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15 FEB 1968

AQUILINE

PROJECT AQUILINE

(Prepared for Briefing to be given by Col. White, Feb. 1968)

1. AQUILINE. A program for the development of a miniature surreptitious aircraft vehicle system which with its growth capabilities would penetrate with relative impunity thousands of miles into denied areas such as the Soviet Union, Red China, Cuba, etc., to collect critical technical intelligence, support in-place agents, or perform other such CIA missions.

The vehicle system, Viewgraph #1, can drop payloads [redacted] collect data (photographic IR scanner images, ELINT, COMINT, [redacted] and relay or carry the data back to Central Control.

2. SYSTEM ADVANTAGES.

a. It is small, flies low and slow, having small visual, acoustic, and radar observables; can outfox defenses rather than overpower them.

b. Inexpensive and unmanned; low risk and investment.

c. Inoffensive and unassuming characteristics compared to overflight aircraft and large drones, make it more politically palatable for use.

d. Close proximity of payloads to target provide unique signal collection advantages to augment those obtainable by much more sophisticated and expensive programs such as satellites and high flying aircraft.

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e. The R&D program costs include the cost of the payloads which can be emplaced or borne by other water, land and air platforms, including agents and animals.

3. PROGRAM OBJECTIVES. Viewgraph #3 provides a summary of the projected costs both from a research and development and an operational applications standpoint.

a. One vehicle system has already undergone R&D flight tests, and should by the end of fiscal year 1968 have demonstrated its operational potential. During fiscal year 1970, the operations group will test operational models of this vehicle having a flight endurance capability of [redacted] Operational tests will continue through fiscal year 1971, during which time a four-cycle engine system of higher reliability and greater range will become available. Lightweight, long-range navigations systems and associated Ground Control Stations now under development will give this system an operational range of [redacted] in 1972 and [redacted] in 1973. An improved version of this four-cycle engine will provide a system by 1974 having an operating range of [redacted].

b. It is anticipated that the first R&D flight tests of a vehicle system combining a radioisotope propulsion system will begin in fiscal year 1973. On paper this vehicle system would have an altitude capability of [redacted] and a flight endurance of 50 days or approximately [redacted] Preliminary operational flight tests on this vehicle will occur in

fiscal year 1974 and will be available for operational use the following year. It will have vast utility for over-water applications; its radiation hazards will be so low as to permit consideration of its use for over-land missions.

# AQUILINE MILESTONES

Figure 3