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DEPARTMENT OF STATE POLICY PLANNING COUNCIL

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S/P-65-82-1

May 4, 1965

To:

S/P - Mr. Rostow

From:

S/P - RAdm. Richard G. Colber

W. E. Gathrigh

The ChiCom "G" Class (Missile-Launching) Submarine Subject:

The attached paper concerning the ChiCom "G" class submarine was submitted informally by the Navy at S/P's request. The paper, which takes the measure of the potential threat and notes our capabilities for countering it, served as the basis of a recent briefing presented to interested officers of S/P and G/PM. The principal points, as amplified during the briefing, are summarized below, and preliminary thoughts concerning possible further action are presented.

The ChiCom "G" Class Submarine

Hard intelligence is quite limited, and present conclusions about the submarine are almost entirely based on its external resemblance to submarines of the comparable Soviet class. The Soviet "G" class submarine carries three 350-nautical mile ballistic missiles and has a cruising radius of 4850 nautical miles (with one day on station). Assuming that the ChiCom submarine would have similar performance characteristics, its possible radius of action would extend as far as Hawaii. On what would amount to a one-way mission in the absence of refuelling arrangements, the submarine could conceivably reach the West Coast of the U.S. However, Navy spokesmen point out that such a mission would demand a quality of seamanship the Communist Chinese have not yet demonstrated.

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The submarine is clearly not operational at the present time. It is not known, for example, whether a propulsion system has actually been installed. Nothing specific is known concerning possible ChiCom efforts to acquire a compatible missile. It would, of course, be necessary to mate a warhead to the missile. Taking these several considerations into account, the Navy believes that a complete weapons system is not likely to materialize before 1967-68 at the earliest. That time-period corresponds to present estimates of ChiCom ability to acquire MRBM's.

No additional ChiCom submarines of this class have been sighted, and it is estimated that several years would be required before one or more similar submarines could be constructed.

U.S. Capabilities

In view of uncertainty as to the submarine's propulsion system, the Navy does not yet know whether the submarine will have an identifying acoustic "fingerprint" or "signature." If not, the only positive way of identifying the submarine as ChiCom rather than Soviet would be to trail it from the time it left port. It is entirely possible, however, that it could leave port undetected.

The Navy does, of course, maintain substantial antisubmarine warfare capabilities in the Pacific. The submarine's transit time to firing position off Hawaii and off the West Coast would be around 27 days and 38 days, respectively. The Navy believes we would have a reasonable chance of detecting the submarine during such periods of transit, but it does not underestimate the difficulty of the task, and cannot guarantee success.

If detected, there would be no difficulty in mounting harassing tactics or in damaging or destroying the submarine. It would not be necessary to employ nuclear munitions

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for the latter purpose, and such techniques as ramming the submarine while at snorkel depth might offer means of "accidental" destruction.

Possible Further Actions

Apart from the obvious need to continue surveillance of the submarine and to seek (within the fairly stringent limits of our current capabilities) to pin down the question of whether a compatible missile is being developed, the available evidence does not suggest the need for urgent action. However, it occurs to us that further consideration might usefully be given to the following psychological and strategic aspects of the problem:

- (1) A single submarine in the hands of uncertain seamen would not represent a major military threat. However, such a "capability" might be exploited psychologically by the Communist Chinese to reinforce their image as a nation capable of advanced technical developments and to arouse concern respecting their "prospective" acquisition of a counterdeterrent to U.S. strategic power. Whether these would represent reasonable ChiCom psychological objectives and how we would go about countering them are questions that ought to be considered on a timely basis.
 - (2) From the standpoint of possible strategic implications, completion of the present submarine weapons system might not offer the earliest way for the ChiComs to acquire at least a token counterdeterrent, and the question of how they might go about acquiring such a capability ought to be studied. For example, as a short-range ballistic missile capability is developed, is it conceivable that Communist China might take a leaf from the MLF book and, say, convert a tramp steamer into a disguised missile platform? Without the space and other limitations imposed in submarine/missile systems, the acquisition of such a surface ship capability would pose fewer compatability problems and might provide something of an early capability.

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- (3) Over the longer-term, there arises the question of whether Communist China may construct additional "G" Class submarines (or a number of surface ships), whether it will seek intercontinental ballistic missiles, or whether it will aim for some combination of counterdeterrent capabilities. The sea-based systems might have some advantages since they would be viewed as reflecting substantial flexibility -- posing an implicit if not explicit threat to Communist China's neighbors and to the U.S. as well. Communist China moves in this general direction, the reliability of U.S. nuclear guarantees will be brought more clearly into question since fulfilling our commitments would involve some hazard to Hawaii and to West Coast population centers. Whereas the recognized importance of Western Europe to U.S. interests helps us in countering de Gaulle's arguments about our "unreliability," we are likely to have increasing difficulty in demonstrating the firmness of our continuing commitment to our Asian friends and Allies. This problem will need careful and continuing study. A start has been made in S/P's paper on "Nuclear Arrangements East of Suez;" however, we shall need to press this effort.
 - (4) In connection with all of the foregoing problems, there arise questions related to the special geographic vulnerability of Hawaii in relation to the future ChiCom strategic threat. Although we ourselves maintain substantial capabilities in the area, geographic considerations suggest the possible attractiveness of Hawaii to the Chinese Communists both from the standpoint of gaining an early nuclear "hostage" and, perhaps in some future extremity, as a military target which they might hope to be able to attack without the consequences entailed in attacking the mainland. In our view, the strategic position of Hawaii merits a new look.

