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ANNUAL STATEMENT OF LONG-RANGE NAVY OBJECTIVES

As Prepared by

THE DIRECTOR, LONG-RANGE OBJECTIVES GROUP (OP-93)

For Submission to

THE CHIEF OF NAVAL OPERATIONS

June 1956

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A. Purpose

1. This is the first annual statement of long-range Navy objectives to be prepared for the Chief of Naval Operations by the Director, Long-Range Objectives Group (Op-93) as directed by his charter.
2. The purpose of the statement is to develop a view of the optimum Navy of 1965-70, which, to the extent approved by the Chief of Naval Operations, may serve as a central guide for long-lead-time planning.

B. Background

1. The Long-Range Objectives Group (LROG) was established in February 1955. The group's military staff consists of a flag officer, three Navy Captains, and one Marine Colonel. These personnel reported on board for the most part late in 1955. They are assisted by the Naval Warfare Analysis Group (NAWMAG), a small unit of experienced operations analysts provided under contract with M.I.T. This unit began to function in February 1956.

2. In December 1955 an Ad Hoc Committee to Study Long-Range Shipbuilding Plans and Programs, of which VADM T. S. Combs was Senior Member, submitted to CNO a report which to a large extent covered, for the 1965-70 period, the matters which the LROG annual statement of objectives is directed to cover. The CNO directive establishing the LROG stated that the LROG would assume, on a continuing basis, the functions performed by the Ad Hoc Committee Study on a one-time basis. The Director, LROG, was the Director of Studies for the Ad Hoc Committee. The Committee's report has been approved by the CNO for planning purposes.

C. Content of this Statement

1. In view of the foregoing background, this first annual statement by the Director, LROG, is based primarily on the report of the Ad Hoc Committee, condensed, extended into areas beyond that Committee's primary interest, and modified as indicated by new information and by reexamination of some areas.
2. Projections of this nature are faced with the hazard of being over-conservative. This is due in part to the constant problem of maintaining a balance, between short-term capability against the contingency of immediate war, and long-term exploitation of new technologies, with its attendant risk of transitional periods of weakness. A courageous approach to this problem is mandatory. It will become less and less possible to pile new equipments upon

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obsolescent equipments in an attempt to avoid the risks of temporary reduced readiness. A strong attempt has been made to face and meet this problem, with respect to providing in quantity in the 1965-70 Navy those new techniques and weapons whose future superiority is now reasonably foreseeable. At the same time it is very probable that by the end of that period we shall be into at least the initial phase of a new technological era not foreseen herein. In several cases more radical approaches to future problems were considered but were temporarily discarded, or proposed only for further study, because of insufficient evidence that technology could provide the weapons within the time span; or because of uncertainty that they were operationally or logistically acceptable. Such potentials will be kept under constant review and could have profound effect on future naval forces.

3. Unilateral projections are exposed to certain basic predictive handicaps. While this statement attempts objectively to formulate an optimum long-range strategic approach in the national interest, it is obvious that unless a similar approach is in fact adopted by higher authority the force balance predicated thereon may be inappropriate. The statement has also proceeded from the premise that the best methods of implementing strategy will vary with the technological development, and has called the shots accordingly without scrupulous adherence to present service missions. This has inevitably required some assumptions, more tacit than overtly stated, regarding the prospective capabilities of other services for accomplishing national tasks. Informal exchange of weapons information with other services, and informal exploration with them of the possibility of common viewpoints on long-range approaches, might be productive means of reducing predictive errors from the above causes.

4. For the above and other reasons, the objectives herein must be considered as first approximations. They will undoubtedly be modified in many particulars, and in some instances substantially re-oriented, as studies are completed, and as technological, intelligence, and politico-economic inputs inevitably change.

5. The hazards of prognostication are recognized, but are necessary to planning. One important function of this paper will be fulfilled if it stimulates discussion of future problems, and serves as a point of departure for such discussion, leading to improvements in the objectives set forth.

6. Bearing in mind the fallibility of future projections, and the inevitability of unforeseen change, the Director, IROG, considers that these objectives may still provide sound guidance for the next year's efforts, because of the following factors:

The flexibility of many of the new equipments proposed for emphasis.

The general emphasis upon flexibility in force balance and in capabilities of individual forces and of individual ships.

An emphasis on diverse approaches to the same task.

The fact that any one year's increment, in a long-lead-time program, contributes only a small fraction to the final product, and is seldom totally unproductive even if the definition of the final product desired is then changed.

