



February 5, 1969

## MEMORANDUM FOR THE RECORD

SUBJECT: JCS Paper, "Air Reconnaissance"

The attached JCS working paper was given to us by Major Stewart, AFXOP, who requested our comments to assist him in preparing an Air Staff position. The paper was to go to the Joint Chiefs of Staff for discussion on February 7.

This morning, General Berg had an opportunity to discuss this paper briefly with General Ralph Steakley, JRC. It appears that President Nixon desires to demonstrate to the Chinese Communists that the U.S. is deeply concerned over the Chinese interaction with North Vietnamese sources. One method of demonstrating this concern in practical form is to do some overflight of South China. Interestingly, the primary purpose of overflight would not be to acquire intelligence; rather, the primary purpose is to "show the flag" and make a psychological impression on the Chinese. General Steakley pointed out that the information he was giving us was extremely sensitive and that he had been directed -- by the Chairman of the Joint Chiefs of Staff -- to prepare a paper for the Secretary of Defense commenting on the U.S. capability to carry out such an aerial demonstration. General Steakley assured General Berg that any overflights of denied area conducted as a result of this initiative would be handled in the approved manner, i. e., as NRO-managed activities.

On the basis of these comments, we find only one serious problem in the paper. This occurs on page 5, paragraph 6, which reads:

The Joint Chiefs of Staff recommend that the immediate resumption of aerial reconnaissance over South China be approved and they be authorized to employ any one or all three systems at their discretion.

HANDLE VIA **BYEMAN**  
CONTROL SYSTEM

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I was relieved to learn from Major Stewart that at an action officers' meeting this morning the sentence had been changed, by unanimous consent, to read as follows:

The Joint Chiefs of Staff recommend the immediate resumption of aerial reconnaissance over South China, and that authority be obtained to employ any one or all three systems.

*P. E.*  
PAUL E. WORTHMAN  
Colonel, USAF

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WORKING PAPER

APPENDED DOCUMENT CONTAINS CODEWORD MATERIAL

AIR RECONNAISSANCE (U)

APPENDED DOCUMENT CONTAINS CODEWORD MATERIAL

WORKING PAPER

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ENCLOSURE	<u>1</u>
MEMORANDUM BY THE J-3	<u>2</u>
for the	<u>3</u>
JOINT CHIEFS OF STAFF	<u>4</u>
on	<u>5</u>
AIR RECONNAISSANCE OPERATIONS (U)	<u>6</u>
1. <u>Problem.</u> To provide the Secretary of Defense with	<u>7</u>
comments on the requirement for and capability to conduct	<u>8</u>
aerial reconnaissance of South China.	<u>9</u>
2. <u>Information.</u> Drone reconnaissance of South China was	<u>10</u>
initiated in August 1964 and continued until 27 March 1968	<u>11</u>
when all overhead aerial reconnaissance of China was suspended	<u>12</u>
at the request of the Secretary of State.	<u>13</u>
a. Photographic satellites have provided the only overhead	<u>14</u>
coverage of China since 27 March 1968.	<u>15</u>
b. Reconnaissance vehicles considered for overflight of	<u>16</u>
China are, the SR-71, 147 H/T and TAGBOARD drones. The	<u>17</u>
first two are operational and the TAGBOARD is in the final	<u>18</u>
phase of developmental testing. It is estimated that the	<u>19</u>
TAGBOARD will be operational during the first quarter of	<u>20</u>
FY 1970.	<u>21</u>
3. <u>Discussion.</u> Reconnoitering targets such as lines of	<u>22</u>
communication, transportation centers, airfields used by NVN	<u>23</u>
aircraft and port facilities in the area of South China that	<u>24</u>
is contiguous to Laos and North Vietnam would indicate US	<u>25</u>
concern over CHICOM involvement in the Vietnam War. In	<u>26</u>
addition the intelligence data base would be increased and/or	<u>27</u>
up dated.	<u>28</u>
a. The survivability of the SR-71 and 147 drones has	<u>29</u>
been demonstrated over NVN. SR-71 is near 100% survivable	<u>30</u>
while the 147 drone is approximately 70%. Over South	<u>31</u>

