT BE IN PROSPECT. CARLUCCI SAID THAT HE THOUGHT THE CONSULTATIONS WOULD BE HANDLED IN A WAY FULLY SATISFACTORY TO US. BUT QUITE WHAT THE MODALITIES AND TIMING MIGHT BE WOULD BE FOR CONSIDERATION AT THE NSPG MEETING ON 10 FEBRUARY. IT WAS LIKELY THAT ADMINISTRATION EMISSARIES WOULD

FULLY SATISFACTORY TO US. BUT QUITE WHAT THE MODALITIES AND TIMING MIGHT BE WOULD BE FOR CONSIDERATION AT THE NSPG MEETING ON 10 FEBRUARY. IT WAS LIKELY THAT ADMINISTRATION EMISSARIES WOULD BE SENT TO EUROPEAN CAPITALS.

4. CARLUCCI NOTED THAT THE IMMEDIATE DECISIONS WERE NOT ABOUT SDI DEPLOYMENTS. THE PRESS HAD GOT THE WRONG END OF THE STICK IN THIS RESPECT. THE SDI PROGRAMME WAS QUOTE NOWHERE NEAR THE SHAPE IT WOULD NEED TO BE IN UNQUOTE FOR THE PRESIDENT TO MAKE DEPLOYMENT DECISIONS. SUCH DECISIONS WERE QUOTE WAY DOWN THE LINE UNQUOTE. SPECULATION HAD PERHAPS BEEN FUELED BY SOME COMMENTS MADE BY WEINBERGER. BUT THE REAL DECISIONS NOW WERE (A) WHETHER TO RESTRUCTURE THE SDI PROGRAMME TO BRING IT INTO LINE WITH THE BROAD INTERPRETATION OF THE ABM TREATY: AND (B), IF SO, WHEN.

5. AS FAR AS THE DIFFERENT INTERPRETATIONS OF THE TREATY WERE CONCERNED, THE ADMINISTRATION HAD MORE WORK TO DO. SOFAER'S STUDY IN 1985 HAD COVERED THE NEGOTIATING RECORD AND SOME OF THE EVIDENCE PROVIDED BY THE RATIFICATION DEBATE IN THE SENATE. BUT IT WAS ALSO NECESSARY TO LOOK AT US STATEMENTS AND ACTIONS SINCE THE TREATY WAS SIGNED AND RATIFIED IN 1972. WORK ON THIS WAS IN HAND, BUT THE ADMINISTRATION COULD NOT BE COMPLETELY SECURE IN ITS JUDGEMENTS ABOUT THE MEANING OF THE TREATY UNTIL THIS WORK WAS COMPLETE. IT ANYWAY HAD TO BE REMEMBERED THAT ONLY THE NEGOTIATING RECORD OFFERED ANY REAL CLUES ABOUT THE CONSTRAINTS UNDER WHICH THE RUSSIANS MIGHT BELIEVE THAT THEY HAD TO OPERATE. THE US RATIFICATION PROCESS AND US ACTIONS SINCE 1972 MIGHT NOT BE A VERY RELEVANT GUIDE TO SOVIET BEHAVIOUR. CARLUCCI HAD DISCUSSED THE MEANING OF THE TREATY WITH KISSINGER. KISSINGER SHARED THE VIEW THAT THE RUSSIANS HAD REFUSED TO ACCEPT US ATTEMPTS, DURING NEGOTIATION OF THE TREATY, TO CONSTRAIN UNAMBIGUOUSLY THE DEVELOPMENT AND TESTING OF SYSTEMS BASED ON OTHER PHYSICAL PRINCIPLES. THEY HAD ALSO MADE CLEAR PUBLICLY AT THE TIME THAT THEY DID NOT ACCEPT THAT THE TREATY CONSTRAINED THEM IN THIS RESPECT.

COMMENT

6. CARLUCCI WAS REASSURING ON ACCEPTANCE OF THE PRINCIPLE OF ALLIED CONSULTATION. BUT WE CANNOT YET BE SURE THAT CONSULTATIONS WILL IN PRACTICE BE CARRIED OUT IN A WAY THAT WILL ENABLE US REALLY TO INFLUENCE ANY DECISIONS THAT THE PRESIDENT MAY WISH TO MAKE.

ACLAND

YYYY

ORWBAN 9475

NNNN

ADVANCE COPIES (20)

US/SOVIET ARMS CONTROL TALKS/ EAST WEST & US/SOVIET RELATIONS

PS(2)
PS/LADY YOUNG
PS/MR RENTON
PS/PUS
MR THOMAS
MR BOYD
MR RATFORD
MR FALL
MR ~~PEARN~~ Gillmore.

MR POWELL No.10 DOWNING STREET

MR D NICHOLLS DUS(P))
NPS)
DACU) MOD
CDI)

HD/DEFENCE DEPT
HD/ACDD
HD/SOVIET DEPT

RESIDENT CLERK

[PLEASE ADD HD/NAD IF EAST/WEST DIST]

19.11.8

Please file

UNCLASSIFIED
FM WASHINGTON
TO IMMEDIATE FCO
TELNO 276
OF 092020Z FEBRUARY 87
INFO PRIORITY BONN, PARIS, UKDEL NATO, MODUK

MODUK FOR DACU

MY TELS NOS 267 - 269: SDI DEPLOYMENT/ABMT
SUMMARY
1. PUBLIC DEBATE CONTINUES, WITH A DELPHIC TV APPEARANCE BY SHULTZ, AND PUBLICATION OF NUNN'S LETTER.
DETAIL
2. SHULTZ WAS QUESTIONED ON ABMT/SDI QUOTE EARLY DEPLOYMENT UNQUOTE ISSUES ON THE ABC QUOTE THIS WEEK WITH DAVID BRINKLEY UNQUOTE TELEVISION PROGAMME ON 8 FEBRUARY. HIS ANSWERS WERE CONSIDERED, CAUTIOUS AND IN SOME RESPECTS UNREVEALING.
3. THREE MAIN THEMES EMERGED, VIZ:
(A) QUOTE EARLY DEPLOYMENT UNQUOTE. SAYING THAT HE WAS SPEAKING FOR THE PRESIDENT, AND IN AGREEMENT WITH WEINBERGER, SHULTZ SAID THAT QUOTE IT'S NOT POSSIBLE TO MAKE DECISIONS THIS YEAR OR NEXT YEAR ... IT DEPENDS UPON THE PROGRESS IN THE WORK UNQUOTE. THE PRESIDENT'S CRITERIA - IE FEASIBILITY, SURVIVABILITY, AND COST EFFECTIVENESS AT THE MARGIN, REMAIN IN EFFECT. PHASING WOULD OBVIOUSLY BE NECESSARY, BUT QUOTE YOU DON'T WANT TO DO SOMETHING IN A PHASE THAT MAKES THE SITUATION LESS STABLE UNQUOTE AND QUOTE YOU DON'T WANT TO START WITH PHASE 1 UNTIL YOU ARE CLEAR AND CONFIDENT ABOUT WHERE YOU ARE GOING UNQUOTE. SO QUOTE THERE ISNT ANY EARLY DEPLOYMENT DECISION IN THE OFFING UNQUOTE.
(B) ABMT NARROW/BROAD INTERPRETATION. QUOTE THE PROGRAMME HAS BEEN DESIGNED GIVEN THE RESTRICTIONS IN WHAT IS CALLED THE NARROW INTERPRETATION... BUT IT IS CLEAR ENOUGH NOW, GIVEN THE PROGRESS THAT HAS BEEN MADE, THAT YOU WILL BE ABLE TO PURSUE ~~ABLE TO PURSUE~~ THE PROGRAMME MUCH MORE EFFECTIVELY, AND PERHAPS ONLY, IF A DIFFERENT PATTERN OF TESTING IS PERMITTED UNQUOTE. IN CONSIDERING THE MEANING OF THE TREATY, THREE BITS OF EVIDENCE ARE TO BE EXAMINED, IE
(1) THE NEGOTIATING RECORD (WHICH QUOTE SHOWS THAT A BROAD INTERPRETATION IS ENTIRELY WITHIN THE MEANING

(I) THE NEGOTIATING RECORD (WHICH QUOTE SHOWS THAT A BROAD INTERPRETATION IS ENTIRELY WITHIN THE MEANING OF THE TREATY, ALTHOUGH OF COURSE THERE ARE AMBIGUITIES UNQUOTE):

(II) WHAT WAS SAID IN THE RATIFICATION PROCESS: AND

(III) THE PRACTICES AND STATEMENTS EACH SIDE HAS SINCE MADE TO EACH OTHER, IE QUOTE THE COMMON LAW UNDER THIS TREATY THAT'S DEVELOPED UNQUOTE.

(I) SHOWS THAT THE RUSSIANS, IN THE ABMT NEGOTIATIONS, DID NOT WANT TO FORECLOSE THE POSSIBILITY OF NEW AND DIFFERENT SYSTEMS BASED ON OTHER PHYSICAL PRINCIPLES. FROM THE PRACTICAL POINT OF VIEW OF THE SDI PROGRAMME QUOTE YOU'RE MUCH SURER OF YOUR GROUND IF YOU CAN TEST SOMETHING DIRECTLY ... AND THERE ARE THINGS THAT YOU PROBABLY COULD NOT TEST ADEQUATELY UNDER THE NARROW DEFINITION WHICH IT IS VERY DESIRABLE TO TEST. THERE ARE PROBABLY SOME THINGS IN ADDITION THAT MAY BE IMPOSSIBLE TO TEST UNDER EITHER DEFINITION UNQUOTE.

(C) CONSULTATION. QUOTE WE ARE TALKING ABOUT OUR NATIONAL SECURITY AND FIGURING OUT HOW TO DEFEND OURSELVES AND OUR ALLIES, WITH WHOM WE WILL CONSULT ON ALL THESE THINGS, JUST AS WE WILL CONSULT THE SENATE ....BEFORE A DECISION IS MADE UNQUOTE . IN RELATION TO CONGRESS, QUOTE WHAT WE HAVE TO DO IS TO PRESENT CONVINCING ARGUMENTS, AND I BELIEVE THEREARE CONVINCING ARGUMENTS, FOR WHAT MUST BE DONE TO SAFEGUARD THE NATIONAL SECURITY OF THE UNITED STATES AND OUR ALLIES: AND WORK COLLABORATIVELY, CAREFULLY AND THOROUGHLY WITH THE CONGRESS ... IN THE EXPECTATION THAT THE NATIONAL INTEREST OF THE US WILL EMERGE UNQUOTE.

4. THE US PRESS ON 9 FEBRUARY INTERPRETS THIS AS:

(A) A FIRM REJECTION OF THE IDEA OF EARLY DECISIONS ON EARLY DEPLOYMENTS: AND

(B) A COMMITMENT TO CONSULT IN ADVANCE WITH CONGRESS AND THE ALLIANCE ON THE ABMT INTERPRETATION ISSUE.

5. THE OTHER PRINCIPAL WEEKEND DEVELOPMENT WAS THE PUBLICATION OF NUNN'S LETTER (MY TELNO 269). IN THE LETTER, AND IN WEEKEND TELEVISION APPEARANCES, NUNN DID NOT DIRECTLY ADDRESS THE EARLY DEPLOYMENT ISSUE, BUT WARNED THAT A MOVE FROM THE NARROW TO THE BROAD ABMT INTERPRETATION WOULD PROVOKE A QUOTE MAJOR CONSTITUTIONAL CRISIS UNQUOTE. A MAIN PLANK IN HIS ARGUMENT WAS THE SENATE UNDERSTANDING, AT THE TIME OF RATIFICATION, OF HOW THE TREATY SHOULD BE INTERPRETED: THE RATIFICATION PROCESS, AND THE CONSTITUTIONAL ROLE OF THE SENATE WOULD BE CALLED INTO QUESTION IF THE ADMINISTRATION WERE NOW UNILATERALLY TO ADOPT A DIFFERENT INTERPRETATION. IN WEEKEND TELEVISION APPEARANCES, NUNN POINTED OUT THAT RIGHT WING SENATORS (EG BUCKLEY) AT THE TIME OPPOSED THE TREATY'S RATIFICATION BECAUSE THEY DISLIKED FORECLOSING NEW TECHNOLOGY OPTIONS, AS THEY HAD BEEN LED TO BELIEVE IT WOULD.

6. FOR COMMENT, SEE MIFT.

ACLAND

YYYY

ORWBAN 9457

NNNN

SECRET

11

PRIME MINISTER

CDP
11/2.

GENERAL ABRAHAMSON

I have been in touch with General Abrahamson. He would be delighted to come over specially to brief you. He knows that it will be only for an hour, but is enthusiastic.

It occurs to me that you may want to suggest Chequers, although it would be a pity to intrude more on your weekends. It can perfectly well be here in No. 10

Agree to see him at No. 10?

Would prefer Chequers.

CDP

I would be much more thorough

CHARLES POWELL

6 February 1987

10 DOWNING STREET

Prime Minister

General Abrahamson

You wanted to see him again.

He is not planning to come over again until May – but would certainly come before then if you asked.

Would you like me to get him over specially before you go to Moscow?

CDP Yes please

SECRET

10

CDP 11/2.

PRIME MINISTER

SDI

The attached important telegrams from Washington give further details of American intentions on the SDI.

It is clear that they are not about to announce decisions on deployment. But they are likely to decide to move from the restrictive to the broad interpretation of the ABM Treaty.

Since you foresaw this some months ago and adjusted your own line, you are presumably not too exercised about the shift if it happens. The FCO, who are impaled on the restrictive interpretation, are in a state, but have decided not to ask you to intervene on the substance.

There is, however, an important point about consultation. The Americans are committed to consulting the Alliance before taking the decision to move to a broad interpretation of the Treaty. The decision will not be welcome to several of the European Governments. Genuine consultation will at least sugar the pill.

The Foreign Secretary wants to send a message to Shultz urging the Americans to consult properly before reaching a decision, and would like to quote you in support (on this aspect alone). It is thought that will be enough to convince the President. No - I have only a certain amount of credit to use not.

Agree?

CDP

CHARLES POWELL

6 February 1987

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US/SOVIET ARMS CONTROL TALKS/ EAST WEST & US/SOVIET RELATIONS

PS
PS/LADY YOUNG
PS/MR RENTON
PS/PUS
MR THOMAS
MR BOYD
MR RATFORD
MR FALL
MR FEARN

MR POWELL No.10 DOWNING STREET

MR D NICHOLLS DUS(P))
NPS)
DACU) MOD
CDI)

HD/DEFENCE DEPT
HD/ACDD
HD/SOVIET DEPT

PLEASE ADD HD/NAD IF EAST/WEST DIST

RESIDENT CLERK

UNCLASSIFIED
FM WASHINGTON
TO IMMEDIATE FCO
TELNO 267
OF 062350Z FEBRUARY 87
INFO PRIORITY BONN, PARIS, UKDEL NATO, MODUK

IMMEDIATE

MY TELNO 260: SDI DEPLOYMENT/ABMT

1. THE US PRESS IS NOW GIVING EXTENSIVE COVERAGE TO THE ABM TREATY/SDI EARLY DEPLOYMENT ISSUE.

2. A MAJOR THEME IN THE 6 FEBRUARY PRESS IS ALLIED AND CONGRESSIONAL CONCERN ABOUT A POSSIBLE MOVE TO THE BROADER INTERPRETATION OF THE ABM TREATY. A FRONT PAGE ARTICLE IN THE NEW YORK TIMES REPORTS THAT LORD CARRINGTON HAS WRITTEN ASKING THAT THE ALLIANCE BE CONSULTED BEFORE ANY DECISIONS ARE TAKEN. THE SAME ARTICLE CONTAINS A REFERENCE TO MY CALL ON SHULTZ ON 5 FEBRUARY. BOTH THE PRIME MINISTER AND CHANCELLOR KOHL ARE REPORTED TO FAVOUR ADHERENCEP TO THE TRADITIONAL INTERPRETATION OF THE TREATY, AND THE JAPANESE ARE SAID TO HAVE TOLD THE ADMINISTRATION THAT THEY WOULD FIND IT POLITICALLY DIFFICULT TO SUPPORT A PROGRAMME THAT GOES BEYOND RESEARCH. THE FIRST LEADER IN THE NEW YORK TIMES,STRONGLY CRITICAL OF PRESSURE TO MOVE TO THE BROAD INTERPRETATION OF THE TREATY AND TOWARDS EARLY PARTIAL SDI DEPLOYMENT, SAYS THAT THE REACTIONS FROM CONGRESS AND THE ALLIES ARE POURING IN AND THAT ALMOST ALL CARRY THE SAME URGENT MESSAGE QUOTE DON'T DO IT UNQUOTE.

3. A SUB-THEME IS THAT THE JCS DO NOT SHARE WEINBERGER'S BELIEF IN THE DESIRABILITY OF REDIRECTING THE SDI PROGRAMME AND OF PROCEDING WITH NEAR TERM DEPLOYMENTS. MEMBERS OF THE JCS TOLD THE SENATE ARMED SERVICES COMMITTEE ON 5 FEBRUARY THAT THEY DO NOT HAVE SUFFICIENT INFORMATION ON POSSIBLE NEAR TERM DEPLOYMENT OPTIONS TO BE ABLE TO OFFER THE PRESIDENT ADVICE: AND ADMIRAL CROWE IS REPORTED TO HAVE WRITTEN TO A REPUBLICAN MEMBER OF THE HOUSE OF REPRESENTATIVES SAYING THAT QUOTE A DEPLOYMENT DECISION IS PREMATURE UNQUOTE BECAUSE THE QUOTE MILITARY UTILITY UNQUOTE OF THE SYSTEMS HAS NOT BEEN

QUOTE A DEPLOYMENT DECISION IS PREMATURE UNQUOTE BECAUSE THE QUOTE MILITARY UTILITY UNQUOTE OF THE SYSTEMS HAS NOT BEEN FULLY ASSESSED. CROWE IS REPORTED TO HAVE ADDED QUOTE WE HAVE TO KNOW MORE ABOUT THE FORM OF THE FINAL SYSTEM BEFORE WE COMMIT OURSELVES TO PROPERLY ADVISE THE PRESIDENT ON THE MILITARY SIGNIFICANCE OF NEAR TERM DEPLOYMENT UNQUOTE.

4. THERE IS ALSO MUCH PRESS INTEREST IN SHULTZ'S POSITION. THE GENERAL VIEW IS THAT HE HAS DECIDED NOT TO TAKE WEINBERGER ON HEAD-ON, BUT INSTEAD TO ARGUE THAT ANY MOVE TO THE BROAD INTERPRETATION OF THE ABM TREATY MUST BE PRECEDED BY PROPER CONSULTATION WITH CONGRESS AND THE ALLIES.

5. ON THE NSPG MEETING ON 10 FEBRUARY, THE WASHINGTON TIMES SUGGESTS THAT THREE OPTIONS WILL BE CONSIDERED:

(I) A DECISION NOW TO PROCEED WITH FIRST PHASE DEPLOYMENTS. THESE WOULD INCLUDE DEPLOYMENT OF SOME GROUND BASED SYSTEMS (PRESUMABLY ERIS) BEFORE JANUARY 1989 AND SOME SPACE BASED SYSTEMS (PRESUMABLY KKV) IN 1993:

(II) NO DECISIONS ON DEPLOYMENT NOW BUT A DECISION TO CONDUCT THE SDI PROGRAMME IN LINE WITH THE BROAD INTERPRETATION OF THE ABM TREATY:

(III) DEREFERRAL OF BOTH DEPLOYMENT AND ABM TREATY DECISIONS FOR SEVERAL MONTHS IN ORDER TO TEST SOVIET REACTIONS AT THE NEGOTIATING TABLE IN GENEVA.

6. THE WASHINGTON TIMES ALSO CARRIES EXCERPTS FROM A NOTE OF EXCHANGES DURING THE NSPG MEETING ON 3 FEBRUARY. CONTACTS BELIEVE THAT THEY ARE ACCURATE: AND THAT THE AIM OF THE LEAK IS TO TRY TO FORCE DECISIONS ON EARLY DEPLOYMENTS/EARLY MOVE TO THE BROAD INTERPRETATION BY PUBLICISING THE FACT THAT THE PRESIDENT APPEARED ON 3 FEBRUARY TO BE IN FAVOUR.

7. SEE MY 2 IFTS

ACLAND

YYYY

ORWBAN 9438

NNNN

GRS 570

SECRET

9

SECRET
DEDIP
FM WASHINGTON
TO IMMEDIATE FCO
TELNO 260
OF 052357Z FEBRUARY 87
INFO PRIORITY BONN, PARIS, UKDEL NATO, MODUK

MODUK FOR DACU
MY TELNO 252: SDI DEPLOYMENT
SUMMARY

1. NSPG DISCUSSION ON 10 FEBRUARY NOW LIKELY TO FOCUS ON THE ISSUE OF THE ABMT BROAD AND NARROW INTERPRETATIONS, AND POSSIBLE CONSULTATION PROCEDURES.

DETAIL

2. WEINBERGER HAS NOW CONFIRMED IN PUBLIC THAT QUOTE DEPLOYMENT UNQUOTE DECISIONS ARE NOT IMMINENT. BUT FROM WHAT SHULTZ SAID TODAY (MY TELNO 253: NOT TO ALL), AND FROM OUR CONTACTS WITH OTHERS IN STATE AND THE NSC, IT SEEMS CLEAR THAT PRESSURE FOR A RAPID MOVE TO THE BROAD INTERPRETATION OF THE ABMT IS BUILDING UP, AND COULD COME TO A HEAD AT THE NEXT NSPG MEETING, NOW CONFIRMED FOR 10 FEBRUARY. CONTACTS IN STATE BELIEVE THAT IT WILL, AND THAT THE DEBATE IS LIKELY TO GO AGAINST THEM: CONTACTS IN THE NSC BELIEVE THAT NO DECISIONS WILL BE TAKEN ON 10 FEBRUARY (AND CONFIRM THAT NO PAPERS ON THE PROGRAMMATIC OPTIONS WHICH WOULD FOLLOW AN ABMT DECISION ARE YET READY), BUT THEY ALSO ADMIT THAT A DECISION IN PRINCIPLE COULD IN EFFECT BE TAKEN QUOTE IF NONE OF THOSE PRESENT ARE SPEAKING OUT AGAINST IT UNQUOTE.

3. IN BOTH NSC AND STATE THE EXPECTATION IS THAT THE 10 FEBRUARY MEETING WILL CERTAINLY ADDRESS THE QUESTION OF APPROPRIATE PROCEDURES FOR CONSULTATION WITH ALLIES AND WITH CONGRESS. OUR NSC SOURCES ASSURE US THAT THE IMPORTANCE OF FULL CONSULTATION WITH KEY ALLIES - QUOTE AND NOT PROFORMA, ELEVENTH HOUR INFORMATIVE EXCHANGES UNQUOTE - IS FULLY RECOGNISED AT ALL LEVELS IN THE WHITE HOUSE/ NSC. SHULTZ APPEARED THIS MORNING TO AGREE, BUT HIS OFFICIALS ARE NOT 100 PERCENT CONFIDENT THAT THERE WILL BE FULL CONSULTATION, AND BELIEVE THAT A PROVISIONAL DECISION TO BREAK OUT FROM THE NARROW INTERPRETATION WOULD IN ANY CASE BE HARD TO REVERSE, WHATEVER THE CONTENT OF SUBSEQUENT EXCHANGES WITH ALLIES.

/4. DISCUSSION

SECRET - DEDIP -

4. DISCUSSION ON CONSULTATION AT THE FIRST (3 FEBRUARY) MEETING SEEMS TO HAVE COVERED ONLY CONSULTATION ON THE HILL. OUR SOURCES REFER TO CONCERN THAT ADVERSE HILL REACTIONS COULD DELAY/REDUCE SDI FUNDING, AND THE CONSEQUENT NEED TO PREPARE THE GROUND CAREFULLY. THERE IS TALK OF SOFAER LEADING A CONSULTATIVE EXERCISE, AND PRESENTING PAPERS ON HOW THE ABMT HAS BEEN APPLIED IN PRACTICE, AND WHAT STATEMENTS ABOUT ITS INTERPRETATION THE TWO PARTIES HAVE EXCHANGED. SOFAER IS SAID TO ENVISAGE A CONSULTATIVE EXERCISE LASTING 6 MONTHS: MEESE AND OTHERS HAVE ARGUED THAT THE JOB COULD BE DONE MUCH FASTER.

5. OUR CONTACTS ARE NOT CONFIDENT THAT CONSULTATION WITH ALLIES WOULD NECESSARILY PRECEDE CONSULTATION ON THE HILL: THE TWO PROCESSES COULD BE SIMULTANEOUS, RATHER THAN SEQUENTIAL. MY MEETING WITH CARLUCCI ON 9 FEBRUARY PROVIDES A GOOD OPPORTUNITY TO STRESS THE IMPORTANCE OF CONSULTATION BEFORE DECISIONS ARE TAKEN, LET ALONE COMMUNICATED TO THE HILL, ON AN ISSUE WHICH COULD BE VERY DISRUPTIVE WITHIN THE ALLIANCE.

6. WE UNDERSTAND THAT CHANCELLOR KOHL HAS SENT THE PRESIDENT A MESSAGE, EXPRESSING CONCERN AT DEVELOPMENTS.

ACLAND

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ORBEAN 9410

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HD. DEFENCE DEPT.
HQ NAD.
HQ PLANNING STAFF.
PS
PS | MR RENTON.
PS | PUS.
MR THOMAS
MR. BOYD
MR FALL.
MR RATFORD.

GRS 1200

SECRET

8

SECRET
DEDIP
FM WASHINGTON
TO IMMEDIATE FCO
TELNO 255
OF 052345Z FEBRUARY 87
INFO IMMEDIATE UKDEL NATO

The FCO are likely to ask you to send a message to TO President.

UKDEL NATO PERSONAL FOR FALL

YOUR TELNO 174: SDI DEPLOYMENTS

SUMMARY

1. OUR CONCERNS EXPLAINED TO SHULTZ. ON EARLY DEPLOYMENT, SHULTZ SAYS NO DECISIONS HAVE BEEN TAKEN: BUT NEW CRITICAL PATH DECISIONS ON THE SDI PROGRAMME MAY BE REQUIRED. APPARENT AGREEMENT BY SHULTZ THAT ALLIED CONSULTATION REQUIRED BEFORE ANY MOVE TO THE BROAD INTERPRETATION OF THE ABM TREATY.

DETAIL

2. I CALLED ON SHULTZ ON 5 FEBRUARY. I SAID THAT WE WERE FOLLOWING CLOSELY REPORTS THAT THE PRESIDENT MIGHT SOON TAKE DECISIONS IN FAVOUR OF EARLY SDI DEPLOYMENTS. YOU WERE CONCERNED THAT, EVEN IF SUCH DECISIONS WERE TAKEN IN A STAGED MANNER, WITHOUT ACTUAL DEPLOYMENT DECISIONS NOW, THE EFFECT ON THE ALLIANCE WOULD BE VERY UNSETTLING. SUCH DECISIONS MIGHT ALSO BE INCONSISTENT WITH THE BRITISH AND ALLIED APPROACH TO THE SDI PROGRAMME, ESTABLISHED AT CAMP DAVID IN 1984. WE OF COURSE STRONGLY SUPPORTED THE SDI RESEARCH PROGRAMME BUT WERE WORRIED THAT THE US APPROACH TO IT MIGHT BE IN THE PROCESS OF CHANGING. I SAID THAT YOU WERE ALSO CONCERNED ABOUT THE IMPACT OF ANY SUCH DECISIONS ON THE PROSPECTS FOR ACHIEVING SIGNIFICANT ARMS CONTROL AGREEMENTS IN GENEVA. IT COULD OF COURSE BE ARGUED THAT INCREASING THE PRESSURE ON THE RUSSIANS BY REDIRECTING THE SDI PROGRAMME MIGHT ENCOURAGE THEM TO WORK HARDER FOR AGREEMENTS IN GENEVA. BUT OUR JUDGEMENT WAS THAT A SIGNIFICANT SHIFT IN THE US CONDUCT OF THE SDI PROGRAMME, WHICH WOULD BE SEEN BY THE RUSSIANS AS BEARING DIRECTLY ON THEIR CENTRAL CONCERNS, WOULD PROBABLY HAVE THE OPPOSITE EFFECT AND MIGHT CAUSE THE SOVIET UNION TO SWITCH OFF ENTIRELY IN GENEVA. THEY WOULD CERTAINLY TRY TO USE ANY SUCH SHIFT IN THE US POSITION TO DAMAGING PROPAGANDA EFFECT WITHIN THE ALLIANCE.

/3. I ADDED

3. I ADDED THAT, ON THE BASIS OF THE (NO DOUBT INCOMPLETE) INFORMATION AVAILABLE TO US ON THE RESULTS SO FAR ACHIEVED IN THE SDI PROGRAMME, WE COULD NOT SEE WHAT TECHNOLOGY-BASED REQUIREMENT THERE MIGHT BE FOR EARLY DECISIONS DIRECTED TOWARDS SDI DEPLOYMENT. A FURTHER POINT OF CONCERN, ALTHOUGH THIS WAS ONE WHICH THE ADMINISTRATION WERE OF COURSE MUCH BETTER PLACED TO JUDGE, WAS THAT EARLY DECISIONS OF THE KIND APPARENTLY NOW ENVISAGED MIGHT DAMAGE THE PROSPECTS FOR WINNING CONTINUED CONGRESSIONAL SUPPORT AND FUNDING FOR THE SDI PROGRAMME. SOME SENIOR DEMOCRATIC CONGRESSIONAL FIGURES HAD SUGGESTED TO ME THAT THIS WOULD BE THE CASE. SINCE WE STRONGLY SUPPORTED THE RESEARCH PROGRAMME AND WANTED IT TO GO AHEAD, WE COULD NOT HELP WONDERING WHETHER DECISIONS WHICH WOULD BE INTERPRETED AS MOVING THE GOAL-POSTS MIGHT NOT IN FACT HARM THE WHOLE PROGPAMME.

4. SHULTZ SAID THAT THE FACTS WERE AS FOLLOWS. THE SDI PROGRAMME WAS APPARENTLY MOVING AHEAD QUITE SUCCESSFULLY. THIS WAS NATURALLY GRATIFYING FOR ALL THOSE, INCLUDING HIM, WHO SUPPORTED THE PROGRAMME. PROGRESS HAD NOW BEEN SUFFICIENT TO REQUIRE THE ADMINISTRATION TO THINK ABOUT THE STAGES THAT WOULD HAVE TO BE PASSED THROUGH TO MAKE REAL DEPLOYMENT OPTIONS AVAILABLE TO A FUTURE PRESIDENT. A PHASED PROCESS OF BUILDING TOWARDS A DEPLOYMENT DECISION WAS NEEDED. THE KEY REQUIREMENT WAS TO IDENTIFY THE QUOTE CRITICAL PATH UNQUOTE AND SEE WHAT DECISIONS WOULD BE NEEDED, AND WHEN. THERE WAS NOTHING PRESENTLY TO HAND WHICH WOULD ENABLE A DEPLOYMENT DECISION TO BE TAKEN NOW, AND THE PRESIDENT'S THREE CRITERIA (TECHNICAL FEASIBILITY, SURVIVABILITY AND COST-EFFECTIVENESS) WOULD APPLY TO ANY SUCH DECISION. BUT THERE WAS A NEED TO REMAIN ON THE CRITICAL PATH AND THIS REQUIRED CONSIDERATION OF WHAT KINDS OF DEVELOPMENT AND TESTING WOULD BE REQUIRED, AND WHEN. IN PARTICULAR, THERE WAS A NEED TO ASK HOW REAL WERE THE CONSTRAINTS OF CONDUCTING THE SDI PROGRAMME WITHIN THE NARROW INTERPRETATION OF THE ABM TREATY AND WHAT COULD BE ACHIEVED BY MOVING TO THE BROADER (QUOTE ARGUABLY THE CORRECT UNQUOTE) INTERPRETATION. THE NEGOTIATING RECORD WOULD ENTITLE THE RUSSIANS TO BELIEVE THAT THE TREATY WAS TO BE INTERPRETED IN THE BROAD MANNER. THERE WAS THEREFORE REASON FOR CONCERN ABOUT PRESENT AND FUTURE SOVIET SDI-TYPE ACTIVITIES.

5. I SAID THAT I ASSUMED IT WAS STILL THE PRESIDENT'S POSITION, AS HE HAD AGREED WITH THE PRIME MINISTER AT CAMP DAVID IN NOVEMBER 1984, THAT UNDER THE ABM TREATY NEGOTIATIONS WOULD BE REQUIRED BEFORE ANY SDI DEPLOYMENTS WERE MADE. SHULTZ SAID THAT A NUMBER OF US PROPOSALS, FOR EXAMPLE THE PRESIDENT'S PROPOSAL TO

GORBACHEV OF JULY 1986, ENVISAGED A PERIOD OF NEGOTIATION (TWO YEARS IN THE CASE OF THE JULY 1986 PROPOSAL) DURING WHICH THERE WOULD BE NEGOTIATIONS PRIOR TO SDI DEPLOYMENT. BUT THE RUSSIANS HAD NEVER ACCEPTED THIS POINT. I ASKED SHULTZ WHETHER IT WAS NEVERTHELESS NOT THE CASE THAT THE PRESIDENT HAD UNILATERALLY COMMITTED HIMSELF TO SUCH NEGOTIATIONS BEFORE ANY SDI DEPLOYMENT. SHULTZ SAID THAT IT WOULD OF COURSE BE NECESSARY TO GIVE SIX MONTHS NOTICE OF WITHDRAWAL FROM THE ABM TREATY BEFORE ANY DEPLOYMENTS COULD BE MADE. BUT THE PRESIDENT HAD MADE NO DECISIONS ABOUT DEPLOYMENTS: AS ADMIRAL CROWE HAD SAID, THERE WAS NOTHING OUT THERE IN THE PARKING LOT. THE POINT WAS THAT SUFFICIENT PROGRESS HAD BEEN MADE IN THE SDI PROGRAMME FOR IT TO BE NECESSARY TO START CONSIDERING WHAT STAGES NEEDED TO BE GONE THROUGH BEFORE ANY DEPLOYMENTS COULD BE UNDERTAKEN.

