

HENRY G. CATUCCI

**VICE PRESIDENT
WESTERN UNION INTERNATIONAL, INC.**

**2100 M STREET, N. W.
WASHINGTON, D. C. 20037
TEL. 293-7810**

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To Mr. O'Malley

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF EMERGENCY PREPAREDNESS
WASHINGTON, D.C. 20504

Date: August 15, 1969

Subject: NSSM 71

To: GENERAL O'CONNELL

1. Reference is made to the attached copy of NSSM 71.
2. This study directive indicates that the study will include consideration of matters concerning "the commitment of this government to a single global commercial communications satellite system".
3. I discussed this with Morton Halperin of the NSC Staff, who is aware of your interest in this project. He said he will be the NSC Staff representative on this study group and that he will insure that you are brought into the project at the appropriate time.

Haakon Lindjord
Haakon Lindjord
Assistant Director

cc: General Lincoln

Attachment

| | |
|--------------|-----------------------|
| DECLASSIFIED | |
| Authority | NSC waiver |
| By | SO NARA, Date 4/15/10 |

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NATIONAL SECURITY COUNCIL

WASHINGTON, D.C. 20506

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August 14, 1969

National Security Study Memorandum 71

TO: The Secretary of State
 The Secretary of Defense
 The Secretary of Commerce
 The Director of Central Intelligence
 The Director, Office of Science and Technology
 The Chairman, Atomic Energy Commission
 The Administrator, National Aeronautics
 and Space Administration
 The Director, Arms Control and Disarmament Agency

SUBJECT: Advanced Technology and National Security

The President has directed that a review be conducted of our policies governing the access by foreign countries to certain advanced technologies vital to our national security. The review will consider nuclear power reactors, ballistic missile systems, advanced computers, and other scientific and technological devices and information whose acquisition from the United States by other nations would assist in the development or improvement of independent national nuclear weapons capabilities or strategic delivery systems.

The review should clarify the purposes and scope of existing policies and discuss the major issues posed by the export of sensitive technologies worldwide and with respect to specific countries. As a result of the review, recommendations should be offered on alternative policies to regulate the export of these technologies and on various procedures for policy implementation. Consideration of the impact on friendly and hostile governments should be included in reporting the assets and liabilities of each option. More specifically in recommending alternatives, the report should:

- Consider any further obligations of the United States Government with regard to advanced technologies that result from (a) the commitment of this government to a single global commercial communications satellite system, and (b) the nuclear Non-Proliferation Treaty should it come into force;

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| DECLASSIFIED | |
| Authority | NSC memo dated 4/22/85 |
| By | SO NARA, Date 4/15/10 |

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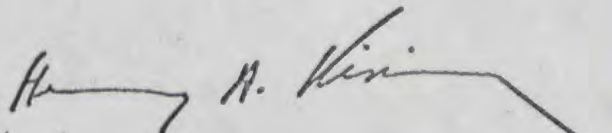
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- Make explicit those policies applicable to all countries; when a policy is not universally applicable, adequate guidelines should be prepared for identifying those countries, or types of countries, to which it is directed;
- Propose criteria to be applied in considering requests for export licenses or for government financing of foreign projects involving these advanced technologies;
- Offer any necessary procedures to allow the United States Government to monitor policies governing advanced technologies.

This review should give full consideration to the commitment of the United States Government to international cooperation in the peaceful application of nuclear and space technologies and to the necessity for free exchange of scientific knowledge when national security is not impaired.

This review will be conducted by a committee to be chaired by a representative of the Secretary of State. The committee will include representatives of the addressees of this memorandum and the Assistant to the President for National Security Affairs. The committee will forward its report to the NSC Review Group by September 30, 1969.



Henry A. Kissinger

cc: The Chairman, Joint Chiefs of Staff
Director, Office of Emergency Preparedness

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DEPARTMENT OF STATE
WASHINGTON

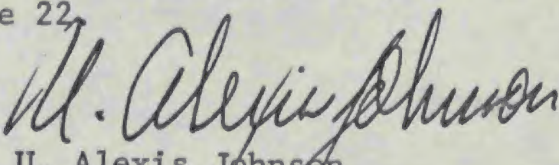
June 16, 1966

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MEMORANDUM FOR:

The Honorable
James O'Connell,
Special Assistant to the President
for Telecommunications.

I refer to my memorandum of May 13 which established a Working Group under Mr. Pollack's chairmanship for the International Cooperation Subcommittee of the National Aeronautics and Space Council. The Working Group, at its meeting of June 9, completed a policy statement on cooperation with ELDO which is attached. I would appreciate very much your concurrence and any comments you may have by June 22.


U. Alexis Johnson
Deputy Under Secretary
for Political Affairs

Attachment:

Policy Statement
on Cooperation
with ELDO

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| | |
|--------------|-----------------------|
| DECLASSIFIED | |
| Authority | DOS guidelines |
| By | SO NARA, Date 4/15/10 |

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US COOPERATION WITH ELDO

Background

In the spring of 1966 the British Government began the process of reconsideration of its participation in ELDO. When it became apparent that this reconsideration might lead to British withdrawal from ELDO, the United States made known to the British and to certain other members of ELDO its hope that the British would continue their ELDO membership and participation. The United States informed the British that a "U.S. position would be prepared providing for cooperation with ELDO in the event ELDO members desire such cooperation." At the meeting of ELDO on June 9, Great Britain sought a reduction in the British ELDO assessment. The decision to follow this course of action rather than anticipated withdrawal from ELDO was no doubt influenced by the severe European reaction to the possibility of British withdrawal and to the expressions of U.S. interest in the continuation of ELDO and the U.S. willingness to cooperate with ELDO should ELDO desire. Final decisions on the future of ELDO will presumably be taken at its next meeting now scheduled for July 7. It is therefore desirable to have available as promptly as possible for contingency use the U.S. position on cooperation with ELDO.

Policy Considerations

The principal US interest in the continuation of ELDO is political rather than programmatic. British withdrawal from ELDO or ELDO's demise would adversely affect U.S. foreign policy objectives in the following respects:

A. It would be unfortunate not only with respect to British political relationships with the Continent and the Common Market but also could have an adverse impact on other European multilateral efforts.

B. The US prefers multilateral to national programs of launcher development which might be stimulated in the absence of ELDO.

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E.O. 12958, Sec. 5.4

~~CONFIDENTIAL~~

Dept. of State Review
By S. Warrall Date 5/25/2010

C. The US is concerned that, if ELDO were to be dissolved, France will devote its resources to a national, military-related program or that it may establish undesirable bilateral relationships for the construction of satellite launch vehicles.

D. The US feels that Europe's technological development is in part dependent upon its participation in major space activities involving highly advanced technology.

US Position

It should be made known that the US stands prepared to offer cooperation and assistance to ELDO, which would contribute to the desirability from the European point of view to the continuation of ELDO.

A. Conditions underlying cooperation -

In view of existing policies relating to INTELSAT and the non-proliferation of ballistic missile delivery capabilities contained in NSAMs 294 and 338, it is understood that in responding to requests for cooperation by ELDO, US cooperation would be subject to government-to-government agreement that:

1. ELDO members would honor their INTELSAT commitments (i.e.: adherence to the single global commercial communications satellite system).

2. Launcher vehicles, components and technology would not be used for advancement of national nuclear missile delivery capability nor be provided to non-ELDO countries.

B. Areas of US cooperation and assistance -

We are prepared to provide the following to ELDO:

1. General assistance applicable to both short and long range ELDO projects.

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a. Training - Participation by ELDO nominees in NASA seminars for technical management training in such subjects as PERT and Companion Cost System, Reliability and Quality Assurance in Specific Systems, Testing and Checkout, Systems Compatibility, Incentive Contracting.

b. Facilitating export licenses for ELDO requirements, including an extension of the ELDO export certification process (originally adopted for UDMH) to cover the procurement of other launch vehicle and ground support equipment hardware. (A device to give ELDO items priority and access beyond European national vehicle programs.)

c. Use of NASA test facilities.

d. Designation within NASA of a technical office specifically to serve in an expediting and assisting role for ELDO.