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- (5) The question of catalytic war, raised in the Navy paper, has haunted strategic theorists for some years as a possible by-product of the further proliferation of nuclear weapons. The Navy discounts the possibility that an attack on the U.S. by a single ChiCom submarine might trigger a U.S. response against the Soviet Union. However, if we are to take the catalytic war theory seriously, we ought to take a harder look at such questions as whether the possibility might become of greater concern as ChiCom capabilities increase, whether it might conceivably be in the interest of others (including the Soviet Union) to try to play such a game vis-a-vis the U.S. and ChiComs, and what steps could be taken to minimize or eliminate the degree of confusion concerning the source of a nuclear attack that the catalytic war theory presupposes.
- (6) Finally, taking into account the rather wide range of questions stimulated by the appearance of a single ChiCom "G" Class submarine, we think it would be useful to encourage the Navy to give further thought to two possible options:

 (a) the "accidental" destruction of the submarine; and (b) the piecemeal attrition of additional ChiCom sea-based capabilities which may materialize in time. We would not wish to prejudge the question of whether such options would ever be invoked, but we would not wish the U.S. to find itself without such options should they prove to be needed.

We are prepared to concede that some of the foregoing questions are concerned with what now seem remote contingencies. However, we think it is fair to say that a lot of people within the U.S. Government are now proceeding on the basis of all sorts of assumptions. Intelligence estimates alone will not clear up these differences, and what may be needed are additional political-strategic studies such as the proposed extension of the study in which Mr. Goodby has recently been engaged.

In any event, we would welcome an opportunity to review these matters with you and the interested members of S/P_{\circ} .

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CHICOM "G" CLASS

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INTELLIGENCE

Current intelligence indicates that the CHICOMs have a submarine similar in outward appearance to the Soviet "G" Class submarine, which was designed to launch a 350 NM ballistic missile while surfaced. The CHICOM submarine is presently located at its construction site in Dairen. Today, this potential weapon system does not constitute a threat to the U.S. either as an attack (torpedo) or missile firing submarine. It is estimated that it will be 2-3 years before it could be operational (missile equipped).

One of the major problems in evaluating this potential weapon system is the lack of current hard intelligence. For example, it is not known whether the CHICOMs built this submarine from the keel up (with or without plans furnished by the Soviets) or assembled component parts supplied by the Soviets. In reconstructing the evidence, it appears that a keel for a submarine was laid in 1959 in Dairen. Present intelligence indicates that it will be several years before the CHICOMs could construct a similar submarine.

It is not known what type of missiles the CHICOMs plan to adapt to the submarine. However, it is estimated that by 1967-1968, the CHICOMs could have a low yield 2500 lb fission warhead, 40 inches in diameter. This warhead would be comparable in size to that used in the Soviet SS-N-5 ballistic missile (700 NM). See TAB A for current CHICOM submarine order of battle (00B).

OPERATIONAL CAPABILITY

For the operational characteristics of a Soviet "G" Class submarine, see TAB B. As noted therein, the maximum operational radius of a "G" Class submarine (unmodified) for one day on station is 4850 NM. In the Pacific (see TAB C) the shortest distance from Shanghai to a missile firing position (350 NM) off San Francisco is 5500 NM. With an efficient overall speed of advance of 6 kts it would take over 38 days transit time to reach this missile firing position. While the patrol capability of a "G" Class is estimated to be only 60 days, longer deployments are possible. However, the CHICOMs have not conducted out of area

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operations or operated from bases in South China. Their demonstrated proficiency in submarine operations is marginal. Also indicated in TAB C is the distance (4000 NM) to a missile firing position off Hawaii (transit time 27 / days). This transit time is well within the current capability of a Soviet "G" Class submarine.

CHICOM MOTIVES

If the CHICOMs achieve an operational capability with this submarine, the major impact would be psychological, and probably directed primarily at countries other than the United States. Before this weapon system achieves credibility, certain intelligence indicators would have to be substantiated. These include the following:

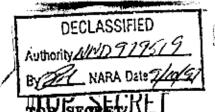
- a. Operational proficiency.
- b. Weapon system development.
- c. Marriage of the weapon system to the submarine.
- d. Developmental and operational test firings from the submarine.

In order to lend credibility to a possible CHICOM motive to initiate General War between the U.S. and the Soviet Union by using this potential weapon system to launch a ballistic missile against CONUS, it is considered that the Soviets must have first achieved a steady state deployment of missile-equipped submarines off CONUS. Current intelligence estimates that the Soviets have seven "G" Class submarines in the Pacific Fleet operating out of Petropavlovsk. By continued forward area surveillance of the Soviet Pacific Fleet submarines, a reasonable degree of assurance of the location of Soviet "G" Class submarines can be maintained. Unless the Soviets achieved a steady state deployment off CONUS, it would appear that CHICOM efforts to launch a nuclear weapon against CONUS would not achieve the desired results.