6. I SAID THAT, INSOFAR AS THE PRESENT DEBATE WAS ABOUT THE INTERPRETATION OF THE ABM TREATY, WE ATTACHED IMPORTANCE TO THE ADMINISTRATION'S 1985 DECISION THAT THE SDI PROGRAMME WOULD BE CONDUCTED WITHIN THE NARROW INTERPRETATION. I RECALLED THAT THE ADMINISTRATION HAD AT THAT TIME MADE A COMMITMENT TO CONSULT THE ALLIES BEFORE THIS POSITION CHANGED. SHULTZ NODDED AND SAID THAT A CAREFUL PROCESS OF CONSIDERATION AND CONSULTATION WAS IN HIS VIEW NEEDED BEFORE ANY DECISION TO MOVE AWAY FROM CONDUCTING THE SDI PROGRAMME WITHIN THE NARROW INTERPRETATION OF THE TREATY.

7. SHULTZ INDICATED THAT HIS REPORT OF HIS CONVERSATION WITH ME WOULD OF COURSE GO TO THE WHITE HOUSE. HE NOTED THAT THE PRIME MINISTER'S VIEWS ON THESE ISSUES WOULD, AS ALWAYS, CARRY PARTICULAR WEIGHT WITH THE PRESIDENT.

COMMENT

/8. THIS

8. THIS WAS A CLASSIC SHULTZ PERFORMANCE IN WHICH HE REVEALED VERY LITTLE OF HIS OWN THINKING. BUT HIS EMPHASIS ON THE STAGES THROUGH WHICH THE SDI PROGRAMME WOULD HAVE TO PASS (THE QUOTE CRITICAL PATH UNQUOTE) IF REAL DEPLOYMENT OPTIONS WERE TO BE AVAILABLE IN DUE COURSE CONFIRMS THAT THE IMMEDIATE DECISIONS ARE NOT ABOUT DEPLOYMENTS AS SUCH BUT ABOUT WHETHER OR NOT TO ABANDON THE NARROW INTERPRETATION OF THE ABM TREATY AND TAKE CONSEQUENTIAL STEPS TO REDIRECT THE SDI DEVELOPMENT AND TESTING SCHEDULE. SHULTZ AVOIDED SAYING THAT HE WAS OPPOSED TO THIS. BUT HIS VIEWS ON THE NEED FOR A PROCESS OF CONSIDERATION AND CONSULTATION BEFORE ANY SUCH MOVES ARE HELPFUL, AS IS HIS APPARENT CONFIRMATION THAT THIS SHOULD INCLUDE CONSULTATION WITH ALLIES.
9. I AM SEEING CARLUCCI TO GO OVER THE SAME GROUND ON 9 FEBRUARY.

ACLAND
ORWBAN 9403

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MR RATFORD.

SECRET

DEDIP

FM WASHINGTON

TO IMMEDIATE FCO

TELNO 252

OF 050215Z FEBRUARY 87

INFO PRIORITY BONN, PARIS, UKDEL NATO, MODUK

MODUK FOR DACU

YOUR TELNO 176: SDI DEPLOYMENT

SUMMARY

1. NO DECISIONS AT NSPG MEETING ON 3 FEBRUARY. BUT GENERAL FEELING APPARENTLY AGAINST EARLY DEVELOPMENT/DEPLOYMENT DECISIONS BUT IN FAVOUR OF EARLY MOVE TO BROAD INTERPRETATION OF ABM TREATY. FURTHER NSPG DISCUSSION POSSIBLE ON 10 FEBRUARY.

DETAIL

2. STATE DEPARTMENT CONTACTS HAVE GIVEN US THE FOLLOWING ACCOUNT (PLEASE PROTECT) OF THE NSPG MEETING ON 3 FEBRUARY. THE TWO MAIN AGENDA ITEMS WERE A) THE POSSIBILITY OF BEGINNING SOON TO CONDUCT THE SDI PROGRAMME WITHIN THE BROAD, RATHER THAN THE NARROW, INTERPRETATION OF THE ABM TREATY, AND B) THE POSSIBLE NEED TO COUPLE THIS TO DEVELOPMENT DECISIONS DIRECTED TOWARDS THE EARLY DEPLOYMENT OF A FIRST PHASE SDI SYSTEM. THERE WAS ALSO SOME DISCUSSION OF ACCELERATING THE DEVELOPMENT OF A NEW HEAVY LIFT CAPABILITY. THE DISCUSSION WAS APPARENTLY OF A GENERAL NATURE AND DID NOT COVER PRECISE DEVELOPMENT/DEPLOYMENT TIME-TABLES OR PARTICULAR SDI SYSTEMS. NO SPECIFIC OPTIONS WERE TABLED. DISCUSSION WAS DOMINATED BY PROGRAMMATIC CONSIDERATIONS: BUDGETARY AND POLITICAL IMPLICATIONS (IMPACT ON CONGRESS, REACTIONS OF ALLIES, IMPLICATIONS FOR GENEVA NST ETC) WERE NOT DWELT ON (PERHAPS BECAUSE SHULTZ HAD TO LEAVE EARLY TO TESTIFY ON THE HILL.)

3. THE STATE DEPARTMENT ASSESSMENT SEEMS TO BE THAT THERE WAS GENERAL RECOGNITION THAT DEVELOPMENT DECISIONS DESIGNED TO SUPPORT EARLY PARTIAL SDI DEPLOYMENTS MIGHT NOT BE NEEDED AT THIS STAGE. THE PROVISIONAL CONSENSUS APPEARS TO HAVE BEEN THAT IT WAS TOO EARLY TO RESTRUCTURE THE SDI PROGRAMME BY DIRECTING SIGNIFICANT RESOURCES TOWARDS THE EARLY DEPLOYMENT OF PHASE 1 SYSTEMS WHICH WOULD NOT BE VERY ADVANCED TECHNOLOGICALLY AND WOULD HAVE ONLY LIMITED EFFECTIVENESS.

SECRET

4. ON ABM TREATY INTERPRETATION, HOWEVER, STATE'S ASSESSMENT IS THAT THE MOOD OF THE MEETING WAS IN FAVOUR OF AN EARLY MOVE TOWARDS ABANDONING THE NARROW INTERPRETATION OF THE ABM TREATY AND CONDUCTING THE SDI PROGRAMME WITHIN THE LESS BINDING CONSTRAINTS OF THE BROAD INTERPRETATION. WE HAVE BEEN TOLD THAT ONLY SHULTZ EXPRESSED GRAVE DOUBTS ABOUT THIS, ALTHOUGH THE CHAIRMAN OF THE JCS APPARENTLY ALSO SUGGESTED OBLIQUELY THAT RELEASING THE RUSSIANS FROM THE CONSTRAINTS OF THE NARROW INTERPRETATION MIGHT CARRY CERTAIN MILITARY RISKS FOR THE US (THE OBLIQUENESS MAY HAVE BEEN BECAUSE WEINBERGER APPARENTLY SUMMONED ADMIRAL CROWE ON 2 FEBRUARY FOR A QUOTE GET IN LINE SESSION UNQUOTE). WE UNDERSTAND THAT SHULTZ ARGUED PARTICULARLY STRONGLY(WITH SOME SUPPORT FROM ADELMAN) THAT AN EARLY MOVE TO THE BROAD INTERPRETATION WOULD BE A DISASTER IN CONGRESSIONAL TERMS AND PLACE AT RISK THE FUNDING OF THE ENTIRE SDI PROGRAMME. THE PRESIDENT APPARENTLY INDICATED IN GENERAL TERMS, HOWEVER, THAT HE FOUND THE PROGRAMMATIC CASE MADE BY WEINBERGER FOR ABANDONING THE NARROW INTERPRETATION PERSUASIVE.

5. TESTIFYING TO THE SENATE ARMED SERVICES COMMITTEE IMMEDIATELY AFTER THE NSPG MEETING, SHULTZ SAID THAT NO DECISIONS HAD BEEN MADE ABOUT ANY KIND OF SDI DEPLOYMENT AND THAT THE PRESIDENT'S ESTABLISHED CRITERIA (TECHNICAL FEASIBILITY, SURVIVABILITY AND COST-EFFECTIVENESS AT THE MARGIN) WOULD APPLY TO ANY SUCH DECISIONS. SHULTZ ALSO SAID (TWICE) THAT THE PRESIDENT'S DECISION TO CONDUCT THE SDI PROGRAMME WITHIN THE NARROW INTERPRETATION OF THE ABM TREATY WAS QUOTE OBVIOUSLY A SUBJECT FOR REVIEW UNQUOTE.

6. A FURTHER MEETING OF THE NSPG HAS NOW BEEN SCHEDULED FOR NEXT WEEK, PROBABLY ON 10 FEBRUARY. SOME OF OUR CONTACTS BELIEVE THAT DECISIONS ON THESE QUESTIONS COULD BE MADE AT THAT MEETING, BUT OTHERS BELIEVE THAT DISCUSSION WILL BE ABOUT ARMS CONTROL ISSUES MORE GENERALLY.

7. I HAD SPOKEN TO ARMACOST ON 2 FEBRUARY, AND HE HAD UNDERTAKEN TO RELAY OUR CONCERNS TO SHULTZ BEFORE THE MEETING. I AM SEEING SHULTZ AT 10.30 ON 5 FEBRUARY TO CARRY OUT THE INSTRUCTIONS IN YOUR TELNO 174 (NOT TO OTHERS).

ACLAND
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MR RATFORD.

CQPC

MINISTRY OF DEFENCE
MAIN BUILDING WHITEHALL LONDON SW1
Telephone 01-930 7022

MO 14/2E

4 February 1987

Note put to the Prime Minister CDP 4/2.

Dear Charles.

Thank you for your letter of 30th January in which you ask whether General Abrahamson is likely to be in London during the next couple of weeks. I understand that he is not expected here again before May.

As you may know, the Defence Secretary intends to make a short visit to Washington later this month. He has no plans to meet General Abrahamson but arrangements could no doubt be made for him to do so if the Prime Minister wishes to invite him to London. In the meantime, if the Prime Minister would find it helpful to receive an up to date briefing on the progress of the SDI programme, would you like our experts to prepare something?

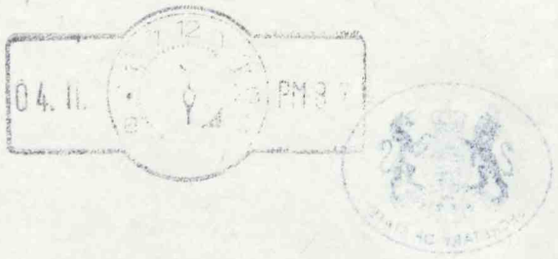
Yours sincerely,

John Howe

(J F HOWE)
Private Secretary

Charles Powell Esq
No 10 Downing Street

DEFENCE: SDI Part 4



GRS 1700

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FM WASHINGTON
TO IMMEDIATE FCO
TELNO 197
OF 302300Z JANUARY 87
INFO ROUTINE PARIS, BONN, UKDEL NATO, MODUK
INFO SAVING MOSCOW

SIC MODUK FOR DACU, DNSP, SDIPO
MY TELNO 139: SDI DEPLOYMENT
SUMMARY

1. INTER-AGENCY DEBATE ON POSSIBLE OPTIONS FOR EARLY SDI DEPLOYMENT DECISIONS NOT YET STARTED, AND NO FIRM OPTIONS YET IDENTIFIED. BUT WEINBERGER LIKELY NOW TO ARGUE FOR A THREE-PHASE APPROACH TO SDI DEPLOYMENT, AND THAT, FOR A MID 90'S PHASE 1, DEVELOPMENT DECISIONS ARE NEEDED SOON, INCLUDING SOME WHICH WOULD BREAK THE ABMT (NARROW INTERPRETATION). STATE, INCLUDING SHULTZ, DISPOSED TO FIGHT. UK CONCERNS FIRMLY REGISTERED. DEFENCE SECRETARY'S MID-FEBRUARY VISIT WILL BE TIMELY.

DETAIL

2. CONTACTS THIS WEEK WITH HOLMES, RIDGWAY, NITZE, HAWES AND THOMAS (STATE), PERLE, ABRAHAMSON AND IKLE (DOD) AND COCKELL (NSC) CONFIRM THAT:

(A) THERE IS A REAL PENTAGON HEAD OF STEAM BEHIND THE WEINBERGER CAMPAIGN:

(B) BUT NO OPTIONS HAVE YET BEEN PRESENTED FOR INTER-AGENCY DISCUSSION, LET ALONE RECOMMENDATIONS MADE:

(C) DECISIONS, IF ANY, WOULD BE MADE BY THE PRESIDENT, WITH KEY CABINET COLLEAGUES:

(D) NO SUCH DECISIONS ARE IMMINENT, BUT DECISION-POINTS ARE LIKELY TO BE REACHED AT SOME TIME IN THE NEXT TWO MONTHS, POSSIBLY AS SOON AS LATE-FEBRUARY.

3. THE WEINBERGER PUBLIC CAMPAIGN HAS, FOR THE PRESENT, CEASED: BUT THE OPPOSITE ARGUMENTS HAVE STILL NOT BEEN PUBLICLY ADVANCED BY A COMPARABLY SENIOR ADMINISTRATION SPOKESMAN (THOUGH YOUR IISS SPEECH HAS BEEN PICKED UP IN THE PRESS AS EVIDENCE OF UNDERSTANDABLE ALLIED CONCERN). THE FIRST INTER-AGENCY DISCUSSION AT SENIOR OFFICIAL (NSPG) LEVEL WILL NOT BE UNTIL NEXT WEEK. BUT SHULTZ HAS NOW (ON 24 JANUARY) RECEIVED THE BRIEFING WHICH THE PRESIDENT WAS GIVEN ON 17 DECEMBER AND, THOUGH RIDGWAY ON 26 JANUARY WAS NOT CERTAIN HOW HE WOULD COME DOWN, WE HAVE SINCE HAD IT FROM TWO GOOD SOURCES IN STATE THAT HE HAS SHOWN HIMSELF FULLY ALIVE TO THE DAMAGE WHICH THE WEINBERGER APPROACH COULD DO, AND IS READY TO FIGHT.

4. WHATEVER OPTIONS ARE IN THE END PUT TO THE PRESIDENT, IT SEEMS CLEAR THAT, IN ADDITION TO HIS CONGRESSIONAL FUNDING MOTIVE, WEINBERGER IS NOW DISPOSED TO ARGUE THAT THE DEVELOPMENT AND DEPLOYMENT OF SDI MUST FOLLOW A PHASED APPROACH: AND THAT

IF THE US IS TO BE READY FOR EVEN PHASE 1 DEPLOYMENT BY THE MID/LATE 90'S, DECISIONS TO PROCEED TO FULL DEVELOPMENT OF PHASE 1 ITEMS MUST BE TAKEN SOON. ACCORDING TO ABRAHAMSON, THREE PHASES ARE ENVISAGED. DIRECTED-ENERGY OPTIONS WOULD NOT BE AVAILABLE BEFORE THE THIRD: AND SUFFICIENT DISCRIMINATORY ABILITY TO DEAL WITH DECOYS IN MID-COURSE WOULD HAVE TO AWAIT THE SECOND. BUT THE FIRST WOULD INVOLVE A PARTIAL CAPABILITY FOR BOOST-PHASE (KKV) AND TERMINAL PHASE (ERIS) ATTACKS. (IN PHASE 1 THERE MIGHT ALSO BE A ROLE FOR THE LONG-WAVE INFRA-RED PROBE, GROUND-LAUNCHES TO TRACK RVS IN MID COURSE.)

5. THIS IS OF COURSE A CONSIDERABLE CHANGE IN ABRAHAMSON PHILOSOPHY. UNTIL NOW HE HAS ARGUED THAT THE ESSENCE OF SDI WAS A TECHNOLOGICAL QUANTUM JUMP: THAT THE RESEARCH PROGRAMME WOULD THEREFORE EXPLORE THE MOST DIFFICULT AREAS FIRST: AND THAT INCREMENTAL DEVELOPMENT AND DEPLOYMENT WOULD BE A MISTAKE, BECAUSE IT WOULD RISK NUGATORY EXPENDITURE ON WORKING UP AVAILABLE TECHNOLOGY, WHICH MIGHT BE OVERTAKEN BY A MAJOR BREAKTHROUGH ELSEWHERE IN THE RESEARCH PROGRAMME. OF COURSE IT HAS ALWAYS BEEN ACCEPTED THAT EVENTUAL DEPLOYMENT WOULD BE A PHASED OPERATION, BUT THE IDEA OF GOING FOR A MID-90'S FIRST PHASE DEPLOYMENT OF THE KIND PROPOSED WOULD BE A MAJOR REVERSAL. (CURRENT ESTIMATES ARE THAT A PHASE 1 DEVELOPMENT/DEPLOYMENT, ON ERIS/KKV LINES, WOULD OVER 10 YEARS COST AT LEAST USD 100 B, IE MORE THAN THE US ARMY'S ENTIRE PROCUREMENT PROGRAMME OVER 10 YEARS.)

6. FOR SOME IN DOD, WHOSE REAL AIM MAY BE BREAKOUT FROM THE ABMT, KKV IS OBVIOUSLY MORE IMPORTANT. FOR THE DEVELOPMENT, TESTING, AND LIMITED DEPLOYMENT OF ERIS - BASICALLY NO MORE THAN A WORKED-UP VERSION OF THE (50'S TECHNOLOGY) SENTINEL/SPRINT SYSTEM, SHELVED AT THE END OF THE 60'S ON GROUNDS OF COST-INEFFECTIVENESS - WOULD BE CONSISTENT WITH THE ABMT. BUT THE DEVELOPMENT AND TESTING OF KKV WOULD BE INCONSISTENT WITH ITS NARROW INTERPRETATION.

7. THE GENERAL VIEW SEEMS TO BE THAT, WHATEVER HIS PRIVATE MOTIVES (CONGRESS-RELATED/ABMT-RELATED/GENEVA-RELATED ETC) WEINBERGER, IF HE SOON SEEKS PRESIDENTIAL DECISIONS, WILL REST HIS CASE ON PROGRAMMATIC GROUNDS, ADDUCING RESEARCH PROGRESS MADE (EG WITH ERIS AND KKV) AND THE NEED TO MOVE TO THE NEXT (DEVELOPMENT) STAGE IF THE PROGRAMME IS NOT TO BE ARTIFICIALLY DELAYED.

8. CONTACTS IN STATE (APART FROM RIDGWAY ON MONDAY) SEEM CONFIDENT THAT SHULTZ (AND CARLUCCI) WILL SUBMIT WEINBERGER'S OPTIONS TO SEARCHING SCRUTINY AGAINST THREE CRITERIA, VIZ:

(A) SURVIVABILITY:

(B) COST-EFFECTIVENESS AT THE MARGIN: AND

(C) TREATY COMPLIANCE.

SURPRISINGLY, THEIR FIRST INFORMAL HUNCH SEEMS TO BE THAT ERIS/KKV OPTIONS MIGHT LOOK QUITE GOOD AGAINST CRITERION (A): DOD BRIEFINGS HAVE APPARENTLY COVERED ABILITY TO GIVE KKV SOME SELF-DEFENCE CAPABILITY. THEY ARE MUCH MORE DOUBTFUL ON WHETHER THE POSSIBLE OPTIONS CAN STAND UP AGAINST (B): EVEN IN PHASE 1, HUNDREDS OF KKV LAUNCHERS WOULD HAVE TO BE DEPLOYED IN SPACE

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IAS

AS FOR CRITERION (C), NO-ONE TO WHOM WE HAVE SPOKEN IS IN ANY DOUBT THAT GOING FOR KKV DEVELOPMENT WOULD MEAN ABANDONING IF NOT THE ABMT AT LEAST ITS NARROW INTERPRETATION.

9. WE -AND FALL- HAVE MADE CLEAR, TO ALL OUR INTERLOCUTORS, THE VERY SERIOUS CONSEQUENCES WHICH WOULD THEN FOLLOW FOR THE ALLIANCE. WE HAVE POINTED TO THE US/UK UNDERSTANDING, REACHED AT CAMP DAVID IN DECEMBER 1984, THAT QUOTE SDI-RELATED DEPLOYMENT WOULD, IN VIEW OF TREATY OBLIGATIONS, HAVE TO BE A MATTER FOR NEGOTIATION UNQUOTE: AND HAVE POINTED OUT THAT THE PRESIDENT, THEN AND SINCE, HAS ALWAYS SPOKEN OF COMPLETING A RESEARCH PROGRAMME AND THEN SITTING DOWN WITH THE RUSSIANS TO DECIDE WHETHER THERE SHOULD BE A MOVE TO DEPLOYMENT. WE HAVE ALSO STRESSED THE IMPORTANCE OF SHULTZ'S 1985 ANNOUNCEMENT, SINCE REPEATED IN SUCCESSIVE ADMINISTRATION STATEMENTS, THAT SDI RESEARCH WAS BEING CONDUCTED WITHIN THE NARROW ABMT INTERPRETATION. WE HAVE STRESSED THE NEED FOR FULL ALLIANCE CONSULTATION BEFORE ANY REVERSAL OF THESE KEY ALLIED UNDER-STANDINGS WERE ENVISAGED.

10. IT IS CLEAR THAT IN STATE WE ARE, ON ALL THESE POINTS, PREACHING TO THE CONVERTED: BUT IT IS ALSO CLEAR THAT THEY ARE SERIOUSLY WORRIED, THOUGH STILL GENUINELY UNCERTAIN ABOUT THE PRECISE FORM WHICH THE WEINBERGER INITIATIVE WILL TAKE, AND THE OPTIONS HE WILL SEEK TO PUT FORWARD. IN THE NSC, COCKELL ASSURED FALL ON 30 JANUARY THAT IT WAS UNDERSTOOD THAT CONSULTATION WITH ALLIES WAS ESSENTIAL.

11. I UNDERLINED OUR POINTS TO HOLMES ON 29 JANUARY. WE ALSO DISCUSSED THE LIKELY EFFECTS ON THE GENEVA NEGOTIATIONS IF WEINBERGER WERE TO WIN. SOME HERE MAINTAIN THAT THE EFFECT WOULD BE TO FRIGHTEN THE RUSSIANS INTO AN EARLY AGREEMENT: BUT HOLMES READILY CONCEDED THAT THEY WOULD BE MUCH MORE LIKELY TO SEEK TO EXPLOIT THE INEVITABLE CONFUSION AND DISARRAY IN THE WEST-ERN CAMP. LEARNING FROM THEIR INF LESSON, THEY MIGHT NOT WALK AWAY FROM THE TABLE: BUT THEY WOULD BE LESS, RATHER THAN MORE, LIKELY TO SIGN AN EARLY START AGREEMENT, AND WE COULD EXPECT A MASSIVE PROPAGANDA BARRAGE FROM THEM.

12. THE DEFENCE SECRETARY'S MID-FEBRUARY VISIT WILL CLEARLY BE VERY TIMELY, AND I RECOMMEND THAT HE SHOULD BE FULLY BRIEFED ON THIS ISSUE.

ACLAND

YYYY
FCO PASS SAVING MOSCOW
OTTAWA 9271

(REPEATED AS REQUESTED)

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10 DOWNING STREET
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From the Private Secretary

30 January 1987

Dear John,

The Prime Minister has expressed an interest in seeing General Abrahamson again, possibly before her visit to Moscow. Do you happen to know whether he is likely to be over here in the next two months? If not, we may need to persuade him to make a special visit. But please do not suggest this without speaking further to me.

yours sincerely,

Charles Powell

(C. D. POWELL)

John Howe, Esq.,
Ministry of Defence.

SOFW

GRS 1200

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TO PRIORITY FCO
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MODUK (FOR DACU, D/NPS, SDIPO)

YOUR TELNO 99: SDI

SUMMARY:

1. POLITICAL AND FUNDING CONSIDERATIONS, RATHER THAN ANY DRAMATIC TECHNOLOGICAL BREAKTHROUGH, EXPLAIN SPECULATION ABOUT EARLY PARTIAL SDI DEPLOYMENT. BUT THE PRESIDENT MAY BE INVITED TO TAKE DEVELOPMENT (NOT DEPLOYMENT) DECISIONS BEFORE EASTER, PERHAPS ON A SPACE-BASED KINETIC ENERGY SYSTEM.

DETAIL:

2. RECENT SPECULATION ABOUT POSSIBLE EARLY SDI DEPLOYMENTS WAS SPARKED OFF BY WEINBERGER TELLING THE NATIONAL PRESS CLUB ON 7 JANUARY THAT HE HOPED THAT A FIRM COMMITMENT TO DEPLOYMENT COULD BE MADE QUOTE IN THE NEXT COUPLE OF YEARS UNQUOTE. WEINBERGER HAS FOLLOWED UP WITH SIMILAR REMARKS TO THE SENATE ARMED SERVICES COMMITTEE ON 12 JANUARY AND TO THE NATIONAL SPACE FOUNDATION IN COLORADO SPRINGS ON 22 JANUARY, WHEN HE SAID THAT THE MOMENT FOR DECISIONS ABOUT DEPLOYMENT OF THE FIRST PHASE OF SDI COULD BE APPROACHING, AND THAT THE SDI RESEARCH EFFORT WAS ACHIEVING DRAMATIC RESULTS. INTEREST HAS BEEN FURTHER FUELLED BY A WASHINGTON POST CLAIM ON 18 JANUARY THAT THE PRESIDENT HAD BEEN BRIEFED BY WEINBERGER, PERLE AND ABRAHAMSON ON 17 DECEMBER ON POSSIBLE EARLY PARTIAL DEPLOYMENT OPTIONS, NOTABLY OF A COMBINATION OF A GROUND-BASED ROCKET SYSTEM (THE EXOATMOSPHERIC RE-ENTRY VEHICLE INTERCEPTOR SYSTEM - ERIS) AND SPACE-BASED SENSORS AND ORBITING BATTLE STATIONS CARRYING CHEMICALLY-DRIVEN KINETIC KILL VEHICLES (KKV).

3. THE PUBLIC WHITE HOUSE RESPONSE TO ALL THIS HAS BEEN CAUTIOUS. SPEAKES HAS TAKEN THE LINE ON A NUMBER OF OCCASIONS THAT DISCUSSION OF POSSIBLE EARLY SDI DEPLOYMENTS WAS ONLY AT A VERY EARLY STAGE, THAT QUOTE ABSOLUTELY NO DECISIONS HAVE BEEN MADE UNQUOTE, THAT MUCH MORE DISCUSSION WOULD BE REQUIRED, THAT THE ADMINISTRATION WOULD NOT VIOLATE THE ABM TREATY, AND THAT THEY WERE NOT INTERESTED IN THE DEPLOYMENT OF POINT DEFENCES. A MUCH MORE CAUTIOUS LINE THAN WEINBERGER'S WAS ALSO TAKEN BY ADMIRAL CROWE (JCS CHAIRMAN) WHEN HE TOLD THE SENATE ARMED SERVICES COMMITTEE ON 21 JANUARY THAT THE SDI PROGRAMME WAS STILL A RESEARCH PROGRAMME AND THAT AN SDI SYSTEM WAS QUOTE NOT OUT THERE IN THE PARKING LOT UNQUOTE.

4. BUT OSD, STATE AND NSC CONTACTS CONFIRM THAT THE WASHINGTON POST REPORT OF THE PRESIDENT'S BRIEFING ON 17 DECEMBER WAS PARTIALLY ACCURATE

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''EARLY DEPLOYMENT'' ARE A FEINT, AND THAT HIS REAL MOTIVE MAY BE SO TO ALARM DEMOCRATS ON THE HILL AS TO MAKE INCREASED FUNDING FOR THE PRESENT BROAD-BASED RESEARCH PROGRAMME, ON CONDITION THAT NO MOVE TO DEVELOPMENT WOULD TAKE PLACE WITHOUT FURTHER CONSULTATION, APPEAR A SATISFACTORY EVENTUAL COMPROMISE OUTCOME.

7. OFFICIALS IN STATE ARE, HOWEVER, CLEARLY ALARMED AT THE WEINBERGER CAMPAIGN, AND ITS POSSIBLE EFFECTS (A) IN GENEVA AND (B) VIS-A-VIS THE ABMT. (A LIMITED ERIS DEPLOYMENT MIGHT BE CONSISTENT WITH THE ABMT. BUT ANY KKV DEPLOYMENT WOULD CLEARLY BREACH IT, AND A KKV DEVELOPMENT DECISION, EXPRESSED IN TERMS OF A TARGET DEPLOYMENT DATE, WOULD THEREFORE AMOUNT TO A DECLARATION OF INTENT TO BREAKOUT FROM THE ABMT.) WE UNDERSTAND THAT NITZE IS STRONGLY OPPOSED TO ANY EARLY ''DEPLOYMENT DECISIONS'': AND STATE OFFICIALS INTEND TO TPY TO ENSURE THAT ALL THE IMPLICATIONS OF ANY OPTIONS WHICH MIGHT BE PUT TO THE PRESIDENT ARE FULLY EXAMINED. OUR CONTACTS ARE, HOWEVER, NOT CLEAR ABOUT SHULTZ'S VIEWS, AND HE HAS MADE NO RELEVANT PUBLIC STATEMENT. IT IS TOO SOON TO CONCLUDE THAT HIS SILENCE IS SINISTER, BUT HIS WILLINGNESS TO FIGHT HARD AGAINST WEINBERGER PROPOSALS WHICH MIGHT TO BE SYMPATHETICALLY RECEIVED AT THE WHITE HOUSE MAY NOW BE LOWER THAN BEFORE THE NOVEMBER IRAN/CONTRAS CRISIS (CF HIS DECISION TO SPEAK ON WEINBERGER'S SIDE, AND AGAINST HIS STATE DEPARTMENT BRIEF, AT THE SALT LIMITS DECISION-POINT.)

8. WE SHALL CONTINUE TO WATCH THIS CLOSELY.

ACLAND

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10 DOWNING STREET

THE PRIME MINISTER

24 December 1986

Dear General Abrahamson

I am delighted to hear that, once the formalities are completed by Congress, you are to be promoted to 4 Star rank. May I offer my warmest congratulations and best wishes.

Have a wonderful New Year

Yours sincerely

Margaret Thatcher

Lt. Gen. Abrahamson.

SECRETARY OF STATE

MINISTRY OF DEFENCE
MAIN BUILDING WHITEHALL LONDON SW1
Telephone 01-~~230 7922~~ 218 2111/3

MO 14/2V

23rd December 1986

Dear Charles,

GENERAL ABRAHAMSON

This is not perhaps the stuff of which Christmas Eve messages are made; and action can no doubt wait a day or two. But I mentioned to you some time ago that Lt Gen Abrahamson of the US SDIO was, we believed, on the point of promotion to the rank of full General; and you felt that when this happened the Prime Minister would wish to send a congratulatory note.

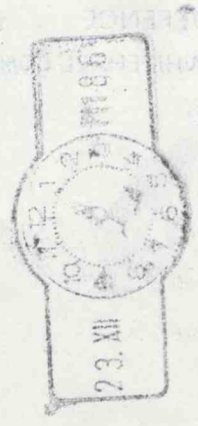
I understand that General Abrahamson's promotion has now been approved by the President; it is still subject to Congressional approval (as is normal at that level) but is public knowledge. The time is therefore ripe for the Prime Minister to send a short note, if she wishes, along the lines of:

"I am delighted to hear that, if Congress approves the formalities, you are about to be promoted to 4 Star rank. May I offer my congratulations".

Yours sincerely,

(J F HOWE)
Private Secretary

C D Powell Esq
No 10 Downing Street


23. XII

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10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

2 December 1986

Dear Colin,

FEASIBILITY OF SDI RESEARCH

Thank you for your further letter of 1 December about the line we should take on SDI research. The Prime Minister is rather surprised by the letter since it sets out to challenge a number of statements and assumptions which she has not made. She intends to rest her position:

(a) on the common sense fact that research is pointless unless it is pursued to the point of demonstrating whether or not a particular idea is feasible in practice. The Ministry of Defence definition of feasibility is perfectly acceptable in this context; and

(b) the United States' commitment, repeated at Camp David, to conduct the SDI research programme in ways consistent with the ABM Treaty.

She does not, however, intend to refer to either the broad or the restrictive interpretation of the ABM Treaty. The whole point of her feasibility test is to get away from that.

I am copying this letter to John Howe (Ministry of Defence) and Trevor Woolley (Cabinet Office).

Yours sincerely,

C D POWELL

Colin Budd, Esq.,
Foreign and Commonwealth Office

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Defence: SDI 174

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PRIME MINISTER

FEASIBILITY OF SDI RESEARCH

This is a very odd letter, which concentrates on opposing suggestions you never made. Your purpose was to avoid having to endorse any specific interpretation of the ABM Treaty, but simply refer to research being permissible up to the point of establishing feasibility, without trying to define that further (my letter at Flag A). The Foreign Secretary wants to tie you down to specific endorsement of the restrictive interpretation of the ABM Treaty (his original letter at Flag B).

I propose to reply that you intend to rest your position:

(a) on the common sense fact that research is pointless unless it can demonstrate whether or not a particular idea is feasible. The MoD definition of feasibility is helpful in this respect; and

(b) the US commitment - repeated at Camp David - to conduct the research programme in ways consistent with the ABM Treaty.