2. Short range assistance in the proposed reconfiguration of ELDO-A.

a. Recision of the February 15, 1962 cut-off date for the transfer of Atlas Technology under the original Blue Streak agreements between Rocketdyne and Rolls-Royce (engine) and General Dynamics and Hawker-Siddeley Dynamics (stage).

b. Technical advice and assistance in such areas as:

(1) Multi-stage vehicle integration.

(2) Stage separation.

(3) Range organization, lay-out, and equipment as related to the ELDO vehicle

(4) Synchronous orbit injection techniques.

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c. Procurement of unclassified flight hardware in the US including such items as the Miniature Integrating Gyro (MIG) strapped-down "guidance" (auto-pilot) package used on the Scout vehicle. This has already been exported to Japan.

3. Long range assistance in the development of follow-up ELDO projects using high-energy cryogenic upper stages (e.g. ELDO-B).

a. Access to related US experience and technology as available in the Atlas-Centaur system through technical documentation and contacts.

b. Bring ELDO technical personnel into intimate touch with problems of systems design, integration, and program management of a high-energy upper stage such as the Centaur.

c. Consideration of joint use of a high-energy upper stage developed in Europe.

4. To supplement ELDO-A launch services the US will sell launch services for scientific and applications satellites to Western European and other countries as deemed appropriate.

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Meeting No. 1

Committee on Expanded International Cooperation in
Space Activities

Subject: Cooperation Involving Launchers and Launching Technology

In his letter of May 13 U. Alexis Johnson, who was named Chairman of the internal committee of the Space Council on March 23 to examine expanded international cooperation in space activities, advised the head of each agency represented that Mr. Pollack would chair a meeting at 3:00 p.m., Thursday, May 19 for the purpose of discussing one facet of the subject, namely cooperation involving launchers and launching technology. In the reference letter it was also stated that pertinent documents would be forwarded prior to the convening of the meeting.

Background

The purpose of addressing this particular facet of expanded cooperation stems from the uncertainty as to the future of ELDO. On February 16 it was announced in the UK that the UK was considering withdrawal from ELDO, to which it contributes 38% of the budget. The possibility of UK withdrawal is motivated largely by budgetary concern and doubts as to the cost effectiveness of the British investment in ELDO.

There is general concern about the dissolution of ELDO as there are both political and economic advantages in the multilateral framework for launcher development. In such a framework rocket programs tend to be more open, serve peaceful uses and are subject to international control and absorb manpower and financial resources that might otherwise be diverted to purely national programs. National rocket programs tend to concentrate on militarily significant solid or storable liquid fueled systems, are less open, and less responsive to international controls. Any break up of ELDO might lead to strengthening national programs tending in the latter direction.

Thought has been given preliminarily to the possibility of U. S. expanding cooperation with ELDO which would involve the supply of non-storable liquid fueled rocket technology. There are indications that this might be attractive to ELDO and there is reason to believe that a cooperative offer could be designed and implemented in such a manner as not to conflict with current U. S. non-proliferation

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GROUP 4

Downgraded at 3 year
intervals; declassified
after 12 years

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E.O. 12958

Dept. of State Review

By S. Worrel

Date 5/26/2010

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objectives and guidelines. Such cooperation might, in fact, assist in the U. S. non-proliferation effort by channelling resources in the non-storable liquid fueled road rather than solid or storable liquids.

Recently the Department has been informed (Embassy Paris Confidential Airgram 2138, of May 5, 1966 and Embassy London Confidential telegram 5292 of May 6, as well as through conversations with interested individuals) that the United Kingdom has reviewed its earlier position and will probably continue with the development of the ELDO-A booster for ultimate launchings of communications and other types of earth orbiting satellites. The Department was informed by Mr. Max Mayer (Annex H) that there is "nothing that can be done at this state in time to assist in the development of ELDO-A" through the export of technology but that assistance would probably be required in up-rating ELDO-A to place communications satellites in synchronous orbit. Embassy London (Embtel 5292) stated among other things that the "only real solution to ELDO assistance appears to be a relaxation in depth of the U. S. attitude toward multilateral vehicle development".

A decision is to be taken by a meeting of the ELDO Council to be convened on June 9 on the future role of the United Kingdom in ELDO and ELDO itself. There is reason to believe that the decision taken at this meeting will be to continue with the development of ELDO-A for the purposes outlined above and that it is possible in not too distant future the US will be asked to contribute technology for the up-rating of the ELDO-A vehicle.

The principal purpose of this meeting is to review existing U. S. policy or interpretation thereof and to begin to identify types of technology and hardware involving cryogenic fueled boosters which can be exported without contributing significantly to the United States policy of non-proliferation.

Pertinent background material and discussion papers are enclosed as follows:

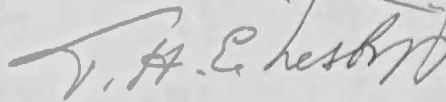
- Tab A - Background paper on ELDO Organization
- Tab B - Some Political Aspects
- Tab C - U. S. Cooperation with ELDO, Arms Control Considerations.

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- Tab D - NSAM 294 Discussion Papers
- Tab E - Communications Satellite Technology (NSAM 338)
- Tab F - Memorandum for the Record, the Vice President's
meeting with German Minister of Science
Gerhard Stoltenberg
- Tab G - Memorandum for the Files, Conversation with
Sir Solly Zuckerman of the U. K.
- Tab H - Memorandum of Conversation with Mr. Max Mayer



T. H. E. Nesbitt
Secretary

May 17, 1966

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EXECUTIVE OFFICE OF
THE PRESIDENT

1966 MAY 18 PM 1 45

OFFICE OF EMERGENCY
PLANNING-MAIL ROOM
WASHINGTON 25, D.C.



EUROPEAN LAUNCHER DEVELOPMENT ORGANIZATION

PURPOSE

The ELDO Convention states that its purpose is "the development and construction of space vehicles launchers for peaceful applications."

BACKGROUND

Organization initiated by UK in 1960 to salvage her Bluestreak IRBM investment. Agreement was signed in London on March 29, 1962 with ratification by the Parliaments of member countries completed in March 1964.

MEMBERS - ASSESSMENTS

| | | | |
|--------|--------|-------------|---------------|
| UK | 38.79% | Italy | 9.78% |
| France | 23.93% | Belgium | 2.85% |
| FRG | 22.01% | Netherlands | 2.64% |
| | | Australia | Woomera Range |

ORGANIZATION

Council - Composed of two delegates from each Member State - determines the general policy and programs, defines main features of and plans for financing, distributes work among member states, and appoints the Secretary-General. Each member State has one vote. Council meets at least twice a year.

Secretary-General and Staff - The Secretary-General is the principal executive officer of the Organization and its legal representative. He is assisted by a Technical Director, and Administrative Director, and the necessary technical and administrative staff.

Council Officers

| | |
|--|-------------------------------|
| President | Guenther Bock (Germany) |
| Vice Presidents | A.C. Paternotte de la Vaillee |
| | A. J. Marx |
| Chairman, Finance Comm. | A. Goodson |
| Vice Chairman, Finance Comm. | V. Douchamps |
| Chairman, Scientific and Technical Committee | J. Corbeau |
| Vice Chairman, Scientific and Technical Committee | A. J. Marx |

Headquarters Officers (Paris)

| | |
|--------------------------------------|---|
| Secretary General | Amb. R. Carrobio di Carrobio (Italy) |
| Technical Director | W. H. Stephens (UK) |
| Director General, Initial Program | P. M. Girardin |
| Administrative Director | H. M. Costa |
| Director General, Future Programs | |

FIELD FACILITIES

Launching Area (28 miles from Woomera)

Largely made available from existing facilities.

Woomera Technical Area (Woomera)

De-greasing plant and LOX plant with storage.

