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WASHINGTON, D.C.

THE NRO STAFF

September 27, 1968

MEMORANDUM FOR DR. FLAX

SUBJECT: Range Ship Support for Recovery Operations

Problem.

General Martin has prepared an "H-Hour" plea for the retention of the Military Sea Transport Service ships--the Sunnyvale and Longview--to support photographic satellite reconnaissance missions.

Background.

Initial justification for the Sunnyvale and Longview Surface Recovery Units (SRU) was predicated upon the high risk, low reliability satellite programs. The ships were dedicated to surface recovery of satellite capsules. Presently, the two ships, under the operational control of the Air Force Western Test Range (AFWTR), are being employed on a "common user resource" basis and are not primarily dedicated to satellite recovery operations. The SRU availability to support satellite recovery operations is deteriorating and 10 percent of SAFSP's requested support during January-June 1968 was denied by AFWTR.

The two ships and the CH-3B helicopters which are carried aboard each ship provide the surface recovery backup that cannot be attained by the employment of shore-based helicopters. Two SRU ships are required due to combinations of the following four factors:

- a. The requirement to be able to recover a photographic payload on any day of a mission's active life.
- b. The condition wherein CORONA and GAMBIT missions are concurrent.
- c. The impossible requirement for one SRU to steam 1,200 nautical miles in one day back across the recovery area (the ground tracks

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"walk" across the recovery area each day at a rate one ship can follow until they walk out of one end and begin to retrace themselves across the recovery area).

d. The normal maintenance of the vessels.

Available ships, such as destroyers and ocean-going tugs, "borrowed" from CINCPACFLT are not considered adequate substitutes for the specially configured SRU's because they lack the embarked helicopter, telemetry equipment and re-entry vehicle recovery tackle.

General Martin attacks the premise that elimination of surface recovery support is an acceptable risk. Eight water recoveries of reconnaissance capsules have been accomplished since 1960. Quite a number of air recoveries have been marginally successful and in the next 14 months approximately half of the experienced recovery flight crews will be transferred. New recovery capsules which will enter operational use over the next few years will present different descent characteristics than the present recovery packages and will require even more expertise for successful air recovery. Thus, the requirement for surface recovery capability will actually increase.

No attempt is made to estimate the intelligence dollar value of a lost photographic capsule, but it is pointed out that their relative value is increasing due to the stretch-out of the schedule and the additional days of coverage provided by each bucket. Independent analysis by the SOC on the successful surface recovery of CORONA Mission 1042-2 indicates that the intelligence community was provided with the following information:

- a. Vital post-war photography of the UAR/Israeli conflict.
- b. Interpretable photography of 47 percent of the entire 9.6×10^6 square nautical miles of the Sino-Soviet Bloc.
- c. Readout of 381 high priority COMIREX targets.

The \$3.7 million annual cost of the two surface recovery units is analyzed in terms of photographic systems costs. Sharing this cost equally among the 22 capsules scheduled for recovery in FY 1969 shows a charge of \$168,000 for each event. If this is viewed as an insurance

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premium", it amounts to 4.8 percent of the \$3.5 million cost of a CORONA capsule and 0.76 percent of the \$22 million GAMBIT unit. The Program Director views this as inexpensive insurance against the loss of a capsule.

Recommendations.

The introduction of the unproved double-bucket GAMBIT in July 1969 and the HEXAGON in October 1970 justify:

- a. That both the Sunnyvale and Longview continue in active service.
- b. That both ships be designated as exclusively in support of projects under the management of General Martin.

Edwin F. Sweeney
EDWIN F. SWEENEY
Colonel, USAF

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IF WE DO THIS,
EVERYONE INVOLVED WILL PROPOSE THAT WE RUN THE
TWO SHIPS. WE SHOULD PROPOSE FIRST PRIORITY FOR SAFETY,
OR UNDER JP CONTROL WITH USE BY OTHERS.
AS THIS STANDS, ALTHO THE \$3.7M IS IN THE AIA FORCE
APPENDIX BUDGET, IT DOESN'T STAND A CHANCE UNLESS
YOU MAKE A STRONG CASE TO DDR+E.



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