You do not however intend to refer to the broad or restrictive interpretation (otherwise what is the point of your feasibility test?)

Agree?

Yes

C.D.P.

(C. D. POWELL)

1 December 1986

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Defence: SDI PT 4

CC/PC.

Foreign and Commonwealth Office

London SW1A 2AH

1 December 1986

Dear Charles,

Feasibility of SDI Research

Thank you for your letter of 24 November. The Foreign Secretary recognises that the Prime Minister is not suggesting that HMG now shift position and support the broad interpretation of the ABM Treaty. But he still has a number of misgivings about the line you propose.

The US Administration believe the broad interpretation to be legally correct. At present they also remain committed, both in principle and in practice, to observing the restrictive version as a matter of executive policy, as demonstrated by their conduct of research this year. Nor is a US policy shift to the broad interpretation inevitable. Many in Congress will resist such a move, strengthened by their access to the Treaty negotiating record (para 4 below). The Reykjavik dispute concerned not the differences between the broad and restrictive interpretations, but the Soviet wish to impose a super-restrictive interpretation constraining the testing of "elements" as well as components of space-based defence systems.

The Foreign Secretary very much agrees that we should not inject views into the debate about the legal interpretation. That is of course a different matter to the Government continuing to hold a position on the US policy which that debate has produced. In that respect Sir Geoffrey is convinced we should continue to endorse the stated US determination to conduct their research in accordance with the restrictive interpretation. Any other course, particularly over the next few months while the debate over post-Reykjavik and the US breakout from SALT continues, would be very hard to defend in substance or against the inevitable criticism both in this country and abroad.

Were the US in future to shift policy and adopt the broad interpretation as the basis for research, that would present us with a different situation. But the Foreign Secretary would advise caution in pleading our lack of access to the negotiating record as a reason to endorse such

a move. Apart from the wider political factors, the US Senate is now conducting a review of elements of the record which have recently been released to it. Congress may conclude that the restrictive version is still the correct legal interpretation. UK support for the broad version could then be at least uncomfortable.

But you never proposed that.

Your letter also dealt with the relationship of feasibility to stages in the research programme. As you know, in MOD terminology "feasibility" is defined as that stage of research which stops short of development but may admit of some experimentation. The US also agree that under the restrictive interpretation the development and full-scale testing of space-based components for strategic defence are banned by the ABM Treaty. Thus, as suggested in my previous letter, the use of "feasibility" is consistent with the restrictive version. The Foreign Secretary doubts whether we need, and believes it would be unwise, to go beyond this point in explaining what we mean.

A perceived endorsement by HMG of all SDI activity short of deployment would amount to a formidable obstacle against progress in arms control, so long as the Russians continued to insist on some measure of constraints on the SDI research programme. The Russians will have to drop their bid for undue constraints. But, as the Prime Minister has argued in the past, they will wish to achieve some reassurance about the future development of space-based defences. For us now to change our ground on this point would be seen as a significant shift in our arms control policy, as contrary to our approach at Camp David and before, and even as inconsistent with our determination to preserve a national deterrent based upon ballistic missiles.

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The Foreign Secretary therefore hopes that the Prime Minister will be able to endorse the public line set out in para 2 of my letter of 20 November. It would be valuable to have such a line to deploy at the NATO Ministerial meetings starting this week, and thereafter.

I am sending copies of this letter to John Howe (MOD) and to Trevor Woolley (Cabinet Office).

Yours ever,

Colin Budd

(C R Budd)
Private Secretary

C D Powell Esq
10 Downing Street



SDI: DEFENCE Pt 4.

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cc PC. A

10 DOWNING STREET

LONDON SW1A 2AA

24 November 1986

From the Private Secretary

FEASIBILITY OF SDI RESEARCH

Thank you for your letter of 20 November about the Prime Minister's comments on the need to take SDI research up to the feasibility stage.

The Prime Minister takes the view that in practice the Americans have probably moved to the broad rather than the restrictive interpretation of the ABM Treaty. This seems evident from what we know of the discussion in Reykjavik. Rather than fight a losing battle for the restrictive interpretation or get ourselves locked into a position of being forced to oppose certain parts of the SDI programme, the Prime Minister thinks that we should detach ourselves from the argument. We should leave interpretation of what the Treaty permits - which must rest largely on the negotiating record to which we are not privy - to the United States and the Soviet Union. We should rest our own position on the common sense fact that research is pointless unless it can demonstrate whether or not a particular idea is feasible. Only at that point can you know whether there is a system which can be deployed, and begin negotiations. If asked whether certain specific activities (e.g. testing of components in space) are permissible, our answer would be that research activity up to the point of demonstrating whether something is feasible is acceptable, unless specifically excluded by the Treaty.

I am copying this letter to John Howe (Ministry of Defence) and to Trevor Woolley (Cabinet Office).

CHARLES POWELL

C.R. Budd, Esq.,
Foreign and Commonwealth Office.

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Defence: SDI PTY

I do not accept that the common sense meaning of words should play no part (2) in Foreign Policy MT

CCPC

B

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Prime Minister

I doubt that you will want to be tied to (d). Indeed there is little point, since my understanding is that your formulation is intended to get away from either the restrictive or the broad interpretation. CDP 20/xi

Foreign and Commonwealth Office

London SW1A 2AH

20 November 1986

Dear Charles,

Feasibility of SDI Research

The Foreign Secretary has noted with interest the attention that has been aroused by the Prime Minister's recent comments on the need to take SDI research up to the feasibility stage. As she put it in her press conference immediately after the Camp David meeting, "research is not complete until the system on which you are researching is feasible". In addition to the questions posed in the House of Commons on 18 November, to which the Prime Minister responded in the same terms as before, you will have seen that Lord Whitelaw was questioned on the subject in the Lords. The Norwegian Defence Minister raised the issue with Mr Renton earlier in the week and we have had a number of other enquiries about the precise significance of this phrase. In most cases, questioners have focussed on the possibility that the new formula should be taken to imply that HMG now supports SDI research under the broad, rather than restrictive US interpretation of the ABM Treaty.

The Foreign Secretary recongises that the Prime Minister in talking about feasibility, was merely stating a common sense fact. Nonetheless, given the sensitivity of this issue and the support previously extendejd by the Government to the restrictive interpretation of the Treaty, he believes that in response to any further questions the following points could usefully be made:

(a) The Prime Minister's comments are wholly consistent with the basic objective of the SDI research programme, namely to determine the feasibility of strategic defences. As the US Administration have repeatedly made clear, this will be judged against criteria of cost effectiveness at the margin and survivability, among other factors;

(b) It is only common sense that research should be designed to establish whether such systems are going to work;

/(c) The

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(c) The US pursuit of feasibility has always been linked to their commitment to conduct the programme in ways consistent with their international obligations including the ABM Treaty;

(d) The Government has long been on record as supporting the US decision to conduct SDI research within the restrictive interpretation. This remains unchanged.

Yours ever,

Colin Budd

(C R Budd)
Private Secretary

C D Powell Esq
10 Downing Street

Defence: SDI PT4



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HUGH THOMAS

CENTRE FOR POLICY STUDIES

8 Wilfred Street, London SW1E 6PL

1986

THE AUTHOR

Lord Thomas has been Chairman of the Centre for Policy Studies since 1979. He has written a number of famous historical works, including The Spanish Civil War, 1961; Cuba, or the Pursuit of Freedom, 1971; and An Unfinished History of the World, 1979. In his speeches in the House of Lords he has often dwelt on matters of defence.

This pamphlet is based on a speech given by Lord Thomas to the Conference on Science and Technology in the Nuclear Age, in Lisbon, February 1986. While delighted to give its Chairman's speech a wider audience, the Centre for Policy Studies must emphasise that it never expresses a corporate view in any of its publications.

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It is comprehensible why many rational, averagely informed people, in the United States as well as in Europe, should be, to begin with, sceptical of President Reagan's programme of research on strategic defence, the Strategic Defence Initiative (SDI), known as "star wars". First, Americans should face the fact that the very effectiveness of President Reagan as a public communicator of old home truths and of American traditional values has made him suspect in Western Europe which, for all its military dependence on the United States since 1945, still has different cultural values.

Secondly, the project seems to belong to the world of Jules Verne: a conflict 300 miles above the earth is not within the bounds of experience. Third, there is an understandable reluctance to contemplate the idea of conflict in space, because attachment to the idea of primitive innocence among the stars responds, after the collapse of the notion of the noble savage or of the uncontaminated sea, to some deep human expectation that virgin territory of some sort must remain. If not in the Brazilian forests, where history and anthropology suggests the existence of brutal, magical monarchs of a cruelty greater than that of the Portuguese bandeirantes or Spanish conquistadors, then in space. Fourth, a successful SDI programme might not only increase nuclear missiles (on the grounds that 'some would get through')

but also stimulate alternative offensive schemes, e.g. micro-nuclear weapons delivered in suitcases and, even more hideous, new chemical and biological weapons. Finally, there is the question of cost: the United States contribution of $26 billion for the research stage of strategic defence is a sum large enough to confuse the public mind which, very understandably, can never take in figures so far above their own experience.

Well, each of these points has some kind of reply: Reagan for Americans is the President who has nudged his people towards better defence but less government spending. Then, whether one likes it or not, over the last generation science fiction (of which I know little) has proved a better source of prophecy than we could have expected. Third, though it is attractive to entertain the idea of a virgin universe it is no more realistic than that of the forests so loved by, if so unknown to, Jean Jacques Rousseau when he talked of the noble savage. I would myself prefer to have war in space than war in Westminster or the 8th arrondisement. Fourth, these micro and chemical weapons are already being developed - the latter by the Russians on a big scale. Finally, the figure quoted for the SDI programme for three years is not extravagant in terms of the defence budget of the United States - less than 20% of one year's usual expenditure. One must doubt whether the money saved would in fact be spent on hospitals and schools, if that

is presented as the alternative; and, as is usual with military innovations, the by-products of the scientific programme are inestimable.

One other aspect of this venture is that SDI is not an innovation. Rather, it is a return to the development of technological defence started in the 1960s and early 1970s. Indeed, Soviet interest in SDI may have begun as long ago as the late '50s - and it may have continued despite the restrictions made on deployment of the products of research in this field demanded by the antiballistic missile treaty of 1972 and its protocol of 1974. The US and the Soviet Union renounced these developments in the wake of arguments by the Nixon administration that such defensive installations would be "de-stabilising" and lead to another generation of offensive missiles, therefore causing great expense. Research was explicitly not banned.

The whole subject, however, did need reconsideration not only since a move towards a defensive strategy brings obvious benefits to an American president who might, in certain circumstances, now have less than half an hour to make decisions which could hardly fail to ruin much of Western civilisation as well as most of Russia; but also because of Soviet progress in this field. Presumably, President Reagan did not mention this latter reason because he did not want to create a sense of alarm such as occurred in the late 1950's, when achievement of the

Soviet Sputnik led to the notion of "missile gap". All the same, he probably should have mentioned this aspect of the affair, for it is crucial.

We should not be surprised if the Soviet Union gets ahead, or keeps abreast, of the West in technology. It is true that Russia since 1917 has not fulfilled the promise evident in the country before that date. All the same, Russians have been adept at procuring information and technology from the West and, by painstaking labour and sacrifices of men and money on a large scale, have been able to carry through great innovations with success. Thus, Soviet research on atomic energy began about the same time as that of the US in 1942, was given a great thrust (under BERIA) after 1945, and achieved an atomic test in 1949 and a hydrogen bomb test in 1953, four years and one year respectively after the US had done the same. More significantly still, the Soviet rocket programme was, till 1957, well in advance of anything then done in the US which, between 1945 and 1951, had no rocket research to speak of. It is useful to recall that the Soviet Union was the great innovator in this whole field: the US may have created the nuclear age, the Soviet Union brought in the rocket one. A modern equivalent may be Soviet research in particle beams and how to convert them into weapons: a field in which the Soviet Union is ahead of the West and in which it has - apparently - influenced the United States.

Concern with defence (in the proper meaning of the word) is another field in which the Soviet Union has always been ahead. Over the last few years we have rightly paid attention to the Soviet investment in new offensive weapons. But their defensive effort has been vast too - substantial investment in surface-to-air missiles, in radars for air defence, in interceptor aircraft, and in giving ICMB silos and command and control centres hardened protection.* Refuges with similar protection have been procured for nearly 200,000 party and government leaders in both country and town. There are elaborate plans (e.g. by re-siting in the style of 1941/42) for the preservation in peace of those parts of the Soviet economy which are considered essential in war, including the stock-piling of vital materials, and the preservation of the labour force. The Russians have emphasised mobility: the SS-20, the SS-25, and the SS-x-24 are all mobile or may be expected to be soon, and control communication and command posts are also perhaps capable of mobility. It is not without significance that all the above Soviet defensive arrangements, including research into strategic defence, are under the same command "National Air Defence". This was founded in 1959

* 12,000 SAM launchers at 1000 sites; 10,000 air defence radars;over 12,000 interceptor aircraft dedicated only to defence;another 2,800 such could be so used.

at the time of Khruschev's general reorganisation of Soviet foreign policy which followed his realisation of the undesirability of nuclear war (proclaimed ex-cathedra). It seems that spending on defensive and offensive weapons is now on the same level.

This is the essential background to a consideration of Soviet interest in strategic defence. As important is the fact that in all these fields of defence the US has done practically nothing. The Nixon administration dismantled nearly all the US defences in their programme of "purposeful weakness" since, they argued, MAD rendered all such defence likely to be pointless - and thus wasteful. A US defence analyst recently remarked that the US defence command, seeing missiles overhead, could do little more than pass the message "They came from over there, they are going that way, do what you can!"

The Soviet Union has already one element of an anti-ballistic missile defence - that established round Moscow and permitted under the ABM Treaty of 1972. It will be recalled that this treaty allowed both the US and the Soviet Union either the protection of the national capital or of a complex of ICBMs. The Russians chose Moscow. The US chose North Dakota, but never deployed their defences because of the above-mentioned policy of "purposeful weakness". The Moscow ABM complex on the other hand when complete, probably next year, will

consist of the maximum permitted under the treaty, 100 static "Galosh" rockets, which are "nuclear tipped" and are designed to destroy targets - missiles and satellites - outside the earth's atmosphere. There will also be "high acceleration vehicles" there whose purpose is to destroy missiles after their re-entry into the atmosphere. These latter missiles are backed by a chain of early warning radars with centres for the tracking of targets and missile control radars all round Moscow. Those looking forward to a good co-existence walk organised by Serenissima through those Sparrow Hills which figure so much in XIXth century literature may be disappointed.

In addition, Russia has the world's only established anti-satellite system (ASAT), based on a satellite already in orbit which will be able to send off conventional warheads against enemy satellites where the two are in the same orbit.

The Russians made it clear that they would not allow the ABM treaty to restrict research which could lead to defence against missiles. Kosygin set the tone with a remark in 1969 reported in Kissinger's memoirs: "how do you expect me to tell the Russian people that they are not allowed to defend themselves?" Marshal Grechko, then the Soviet Minister of Defence, remarked in public after the ABM treaty that the document "placed no limitation whatsoever on the conduct of research and experimental work directed towards the solving of the problem of defending the country from nuclear missile strikes".

There is, apparently, now ample evidence in the hands of the US government that the Soviet Union is conducting major research programmes in: (i) lasers; (ii) kinetic energy weapons; (iii) surveillance and target detection; (iv) pointing and tracking; (v) space programmes capable of military anti-ABM use; and (vi) computers. Most of these programmes originate from the 1960s or even the 1950s. In most such endeavours, the line between research for peaceful purposes and for possible ABM use is difficult to draw. For example, the large segmented mirror, detected by US satellites, is said by the Soviet Union to be geared to astrophysics. It could be useful for a space-based laser weapon. The Soviet Union may thus have already broken the ABM treaty and perhaps the outer space treaty.

The most frequent accusation here has to do with the development of the important long range phased array radar station at Krasnoyarsk, far east on the Trans-Siberian railway. The Americans are convinced that it is to be used for a ballistic missile early warning system (the ABM treaty allowed radars on the periphery of the USSR and the USA - though not in the middle of the countries concerned since that would enable an overall ABM defence). Krasnoyarsk is a fairly remote spot (the British had a vice consul there in 1913, though) 500 miles from the nearest - Outer - Mongolian - border. Even in Russian geography that is a fair distance. The US Department of Defence also argue that circumvention of the treaty (as opposed to a breach of it) may involve the

SA-12, a system aimed at tactical nuclear weapons but which might be able to engage both Pershing missiles and submarine launched missiles. One analyst in Washington has indeed suggested that the Russians took a specific decision to "break out" from the treaty in 1979 at the time of Carter's "countervailing strategy" (PD-59 dealing with targeting missiles at Russian military centres).

I think I should say a word about Soviet progress in each of these fields. I don't find the language of science at all easy. But it is up to us men of arts to try to communicate the facts of science in a simple language. First, in respect of lasers the Russians are said to have 10,000 scientists and engineers at six places dealing with high energy lasers - principally at Sary Shagan in Kazakhstan. The research includes chemical lasers of three main types, and the electron laser too, as well as the excimer: indeed research includes most matters which preoccupy the US in SDI. Further development could facilitate close-range defence of ships at sea, of strategically significant targets in the Soviet Union, and of forces actually engaged in fighting. Airborne lasers usable for air defence have been tested, as also has a ground-based laser usable against satellites. Second, US specialists suggest that Soviet research into particle beam weapons could result in a prototype for a space-based system within ten years. Third, research into radio frequency will surely one day produce weapons able to jam and confuse the electronics

of US satellites. Fourth, the Russians have, since the 1960s at least, been experimenting with weapons based on kinetic energy - that is, the collision at high speed of a mass of objects with a target. Before 1970, the Soviet Union is known to have tested an experimental gun to shoot streams of tungsten or other heavy metals at about 15 miles an hour in air or 40 miles an hour in a vacuum. Research has also begun in respect of electro-magnetic railguns which perhaps one day could be space-based, though there is no sign of it yet.

Fifthly, there is research on a large scale into surveillance and target detection. I mentioned Krasnoyarsk. Whatever the truth of that, there are eleven large early warning radars concentrated at six places on the periphery of the Soviet Union. (Eric Stubbs of Harvard, an analyst for the Council on Economic Priorities has apparently argued that these radars are of a size which makes them vulnerable to attack, however.) In this department Russia already possesses a satellite in orbit with an infra-red sensor which can give a half-hour warning of any launch of ICMs by the US. As yet these methods are said to be unable to detect missiles launched by submarines but naturally they are working on that. Sixthly, Russia has eight stations for launching objects into space. They are at work on three more such - first, a medium lift launch; second, a heavy lift; and, third, some equivalent of the US shuttle. The "heavy lift" station could raise a 150-ton object into a

fairly low orbit round the earth which could be adequate for either a large manned space complex or for a system of space weapons. It is, however, true that the chief deficiency in the Soviet research programme is in the realm of the electronic mechanisms needed to manage operations in space; hence the great efforts made to get hold of US high technology: above all computers and sensors. (An existing Soviet computer, ES 1060, was produced in 1978. It is equivalent to IBM 360 introduced in the US in the 1960s).

All these activities suggest that, in the long run, the Russians could try to achieve a strategic defence system based on ABM depolyment throughout their territory; that, whatever the ABM treaty says, if they get it they will deploy it; and that in almost all departments of SDI the Russians are working on the same track as the Americans - in some respects in advance of them (e.g. particle beams). Why then the Soviet attacks on President Reagan? First, because their aim must be to slow down US technical capability, if necessary by accusations of breaches of treaties which might be impossible to prove in Russia but would be easy to prove in the US. They know, after all, recalling the history of missiles between 1957 and 1961 that, once US technology has been given a green light, US scientists will probably overhaul anything done in Russia. One can also speculate that, given the apparent reluctance of Western public opinion to appreciate the facts outlined

here, the Russians are seeking a convenient cross-roads at which to denounce the US for breaking the ABM treaty and continue their own deployment with their international reputation largely unsullied.

In general commentary on the above, it is worth making several concluding points. First the ABM treaties are, of course, part of the elaborate network of arms control built up in the 1960s and 1970s (Outer Space Treaty, SALT I, Anti-Proliferation &c). But neither they nor the network are sacrosanct. They have indeed been most imperfect. If one could find a better system of guaranteeing world security, it would be a good thing. The Americans at the time of the signature of the ABM treaties stated plainly (in Unilateral Statement A) that, if "further limitation of offensive forces were not achieved within five years", they would "hold open the option of reconsidering their commitment". Soviet offensive weapons have been built up greatly since 1974 but this reconsideration by the US has in fact not occurred. There is incidentally no reason why SDI and arms control should not be seen as the reverse side of the same coin. If, for instance, there were successful reduction of launchers, verification against cheating would become even more important. Defence up till now has not been properly dealt with within the context of arms control. Perhaps it could and should be.

Second, it should be realised that Russia in the nuclear age is still, under Gorbachev, as under Brezhnev, Khrushchev and Stalin, being run by men whose ideology is Marxism-Leninism. This is what gives the Soviet leaders their notion of legitimacy. Now Marxism is not only an exceptionally interesting if flawed view of history which has affected all of us at one time or another, but it does also contain two consequences of importance. First, it enables the Soviet government to look on treaties as stepping stones to further ends, not ends in themselves. It may be convenient to keep them. But equally it may be convenient to scrap them if and when the "correlation of forces" suggests. Any belief that a commitment is for good and all is a vulgar bourgeois survival. Communists have admitted this so often that they must suppose that those who oppose or study them will take it into account. Second, Communists look on peace as on war as different methods of obtaining the same thing. Until the achievement of the Communist society there can be no letting up of the struggle. Any consideration such as "the spirit of the treaty" - any treaty - is not likely to cut much ice.

It may also be recalled that Marx assigned a specific task to technology in history - considered usually to the exclusion of the intellectual labour which makes technology possible. He also envisaged through the dialectic that every innovation invokes in the end its contrary - in military matters a successful defensive

system (e.g. the barbed wire of World War 1) produces a new offensive system (the tank). These ideological factors, combined with the inheritance from old Russia - a concern for defence in depth - make it not improbable that SDI, often attacked as a dream of the White House, may turn out to be a reality first achieved by those wide awake in the Kremlin. The consequences of that - which in a pure form could enable the Russians to contemplate offence with some impunity - is scarcely an inviting prospect.

The icy novelties of the nuclear age are such as to baffle most laymen. But laymen must grasp the language and facts of science as they have done those of economics.

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MODUK FOR DACU, DPS, SDIPO
PART ONE OF TWO
SDI: ALLIED CONSULTATIONS

SUMMARY

1. QUINT DISCUSSION IN WASHINGTON ON 17 JULY CONFIRMED A NUMBER OF TECHNICAL ELEMENTS IN BOTH US AND SOVIET PROGRAMMES THAT WERE ALREADY FAMILIAR, AND SOME FACTORS IN THE US LEGAL APPROACH TO THE ABM TREATY. EXCHANGES ON THE SDI ROLE IN THE GENEVA NST TOOK PLACE AGAINST THE BACKGROUND OF SIMULTANEOUS, HIGH LEVEL DECISION-TAKING IN WASHINGTON, AND WERE ON THAT ACCOUNT NOT VERY PRODUCTIVE. GIVEN CONTINUING DISAGREEMENT BETWEEN THE WASHINGTON AGENCIES, DISCUSSIONS WITH OTHER ALLIES IN THIS SORT OF FORUM IS INEVITABLY CONSTRAINED BY THE LOWEST COMMON DENOMINATOR OF US AGREEMENT.

DETAIL

2. A US TEAM CHAIRED BY THOMAS (STATE DEPARTMENT) HOSTED AN ALL DAY DISCUSSION IN WASHINGTON ON 17 JULY ON SDI WITH A FCO/MOD

TEAM AND REPRESENTATIVES OF FRANCE, FRG AND ITALY (LED BY D'ABOVILLE, VON PLOETZ AND NEGROTTO RESPECTIVELY). US BRIEFINGS WERE PROVIDED ON THE SOVIET BMD PROGRAMME, PROGRESS IN THE SDI, THE US LEGAL VIEW OF THE ABM TREATY, ANTI-SATELLITE SYSTEMS (ASATS), ANTI-TACTICAL BALLISTIC MISSILE SYSTEMS (ATBMS), AND THE CURRENT STATE OF PLAY IN GENEVA ON SDI-RELATED ISSUES.

3. A STANDARD DIA PRESENTATION ON THE SOVIET BMD PROGRAMME ADDED NOTHING TO OUR PREVIOUS KNOWLEDGE, ALTHOUGH IN ANSWER TO QUESTIONS AN UNEXPECTEDLY LOW-KEY VIEW OF SOVIET PROGRESS AND INTENTIONS WAS PROVIDED.

4. THE SDIO PRESENTATION ON THE CURRENT US PROGRAMME WAS DISAPPOINTINGLY THIN (AT UNCLASSIFIED LEVEL). NO OPPORTUNITY WAS PROVIDED TO PROBE PROGRESS IN THE PROGRAMME, AND THE QUESTION-TIME WAS SHARPLY CURTAILED. THE THEMES OF THE BRIEFING WERE: THE TECHNICAL AIM OF THE SDI MISSION COULD BE SUMMARISED AS 'THE DEVALUATION OF SOVIET OFFENSIVE MISSILES' SEMI-COLON THE PROGRAMME WAS ON COURSE ALONG THE LINES ORIGINALLY PLANNED SEMI-COLON AND THE AIM OF A MULTI-LAYERED DEFENCE WITH A HIGH (BUT NOT 100 PER CENT) PROSPECT OF EFFECTIVENESS WAS STILL THE ULTIMATE AIM. NO INFORMATION WAS PROVIDED ON POTENTIAL SOVIET COUNTER-MEASURES, OR THE WAY IN WHICH THESE MIGHT HAVE BEEN FACTORED INTO US APROACH. THE US SIDE AGREED TO ACCEPT FURTHER QUESTIONS IN WRITING, WHICH WE SHALL PURSUE SEPARATELY.

5. JUDGE SOFAER (STATE DEPARTMENT LEGAL ADVISER) GAVE A STANDARD PRESENTATION ON THE CURRENT US LEGAL INTERPRETATION OF THE ABM TREATY, WHICH WENT OVER MUCH OF THE GROUND WE HAD ALREADY COVERED BILATERALLY IN FEBRUARY (WASHINGTON TELNO 498 - NOT TO ALL). IT WAS HOWEVER USEFUL TO HAVE A NUMBER OF POINTS RECONFIRMED FOR THE RECORD, AND IN A WIDER FORUM:

(I) THAT THE TREATY REMAINED A US RESPONSIBILITY, AND THAT ACCESS TO THE FULL NEGOTIATING RECORD WAS REQUIRED BEFORE AN AUTHORITATIVE VIEW OF, FOR EXAMPLE, THE BROADER VERSUS RESTRICTIVE INTERPRETATION COULD BE PROVIDED SEMI-COLON

(II) THAT BEFORE ANY CHANGE WAS MADE TO THE CURRENT (RESTRICTIVE) INTERPRETATION THERE WOULD BE FURTHER US CONSULTATIONS WITH THEIR ALLIES SEMI-COLON

(III) THAT THE TREATY PRECLUDED ANY DEPLOYMENT OF SYSTEMS, INCLUDING EXOTIC SYSTEMS, IN THE ABSENCE OF AGREEMENT WITH THE SOVIET UNION. SOFAER ADDED THAT EVEN THOUGH SOME ARGUMENT COULD BE MADE FOR THE TREATY TEXT BY ITSELF ALLOWING DEPLOYMENT OF SUCH SYSTEMS WITHOUT SOVIET AGREEMENT, THIS WAS CLEARLY PRECLUDED BY THE NEGOTIATING RECORD. NOR DID THE ADMINISTRATION TAKE THE POSITION THAT SUBSTITUTE DEVICES COULD BE DEPLOYED WITHOUT AGREEMENT. SHOULD SUCH AGREEMENT NOT BE FORTHCOMING, THEN WITHDRAWAL FROM THE TREATY WOULD BE REQUIRED IN ORDER TO ALLOW DEPLOYMENTS TO PROCEED.

6. AMONG OTHER INTERESTING POINTS TO EMERGE FROM SOFAER'S ANSWERS TO QUESTIONS WERE:

(A) THE FUNDAMENTAL IMPORTANCE HE ATTACHED, IN SUPPORTING THE BROADER INTERPRETATION, TO HIS INABILITY TO ASSURE THE PRESIDENT THAT THE SOVIET UNION WAS BOUND BY AGREED STATEMENT D NOT TO TEST EXOTIC SYSTEMS SEMI-COLON

(B) HIS ASSESSMENT THAT A PRESIDENTIAL DECISION WHETHER TO MOVE FROM THE RESTRICTIVE TO THE BROADER INTERPRETATION WOULD BE INFLUENCED BY:
SOVIET ACTIVITIES, ALLIED REACTIONS, THE EXTENT OF CONGRESSIONAL FUNDING FOR SDI, AND THE CURRENT STATE OF US RESEARCH INCLUDING THE DEGREE OF CONSTRAINT THE RESTRICTIVE INTERPRETATION IMPOSED ON PROGRESS IN THIS RESEARCH. (PRIVATELY, NSC STAFF SUGGESTED TO US THAT THIS WAS AN OFF-THE-CUFF STATE DEPARTMENT VIEW, BUT ONE WHICH WOULD HAVE APPEAL IN THE WHITE HOUSE) SEMI-COLON

(C) HIS DISCLOSURE THAT HE HAD NOT BEEN ASKED TO EXAMINE THE LANGUAGE PROPOSED BY THE RUSSIANS IN GENEVA FROM A JURIDICIAL POINT OF VIEW. HE SAW HOWEVER NO PARTICULAR PROBLEM IN SUCH LANGUAGE. HE NOTED THAT THE NEW SOVIET PROPOSALS IMPLIED THAT THE PRESENT LANGAUGE OF THE TREATY WAS INADEQUATE TO PROVIDE THE COVERAGE THEY SOUGHT.

7. IN HIS COMMENTS SOFAER GAVE THE IMPRESSION THAT HE FELT SOMEWHAT EXPOSED BY THE CURRENT POLITICAL SITUATION, AND THE DEBATE CONTINUING BETWEEN THE ADMINISTRATION, CONGRESS AND OTHER

CRITICS OVER THE INTERPRETATION OF THE TREATY. HOWEVER, THERE WAS NO DOUBT THAT HE REMAINED CONVINCED OF THE CORRECTNESS OF HIS OWN INTERPRETATION. HE WOULD ALSO APPARENTLY WELCOME RELEASE (AT LEAST TO CONGRESS) OF THE ENTIRE NEGOTIATING RECORD, ON THE GROUNDS THAT THIS WOULD HELP THE CASE OF THE ADMINISTRATION RATHER THAN THEIR OPPONENTS. HE INDICATED THAT THE WHITE HOUSE WERE TRYING TO SELL TO THE SENATE THE IDEA OF SELECTIVE RELEASE, BUT THAT THE LATTER WERE STILL INSISTING ON THE FULL RECORD. (PRIVATELY, NSC STAFF TOLD US THAT THERE WERE TWO GOOD ARGUMENTS IN FAVOUR OF RELEASE: THAT IT WOULD PROVE THE ADMINISTRATION'S CASE AND WOULD REMOVE A POSSIBLE CONGRESSIONAL INCENTIVE TO BLOCK FUNDING. ON THE OTHER HAND THE ARGUMENT AGAINST RELEASE ON THE GROUNDS OF AN UNDESIRABLE PRECEDENT WAS SO FAR WINNING THE DAY IN THE WHITE HOUSE.)

8. A STATE DEPARTMENT BRIEFING ON ANTI-SATELLITE SYSTEMS (ASAT) ALSO WENT OVER FAMILIAR GROUND. THE OBSTACLES TO AN ARMS CONTROL ARRANGEMENT WERE DESCRIBED AS UNCHANGED: VERIFICATION WOULD STILL BE EXTREMELY DIFFICULT, CHEATING WOULD POSE A SEVERE RISK, AS WOULD THE THREAT OF BREAK-OUT. THERE WERE ALSO SIGNIFICANT DEFINITIONAL PROBLEMS IN HANDLING ALL ASAT-CAPABLE WEAPONS. THE US WERE READY TO CONSIDER VERIFIABLE LIMITS ON SPECIFIC SYSTEMS PROVIDED THESE WERE CONSISTENT WITH THEIR SECURITY INTERESTS. THEY HAD CHALLENGED THE RUSSIANS TO PRODUCE SUCH SPECIFIC MEASURES BUT ADMITTED THAT THEY HAD BEEN UNABLE TO FIND THEM THEMSELVES. PREVIOUS IDEAS FOR LIMITED ARMS CONTROL (INCLUDING A BAN ON TESTING HIGH ALTITUDE ASATS) HAD BEEN REJECTED BY THE US. IN PRESENT CIRCUMSTANCES THERE WAS NO PRACTICAL PROSPECT OF AN AGREEMENT UNLESS (AS WAS MOST UNLIKELY) THE RUSSIANS COULD COME UP WITH AN ACCEPTABLE PROPOSAL. THEORETICALLY, IF THE LATTER CHANGED THEIR OWN APPROACH TO AN ASAT AGREEMENT, SOMETHING MIGHT THEN BE ACHIEVED. MEANWHILE, THE ADMINISTRATION WERE MAKING STRENUOUS EFFORTS TO PERSUADE THE CONGRESS THAT THE BAN ON ASAT TESTING SHOULD BE LIFTED THIS YEAR, AND THAT SUCH TESTS SHOULD PROCEED UNTIL THE PRESIDENT WAS ABLE TO CERTIFY TO CONGRESS THAT THE RUSSIANS HAD DISMANTLED THEIR OWN ASAT SYSTEM. IT WAS STILL UNCLEAR WHETHER THIS WOULD BE ACCEPTABLE ON THE HILL.