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China it is estimated that the 147 drone would approach an 80% survivability figure. 1  
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b. The TAGBOARD drone is a new vehicle that has not been employed before, however its performance characteristics are equal or superior to the SR-71. Its survivability should be near 100%. 3  
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c. Reconnoitering the area of South China contiguous to Laos and North Vietnam would indicate US concern over CHICOM involvement in the Vietnam War and in addition would provide valuable intelligence data on CHICOM military capabilities in that area. 7  
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d. Each of the vehicles considered have unique advantages that could be exploited in South China. Unless political consideration dictate otherwise all three vehicles should be used. 12  
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e. For further Discussion see Annex to the Appendix. 16

4. Recommended Actions. It is recommended that: 17

a. The memorandum in the Appendix, be forwarded to the Secretary of Defense. 18  
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b. This paper NOT be forwarded to the commanders of unified and specified commands. 20  
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c. This paper NOT be forwarded to US officers assigned to NATO activities. 22  
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d. This paper NOT be forwarded to the Chairman, US Delegation, United Nations Military Staff Committee. 24  
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5. Coordination. Time limitations precluded formal Service coordination. 26  
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Action Officers: [Redacted] 28

Joint Reconnaissance Center, J-3  
Extension 50581 29  
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APPENDIX

DRAFT

MEMORANDUM FOR THE SECRETARY OF DEFENSE

Subject: Air Reconnaissance of South China (TS)

- 1. ~~(TS/B)~~ On 27 March 1968 all overhead aerial reconnaissance of China was suspended at the request of the Secretary of State. Since that time photographic satellites have provided the only coverage of China.
- 2. ~~(TS/B)~~ Reconnoitering targets such as lines of communications, transportation centers, port facilities and airfields used by North Vietnamese aircraft, in the area of South China contiguous to Laos and North Vietnam would serve to indicate United States concern over Chinese involvement in the Vietnam War. In addition to indicating United States concern valuable intelligence on Chinese Communist military capabilities would be obtained.
- 3. ~~(TS/BT)~~ The three vehicles considered for overflight of South China are, the SR-71, 147 H/T and TAGBOARD drones. All of these vehicles operate at high altitudes. The SR-71 and 147 H/T drones are operational and the TAGBOARD is in the final phase of developmental testing. It is estimated that the TAGBOARD will be operational during the first quarter of FY 1970.
- 4. ~~(TS)~~ Each vehicle has unique advantages that could be exploited in South China, unless political considerations dictate otherwise all three vehicles should be used in any program authorized over South China.

GROUP 1  
EXCLUDED FROM AUTOMATIC  
DOWNGRADING AND DECLASSIFICATION

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5. (U) The Annex hereto contains an assessment of the  
air defense environment, performance characteristics of the  
vehicles considered and an assessment of the advantages and  
disadvantages of each.

6. (TS/B) The Joint Chiefs of Staff recommend that the  
immediate resumption of aerial reconnaissance over South China,  
*and that authority be obtained*  
be approved and they be authorized to employ any one or all three  
systems (at their discretion.)

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ANNEX

OTHER CONSIDERATIONS

INTELLIGENCE REQUIREMENTS

1. (TS) The United States Intelligence Board (USIB) approved intelligence <sup>OBJECTIVES</sup> ~~Requirement~~ for high resolution photography in South China is <sup>IN</sup> identified by reference to the DIA Imagery Reconnaissance Objectives List (IROL). This objectives list is brought up-to-date each week, [and is shown under the DOD column of the IROL.]

2. (TS) The USIB approved objectives list includes those targets which are most likely to provide evidence of increased capability of the Chinese Communist combat forces to enter the war in Southeast Asia. These targets include key airfields, naval facilities, military installations, supply depots, complexes, and other objectives which can provide indication of buildup or movement of forces toward Vietnam. Of particular interest are those objectives located along the main rail lines from Kunming to Lao Cai, and from Nanning to Dong Dang.

