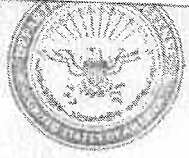


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THE DEPUTY SECRETARY OF DEFENSE
WASHINGTON, D. C. 20301

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20 FEB 1970
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Honorable Henry A. Kissinger
Assistant to the President for
National Security Affairs
Executive Office of the President
Washington, D.C. 20500

Dear Henry:

In reply to your memorandum of January 27, I have attached
hereto the background study you requested concerning
ballistic missile assistance to France.

Sincerely,

Attachments

Upon removal of attachments
this document becomes
~~CONFIDENTIAL~~

[ENC 99-12/5/11/20]

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US/French Interchange in Area of Ballistic Missiles 76

The paper is in response to a 27 January 1970 memorandum from Dr. Kissinger to the Deputy Secretary of Defense. The memorandum is attached hereto for reference.

In essence, the memorandum requested a study to answer the following question (in the area of Ballistic Missiles):

- (a) What assistance has the U.S. provided France to date?
- (b) What kind of assistance do the French want now?
- (c) What sort of assistance may they request in the future?
- (d) What legal restrictions are applicable, governing the provision of information or assistance?

Recognizing the large amount of background material already available in connection with NSSM 60, the response has been structured primarily in the form of straightforward answers to these questions.

By way of broad general background, the French seem determined to have their own ballistic missile capability, both land based and submarine based, and apparently are well on the way to achievement of their objectives. [REDACTED] report plans for a land-based IRBM force of three squadrons of nine missiles each, and a sea-based force of four, or possibly five, submarines, each carrying 16 missiles. Construction on the first group of silos is virtually complete, work on the second is well along, and the third has been started but construction work has recently stopped. The first two submarines have been launched, with expectation that the first will actually be operational in 1971 and the second in 1972. Work on the third submarine has also begun.

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Relative to the specific questions posed above, answers are as follows:

- (a) What assistance has the U.S. provided France to date?

To answer this question, reference should first be made to National Security Action Memorandum 294 (NSAM 294), issued by the White House on April 20, 1964. This document states, in part:

"Given current French policy, it continues to be in this government's interest not to contribute to or assist in the development of a French nuclear warhead capability or a French national strategic nuclear delivery capacity. This includes exchanges of information and technology between the governments, sale of equipment, joint research and development activities, and exchanges between industrial and commercial organizations, either directly or through third parties,

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which would be reasonably likely to facilitate these efforts by significantly affecting timing, quality or costs or would identify the U.S. as a major supplier or collaborator. However, this directive is not intended to restrict unduly full and useful cooperation in non-strategic programs and activities.

Therefore, the President has directed that effective controls be established immediately to assure that, to the extent feasible, the assistance referred to above is not extended either intentionally or unintentionally."

The policy quoted above has governed our actions in the matter, resulting in no official assistance to the French by this Country. It should be added that, even before NSAM 294 was promulgated, French requests for licensing arrangements with Lockheed and Boeing for the production of Polaris and Minuteman components were refused.

There is a possibility, perhaps even a probability, that some assistance has been provided through commercial sources - U.S. industrial firms - and licensing arrangements for components. It has not been possible to ascertain, within the time set allowed for this report, the degree to which this type of information flow has existed and has been of assistance. This comment is not intended to imply any deliberate abrogation of NSAM 294 or other security regulations by participating industrial concerns, and should not be so interpreted.

In addition, within the past several years, under the so-called Fowler-Debre agreement, advanced computers have been exported to France on the basis of written assurances they would be utilized only for non-military purposes. We cannot rule out the possibility that some of these computers were used in part for their weapons programs. Neither can we assess however, the extent to which such use would have advanced their development programs.

In recent months, the French have raised the question of the production in France of advanced computers of U.S. design, from components imported from the U.S., for use in the French nuclear weapons program. The U.S. has refused this request. The matter is discussed at greater length in Secretary Rogers' memo of 2 February and Deputy Secretary Packard's memo of 12 February, both to the President.

As a general comment, France, along with other countries, has had virtually free access, through commercial channels, to much of the broad, continuously advancing technological base existing in this country. For example, it was unnecessary for them to invent the transistor or develop, ab initio, integrated circuit techniques, etc. Much of this technology has peaceful as well as military application and flows in relatively unfettered - and quite legitimate - channels. And yet its existence undoubtedly has been of assistance to the French - although certainly not readily assessable in quantifiable terms.

An additional item, also of relatively intangible nature from the standpoint of assessing the extent of substantive assistance, is that associated with "courtesy" type visits of senior French military and other personnel to U.S. installations. A number of these have occurred in the past, including several to Air Force Minuteman ballistic missile sites. Although these have been limited to what was considered unclassified tours and briefings, the cumulative effect may conceivably have been beneficial. Again, no specific assessment of this possibility has been possible for this paper.

[NLN 99-12/5 p13 Q 20]

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(b) What kind of assistance do the French want now?

There is no certain knowledge of what specific assistance they may desire now. An indication of probable areas of interest can be gathered from the nature of previous queries addressed to Dr. Foster and also to the Air Force and Navy. In brief:

Dr. Foster contacts

On Dr. Foster's recent visit to France, M. Blancard mentioned privately that they were having difficulties in their missile program and would like our advice. As a follow-up, through the Washington Embassy (12 December 1969) four specific areas of interest were outlined:

1. Reliability - what they can expect to achieve component by component through development.
2. Star-tracker navigation equipment - information on technology.
3. Re-entry vehicle materials.
4. Possibility of U.S. contractor support on the development and early production of boosters.