FUTURE OPERATIONS (1967-1968)

If the CHICOMs achieve an operational capability with this weapon system (intelligence indicators verified), several options are available to the U.S. These include the following:

- a. Ignore it.
- b. Maintain forward area surveillance.



- c. Increase Pacific Fleet Alert posture.
- d. Conduct close surveillance and tracking.
- e. Employ harassing tactics.
- f. Force to surface.
- g. Attack CHICOM "G" Class submarines.

These options are not presented in any order of desirability or priority. They can be implemented individually or collectively at any time during the submarine transit (see TAB D for forces specifically allocated for ASW).

The only positive method of identifying this submarine as CHICOM and not Soviet once it becomes operational is to tail/trail (by an SSN) as it leaves port. One method of accomplishing this task would be to employ an ATF (ocean going tug) to maintain port surveillance. Initial warning of the CHICOM submarine leaving port would be relayed by the ATF to an SSB who would proceed to intercept. It must be realized that if this potential weapon system deployed from port undetected, there would be virtually no way of identifying it as CHICOM or Soviet, with one exception. The one exception is the possibility that this CHICOM submarine might have an identifying acoustic signature (finger print) which would permit identification through the sound surveillance system (SOSUS) and mobile detection systems. However, information in this regard will not be known until the submarine becomes operational.

With the forces available (TAB D), there is a reasonable degree of confidence that continual surveillance of this submarine can be maintained once it becomes operational. Forward area surveillance will be required to provide the necessary operational information, and the possibility will exist that it could deploy undetected. With the forces and surveillance systems available, however, it appears that detection could be made during the submarine transit.

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TAB A

CHICOM SUBMARINE ORDER OF BATTLE

	NORTH SEA FLEET (Tsingtao)	EAST SEA FLEET (Shanghai)
SS	21	3
old SS	2	2
	23	5

TOTAL: 28

NOTE: The above OOB does not include "G" (?) Class at Dairen.

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TAB B

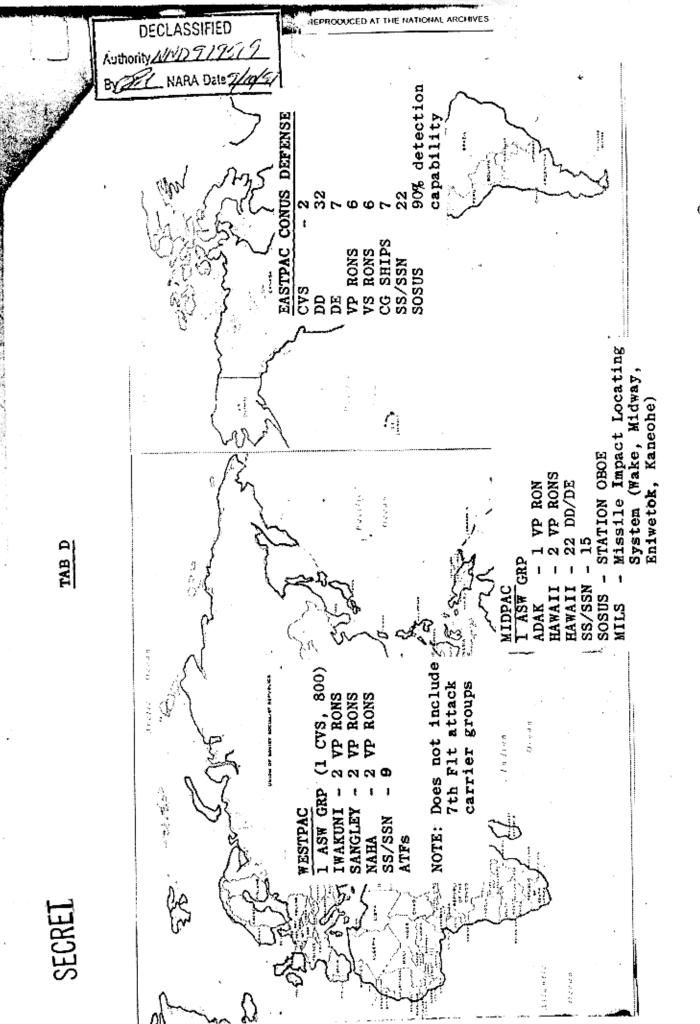
CHARACTERISTICS OF SOVIET "G" CLASS SUBMARINE

3281 LENGTH 9001 DEPTH SPEED 17.5 kts Surface (Max) 8.3 kts Surface (Cruise) 10.5 kts Snorkel (Max) 6.0 kts Snorkel (Cruise) 16 kts for 45 min Submerged (Max) 2 kts for 100 NM Submerged (Cruise) 24 TORPEDOES 3 (350 NM) MISSILES (surface-launched) 1 day @ 4850 NM Radius DAYS ON STATION

10 days @ 4700 NM Radius

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