EXPECTED REACTIONS

3. (TS/C) Previous overflights of China have resulted in aggressive reactions by both radar monitoring and by weapons systems. Past experience with drone overflights has resulted in some drone losses. Experience with manned overflights is limited, however there have been instances in which aircraft have been shot down. The recent reports of Chinese Communist attempts to use the "zoom climb" technique in intercepting aircraft serve to reinforce the possibility that even those vehicles operating at very high altitude and at high speed will be subject to attempted intercept. In summary, it is expected that high altitude reconnaissance overflights will be observed by the Chinese and that they will probably generate SAM and fighter hostile reactions.

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4. (TS) Based on our experience over North Vietnam the threat to the SR-71 and TAGBOARD is virtually nil. It is estimated that the 147 H/T drones penetrating the Chinese defenses at 70,000 feet or above will have an 80% probability of survival.

PERFORMANCE FIGURES

	147 H/T	SR-71	TAGBOARD	
5. (TS/B)				6
SPEED	430K	1830K	1860K	8
ALTITUDE	70-72*	79-83	80-95	9
RANGE	2200	3050	3600	10
RESOLUTION	2.5' feet	2.5' feet	2 feet	11
SWATH WIDTH	20 NM	30 NM	28	12
NAV ACC	8 NM/hr.	.6 NM/hr	1.5 NM/hr	13
TURN RADIUS	10 NM	90 NM	92 NM	14
MANNED	No	Yes (2)	No	15
PROBABILITY OF SURVIVING A MISSION	80%	Near 100%	Near 100%	16
COST/SORTIE	\$86,000	\$70,000	\$2,400,000	18

\* Altitude <sup>would be 66-92M FOR FULL RANGE OF 2200 NM.</sup> is based on a mission length of 1000-1200 NM

147 H/T DRONE

6. (TS) Overflight of South China by the 147 drones would be conducted from the present operating locations in South Vietnam. The C-130 launch aircraft operating from Bein Hoa Air Base, South Vietnam would launch drones from over Laos, Gulf of Tonkin and South China Sea. The drones would be recovered in the Danang area. A typical 147 drone route is at Tab 1.

7. (TS/B) The 147 drone is the least survivable of the three vehicles considered, (80% probability of surviving a mission); however, it should be noted that drones of this type were lost over South China during the 1964-1968 operations without creating significant political/diplomatic incidents.

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8. (TS) The major advantages of the 147 drone is the unmanned feature and the flexibility of the system. Its slower speed and smaller turning radius permits operations within a confined area.

9. (S) The cost per sortie (approximately \$86,000) compares favorable with the SR-71.

SR-71

10. (TS/B) Overflight of China by the SR-71 would be conducted from the present operating location at Kadena Air Base, Okinawa. Penetrations of China would be accomplished from Laos, North Vietnam, Gulf of Tonkin and South China Sea. A typical SR-71 route is at Tab 2.

11. (TS/B) The probability of an SR-71 being lost to the present Chinese Air Defense system is minimal. However, the political implications of the two crew members falling into Chinese hands should be considered.

12. (TS) The super-sonic speed and sophistication of the SR-71 limits its flexibility. The high speed results in a 90 NM turning radius which restricts the SR-71 from operating within a confined area.

13. (TS) Based on a 100% probability of surviving a mission the SR-71 is the least costly vehicle at \$70,000 per sortie.

TAGBOARD

14. (TS/B) Overflight of South China by the TAGBOARD drone would be conducted from Beale Air Force Base, California. The B-52 launch aircraft operating on a round robin basis from Beale will launch the TAGBOARD drone well outside of all radar nets. The "package" will be recovered by JC-130 aircraft operating from Kadena Air Base, Okinawa. A typical TAGBOARD route is at Tab 3.

15. (TS/B) The probability of the TAGBOARD drone being downed by the present Chinese Air Defense system is minimal.