9. AN OSD PRESENTATION ON ATBM WELCOMED THE WORK NOW IN PROGRESS IN NATO, AND ENDORSED THE CONCEPT OF STARTING WITH ENHANCED AIR DEFENCE AND SEEING WHAT ELSE MIGHT THEN BE NEEDED. IN THE DOD VIEW, IT MADE GOOD MILITARY SENSE TO PROTECT KEY NATO ASSETS FROM THE RISK OF SOVIET TACTICAL BALLISTIC MISSILE ATTACK (NUCLEAR OR CONVENTIONAL-ARMED). A COMBINATION OF ACTIVE AND PASSIVE DEFENCES WAS LIKELY TO PROVE THE BEST WAY TO DO SO.

10. TWO OTHER POINTS OF INTEREST EMERGED:

(A) IT WAS AGREED THAT AN ATBM EFFORT WOULD BE REQUIRED EVEN WITHOUT THE SDI PROGRAMME. BUT THE LATTER, WITH ITS COMPREHENSIVE COVERAGE WHICH WOULD HAVE TO INCLUDE SECURITY FOR THE ALLIES, COULD HELP THE FORMER IN SUCH AREAS AS INTERCEPTORS, BATTLE MANAGEMENT, AND AIR-BORNE OPTICAL SENSORS.

(B) THE ABM TREATY IMPOSED NO CONSTRAINTS ON US/EUROPEAN COLLABORATION ON ATBMS, PROVIDED THE LATTER CARRIED NO CAPABILITY AGAINST STRATEGIC BALLISTIC MISSILES NOR WERE TESTING IN AN ABM MODE. DOD REPRESENTATIVES RECOGNISED THAT SOME PROBLEMS COULD ARISE IN THIS AREA AS ATBM DEVELOPMENT BECAME MORE SOPHISTICATED AND CREATED A CAPABILITY CLOSER TO A ABM SYSTEM PROPER. IN THAT CASE, THE US WAS LIKELY TO REVIEW COLLABORATION ON A CASE-BY-CASE BASIS.

11. US OFFICIALS CONFIRMED THAT THE SENATE ARMED SERVICES COMMITTEE HAD RECENTLY ALLOCATED DOLLARS 50 MILLION FOR A US CONTRIBUTION TO COOPERATIVE RESEARCH WITH THE ALLIES ON ATBM. IT WAS NOT CLEAR YET WHETHER THIS WOULD BE APPROPRIATED BY CONGRESS. THE SENATE INITIATIVE ENVISAGED A 'SUBSTANTIAL' ALLIED CONTRIBUTION (ALTHOUGH NOT NECESSARY 50 PER CENT), AND WAS DESIGNED TO BUILD UPON AND ACCELERATE EXISTING EFFORTS.

12. THE BRIEFING ON THE LATEST SOVIET PROPOSALS AT GENEVA AS RELEVANT TO THE SDI, AND SUBSEQUENT DISCUSSION DID NOT REFER EXPLICITLY TO THE SIMULTANEOUS HIGH-LEVEL DEBATE IN WASHINGTON ON THE US RESPONSE (WASHINGTON TELNO 1879 - NOT TO ALL). BUT IN THE ABSENCE OF INTER-AGENCY AGREEMENT, US OFFICIALS WERE CLEARLY DETERMINED TO PROJECT A PESSIMISTIC ASSESSMENT OF THE SOVIET

PROPOSALS AND WOULD NOT BE DRAWN ON THE LIKELY US REPLY. OVERALL THE US SIDE EMPHASISED THE VIEW THAT THE PROPOSALS AMOUNTED TO NOTHING MORE THAN A RE-PACKAGING OF THE PREVIOUS SOVIET ATTEMPT SEVERELY TO CONSTRAIN OR EVEN TO NULLIFY THE SDI.

HOWE

EAST WEST & US/SOVIET RELATIONS

LIMITED

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MR DAUNT
MR DAVID THOMAS
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MR BRAITHWAITE
MR BARRINGTON
MR WINCHESTER

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SECRET AND STRICTLY PERSONAL

SUBJECT
cc Master

File 6
cc B/W/P.

10 DOWNING STREET

From the Private Secretary

14 July 1986

Dear John,

GENERAL ABRAHAMSON

The Prime Minister had a discussion with General Abrahamson this morning. I imagine that many of the points will have been covered in the General's separate meeting with Professor Norman. But I record some of the main ones below. Please give this letter only a very limited circulation.

Launches

The Prime Minister spoke of her concern at the absence of an effective American satellite launch capability following the accidents to the Titan-D and Thor Delta rockets. Among other worries this had serious implications for the West's intelligence-gathering capacity. General Abrahamson acknowledged the problem but suggested that it was less severe than the Prime Minister feared. He had a Thor Delta rocket ready for launching as part of the SDI programme, as soon as he was satisfied that the causes of malfunctions in previous launchings had been eliminated. He hoped that the launch would take place in September. If it was successful there would be further launches later in the year for navigation and other satellites. The main constraint would then be the ability to re-open production of the Thor Delta rocket. At the same time the air force had taken the decision to spend the necessary money on modifying the Titan-D missile, which would be ready for use for launching intelligence satellites in 1988. The problem was to cover the period up until then. He insisted however that there was a capacity to launch in an emergency.

General Abrahamson said that the problems which had arisen with both rockets were failures in quality control, most of which should have been foreseen. In the case of the Titan-D the problem with the rings had been recognised at the time he left NASA in 1984, but not acted upon.

SDI

General Abrahamson said that more emphasis was now being given in the SDI programme to ground-launched systems. But to develop the capacity to destroy incoming missiles in the boost phase, at least a part of any SDI system would have to be space-based.

SECRET AND STRICTLY PERSONAL

Particular aspects of current work which he wanted to mention were:

(i) the Thor Delta launch in September would be used to put into orbit two separate vehicles (or perhaps it was rocket sections) and then manoeuvre one to make a close pass on the other. This would simulate a BMD process. But it would not contravene the ABM Treaty because no strategic components were involved, it would not be a space-based interception and the two vehicles would be 'co-operating';

(ii) attention was being given to the implications of the Titan-D and Delta failures for SDI systems. In both cases one failure had wiped out the whole system. It would be necessary to put together space-based systems so that if one element failed, the remainder of the system would still function.

(iii) since the Russians appeared to be planning to use nuclear explosives to destroy space-based systems, work was being done to make infra-red detection systems in particular nuclear hardened and radiation resistant. Satellites carrying such systems would also have to be made more manoeuvrable, although this had weight penalties;

(iv) another area in which dramatic progress was being made was miniaturisation. This was an area where dramatic progress was being made. As an example, he cited the concept of a series of 'garages' in space each housing a number of missiles designed to intercept ICBMs in the boost phase. The missiles in question were not unlike the air-to-air missiles currently carried by aircraft though would have a velocity of 5 km. per second. Up to 10,000 such missiles would be needed in space for a system to be effective. At present each would weigh 800/1000 lbs, but recent advances in miniaturising the warheads would make it possible to bring the weight down to 130/150 lbs, bringing the whole concept much closer to practicality;

(v) in recognition of European concerns, more thought was being given to the problem of intercepting shorter-range missiles. That had been one purpose of the test on 26 June, in which for the first time a warhead had been intercepted while travelling at full speed. But, in answer to the Prime Minister, no particular new work was being done on interception of Cruise missiles. The thinking was that there was little point in worrying about them until you had devised a system which could cope with ICBMs;

(vi) two separate laser weapon research programmes were in hand. These could produce a weapon for use in an ASAT role by the early 1990s;

(vii) more generally, work was being done to try to establish common denominators for the failure of earlier research efforts into sophisticated systems, for instance the German nuclear research programme in World War II. The most common factor was the existence of a 'given answer' that is some basic concept laid down by the acknowledged expert which others were not allowed or encouraged to challenge. This explained the almost anarchic intellectual freedom allowed to the SDI researchers.

Soviet Work on Space Defence

General Abrahamson said that advances in US technology were making it possible to explain some of the structures and equipment visible in satellite photography of Soviet installations, citing for instance a device for punching a hole through cloud cover and subsequently directing a laser beam by nuclear explosion.

General Abrahamson also referred to the Soviet laser research effort at Dushambe. The Americans now assessed that this was a look-shoot-look system utilising giant mirrors to identify targets, fire a laser and observe the results.

US/UK Co-operation

General Abrahamson expressed disappointment that it had taken so long to implement co-operation under the Memorandum of Understanding but spoke with appreciation of the high quality of British work, citing in particular work undertaken at Culham on ion source, which could eventually lead on to a neutral particle beam weapon.

General Abrahamson also spoke forcefully of the appreciation of all those working on SDI for the Prime Minister's courage in publicly supporting the research programme.

Please forgive any inadequacies of understanding of technical matters which this letter may reveal.

I am copying this letter to Tony Galsworthy (Foreign and Commonwealth Office) and to Michael Stark (Cabinet Office).

Yours sincerely,

Charles Powell

Charles Powell

John Howe, Esq.,
Ministry of Defence.

COVERING CONFIDENTIAL

cc EC
Blup.

MINISTRY OF DEFENCE
MAIN BUILDING WHITEHALL LONDON SW1A 2HB
Telephone 01-218 ..... (Direct Dialling)
01-218 9000 (Switchboard)

MO 25/3/4

11 July 1986

Dear Charles.

I attach a short brief on which the Prime Minister may wish to draw during her meeting with Lt Gen Abrahamson on Monday. We shall deliver the General to "No 10" shortly before 1230.

Yours ever

(I C F ANDREWS)
Private Secretary

Prime Minister

The principal points to ask are about technical progress with the SDI, particularly in the most highly classified areas; and any new intelligence on Soviet progress.

CDP 11/7.

Charles Powell Esq
No 10 Downing Street

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BRIEF FOR THE PRIME MINISTER'S MEETING WITH LT GEN ABRAHAMSON: 14TH JULY 1986

BACKGROUND

1. Following her recent meeting with Sir Frank and Lady Whittle, the Prime Minister wrote on 18th June to Lt Gen James Abrahamson, Director of the US SDI Organisation. In her letter she suggested that the General might be interested in Sir Frank's views on the US space shuttle programme and on SDI and invited him to call on her during his next visit to the United Kingdom. A meeting has been arranged for 1230 on Monday.

2. Lt Gen Abrahamson arrives in the United Kingdom on Sunday 13th July for the third of a series of routine meetings with Professor Richard Norman, Chief Scientific Adviser at the Ministry of Defence, to review the operation of the inter-governmental arrangements agreed last year for UK participation in the US SDI research programme. He will also receive briefings on the extent of already well established UK/US contacts and exchanges on intelligence and nuclear matters relevant to the SDI programme. The General travels to Brussels on Monday evening to address a conference on allied participation in the programme.

3. Although there have been problems over some aspects of the implementation of the inter-governmental arrangements these have

now largely been resolved. After protracted negotiations a Letter of Offer and Acceptance for a European Architecture Study was signed jointly by Mr Weinberger and Mr Younger during the Defence Secretary's visit to Washington last month. This study, together with a contract awarded to the UK AEA Culham laboratory announced at the same time, is likely to be worth some US $15.7M to the UK. Active discussions are taking place on a number of other packages of work.

4. The Prime Minister should be aware that General Abrahamson's wife died in a light aircraft crash in December 1985.

LINE TO TAKE

5. The Prime Minister will wish to:

a. underline the British Government's commitment to:

(1) supporting the US SDI research programme, within the framework she agreed with President Reagan at Camp David in December 1984; and

(2) British participation in the research work, where we continue to attach importance to building up our involvement on a substantial scale;

b. congratulate Lt Gen Abrahamson on his stewardship of a complex and challenging programme;

c. express the hope that the General will remain in charge of the SDI research programme.

6. Talking points. The Prime Minister may wish to seek comments from Lt Gen Abrahamson on the following questions, of which he has been forewarned:

a. How does he assess the likely results of the bargaining with Congress over the FY 87 budget for SDI in terms of:

(1) the course of the research programme;

(2) its impact on allied, notably British participation in the research programme;

b. How does the General view progress with British and, more generally, allied participation?

c. What about actual progress and achievement in the SDI research programme?

CF mtg on 14/7

~~S R's~~

GR's

July 2, 1986

MGA/6 see

CDP

Her Excellency
Margaret Thatcher
Prime Minister of Great Britain

Dear Prime Minister,

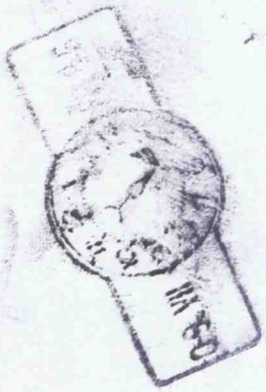
It was indeed a pleasure to receive your letter. I, too, have valued my discussions with Sir Frank Whittle and would be especially interested in his further thoughts on our SDI research activities. I will look forward to our continued association.

I would like to convey my satisfaction over the announcement by Secretary Younger and Secretary Weinberger that two major SDI contracts totaling $14.3 million were awarded to the United Kingdom. As the Secretaries indicated in their press statement, more work with United Kingdom laboratories and industry is anticipated.

I am also looking forward to giving you an update on our technical progress during my next visit to London, now scheduled during the week of July 13. I hope your schedule will permit a meeting. I understand that our staffs are working to find a suitable time. Thank you again for your interest and your strong support.

Warmest Regards,

James A. Abrahamson



General ABRAHAMSON

b/u 10/7

PRIME MINISTER

General Abrahamson, whom you wrote to recently following your meeting with Sir Frank Whittle, will be over here the weekend of 12/13 July (when you will be in Vancouver) and for the morning of Monday 14 July. You could see him for half-an-hour during Monday morning, after your meeting with colleagues which finishes at 1100 and before the Strategy Group meeting begins at 1200, but you will of course have boxes to clear, and you will have had a heavy weekend.

Would you like to see the General for half-an-hour, or prefer to leave it until his next visit over here?

Yes MT

Mark Addison

Mark Addison

30 June 1986

Okeh.

Placed for 11-11.30 on Monday 14/7. MoD will provide a note on the background to his visit.

MEA 2/7

DG2BDY

GDPC

MINISTRY OF DEFENCE
MAIN BUILDING WHITEHALL LONDON SW1
Telephone 01-~~930~~ XXXXX 218 2111/3

MO 26/7/4V

24th June 1986

24/6.

Dear Charles.

COP?

UK PARTICIPATION IN SDI RESEARCH

When I wrote to you yesterday evening about the agreement we had reached with the Americans over United Kingdom participation in SDI research, I promised to let you have an advance copy of the press notice when it had been cleared by my Secretary of State. This is now attached. The statement will be released to coincide with the signature of a Letter of Agreement by Mr Younger and Mr Weinberger later today. The press office here has been provided with a comprehensive supporting brief.

You will note that the statement quotes the value of the Culham contract as $4.3 million and not $6 million as I indicated in my earlier letter. This is because final agreement has still to be reached on one element of the contract, namely the work content of the fourth year. Although it is still expected that this work will come to Culham, the Americans believe that it would be inappropriate to include it in today's announcement.

I am sending copies of this letter to the Private Secretaries to the Foreign and Commonwealth Secretary, the Chancellor of the Exchequer, the Trade and Industry Secretary, the Energy Secretary and Michael Stark (Cabinet Office).

Yours sincerely

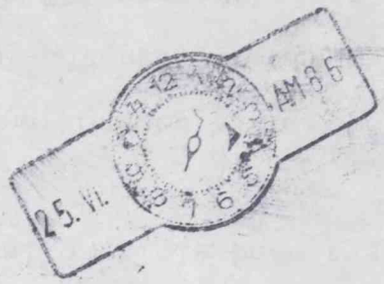
(I C F ANDREWS)

Charles Powell Esq
No 10 Downing Street

TEXT OF PENTAGON PRESS RELEASE

Secretary of Defense Caspar W Weinberger and Secretary of State for Defence George Younger announced today the signing of a $10 million letter of offer and acceptance (LOA) between the United States and the United Kingdom for a European architecture study. Additionally, Culham Laboratories, Abingdon, Oxfordshire, UK, has been awarded a $4.3 million contract for development of high brightness negative ion sources and neutralisers for use in neutral particle beam systems.

2. Secretaries Weinberger and Younger also note with satisfaction that work is well advanced on other British proposals for participation in SDI research in a wide variety of technology areas.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MINISTRY OF DEFENCE
MAIN BUILDING WHITEHALL LONDON SW1A 2HB
Telephone 01-930 7022

MO 26/7/4E

23rd June 1986

Prime Minister

CDP 23/6.

Dear Charles.

UK PARTICIPATION IN SDI RESEARCH

You will wish to be aware that agreement has been reached with the Americans on the terms of a Government-to-Government contractual arrangement for a European Architecture Study to be carried out under the control of the Ministry of Defence (although, in practice, most of the work will be done in industry). This study will involve the investigation of sensors, weapons and battle management, command, control and communications systems required to provide an effective defence against strategic threats. The overall value of the study is in the order of US $10 million. Additionally, the Culham Laboratory of the United Kingdom Atomic Energy Authority is in a position to sign a substantial and significant SDI research contract with the USAF Office of Scientific Research. This contract is worth US $6 million to Culham.

Mr Younger, who is visiting the United States this week, will formally announce the agreement tomorrow in a joint statement with Mr Weinberger. I will let you have an advance copy of the press notice which will not have been cleared by the Secretary of State until first thing in the morning.

I am copying this letter to the Private Secretaries to the Foreign and Commonwealth Secretary, the Chancellor of the Exchequer, the Trade and Industry Secretary, the Energy Secretary and Michael Stark (Cabinet Office).

Yours ever.

(I C F ANDREWS)
Private Secretary

Charles Powell Esq
No 10 Downing Street

cc PC

MINISTRY OF DEFENCE
MAIN BUILDING WHITEHALL LONDON SW1
Telephone 01-[redacted] 218 6169

D/S of S/PS/20/193V

30th May 1986

CDP 2/6

Dear Michael

US/UK MEMORANDUM OF UNDERSTANDING ON SDI RESEARCH - HCDC REQUEST

Your Secretary of State wrote to the Defence Secretary on 12th May to say that he had no objection to the release of the US/UK MOU on SDI research to the Defence Committee.

As you know, on that day we passed to the Committee a copy of the MOU and a copy of the related Administrative Arrangements, along with a covering explanatory memorandum. The Committee took oral evidence on 21st May from our Chief Scientific Adviser, who was accompanied by senior staff from the SDI Participation Office. Virtually all the evidence on SDI participation was taken in closed session but, at the end of the ensuing open session on other matters, Mr Mates, the acting Committee Chairman, made a point of thanking all the witnesses for their frankness in the private session. Thus far this exercise seems to have gone off better than might have been expected, particularly given the awkwardness with the Committee over the question of letting them have a copy of the MOU in the first place.

Your Secretary of State raised in his letter the possibility that disclosure of the MOU to the Foreign Affairs Committees of both Houses of the US Congress might mean that in due course, the contents became widely known to US industry; and that this would be inconsistent with the US request for a high security classification for the MOU. MOD officials have formally been told that the MOU was released to these Congressional Committees on a classified basis. The security sensitivities are much more on the US side than on ours, if indeed there are any at all on ours. Making the assumption that this disclosure to Congress took place after the Defence Secretary's initial approach to Mr Weinberger on 17th March, but more probably after the subsequent leak of the US/FRG MOU, there has been plenty of time for a reverse leak to have occurred in the United States; and it does not yet appear to have done so. We believe that we need to be particularly

Michael Gilbertson Esq
Department of Trade and Industry

careful about respecting the confidentiality of the US/UK arrangements on SDI research, even though in due course it is almost inevitable that their effective provisions will be reflected in the terms of contracts which will be publicly available in the United States. Obviously, however, we shall need to keep an eye on developments.

I am sending copies of this letter to Tim Flesher (No 10), Colin Budd (Foreign and Commonwealth Office), Rob Smith (Department of Education and Science), David Morris (Lord Privy Seal's Office), Murdo Maclean (Chief Whip's Office) and Michael Stark (Cabinet Office).

Yours sincerely

D. Woodhead

(D J WOODHEAD)

DEFENCE : SDI PTU



MINISTRY OF DEFENCE
MAIN BUILDING WHITEHALL LONDON SW1
Telephone 01-~~930 7022~~ XXXXXX 218 6169

D/S of S/PS/20/193E

12th May 1986

CDP
14/5

Dear Colin

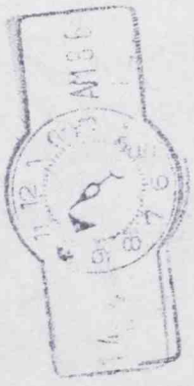
Your Secretary of State will wish to know that a copy of the US/UK MOU on SDI research, together with supporting documents and an explanatory memorandum, has been passed to the Defence Select Committee today.

I am copying this to Tim Flesher (No 10), Rob Smith (Department of Education and Science), Michael Gilbertson (Department of Trade and Industry), David Morris (Lord Privy Seal's Office), Murdo Maclean (Chief Whip's Office) and Michael Stark (Cabinet Office).

Yours ever

(D J WOODHEAD)

Colin Budd Esq
Foreign and Commonwealth Office



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DEPARTMENT OF TRADE AND INDUSTRY
1-19 VICTORIA STREET
LONDON SW1H 0ET
Telephone (Direct dialling) 01-215 5422
GTN 215)
(Switchboard) 01-215 7877

Secretary of State for Trade and Industry

12 May 1986

The Rt Hon George Younger MP
Secretary of State for Defence
Ministry of Defence
Main Building
Whitehall
LONDON
SW1

CDP
12/5

Dear George.

US/UK MEMORANDUM OF UNDERSTANDING ON SDI RESEARCH - HCDC REQUEST

Thank you for copying to me your letter of 28 April to Geoffrey Howe.

I have no objection to a copy of the full MOU being passed to the HCDC on the basis suggested in your letter. As you say there is bound to be increased pressure from the Defence Committee to see the MOU now that the US/West German agreement has leaked out.

It is interesting that the US Administration has given, without consultation, copies of the US/UK MOU to the Foreign Affairs Committees of the US Congress. If, as a result, the contents become widely known to US industry, then this is inconsistent with the US request for a high security classification for the MOU in the UK. It would be useful to clarify the basis of the release to Congress.

I am sending copies of this minute to the Prime Minister, Geoffrey Howe, Keith Joseph, John Biffen, John Wakeham and Sir Robert Armstrong.

Yours ever,
Paul

PAUL CHANNON

DW4BCS

DEFENCE: SDI: Part 4.

PH/84

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(2)

Prime Minister

Re Foreign Secretary is giving some allies. I am not sure how many of them have really thought it through

CDP 13/5

Treasury Chambers, Parliament Street, SW1P 3AG
01-233 3000

PRIME MINISTER

I can't think what the Treasury is doing writing a letter like this not

SDI

Geoffrey Howe sent me a copy of his minute to you of 28 April on SDI.

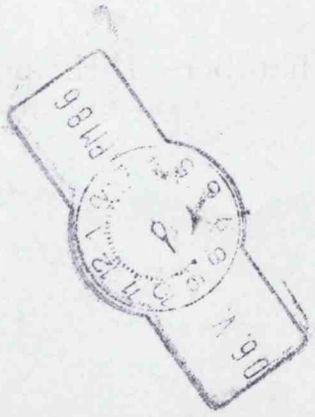
Like George Younger, I agree with Geoffrey's assessment of the potential risks to Western and particularly British interests posed by the SDI. As Geoffrey points out, if the result were to be a new spiral in the arms race, prompting the Soviet Union to increase its defensive capabilities, the implications for the UK nuclear deterrent could be extremely costly both in economic and political terms. Equally the impact of the SDI on US defence expenditure, given their present budgetary position, could have adverse implications for us. Cuts in US conventional capabilities might well lead to US Government and Congressional pressure on the European members of the Alliance to increase their defence efforts.

Given the wider risks posed by the SDI to the stability of strategic nuclear relationships and to the possibility of increasing that stability through arms control negotiations I would endorse Geoffrey's conclusion that we should be most sceptical about the proclaimed benefits to the West of the SDI and extremely cautious about any US arguments that SDI should move beyond the research stage. It goes without saying that I also very much agree with the message in paragraph 6 of his minute.

I am sending copies of this minute to Geoffrey Howe, to George Younger and to Sir Robert Armstrong.

N.L.

2 May 1986



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UK EYES B

FCS/86/122

SECRETARY OF STATE FOR DEFENCE

US/UK Memorandum of Understanding on SDI Research - HCDC Request

1. Thank you for your minute of 28 April. As you say the situation has significantly changed. It was of course the Americans who were so anxious that we should not reveal the contents of our MOU. Now that Congress (without reference to us) has been given a copy, I can see no possible reason why we should not meet our own HCDC's request to see one on a classified basis.

2. I am therefore content to proceed as you propose. With the German leak, the bounds of confidentiality with which the Americans earlier wished to surround all their agreements with the Allies seem to be beginning to slip. If as a result it becomes clear that we got a better deal than the rest of the Europeans (or subsequently the Japanese) I see no harm, and some merit in such a result.

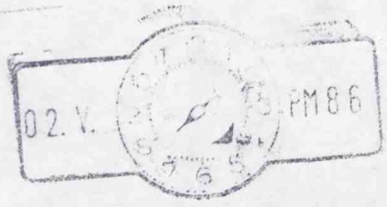
3. I am sending copies of this minute to those who received yours.

(GEOFFREY HOWE)

Foreign and Commonwealth Office

2 May 1986

Defence : SDI Pt 4.



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10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

1 May 1986

SDI

The Prime Minister has read the Foreign Secretary's minute of 28 April. She did not quite understand the need for it. Her views on the SDI remain unchanged.

I am copying this letter to John Howe (Ministry of Defence), Rachel Lomax (HM Treasury) and Michael Stark (Cabinet Office).

(Charles Powell)

A. C. Galsworthy, Esq., C.M.G.
Foreign and Commonwealth Office.

CONFIDENTIAL

PM/86/022

PRIME MINISTER

SDI

1. Before you see President Reagan and other world leaders in Tokyo, you may find it useful to have the following thoughts on our approach to the SDI, with the main thrust of which George Younger strongly agrees.

2. There appears to be wide public and international support for our current approach to the US project, based firmly upon the agreement you reached with President Reagan at Camp David in December 1984. This provides a sound basis for our continued policy; it is consistent with similar wide-spread support in the West for the US research programme, and in this country for UK participation.

3. In addition, the approach which we have taken towards the prospect of a nuclear-free world - where we have to balance the theoretical attractions against the practical realities, not least in terms of conventional forces - has been increasingly echoed elsewhere. It is striking that in his most recent message to you in February on Geneva, President Reagan stated that "many steps must be taken in other areas affecting our security before the actual attainment of a nuclear-free world could become possible or even desirable". I believe that one by-product of the SDI debate may now be a greater degree of public understanding and acceptance of the role of nuclear forces in preserving Western security.

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4. Against that background I do not suggest that our present policy requires alteration, although we should obviously keep it under close review. As it stands, it is clear and widely accepted; it has served us very well with our Allies and our own public opinion; and it places us in the best possible position both to monitor and to influence US action, and to respond to developments affecting our interests as these may occur.

5. Nonetheless, we are dealing with a situation in flux. Not only may there conceivably (though not inevitably) be changes in the US and Soviet positions as the Geneva negotiations continue. In time, we may begin to see the US move towards the stage beyond research and into limited deployments, on the grounds that these could help to enhance nuclear deterrence (rather than eliminate the need for it). While therefore I am not recommending any change in our policy, I believe it important to keep the following factors in mind as the overall picture continues to develop.

6. It is evidently essential that we should avoid any gratuitous damage to Western unity, or to the wider US/UK defence relationship. At the same time we must continue to give the top priority to our own, British interests. The Americans justifiably put their own interests first. This was clearly demonstrated by their willingness until recently to volunteer, in both public and private exchanges with the Russians, that British and French forces should be included in negotiations at the point when US and Soviet forces were reduced and when additional reductions were under discussion; and this without any reference to the other conditions for our participation which we and the French have explicitly stated.

/7.

7. When it comes to British interests, one of our key objectives is to prevent another spiral in the arms race. As you have recognised in the past, and implied in your February message to President Reagan, the SDI represents a potential obstacle to nuclear reductions. You have already deployed in previous messages to the President, as I have to George Shultz, the arguments for adopting a more imaginative approach at Geneva; for seeking to strengthen the ABM Treaty; for introducing a greater degree of predictability into the strategic relationship; and for trying to establish the way in which offensive and defensive forces will actually interact with each other. There is no need for me to go over these arguments again now. But we must continue to press them in Washington and in Moscow, if we are to influence approaches in both capitals in the right direction. I believe that this is an important part of Britain's particular role in the arms control field, about which we spoke last week.

8. We also need to keep in mind, as we have in the past, the effect of SDI-related developments on our own deterrent; and we need to pay as much serious attention to this factor as the French clearly do. I believe it inevitable that US moves beyond SDI current research and eventually into deployment would lead to significant increases in Soviet defence capabilities. Indeed, this is a fundamental objective of the Reagan vision. On the other hand, the effect of such an increase in Soviet defences upon our own minimum deterrent would be gravely damaging. I am prepared to accept the judgement that such an increase could, over the time-scale of Trident deployment, be countered. But I think we all recognise that such a response could be extremely costly, even if it could be managed. And the whole process would certainly not enhance the political credibility of our own deterrent.

/9.

9. Hence we have always made it a major condition for our own involvement in arms control, that there should be no significant increase in Soviet defensive capabilities. It will be a continuing dilemma with which we must grapple, that the US encouragement to the Russians to move down the path towards increased defences will thus continue to conflict directly with our own approach to our participation in arms control. This will present not only a potential point of discord with the US, but it could prove politically damaging to our position both in this country and internationally.

10. Economic factors will also be important. When General Abrahamson was asked about these at the NPG press conference last month, he denied that it was possible to give a "responsible answer" on the economic aspects of the SDI, on the grounds that at this point the outcome of the research was wholly unknown. Nonetheless, it is clear that there are growing pressures on the US defence budget, and that these are likely to lead to cut-backs in certain areas. I can understand that even within these budgetary constraints the current SDI research programme will be affordable in the short term (with initially planned funding of $26 billion over five years, which is in practice likely to turn out to be less). Equally, President Reagan is determined to preserve from the Gramm-Rudman axe the SDI research programme, which is now moving towards 10% of the total US military research and development effort, and his strategic modernisation programmes.

Quite small

11. It therefore seems most likely to me that the first round of cut-backs in US defence efforts are likely to take place in such areas as personnel, stationing costs, and readiness - all of direct relevance to the defence of

/NATO

NATO Europe. Even these may be sustainable in the short term. But in the long term the rapidly increasing costs which would be involved in deployment of SDI systems would make similar cuts much harder to bear. At the same time we must recognise that Congress and a successor Administration, if faced with a choice, is likely to opt for a prime focus on systems geared to the defence of the US homeland, despite the impact this would have on forces dedicated to the defence of Europe.

12. There is one further point in the European context which I should bring to your attention. You will have seen a good deal written and said lately about a "European Defence Initiative". Both George Younger and I were concerned to hear US representatives at the recent NPG meeting imply that the question of research into the possibilities of defence against the shorter range ballistic missile threat to Europe falls outside the scope of the SDI, and must be left to the Europeans themselves. This is not necessarily an agreed view throughout Washington. But it certainly seems to be gaining ground in the Pentagon; Cap Weinberger endorsed it at the NPG.

13. The technical relationship of the SDI to the defence of Europe is extremely complex, and a good deal more work is required within the Alliance and in this country if we are to clarify our thinking properly. However, even at this stage I believe that, with some simplification, we can try to distinguish three elements:

- a European Defence Initiative, in the sense of a defence effort unique to the Europeans and designed to counter ballistic missiles. As I have said, this is certainly not something which appears consistent with our own interests;

/at

- at the other end of the spectrum, enhanced air defence to deal with the short term but increasing threat posed by tactical Soviet missiles, whether conventionally or nuclear-armed. We need to work together with others, and particularly the Germans, in clarifying the best answer in this area, which may not necessarily lie in a new system of active defences;

- SDI-related efforts in Europe, by which I mean the application of as much of the SDI results as possible to the defence of Europe. Again in the short term, we may wish to exploit initially the potential offered by improved sensors, communications and surveillance technology.

14. I believe that it is becoming common ground in the debate in the West that the simple argument of "SDI versus no-SDI" is academic and irrelevant. No-one who has studied the question believes that a "leak-proof umbrella" is feasible in the foreseeable future; and many people seem drawn to the view that the possibility is only being held open for domestic US political reasons. The real issue over the next half-decade is likely to be the strength of the case for limited deployments of space-based interceptor systems. Nonetheless, I must note that in terms of direct British interests even such limited moves would create many of the problems I have already outlined: an increase in the arms race spiral; a possible blow to the credibility of our own deterrent; political damage to our approach to arms control; and increased economic burdens.

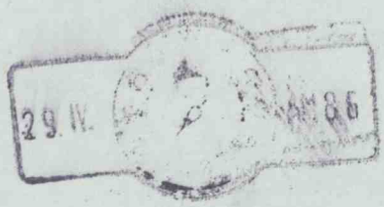
/15.

15. The conclusion that the Defence Secretary and I have drawn is that we should continue to base our policy upon the view you expressed earlier: that, while not under-estimating the potential value of the SDI in the Geneva context, we should treat with extreme caution the US arguments for endorsing steps beyond the research phase; and that we should remain sceptical about the proclaimed benefits to the West, including British national interests, that such moves would bring.