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7. In short, while the optimum Navy of 1970 may later prove markedly dissimilar in many ways to the views set forth herein, it is believed that the direction of 1956-58 efforts in accordance with these views will best promote advance toward the as-yet-unknown optimum.

8. In one area, however, a measure of caution is indicated. Research and Development programs must never concentrate so fully on developing an accepted line of advance that they fail to explore fully the potentials of alternate courses. It is considered that the great bulk of R&D and shipbuilding effort should be placed behind the objectives herein, but that as insurance, up to as much as 20 per cent of R&D funds, and 2 or 3 per cent of shipbuilding and perhaps other procurement funds, should deliberately be devoted to the exploration and prototyping of alternative approaches, i.e., to experimentation attempting to prove these objectives can be improved upon.

D. Politico-Economic Considerations

1. The objectives set forth herein are relevant to a long-term situation which may be described by the following major assumptions:

- a. That national military planning will continue to be geared to the long pull, rather than to various fixed "crisis" dates.
 - b. That no war requiring a magnitude of U.S. involvement greater than in Korea will occur.
 - c. That the percentage of Gross National Product devoted to the Navy will be no less than at present, and may be moderately greater.
 - d. The means will be found to improve the career attractiveness of the Navy, sufficiently to meet the manning requirements imposed by more complex equipments, and by higher readiness.
2. Any indication that substantial departures from the foregoing assumptions may be expected, will call for re-examination of the objectives in the light of those variations which are more probable.
3. While the objectives herein have been developed from analysis of the threat and the potentials for meeting it, their nature is not inconsistent with the potentials for gaining support for their accomplishment:
- a. The public and the Congress will support spectacular or imaginative advance in weapons and techniques.
 - b. The guided missile, adequately popularized, can potentially equal or eclipse the manned aircraft in "modernity appeal."
 - c. Measures for the direct defense of CONUS will have continuing popular appeal and Congressional support.
 - d. Other measures and concepts for reducing the threat of nuclear attack on CONUS, adequately popularized, have equal potential appeal.

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E. Summary of Principal Trends Indicated. Comprehensive objectives for the period to 1970 are developed and supported in detail in the Annexes to this statement. The main features of these objectives are summarized below.

1. The broad strategic approaches developed in the Annexes, applicable to the 1965-70 period, may be briefly summarized as follows:

a. In a future repetition of the traditional war for total military defeat of the other nation, involving unlimited commitment and risk, i.e., in a general nuclear war between the USSR and the U.S., neither side will be able to attain rational objectives. It must be the objective of rational policy to make this conclusion obvious and inescapable in advance, in order to minimize the possibility of such a war, whether initiated by deliberate act or as the result of miscalculation.

b. As a corollary, the threat to conduct such a war cannot rationally serve as a tool of national policy, except to counter an equivalent threat. Such a threat cannot, for example, be safely substituted for an ability to counter by limited means an aggression limited in objective or commitment. The wide range of limited threats which the enemy can present must be countered by forces capable of flexible response commensurate with the threat and with the degree of commitment and risk each situation warrants.

c. The increasing lethality of anti-population weapons and the decreasing possibility of defending populations against them, combined with the growing potentials for rendering the delivery systems secure from surprise destruction, provide a basis for the avoidance of unlimited war. The all-out "air battle" (i.e., in the future, the destruction of long-range delivery systems) cannot be won in time to prevent catastrophic damage, and the amassing of large specialized forces, in an attempt to win it, would result in unacceptable diversion of resources urgently needed for meeting other threats. If forces are properly selected and developed, in accordance with this concept, a firm deterrent base can be provided at a cost sufficiently low to permit the simultaneous maintenance of large forces with flexible capabilities for limited war, local or general.

d. The deterrent striking forces should emphasize dispersal, concealment, and movement, rather than numbers. The deterrent defense forces should emphasize warning, the local defense of striking bases, and the introduction of uncertainty into enemy planning, rather than aim at a tight defense of all targets against all threats. Navy forces should be developed to play significant augmenting roles in both the striking and defensive categories.

e. Our forces for limited war must retain the capability for discrimination, for precision, and for selection of weapons to minimize unwanted effects as well as to gain desired effects. Certain types of discriminating nuclear weapons use will become conventional; these uses will include air defense, attack on aggressing land forces, and probably attack on enemy combatant vessels at sea. We must nevertheless retain in our forces a freedom to choose non-nuclear means to defeat non-nuclear threats when this course will be clearly to our advantage, tactically or politically, and particularly in local war.

