

~~TOP SECRET~~BYEMAN-TALENT-KEYHOLE
CONTROL SYSTEMS JOINTLY

TAGBOARD

THE JOINT CHIEFS OF STAFF
WASHINGTON, D. C. 20301

JCSM-553-69

5 September 1969

MEMORANDUM FOR THE SECRETARY OF DEFENSE

Subject: TAGBOARD Operational Missions ~~(TS)~~

1. ~~(TSB)~~ On 8 February 1969, the Joint Chiefs of Staff recommended immediate resumption of aerial reconnaissance over South China, suspended by the Secretary of State on 27 March 1968, employing the SR-71, 147 H/T, and TAGBOARD drones.

2. (TSB) The Director, National Reconnaissance Office ~~(TS)~~, stated on 13 August 1969 that the TAGBOARD System had reached a stage of development where all major test objectives were complete and recommended that approval be obtained for a limited operational mission in September 1969 over southern China or North Korea.

3. ~~(TSB)~~ The TAGBOARD drone provides a unique technical capability to satisfy national requirements to conduct imagery reconnaissance operations against targets hostile or potentially hostile to the United States. In view of the political sensitivity to overflight of certain denied areas, such as China, by manned collection systems and the technical and other limitations of the current satellite program, the TAGBOARD operational capability has been developed to collect against objectives of national interest located in areas where manned operations could provoke incidents potentially embarrassing to the United States.

4. ~~(TSB)~~ The Defense Intelligence Agency, in assessing the intelligence need and evaluating the collection capability of the TAGBOARD System, states that the preferred TAGBOARD mission, based on potential target coverage, would be over southern China. Statistical data indicate that, as of 31 July 1969, high-priority US Intelligence Board approved targets in both South China and North Korea had approximately the same 12-month coverage deficiencies, but 66 percent of the national high-priority South China targets had no coverage during the past 6 months versus 33 percent for the national high-priority North

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Korea targets. Ninety-three percent of the high-priority South China targets had no coverage during the previous 2 months versus 43 percent for the high-priority North Korea targets. Of the 114 priority objectives in South China, eight have had no baseline coverage (quality necessary to determine occupancy and type equipment) since 1966, 32 have had no baseline coverage since 1967, and 39 have had no baseline coverage since 1968. Although coverage of the above-mentioned areas has been and will continue to be programmed for satellite systems, they cannot fully respond to imagery requirements in terms of frequency and quality of photography.

5. ~~(TSB)~~ Although it is likely that existing threat radars will detect a TAGBOARD drone penetration, the communist Chinese and North Korean Air Forces surface-to-air missiles (SA-2) are not considered to pose a threat to the TAGBOARD drone. The probability of loss of the drone due to enemy action is minimum. Appendix A hereto contains a review of the system description and test and production status. Sample proposed tracks are contained in Appendices B and C hereto.

6. ~~(TSB)~~ The Joint Chiefs of Staff recommend that early approval be obtained to conduct a limited operational mission over South China which would provide high-priority imagery with sufficient resolution to determine level of occupancy, type equipment and supplies of key ground force installations, primary transportation routes, and other selected military complexes. Should a mission over South China be politically unacceptable, the Joint Chiefs of Staff recommend that an alternative mission over North Korea be approved to augment the SR-71 collection effort and to test the TAGBOARD System operational concept.

7. ~~(S)~~ A specific mission, complete with objectives, will be prepared and submitted in accordance with existing reconnaissance schedule approval procedures.

For the Joint Chiefs of Staff:



EARLE G. WHEELER
Chairman
Joint Chiefs of Staff

Attachments

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APPENDIX A

TAGBOARD BACKGROUND

Systems Description

1. ~~(TSB)~~ The TAGBOARD System is an advanced reconnaissance system designed to provide detailed photo reconnaissance coverage of hostile territories. The system is composed of the D-21 high-performance drone which is air launched from a B-52H aircraft. The system is presently located at Beale AFB, California. The worldwide capabilities of the system are made possible by the 3,000 nm range of the D-21 drone and the B-52H extended carryout with in-flight refueling.

2. ~~(TSB)~~ Following air launch from the B-52H, the D-21B is accelerated to Mach 3.3 and an altitude of 80,000 feet by a solid propellant booster rocket. The expended booster is then jettisoned, and the D-21B commences a 3,000 nm cruise over a course which is preprogrammed in the inertial guidance system at Mach 3.3 and at altitudes between 80,000 and 95,000 feet. At the end of the predetermined course, a controlled descent is made to a lower altitude where the hatch containing the camera and other high-value items is ejected. The hatch payload is then decelerated and lowered by a parachute system to an altitude where an air retrieval is executed by JC-130 aircraft. The drone destroys itself by an explosive charge after the payload hatch has been ejected.