Air Force Contacts

The French have requested information concerning the Minuteman ICBM, apparently for the purpose of solving problems on their own missiles. On two occasions, once in 1968 and again in 1969, the USAF was presented detailed lists of questions concerning the operation, installation, reliability, test and maintenance of the Minuteman system. As a matter of information, a copy of the latest set of questions is attached hereto.

Also, in making arrangements for exchange visits of U.S. Air Force and French officers to ballistic missile activities, the French indicated a desire for assistance on French components.

The requested information was not furnished.

[N&N 99-12/5 #14820]

Contacts

Although no formal list of questions has been posed to the Navy, informal working level contacts indicate that France has experienced, in the past, difficulties with submarine launching tubes, inertial platforms in submarine and missiles, accurate navigation and fire control systems. They have made requests, in one form or another, for assistance in these areas. These requests were refused on the basis of NSAM 294.

The Navy reports that, apparently because of consistent refusal, French requests over the last 2-3 years have essentially ceased.

(c) What sort of assistance may they request in the future?

No specific indicators are available upon which to base a positive judgment. Presumably, the same general areas outlined in (b) above would be appropriate candidates, as would also information on improvements we have made to our own systems - such as MIRV, for example, and other technological improvements incorporated in our Minuteman III and Poseidon. Conceivably this could extend to the area of "hardening" to nuclear effects - although this, again, is pure presumption.

It might be observed that, once a missile system is developed, there still remain the problems associated with producing it and then maintaining it in a reliable state of readiness. The nature of the questions on Minuteman indicate the French are concerned over how best to cope with such matters.

(d) What legal restrictions are applicable, governing the provision of information or assistance?

Although not a "legal" document in the strict sense of the word, NSAM 294, cited previously above, has been a major governing policy document bearing on assistance of the nature under discussion.

Apart from this, however, there are also several truly legal or statutory restrictions which apply, and these are summarized briefly below.

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BY SP8 NARA Date 12/14/07

I. ASSISTANCE TO THE FRENCH NUCLEAR WEAPONS PROGRAM:

- a. Assistance involving cooperation in atomic weapons or in matters requiring the transfer of Restricted Data atomic weapons information would be subject to the requirements of the U.S. Atomic Energy Act. Section 123d of the Act requires "an Agreement for Cooperation," based on a finding that France is participating with the U.S. pursuant to international arrangements by substantial and material contributions to the mutual defense and security. An additional finding would have to be made under Section 144c of the Act that France had made "substantial progress in the development of atomic weapons." The "Agreement for Cooperation," which is subject to congressional review, can be disapproved by a joint resolution of both Houses.
- b. The 1961 Agreement for Cooperation with France ceased to be effective because French forces were withdrawn from NATO: as a consequence of their withdrawal neither country could comply with the conditions of the agreement.
- c. As a legal matter, we would be able to conclude an Agreement for Cooperation with France as required by the Atomic Energy Act if the Joint Committee on Atomic Energy would agree that the degree of present cooperation under the North Atlantic Treaty by the French satisfies the requirements of the act as to "substantial and material contribution" to mutual defense and security.
- d. The above requirements would be applicable should we desire to provide assistance to the development and production of nuclear weapons by France, in providing assistance to the French missile or delivery vehicle program where such assistance involves the transfer of Restricted Data (e.g., assistance on re-entry vehicles). These requirements would also apply to the training of French forces [REDACTED]. It would not apply to aid related to missile boosters, or to the furnishing of computers unrelated to nuclear weapons systems.
- e. Finally, the Nuclear Test Ban Treaty precludes our assisting or encouraging French nuclear tests in prohibited environments.

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Attachments

- 1. List of questions on Minuteman
- 2. Memo dated 27 Jan 70

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List of questions on the maintenance of the MINUTEMAN

1. General Information.

- 1.1.- Maintenance trend. Does the extent of USAF intervention show an increase or a decrease?
- 1.2.- USAF relationship with the industry in regard to major overhauls and repairs. Are repairs made on the spot by specialized teams or is the defective equipment sent back to industry?
- 1.3.- Minor overhauls: detection of failures, methods and means of emergency repairs, frequency of intervention.
 - Qualification of personnel. Are the minor overhaul teams used frequently or only occasionally on the launching pad and in the firing control post?
- 1.4.- Collection and compiling of technical data. Did these data permit the evaluation of the experimental reliability of the missile subsystems. If so, is this experimental reliability much different (and how much) from the provisional reliability?
- 1.5.- "Versatile" automatic test benches. Have such benches been developed? If so, are you satisfied with their use? Is there any advantage in money saving by using "software" (adaptors) instead of modifying the main data processing system? A comparative sheet of the "versatile" automatic test benches and the specialized test benches would be appreciated.

2. Specific questions.

- 2.1.- Environment tests of missile equipment. Are such tests being performed? If so, has experience made it necessary to include in the program vibration and adverse weather tests?
- 2.2.- Standardization and frequency of standardization of the test benches?
- 2.3.- What environment conditions are required in shops (temperature, hygrometry, dust removal)?
- 2.4.- Level of USAF intervention on electronic, hydraulic, electric, mechanical, and pyrotechnic equipment, especially on missile equipment, inertial systems, computers, and rocket engines.

ATCH 1

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- 2.5.- What is the current life of a rocket engine?
- 2.6.- What are the pyrotechnic safety standards in force?
Particularly, the permissible limit of the pyrotechnic mass resistance and of the ground conductor resistance of the pyrotechnic shops?
- 2.7.- Control of flexible wiring (circuits) on ground and on board?
Type of work done on the wirings?
- 2.8.- Missile implementation: length of operations, qualification of personnel, type of materiel used, evaluation and working procedures.

3. Facilities and equipment to be visited.

Mounting plants, support equipment, silo and firing control post, inertial systems shops, test laboratories and environment missile shops.

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