Range Equipment

Buildings, communications, etc.

Salisbury (near Adelaide)

Buildings and LOX listing facilities.

France

Test facilities for liquid propulsion systems, structures, aerodynamic and aerothermic tests, computers, and vibration test equipment.

UK

LOX plant, component testing facilities, engine test stands, missile test areas.

PROGRAMS

ELDO A

Under the guidance of preparatory group, work on this program actually started long before full ELDO ratification. It was to provide a launcher system capable of launching a one-ton satellite into a 270 mile circular orbit by 1967 as follows:

| | |
|----------------|----------------|
| 1st stage | UK Bluestreak |
| 2nd stage | France Coralie |
| 3rd stage | Germany |
| Satellites | Italy |
| Telemetry | Netherlands |
| Radio Guidance | Belgium |
| Launch Site | Australia |

The original cost estimate in 1962 for this program was \$200 million. In 1965 the estimate was up to \$300 million and is currently \$420 million. The launch date for the 1st satellite is now 1968. Considerable doubt particularly in the UK has arisen concerning the advisability of continuing this program (See article in Science March 18, 1966).

ELDO B

Various programs have been reported but so far as is known no specific program for a follow-on to ELDO A has been adopted. Present indications are that the Bluestreak or modification will be used as a booster for any follow-on program.

If the ELDO B program is defined and funds are made available work could begin in late 1966 or early 1967. Stephens has indicated that the key to the follow-on program is the development of an upper-stage liquid hydrogen-oxygen engine producing about six tons of thrust.

COOPERATION WITH NASA

Cooperation between NASA and ELDO has been limited to discussions between ELDO and NASA personnel and orientation type visits of ELDO personnel to NASA installations. It should be noted, however, that technology made available to the UK for Bluestreak was made available to ELDO with US concurrence.

UNITED STATES GOVERNMENT

Memorandum

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TO : SCI - Mr. Nesbitt

DATE: May 17, 1966

FROM : EUR/RPE - LeRoy F. Percival, Jr.

SUBJECT: ELDO - Some Political Aspects

Discussion:

ELDO was created at British initiative as a "European" corollary to the UK's application for entry into the Common Market which de Gaulle vetoed in January 1963. ELDO was a symbol of a UK desire for European cooperation then. It has the same significance today. British withdrawal would raise doubts in the minds of their partners about British bona fides with respect to European cooperation. It would probably have spillover affects in ESRO and would make their ELDO partners, the six Common Market countries, dubious about British "European" intentions. The continental European members clearly would be disturbed at British withdrawal and have various contingencies under consideration should this happen. They would regard such a British action as an indicator of the UK's insensitivity to political considerations when a NATO crisis confronts them all. The demise of the one multilateral organization other than the WEU consisting of the Six and the UK would be a symbolic blow to European unity. It would raise doubts about the ability of the Six and the UK to deal multilaterally with major projects of mutual interest. In all likelihood, it would lead to efforts to develop launchers either by the Six alone or nationally. These political considerations will probably be factored into any final British decision.

Were the British to withdraw, the Six might well carry on with ELDO (the Germans have certainly considered doing so). Another outcome could be the development of national programs for launcher development which would be undesirable from an arms control -- non-proliferation standpoint. France is currently the only likely candidate to embark on such a course.

While the decision of whether to continue ELDO is essentially a European one, from a U.S. point of view it appears desirable that launcher development for peaceful purposes be conducted in an open multilateral framework. Imperfect as the ELDO organization may be, it is preferable to individual national launcher programs. Moreover, we attach importance to the UK's maintaining its ties with the key Continentals until it is in a position again to decide to seek entry into the Common Market. Finally the maintainence of this multilateral organization for European cooperation when NATO is under severe stress is politically consequential. There are therefore several political reasons why continued European cooperation in ELDO would be desirable.

Although a stronger multilateral organization with greater institutional integration than ELDO would be preferable, a going organization has the advantages mentioned above and its demise might set in train potentially unfortunate consequences. We should ascertain how much support may be developed in Europe for the Italian idea of melding ELDO and ESRO. Moreover, we should examine whether there are ways in which the U.S. might help ELDO.



C

U. S. COOPERATION WITH ELDO;
ARMS CONTROL CONSIDERATIONS (U)

1. Multilateralism. Western Europe's rocket capabilities will continue to grow, regardless of any actions the U.S. might take. These capabilities could evolve in patterns which run counter to the U. S. non-proliferation objective of preventing the further spread of independent ballistic missile forces as reflected in NSAM 294. If ELDO collapses or continues to experience serious financial and technical problems, national rocket programs in Europe will probably receive greater emphasis. U. S. interests would appear to be best served when foreign rocket developments are carried out on a multilateral basis. Multilateral programs generally tend to be "open". They also absorb resources that could otherwise be diverted to national programs.

2. Impact on National Programs. U. S. cooperation with ELDO resulting in successful present and future ELDO projects would help maintain and possibly enhance the degree of multilateral rocket activities in Western Europe, thus most likely diminishing national rocket efforts over the long run. The U. K. may withdraw from ELDO on the basis of its desires to tighten expenditures. However, over the long run the U. K. may face increased internal pressures to apply the resources it had planned to contribute to ELDO to the development of an indigenous small satellite launch vehicle based on the Black Arrow. The FRG may expand its rocket efforts and develop a peaceful space capability which will not necessarily be restricted by the WEU Treaty. There is also the possibility that a Franco-German joint rocket program could eventually be instituted. France already has a fairly advanced solid-fueled missile effort, which will undoubtedly continue with or without ELDO. The advantage of keeping France in ELDO is, therefore, largely political. Other European nations, of course, are far away from satellite launch capabilities. The immediate missile non-proliferation benefits of cooperating with ELDO in terms

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GROUP 3
Downgraded at 15 year
interval; not
automatically declassified

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of preventing national nuclear forces from spreading may not be great; however, the long-range benefits associated with multilateralism can be significant.

3. Solid-Fueled Rockets. If European nations devote their major attention to national rocket programs, solid-fueled rather than non-storable liquid-fueled rocket technology will probably be given the higher priority. This result could have additional missile proliferation problems regarding third-country sales by Europe. Solid-fueled rockets have more potential military significance than non-storable liquid-fueled rockets. U. S. assistance to ELDO could make it attractive for European nations to channel more of their resources into non-storable liquid-fueled rocket technology associated with a vigorous ELDO program, without contributing significantly to the spread of solid-fueled rockets or causing serious concern over storable liquids. Moreover, the U. S. could strengthen its missile non-proliferation objectives through cooperation with ELDO to the extent that Western European nations invest resources which could otherwise be applied nationally in programs potentially disadvantageous to U. S. interests.

4. Additional Benefits. U. S. cooperation with ELDO can offer additional benefits relative to missile non-proliferation, such as providing a basic policy framework for U. S. rocket-related export decisions and procedures. It could offer an alternative to the U. S. pursuing similar projects with many individual nations on a bilateral basis which could create political and technical complications. Through cooperation, the U. S. can also gain a better understanding of Western Europe's rocket intentions and capabilities. Furthermore, a viable ELDO with U. S. involvement can help preclude greater Soviet space cooperation in Europe.

5. Space Cooperation vs. Nuclear Proliferation. As reflected in the recent offer to cooperate with ESRO, the U. S. appears to be genuinely interested in cooperating with Western

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Europe in the space field. Nevertheless, a continued reluctance to assist Western Europe in the area of rocket technology could have an adverse effect on possible space cooperation in other areas by exacerbating feelings that the U. S. is contributing to Europe's remaining "second class" in space. European nations wish to gain the prestige, industrial benefits, and responsibility associated with significant space efforts, and are particularly interested in attaining a liquid-fueled satellite launch vehicle capability on a multilateral basis. Thus, in the spirit of Secretary McNamara's statement to the Space Council, U. S. nuclear non-proliferation goals can be strengthened to the extent that European nations can view successful space activities as an "alternative" to nuclear weapons and invest their resources accordingly.