3. ~~(TSB)~~ A 24-inch focal length, F5.6 lens camera provides the D-21 reconnaissance capability. The camera may be operated in one of two modes. The first (Mode 3) allows the camera to expose a photographic swath 16 nm wide and 3,900 nm in length. When operated in the second position (Mode 5), the camera will expose a swath 28 nm wide and 3,000 nm long. Design resolution is 2 feet at nadir. In-flight data are recorded

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Appendix A

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on the film which consist of latitude, longitude, time, oblique 1
position, and exposure number. 2

Test Status 3

4. ~~(TSB)~~ The TAGBOARD System underwent a detailed program 4
review and systems analysis in November 1968. Since that time, 5
there have been four TAGBOARD drone test flights. Three of the 6
four flights were successful, range distance (from launch to hatch 7
eject) of 3,026 nm, 3,044 nm, and 3,011 nm were flown, 8
respectively. The drones flew at nominal altitudes between 9
80,000 and 95,000 feet and speeds between 3.27 and 3.31 Mach. 10
The hatch was recovered by JC-130s in each flight, and photographs 11
were available for analysis. In the last flight, which occurred 12
on 10 July 1969, resolution was measured at 1'7" to 3'4" across 13
line of flight and 1'7" to 3'2" in line of flight (nadir) 14
from resolution targets placed in the Hawaiian Islands chain. 15
The unsuccessful test flight took place on 11 February 1969. 16
The drone's flight control system failed after 161 nm of flight 17
due to problems in the autopilot, and the drone was destroyed 18
in flight. 19