16. I am sending copies of this minute to George Younger, to Nigel Lawson and to Sir Robert Armstrong.

GEOFFREY HOWE

Foreign & Commonwealth Office
28 April 1986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D/S of S/PS/20/193V

FOREIGN AND COMMONWEALTH SECRETARY

US/UK MEMORANDUM OF UNDERSTANDING ON SDI RESEARCH - HCDC REQUEST

can request if required.

Thank you for your minute of 1st April about the request from the Defence Committee for access to the US/UK MOU on SDI research. I have held up a reply until now while we waited for the American response to the points which I made to Caspar Weinberger on 17th March.

2. I am now glad to be able to say that Cap confirmed to John Stanley, who was in Washington last week, his earlier immediate reaction to me, that he had no objection to my passing a copy of the MOU to the HCDC on the understanding, as I had proposed, that this would be done on a classified basis. It has taken an unconscionable time to reach this decision, however, and the Defence Committee have manifested increasing irritation over the delay in providing them with a substantive response to their original request. The Committee have been told in confidence that the reason for the delay was that we wished to give the US Government an opportunity to express any views which they might have before Ministers reached a decision on the Committee's request.

3. You raised in your minute the possible alternative to providing the HCDC with the actual text of the MOU of giving

them instead a very full account of its provisions. I should have been reluctant to adopt this alternative for several reasons:

a. The Committee would find it very hard to accept that a full account of the provisions of the MOU was really full enough, and they would quibble endlessly about their right to see the actual document.

b. Where there are differences in the US treatment of her Allies over the terms of participation in SDI research, many of these will become apparent in due course as they are reflected in unclassified contracts. If the question of differential treatment of the Allies does come out into the open, as a significant problem to be addressed, then I would hope that we would be seen to have the most favourable agreement!

The situation has, of course, now changed with the leak and publication of the full texts of the two US/FRG agreements complete with their covering letters from Cap Weinberger and Richard Perle. We ourselves are by no means immune from such unauthorised disclosures, and it is regrettable that Kenneth Warren saw fit in the House on 15th April to announce that he had in his possession a copy of the SDI MOU (it is not wholly clear that he has the SDI MOU rather than another unclassified

MOU signed shortly afterwards, but the matter is being pursued separately). I imagine that it will be some time before the Germans feel able, if at all, to take us to task over the maintenance of the confidentiality of our MOU on SDI. It also seems to me significant that Cap Weinberger did not alter his earlier reaction to my approach, in the light of the German leak episode.

4. As far as the possibility that Cap may insist on releasing the MOU to Congress is concerned, I have just learnt that the Administration has already given copies to the Foreign Affairs Committees of both Houses. This has been done without reference to us.

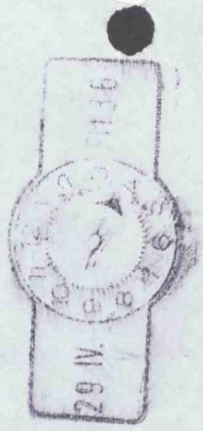
5. In all the circumstances, I would much prefer to proceed with my original proposal. It is acceptable to the Americans, and I should be glad to know as soon as possible that you agree.

6. I am copying this minute to the Prime Minister, the Secretaries of State for Education & Science and for Trade & Industry, the Lord Privy Seal, the Chief Whip and Sir Robert Armstrong.

G.H.

Ministry of Defence
28th April 1986

Defence: SDI Pt 4



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10 DOWNING STREET

From the Private Secretary

14 April 1986

THE STRATEGIC DEFENCE INITIATIVE

The Prime Minister has read with interest Mr. Pattie's minute of 11 April about British industry's participation in research work on the Strategic Defence Initiative.

On the specific proposal made by Mr. Pattie to second two or three extra personnel to the British Defence Staff in Washington, the Prime Minister has commented that what is required is to substitute some of those already in Washington by personnel specialised in the fields covered by the SDI. She would not favour any net addition to the staff in Washington.

I am copying this letter to the Private Secretaries to the Defence Secretary, the Foreign and Commonwealth Secretary and to Sir Robert Armstrong.

(Charles Powell)

Tim Abraham, Esq.,
Department of Trade and Industry.

CONFIDENTIAL JB

CONFIDENTIAL

(2)

Prime Minister

CDP
11/4.

TO:

PRIME MINISTER

FROM:

GEOFFREY PATTIE

11 April 1986

THE STRATEGIC DEFENCE INITIATIVE (SDI)

I returned from the United States last Sunday. Whilst in Los Angeles I spoke at a seminar on International Co-operation in the Strategic Defence Initiative at the World Military Defence Exposition (MILDEX EXPO). In the paper I gave, I emphasised the very worthwhile prospects for beneficial exchanges now held out to American and British industry by the SDI programme. On the following day I visited three of the major US prime contractors in SDI and in the evening met and briefed 20 local representatives of British defence and aerospace companies who have organisations in the area. From these exchanges I was struck forcibly by the need to follow up the advantage we have gained, in being the first Government to sign an MOU, with a sustained effort to obtain contracts for UK industry.

The Political Problem

British industry and the British media have been led by Michael Heseltine's excessive 'hype' to expect large value contracts. It is very important in political terms first to secure whatever business we can while the opportunities exist and secondly to reorchestrate expectations in a downward direction. Only seven contracts have so far been signed, together amounting to $1 million, and those

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currently in the pipeline are expected to yield no more than $10 million by the end of the year. This is a very small fraction of the total funds which have been made available for the first five year programme. Putting it bluntly, the winning of large contracts, at any stage, is going to be a very up-hill struggle. Although the two situations are not strictly comparable, it is nevertheless not too fanciful to think in terms of our participation being seen as another "Trident non-event".

The Opportunity

I was impressed by the considerable amount of practical work that has already been carried out by British and American officials in order to facilitate industry to industry co-operation. Arrangements for accelerated security clearances, earlier access to Requests for Proposals, and targets for the granting of export licences in 30 days instead of the customary 9 months are arcane matters to outsiders but meat and drink to those British companies who are trying to work the American system, a system which knows how to slow down and negate at working level the effect of the rhetoric agreed at political level.

In this sense the situation is far more promising at this stage than it was for Trident. The US Administration is clearly prepared to commit itself in a practical way to make the Memorandum work. For a few weeks or months we have the field to ourselves as non Americans until the Germans get their act together.

The real difficulty is that the contract letting process in the American system is widely dispersed. The SDI Project Office acts merely as a general co-ordinator and public relations focal point. The contracting activity is farmed out to the three services and three defence agencies. What is urgently needed are two or three more energetic personnel to be seconded to our Defence staff in Washington while this window of opportunity is open. The existing staff are too few to cover the ground that physically has to be covered.

[I guess that the annual cost of three extra staff in Washington would be of the order of £200,000 p.a.] — It only means substituting some of those at present there by those skilled in this field

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1786 1986 BOARD OF TRADE BICENTENARY

Although our companies have their representatives on the ground as well, the role of UK Government staff is crucial at this stage to get the right doors open and keep them open.

As it is I can see exactly what will happen. In true Whitehall style there will be an argument about posts and their grades and allowances back and forth for months and the Germans will have taken the chances.

Re-education

We must take opportunities to re-educate industry and selective media opinion here that although the sums of money we are likely to get from SDI contracts will be of a different order of magnitude from those previously claimed, the technology transfer quality of the work should be of the very best. It's a case of never mind the width - feel the quality. A tricky job but it has to be done.

European Defence Initiative (EDI)

A more difficult area is the development of our policy on the European Defence aspects of the programme. All of the companies I saw, and I gather several others, are deeply interested in the UK architecture studies. They are eager to participate in thinking about the defence of the allies, not only for the obvious commercial reasons, but also because they are genuinely concerned that the overall system should take account of a threat to Europe, and accurately reflect European political sensitivities. Some companies also see opportunities for US/European collaboration on systems which would have application for the conventional as well as the strategic threat. On this score it is becoming clear that US policy can change almost as quickly as can the technical requirements. Though I see no reason to alter our general stance in support of the research phase of the programme I feel that we should combine with it a well prepared view of the interconnection between SDI and the conventional defence of Europe, as well as the short-range

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1786 1986 BOARD OF TRADE BICENTENARY

ballistic missile threat. We need to be aware of the rapid development of US thinking on this issue in order to avoid being outflanked by our European partners.

I am copying this minute to Sir Geoffrey Howe, George Younger, and Sir Robert Armstrong.

Timothy Abraham

pp. GEOFFREY PATTIE

(Approved by the Minister and signed in his absence)

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1786 1986 BOARD OF TRADE BICENTENARY

GRS 780

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INFO PRIORITY MODUK (FOR DACU), WASHINGTON, PARIS, UKDEL NATO
INFO PRIORITY UKDIS GENEVA, MOSCOW

KOHL PRESS CONFERENCE: ARMS CONTROL AND SDI.

SUMMARY

1. KOHL GAVE AN AUTHORITATIVE STATEMENT TO THE PRESS TODAY COVERING SEVERAL CURRENT GERMAN CONCERNS ON ARMS CONTROL. NO SURPRISES. SOUND LINE ON EXCLUSION OF UK/FRENCH SYSTEMS FROM INF.

DETAIL

2. GORBACHEV'S PROPOSALS OF JANUARY/FEBRUARY HAD NOT YET BEEN TRANSLATED INTO CONCRETE STEPS AT THE NEGOTIATING TABLES IN GENEVA, VIENNA AND STOCKHOLM.

INF

3. REAGAN'S COUNTER-PROPOSAL TO THE LIMITED SOVIET ZERO OPTION PROPOSAL FULLY MET EUROPEAN SECURITY INTERESTS. IT HAD BEEN AGREED WITH THE ALLIES FIRST. THE SOVIET PROPOSAL, LEAVING SS20S IN ASIA, WOULD CONSTITUTE AN UNCALCULABLE INF RISK FOR THE FRG. IF GERMAN INTERESTS WERE TO BE MET ANY LRINF SOLUTION MUST BE ACCOMPANIED BY MOVES TOWARDS A SOLUTION OF THE SRINF PROBLEM: OTHERWISE, AFTER A WITHDRAWAL OF SS20S, WESTERN EUROPE WOULD STILL FACE THE THREAT OF A MULTIPLE SOVIET SUPERIORITY IN SRINF, GIVEN THEIR RECENT BUILD-UP. REDUCTION OF NUCLEAR SYSTEMS WOULD INCREASE THE EUROPEAN PROBLEM OF CONVENTIONAL IMBALANCE: NUCLEAR REDUCTIONS REQUIRED A STABLE BALANCE OF CONVENTIONAL FORCES TOO. MBFR AND CDE WERE THEREFORE OF PARTICULAR IMPORTANCE.

4. BECAUSE OF THEIR DIFFERENT CHARACTER, BRITISH AND FRENCH SYSTEMS COULD NOT BE THE OBJECT OF US/SOVIET NEGOTIATIONS ON INF AND MUST NOT BE MADE A PRE-CONDITION FOR RESULTS IN THIS FIELD.

CTB

5. A NUCLEAR TEST BAN REMAINED AN IMPORTANT GOAL OF THE FEDERAL GOVERNMENT. DESPITE SOVIET ARGUMENTATION, DIRECT NEGOTIATIONS OVER REDUCING NUCLEAR WEAPONS WERE A QUICKER WAY THAN TEST BAN TO ACHIEVE ARMS CONTROL. THE QUESTION OF TEST BAN SHOULD NOT BE USED TO BLOCK NEGOTIATIONS ON REDUCTIONS. BUT THE FRG HOPED THAT THE TWO SUPERPOWERS COULD GO BEYOND SPECTACULAR PUBLIC DECLARATIONS ON TEST BANS TO ACHIEVE A STEP-BY-STEP RAPPROACHEMENT ON THIS ISSUE: A POLICY OF ALL OR NOTHING WOULD NOT BRING SUCCESS. VERIFICATION ISSUES SHOULD NOT BE AN IMPEDIMENT TO AGREEMENT AND THE SUPERPOWERS SHOULD IMMEDIATELY START DISCUSSIONS ON DETAILED VERIFICATION QUESTIONS. A LIMITATION ON TESTING MIGHT BE EITHER A FIRST STEP OR A TRANSITIONAL SOLUTION. FOR EXAMPLE, THE TESTING WHICH REMAINED

/NECESSARY

NECESSARY TO CHECK THE FUNCTIONAL CAPABILITY OF NUCLEAR WEAPONS MIGHT TAKE PLACE ONLY AT AGREED AND SPECIFIED INTERVALS AND IN THE CONTEXT OF NUCLEAR REDUCTIONS.

CHEMICAL WEAPONS

6. GIVEN BOTH SUPERPOWERS' COMMITMENT TO REACH EARLY SOLUTION TO A GLOBAL BAN, THE FEDERAL GOVERNMENT WERE LOOKING FOR CONCRETE PROGRESS AT THE CD IN 1986. THIS WAS PARTICULARLY THE CASE FOR THE CENTRAL QUESTION OF VERIFICATION.

7. MODERNISATION OF THE US CW POTENTIAL WAS A PURELY NATIONAL DECISION BY THE AMERICAN GOVERNMENT: THERE WOULD BE NO STATIONING OF BINARY WEAPONS IN THE FRG: THE FEDERAL GOVERNMENT WOULD CONTINUE TO DO EVERTYTHING POSSIBLE TO ENSURE THAT CHEMICAL WEAPONS WERE WITHDRAWN AND DESTROYED WORLD-WIDE, AND THEREBY ALSO FROM THE FEDERAL REPUBLIC.

8. FEDERAL REPRESENTATIVES WERE DISCUSSING TRILATERALLY WITH THE GDR AND CZECHOSLOVAKIA STEPS TOWARDS A GLOBAL BAN. THIS REMAINED A REALISTIC POSSIBILTY IF ALL APPROACHED NEGOTIATIONS CONSTRUCTIVELY. FOR THIS REASON, THE FEDERAL GOVERNMENT CONSIDERED REGIONAL SOLUTIONS TO BE A DETOUR, AND REJECTED THEM.

SDI

9. THE US RESEARCH PROGRAMME WAS JUSTIFIED, POLITCALLY NECESSARY, AND IN THE SECURITY INTERESTS OF THE WEST AS A WHOLE. THERE HAD BEEN DIFFICULT NEGOTIATIONS WITH THE US ON FRG PARTICIPATION: A SUCCESS FOR BANGEMANN. THE FRAME WORK AGREEMENT FOR GERMAN FIRMS TO PARTICIPATE CONTAINED NO SUBSTANTIVE NOR FINANCIAL PARTICIPATION BY THE FEDERAL REPUBLIC (I.E GOVERNMENT). THE RESEARCH MUST TAKE PLACE WITHIN THE FRAMEWORK OF THE ABM TREATY. THE SECURITY AND DEFENCE CONSEQUENCES OF THE SDI RESEARCH PROGRAMME COULD NOT YET BE ANSWERED. THERE MUST FIRST BE A THOROUGH CONSULTATION WITHIN THE ALLIANCE. IN ADDITION, NEGOTIATIONS IN ACCORDANCE WITH THE ABM TREATY WOULD HAVE TO TAKE PLACE BETWEEN THE US AND THE SOVIET UNION. THE RESULTS OF RESEARCH ON BOTH SIDES MUST LEAD TO COOPERATIVE SOLUTIONS. THE FRAMEWORK AGREEMENT WITH THE US GUARANTEED FOR THE FEDERAL GOVERNMENT THE POSSIBILITY OF KNOWLEDGE ABOUT PROGRESS ON SDI RESEARCH AS A WHOLE. IT THEREBY ENABLED THE FEDERAL GOVERNMENT TO HAVE INFLUENCE ON LATER DECISIONS. IT AVOIDED THE FRG BEING CUT OFF FROM NEW TECHNOLOGICAL RESULTS, BOTH IN CIVIL AND IN THE CONVENTIONAL MILITARY FIELD.

BULLARD

US/SOVIET ARMS CONTROL TALKS
LIMITED
ACDD
DEFENCE D
SOVIET D
NEWS D
NAD
EED
WED
PLANNING STAFF
RES D
INFO D
PUSD
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10 DOWNING STREET

From the Private Secretary

24 March 1986

I am so sorry that we failed to let you know the change in the time of your appointment with the Prime Minister. This must have been most inconvenient for you. The fault is entirely mine. I did actually try on a couple of days to reach you but could get no answer from your office. In the end it entirely slipped my mind.

I do hope you will forgive the apparent discourtesy. As I think you know, the Prime Minister is looking forward to seeing you at 1730 on Monday, 7 April.

CHARLES POWELL

Dr. F. H. Panton,
Cabinet Office.

CONFIDENTIAL

B.07366

MR POWELL

c Mr Stark

UK/US Memorandum of Understanding on SDI Research

(Defence Secretary's minute of 17 March to the Foreign and Commonwealth Secretary)

The request from the House of Commons Defence Committee to see this MOU is very understandable, since the MOU is the framework for United Kingdom participation in SDI research. In any case, the most sensitive aspects of the US/UK understanding were contained in a separate document. American hesitations about the publication of the MOU may diminish now that the US/FRG negotiations on SDI participation are close to conclusion.

2. I suggest that the Prime Minister should go along with the MOU being shown to the Select Committee on a confidential basis, subject to the reactions of the Foreign and Commonwealth Secretary to the Defence Secretary's minute and subject to United States concurrence.

C L G Mallaby

20 March 1986

CONFIDENTIAL

DEFENCE : SDI PT4.



(2)

PRIME MINISTER

SDI

You may be interested to glance at the attached article on the Strategic Defence Initiative from the latest edition of Foreign Affairs by Harold Brown. You will recall that he used to be President of Caltech and subsequently President Carter's Defence Secretary. It is quite a good survey of the prospects for the various technologies and the timescale within which they could be deployed though his conclusions are rather more sceptical than the US Administration would accept.

I suggest that you read only the passages which I have underlined.

CDP

CHARLES POWELL

19 March 1986

ECL/76

Harold Brown

IS SDI TECHNICALLY FEASIBLE?

The program known as the Strategic Defense Initiative (SDI) includes research on a variety of technologies—many aimed at distinct phases of the ballistic missile flight path. For each phase—boost, post-boost, mid-course and terminal[1]—a defense would require successful surveillance, target acquisition, tracking, guidance of the weapons, and kill mechanisms. Are the objectives of SDI technically feasible?

The answer will depend primarily on what specific objectives strategic defenses ultimately seek to achieve—protection of population, of missile silos, of other military targets. Within that context, the answer will further depend on the capabilities of the technologies and on the potential countermeasures and counter-countermeasures of each side.

This article will assess the prospects for the various defensive technologies for both the near term (10 to 15 years) and the longer term. It will include recommendations on how to proceed with a realistic research and development program. It will also make tentative judgments on the technical feasibility of various SDI objectives, though definitive answers are not yet possible. The political desirability of SDI is a separate question, not addressed here.

Finally, in considering the prospects for the various SDI technologies, it is important to remember how long it takes to move from technological development through full-scale engineering to deployment. That time is governed by the budgetary and legislative process, as well as by the state of technology.

[1] The boost phase is the period during which the ballistic missile rockets operate to bring it to (or near) its peak velocity. In the post-boost phase the warheads (and decoys) are released from the last stage of the missile. It is followed by the mid-course phase outside of the atmosphere, the lengthiest part of the trajectory. The terminal phase is the period from shortly before reentry into the atmosphere until detonation.

Harold Brown, President of the California Institute of Technology, 1969–77, and Secretary of Defense, 1977–81, is now Chairman of the Foreign Policy Institute, School of Advanced International Studies of The Johns Hopkins University.

—After the technology is proven out, full-scale engineering development of a moderately complex system will typically take five to eight years (a new ICBM is a good example).
—The course of deployment (unless there is concurrency of development with deployment, which has almost always proven counterproductive) takes five to seven years after completion of engineering development.
—Thus, if proven technology exists now, it will take 10 to 15 years before a new system employing the technology could be substantially deployed.
—If the technology needs to be further developed, even though the phenomena exist and are well understood, the time for that technology development will have to be added to such a period.

II

What kinds of technologies could be embodied in defenses against ballistic missiles that could begin deployment before or about the year 2000?

Terminal hard point defenses (e.g., defending ICBMs), using hardened ground-based radars and interceptor rockets, would require about ten years between a decision to deploy and having a significant force; the time to completion of deployment would approach 15 years from decision. The necessary technology exists now, and some subsystems have already been partially developed. What would be required would be the design of a new system involving—in sequence—some additional prototype development, full-scale engineering development, production and deployment. Such a system would include an interceptor like the Spartan missile aimed at reentry vehicles (RVs) outside the atmosphere, and another, rather like the Sprint missile, for intercepting RVs that have already entered the atmosphere.

Present designs of both missiles would require the use of nuclear warheads. Alternatively, non-nuclear versions could be developed using terminal homing devices in the interceptor. There is some question about how heavy a conventional warhead (and therefore the interceptor missile) would need to be in order to provide high probability of destroying the incoming RV and missile warhead; it depends on how close to the reentry vehicle the terminal guidance could bring the interceptor. If a

non-nuclear interceptor is chosen, this would lengthen by at least a few years the time to a substantial deployed capability.

An additional optical sensor, the Airborne Optical Adjunct (AOA), which would track reentry vehicles by detecting their infrared emissions or viewing them with visible light, could also be included at about the same time as a non-nuclear warhead.[2] Such a capability is feasible technologically and likely to be helpful in discrimination during or shortly before the offensive missile's reentry, but the technology would need some additional development.

Over the next 10 to 15 years it also appears technologically feasible to develop the components of a system using *space-based kinetic-energy weapons.* These chemically propelled rockets would intercept the offensive missile during its boost phase and destroy the target by impact or by detonation of an exploding warhead. The chemical rockets would be similar in nature to air-to-air missiles, but steered with reaction jets rather than aerodynamic surfaces. The targets could be designated to the interceptors by laser or radar tracks, provided by a set of tracking and fire-control satellites orbiting at a higher altitude than the satellites from which the interceptors would be fired. Short-range laser designation of ground or airborne targets exists, but the accuracies required for ICBM tracking would require significant additional technological development, as would imaging and processing the infrared data, and looking close to the horizon.

The interceptors would home onto the target, guided by their own passive observation of the infrared emissions from the target missile or by receiving reflections from the target of radar signals emitted from satellites (semiactive radar homing). Such a system, however, must find a way to direct the killer rocket to the actual ICBM booster rather than to its plume (exhaust), which emits the infrared signal. While presumably this can be done, it will add complexity and offer an opportunity for offense countermeasures. Though the technology for components of kinetic-energy kill and boost-phase intercept systems exists, solution of problems of this sort would require a considerable developmental process.

Several years of additional technical development could sig-

[2] Development or testing of AOA beyond the technology platform stage, as a component of an ABM system, even of a fixed ground-based ABM system, would appear to violate the ABM treaty because the AOA is itself a mobile component.

nificantly decrease the weight of the intercept rocket for a given kill probability. That approach is indicated because the weight determines a significant part of the total system cost. The cost of putting payloads in orbit with either the present shuttle or expendable boosters is thousands of dollars per pound. To reduce those costs to an acceptable level, a new "super" shuttle would probably have to be developed. This would involve a ten-year development process and a delay in deployment of a space-based kinetic-energy system.

Missile boosters in the upper atmosphere and in space can be detected, tracked and attacked through the infrared emissions of the missiles' exhaust plumes while their propulsion stages are burning; however, the actual effectiveness of such an approach will depend not only on the technical features of the defense, but on the actions of the offense in employing decoys, adopting countermeasures and suppressing the defensive system itself. For example, modest deliberate fluctuations in booster propulsion ("jinking") could require the kinetic-energy interceptor to make significant changes in its cross-trajectory velocity, and this would involve a large weight penalty for the defense. Fast-burning boosters would effectively negate such a defense system.

Nevertheless, the technology for a space-based boost-phase intercept system of some capability, using kinetic-energy weapons, could be ready for a decision as early as 1990–92 to initiate full-scale engineering development, with a significant deployment able to begin some time between 1995 and 2000. Soon after the year 2000 there could thus be deployed a space-based kinetic-energy kill system along with a high-altitude and low-altitude terminal defense. These would constitute three layers of a possible multilayered defense, the purpose of which would be to compound modest kill probabilities in each defensive layer so as to produce a high overall kill probability.

III

For the period five to ten years beyond 1995–2000, more elaborate space- and ground-based technologies *may* be feasible, with a corresponding period of deployment beginning some time between 2000 and 2010. Increased uncertainty, however, naturally attaches the further out we look.

Among the less uncertain of these later technologies are *space-based directed-energy weapons* such as neutral particle beams and chemical lasers.

—A *neutral particle beam* (NPB) would be made up of atomic particles, accelerated to a high speed in charged form by electric fields in an accelerator, then steered and pointed by a magnet, and then neutralized so that it will not be deflected by the earth's magnetic field.

—A *chemical laser* uses the energy created by chemical reactions[3] to create a highly focused, intense, highly ordered ("coherent") beam of infrared light, directed by a mirror.

As a measure of their status, both of these technologies could well be used toward the early end of the period 2000–10 for antisatellite purposes, which are less demanding than the antiballistic missile task. Demonstrations of the capability to kill an individual satellite by such means—most likely on cooperative targets—could be made still earlier, but these would not represent an operational military system.

Neutral particle beams are, in their present state of development, much brighter than any existing laser in terms of energy into a given solid (cone) angle. Today they produce particles of energy corresponding to acceleration by a few million volts of electric field (and could in the future be improved to 100 million "electron-volt" energies). Protecting ballistic missiles from such high-energy NPBs would require much heavier shielding than would protection from lasers. During the next 10 or 15 years, however, it is unlikely that NPB technology will be able to put more than ten percent of the primary energy into the particle beam itself. Such low efficiency means that a space-based NPB would probably require a nuclear power source, development of which would delay the possible deployment of a system.

In addition to the usual target acquisition and tracking problems, a defense based on neutral particle beams has several other critical tasks. The magnet necessary to point the beam before its neutralization is likely to be heavy—and expensive—to put into space. The tasks of developing an ion source capable of operation over some minutes and of achieving the necessary pointing accuracy will be difficult. Even more difficult is tracking the beam, since it gives off almost no signal in space. Finally,

[3] For example, the chemical combination of hydrogen and fluorine. If the population of [illegible] excited molecules outnumbers that of the lowest-energy ("ground") state, [illegible] of emission of light of the frequency corresponding to the energy difference [illegible] in an intense coherent beam.

the system will need to find ways to detect the effect on the target, through nuclear emanations from it, because at the full range of a successful NPB attack, the target would not be physically destroyed. Even where NPBs cannot be used to kill targets, however, they might ultimately prove useful in discriminating among them, because the nuclear emanations from an object hit by an NPB would depend on the object's weight.

For chemical lasers several technological problems still need to be solved. One is getting high enough power while maintaining a low enough beam divergence. Another is the very large weight of chemical reactants required for providing the energy. A third is the feasibility of the large optical systems required. There are, however, some promising technologies under development for chemical and other lasers. Among them are: various phase-compensation techniques to improve the quality and stability of the beam; phase-locking separate lasers together to increase the overall brightness; using adaptive optics (rapid adjustment of segments of a mirror), both to compensate for atmospheric dispersion for ground-based lasers and to ease the problems of creating large aperture mirrors for space-based ones; and phased arrays of lasers to increase intensity and to steer them more rapidly through a small angle, so as to move quickly from target to target. But some of these technologies have yet to reach full demonstration of the physical principles involved, and all are still far from being developed.

IV

Less technologically developed, and therefore more suitable for consideration of full-scale deployment beginning 20–25 years from now, is the use of ground-based *excimer* and *free-electron lasers* (FEL)[4] to be used with mirrors in space as components of a system for boost-phase intercept. Both are now many orders of magnitude away from achieving the intensity necessary for the required lethality, the free-electron laser further away than the excimer laser, at present. But the free-electron laser's device weight is lighter and its efficiency greater (and thus, its fuel weight lighter) than that of the excimer laser.

[4] Excimer lasers use "excited" (higher-energy) states of molecules including a rare gas (e.g., argon) and a halogen (e.g., iodine). These excited states are quasi-stable, while the unexcited ("ground") states are not populated, because the rare gases are not chemically active in their lowest-energy states. Free-electron lasers use the effect of oscillating electromagnetic fields on electron beams to cause the electrons to emit phase-coherent (laser) radiation.

The FEL might perhaps therefore be deployable in space. But the weights of these lasers and of their energy supplies more probably would require either to be ground based. The laser wavelength for both would allow the beams to penetrate the atmosphere, if the atmospheric distortions problem is solved. Thus both seem more suitable for ground deployment along with mirrors in space. Other problems for the ground-based lasers are the large optics required, both on the ground and for the synchronous-altitude steering mirrors, and obtaining the same high power in each of a long series of repetitive pulses.

These two systems might also be suitable for "active" discrimination—also called "interactive" or "perturbing"—in the mid-course phase of a strategic defense. That is, they could impart energy or momentum to very large numbers of objects in mid-course being tracked by some of the more established technologies already discussed. The resulting changes in the objects being tracked, or in their trajectory, could offer some limited opportunities for discrimination of reentry vehicles from decoys and debris.

Significant technological disagreement exists about the potential of ground-based lasers (free-electron or excimer) versus space-based chemical lasers. Some believe that the smaller amount and lesser complexity of hardware required to be put in space will bring the time for availability of these ground-based lasers as close or closer than the time actually required for those entirely space-based.

Chemical lasers are more proven technologically than excimer or free-electron lasers, but many experts have dismissed their potential use because of the difficulties in designing an effective system. Chemical lasers (space-based because their wavelengths will not penetrate the atmosphere) could be of some use against ballistic missiles now deployed. They could well be severely inadequate, however, against the offensive systems (with, for example, fast-burn missiles and other countermeasures) that could be in place during the first decade of the next century, when a significant defensive laser deployment could be made. Surely such countermeasures would be put in place if defense lasers were deployed. And in light of the large weight of chemical fuel that would have to be deployed in space, the chemical laser system at present seems to fall into the category of technically feasible but ineffective as a system. New optical developments such as phased arrays and phase

conjugation are now being investigated, however. These might be able to improve the brightness and stability of chemical lasers—and increase their lethal range—to the point where they would have some systems effectiveness even against a responsive threat.

X-ray lasers powered by nuclear explosions are still further off than the other types of lasers, although they seem to offer some interesting distant possibilities. X-ray lasers would have wider beam angles and higher power per unit solid angle than optical ones. This would make them suitable for destroying clouds of objects or for actively discriminating heavy objects among them, and thus effective against such countermeasures as balloons and decoys. Proof of the most basic principle has been established, in that bomb-driven X-ray lasing has been demonstrated to be possible. But there is doubt as to what intensity has been achieved; it is in any event far less than necessary for use in active discrimination, let alone target kill. Demonstration of the physics of a possible weapon is at least five (more likely ten) years off. Weaponization would involve another five or more years, and only thereafter could its incorporation into a full-scale engineering development of a defensive system begin.

Rail guns, which accelerate objects to very high speed electromagnetically, may also have promise. But they are almost as far off as X-ray lasers. Multi-kilogram payloads would need to be accelerated to speeds above 15 kilometers per second, and a system (and power source) would need to be designed that could be used for multiple shots. New guidance and propulsion systems would also have to be engineered to survive such accelerations and to do the necessary terminal homing.

While many uncertainties exist as to future laser technologies for strategic defense, all laser systems would be vulnerable to other lasers. In general, the rules of the competition are that ground-based lasers will defeat space-based ones, larger ones will defeat smaller ones, and bomb-driven X-ray lasers looking up though the fringes of the atmosphere will defeat the same sort of X-ray lasers looking down into the fringes of the atmosphere. Vulnerabilities will also differ as between ground-based and space-based lasers. The former would have the weapons—or at least their energy source—on the ground, and presumably would include mirrors stored or unfolded in or popped up into space for the purpose of steering the laser beams.