6. Safeguarding Assistance. Depending upon economic, technical, and political considerations, U. S. assistance to ELDO--in current and future projects--could involve activities ranging from providing rocket subassemblies or booster systems to helping in specific aspects of rocket technology. It appears feasible to structure a program of liquid-fueled rocket cooperation which maximizes the chance of European acceptance while minimizing U. S. missile proliferation concerns. In order to further reduce proliferation dangers, U. S. rocket export policies could be modified in accordance with the Government-agreed program of ELDO cooperation, and thus provide a framework for handling individual problems arising under NSAM 294. Also, other political and legal "safeguards" can be placed on a cooperative effort. From an arms control standpoint, the optimum form of cooperation would be for the U. S. to provide virtually complete launch vehicles and verify their expenditures; however, it is doubtful that this extreme would be either acceptable or desirable in the ELDO situation.

7. Present or Future Cooperation. Because the present-generation ELDO program is well along the road towards completion, despite its many problems, it would appear difficult for the U. S. to find room for offering technical assistance.

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Therefore, the U. S. should focus on ways of working with ELDO at the present time to plan a mutually beneficial cooperative program for subsequent ELDO launch vehicle projects in the context of European space objectives and consistent with U. S. policy objectives.

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DEPARTMENT OF STATE
DEPUTY UNDERSECRETARY
G/PM

501- McGeorge Bundy
(7820)

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April 6, 1966

To: ACDA - Mr. Van Doren
AEC - Mr. O'Donnell
COMMERCE - Mr. Tollin
DEFENSE - Mr. Barber
NASA - Mr. Barnes
WHITE HOUSE - Mr. Bator
S.B.
From: Scott George, Chairman, NSAM 294 Review Group
Subject: Guidelines for Implementation of NSAM 294

For about a year now the various licensing and advising agencies have been considering individual NSAM 294 cases against the attached guidelines. You will recall that after having been worked out by our group, they were recommended for implementation purposes by Acting Deputy Under Secretary Thompson and approved March 9, 1965 by McGeorge Bundy. As I see it, the guidelines are aimed at enabling us to carry out a selective, effective, time-gaining "interference" with the French national program, both in warhead and delivery vehicle terms, by denying the export of really key items intended for use in that program and unavailable elsewhere. We have tried to look at proposed exports to other countries in essentially the same terms, but this is a much more difficult job, the reason being simply that France is at present the only real target country, and if there is not an actual national program against which to weigh the pros and cons of a given export, there is little basis on which to weigh a NSAM 294 decision.

I have been reviewing these guidelines, both in the light of general developments abroad and of the recent discussion in the Space Council concerning expanded space cooperation with foreign countries. Here I am thinking in particular of Secretary McNamara's remarks about the desirability of liberalized export of technology.

It seems to me that the present guidelines are still valid in terms of carrying out the objective of NSAM 294, and that they pose no impediment to expanded space or other cooperation

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which does not have a direct relationship to national nuclear weapons/delivery vehicle capabilities. I would like to get your views, however; and in order to systematize matters, would appreciate receiving from you by April 20 any suggestions you have as to continuation of or changes in the NSAM 294 guidelines. Depending on how your views run, we can then get together to assess the situation.

Attachment:

As stated.

Copies to:

State: G/PM - Mr. Meyers
WE - Mr. Beigel
E/MDC - Mr. McFadden
G/PM-MC - Mr. Sipes
SCI - Mr. Nesbitt

DOD: Mr. Murray

CIA: [REDACTED]

E.O. 13526, section 3.3(b)(1)

G/PM: SGeorge: jdd: 4/6/66

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CONCLUSIONS AND RECOMMENDATIONS OF NSAM 294 WORKING GROUP

Conclusions:

1. The purpose of the policy set forth in NSAM 294 is to use export denial, as one means of achieving effective control over material, equipment and technology which any nation* seeks to acquire for use in an independent nuclear weapons/strategic delivery vehicle program, and which would significantly benefit such program.
2. Adequate legislative authority and export control mechanisms already exist within the U.S. Government to assure that all items of potential concern in NSAM 294 terms come within the cognizance of the appropriate export licensing authorities, either AEC, State, or Commerce.
3. The tasks of the licensing authorities are therefore (1) to make sure that procedures are in effect which are adequate to identify all proposed export items falling under NSAM 294 and (2) to establish the best possible judgment on the following:
 - a. The technical, economic, quality, and timing importance of the item to the national weapons program.
 - b. The use actually intended for the item.
 - c. The alternative sources outside the U.S. for the item or a comparable substitute.

* In practical terms, the U.K. is at present exempted from this policy, since we are cooperating with that country extensively in both the nuclear weapons and delivery vehicle areas. The policy is also not relevant to Bloc countries, since more stringent policies are governing with respect to them.

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4. Those items which are clearly intended for use in a national program, would significantly and directly benefit that program in terms of timing, quality, or cost, and are unavailable in comparable substitute form elsewhere than the U.S. are to be denied.

5. Those items intended for other uses, or of only marginal benefit to the national program, or available elsewhere than the U.S. without undue difficulty or delay, will normally be approved. Other than NSAM 294 considerations may come into play, however (Atomic Energy legislation, Nuclear Test Ban Treaty, political considerations, other U.S. policies, etc.), and individual decisions must take these into account.

6. While NSAM 294 is of general application, France, under her present policies, is the major target country now and for the immediate future. Nevertheless exports to all other countries must be continuously evaluated in terms of both the potential and intention of the recipient country to engage in a national program.

7. No new control mechanisms or formalized inter-agency committees are required, but improved coordination, exchange of views and centralized compilations of case-by-case experience are needed. To the extent feasible, definite lists of commodities and related technologies of importance in NSAM 294 terms should be developed in order to make the controls most effective. The agencies with technical competence in the area are therefore continuing to work on improving present lists. It is recognized, however, that the relative and shifting nature of the NSAM 294 control problem probably means that individual decisions will necessarily continue to be mostly of an ad hoc nature.

Recommendations:

1. Each agency concerned (State, Defense, AEC, Commerce, NASA) should name a single senior staff level representative

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to have general responsibility within that agency for NSAM 294 matters.

2. These representatives should keep in close touch with each other and with all concerned areas within their own agencies, the purpose being to ensure that NSAM 294 cases arising within or referred through normal channels to their agencies get adequate and expeditious consideration under the criteria outlined above.

3. These representatives should also be constituted as an informal NSAM 294 Review Group, meeting under State chairmanship once a month or as necessary, and including additional participation from their own agencies as desirable. The purpose will be to continue to explore ways and means to improve inter-agency coordination, discuss implementation problems which may have arisen, study decisions reached in individual cases of a precedent value or with unusual features, build up a central body of NSAM 294 experience, and make recommendations for change in policy or procedures to their respective agencies as may be required.

4. The intelligence community should be requested to provide the Review Group on a regular basis with evaluations of additional-country potential and intention to engage in nuclear weapons programs, to assist the group in achieving the purpose mentioned in paragraph 6 above.