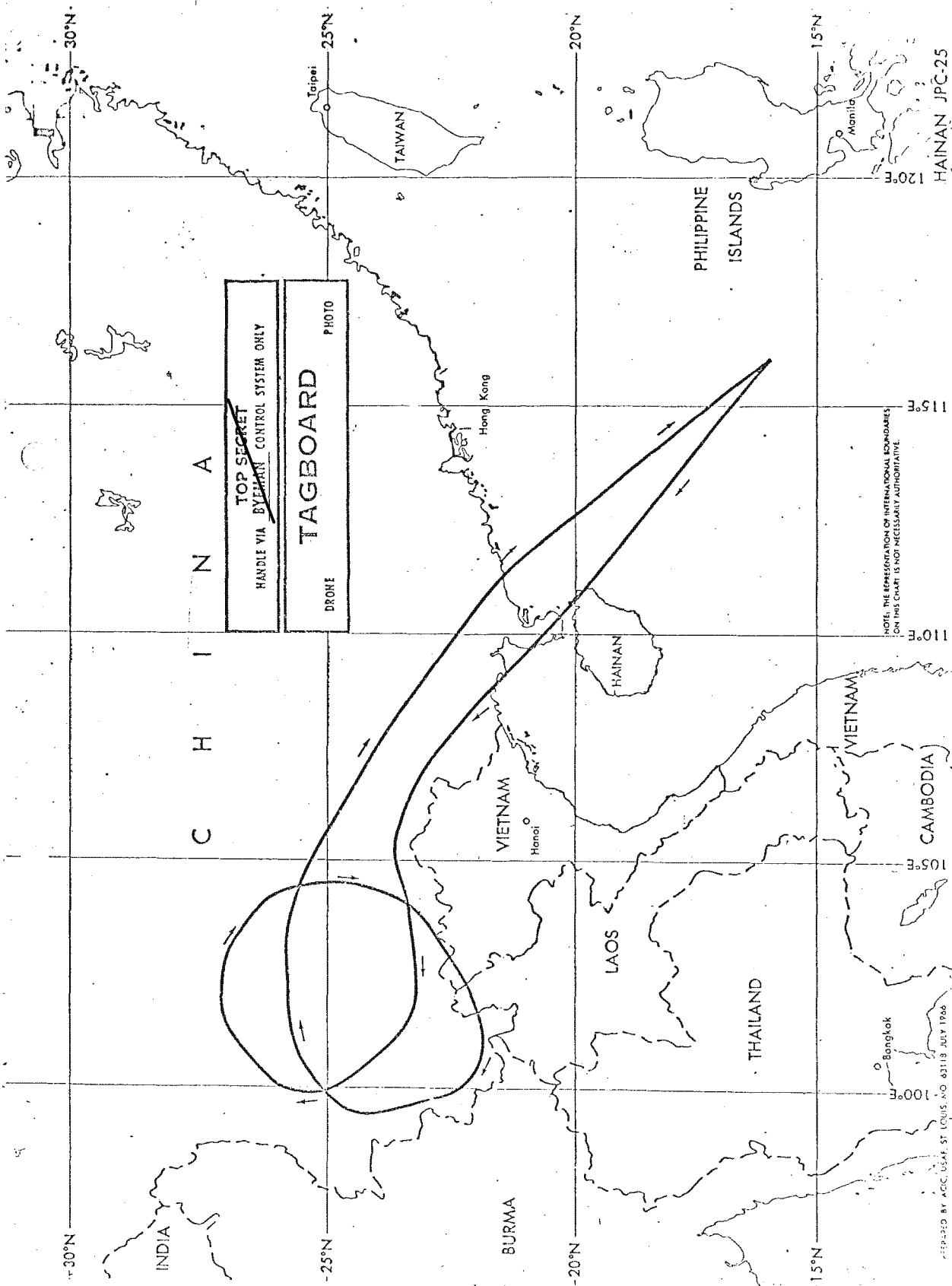
Production Status 20

5. ~~(TSB)~~ Presently, there are three fully instrumented 21
(telemetry system) drones available for flight. In addition 22
to the three fully instrumented drones, 19 other drones are avail- 23
able either in storage or the final stages of production. 24
Sufficient cameras are available for use in each of the drones. 25

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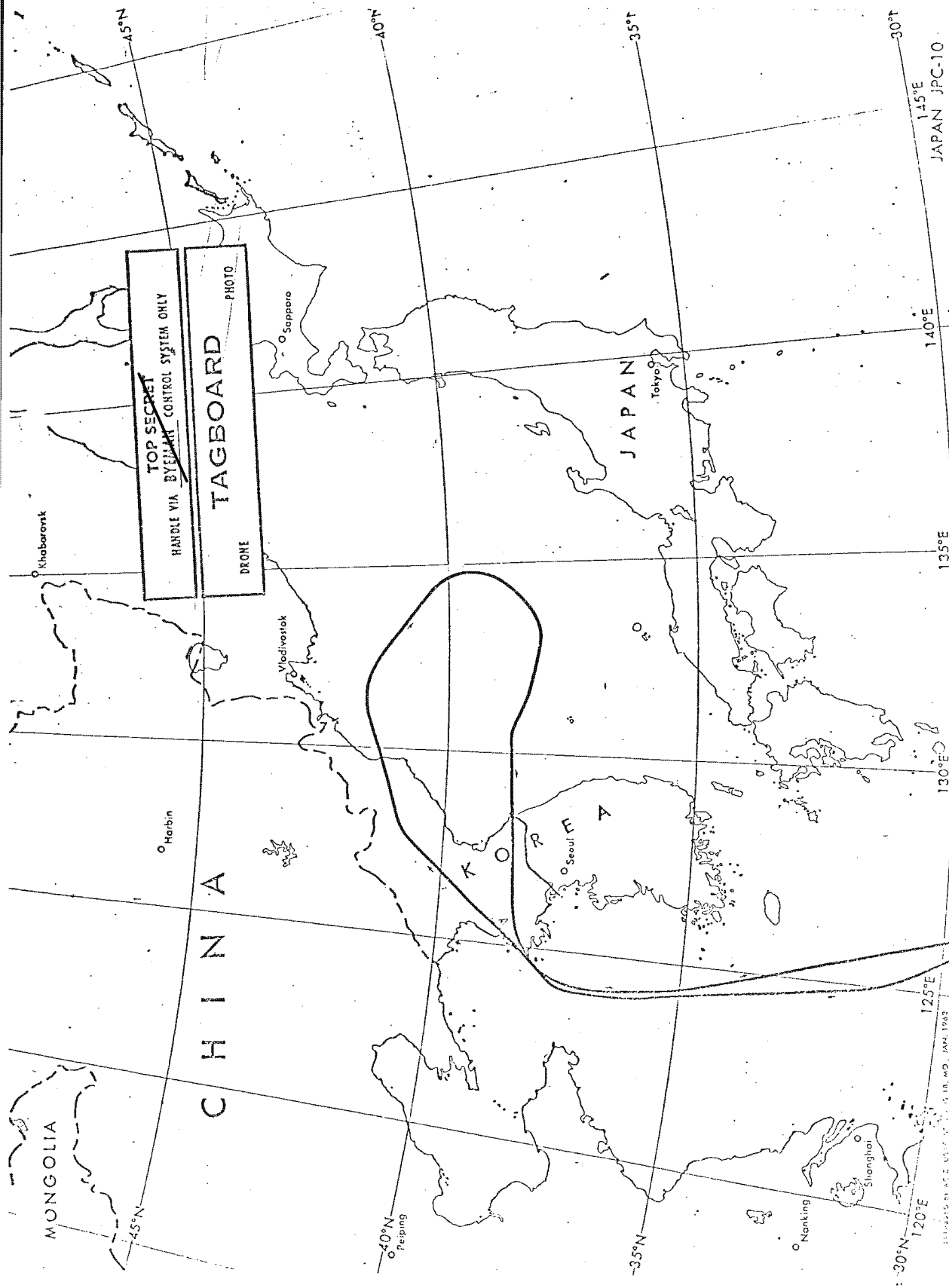
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