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Striking forces for limited war should emphasize both versatility and strategic mobility. Defensive forces for limited war should possess such versatility and mobility as are feasible, and should be balanced against the enemy's limited war capabilities. Navy carrier striking forces, amphibious forces, and naval forces designed to control the sea against air, submarine, mine and surface threats, will be required in considerable strength.

f. The greatest danger of all-out nuclear war will lie in failure or refusal of the free world to provide forces adequate to counter limited aggression successfully without resort to weapons whose physical, political and psychological effects cannot be controlled with assurance.

2. The objectives developed in the Annexes, toward which it is considered naval weapons, techniques and forces should be provided, are consistent with the foregoing approaches. While they call for the vigorous development of naval capabilities to deter and fight all-out war, they emphasize the development of means whereby offensive warfare on and from the sea can be carried aggressively to the enemy, --into his coastal waters and onto his shores-- without reliance on nuclear strikes as an offensive cure-all. If there is one wholly new emphasis in this statement, it is placed on one phase of this aggressive concept, that of making the sea areas and restricted waters around the enemy periphery untenable for enemy transit or operations, and thus confining the enemy to his shores: this to be accomplished by action primarily at sea and only secondarily against bases. This has been aptly termed a "forward naval strategy."

3. Certain of the capabilities required for this new "forward naval strategy" are clearly attainable, others are not now clearly in sight; there is one key element, considered feasible, on which we are not now working. This is a family of inconspicuous, elusive, and lethal undersea vehicles, sufficiently inexpensive that the free world can afford to make them as omnipresent in Eurasian peripheral waters as our aircraft became in the waters surrounding the Japanese empire. Aggressive development in this new area is essential to many of the objectives herein.

4. Other highlights of the objectives herein include:

a. Striking Forces: Surface-to-surface missile forces and seaplane striking role from carrier forces: the latter should be optimized for versatile, precision, conventional or low yield nuclear attack in peripheral areas. In the specialized nuclear deterrent striking forces, concealment, and dispersal in many small packages, are indicated. For the versatile carrier striking forces the accelerated introduction of modern defenses against air and submarine attack is urgently indicated.

b. Defense Forces: The Navy should effectively implement its inherent responsibility for controlling sea areas against threats to COMUS, employing flexible units of new types, and multiple barrier techniques, which can simultaneously aid in controlling sea areas against submarine and air threats to shipping. Systems for interdiction at sea of transit by enemy vessels and aircraft, where facilitated by geography and traffic density, should increasingly displace local defense and escort techniques and forces. Remaining escort forces should be built around modern, high capacity, antisubmarine and air defense systems.

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c. Amphibious Forces: Vigorous development and timely provision of seaborne support, for dispersed, highly mobile, vertical assault techniques, are indicated.

d. Air Defense: The predominant tools will be surface-launched missile systems and AEW. The former urgently require anti-missile capabilities. Provision of more missile batteries sooner is also urgent, with greater emphasis on the TALOS system for large forces and on the TERRIER system in preference to TARTAR for protecting small forces and merchant convoys. AEW requires early adaptation to operation from ships of various types. The air defense role of day fighters will rapidly disappear, that of all-weather fighters will become restricted to outer defense sectors; the latter type may merge with the AEW type as long-range air-to-air missiles develop. Air defense of major forces should emphasize depth and decentralized control. Dispersal, control of electronic emission from major ships, and the use of decoys and other ECM techniques will be essential.

e. Air Attack: Precision should be paramount for carrier aircraft; the ability to conduct low-altitude approach and delivery will be of great value for carrier aircraft and seaplanes. High-speed attack at high altitude will decline in importance. Air-launched missiles will be vital for a wide range of applications.

f. ASW: Emphasis should be placed on vehicles with maximum detection potential against submerged quiet SS, minimum vulnerability to SS attack, and procurable in maximum numbers. Helicopters and small submarines offer great promise in this respect. Ships optimized for very long range detection will be required for barrier and interdiction forces.

g. Mine Warfare: Offensively, the high-performance seaplane offers great promise. Defensively, the presently most hopeful technique is to inflict attrition on enemy mining aircraft, using shore-based air defense systems supplemented by economical types of surface-to-air missile craft.

h. Ships: To maximize numbers of effective modern ships procurable, unit costs should be minimized by:

(1) Reducing those speed requirements providing only marginal return.

(2) If feasible, providing nuclear propulsion only for cruising speeds, supplemented by low-cost, short-endurance boost power for rarely used maximum speeds.

(3) Adopting merchant hull configurations and construction standards for certain types of combatant vessels.

(4) Exploring every potential for effective use of mass-produced small vessels.

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