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NASA Headquarters
Washington, D. C. 20546

Mr. Scott George, Chairman
NSAM 294 Review Group, Department of State

Director, Cooperative Projects Division
Office of International Affairs

NSAM 294 Guidelines

Your April 6 memo suggesting a re-examination of the "Conclusions and Recommendations of NSAM 294 Working Group" is most timely, and I appreciate your asking my views. In brief, I agree that they are still valid; however, their significance appears to have been incompletely appreciated by some in application to specific Munitions Control cases:

1. Conclusion #4 states that the prohibitions are to apply to "items which are clearly intended for use in a national (strategic delivery of nuclear weapons) program...". There should therefore be a presumption of approval for items destined for use in regional programs such as ESRO and ELDO, but this does not appear to have been the case in practice.
2. Conclusion #4 also refers to items which would "significantly and directly" benefit nuclear weapons and strategic delivery development programs, but in practice NSAM 294 has sometimes been invoked where the connection appears hypothetical and potential. An example: cryogenic liquid propulsion systems could theoretically be used in a strategic delivery system. But we all recognize that France is pursuing a delivery system based upon a totally different technology. Therefore, it appears inconsistent with the "significant and ~~direct~~" criterion to impede execution of the Rocketdyne/SEPR development program (see our March 29 memorandum to Dr. Margrave).
3. Inadequate recognition appears to have been given to the advancing state of European space-related technology. As an example, take guidance and control, an admittedly ambivalent area with both civil and strategic applications. Munitions Control Case No. 1167 proposed a technical assistance agreement between American Bosch Arma Corporation and AIOP of France involving the Arma G-16 (Dynatune) gyro. Clearly a gyro of this type could potentially contribute to a strategic delivery capability. However, supporting documents suggest that gyros of comparable performance and weight characteristics are already available to France. In this particular case, we have recommended that the Department verify such availability prior to acting on the proposed export. If such a capability already exists in Europe, it again appears contrary to the "unavailable in comparable substitute form" guideline to ~~deny~~ the export.

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Revision of the "Conclusions" will not in itself resolve the above problems, nevertheless, I suggest the following minor changes to Conclusions #4 and #5 with a view towards clarifying their intended application (changes underlined).

"4. Only those few critical items which are clearly intended for use in a national program would significantly and directly benefit that program in terms of time and quality or cost, and are unavailable in comparable substitute form elsewhere than the US are to be denied.

"5. Those items intended for other uses, e.g., multilateral programs such as ELDO and ESRO, items which are of only marginal benefit to the national program, or which are available elsewhere than the US without undue difficulty or delay, will normally be approved..."

Original signed by

Richard J. H. Barnes

cc: SCI, Mr. Nesbitt, Dept. of State
MC, Mr. Sipes, Dept. of State

I/Mr. Frutkin
CP
File: NSAM 294

Prep:RJHBarnes:ss 4/15/66

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Communications Satellite Technology

1. Purpose

Remove current restrictions on release to foreign countries ^{of} advance technology for space segment of communications satellite systems.

2. Background

NSAM 33⁸ of September 15, 1965 establishes policy concerning United States assistance in the development of foreign communications satellite capabilities. This policy statement limits the flow of advance technology from the United States to foreign countries. In addition, it controls launch technology and launch services.

3. Benefits

(1) Such action would allow United States firms to enter cooperative arrangements with the communications and electronics manufacturing industry in other countries (including countries covered by COCOM restrictions). This would permit other countries to develop the technical know-how necessary to compete effectively for contracts for the space segment of the global communications satellite system.

(2) It would remove a current irritant, primarily expressed by the French but also shared by the British, Italians and Germans, about their inability to supply hardware for the INTELSAT space segment. This action should provide these countries with greater incentive to collaborate with the United States in developing the global commercial communications satellite system, as well as other space communications services. It would give foreign industry a direct profit from United States research and technical developments not only in the commercial communications satellite field but also for such

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related purposes as space broadcasting, aeronautical services, maritime services, etc. A further economic advantage would occur from the spin-off of technology for the consumer and other industries.

(3) Such action by the United States Government releasing United States technological data would appeal greatly to the NATO countries not only economically but also politically. It should also give them a "psychological lift" through meaningful participation in the space age.

(4) Insofar as the United States is concerned, a gesture of this magnitude should strengthen our position for the 1969 negotiations when the present interim ComSat Agreement (TIAS 5646) will be reviewed and a permanent arrangement established. It is our hope that generally the present arrangements including the role of management for the United States can be continued beyond 1970.

4. Costs

(1) Such action could involve a foreign exchange loss to the United States of upwards to 100 million dollars in the next 4 or 5 year period on hardware for the global system. This assumes foreign firms could utilize this technical knowledge quickly, translate the result into products for the system, and compete effectively with United States industry. In reality, this probably would not be the short-term case and the foreign exchange loss undoubtedly would be very considerably less than the amount quoted. This also assumes that other countries might with their own resources develop a technical competence in this area by 1970 (based on our experience this is unlikely).

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(2) the release of technical information only to NATO countries would cause political problems with Japan and other countries having a potential manufacturing capability in this area as such action would be discriminatory.

(3) It would tend to encourage the establishment of separate communication satellite systems, for regional or national purposes, which result would be in direct conflict to current United States policy providing for the establishment of a single global commercial communications satellite system.

(4) Release of technical information would require amendment of NSAM 338 of September 15, 1965 to permit the Munitions Control Board to license United States firms to release the technical know-how in this area. This action would not cause problems for our NATO allies, on the contrary, it would constitute a major gain to their technological ability and would be welcomed. How it could be used to induce more cooperation in NATO is another matter. It is not clear, moreover, whether this action by itself, including release of information to all NATO countries except France, would necessarily encourage France to come back into the fold or might tend to force them into closer collaboration with the Soviets, who also have technical competence in this field.

5. Conclusions

(1) Removing restrictions on release to foreign countries of communication satellite technology now would not appreciably affect attainment United States objectives.

(2) The removal of restrictions to all countries, excluding countries covered by COCOM restrictions, would constitute a major improvement to the United States negotiating position for the 1969 negotiations to establish a permanent organization for INTELSAT as required by Article IX of the Agreement

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establishing interim arrangements for a global commercial communications satellite system (TIAS 5646).

(3) While release of technology might result in attempts establish separate communications satellite systems, this risk is relative inasmuch as in time it likely other countries besides the United States and USSR will develop the means to do so in any case.

6. Recommendation

That action be taken to amend NSAM 338 to permit the Munitions Control Board to approve requests of United States industry to release technology to foreign firms, excluding countries covered by COCOM, with the understanding that such release would be accomplished under normal business conditions.

This recommendation would need to be addressed to the White House for appropriate action by the President's Special Assistant for Telecommunications. In turn, the Special Assistant would need to consult with other agencies, e.g. Commerce, DOD, FCC, NASA, State and the Space Council.

GROUP 3
Downgraded at 12 year
intervals; not
automatically declassified

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EXPORT OF COMMUNICATIONS SATELLITE TECHNOLOGY

SUMMARY

NSAM 33B of September 15, 1965 establishes policy concerning United States assistance in the development of foreign communications satellite capabilities. This policy statement limits the flow of advanced technology from the United States to foreign countries; by indirection it also controls launch technology and services. Additionally, the NSAM expresses policy in regards to use by allied nations of the United States national defense communications satellite system.

NSAM 33B has served well as an instrument of non-proliferation of both commercial and unique (governmental) communications satellite systems. Conversely, the NSAM has also served as a political irritant through its inhibitions to the flow of technology from the United States to other nations.

Preliminary considerations of the advantages and disadvantages of relaxing the restrictions on release of communications satellite technology have led to the conclusions that

- 1) Such relaxation would not appreciably affect the attainment of United States objectives concerning non-proliferations of communications satellite systems
- 2) Such relaxation would improve the United States position with foreign countries in both the political and industrial arenas.

GROUP 3
Excluded from automatic
downgrading at 12 year
intervals; not
automatically declassified

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~~CONFIDENTIAL~~ -- NO FOREIGN DISSEMINATION

MEMORANDUM FOR RECORD

May 11, 1966

SUBJECT: Vice President's Meeting with FRG Minister of
Science Gerhard Stoltenberg on May 10, 1966

Attendees: The Vice President
Minister of Science Gerhard Stoltenberg
H. E. Heinrich Knappstein
Mr. Wolfgang Opfermann
Dr. Bretsch
Dr. Max Mayer
Dr. K. Tremel
Dr. Williams (AmEmb, Bonn)
Miss Ingebor Wichman (interpreter)
Mr. Hermann Pollack, State
Mr. Trevanion Nesbitt, State
Dr. E. C. Welsh
Dr. John E. Rielly
Colonel Donald W. Paffel

Items discussed:

The Vice President spoke of Dr. Stoltenberg's visit and urged him to extend it to include visit to Cape Kennedy.

