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DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
WASHINGTON 25, D.C.

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MEMORANDUM FOR THE CHIEF OF NAVAL OPERATIONS

Via: Vice Chief of Naval Operations

Subj: Preliminary Views on POLARIS in Relation to Recent Events

Ref: (a) LRO-57
(b) NaviWag Study 5

1. A considerable portion of the last two weeks has been spent discussing with a number of people a wide variety of ideas regarding appropriate Navy exploitation of POLARIS in connection with recent events. This memorandum presents the tentative views of this office regarding some of the many proposed courses of action, having regard to long-range aspects as well as to immediate FY 1959 program aspects. With respect to long-range considerations, this memorandum relies heavily on the basic philosophy of references (a) and (b).

2. If there is to be clarity of thought and action, it is imperative that everyone concerned make a clear mental distinction between three separate functions which POLARIS might perform. Each of these is relevant to a different time period, and involves a distinct set of operational factors differently influencing choice of vehicle. We can get into a bad jumble if we wad them together in our thinking, as some do. The three functions are:

a. The ultimate national deterrent. Here the essential requirement invulnerability. Early availability is important, but not at the sacrifice of invulnerability.

b. An interim emergency capability for all-out deterrence. Here the essential requirement is earliest availability to fill the gap between the Soviet ICBM and our own counterpart. Here some increased degree of vulnerability can be accepted to achieve an early capability. Further, this is a transitional requirement, of perhaps 5 years meximum duration, for which we could consider short-life vehicles if cheap enough.

c. An eventual tactical precision capability. Unlike the previous two functions, this has nothing to do with the national deterrent capability. Here the Navy requirement is for a degree of precision comparable with that of manned aircraft, in order that the missile may replace or complement the latter in strikes

F. Ballistic Missiles

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where discrimination is essential. The precision required under this criterion is such as will permit use of low yield atomic weapons. This is clearly not in immediate prospect in POLARIS (the TRITINO proposal appears more promising).

3. To discuss these functions in order, the ultimate deterrent function, because of the essentiality of minimum vulnerability, appears inseparable from the SSGN(FBM). Unless the Soviets seize, develop and vigorously exploit for ASW, large or key chunks of the North Atlantic and Mediterranean shorelines (improbable without provoking general war), there is no foreseeable possibility that they could defeat a skillfully handled force of SSGN's possessing missiles of 1200 or more miles range. They might become able to detect some of our subs in transit, but their chance of holding the contacts against the possible evasion techniques is not promising. For the period to 1970 no similar promise of invulerability can be foreseen in any other naval delivery system.

4. It is desirable to expedite the availability of the SSGN(FBM) capability, particularly if POLARIS is to be expedited in any event. Every effort should be made to finance the costs of expediting these programs from new defense money, or by diversion from other national deterrent programs which have lost their promise or do not promise invulnerability.

5. Provision of an interim emergency capability in surface ships should be considered in the light of the probability that if POLARIS and the SSGN are both fully expedited, only about 15 months many be gained by a surface POLARIS installation. Under a crash program, SP may be able to produce the first operational POLARIS by the first of 1960, the first SSGN(FBM) by 1961; adding shakedown time, we may say: first Fleet surface capability by Spring 1960, first Fleet submarine by Summer 1961.

6. The following proposals or concepts of a surface POLARIS capability to meet the above emergency requirement have been discussed, some to exhaustion:

a. In the CVAN. This could not reach the Fleet until after the SSGN(FBM), therefore has no relevance to the emergency problem, and will be discussed under another heading.

b. In FORRESTAL CVA's. The proposal is for stowage of 24 in what appears to be blisters aft, involving no reduction in aircraft capacity. Cost said to be about $20-$25 million each ship, but involving 9 months in yard.

c. In FY 1958-59 CG (TALOS) conversions. No detail at hand.

d. In CGN. This appears to involve only future CGN not available until 1963 or later, and is not relevant here.

e. In "Q-ships". Possibly Victory or C-3 hull, which would seek anonymity in the shipping lanes of the Mediterranean and EastLant in accordance with the "Haystack" principle, relying on this and on numbers to offset their softness. No study made, but ship capacity would appear ample and cost might be as low as $10 million each.

7. In evaluating the above approaches, it is essential to remember we are now talking only about an interim emergency capability to serve as primary agents of the national deterrent to fill a gap in national capability until superseded by better agents, i.e., for about 5 years, 1960-65. We must expect that any ships equipped with POLARIS to meet such a requirement will, for the duration, be in effect special wards of the JCS, under the watchful eye of NSC. We will not be free to deploy them and employ them in customary carrier striking force patterns, at our own free will, They will be far too precious. The fewer there are of them, the more this will be true. They will be far too precious, for example, to risk close to the beach in a limited war, as in Korea or Syria. They will be unavailable for a sortie into the Indian Ocean, too far from their deterrent targets. We will be pressed to maximize their deployment time, to give them special protection, to pull them back when tension rises, etc.