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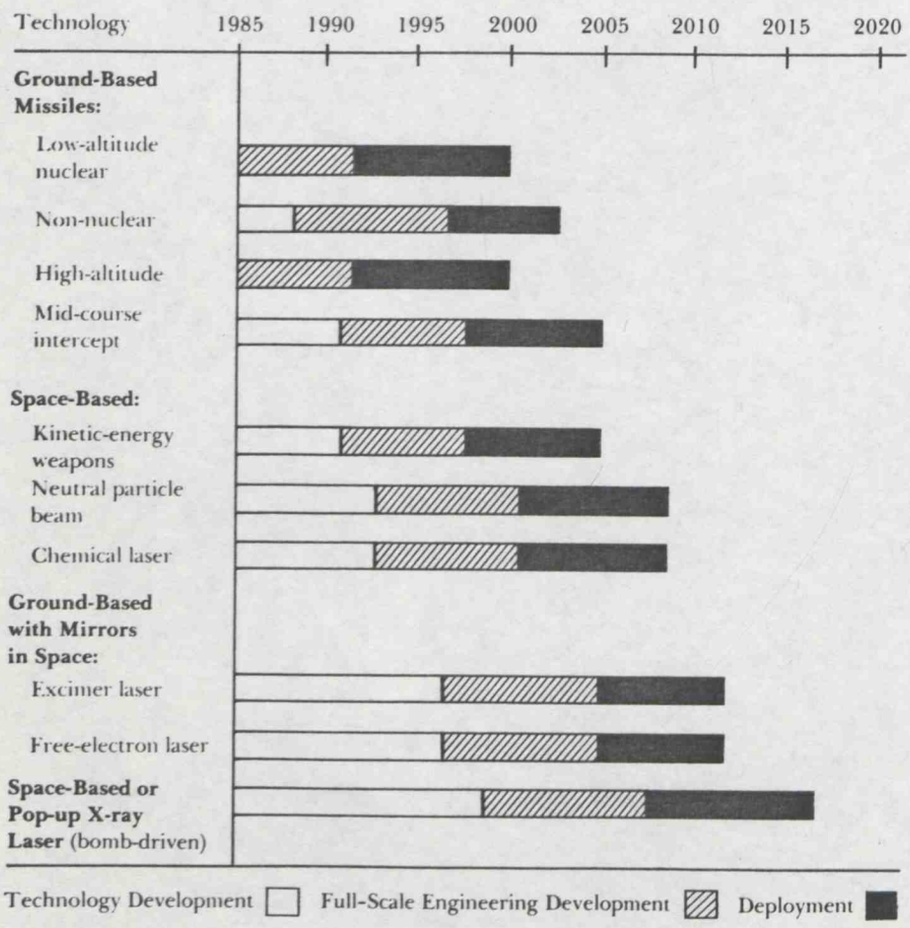
Technology	1985
Ground-Based Missiles:	
Low-altitude nuclear	
Non-nuclear	
High-altitude	
Mid-course intercept	
Space-Based:	
Kinetic-energy weapons	
Neutral particle beam	
Chemical laser	
Ground-Based with Mirrors in Space:	
Excimer laser	
Free-electron laser	
Space-Based or Pop-up X-ray Laser (bomb-driven)	

Technology Development

As to time scale, when one is talking about time scales for deployment 25 or more years from now, corresponding to technologies whose full demonstration is more than ten years away, one really cannot know what the time scale will be to reach substantial deployment. The accompanying chart summarizes the time scales for these various systems. For the space-based systems, the pop-up systems and those with mirrors in space, lengthy technology development periods will be required. Depending on how that development is carried out, it may be possible to defer collision with the provisions of the ABM treaty until early in the process of full-scale engineering development. The calendar times differ for each technology, as shown in Figure 1.

FIGURE 1



V

A successful strategic defense would require not only kill mechanics but also a *battle management system* involving sophisticated *command, control and communications* (C^3). Estimates for the total number of lines of code of software required range from 10 million to 100 million. A measure of the effort involved can be derived by using the standard figure of $50 a line. Thus, the software costs could range from $500 million to $5 billion. The raw cost of such a system is therefore less important than the feasibility and methods of finding and correcting errors in it.

One problem would be with errors in the codes themselves. While this would not be trivial, it could be dealt with in part through automated software production and through artificial intelligence. The latter, though still mostly in the conceptual stage, nevertheless has real capabilities in terms of expert systems, and can be expected to produce real advances within the next ten years. The most fundamental problems for battle management and C^3 are: the establishment of appropriate rules of engagement; the probability of conceptual as well as mechanical error in the creation of the software, and the possibility of redundancy to compensate for it; the need to change portions of the software as new elements are introduced into the system without having the changes compromise the working of the rest of the software; and, most of all, the ability to check out the system, so as to make sure there are no conceptual errors in the software in such matters as handing over tracks of the offensive missiles, transferring automated decisions from one node of the system to another, avoiding loops in the logical sequence, and so forth.

How could such capabilities be tested? Can on-orbit testing be used? Such problems are just beginning to be addressed, and it will take a long time before conclusions can be drawn even as to what the state of this particular technology is compared with what is needed.

VI

In terms of future defensive technologies, what potential defense systems are technically feasible?

It is technologically feasible to create a *terminal defense* overlay of hard ICBM silos, deployed so that the missiles are moved among multiple silos and so that their position at any one time

is unknown to the attacker. Such a defense overlay can, by preferential defense—that is, defending only the occupied silos—provide a cost-exchange ratio favorable to the defense because the attacker must attack all silos. The same is probably true of defense of moderately hardened mobile missile systems by a terminal defense of corresponding mobility and hardness. In the case of hard-silo defense, a single layer of defense by endoatmospheric ground-based interceptors would suffice. For mobile hardened missiles, a two-tier ground-based system would probably be needed.

Modified ground-based defenses using similar technologies could protect some other military targets, for example command and control centers. The exchange ratio at the margin will vary widely, however, among classes of such targets according to their nature (hardness, area and mobility), their number and their cost. Such defenses could also be deployed for a thin protection of some urban-industrial areas, though they must be recognized as protecting such targets, if at all, only against attacks that are both limited in size and not responsive (i.e., not modified to take account of the defenses). Terminal defenses for these categories would use two-tier ground-based interceptors, and until the early 21st century would need to carry nuclear warheads in at least the exoatmospheric long-range tier. The defenses would be accompanied by space-based early warning and tracking sensors, and by airborne optical sensors to aid in the discrimination task during the terminal phase.

Advanced versions of infrared sensors deployed near or above geosynchronous orbit (an altitude of 20,000 miles) will be needed for attack warning and assessment in any defensive system, even if no boost-phase intercept is attempted. Infrared or other sensors in lower orbits (at altitudes of hundreds of miles) would also be useful to all layers of a ballistic missile defense system for tracking and discrimination. But the sensors must be able to survive. This suggests that they be provided with some self-defense, which in turn could be the first step toward boost-phase intercept.

As to weapons, kinetic-energy rockets based in space are technologically feasible. But an ICBM using a fast-burn booster clearly defeats them, and space-based defenses are vulnerable to defense suppression. Estimates of the exchange ratio for a *boost-phase intercept* defense layer based on kinetic-energy kill range from as low as two to one adverse to the defense at the

margin (assuming unresponsive offensive threats and including sunk costs for the offense) to more realistic estimates, assuming responsive offenses, of five or ten to one. Defense suppression would probably further shift the ratio in favor of the offense.

Space-based chemical lasers seem feasible in technological terms but more questionable in practical systems terms. Though likely to be faster in response than kinetic-energy weapons, they still will not be a match for fast-burn boosters of offensive missiles. They will, moreover, be vulnerable to defense suppression systems based on other space-based lasers, and also vulnerable to ground-based lasers and direct-ascent antisatellite weapons. Ground-based lasers, whether free-electron or excimer lasers, are interesting future technologies and may be more effective than chemical lasers, but it is too soon to know.

It should be noted that even though fast-burn missiles could thwart a boost-phase intercept, this still leaves the possibility of a *post-boost tier* or layer in an SDI system. The deployment by the offense of warheads and decoys cannot occur until later in the trajectory than the boost phase, at a higher altitude in order to avoid atmospheric drag. But the technology for post-boost intercept capabilities is likely to be difficult to achieve, because it will require electronic examination of images (pictures), using ordinary or infrared light, to distinguish among various components: the burned-out upper stage of the missile, the post-boost vehicle, and the various objects released from it. These requirements, the countermeasures, and the potential technological capabilities for a post-boost layer of defense are just beginning to be considered.

Which technologies would be useful in the next tier, in *mid-course intercept*, is still less understood. Presumably the defense would want to use the same kill methods (kinetic-energy and directed-energy weapons) for intercepts as in the other tiers. This has the advantage of allowing some of the absentee satellites[5] to come into play because of the longer time period involved in mid-course flight of a missile. Discrimination among possibly colossal numbers of objects would, however, be a daunting problem. There are ideas about how to address it,

[5] Satellites in nonsynchronous orbit trace out a path over the earth whose pattern and timing depends on their altitude and velocity. Absentee satellites are those whose position in their orbits, at the time when the attacking missiles are launched, puts them over parts of the earth that are distant from the offensive launch sites.

but no confidence in any of them; that is why there is a drive toward consideration of "active" discrimination, which would impart energy to the objects in the threat cloud in order to be able to distinguish among them by observing the effect on their behavior. Thus, mid-course intercept is unlikely to play any role in a deployed system until well after the turn of the century.

Through all of these considerations is entwined a serious problem for space-based ABMs: however effective space-based systems may be against ballistic missiles, they would appear to be more effective in suppressing defenses. And direct-ascent antisatellite systems or ground-based lasers may be still more effective than space-based systems in this latter role.

In sum, given the state of present and foreseeable technology, a boost-phase or post-boost phase intercept tier is not a realistic prospect in the face of likely offensive countermeasures and the vulnerability of those tiers to defense suppression. It will also exhibit unfavorable relative marginal costs as a contributor to defense of population at any reasonably high level of protection. These judgments apply to any system beginning deployment at least for the next 20 years, and probably considerably beyond then.

There are interesting new technologies, however, that leave open the possibility that our estimates of the offense-defense balance might change after that time, especially if some of these technologies prove to have some mid-course discrimination and intercept capability, as well as some boost-phase effectiveness. Such a shift is very unlikely, but strategic thinking should include the possibility that it might take place in terms of deployed systems some decades into the next century.

VII

What would a defense system look like if the priorities of the Reagan Administration's SDI program (boost-phase intercept and population defense) were to be combined with the technologies that will be available and a reasonable development program leading to deployment around the year 2000?

It would be likely to have space-based components. It would perhaps include, for example: a dozen satellites at one-half to two times geosynchronous altitude to carry out boost surveillance and tracking; some tens of satellites at perhaps one thousand kilometers altitude to carry out surveillance, tracking and fire control for the attack of boosters, post-boost vehicles,

and objects in the mid-course part of the trajectory, using infrared detection (short wavelength for boost, long wavelength for mid-course) and laser designation, and possibly some semiactive radar or laser radar tracking; some thousands of satellites, at altitudes of a few hundred kilometers, whose main purpose would be to carry kinetic-kill vehicles, of which there would be a total in the tens of thousands for use as actual defensive weapons.

In parallel, terminal defenses would also be deployed. These would include terminal radars and an airborne set of optical and infrared detectors. There would be some thousands each of exoatmospheric and endoatmospheric interceptors, deployed around missile (ICBM) silos, other military targets and major urban-industrial areas. Some of the endoatmospheric interceptors might even reach out into the later parts of mid-course flight. To moderate the costs of putting into orbit the space-borne component of the system, a new and advanced shuttle would be developed and put in use beginning about 1997.

A supplementary deployment or second phase could be expected to commence eight to ten years later, thus beginning somewhere between 2005 and 2010, and taking another five to seven years to complete deployment. During that phase there would be added satellites carrying chemical lasers for killing offensive targets, and lasers or neutral particle beams for discriminating in mid-course as well. Alternatively, ground-based lasers with mirrors in orbit would be deployed, perhaps as early or perhaps three to five years later still. This second phase carries us into the realm of hypothetical technologies and cloudy crystal balls; X-ray lasers and electromagnetic rail guns lie still deeper in those realms.

Whatever the system architectures, there must be consideration of the possibility—and the effect—of catastrophic failure of one layer of a multitiered defense on the subsequent layers. In both the quantity of hardware and the nature of the software (that is, the built-in operational procedures), the systems must therefore be designed to provide a way to avoid catastrophic failure of a later layer (and thus overall failure) because of a poorer-than-expected performance of earlier layers. The simple multiplication of attrition factors in a series of layers, the number of which is sometimes rather arbitrarily assumed, carries an inherent assumption of its own. The assumption is that the operation of each layer's sensors, tracking, kill mech-

anisms and effectiveness is completely independent of the nature, physical components and effectiveness of all the previous tiers. The architecture of the entire system has to be such as to assure that this would in fact be the case to the maximum possible extent; also, to the extent it is not, to assure that the system degrades "gracefully." This will not be an easy or inexpensive task.

VIII

What would constitute an appropriate research and development program?

Though existing technology and system concepts for terminal defense can provide an effective defense of hard ICBM silos deployed in a multiple protective shelter mode, more advanced technologies—optical trackers, more accurate interceptors and lower interceptor yields—would increase the system's cost-effectiveness. For improving the contribution of terminal defense to protection of urban-industrial areas and, possibly, of military targets other than missile silos, the technology associated with non-nuclear kill and with terminal discrimination should be pursued. These would include greater tracking accuracy, homing warheads and the airborne orbiting adjunct. Deployment of a prototype developmental version of a terminal defense complex at a test range (Kwajalein) would be extremely valuable, and consistent with the ABM treaty.

Early warning and attack assessment systems should be further developed, including those based on detection of the infrared signal from missiles in a boost phase. To this end, improvements in the present Satellite Early Warning System should be carried out. Infrared, optical and radar tracking of objects in space from distances of up to about a thousand miles will also be useful for any defensive system. The corresponding R&D should therefore be vigorously pursued.

Because kinetic-energy weapons and conventional chemical lasers will be defeated by, or suffer a severe cost-exchange disadvantage from, offensive countermeasures and defense suppression, the R&D program should concentrate on the more advanced kill mechanisms and active discrimination methods that are further off in time. Such an approach, however, is legitimately subject to the criticism that "the best is the enemy of the good." Moreover, the effectiveness of future technologies is easily overestimated simply because less is known about them.

If one judges that the good is not good enough, then it is appropriate to work on something better (and therefore usually further away in time). This conclusion depends, however, on a judgment that successful development of such an advanced technology has a good chance to improve the defense's position in the balance between defensive measures and countermeasures. This last criterion may turn out not to be met even by the more advanced technologies for active discrimination and kill. For example, it continues to appear that everything that works well as a defense also works somewhat better as a defense suppressor. But the balance between offense and defense seems even less likely to shift in favor of the defense as a result of the nearer-term technologies than as a result of the more advanced ones. Thus, it is appropriate to increase the R&D emphasis on such programs as:

—optical technology, including, *inter alia*, the following elements: adaptive optics, i.e., adjusting the wave-front shape to compensate for distortions in the laser source and in the atmosphere; locking the phase of separate lasers together so their amplitudes add, greatly increasing the brightness; using one laser to drive another; phased-array lasers (for improving intensity, steering capability and atmospheric compensation);

—combining lasers and particle beams as a way of focusing the beam better;

—excimer and (especially) free-electron lasers, and the kill mechanisms based on those technologies; application of advanced optical technologies to chemical lasers;

—ground basing of lasers, and pop-up mirrors (which should be less vulnerable) or mirrors that unfold and that can be more easily deployed to make them less vulnerable as targets;

—verification technology for computer programs, fault tolerance, expert systems and automatic programming—in order to improve confidence in software;

—active and perturbing discrimination and other mid-course signature work (since the mid-course part of the flight gives the defense a longer time to act, *if* discriminants can be found for use by the defense); and

—survivability of space-based defensive components, especially sensors.

Bomb-driven X-ray lasers could be very effective because they could achieve very high brightness and medium beam

width. But they are at such an early stage that the program, while deserving support, should be confined to demonstration of those two features. Rail guns may be useful but only if they meet very ambitious goals for speed, mass and multi-shot capability. Even then, conventional rockets accelerated to equally high speeds (and with correspondingly heavy propellant weight) may be competitive with rail guns; but neither is likely to be cost-effective.

Demonstrating the technology to achieve the above goals for X-ray lasers and rail guns should precede any consideration of a systems effort for them.

IX

In the light of the considerations set forth, what should be the emphasis of the SDI program? What should be the balance among systems design, component development, experimental demonstrations, and technology? What should be deemphasized or eliminated? These questions become more acute in the light of the substantial reductions in the funding of the research and development program from the proposals formulated in the Fletcher Committee Report of 1983.[6] Though congressionally approved funding is likely to exceed $2.5 billion in the current fiscal year, the scope of the program is so ambitious that schedules set only a year ago for systems decisions appear to be slipping, and some difficult choices about priorities will have to be made.

It would seem appropriate to emphasize technology that still needs to be proven and developed, rather than "spectacular" demonstrations—though at some point demonstrations would be needed to test the technology. Some technologies are sufficiently demonstrated, and the corresponding systems concepts sufficiently clear, so that engineering development could begin on them relatively soon. But doing so would make sense only after a decision as to the detailed nature and function of the defensive system.

1. Work is indicated to define the design of a ground-based terminal defense system, which could stand by itself or be a layer of a multilayer strategic defense system. This would involve updating the Spartan and Sprint missiles, and beginning

[6] The work of this committee, headed by Dr. James C. Fletcher, was published in the unclassified report, "Strategic Defense Initiative: Defensive Technology Study," U.S. Department of Defense, March 1984.

work on the design of a non-nuclear interceptor. This system should have the capability of being deployed as a defense of the U.S. ICBM force, as well as serving as a component of a population defense if that should ever prove feasible.

Initiation of full-scale engineering development for such terminal defenses should be deferred for several years. This would allow two prior determinations. One is the technical and military feasibility (and political acceptability) of less vulnerable modes of ICBM deployment. The second is whether mutual reductions in the size of strategic offensive forces can be negotiated, to reduce the need for active defense of ICBMs. An appropriate schedule would be to get the technology ready for a possible 1988 initiation of full-scale engineering development, and a start of deployment in the 1993 time frame if such a decision is taken.

2. Space-based kinetic-energy weapons appear unpromising in the light of the almost certain offensive countermeasures, and therefore should be deemphasized, even though such a system is the only space-based one that could be reasonably well specified today. By the same logic, it would make sense to delay a decision on detailed specification of and initiation of full-scale engineering development on any boost-phase intercept system until 1994 or 1995. By that time enough ought to be known about the technology of the various directed-energy weapons to allow a more informed choice among them.

3. A full-scale technology program (phasing into development as particular technologies reach that stage) on boost-phase surveillance, mid-course surveillance and tracking is fully warranted. Boost-phase surveillance capabilities will augment early warning of attack; mid-course surveillance and tracking will augment attack assessment capabilities. These functions are justified even in the absence of a decision to proceed with active defense of population. Like the terminal defense development activities, they are consistent with restrictive interpretations of the ABM treaty. But they would also constitute the eyes of a strategic defense of population or of military forces against ballistic missile attack, should such a defense be decided upon.

4. A full program on adaptive optics, phase compensation and phase conjugation devices, phased-array lasers and related optical technology should be emphasized strongly, since obtaining the brightness and beam accuracies required for effective-

ness even in the absence of offensive countermeasures depends strongly on these technologies.

5. The electromagnetic rail gun, bomb-driven X-ray laser, and (probably) neutral particle beam programs all belong in the preliminary technology stage. If they work they would be useful in specific functional areas of a strategic defense system, but they are in too preliminary a stage to justify putting them in the component development category.

6. The directed-energy weapons segment of the program should be tilted toward the excimer and (especially) free-electron lasers, with emphasis on ground basing the energy sources and consideration of space-based mirrors as the pointing mechanism. Work on space-based chemical lasers should emphasize ways of making them brighter—such as phased arrays—within the limitations imposed by space basing; it is probably too early to abandon chemical lasers completely.

This orientation of the program would, as a separate matter, delay conflict with the ABM treaty while permitting rapid development and even preliminary testing of technology. It corresponds to an acceptance of the judgment that the program dates are ambitious even for the more developed (and less promising) technologies, and concentrates on the less developed but more promising ones.

That approach would defer until after 1995 the decision on full-scale engineering development for the directed-energy boost-phase intercept segment of the program that could involve space-based components generating or transmitting very high energy densities. Such a schedule, however, might prompt concerns that it was so far in the future as to undermine congressional and public support for the program. But that factor works both ways. Though there is real public support for strategic defense, both the expert and congressional communities are doubtful about the vision of protecting populations from a nuclear attack by means other than deterrence through the threat of retaliation. They are also concerned about the potential negative effects of SDI on arms control. Moreover, even those defense tasks and system components that look most promising are subject to serious policy objections regarding their deployment or testing. Thus a sign of willingness to pursue a more modest track, with long-term goals, and more care about arms control, would probably favorably influence a decisive segment of congressional votes on program funding.

To sum up, the near-term prospects for ballistic missile defense capabilities are reasonably well known. Technically, they appear cost-effective for defense of some kinds of strategic retaliatory forces. For defense of populations against a responsive threat, they look poor through the year 2010 and beyond. The prognosis for the longer term for this latter objective in the contest between defense and offense is less certain. It still looks questionable, at best, for the defense, because of some fundamental problems of geometry and geography, and the physics of offensive countermeasures and defense suppression in their contest with defense.

D/S of S/PS/20/193V

FOREIGN AND COMMONWEALTH SECRETARY

US/UK MEMORANDUM OF UNDERSTANDING ON SDI RESEARCH
- HCDC REQUEST

As your officials will be aware, the Defence Select Committee (HCDC) have requested a copy of the Memorandum of Understanding (MOU) governing UK participation in the US SDI research programme.

2. The MOU, signed by my predecessor and Caspar Weinberger on 6th December, is classified SECRET US/UK EYES ONLY, and could, therefore, be made available to the HCDC only after the Americans had been consulted, and on the basis that it should not be published. There has been considerable Parliamentary interest in the detailed terms of the MOU, especially in its IPR and technology transfer provisions, and a suspicion that the confidentiality of the inter-governmental agreement hides something sinister. While making the MOU available to the Committee on a strictly confidential basis would not meet the demand for more information to be made public, it would confound the argument that we have something to hide. Moreover, if we were to seek to deny the Committee access on a confidential

basis, we risk a damaging row with them. Since they are generally helpful and responsible, this is something I should much prefer to avoid. I believe, therefore, that there is advantage in giving a very full account of the agreement to the HCDC.

3. The MOU was, however, originally given such a high classification because of American concerns. They did not wish the concessions they had granted to us to become known to other prospective participants who would then demand similar treatment. Nor did they want Congress to have access to the MOU because of the risk of criticism that it was over generous to the United Kingdom. We clearly need, therefore, to take the Americans with us. I took advantage of Mr Weinberger's visit on Monday to sound him out informally. He was anxious to be helpful but there was some concern over the possibility that the terms of the MOU might become known at a delicate stage in the US negotiations with the Germans and the Italians. He promised to give me a considered response shortly.

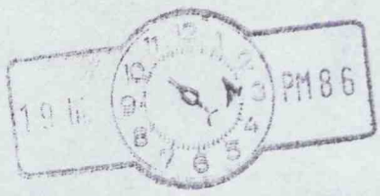
4. Subject to the American reaction, I propose to agree to the Committee's request and send them a copy of the MOU and the supporting Administrative Arrangements, along with an explanatory memorandum. I should be glad to know that you and the Secretary of State for Trade and Industry, to whom I am copying this minute, are content.

5. Copies also go to the Prime Minister, the Secretary of State for Education and Science, the Lord Privy Seal, the Chief Whip and Sir Robert Armstrong.

G.H.

Ministry of Defence

17th March 1986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10 DOWNING STREET

From the Private Secretary

17 March 1986

FOREIGN SECRETARY'S SPEECH TO THE FPA

You sent me on Friday evening the latest draft of the Foreign Secretary's speech to the Foreign Press Association.

I showed the Prime Minister the passage on SDI. She asked me to let you have the enclosed redraft. We agreed on the telephone this morning that the phrase "As I said in my speech at the RUSI last year" at the beginning of the last sentence of paragraph one.

(B)

C D POWELL

Len Appleyard, Esq., C.M.G.,
Foreign and Commonwealth Office

(1)

PRIME MINISTER

FOREIGN SECRETARY'S SPEECH TO THE FOREIGN PRESS ASSOCIATION

I showed you in the aircraft on the way back from Florence the passages in the Foreign Secretary's speech to the FPA next Monday dealing with the SDI. We agreed that these were unsatisfactory and required changing. I wrote in this sense to the FCO.

A. The revised version (attached) is not very different in substance, though paragraph 19 is rather firmer on the Soviet failure to negotiate. And the passage retains the reference to his objectionable RUSI speech last year. The Foreign Secretary claims that it would be politically damaging to him if he were seen to be making a U-turn and disowning that speech.

I am not sure how much you want to make of this. I think you will find the Foreign Secretary very obstinate about changes: and the passage proposed is not damaging as such, though it certainly inclines to a more sceptical view of SDI than you hold. I attach an alternative and much shorter passage (B) which removes the more objectionable aspects of his draft which I could try on him if you wish.

Do you wish me to try B?

The RUSI speech did immense harm and in my view was intended to undermine SDI. The arguments used are Gorbachev's - If the FCS does not accept B - I shall use B myself as the ~~[illegible]~~ 'official' version! [illegible] I will do it in my next speech [illegible].

CDP

Charles Powell

14 March 1986

RAMAFF

18. The maintenance of deterrence raises the question of the relationship between offensive and defensive weapons. In discussing this at the Royal United Services Institute last year, I stressed the importance of the second of the Four Points agreed between President Reagan and the Prime Minister at Camp David and subsequently adopted as formal elements in American policy over the Strategic Defence Initiative. Deterrence must be enhanced, not undercut. I see the United States criteria, against which the President will judge the results of the research programme, as designed to ensure this. Survivability and cost-effectiveness are the right yardsticks if the strategic stability essential to effective deterrence and hence to our security is to be enhanced. Meanwhile common prudence dictates that the massive Soviet research programmes into the new technologies should be matched. The American research is essential, first and foremost as a prudent hedge. This is now widely accepted. I very much welcome the recognition of this fact from the better informed and more thoughtful members of the Opposition who spoke in the recent House of Commons debate on the SDI.

19. It is now well recognised that the decisions about possible deployment are far in the future. We need not predict those decisions now. There will be nothing automatic about the policy implications of technological advance. The need now is for a serious Russian response to the American offer of dialogue in Geneva on the relationship between offensive and defensive weapons. I hope the Russians will move off their indefensible line that their research is legitimate but that the SDI must stop; I hope they will agree to engage in the proposed dialogue without making preconditions. Until they do, doubts will remain about their seriousness over negotiating reductions in nuclear weapons.

20. It is no good the Russians sticking their heads in the sand. One of the keys to progress at Geneva could be action to strengthen the effectiveness of the ABM Treaty. Confidence as to the nature of the relationship between offense and defence might help to encourage the big cuts in offensive nuclear missiles which we all want the super powers to make: to quote the Camp David Four Points again, security with reduced levels of offensive systems on both sides.

Draft Passage B:

The maintenance of deterrence raises the question of the relationship between offensive and defensive weapons. The United States has offered a dialogue in Geneva on this relationship. The need now is for a serious Russian response. I hope the Russians will move off their indefensible line that their research is legitimate but that the SDI must stop; I hope they will agree to engage in the proposed dialogue without making preconditions. Until they do, doubts will remain about their seriousness over negotiating reductions in nuclear weapons. Meanwhile, common prudence dictates that the massive Soviet research programmes into the new technologies should be matched.

It is no good the Russians sticking their heads in the sand. One of the keys to progress at Geneva could be action to strengthen the effectiveness of the ABM Treaty. Confidence as to the nature of the relationship between offense and defence might help to encourage the big cuts in offensive nuclear missiles which we all want the super powers to make: to quote the Camp David Four Points again, security with reduced levels of offensive systems on both sides.

5

CGB/VP
CCPC

Prime Minister
You will be interested to read this: reluctant admiration for the SDI research programme.

Ref. A086/747

MR POWELL

Strategic Defence Initiative

The Cabinet Office's Defence Nuclear Adviser, Dr F H Panton, recently attended a series of presentations in the Ministry of Defence on the SDI programme by General Abrahamson and his staff.

CDP 6/3

2. The Prime Minister may be interested to see the attached copy of Dr Panton's report to me.

RTA

May I talk to Dr. Panton

ROBERT ARMSTRONG

6 March 1986

please not

SECRET

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SIR ROBERT ARMSTRONG

c: Mr. C.L.G. Mallaby

STRATEGIC DEFENCE INITIATIVE

On 18 February I attended a day-long series of presentations in the Ministry of Defence on the SDI programme by General Abrahamson and his staff, to representatives of British Industry. It was a fascinating and illuminating experience, and there are a number of points to which I would wish to draw your attention.

2. In his overall systems concepts, General Abrahamson cannot be accused of setting his sights too low. His view of the Russian threat in the 1990's envisages at least 20,000 missile-launchers on land, real or decoy, compared with the few thousand permitted by SALT.

3. To counter that threat in the boost phase he envisages the launching of as many kill vehicles, and aims to have each offensive missile tracked by half a dozen sensors. In the mid course phase, when surviving Russian missiles will have deployed their multiple RV's and decoys, he sees the need to be able to track and disciminate hundreds of thousands of objects, and to kill the real RV's using directed energy weapons with high powered land based lasers and 50-100 mirrors stations in space, together with some kinetic energy kill vehicles used in the Boost Phase. Terminal phase defences would, by supplementing ground based radar with sensors mounted on high flying aircraft, and by using endo- and exo-atmospheric missiles, be designed to intercept and kill as far into the mid-course phase as possible down to the edge of the atmosphere. An extensive deployment of terminal ground defences would be required to absorb all leakage through the mid-course phase.

4. General Abrahamson stresses that what he is currently engaged on is a research programme, but he states unequivocally that technical feasibility is not in doubt. He has no firm timescale, but he aims to have demonstrated the necessary technologies sufficiently well by the 1990s to provide the basis for the start of full scale engineering development. The research programme he has under way extends into all areas of defence science and technology, except perhaps into aircraft, ship and battle tank design. In most areas however he is seeking improvements in capability and performance of orders of magnitude if his broad systems requirements are to be adequately met. His organisation of the extensive research programme is most impressive, and individual programmes are bound over the next few years, to produce significant advances.

SECRET

5. When and if the SDI programme begins to move into the development phase, the size of the industrial effort and organisation needed will be immense. Depending on the system architecture chosen, and assuming that the threat as Abrahamson defines it remains substantially as now, the effort required cannot amount to less than that which would be required to undertake a dozen or so Trident system programmes at the same time.

6. All this is a mind boggling scenario, more difficult and complicated than any of the scenarios which have been condemned by various groups of scientists as impossibly difficult and expensive.

7. One of the aims of the SDI research programme is to work on options for "near term" deployment of limited ABM capabilities against the possibility of a Soviet "Breakout". Abrahamson put the view that Soviet dispositions and programmes were such that they could if they wishes achieve a breakout within 3-5 years giving the USSR widespread ABM coverage. The US had to be prepared to respond in that timescale, and their terminal defence research programme was geared to that requirement. Additionally, it was made clear that terminal defences had not only to cope with those RV's which had leaked through the space defences, but also those, such as depressed trajectory SLBM's, which evaded the mid course and boost and launch phase defences. For this to be effective, it would imply that extensive deployment of ground based ABM launchers in the US would be required in numbers far in excess of the 100 permitted by the ABM Treaty.

8. It would seem therefore that we may expect the SDI programme before 1990 to produce a design for a ground-based ABM system, and no doubt there will be strong voices arguing for its deployment, if only as a precautionary measure. Provided that the deployment can be kept within the terms of the ABM Treaty, it could be a useful operational requirement system for experimental purposes. It would, I believe, argue for many more launchers than the permitted 100, and other features of the proposed system may not fit within the ABM treaty.

9. The presentations made clear that the US had given little thought so far to European considerations. The US system would assist in tracking and tackling longer range missiles such as SS20 and SS22, but defence against the shorter range and cruise missiles (nuclear or non-nuclear) would have to be studies as a separate but associated problem. Abrahamsom welcomes the declared UK intention to mount a European SDI Architecture Study, together with an associated computerised "Test Bed". Requirements for defensive missiles, and for C^3 structure were bound to be different, but there would be some read across from the US SDI programme. Abrahamson did not indicate how far the US would be willing to subvent such studies, nor how far US technology could be transferred in these areas without contravening the ABM Treaty.

10. The emphasis of the programme is non-nuclear defence. However, the Nuclear Weapons laboratories have mounted a nuclear programme which includes X-ray lasers and work on lethality, countermeasures and hardening. A prime object of that programme is to understand what the Russians may be doing in similar areas, and to influence the US SDI system design accordingly. Liaison between the UK and the US laboratories was acknowledged, but, of course, no details were given at the meeting.

11. SDI contracting procedures are in the hands of the UK Services. It was made clear that all contracts would be competitive, and UK companies must not expect to be treated differently from US in this respect. Abrahamson envisaged that the UK could eventually win contracts worth billions, but that this would take some years to build up. Abrahamson's office would be working closely with the MOD SDI offices to ensure that British firms, within the terms of the MOU, had the best possible opportunities to compete.

12. In sum;-

~~12~~. Although my deep scepticism for the ultimate success of the SDI programme has got much deeper, my respect for the research which it has sponsored has increased, and I am more than ever convinced that the UK is right to participate in the research as fully as it can. It cannot be said, however, that the chances of gaining a share anything like as big as was envisaged by MOD are very great, but there are key areas in which we can contribute and benefit greatly through such work;

~~13~~. We shall have to watch the European Architecture Study closely to see that we do not slip into expensive commitments we shall regret;

~~14~~. The possibility that the SDI programmes' first fruits will be a design for a ground based ABM system in the US within the next 3-5 years is strong, and we may expect pressure to deploy, even to the detriment of the ABM Treaty, to be equally strong. We should bear this possibility in mind in our review of SDI infringement on the ABM Treaty.

L. Bramley

for F.H. PANTON

21 February 1986

D/078

(Not seen by Dr.Panton, and signed in his absence).

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MJ2BPD

CPCL

10 DOWNING STREET

From the Private Secretary

SIR ROBERT ARMSTRONG

STRATEGIC DEFENCE INITIATIVE

Thank you for sending me a copy of Dr Panton's note about the recent American presentations on the SDI.

The Prime Minister would like a word with Dr Panton about this. I should be grateful if he could come on Friday 21 March at 1630.

BF 11

7/4/86 @ 17.30

Charles Powell
7 March 1986

CA.

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MIPT : SOVIET DEMARCHE ON SDI

1. FOLLOWING IS OUR TRANSLATION OF SOVIET STATEMENT:

BEGINS

''ON THE 6TH DECEMBER THIS YEAR A MEMORANDUM WAS SIGNED IN LONDON BETWEEN THE USA AND GREAT BRITAIN ON THE LATTER'S PARTICIPATION IN THE AMERICAN PROGRAMME OF THE SO-CALLED STRATEGIC DEFENCE INITIATIVE. THUS GREAT BRITAIN INTENDS TO TAKE PART IN AMERICAN PLANS FOR THE CREATION OF SPACE STRIKE WEAPONS AND A LARGE-SCALE SYSTEM OF ANTI-MISSILE DEFENCE WITH SPACE-BASED ELEMENTS.