The Vice President referred to Dr. Seaborg's letter to him regarding termination of the bilateral agreements and continuation of the multi-lateral peaceful atomic program.

Dr. Stoltenberg stated there was no real problem with the atomic energy exchange program -- that the real problem was in the space effort. Dr. Stoltenberg further stated the hard question is how far the European countries will jointly pursue their space efforts and to what degree. He predicted a slow decision; but that the FRG is endeavoring to stimulate joint participation. Dr. Stoltenberg said he would seek to expand bilateral small space projects with the U.S. while awaiting the major decision on ESSRO and ELDO. He spoke of the need for a physical technical satellite program.

Mr. Pollack lauded the FRG space effort and stimulation of multi-lateral projects.

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Authority NSC waiver

By SO NARA, Date 4/15/10

The Vice President stated his candid opinion that U.S. might be trying to do too much alone; that we were hard at work internally to find ways and means of expanding international cooperation. He opined that European projects should be new areas of endeavor and not just expansions of current U.S. programs, i.e., a Jupiter probe (a beginner -- not a tailender) that FRG and other European countries must put more into space programs if they are to build a sound competitive technological base to exploit spin-off benefits to their societies.

Dr. Stoltenberg said he believed the ESSRO program was a good one but that ELDO was critical. He spoke of Great Britain's problem of space projects vs. computers and available finances; of France's state of turmoil re space projects and concluded with an agreement with the Vice President that multilateral projects must be increased (at least for this long range benefits) but opinion that small bilateral projects would stimulate the multilateral ones.

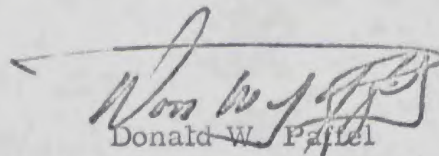
The Vice President spoke of U.S. federal support to educational institutions (primarily through space projects). He then opined that the President invitation to the Chancellor opened a door for cooperative ventures; that a failure to respond would result in increased pressures in the U.S. to "go it alone" -- (that the open hand grows cold fast and in turn forces bilateral approaches). He opined that the French have a lesson to learn in the financial costs of "going it alone"; that both bilaterally and multilaterally the FRG could do a valuable service by "baking the biscuits while the stove was hot" -- the consultive leadership of the FRG with the European communities would establish a platform -- stimulate the press -- arouse public interest and support and assist in finding space projects.

Dr. Stoltenberg spoke again of Great Britain's problems, of the French attempts for USSR cooperation. He couldn't predict if ELDO could survive a Great Britain withdrawal since this would mean higher budgets for the remaining countries plus new costs for reorienting the program.

The Vice President asked Dr. Stoltenberg that if he could have his wishes fulfilled what would he want from the U.S. Dr. Stoltenberg answered: (1) If ELDO fails, more bilateral projects; (2) greater cooperation in the international telecommunications projects; (3) cooperative use of the new big atomic accelerators. Then Dr. Stoltenberg spoke briefly on the telecommunications problem and the difficult French position.

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The Vice President again suggested the FRG leadership potential and the hope of greater U.S. /FRG and U.S. /European multilateral cooperation.


Donald W. Paffel

COORD DRWelsh
DR Rielly

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DEPARTMENT OF STATE

INTERNATIONAL SCIENTIFIC AND TECHNOLOGICAL AFFAIRS

MEMORANDUM FOR THE FILES

May 6, 1966

SUBJECT: Cooperation with ELDO

Participants: Sir Solly Zuckerman
Dr. Francis Panton, Defense Counselor,
British Embassy
Mr. Herman Pollack, SCI
Col. James W. Milner, SCI
Mr. LeRoy F. Percival, EUR/RPE

Sir Solly opened the conversation by reference to Dr. William Greulich's visit at which the possibility of US assistance or cooperation with ELDO was discussed.

Sir Solly stated he wanted to explore further what we had in mind; what kind of assistance to ELDO was intended. Mr. Pollack stated that before he answered that question, he would like to determine what ELDO needed in the way of assistance to make it continue as a viable organization. Sir Solly expressed the British Government position as being "concerned with budget"; that ELDO looked as if it had no end to its expenditures and there was no foreseeable economic return on the UK investment. He pointed out that ELDO was launched initially by the British for political purposes in order that the British would be participating in this additional European organization at a time it was making a bid to join the common market. It was now felt that there had been nothing of value coming into the UK because of ELDO and that the other partners had received considerably more benefits.

He asked why we wanted to do something for ELDO at this time. Mr. Pollack replied (1) that we would not like to see a multilateral organization in Western Europe fail at this particular time because it would have serious and far reaching implications; (2) for reasons

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of arms control we prefer multilateral launcher development to national programs; (3) in implementing the President's toast to Chancellor Erhard we were seeking new and different ways of expanding cooperation in space because we consider that there is a close connection between technological gap and the development of space technology; and (4) that he personally did not rule out the possibility of the Soviets moving into the vacuum, if ELDO collapsed.

Sir Solly then asked the question, "If, to go to the other extreme, ELDO folds would the US launch satellites, including communications satellites, for European countries and/or ESRO?"

Mr. Pollack replied that as far as scientific satellites were concerned this offer had already been made. While there was no clear cut answer at this time, it was unlikely that the US would provide launches for communications satellites outside the INTELSAT framework.

Sir Solly pointed out that the offer of US cooperation (as a result of the President's toast to Erhard) had been presented to him (by his staff) only in the form of a Jupiter probe. He was unaware of the breadth and flexibility of our proposal and that a list of ten examples which included the Jupiter probe had been left with UK personnel by the Advance Team.

A discussion of the type of technical assistance required then ensued centering on high energy non-storable fuels. Sir Solly was not sure of what ELDO's requirements for assistance were or just how we could help. He also had some reservations about the French and their reaction to any US offer of cooperation with ELDO. He was quite concerned with the limited amount of time which remains between now and the early June meetings of ELDO which limited the amount of coordination within the British Government that could be performed. Sir Solly said it was his personal view that the UK would continue in ELDO, but there were strong negative pressures against. The Foreign

Office and the Ministry of Aviation favor continued participation.

He also asked if Mr. Pollack could give him prior to the ELDO meeting any indications, even though not a final government position, of what position we might take. Mr. Pollack replied that he doubted that a US government position would be developed in that length of time but that he would communicate to him any developments that had taken place.

Sir Solly pointed out the many British officials no longer see ELDO as a bridge into Europe i.e. the political reason for its creation no longer exists. However, there were other political considerations for its continuance which he did not personally discount. As he was responsible for drafting a Cabinet paper on the subject, he would certainly see that all pertinent considerations were presented. He expected that the paper for the Cabinet would have to be completed within 5 or 6 weeks.



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DEPARTMENT OF STATE
INTERNATIONAL SCIENTIFIC AND TECHNOLOGICAL AFFAIRS

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MEMORANDUM FOR THE FILES

May 11, 1966

PARTICIPANTS: Mr. Max Mayer, Ministerial Director for Space
Dr. Karl Trembl, Personal aide to Stoltenberg
Mr. Nesbitt and Col. Milner, SCI
Mr. Percival, EUR/RPE and Mr. Crowley EUR/GER
Dr. William Williams, SCIATT/Bonn

SUBJECT: ELDO

Max Mayer discussed the ELDO situation along the following lines. The problems confronting ELDO today are primarily financial. The present estimate (\$400 million) to develop ELDO A is approximately twice the original estimate (\$196 million). He gave these reasons: general inflation and rising costs although this was a minor part of it; original estimates based on French and British costs experience in design and building of a single stage vehicle were not valid; problems of integration of a multistage vehicle; problems of interface between industry of the several nations making up ELDO; the interface between governments; the development of the managerial staff of ELDO; problems of transferring funds and equipment from one country to another. All these added up to overruns in money and time.

