HEADQUARTERS
UNITED STATES AIR FORCES IN EUROPE
APO 633, New York, New York

18 JUL 1956

SUBJECT: (Uncl) Qualitative Operational Requirement for a Tactical Ballistic Missile

TO: Director of Requirements
Headquarters USAF
Washington 25, D. C.

1. ([redacted]) Introduction: This QOR is to establish a USAFE requirement for a Tactical Ballistic Missile to supplement both the TM-61 Subsonic Tactical Cruise Type Missile and the Low Altitude ATRAN Guided High Subsonic Cruise Type Missile during 1960-1965 time period. Forces opposing USAFE now and those which will evolve from an advancing technology dictate that availability of a TBM to USAFE be expedited to replace existing and programmed Subsonic Cruise Missiles. Consideration of a supersonic tactical missile to "fill the gap" is not recommended in the face of the military threat and time phasing of its development.

2. ([redacted]) Objective: The objective to be achieved through the use of a TBM is: Insure more complete destruction of all targets assigned to USAFE units by having available long range TBM weapons that will penetrate enemy defenses and accurately deliver larger, more effective atomic or thermonuclear warheads within a desired CEP.

3. ([redacted]) Description:

a. Nomenclature: Tactical Ballistic Missile or Medium Range Ballistic Missile.

b. Purpose:

(1) Strike the areas of origin of any enemy delivery vehicle directed against targets in the USAFE area of responsibility.

(2) Further the technical saturation of enemy defenses.

[redacted]

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(3) A priority of 1A as defined in AFR 80-11 is recommended since a TBM is a new concept of warfare.

a. Performance:

(1) Carry either an atomic or thermonuclear warhead.

(2) Have a maximum range of 1500 nautical miles.

(3) Contain yield for a CEP of 1000 feet CEP of one mile.

(4) Have a guidance system such as to combine maximum reliability with a minimum of air and ground vulnerability to permit a CEP of one nautical mile or less. The accuracy must be compatible with the yield of the warheads for which the missile is designed.

d. Design Features:

(1) Contain launching components engineered to assure an all weather launch capability.

(2) Mobility compatible with technology in order that sites may be relocated if political or enemy situations require it. The mobility feature is very desirable, but should not degrade rapid development of the TBM.

(3) Component replacement type maintenance that would permit rapid exchange of defective electronic or mechanical assembly parts in shortest possible time before launch.

(4) Solid type rocket propellents, if feasible, to reduce safety hazards in storage, handling, transportation and launching operations.

(5) Requirement for the smallest possible area per launch site to minimize the acute problem of obtaining real estate in Western Europe. This requirement is consistent with plans for wide dispersal of launch sites not to exceed 12 missiles ready for immediate movement onto launching platform during an alert stage.

[redacted]

[redacted]

[redacted] ATOMIC ENERGY ACT OF 1954

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(6) Boosters are expendable; however, if necessary, the cases should be of a frangible material that would not require clearance area for booster drops.

(7) TBM should be invulnerable to infra-red detection or other enemy defenses that might prevent it from reaching assigned target.

(8) Contain a "Fail-Safe" feature that would prevent untimely detonation of the nuclear warhead.

(9) Ability to be operated and maintained by a minimum crew and a minimum number of motor vehicles or other heavy equipment.

(10) Air transportable in aircraft of C-123 capacity or larger.

(11) Packaging for extended storage.

(12) Sufficient flexibility of operation to enable it to keep abreast of rapidly changing targets and target priorities.

e. Special Features:

(1) The TBM should have a short count-down feature and should be capable of remaining on a long state of readiness after count-down, in order that immediate "push button" firing could be accomplished at any time during an extended alert stage.

(2) In addition to the primary requirement for a TBM to deliver destruction to enemy targets, there is a joint requirement for expendable missiles that will provide realistic training for missile crews throughout all operational states including:

(a) Pre-launch preparation.

(b) Count-down.

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(c) Live firings. Training warheads may be of a dummy or conventional high explosive type, however, they should be designed to produce accurate live fire training which would assist in assuring crews that the assigned target would have been destroyed had the weapon been full scale and nuclear armed.

(d) Scoring and/or systems simulators which will guarantee combat results with sufficient realism to match systems under actual wartime circumstances.

f. Proposed Basis of Issue: TBM sites could be placed at widely dispersed strategic points throughout the USAFE area (Norway, Germany, Turkey) in order to minimize the degree of destruction generated by an enemy given the prerogative of electing the time and tactics for the origin of a war. Each site will be issued ready missiles. A large number of these areas or launch sites should be selected. No large number of missiles will be located at any one site. Prior to any sound estimate of the total number of launching sites and support sites, the degree of attainment of range and CEP objectives, as well as the redistribution of target systems to USAFE and other friendly forces will have to be determined.

g. Method of Meeting the Requirement: With changes to reflect the features described above, it is considered that COR Number 50(TA-1c-1-59) and its amendments will satisfy this requirement.

SIGNED

WILLIAM H. TUNNER
Lt General USAF
Commander in Chief

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