THE BRITISH SIDE CANNOT FAIL TO BE AWARE THAT THE REALISATION OF THESE PLANS, WHICH ARE AIMED AT INCREASING STRIKE POTENTIAL AND THE ACQUISITION OF MILITARY SUPERIORITY CAN ONLY LEAD TO THE INTENSIFICATION OF THE ARMS RACE AND TO A SHARP DE-STABILISATION OF THE STRATEGIC SITUATION WITH ALL THE RESULTING EXTREMELY NEGATIVE CONSEQUENCES FOR THE SECURITY OF ALL COUNTRIES WITHOUT EXCEPTION. IN THE SAME WAY IT MUST KNOW THAT THE CREATION OF A LARGE-SCALE SYSTEM OF ANTI-MISSILE DEFENCE WITH SPACE-BASED ELEMENTS DIRECTLY CONTRAVENES THE PROVISIONS OF THE UNLIMITED ABM TREATY OF 1972, WHICH IS THE BASIS FOR THE PROCESS OF THE LIMITATION AND REDUCTION OF NUCLEAR WEAPONS.

THE BRITISH GOVERNMENT SUPPORTS IN ITS WORDS THE AGREED AIM OF THE SOVIET-AMERICAN TALKS IN GENEVA, WHICH WAS CONFIRMED AT THE HIGHEST LEVEL ON THE 21ST OF NOVEMBER THIS YEAR, NAMELY: TO PREVENT AN ARMS RACE IN SPACE AND END IT ON EARTH. IT ALSO SUPPORTS THE STRENGTHENING OF THE COMMITMENTS ARISING FROM THE ABM TREATY AND ITS STRICT OBSERVANCE. IT MUST HOWEVER BE STATED THAT THE BRITISH SIDE DEMONSTRATES IN ITS ACTIONS A COMPLETELY DIFFERENT AND DIRECTLY CONTRADICTORY APPROACH. THE SIGNING OF THE BRITISH-AMERICAN MEMORANDUM ON BRITISH PARTICIPATION IN WORD TOWARDS THE IMPLEMENTATION OF THE ''STRATEGIC DEFENCE INITIATIVE'' CAN ONLY BE REGARDED AS AN EXTREMELY SERIOUS STEP, WHICH CONTRADICTS THE SPIRIT OF GENEVA, AND CALLS INTO DOUBT THE STATEMENTS OF THE BRITISH SIDE ON ITS READINESS TO PROMOTE LIMITATION AND REDUCTION OF NUCLEAR WEAPONS, AND THE LESSENING OF THE MILITARY THREAT AS A WHOLE.

RESTRICTED

IN CURRENT CIRCUMSTANCES, WHEN A CAREFULLY CONSIDERED AND CONSTRUCTIVE POLICY IS NEEDED, IN ORDER TO PREVENT THE EXTENSION OF WEAPONS INTO SPACE, AND TO ENSURE REAL PROGRESS IN RESOLVING THE TASK OF STOPPING AND REDUCING THE NUCLEAR ARMS RACE, THE RESPONSIBILITY OF EVERY STATE FOR THE PRACTICAL STEPS IT UNDERTAKES INCREASES MANY TIMES OVER. IT IS TO BE HOPED THAT THE BRITISH SIDE WILL CONSIDER THE SITUATION ONCE AGAIN FROM PRECISELY THIS POINT OF VIEW, WILL RESPOND TO OUR APPEAL WITH ALL SERIOUSNESS AND WILL DRAW CONCLUSIONS WHICH ACTUALLY CORRESPOND TO ITS STATEMENTS OF COMMITMENTS TO THE MATTER OF ARMS LIMITATIONS''.

ENDS.

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SDI : SOVIET DEMARCHE ON UK/US MEMORANDUM OF UNDERSTANDING

SUMMARY

1. DEPUTY FOREIGN MINISTER RYZHOV SUMMONED ME ON 23 DECEMBER TO RECEIVE A DEMARCHE ON BRITISH PARTICIPATION IN SDI, ASKING THE BRITISH GOVERNMENT TO RECONSIDER (OUR TRANSLATION IN MIFT). IN REPLY I POINTED OUT THAT THE MOU WAS A UK/US BILATERAL MATTER AND THAT IT CONCERNED LEGITIMATE RESEARCH. I EMPHASISED OUR ADHERENCE TO THE CAMP DAVID FOUR POINTS, TO THE SEARCH FOR BALANCED AND VERIFIABLE ARMS CONTROL AGREEMENTS, AND TO THE INTEGRITY OF THE ABM TREATY. RYZHOV HAD LITTLE OF SUBSTANCE TO ADD, BUT DOGGEDLY PURSUED THE THEME OF THE US QUEST FOR MILITARY SUPERIORITY THROUGH SDI.
DETAIL

2. AFTER UNDERTAKING TO REPORT RYZHOV'S STATEMENT TO YOU, I SAID THAT THE MOU WAS A BILATERAL MATTER BETWEGN THE US AND OTRSELVFS. UNDER WHICH BRITASH ENTCARRISES MIGHT CONTRIBUTE RELEVANT EXPERTISE TO SDI ZESEARCH ON A COMMERCIAL BASIS. IT WAS A MATTER FOR THE TWO GOVERNMENTS CONCERNED. IT APPEARED FROM THEIR STATEMENT THAT THE SOVIET GOVERNMENT SAW ITS LOCUS STANDI IN RAISING THIS ISSUE AS RESTING ON SOVIET DOUBTS OVER BRITISH SUPPORT FOR ARMS CONTROL: THESE WERE MISCONCEIVED.

3. IN STRESSING THAT THERE WAS NO INCOMPATIBILITY BETWEEN THE MOU AND OUR SUPPORT FOR THE GENEVA NEGOTIATIONS AND VERIFIABLE AND BALANCED ARMS CONTROL AGREEMENTS, AS REAFFIRMED IN THE PRIME MINISTEW'S RECENT MESSAGE TO GORBACHEV I SAID:

(A) A BRITISH CONTRIBUTION TO SDI CONCERNED RESEARCH NOT FOR NEW WEAPONS SYSTEMS BUT TO ESTABLISH THE FEASIBILITY OF A DEFENSIVE SYSTEM. AS GORBACHEV HAD SAID, FUNDAMENTA RESEARCH COULD NOT BE CONSTRAINED NOR COULD ANY ATTEMPT TO CONSTRAIN IT IT BE VERIFIED. RESEARCH IN ALL OR MANY OF THE FIELDS RELEVANT TO A SDI HAD BEEN UNDER WAY IN THE SOVIET UNION FOR A CONSIDERABLE TIM: IT WAS REASONABLE TO ASSUME THAT THE SOVIET UNION HAD DRAWN ON EXPERTISE FROM THEIR OWN ALLIES IN THE COURSE OF THIS RESEARCH.

(B) ON THE SUGGESTION THAT THROUGH THE MOU THE UK WERE HELPING THE US ACHIEVE MILITARY SUPERIORITY, I DREW ATTENTION TO THE CAMP DAVID FOUR POINTS, WHICH INCLUDED THE UNDERTAKING TO SEEK NOT SUPERIORITY BUT BALANCE: HMG WOULD CONTINUE TO ADHERE TO PRINCIPLES WHICH THE PRIME MINISTER HERSELF HAD AGREED WITH PRESIDENT REAGAN. ON THE ABM TREATY, WE WERE FULLY SATISIFED THAT THE US RESEARCH PROGRAMME DID NOT INFRINGE ABMT PROVISIONS: OTHERWISE WE WOULD NOT HAVE SIGNED THE MOU.

(C) ON THE ALLEGATION THAT THE MOU REPRESENTED A SERIOUS STEP CONTRARY TO THE OBJECTIVES SET OUT AT THE GENEVA SUMMIT, THE BRITISH GOVERNMENT HAD REPEATEDLY MADE IT CLEAR THAT WE WHOLEHEARTEDLY SUPPORT THE SEARCH FOR BALANCED AND VERIFIABLE ARMS CONTROL AGREEMENTS. WE HAD GREETED THE SUMMIT RESULTS WITH SATISFACTION THAT A START HAD BEEN MADE, AS SHEVARDNADZE HAD PUT IT TO ME, ON ''AN IMPORTANT JOURNEY IN THE RIGHT DIRECTION''. WE WERE PARTICULARLY PLEASED THAT TWO FURTHER MEETINGS HAD BEEN AGREED, THEREBY DEMONSTRATING THAT DESPITE US/SOVIET DIFFERENCES ON SDI, THESE WERE NOT INSUPERABLE OBSTACLES EITHER TO FURTHER MEETINGS OR TO THE CONTINUING SEARCH FOR ARMS CONTROL AGREEMENTS.

4. RYZHOV SAID THAT THE MOU WAS NO ORDINARY BILATERAL AGREEMENT ON SCIENTIFIC RESEARCH. IT WAS NOT HARMLESS. RESEARCH LED TO DEVELOPMENT AND TESTING WHICH WAS DIFFICULT TO STOP. THERE WAS A UNIQUE CHANCE TO STOP THE ARMS RACE, BUT IF IT WAS NOT TAKEN, MANKIND WOULD BE IN GREAT DANGER. IT WAS NOT A CASE OF THE BRITISH GOVERNMENT SITTING ASIDE AND LETTING BRITISH FIRMS PARTICIPATE IN SDI AS THEY PLEASED. NOR WAS IT A MATTER OF LIMITED BRITISH PARTICIPATION, ALTHOUGH BRITAIN WOULD ONLY REALISE THIS WHEN IT WAS FULLY SUCKED IN - THE VERY REASON THAT THE US HAD SIGNED THE MOU.

5. RYZHOV WAS DISMISSIVE OF MY DENIAL OF A US SEARCH FOR MILITARY SUPERIORITY (CITING THE ALLOCATION OF AT LEAST 10 MILLIARD ON SDI), OF THE US OFFER TO SHARE RESEARCH RESULTS AND OF THE DENIAL THAT SDI DID NOT CONTRADICT THE ABMT. IF THE US WISHED TO CONVINCE OTHERS THAT THEY DID NOT SEEK SUPERIORITY THEY SHOULD SUPPORT A TEST BAN. WHY DID WE NOT SUPPORT SOVIET INITIATIVES ? INSTEAD WE SUPPORTED THE CONTINUATION OF NUCLEAR TESTS AND THE SDI PROGRAMME, WHICH RELIED ON NUCLEAR EXPLOSIONS, AND WAS A MANIFESTATION OF THE POLICIES OF THOSE IN THE USA WHO WISHED TO EXERT DESTRUCTIVE ECONOMIC PRESSURE ON THE SOVIET UNION. THE SOVIET UNION HOPED AND EXPECTED THAT THE UK HAD NOT SAID THEIR LAST WORD AND APPEALED TO THE UK BEFORE IT WAS TOO LATE. IT WOULD BE HARDER, IF NOT IMPOSSIBLE, TO REACH AN AGREEMENT LATER ONCE THE WORK ON SDI WAS

IN FULL SWING. THE SOVIET UNION KEPT ITS WORD AND WANTED OTHERS TO FOLLOW ITS EXAMPLE, AS ON THE CESSATION OF NUCLEAR TESTS. BUT IF SDI CONTINUED THE SOVIET UNION WOULD ALSO TAKE MEASURES. GORBACHEV HAD SAID ''WE WILL NOT BE SITTING ON OUR HANDS''. THE WAR HAD SHOWN WHAT THE SOVIET UNION WAS CAPABLE OF, EVEN IN THE MOST DIFFICULT CIRCUMSTANCES.

6. IN CONCLUSION I SAID THAT THE GENEVA SUMMIT HAD MADE AN IMPORTANT BEGINNING IN ESTABLISHING A BETTER FOUNDATION FOR US/SOVIET TRUST AND FOR THE REMOVAL OF MISUNDERSTANDINGS AND MISPERCEPTIONS. RYZHOV'S REMARKS, AND IN PARTICULAR THE REFERENCE IN HIS STATEMENT TO THE CONCEALED OFFENSIVE PURPOSE OF SDI (HERE RYZHOV INTERJECTED TO SAY ''ABSOLUTELY'' SEVERAL TIMES) SHOWED HOW MUCH STILL REMAINED TO BE DONE AT THE RESUMED NEGOTIATIONS IN GENEVA AND AT THE NEXT SUMMIT MEETING. THE BRITISH GOVERNMENT WOULD CONTINUE TO SUPPORT THE INTEGRITY OF THE ABM TREATY AND WOULD NOT CONDONE OR CONNIVE AT ANYTHING WHICH COULD UNDERMINE IT.

7. SEE MY TWO IFTS.

CARTLEDGE

~~SDI PARTICIPATION~~

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MY TELNO 1060: SDI.

1. SECRETARY-GENERAL OF THE MFA TOLD ME TODAY THAT, AFTER CONSULTATION BETWEEN CRAXI AND ANDREOTTI, ITALIANS HAVE DECIDED NOT TO ACCEDE TO THE GERMAN'S REQUEST TO MAKE AN ANNOUNCEMENT ON DECEMBER 18 THAT NEGOTIATIONS WERE BEING OPENED WITH THE US ABOUT COLLABORATION ON SDI. THE GERMANS WERE NOW EXPECTED TO GO AHEAD WITH THE ANNOUNCEMENT ON THEIR OWN. CRAXI HAD DECIDED THAT THE ITALIAN PARLIAMENTARY DEBATE MUST TAKE PRECEDENCE.

2. RUGGIERO ALSO TOLD ME, IN CONFIDENCE, THAT THE MOST LIKELY FORM OF AN AGREEMENT BETWEEN ITALY AND THE US WOULD BE AN EXCHANGE OF LETTERS, WITH DETAILED TECHNICAL ANNEXES. IN DUE COURSE PARLIAMENT WOULD BE INFORMED OF THE COVERING LETTER, WHILE THE ANNEX WOULD REMAIN CONFIDENTIAL. BUT IT DID NOT SOUND AS IF MUCH WORK HAD YET BEEN DONE ON THE DETAILS OF THE DOCUMENT.

3. RUGGIERO ADDED THAT HE THOUGHT THAT THE BRITISH POSITION HAD BEEN CONSISTENT AND WELL THOUGHT THROUGH, FROM CAMP DAVID ON. IN PARTICULAR WE HAD NOT MADE THE ERROR OF SOME DEPUTIES IN THE ITALIAN PARLIAMENT, OF SEEKING TO INFLUENCE THE US POSITION WITHOUT OFFERING ANY WORTHWHILE COLLABORATION ON THE RESEARCH. HE ALSO SPOKE APPRECIATIVELY OF THE WAY IN WHICH WE HAD KEPT THE ITALIANS INFORMED.

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10 DOWNING STREET

From the Private Secretary

11 December 1985

STRATEGIC DEFENCE INITIATIVE

The Prime Minister and the Foreign Secretary had some discussion this morning of Secretary Shultz's remarks during his meeting with the Prime Minister yesterday about future handling of the Strategic Defence Initiative in discussions with the Soviet Union. It was agreed that the speaking note which the Prime Minister had passed to President Reagan in New York at the end of October should now be worked up into a more substantial paper which would form the basis for putting our views to the US Administration. We shall need to consider subsequently whether this should be in the form of a further message from the Prime Minister to the President or by some other means.

I am copying this letter to Richard Mottram (Ministry of Defence) and Michael Stark (Cabinet Office).

(C.D. Powell)

Len Appleyard, Esq.,
Foreign and Commonwealth Office

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Strategic Defence Initiative

3.31 pm

The Secretary of State for Defence (Mr. Michael Heseltine): With permission, Mr. Speaker, I should like to make a statement on British participation in the United States strategic defence initiative research programme.

The Government's policy towards the strategic defence initiative remains firmly based on the four points agreed between the Prime Minisster and President Reagan at Camp David in December 1984: that the Western aim is not to achieve superiority, but to maintain balance taking account of Soviet developments; that SDI-related deployment would, in view of treaty obligations, have to be a matter for negotiation; that the aim is to enhance, and not to undermine, deterrence; and that East-West negotiation should aim to achieve security with reduced levels of offensive weapons on both sides.

It was in that context that, at Camp David, the Prime Minister told President Reagan of her firm conviction that the SDI research programme should go ahead as a prudent hedge against Soviet activities in the same field.

Earlier this year, the United States invited her NATO and certain other allies to participate in the SDI research programme.

Following that invitation, we have engaged in detailed discussions with the United States Government on the nature and scope of the research which could sensibly be undertaken by United Kingdom firms and institutions.

Those complex discussions have now been completed and agreement has been reached on an information exchange programme, on the areas where British companies and institutions have expertise which might form part of the United States-funded SDI research programme, and on the mechanisms to facilitiate that co-operation.

The confidential memorandum of understanding reached between the two Governments safeguards British interests in relation to the ownership of intellectual property rights and technology transfer, and provides for consultative and review mechanisms in support of the aims of the memorandum.

The SDI research programme goes to the heart of the future defence technologies. Participation will enhance our ability to sustain an effective British research capability in areas of high technology relevant to both defence and civil programmes.

Now that agreement has been reached on the memorandum, British companies, universities and research institutions have the opportunity to compete on a clearly defined basis for the research contracts which are on offer from the United State Government, as well as to participate in an information exchange programme on a fully reciprocal basis for the mutual benefit of the United Kingdom and the United States.

To act as a focal point for British participation, and to liaise with the United States SDI participation office, I am establishing immediately within the Ministry of Defence an SDI participation office with representation from other interested Departments. That office will work in the closest concert with British firms and institutions interested in such participation.

This agreement opens for Britain research possibilities which we could not afford on our own in technologies that will be at the centre of tomorrow's world. It will bring jobs that would otherwise be created abroad, and I commend it to the House.

Mr. Denzil Davies (Llanelli): We deplore the agreement which the Secretary of State so hastily signed on Friday with Mr. Caspar Weinberger. We deplore it because it gives total Government endorsement not only to the details of star wars but to the principle and strategy behind star wars. We believe that that project will again escalate the arms race by initiating another quest for nuclear superiority, that it will make the attainment of arms control agreements more difficult and that it has been imposed on NATO without notice—I challenge the right hon. Gentleman to say whether he had notice of President Reagan's speech setting out the star wars project — consultation or discussion. The project has been trenchantly criticised by the Foreign Secretary and those criticisms have never been answered in the House by Ministers. The agreement has been brought forward without any discussion, debate or endorsement by the House of Commons.

Is the Secretary of State aware that he was duped on Friday by the Americans? Mr. Caspar Weinberger got everything he wanted — British endorsement of star wars. Perhaps even more importantly, he got endorsement of star wars by one of the major NATO nations, and no doubt that will have consequences. Mr. Weinberger gave nothing at all in return to the right hon. Gentleman. He did not even give the crumbs of commerce because he had no authority, power or guarantee from the United States Congress to do so.

What has happened to the $1·5 billion which we have been told in the press would come to British industry? How many contracts and how much money shall we get because of the agreement? Will the agreement be endorsed and ratified by the United States Congress?

What miserable returns have come to British companies from that other office which the right hon. Gentleman's predecessor set up in Washington to try to get contracts for the Trident programme? Will the paltry sums that the right hon. Gentleman will get under this agreement be even less than those we received in relation to Trident? Is it not a fact that there will be a brain drain of British technologists and physicists to the United States because the security implications will be such that those scientists, as General Abrahamson said, will, have to work for American research teams in California and Texas?

Will the right hon. Gentleman at least tell the House that he is prepared to deposit this miserable agreement in the Library so that hon. Members can judge its context and then debate the matter in the House?

The agreement represents a substantial erosion of independence for British defence and foreign policy. The right hon. Gentleman talks about setting up offices but his Department and the Foreign Office are rapidly becoming the outer offices of the Pentagon and the White House.

Mr. Heseltine: I hope that the right hon. Gentleman feels better for that extraordinary comment. I shall be delighted to answer his questions. It is indicative the of views of the right hon. Gentleman and the Leader of the Opposition that they believe that I should have turned down the opportunities that are available under this programme. That means that Britain would not have had the chance to participate in these research programmes,

Mr. Dormand: But is the grant to be reduced? Is the Minister aware that if the present policy is pursued, some of the excellent films that are now being made with the help of BFI money will be seriously threatened, especially as the Eadie levy will not be available to the institute next year? Does the hon. Gentleman accept that the films that are being made have a commercial value in addition to their artistic value? Surely that should appeal to a Tory Government. When will he take more interest in this sector of the film industry?

Mr. Luce: I can assure the hon. Gentleman that I am taking an interest in this sector of the industry. I visited the institute last week to learn about its work. The institute is one of the largest recipients of British grants and I believe that it will continue to be so. It has an important role to play. I have noted that prominent in its activities are those in the Tyneside region.

Mr. Freud: As the season for bids to the Treasury is about to commence, will the Minister press the cause for a better fiscal structure for the film industry with his right hon. Friend the Chancellor of the Exchequer?

Mr. Luce: There is a division of responsibility in the film industry. My right hon. and learned Friend the Secretary of State for Trade and Industry has responsibilities for it as well. However, I note what the hon. Gentleman says.

Sponsorship

33. **Mr. Chapman** asked the Minister for the Arts if he will make a statement on progress on the encouragement of private sponsorship of the arts, including the business sponsorship incentive scheme.

Mr. Luce: Business sponsorship of the arts has risen rapidly from £½ million in 1976 to around £20 million this year, including £4 million in new sponsorship under the Government's business sponsorship incentive scheme. Because of the success of the scheme, I have recently transferred another £¼ million to it for this year, and I shall shortly be announcing the amount for 1986-97.

Mr. Chapman: I welcome the progress that has been made and I applaud the initiatives that have been taken. However, does my hon. Friend think that civic leaders could do much more to promote local business sponsorship of local arts? Does he applaud the initiative taken to that end by the mayor of Barnet earlier this year?

Mr. Luce: I do indeed. I have noted that my hon. Friend, the mayor of Barnet and others have been involved in an exercise that has been undertaken by Barnet to raise sponsorship of the arts, with industry. I must congratulate the borough on winning a business sponsorship incentive scheme award of £1,700 for the sponsorship of its arts programme. That should be an example to other boroughs and authorities.

Mr. Tony Banks: May I assure the Minister that the GLC has never been reluctant to take capitalist gold for arts funding? As the hon. Gentleman pins so much faith on raising money for the arts from business, will he explain what steps he is taking to ensure that the arts sponsor and fund new arts, new plays and new music instead of living off the past to entertain their clients?

Mr. Luce: If the hon. Gentleman examines the analysis of all the awards that have been given during the first year of the scheme—it must be remembered that it has operated for only one year—he will find that the support that is given by business and commerce is extremely wide, and certainly includes the live arts in all the regions. Three quarters of the schemes are outside London.

Mr Cormack: Is my hon. Friend aware that the capitalist gold to which the hon. Member for Newham, North-West (Mr. Banks) referred would be increased and his ambitions fulfilled if only he would adopt the proposals that are set out in the report of the Select Committee on Education, Science and the Arts, which are designed to provide wider and greater tax inducements to individuals and companies to give to the arts?

Mr. Luce: I know that my hon. Friend played an extremely prominent part in the Select Committee's report. I am studying the report with the greatest care and I note what he has said in his supplementary question, that our objective must be to create an environment in which people are encouraged to give to the arts.

Mr. Heffer: Has the Minister had the opportunity to see the excellent film entitled "Letter to Brezhnev", which had a budget of £50,000, raised by private enterprise? Would it not be a good thing if the Government and local authorities, with Government money, were prepared to give assistance to ordinary people to produce films that would be of the greatest interest to the mass of British people? These productions would have a real significance as films as well as containing a political message.

Mr. Luce: I wish that I had time to see all the excellent films that are available. I believe that the British Film Institute does an excellent job. It has a production unit which is there to help people of modest means produce their own films. That is something that should be encouraged.

Fawcett Library

34. **Mr. Meadowcroft** asked the Minister for the Arts if he will make a statement on the future of the Fawcett library.

Mr. Luce: The Fawcett library is in the charge of the City of London polytechnic, and thus falls within the field of responsibility of my right hon. Friend the Secretary of State for Education and Science. Nevertheless, with my broader co-ordinating responsibility for libraries, I hope that the recent appeal for funds by the Fawcett library trust will be successful.

Mr. Meadowcroft: I am grateful to the Minister, especially for the second part of his answer. Given that those who are endeavouring to support the Fawcett library believe it to be an important part of our heritage, is the Minister prepared to receive a delegation that includes myself and others associated with the library's future?

Mr. Luce: As I do not have the authority to give funds directly to such libraries, I suggest that the trust should go direct to the British Library or the National Heritage Memorial Fund. Both those bodies might be suitable for a particular appeal.

that no jobs would have been created in Britain from these programmes and that, instead of contracts coming to this side of the Atlantic, our scientists would have been persuaded to go the other side to help American companies get ahead and prevent our companies from competing with them. It therefore seemed to the Government that it was right to recognise what almost every other Government invited to participate will recognise—that in one way or the other the industries of the western world will participate in the research programme. That is what will happen. The Opposition want Britain to be the one country that does not participate in the research programme.

The basis of the right hon. Gentleman's next line of questioning and criticism was that we are backing the ultimate deployment of the strategic defence initiative. The British Prime Minister secured the clearest possible undertaking—before anybody else—from the President of the United States in the Camp David communiqué that we were backing a research programme which was within the anti-ballistic missile treaty of 1972.

The third fascinating omission from the right hon. Gentleman's questioning was any reference to the fact that the Soviet Union has been working at almost all the technologies of the SDI for many years.

The Opposition believe in the extraordinary concept that it is all right for the Soviet Union to pursue defensive technologies but that it is wrong for us to do so in our interests. The one unpalatable truth for the Opposition is that perhaps the most single significant factor in persuading the Soviet Union to come back to the conference table, in defiance of everything that we were told by the Opposition that they would do, was the decision by the United States Administration to pursue the strategic defence initiative. Far from destabilising the position and threatening peace, SDI has opened up perhaps the most comprehensive range of arms control discussions for a decade.

Sir Geoffrey Johnson Smith (Wealden): Is my right hon. Friend aware that Conservative Members warmly welcome his political endorsement of SDI research, not only because in terms of defence it will help reduce the possibility of a pre-emptive strike, but because it will help benefit British research? Can my right hon. Friend tell us a little more about the review procedure?

Mr. Heseltine: I am most grateful to my hon. Friend, particularly since he recognises that research programmes are continuing all over the world, independent of the strategic defence initiative. They would embrace the technologies of tomorrow's defence capabilities, even if there were no SDI.

As for the review procedure, the American Secretary of State recognises, as I do, that over a number of years it is impossible to predict the precise pace or direction in which a research programme will unfold. When one is dealing with the highly complex issues of intellectual property rights and the letting of contracts it is necessary for both sides to believe that there is a fairness in the protection of the legitimate interests of the other. So that both Governments can have the maximum possible interest and involvement, we have decided that both will take a personal interest and that if problems develop of the type that can reasonably be anticipated they will be referred to both for resolution.

Mr. James Wallace (Orkney and Shetland): Will the Secretary of State take note that he will receive no support from this Bench for this agreement? Does he accept that in return for questionable technological advance we are becoming locked in politically to a system which was best analysed in derisory terms by his right hon. and learned Friend the Secretary of State for Foreign Affairs?

Can the right hon. Gentleman say more about the safeguards for intellectual property and transferred technology? What steps have Ministers taken to promote the advancement of technology with our European partners, in terms of military and civil programmes?

Mr. Heseltine: I am sure that it is unpalatable for the hon. Gentleman but the support of empty Benches does not add up to a row of beans in international diplomacy. The pursuit of co-operative technology schemes within Europe is receiving significant momentum through the EUREKA programme and, in the context of the independent European procurement group, it is receiving equal momentum in the defence rationalisation programme.

Mr. David Howell (Guildford): Does my right hon. Friend accept that the Opposition fail to appreciate that SDI is a non-nuclear defence system? Will the research include studies of how western Europe can develop an operational shield against short-term ballistic missiles? Will that research be part of the British studies?

Mr. Heseltine: I am grateful to my right hon. Friend for those comments. It is impossible at this stage to predict with accuracy precisely how the European dimension will unfold, although the subject to which he referred must receive critical analysis at some stage within the context of European defence. It is equally the case, in terms of the intercontinental threat to the continent of Europe, that if certain configurations of the strategic defence initiative were to advance, the mere capability to take out ICBMs on launch would be as essential for the defence of Europe as it would be for the continent of the United States.

Mr. Michael Foot (Blaenau Gwent): Why have the Government brushed aside so brusquely the important statement made by the Foreign Secretary — made subsequent to the agreement in Washington between the Prime Minister and the President—that there was no real distinction between research and deployment; that there was an unstoppable momentum; and that, if one started on the course, one would have to proceed with it? The Foreign Secretary went out of his way to say that. Why have the Government abandoned that view?

Mr. Heseltine: The Foreign Secretary believes, as I do and as the rest of the Government believe, that the research programme is already under way on both sides of the iron curtain, that it has been under way for many years and that, simply because any checks would never be verifiable, it would be naive to believe that it could ever be stopped. It is also naive not to understand that SDI embraces large numbers of technologies — miniaturisation, advanced computing, lazer technology, and so on—which will be essential in weapons development, including defence, in the next century. There is no conceivable way in which the western world will not pursue these technologies. It is important to remember that the British Government were the first to agree with the United States Government on the importance of the existence of the ABM treaty of 1972, which governs not research but the development that could flow from it.

Sir Julian Ridsdale (Harwich): Is my right hon. Friend aware how much many of us agree with the Government's decision, particularly because it means that we are taking part with out allies in an expensive research programme, which in turn means that we shall have better value for money for our conventional weapons? Is he also aware of the confidence we have in General Abrahamson, who was in charge of the successful shuttle programme? I feel sure that this programme will succeed now that he is in charge of it.

Mr. Heseltine: My hon. Friend will appreciate that the programme to which we are committed is a research programme. It is not a decision to proceed to deployment of the ultimate capability. It is clear—this point was implied in my hon. Friend's question—that virtually all advanced industrial nations are taking part in this type of research. To deny Britain the opportunity to be up with one of the largest programmes of one of the largest nations in technological terms would be a grave diservice to this nation.

Mr. Dick Douglas (Dunfermline, West): Will the right hon. Gentleman explain why earlier this year Dr. Keyworth, the recently resigned President's scientific adviser, stated that within the period of office of President Reagan they would be able to demonstrate the technology that could shoot down Russian ICBMs? he seemed to make that statement disregarding any support that he would get from anywhere else in terms of research and development. Why, then, is this research now necessary? Do we have centres of excellence that beat those of United States industry, which are heavily subsidised and which filch and misappropriate public money in the way General Dynamics has? Having got this so-called bargain from Weinberger, may we be told what else has been put on offer? For example, has the right hon. Gentleman put on offer assistance to the United States in out-of-area activities such as activities in the Gulf?

Mr. Heseltine: There would be no need to put on offer the understanding that where the legitimate interests of this country were concerned out of area, we should play our full part with our allies in the maintenance of peace, for it would be as threatening to us as it would be to them if it were to be prejudiced. That does not need any separate discussion. It has long been the policy of this Government.

The answer to the hon. Gentleman's question about Dr. Keyworth is that so many statements have been made by so many people, and it is so easy to quote them out of context, that I see no purpose in addressing one of them in particular. The essence of the matter is that there will not be a demonstration effectively of the strategic defence initiative in the immediate future. It is a long-term programme and there is no conceivable way, in terms of the immediate Administration with which we are dealing in the United States, that it could be proved to a demonstration capability.

Mr. Rob Hayward (Kingswood): My right hon. Friend will be aware that this announcement will be welcomed by my hon. Friends representing Bristol constituencies and those in north Avon, where there is a heavy concentration of space commitment industry. Will the office to which he has referred be adequately manned to give assistance to all the companies in the United Kingdom that may be interested in bidding for the contracts in the United States? Have not the French and Germans had delegations in Washington since the beginning of September in an attempt to get a head start over the United Kingdom on contracts such as these?

Mr. Heseltine: My hon. Friend will realise that it is difficult for me to be able to comment on what either friendly neighbours or other allied Governments have done. All the Governments of which I am aware will, in one way or another, either directly or through industries, participate in this programme, and the effect on the ground in their technology capability will be the same whether they have done it either at an industrial or an administrative level.

My hon. Friend spoke about the participation of industry, to which I attach much importance. I hope that there will be industrial representatives within the strategic defence initiative office, and the arrangments to which I have come have been arrived at after the closest discussion with British industry. The key question for the Labour party is whether it will withdraw from the contracts that the Americans could offer to British industry if the Labour party ever formed a Government.

Mr. Nigel Spearing (Newham, South): Will the right hon. Gentleman confirm that, in his view, this agreement cannot but have implications for Britain's foreign policy as well as the other policies for which he is specifically responsible? Should not this matter be debated before Christmas?

Mr. Heseltine: The Opposition have every opportunity to ask for a debate, and my right hon. Friend the Leader of the House, attentive as always, will no doubt do his best to accord with with their requirements.

Mr. Peter Viggers (Gosport): Is it not amazing that there has not been a single word from the Opposition Benches about the Russian research effort in this sector, which last year involved 100 space launchers, of which 80 were for military purposes, compared with United States with 20 space launchers? Can my right hon. Friend give us an assurance that our involvement will not be restricted to university research but will also involve our major industrial companies?