Max Mayer talked about UK relationship to ELDO. In general the Ministry of Technology and the Treasury in the UK were against further participation in ELDO. They argued that no adequate return could be foreseen for the large investment being made in a tight budget situation. The Ministry of Aviation and the Foreign Ministry were in favor of ELDO. In the beginning

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Sir Solly Zuckerman was strongly against continuing the ELDO program but Mayer says he (Zuckerman) is now in favor of it. With its limited funds some members of the British Government desired to approach the technological development problem in a different manner i.e. put the money in technical training and education instead of space programs.

Mr. Mayer expressed a strong German desire to continue with ELDO. Alternatives to an ELDO without the UK were being considered, but they presented many difficult problems. He agreed that the collapse of ELDO would have serious consequences - it would lead to lack of confidence in other multilateral European organizations. (If one partner drops out how can the others be trusted.)

Mayer pointed out that Peyrefitte won his fight in the French Cabinet to keep France in ELDO. It is certain if ELDO fails France will develop its own launchers. ELDO's problems stem from lack of know-how. The British and French had no three stage launcher experience when they launched the ELDO-A program. Interface problems - government-to-government, industry-to-industry, government-to-industry, etc. caused difficulties. The British were impatient in 1963 and pushed a third stage development, but they budgeted year by year and sometimes by even less than a year's period which made it very inconvenient to operate. Mayer further pointed out that of the \$204 million increase in costs for ELDO 70% has already been allocated. Mayer also pointed out that British firms received more in payments from the program than the UK's contribution.

In reply to a specific query as to how the US might help ELDO, Mayer responded that for ELDO-A perhaps some management techniques would be helpful. He was uncertain, however, as to whether ELDO Headquarters would be receptive to such "technical assistance." US management know-how either on a company-to-company or

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government-to-government basis for ELDO might be helpful. As for ELDO-B and other advanced programs, he thought that there was considerable opportunity for US-ELDO cooperation such as assistance in building a high energy upper stage, management assistance and perhaps the purchase of first stages of the Thor vehicle.

Mayer said that the Federal Republic experience with the third stage has built teams which are quite capable of taking over other advanced spacecraft problems. (The teams from the north and the south of Germany are now working together.)

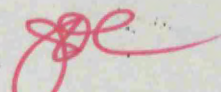
Mayer commented that ESRO is very different from ELDO. It is a coordinator for national efforts. ELDO is an integrated organization to realize a single project. To preserve ELDO without the UK, he speculated about the possibilities of licensing the Blue Streak or buying it or the Thor for the first stage.

SCI: JWMilner:vm1
May 12, 1966

Cl'd with: EUR - Mr. Percival
EUR - Mr. Crowley

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Office of Telecommunications Management

To: ~~MR C'Connell~~ 

Date:

From: Cal Johnson

This NSAM is
Crisis text with
our Working Group
Position

NRJ

Mr. O'Connell

THE WHITE HOUSE
WASHINGTON

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July 29, 1966

NATIONAL SECURITY ACTION MEMORANDUM NO. 354

TO: The Secretary of State
The Secretary of Defense
The Administrator, National Aeronautics
and Space Administration
The Chairman, Atomic Energy Commission

SUBJECT: U. S. Cooperation with the European Launcher
Development Organization (ELDO)

The President has noted the memorandum of July 24, 1966, from the Department of State transmitting the conclusion of the Ad Hoc Committee of the National Aeronautics and Space Council that it is a matter of urgency that we clarify and define our policy with respect to the development of the European Launcher Development Organization (ELDO) and the extent of U. S. cooperation with ELDO's present and future programs.

The President concurs in the overall statement of policy that it is in the U. S. interest to encourage the continued development of ELDO through U. S. cooperation. He further approves the recommendation that in the event that ELDO desires cooperation with the U. S. the Department of State in consultation with NASA, the Department of Defense and other responsible agencies, may make the above policy known to the members of ELDO and to take such specific action in cooperation with the other interested agencies as may be necessary to carry out this policy.

The President has also noted that the Department of State with the assistance and agreement of the members of the Ad Hoc Committee of the National Aeronautics and Space Council has prepared a detailed

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| By | SO NARA, Date 4/19/10 |

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statement defining the nature and extent of U. S. cooperation with ELDO which the U. S. Government is now prepared to extend. He concurs in the desirability of such interdepartmental program development and requests that this statement be continuously reviewed by the responsible agencies to ensure that it is current and responsive in terms of developing circumstances.

W W Rostow

W. W. Rostow

cc: Executive Secretary, National
Aeronautics & Space Council
Special Assistant to the President
for Science and Technology
Special Assistant to the President
for Telecommunications ✓
Director, Arms Control and
Disarmament Agency

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Policy Concerning US Cooperation with the
European Launcher Development Organization (ELDO)

It should be made known that the US stands prepared to offer cooperation and assistance to ELDO, which would contribute to the desirability from the European point of view of the continuation of ELDO.

A. Conditions underlying cooperation - In view of existing policies concerning US assistance in the development of foreign communications satellite capabilities and the non-proliferation of ballistic missile delivery capabilities as stated in NSAMs 338 and 294, it is understood that in responding to requests for cooperation by ELDO, US cooperation would be selective and subject to government-to-government agreement that launcher vehicles, components and technology would not be used for:

1. Advancement of communication satellite capability other than (a) to permit participation in the US National Defense Communication Satellite System; or (b) in connection with the Single Global Commercial Communication Satellite System in accordance with the provisions of the Interim Agreement and Special Agreement of August 20, 1964.

2. Advancement of nuclear missile delivery capabilities of one or more member countries.

3. Transmittal or transferral to non-ELDO countries without US authorization.

B. Areas of US cooperation and assistance -

1. General assistance applicable to both short and long range ELDO projects, as follows:

a. Training - Participation by ELDO nominees in NASA seminars for technical management

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training in such subjects as PERT and Companion Cost System, Reliability and Quality Assurance in Specific Systems, Testing and Checkout, Systems Compatibility, Incentive Contracting.

b. Facilitating export licenses for ELDO requirements, including an extension of the ELDO export certification process (originally adopted for UDMH) to cover the procurement of other launch vehicle and ground support equipment hardware. (A device to give ELDO items priority and access beyond European national vehicle programs.)

c. Use of NASA test facilities.

d. Designation within NASA of a technical office specifically to serve in an expediting and assisting role for ELDO.

2. Short range assistance in the proposed reconfiguration of ELDO-A.

a. Make available on a case by case basis, subject to export control approval, Atlas Standard Launch Vehicle (SLV) technology additional to that already provided under past export control actions.

b. Technical advice and assistance in such areas as:

(1) Multi-stage vehicle integration.

(2) Stage separation

(3) Range organization, lay-out, and equipment as related to the ELDO vehicle.

(4) Synchronous orbit injection techniques.

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c. Procurement of unclassified flight hardware in the US including such items as the Miniature Integrating Gyro (MIG) strapped-down "guidance" (auto-pilot) package used on the Scout vehicle. Comparable hardware has already been exported to Japan.

3. Long range assistance in the development of follow-up ELDO projects using high-energy cryogenic upper stages (e.g. ELDO-B).

a. Access to related US experience and technology as available in the Atlas-Centaur system through technical documentation and contacts.

b. Bring ELDO technical personnel into intimate touch with problems of systems design, integration, and program management of a high-energy upper such as the Centaur.

c. Consideration of joint use of a high-energy upper stage developed in Europe.

C. Supplementary action - To supplement ELDO-A launch services the US will sell Scout, Thor, and Atlas vehicles and launch services for scientific and applications satellites to Western European and other countries as deemed appropriate and consistent with A above.