8. With the foregoing considerations in mind, let us consider the various types proposed, which are at all relevant to a possible 1960 requirement:

a. FORRESTAL CVA's. The reported 9-month conversion time would itself be prohibitive. But it is even more clear we cannot tolerate losing our flexibility in deploying our principal attack carriers for maximum cold war and limited war effect. We already have many eggs in the FORRESTAL basket. The addition of POLARIS would make it so valuable we would be unwilling to risk it. We need to disperse, not centralize our targets further.

b. TALOS CG's. Reference (a) sets 6 TALOS launchers per task force as a desirable objective. This must be considered an absolute minimum against threats of the early 1960's. Yet with all our programmed CG's through FY 1959, we will by 1961 have only 9 TALOS ships with 14 launchers, for both Fleets, or 1-3 TALOS launchers in each of the deployed Fleets. To further reduce the availability to the carrier forces of these already insufficient ships, by casting some of them in a key deterrent role, is unacceptable. Reduction of the carrier force to the role of escort for the POLARIS CG (which by itself is far from invulnerable) is equally likely in some contingencies and equally intolerable.

c. Q-Ships. This concept appears to offer promise if a numerically significant interim capability is required with minimum expenditure and minimum diversion from other Navy missions. No other concept exploits fully the principle of dispersal, and the basic principle that all-out deterrence is a specialized mission requiring a single-purpose ship. What is visualized as possible is quick build-up to a force of 15-20 ships, with 6-10 on station. Ship cost might be as low as $150-200 million, total manning 2000-3000 officers and men. However, the acceptability of the Q-ship is contingent in part upon the range achievable by the missile available. The ship must be able to launch from well-populated shipping lanes. 1500 miles is clearly acceptable; how much less will do requires further study of targets vs. launch areas.

d. CA/CL Conversions. Worthy of consideration also is the possibility that old CA/CL in addition to our planned CG force level could be given POLARIS capability by simple substitution of POLARIS for one or two turrets. These would be deployed with CVA/CVS forces when convenient, independently when the latter are inappropriately deployed for all-out deterrence. We have many such ships, and no other conceivable use for them. The product would be vulnerable, however, since the nature of the ship cannot be camouflaged readily. It would also be expensive to man, although manning could be held down by securing the bulk of the gun batteries. The suggestion is offered only against the contingency that a "combatant" hull is deemed mandatory.

9. Thus far the emergency deterrent system has been discussed solely from the standpoint of POLARIS. It is not certain that POLARIS, whatever the political magic of the word "ballistic", is necessarily the best weapon for the purpose. There is a possibility that an accelerated REGULUS II program, if an already-developed low altitude ATRAN map-matching guidance system can be incorporated, could by 1959-60 achieve low-altitude penetration at ranges of 1200 or more miles, with a delivery accuracy on the order of 2000 yards or better. Such a system would require no exotic navigation equipment in the launching ship. It may be added reason for avoiding premature commitment to POLARIS in surface ships.

10. Let us now turn from the emergency interim deterrent problem to the separate problem of the tactical surface-to-surface missile. There can be no disagreement that whenever we can get a missile which can do better the job of a manned aircraft, we must put it in the appropriate ships. The question is which missile this is, and when. We would be foolish to jump to a POLARIS which may never achieve better than "100 kiloton accuracy" by the time the aircraft possessing similar accuracy lose

their penetration capability. The argument for putting POLARIS in now as a tactical weapon sidesteps the possibility that for the next 8-10 years it will be only a weapon for general war, and thus not really a replacement for our manned aircraft, whose function in the 1960's is primarily discriminating precision delivery and collaterally to augment the all-out war capability. We may be able to do no better, but we should not foreclose the opportunity by premature commitment to POLARIS when our real needs go much further. It should be noted that REGULUS II should have a much better tactical potential much sooner than POLARIS.

11. An intensely held viewpoint has been pressed from several quarters that POLARIS should be added to the CVAN to assure its approval. It is contended that this is necessary to give the CVAN an obvious complete flexibility ranging from TNT to all-out war. I am of the opinion this proposal is fraught with danger, not only to the CVAN but to naval aviation and the Navy. If we let our commitment to one ship obscure our view of these larger interests, we are in a bad way. The reasons for this opinion are:

a. We have been holding forth carrier aviation all along as having a collateral augmenting capability for all-out war. Our carrier building program is based on aviation requirements to provide capabilities from which this one is inseparable. If we now undercut the aviation capabilities by including POLARIS. why should we be given a new carrier when a far smaller and cheaper POLARIS ship will presumably do the job?

b. We add support to the contagious belief that the missile is rapidly and generally replacing the manned aircraft. This is true only in the all-out high-yield delivery function - which is not the real function of the carrier force.

c. There is no present justification for POLARIS in the CVAN. The CVAN does not qualify as the invulnerable ultimate deterrent. It will not arrive soon enough or in numbers enough to provide a significant interim emergency capability. As pointed out above, commitment to POLARIS as a precision tactical missile is premature.

12. In conclusion, pending further study, the following interim recommendations are submitted:

a. The the POLARIS/FBM submarine programs be expedited.

b. That the CVA and CG (TALOS) not be considered further as vehicles for POLARIS in the interim emergency role.

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c. That installations of POLARIS on CVA and CG types in a tactical role be deferred until full study can be made of the precision requirements of the role, and of the comparative potentials of various systems, including REGULUS II and TRITINO, for this role.

d. That justification for the CVAN be based primarily on the future national requirement for limited war capability, which for the foreseeable future will require manned aircraft.

/s/ ROY L. JOHNSON

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