Mr. Heseltine: I can give that assurance. However, I do not find the Opposition's reaction amazing. It is predictable that they have no harsh words to say about the Soviet Union. If one understands the analysis of their defence policy, it is to further the foreign policy of the Soviet Union by the single greatest abdication of British defence capability that we have ever seen.

Mr. John Cartwright (Woolwich): Can the Secretary of State assure the House that any research undertaken as a result of this agreement will be based on the original narrow concept of what is allowed under the ABM treaty and not on the rather more elastic view espoused by Mr. Caspar Weinberger? Will the Government be pressing for the updating and strengthening of the ABM treaty to prevent a sudden breakthrough on either side?

Mr. Heseltine: We welcome the interpretation of the ABM treaty that is current United States policy. If, in the negotiations at Geneva, the ABM regimes need further explanation, or exploration between the super-powers, we would support that initiative if it were necessary.

Mr. Kenneth Warren (Hastings and Rye): Will my right hon. Friend make it clear to Opposition Members that

not only have the Russians been working on star wars projects for 10 years, but they are still carrying on work at six sites in the Soviet Union without let or hindrance? Will he also make it clear that this treaty is for the protection of the people of the West, and we should welcome it on both sides of the House?

I have a question about how the agreement will affect British industry. My right hon. Friend says that this is a confidential memorandum of understanding. He knows my concerns about the intellectual property rights. If such information cannot be shared with the House of Commons, can we have an assurance that the rights can be shared with industry and that industry will be allowed to use what it learns from research programmes?

Mr. Heseltine: I am grateful to my hon. Friend for making that point. We wanted to achieve an overall memorandum of understanding about intellectual property rights because inevitably, large numbers of companies, research organisations and universities will come to the Government to ask for guidance about the sort of contracts into which they can enter. We shall not make available the memorandum of understanding, but we shall now be able to give the clearest answers to questions about the legitimate protection of intellectual property rights on both sides of the Atlantic. I support what my hon. Friend said about research in the Soviet Union. I have made available to the House a copy of the document that sets out broadly the lines of the research programme that the Soviet Union has been pursuing for some time.

Mr. A. E. P. Duffy (Sheffield, Attercliffe): The Secretary of State repeatedly stressed the importance of the opportunities that star wars research would present to British industry. That was perhaps his key point. Will he assure the House that that is the unqualified view of all the British industrialists likely to be involved? There are not many of them, given the crumbs that came to them from the Trident programme as well as all the difficulties, both political and legal, surrounding the transfer of United States high tech.

Mr. Heseltine: I am grateful to the hon. Gentleman. He obviously understands the issues that I have had to address. I can assure him that the agreements I have reached have taken fully into account the views of British industry. They recognise that we will now be able to protect the intellectual property rights on this side of the Atlantic while any general advances are available to research authorities on either side of the Atlantic. This is a fair understanding of a significant kind.

The hon. Gentleman quite fairly mentioned the Trident programme. Indeed, perhaps I was not uninfluenced by that programme when I originally approached the United States on this matter. There is one fundamental difference. In trying to bid for contracts in the Trident programme, we were trying to break into a programme where the contracts had already been let and the programme was already well under way in the United States. That is extremely difficult to do. We are not in such a situation here. We are in at the beginning of a programme, and we have now the clearest understandings about how we can share and advance within it.

Mr. Churchill (Davyhulme): Given that the Soviet Union has long had a lead over the western allies in anti-ballistic missile and anti-satellite technology—both of which it demonstrated and deployed many years ago—should not we welcome the fact that the British Government are taking the lead in Europe by working alongside our American allies to make good the ground lost over many years?

Mr. Heseltine: I am grateful to my hon. Friend. It is important that Britain has been able to secure the first of these agreements. I believe that other of our European allies will not be very far behind, and I am sure that that will be for the better interests of Britain and the wider interests of European technology as a whole.

Mr. Merlyn Rees (Morley and Leeds, South): Will the right hon. Gentleman clear up one of his answers? Will the fundamental results of the research be available only to the American Government—*[Interruption.]* The right hon. Gentleman shakes his head. Does that mean that research will be protected under section 1 of the Official Secrets Act?

Mr. Heseltine: As this involves some of the most advanced technologies, it is possible that there will be a very substantial categorisation of defence secrets. As for the right hon. Gentleman's basic question, I assure him that the legitimate interests of both countries have been fully protected in relation to the intellectual property rights.

Mr. Tony Marlow (Northampton, North): How can it possibly be suggested that if we do not participate in the research programme our scientists will no way be seduced into going to the United States to participate in their programme, whereas if we do they will go rushing across to the United States from profitable companies in this country?

Mr. Heseltine: I am most interested in my hon. Friend's question. I do not think that it can be suggested that such a hypothesis exists in any sane or rational world, but perhaps my hon. Friend had in mind a world that was neither sane nor rational.

Mr. Willie W. Hamilton (Fife, Central): Does the right hon. Gentleman accept that despite this agreement there is no guarantee of a single new contract or job for British companies? In view of his previous answer about Trident, can we now be assured that his success rate, if any, on contracts as a result of this agreement will be better and greater than it was on Trident?

Mr. Heseltine: If one wants to guarantee the minimum chance of jobs and contracts in Britain——

Mr. Hamilton: No guarantee.

Mr. Heseltine: —the way to do it is to have a parliamentary Opposition who behave like this one.

Sir John Osborn (Sheffield, Hallam): Is my right hon. Friend aware that last week this was a major subject of debate in the Western European Union and that before then it was of concern to the WEU Committee on Scientific, Technological and Aerospace Questions as well as industrialists throughout Europe? Will he elaborate on the review procedure? Will this Government be able to share with America the application of any results if positive, and to what extent will that fall within the orbit of the Western European Union or even NATO?

Mr. Heseltine: I am grateful to my hon. Friend. This is a bilateral agreement between the United States of

[Mr. Heseltine]

America and the United Kingdom. Therefore, it does not fall within the WEU or the NATO Alliance arrangements. I can only repeat that in the memorandum of understanding, which we shall not publish, the arrangements to protect our technology are fair. It may not be as clearly understood as it should be, that the United States has as much interest in protecting technology as we have because it has a vastly larger technological base than we have. In partnership agreements with us, the risk is that we gain disproportionately, not the United States.

Mr. Tam Dalyell (Linlithgow): Does the Secretary of State agree that Edinburgh university probably has the most distinguished department of artificial intelligence in Europe, and, indeed, in the world, including the United States? Did he hear the public doubts raised by Edinburgh university scientists, not only about the difficulty of testing any such system, which is a thousand times more complicated than any personal computer, but on other grounds? Is the Secretary of State prepared to have his chief scientist or senior scientists meet those who have doubts at Edinburgh university about the militarisation problem? Is the complaint of British scientists who may have expected to be consulted but who were not consulted fair or unfair?

Mr. Heseltine: I shall make arrangements for any meetings to give effect to the hon. Gentleman's suggestion.

Mr. Alex Fletcher (Edinburgh, Central): While I welcome my right hon. Friend's statement, may I press him further on intellectual property rights? Clearly, the Americans are paying the bill for the research, and the rights will belong to them. However, it is important that British companies should be able to indulge in commercial exploitation of their research. To what extent will they be inhibited from doing so?

Mr. Heseltine: There will be no inhibition of the proper and full exploitation of research developed in British facilities. I hope that it will not be misunderstood if I tell the House that it is not 100 per cent. true that in pure research all the bills will be paid by the United States of America. [HON. MEMBERS: "Oh."] No—this must not be misunderstood. Most Governments, either through their defence industries or through their research laboratories, have for many years been developing the technologies which in certain configurations are necessary to explore the SDI concept. A large sum is flowing now into those technologies in many different countries. To that extent money is already being spent by the taxpayers of other advanced economies, as it has been in the United States and is in the Soviet Union. There are many pools of expertise which, drawn together, could add to the sum of knowledge and experience available. That is not to say that in any specific way the British Government will add sums to the SDI programme, which we will not.

Mr. Roland Boyes (Houghton and Washington): Does not the Secretary of State understand that the consequences of this major political act of commitment to SDI will make the world an infinitely more dangerous place in which to live? Is he aware that the British people will soon realise that the last chunk of their remaining safety and security has been sold for thirty pieces of silver?

Mr. Heseltine: That is the argument that was explored thoroughly by the electorate at the general election, when we were supposed to give up our nuclear capability. We did not, and the Soviets are negotiating with us, as I have outlined. There are absolutely no grounds for believing that pursuing legitimate research into matters of our self-defence is a destabilising prospect.

Mr. Edward Leigh (Gainsborough and Horncastle): Is it not as logically implausible for the Opposition to claim that SDI will result in a brain drain, when surely there would be brain flood if we refused to take part in this most exciting development in science, as it is ludicrous to suggest that SDI hinders peace in some way, when the object is to begin to replace mutually assured destruction with mutually assured survival by raising the threshold against the first strike?

Mr. Heseltine: I support my hon. Friend's view that in free societies our companies and scientists are free to take decisions either to work here within the SDI programme or to move to the United States to work within it. I do not know whether the Labour party will introduce some new legislation to stop British companies entering into negotiations and contracts — that may be an innovation, about which we could hear more. There are no powers to stop British companies freely entering competitive opportunities of this sort. The issue is simply whether one negotiates as a Government to secure a fair deal for Britain in the widest sense, or whether one allows the ordinary interplay of market forces.

Mr. D. E. Thomas (Merionnydd Nant Conwy): May I revert to an earlier answer from the Secretary of State? Will he explain how he can make available to the House his Department's version of the Soviet research programme—his hon. Friends have already verified it—yet be unable to make available documentation relevant to the United State's programme?

Mr. Heseltine: The hon. Gentleman must realise that there is a world of difference in making available to the House details of the Soviet research programme, which, in exactly the same form, can be made available in the context of our research programme and that of our Western allies, including the United States, because it is general and explains the specific fields. I am making available to the House, as I did to the Select Committee last week, the detailed areas of research in which Britain has an opportunity to become involved, the areas where British companies can compete, and the areas in which there is to be an exchange of information on some of the advanced technologies. That is available to the House. I am not prepared to make available commercially and security sensitive information embodied in the memorandum of understanding.

Several Hon. Members *rose*——

Mr. Speaker: Order. No fewer than 28 right hon. and hon. Members have asked to take part in the debate later in the day, so I shall allow questions to continue for a further five minutes, which will have given a full half hour for Back Bench questions.

Mr. Anthony Nelson (Chichester): Does my right hon. Friend recall that the climate in which the anti-ballistic missile treaty was drawn up was one of mutual apprehension between the super-powers over the inability to obtain superiority in anti-missile and anti-anti-missile

systems? Does he agree that such fears are as real and alive today as they were then, that nothing in the agreement undermines the basic tenets of the treaty, and that, if anything, the Government would seek to tighten the terms of the treaty and its observance?

Mr. Heseltine: My hon. Friend strikes at the heart of one of the most important aspects of the issue. We have yet to establish whether the ABM treaty needs to be tightened up. If so—this can be negotiated by the two super-powers — the British Government would undoubtedly welcome it warmly, just as they welcome the existence of the AMB treaty itself, which has operated as a discipline in this whole area. Given that one cannot stop the research, that everyone is involved in it and that it is recognised to be legitimate under the ABM treaty, it is right for us to join. However, to go beyond that and not to recognise the ABM treaty would be wrong. It is to the credit of my right hon. Friend the Prime Minister that she was the first Western statesman to agree this in public with the American President.

Mr. Chris Smith (Islington, South and Finsbury): Can the Secretary of State give the House any guarantee that the agreement will not divert resources, time and research capacity into military purposes from the extremely important civil work on advanced information technology, at present being carried out under the Alvey programme, which could promote the future of British industry and jobs?

Mr. Heseltine: No one could be more enthusiastic about the Alvey programme than I am; the Government are wholly involved in the concept, which we created. We give it great priority. I cannot technically give the categorical answer which the hon. Gentleman seeks. However, there is as much ground for believing that the civil spin-off from the sort of programmes about which I am talking today will be at least as big as, if not bigger than, any diversion of resource in any one company which might occur.

Mr. Piers Merchant (Newcastle upon Tyne, Central): Will my right hon. Friend confirm that the SDI research proposals are neither about stars not wars, as the Opposition would seem to have us believe, but are about scientific advance and peace? Will he further confirm that the spin-off in jobs and industrial advance for British industry could be as great as the advance which flowed from the original United States space programme?

Mr. Heseltine: My hon. Friend raises an important historical precedent. For the United States of America, the advance in terms of military and industrial capability in technology will undoubtedly be of the order of magnitude associated with that earlier programme. Therefore, the issue for Britain is whether we wish to share in this research opportunity in a way that we did not on the earlier occasion. My belief, without the slightest shadow of doubt, is that in sharing in it, and gaining the civil and military benefit from it, we shall be taking the sort of opportunity that we would have been wise to take on that earlier occasion.

Mr. Martin J. O'Neill (Clackmannan): Given that the Secretary of State can provide no assurance about jobs or how much money is at stake, can he tell us what is the status of the American Extra-territoriality legislation in relation to the stage beyond paper technology? Will British research be put into operation or will it have to go to the United States? There has been no mention of any amendment to that legislation within Congress as a result of the agreement.

Mr. Heseltine: The hon. Member will have heard what I said. The purpose of the two Secretaries of State has been to be fair to the research laboratories and companies on both sides of the Atlantic. Obviously, there is a fundamental question as to where the research originates, to whom the licences belong, what exploitation possibilities there are, and as to the protection of the benefits of the joint research, so that, if it is developed in one country or another with a pooled resource, it can be legitimately recognised as having a relation to either country. There are many issues of that sort which require the most detailed examination of all the legal ramifications in the United States and in Britain. That is why the negotiations have taken so long and are in such detail.

Sir Eldon Griffiths (Bury St. Edmunds): As one who saw at first hand how much Britain lost by rejecting the opportunities that President Kennedy offered us in space exploration, I greatly welcome what my right hon. Friend and the Prime Minister have achieved to ensure so that we do not lose out on the next half-century's development.

What is to be the relationship between the new SDI participation office and the national space agency recently set up? Will my right hon. Friend confirm to the Opposition that the project is going ahead, and that the only question is whether it will be with us or without us?

Mr. Heseltine: As my hon. Friend rightly says, there is no question but that the Americans are determined to pursue the research programme, and we shall not have any opportunity to prevent it, for the very best of reasons—that we are already doing it ourselves and do not want to prevent it. As my hon. Friend says, the issue is whether we do it in partnership. I belive him to be correct, because the opportunities for Britain are considerable.

The space agency is sponsored by the Department of Trade and Industry, and there are representatives of the Ministry of Defence on it, just as, within the strategic defence initiative office, there will be representatives of the Department of Trade and Industry. There will be a very close relationship, if it is relevant, and it could well be.

Mr. Denzil Davies: On jobs, can the Secretary of State again tell us what guarantees he has, under the agreement, of contracts coming to British industry? What has happened to the $1·5 billion that we were told he was seeking from the Americans?

Does research include development? In particular, does it include the actual testing of weapons systems as part of that research and development?

The Secretary of State has told us that he will not publish the agreement. Does that also apply to the American Government? Are we to take it that it is confidential from their point of view and will not be disclosed to the American Congress?

Mr. Heseltine: Yes, it certainly is as confidential there as it is here. It is an understanding between two Governments.

On job guarantees, the framework of the agreement covers the very large number of areas of joint exploration that are listed in the schedules to it. I have no doubt that my aspirations for substantial British participation will be

[Mr. Heseltine]

fulfilled. They are not qualified, because one cannot quantify what will be done in a research programme which, of its own nature, is unpredictable, but the scale of the opportunity for Britain, if we are competitive at prices and with a quality that are acceptable, are very substantial.

Austin Rover (Redundancies)

4.14 pm

Mr. Robin Corbett (Birmingham, Erdington): I beg to ask leave to move the Adjournment of the House, under Standing Order No. 10, for the purpose of discussing a specific and important matter that should have urgent consideration, namely,

"the announcement by the Austin Rover Group on Friday of the decision to make redundant 600 toolroom workers at the Austin Rover plant at Castle Bromwich, Birmingham, in my constituency, and 150 at Dunstable and Llanelli."

The matter is important because unemployment in this part of my constituency is now 23 in every 100, with more than half of them out of work for more than a year. In the whole constituency, 8,364 are jobless — virtually the same as a year ago.

The matter is specific because the number of jobs in the west midlands machine tool industry has fallen from 8,750 to 3,500 in the past five years — a loss of six out of every ten jobs.

It is rumoured that the Austin Rover group plans, against the background of those redundancies, to order millions of pounds worth of machine tools for its Sherpa van and Land Rover production from West Germany, when the men with the skills and experience to make the tools for the production of the Metro, the Maestro, the Montego, the Acclaim, and even the latest Rolls-Royce, are to be thrown on the scrapheap.

The matter is urgent because the redundancies mark one more fatal step in the rundown of toolroom capacity, which can only cost more British jobs and mean that, when the recovery comes, it is certain that the necessary machine tools will have to be imported.

Mr. Speaker: The hon. Member asks leave to move the Adjournment of the House for the purpose of discussing a specific and important matter that he believes should have urgent consideration, namely,

"the decision of the Austin Rover Group to make 600 toolroom workers redundant at its plant at Castle Bromwich, Birmingham."

I fully understand the concern that the hon. Gentleman has expressed, but I regret that I do not consider that the matter he has raised is appropriate for discussion under Standing Order No. 10. Therefore, I cannot submit his application to the House.

PRIME MINISTER

Agreed
CDJ

SDI PARTICIPATION

The attached telegrams record that the negotiations in Washington have made good progress. In particular agreement has been reached on unrestricted and royalty free use of information. The DTI member of the delegation advises that "there are now no significant weaknesses in what has been agreed and therefore no grounds to advise the Secretary of State to withhold his approval of signature".

The only other consideration is your remarks in reply to Mr. Kinnock in the House yesterday. You said: "I am not in a position to say whether it will be signed tomorrow. Details are still being negotiated. I hope it will be signed before Christmas". There is nothing in this which is incompatible with signature today, and the point to which you drew particular attention - ownership of intellectual property - is the one which has been sucessfully settled. The press however have interpreted your answer as meaning that some further delay is expected.

Agree to signature today?

e.D.P.

(Charles Powell)

6 December 1985

SUBJECT
cc Master

file

BM

cc PC

10 DOWNING STREET

6 December 1985

From the Private Secretary

Dear Richard,

UNITED KINGDOM PARTICIPATION IN SDI RESEARCH

The Prime Minister discussed this matter this morning with the Trade and Industry Secretary and the Defence Secretary in the margins of a meeting on another matter. They had before them two telegrams from Washington reporting the progress of negotiations on the draft implementing documentation to support the proposed Memorandum of Understanding on United Kingdom Participation. These made clear that all the important points, including the crucial one of "unrestricted and royalty free use", had been conceded in principle by the United States.

In the light of these reports, it was agreed that signature of the draft Memorandum of Understanding between the Defence Secretary and Secretary Weinberger should proceed later today.

I am copying this letter to the Private Secretaries to members of OD and to Michael Stark (Cabinet Office).

+ DES.

Yours sincerely,

(C.D. Powell)

Richard Mottram, Esq.,
Ministry of Defence

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3 No 10.

File

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FROM CHANTRY DTI
BRITISH PARTICIPATION IN SDI: PROPOSED SIGNATURE OF THE MOU
1. PLEASE HAND THE FOLLOWING TEXT TO S OF S TRADE AND INDUSTRY AT OR BEFORE 08.55 TODAY.
2. WE HAVE SPENT A LONG DAY WITH THE AMERICAN OFFICIALS DISCUSSING THE DRAFT BRITISH IMPLEMENTATION DOCUMENTATION TO SUPPORT THE DRAFT MOU IN PARTICULAR THAT SECTION DEALING WITH IPR. THE DETAILED OUTCOME INCLUDING THE WORKING TEXT IS REPORTED IN A SEPARATE TELEGRAM. ALTHOUGH TIME DID NOT PERMIT CONVERGENCE ON A FINAL MUTUALLY AGREED WORDING, THE AMERICANS EXPRESSED THEMSELVES FULLY IN ACCORD WITH THE SPIRIT OF THE DRAFT AND SAID THEY COULD SEE NO FUNDAMENTAL POINTS OF DIFFERENCE. ALL THE IMPORTANT POINTS INCLUDING THE CRUCIAL ONE OF ''UNRESTRICTED AND ROYALTY FREE USE''

PAGE 2 RBDWW 0008 S E C R E T UK EYES ALPHA
HAVE THEREFORE BEEN CONCEDED IN PRINCIPLE.
3. MY JUDGEMENT IS THAT THE AMERICANS ARE SINCERE AND COMMITTED IN THEIR EXPRESSED DETERMINATION TO REACH A MUTUALLY SATISFACTORY SET OF DOCUMENTATION WHICH WILL INTER ALIA RESOLVE THE POINTS PROPERLY RAISED BY DTI. IT WILL TAKE HOWEVER SEVERAL MORE DAYS BEFORE A FULL DRAFT COVERING ALL ADMINISTRATIVE ASPECTS CAN BE IN PLACE. WHILE WE CANNOT EXLUDE THE POSSIBILITY OF UNEXPECTED SNAGS ARISING, ON THE BASIS OF THE PROGRESS MADE TODAY THERE ARE NOW NO SIGNIFICANT WEAKNESSES IN WHAT HAS BEEN AGREED AND THEREFORE NO GROUNDS TO ADVISE THE SECRETARY OF STATE TO WITHHOLD HIS APPROVAL OF SIGNATURE.
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CABINET OFFICE EXCLUSIVE FOR POWELL, NO 10 DOWNING ST.SUBJECT , SDI - UK PARTICIPATION.
1. IN THE LIGHT OF THE SPECIAL NEED TO ADDRESS QUESTIONS OF INTER-DEPARTMENTAL CONCERN RELATED TO THE DRAFT MOU ON UK PARTICIPATION IN SDI AND THEIR RELEVANCE TO THE POSSIBILITY OF SIGNATURE ON THAT DOCUMENT IN LONDON ON FRIDAY, ATTEMPTS HAVE BEEN MADE TODAY BY THE VISITING MOD/DTI TEAM TO AGREE WITH US OFFICIALS TEXTS FOR THE QUOTE THIRD LEVEL UNQUOTE DOCUMENTATION WHICH COVER

PAGE 2 RBDWW 0007 S E C R E T UK EYES ALPHA EXCLUSIVE
THESE CONCERNS.
2. TIME HAS NOT ALLOWED FINAL AGREEMENT ON DEFINITIVE TEXTS. HOWEVER IT HAS BEEN POSSIBLE TO REACH CLEAR UNDERSTANDINGS ON IPR ISSUES, PARTICULARLY ON UNRESTRICTED ROYALTY - FREE USE OF FOREGROUND INFORMATION, ON THE BASIS OF THE FOLLOWING DRAFT
3. QUOTE
CLAUSES IMPLEMENTING THE FOLLOWING PROVISIONS RELATING TO USE OF INFORMATION WILL BE INCLUDED IN LOAS AND CONTRACTS MADE BY THE US SDIO WITH, RESPECTIVELY, THE UK SDIO AND UK COMPANIES IN THE COUNTRY OF THAT OTHER SDIO. IN THIS CONTEXT CONTRACT MEANS PRIME CONTRACTS, SUB CONTRACTS AND ALSO CONTRACTS IN PURSUANCE OF A LOA.
THE OWNERSHIP OF THE INTELLECTUAL PROPERTY RIGHTS IN THE FOREGROUND INFORMATION WILL BE VESTED IN THE PARTY (IN THESE SUB-PARAS REFERRED TO AS THE 'ORIGINATOR') WHICH HAS GENERATED THE INFORMATION. HOWEVER, IF REQUIRED BY ITS NATIONAL LAW, THE US SDIO MAY MAKE SPECIAL PROVISION FOR PATENT RIGHTS BUT WILL NOT DENY THE ORIGINATOR THE OWNERSHIP OF THE PATENT RIGHTS SOLELY ON THE BASIS THAT THE ORIGINATOR IS NOT LOCATED IN THE US OR IS SUBJECT TO THE CONTROL OF THE UK GOVERNMENT.

PAGE 3 RBDWW 0007 S E C R E T UK EYES ALPHA EXCLUSIVE
SUBJECT TO ANY SPECIAL PROVISIONS FOR PATENT RIGHTS, THE US SDIO WILL HAVE UNLIMITED RIGHTS TO THE FOREGROUND INFORMATION IE THE ROYALTY FREE RIGHTS TO USE, DUPLICATE OR DISCLOSE THE FOREGROUND INFORMATION IN WHOLE OR IN PART, IN ANY MANNER AND FOR ANY PURPOSE WHATSOEVER, AND TO HAVE OR PERMIT OTHERS TO DO SO.
THE ORIGINATOR OF THE FOREGROUND INFORMATION WILL, SUBJECT TO
A) THE NATIONAL SECURITY CLASSIFICATIONS AND EXPORT CONTROLS OF HIS COUNTRY, AND
B) SUB PARA OPEN SQUARE BRACKET IMMEDIATELY FOLLOWING CLOSE SQUARE BRACKET HAVE UNLIMITED RIGHTS TO THE FOREGROUND INFORMATION.
AT ITS OPTION THE US SDIO MAY INCLUDE A PROVISION WHEREBY, EXCEPTIONALLY, THE US SDIO CAN UPON WRITTEN NOTICE TO THE ORIGINATOR PROHIBIT THE DISCLOSURE (OTHER THAN FOR THE PURPOSES OF PERFORMING THE LOA OR CONTRACT) OF SPECIFIED FOREGROUND INFORMATION FOR A PERIOD OF OPEN SQUARE BRACKET A FIXED PERIOD TO BE AGREED BY REFERENCE TO TERMS APPLIED TO US FIRMS CLOSE SQUARE BRACKET IF SUCH FOREGROUND INFORMATION IS
A. UNCLASSIFIED BUT IS OF SUCH MILITARY SENSITIVITY THAT THE US SDIO BELIEVES THAT RESTRICTIONS UPON DISCLOSURE ARE REQUIRED, AND

PAGE 4 RBDWW 0007 S E C R E T UK EYES ALPHA EXCLUSIVE
B. NOT ALREADY SUBJECT TO EXPORT CONTROL RESTRICTIONS OF THE UK AND HAS NOT BEEN CONSIDERED BY THE UK GOVERNMENT FOR RESTRICTION UNDER EXPORT CONTROL RESTRICTIONS.

DURING SUCH PERIOD OF PROHIBITION OF DISCLOSURE THE SDIOS WILL CONSULT AS TO WHETHER EXPORT CONTROL RESTRICTIONS SHOULD BE APPROPRIATELY CREATED. IF THE UK SDIO AGREES THEN, AS NECESSARY, THE PERIOD WILL BE EXTENDED TO ENABLE UK NATIONAL CONTROLS TO BE CREATED. IN THE EVENT THAT THE UK SDIO DOES NOT AGREE TO THE CREATION OF SUCH CONTROLS, THE MATTER WILL IMMEDIATELY BE REFERRED TO THE DEFENCE SECRETARIES . UNQUOTE
4. THIS TEXT WILL BE SUBJECT TO DRAFTING AMENDMENT TO ENSURE TIDINESS AND CONSISTENCY WITH OTHER RELEVANT SECTIONS BUT NOT TO ANY ALTERATION OF SUBSTANCE.
5. FOR THE TIME BEING THE TEXT IS CLASSIFIED CONFIDENTIAL.
BT

(DG2ARP)

(1)

PRIME MINISTER

CDP 6/12.

PARTICIPATION IN SDI RESEARCH

You will recall this was mentioned in Cabinet this morning; and we have subsequently received Mr. Heseltine's minute attached.

The relevant factors seem to me:

(i) Cap Weinberger expects to sign tomorrow and is very keen to do so. Since the success of the agreement depends substantially on his goodwill, we ought to do what we can to maintain it;

(ii) The text of the Memorandum of Understanding - which is what would actually be signed - is agreed with the Americans;

(iii) Negotiations are continuing in Washington on the detailed procedural arrangements. Mr. Brittan wants to know the outcome of these before we sign.

I have spoken to the Embassy in Washington and urged the negotiating team to redouble its efforts. We shall get a report first thing tomorrow morning. If this shows substantial progress, I suggest that you raise the matter at the 0900 meeting (on Westland) tomorrow and try to get Mr. Brittan and the Chief Secretary to agree to signature of the MOU tomorrow. If, however, the report shows that there are continuing problems of substance, signature will have to be deferred.

Agree?

C.D.P.

Charles Powell
5 December 1985

MO 26/7/4E

PRIME MINISTER

STRATEGIC DEFENCE INITIATIVE: UK PARTICIPATION

Following Mr Powell's letter of 15th November to my Private Secretary, I have set in hand with Mr Weinberger and his staff further work on the detailed arrangements for British participation in SDI research, taking account of the points put forward by colleagues. A team of officials is now in Washington, which includes experts on contracts and patents/intellectual property rights and a DTI official seconded to the team working on participation. They have agreed with the Americans a final version of the Memorandum of Understanding (MOU) which takes account of a number of detailed points raised by the Foreign and Commonwealth Office legal advisers. The team is currently working through the detailed procedural arrangements required to implement the MOU in a way which meets our interests.

2. It had been my own preference to sort out all of this detail before formal signature of the MOU. But the position has been complicated by Mr Weinberger's plan to visit Britain this Thursday and Friday primarily to address the Diplomatic and

Commonwealth Writers Association and the US Correspondents Association and to call on you. Mr Weinberger, not surprisingly, is anxious to sign the MOU during his visit to Britain to give it maximum visibility and to show the strength of Anglo/US ties in a very tangible way. When I met him in Brussels in the margins of the DPC meeting yesterday he therefore pressed me to proceed with the signature during his visit. Given that our major card in getting the new arrangements off to a flying start is Mr Weinberger's own goodwill towards Britain, I am reluctant to respond negatively.

3. There is also the complication that public expectation of early signature is high, following the line taken with the press at the end of the Anglo/German summit. I am also committed to appearing on Thursday before the House of Commons Defence Committee (HCDC) to discuss SDI participation. If I procrastinate over signature of the MOU, this is likely to fuel stories that have already appeared in the press about division within the British Government.

4. Against this background, I have concluded that the balance of political advantage lies strongly with acceding to the US request to go ahead with the signature during Mr Weinberger's visit. I would therefore propose that the MOU should be signed at a ceremony including a joint press conference in the Ministry of Defence on Friday at 1145, following your own meeting with

Mr Weinberger. I would intend at the press conference also to announce the formation of the SDI Participation Office on the lines earlier agreed by OD.

5. I would intend to tell the HCDC in private that the agreement is to be signed and, prior to the press conference, to announce by Written Answer that agreement has been reached. I attach for information a draft Parliamentary Answer.

6. Arrangements will also be made by the Foreign and Commonwealth Office to inform overseas governments as appropriate.

7. I am copying this minute to the other members of OD, the Secretary of State for Education and Science, and the Secretary of the Cabinet.

[Approved by the Defence Secretary & signed in his absence]

4th December 1985

SDI RESEARCH - UK PARTICIPATION

DRAFT PARLIAMENTARY ANSWER

In his letter of 26th March 1985 to NATO (and certain other) Defence Ministers, the US Defense Secretary, Mr Weinberger, said that the United States, consistent with her existing international obligations including the ABM Treaty, wished to proceed with co-operative research with her Allies in areas of technology that could contribute to the Strategic Defence Initiative (SDI) research programme.

There have since been detailed discussions between the British and American Governments on areas of research in which it would be in our joint interest to co-operate, and on the arrangements to facilitate such co-operation. Agreement has been reached on an information exchange programme and on areas where United Kingdom companies and institutions have expertise which might form part of US-funded SDI research.

A Memorandum of Understanding has been agreed which sets out the mechanisms for British participation in SDI research and which will be signed later this morning by the US Defense Secretary and myself on behalf of our Governments.

To act as a focal point for British participation and to liaise with the US SDIPO, an SDI Participation Office is being established within the Ministry of Defence immediately. This office will work in the closest concert with British companies and institutions interested in participating in SDI research.

Defence
SDI
PT3



SECRET

Ref. A085/3163

PRIME MINISTER

Cabinet: Strategic Defence Initiative Research: United Kingdom Participation

The Secretary of State for Defence may report at Cabinet tomorrow that he plans to sign on Friday 6 December the Memorandum of Understanding (MOU) with the United States on our participation in Strategic Defence Initiative (SDI) research. Mr Powell's letter of 15 November to Mr Mottram recorded your conclusion that various points raised in Ministerial correspondence about the MOU should be pursued further by the Secretary of State for Defence.

2. The main points of Ministerial concern were:

a. that restrictions on ownership and use of intellectual property rights should not prevent United Kingdom industry from exploiting satisfactorily the results of SDI work for civil purposes. In particular, clarification of the extent of restrictions on use of information was thought desirable.

b. that certain terms used in the MOU required clarification particularly to establish that the MOU is not a legally binding document but, as its title implies, an understanding between two Governments.

c. that our commitments under the MOU to the United States should not result in our participation in SDI prejudicing the reassessment of Research and Development priorities across Government on which MISC 119 is currently engaged.

Prime Minister

Your colleagues will want to be satisfied that MH does have reasonable undertakings on these points and will in particular respect (c).

CDP. 4/12.

BRIAAO

3. Care will also be needed in informing our European allies of our decision to sign the MOU. Our Ambassador in Bonn has suggested that a personal message from you to Chancellor Kohl might be considered in the light of your recent contacts with him.

for ROBERT ARMSTRONG

(dictated by Sir Robert Armstrong and signed in his absence)

4 December 1985

BRIAAO

PART 3 ends:-

CDP to PM 29.11.85

PART 4 begins:-

RTA to PM (A085/3163) 4.12.85


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