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SUPREME HEADQUARTERS ALLIED POWERS EUROPE
GRAND QUARTIER GENERAL DES PUISSANCES ALLIEES EN EUROPE
PARIS, FRANCE

AG 6800 PANDP

9 December 1958

SUBJECT: General Operational Requirement for ACE IREM Weapon Systems

TO : Chairman
Standing Group
North Atlantic Treaty Organization
The Pentagon
Washington 25, D.C., U.S.A.

1. Certain intermediate range ballistic missiles of the THOR and JUPITER type are being made available to Allied Command Europe. It is now necessary to start the development of a subsequent generation of IREMs. These new weapons will strengthen the deterrent value of the Alliance and will enhance our defense posture as they come into use. In developing such weapons or weapons systems, emphasis must be placed not only on the ability to survive a surprise attack, but also on quick reaction, ease of maintenance and reliability. It is my understanding that technological developments will allow for design and production of these improved systems in the next few years, and I therefore consider it imperative that these be progressively introduced into our arsenal as soon as practicable, but not later than 1963.

2. Accordingly, enclosed are the general military operational characteristics that I consider appropriate for an advanced generation IREM for use in Allied Command Europe.

3. A copy of these general specifications has been furnished to the Assistant Secretary General for Production and Logistics for his information.



LAURIS NORSTAD
General, USAF

1 Encl
General Operational
Requirement for an
ACE IREM Weapon System

DISTRIBUTION
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FRENCH TRANSLATION FOLLOWS

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GENERAL OPERATIONAL REQUIREMENT
FOR AN

ACE INTERMEDIATE RANGE BALLISTIC MISSILE WEAPON SYSTEM

I. PURPOSE

This General Operational Requirement establishes a need for a quick reaction intermediate range ballistic missile weapon system. In this context, the weapon system includes not only the missile, but also the related handling equipment, communications, logistics and other elements necessary for the successful accomplishment of the mission.

II. OPERATIONAL MISSION

The operational mission of this weapon system is the destruction of suitable military targets whose location can be fixed within ranges up to 1500 nautical miles. In order for this weapon system to make its full contribution to the deterrent, it is essential that it have the capability to survive an attack which achieves both tactical and strategic surprise.

III. OPERATIONAL EMPLOYMENT

This weapon system will be deployed by NATO authorities, in agreement with the nations directly concerned, as determined by the requirements of dispersal, proximity to selected targets, national technological competence, approved war plans and contingencies thereto. It should be available to operational units not later than 1963. The missiles will be maintained in a constant state of readiness to provide an almost immediate launch reaction. Emphasis should be placed on reduced pre-launch vulnerability and rapid reaction.

IV. OPERATIONAL PERFORMANCE

1. Simplicity of Operation and Maintenance

Design emphasis should be directed toward the attainment of utmost simplicity in maintenance and lowest unit cost of operation consistent with operational effectiveness.

2. Range of Operation

The missile will be capable of striking selected preplanned fixed target systems at ranges up to 1500 nautical miles.

V. GENERAL CONSIDERATIONS

1. Survivability

One of the primary considerations in developing and employing this weapon system is to insure survival against an attack which achieves both strategic and tactical surprise. The question of mobility or hardening and dispersal, or a combination thereof, to insure survival

Enclosure 1 to AG 6800 PANDP, "General Operational Requirement for ACE IRBM Weapon Systems" dated 9 December 1958 (3 pages)

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should be determined as a part of the development of this weapon system. Consideration should be given to the employment of these weapons from hardened, or hardened and dispersed sites, barges, trucks, trains, coastal ships, and to any other method or combination of methods which would enhance the survivability and still insure effectiveness and economy of operations.

2. Performance

The operational performance requirements stated in this General Operational Requirement may be degraded only in the interest of considerably increased simplicity of the weapon system itself. Recommended variations should be presented to SACEUR for determination as to their acceptability.

3. Physical Dimensions

The over-all size and weight of the assembled missile should be as small as practicable without degrading performance. This missile should also be packaged in sections that provide for ease of handling during transit as well as during assembly operations.

4. Assembly and Maintenance Facilities

- a. The missile should be received at the launch site in a status requiring minimal handling to prepare for launching.
- b. Check-out facilities should be of the "Go. No Go" variety.
- c. The system must be designed for a form of maintenance which will insure the highest degree of operational availability with the minimum logistic support.

5. Readiness and Launch Reaction

One of the important characteristics of this weapon system is that it must be capable of being easily and economically maintained on a ready alert status for extended periods of time. It is required that the system be able to fire a missile in as short a time as practicable from the firing order, but in no event more than five minutes.

6. Guidance

The guidance system must be capable of existing in a power-on, standby status over extended periods without degradation of accuracy or excessive replacement of components. Sufficient flexibility is desired to permit change of targets without incurring unacceptable degradation of accuracy or launch times. Furthermore, any mobile missile must have provision for rapid change of trajectory data to accommodate changes of launch position. The weapon design should be predicated upon the use of self-contained guidance not vulnerable to ECM and its anti-missile vulnerability should be minimized.

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7. Accuracy-Yield

This weapon system should be designed to deliver a relatively small warhead, preferably one which does not exceed 600 lbs. in weight, with an accuracy of 2500 foot circular error probable, although a 1500 c.e.p. is desired. Due to the geography of the sector to be covered by this weapon system and to its operational mission, the accuracy-yield relationship must be such that we can destroy selected military targets without undue damage to contiguous areas.

8. Communications

All communications equipment necessary for control and operation of the weapon system, including cables and terminals of primary and back-up systems, should be designed and furnished as an integral part of the weapon system.

VI. PRIORITIES

In the event deviations must be made from the requirements stated above, consideration should be given to insuring the retainability of the operational factors which are listed in the following order of importance:

1. The ability of this weapon system to survive an attack and then carry out its mission.
2. The range to insure engagement of military targets up to 1500 nautical miles.
3. The accuracy-yield relationship which allows selectivity in target destruction.
4. The 5-minute reaction time; however, a reduction in this time is desirable.

VII. RELATED DEVELOPMENT

1. The relative merit of many unsophisticated, immobile, unhardened missiles, as opposed to a smaller number of missiles of the type envisaged in this General Operational Requirement, should be considered.
2. SHAPE believes there is a possibility of developing a family of weapons which utilizes components of the basic weapon system. This family might consist of various combinations of propulsion components which would carry the basic warhead and guidance system over such increments of range as 200 to 600 n.m., 600 to 1000 n.m., 1000 to 1500 n.m., or 200 to 800 n.m., 800 to 1500 n.m.