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THE WHITE HOUSE

WASHINGTON

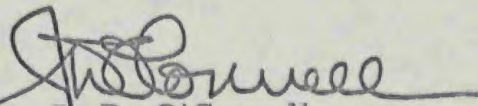
June 23, 1966

Honorable U. Alexis Johnson
Deputy Under Secretary for
Political Affairs
Department of State
Washington, D. C. 20520

Dear Mr. Johnson:

I am pleased to have had the opportunity to review the policy statement on U. S. Cooperation with ELDO as prepared by the Working Group of your International Cooperation Subcommittee of the National Aeronautics and Space Council. I concur in the policy statement furnished under cover of your memorandum of June 16, 1966, subject to the revision of the U. S. Position section as set forth in the attached. This revision is necessary to make the stated U. S. position clearly conform with established U. S. national policy as set forth in NSAM 338 and with the position being taken in current U. S. negotiations and discussions with the United Kingdom, Australia and Canada concerning the satisfaction of communications needs which are vital to national security and which cannot be met by commercial facilities.

Sincerely,



J. D. O'Connell

Special Assistant to the President
for Telecommunications/

Director of Telecommunications Management

Attachments

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| By | SO NARA, Date 4/15/10 |

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A. Conditions underlying cooperation -

In view of existing policies concerning U. S. assistance in the development of foreign communications satellite capabilities ~~relating to INTELSAT~~ and the non-proliferation of ballistic missile delivery capabilities ~~contained~~ as stated in NSAMs ~~204~~ 338 and ~~338~~ 294, it is understood that in responding to requests for cooperation by ELDO, US cooperation would be subject to government-to-government agreement that launcher vehicles, components and technology would not be used for:

1. Advancement of communication satellite capability other than (a) to permit participation in the U. S. National Defense Communication Satellite System; or (b) in connection with the Single Global Commercial Communication Satellite System in accordance with the provisions of the Interim Agreement and Special Agreement of August 20, 1964.

2. Advancement of national nuclear missile delivery capability.

3. Transmittal or transferral to non-ELDO countries without U. S. authorization.

11 ELLDQ members would honor their INTELSAT commitments /
(i.e. / adhere to the single global commercial communications satellite /
system) /

21 / Lautsprecher / kühlschränke / auch / verhältnißmäßig / wohl / nicht / be
 nutzt / für / advancement / of / national / nuclear / missile / delivery / capability / not / be
 provided to / the / ELDO / countries /

B. Areas of US cooperation and assistance.....

4. To supplement ELDO-A launch services the US will sell launch services for scientific and applications satellites to Western European and other countries as deemed appropriate/ and consistent with A above.

~~CONFIDENTIAL~~

DEPARTMENT OF STATE
WASHINGTON

June 16, 1966

~~CONFIDENTIAL~~

MEMORANDUM FOR:

The Honorable
James O'Connell,
Special Assistant to the President
for Telecommunications.

I refer to my memorandum of May 13 which established a Working Group under Mr. Pollack's chairmanship for the International Cooperation Subcommittee of the National Aeronautics and Space Council. The Working Group, at its meeting of June 9, completed a policy statement on cooperation with ELDO which is attached. I would appreciate very much your concurrence and any comments you may have by June 22.

U. Alexis Johnson
U. Alexis Johnson
Deputy Under Secretary
for Political Affairs

Attachment:

Policy Statement
on Cooperation
with ELDO

~~CONFIDENTIAL~~

| | |
|--------------|----------------------|
| DECLASSIFIED | |
| Authority | |
| By | SO NARA, Date 4/15/0 |

~~CONFIDENTIAL~~

JUN 10 1966

US COOPERATION WITH ELDO

DECLASSIFIED
E.O. 12958, Sec. 3.4

Dept. of State review
By S. Worrel Date 5/25/2010

Background

In the spring of 1966 the British Government began the process of reconsideration of its participation in ELDO. When it became apparent that this reconsideration might lead to British withdrawal from ELDO, the United States made known to the British and to certain other members of ELDO its hope that the British would continue their ELDO membership and participation. The United States informed the British that a "U.S. position would be prepared providing for cooperation with ELDO in the event ELDO members desire such cooperation." At the meeting of ELDO on June 9, Great Britain sought a reduction in the British ELDO assessment. The decision to follow this course of action rather than anticipated withdrawal from ELDO was no doubt influenced by the severe European reaction to the possibility of British withdrawal and to the expressions of U.S. interest in the continuation of ELDO and the U.S. willingness to cooperate with ELDO should ELDO desire. Final decisions on the future of ELDO will presumably be taken at its next meeting now scheduled for July 7. It is therefore desirable to have available as promptly as possible for contingency use the U.S. position on cooperation with ELDO.

Policy Considerations

The principal US interest in the continuation of ELDO is political rather than programmatic. British withdrawal from ELDO or ELDO's demise would adversely affect U.S. foreign policy objectives in the following respects:

A. It would be unfortunate not only with respect to British political relationships with the Continent and the Common Market but also could have an adverse impact on other European multilateral efforts.

B. The US prefers multilateral to national programs of launcher development which might be stimulated in the absence of ELDO.

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C. The US is concerned that, if ELDO were to be dissolved, France will devote its resources to a national, military-related program or that it may establish undesirable bilateral relationships for the construction of satellite launch vehicles.

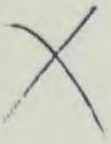
D. The US feels that Europe's technological development is in part dependent upon its participation in major space activities involving highly advanced technology.

US Position

It should be made known that the US stands prepared to offer cooperation and assistance to ELDO, which would contribute to the desirability from the European point of view to the continuation of ELDO.

A. Conditions underlying cooperation -

In view of existing policies relating to INTELSAT and the non-proliferation of ballistic missile delivery capabilities contained in NSAMs 294 and 338, it is understood that in responding to requests for cooperation by ELDO, US cooperation would be subject to government-to-government agreement that:

- 
1. ELDO members would honor their INTELSAT commitments (i.e.: adherence to the single global commercial communications satellite system).
 2. Launcher vehicles, components and technology would not be used for advancement of national nuclear missile delivery capability nor be provided to non-ELDO countries.

B. Areas of US cooperation and assistance -

We are prepared to provide the following to ELDO:

1. General assistance applicable to both short and long range ELDO projects.

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a. Training - Participation by ELDO nominees in NASA seminars for technical management training in such subjects as PERT and Companion Cost System, Reliability and Quality Assurance in Specific Systems, Testing and Checkout, Systems Compatibility, Incentive Contracting.

b. Facilitating export licenses for ELDO requirements, including an extension of the ELDO export certification process (originally adopted for UDMH) to cover the procurement of other launch vehicle and ground support equipment hardware. (A device to give ELDO items priority and access beyond European national vehicle programs.)

c. Use of NASA test facilities.

d. Designation within NASA of a technical office specifically to serve in an expediting and assisting role for ELDO.

2. Short range assistance in the proposed reconfiguration of ELDO-A.

a. Recision of the February 15, 1962 cut-off date for the transfer of Atlas Technology under the original Blue Streak agreements between Rocketdyne and Rolls-Royce (engine) and General Dynamics and Hawker-Siddeley Dynamics (stage).

b. Technical advice and assistance in such areas as:

(1) Multi-stage vehicle integration.

(2) Stage separation.

(3) Range organization, lay-out, and equipment as related to the ELDO vehicle

(4) Synchronous orbit injection techniques.

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c. Procurement of unclassified flight hardware in the US including such items as the Miniature Integrating Gyro (MIG) strapped-down "guidance" (auto-pilot) package used on the Scout vehicle. This has already been exported to Japan.

3. Long range assistance in the development of follow-up ELDO projects using high-energy cryogenic upper stages (e.g. ELDO-B).

a. Access to related US experience and technology as available in the Atlas-Centaur system through technical documentation and contacts.

b. Bring ELDO technical personnel into intimate touch with problems of systems design, integration, and program management of a high-energy upper stage such as the Centaur.

c. Consideration of joint use of a high-energy upper stage developed in Europe.

4. To supplement ELDO-A launch services the US will sell launch services for scientific and applications satellites to Western European and other countries as deemed appropriate.

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