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HR70-14

1 July 1959

PROPOSED CHALICE MISSIONS

1. The need for additional hard intelligence on the status of the Soviet missile program is critical. It is rendered the more so by Khrushchev's repeated threatening references to an already operational Soviet ICBM capability, as in his recent conversation with Harriman. Clearly an important element of Soviet strategy in the current Berlin crisis is the use of what will probably be increasingly open threats of ultimate use of military force.

2. Our intelligence is inadequate for a reliable assessment of this threat. In some ways, the new evidence that has come to hand in recent months has made us less, rather than more, certain of the current status of Soviet missile programs. There have been additional test firings the last three of which (excluding what was believed to be a space probe) were probably successful. This again raises a question as to the state of operational readiness and, if ready, the reliability of Russian weapons. There is little new evidence bearing on the location of operational ICBM or IRBM sites. We suspect but have not yet been able to confirm the location of facilities engaged in ICBM production. The sighting of a "Z" class Soviet submarine indicates that the Russians may have at least an interim submarine-launched missile capability but there is little confirmatory evidence.

3. There are no steps we can take which stand so good a chance of giving us so much additional hard information as would the two CHALICE overflights proposed some weeks ago. One of these [redacted] and would have as its principal targets the TYURA TAM range head and suspected operational ICBM sites in the URALS. The other [redacted] [redacted] would have as its principal targets the suspected operational site at POLYARNYY URAL and the Naval ship-building facilities at MOLOTOVSK. The reasons for proposing these specific missions and what we might learn from them are outlined in the following paragraphs.

4. Photography of even one operational ICBM site would probably answer the following questions:

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- a. Are the Russians at least approaching the stage of operational readiness with ICBMs?
- b. Are Russian ICBMs and their launchers mobile, requiring only a specially and cheaply prepared railroad siding, or do they require fixed launch pads?
- c. If the latter, are the sites hardened, and to what extent?
- d. Is each site a complex of dispersed launch pads or a single compact installation? For how many missiles is each site planned?
- e. Does the character of the installation reveal anything about the propellants to be used, especially whether they are liquid or solid?
- f. What type of guidance system will be employed--radio or inertial?

From answers to the above questions, it should be possible to draw vitally important inference as to the number, characteristics, and vulnerability of the Russian ICBM sites. Evidence as to the type of propellant has a bearing on lead time between decision to launch and first firing, and between successive launches from the same pad. It is also relevant for the scale and character of logistic support required to maintain an ICBM battery in operational readiness. Such answers would also advance our ability to define alert indicators for strategic warning purposes.

5. The primary targets of the two proposed missions, POLYARNYY URAL in the north and VERKHNE SALDA in the URALS, are locations at which hard intelligence indicates that construction activity has recently been in progress which is in some way connected with the Russian missile program. In addition there is a report  specifically identifying the latter location as an ICBM site. Rail lines proposed for coverage in the region of these targets are those which by virtue of security from observation,

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geographic orientation, and strength of roadbed are most suspected of supporting mobile or hardened fixed sites.

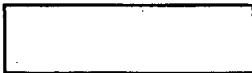
6. One of the secondary targets on the southern mission is TYURA TAM, the location of which is specifically known. Up-to-date photography would reveal the character of the second launch site under construction there 18 months ago and might give important indications of the answers to the questions in paragraph 4 preceding. Another target on this mission is SYERDLOVSK which has been identified  as a large Russian missile<sup>25X1D</sup> production facility. Confirmation of the location of the facility would be important itself and might permit some inference to be drawn as to production rates. This mission would also give enormously valuable coverage of three major nuclear production facilities.

7. The northern mission would cover, in addition to its primary target, the least known Russian Naval ship-building facility of MOLOTOVSK where it is believed nuclear submarines and/or missile-launching submarines may be under construction. It is believed that good photography of this area would contribute more evidence on the status of these activities than any other single body of information in any way accessible to us.

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MEMORANDUM FOR: GENERAL CABELL

I have already orally approved the course  
of action outlined in the attachment which  
is forwarded solely for your information.

  
RICHARD M. BISSELL, JR.

9 September 1959

                      
(DATE)

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