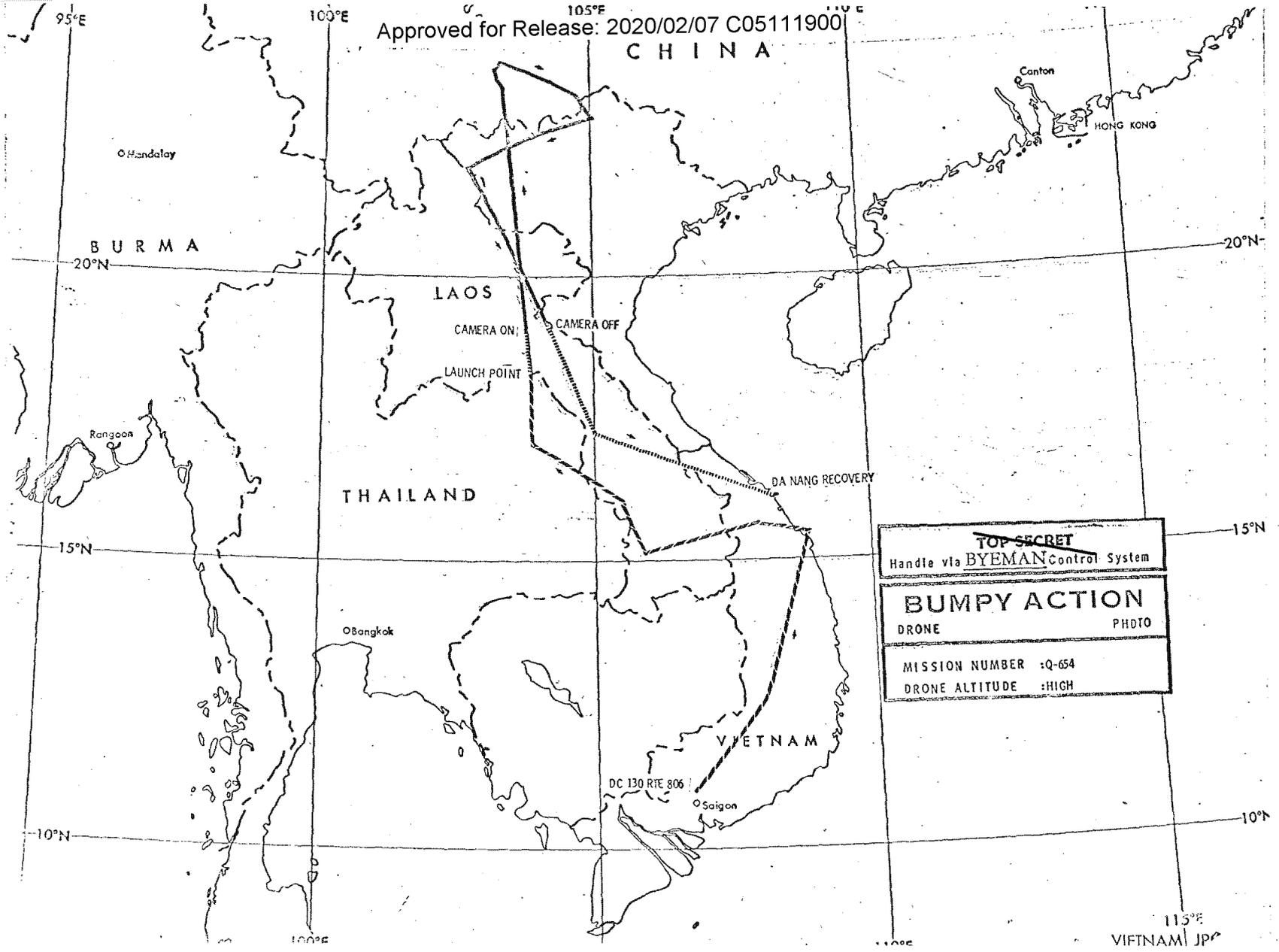
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- 16. (TS/B) The sophistication of the TAGBOARD requires launching from its home base which limits its <sup>RESPONSIVENESS,</sup> flexibility. 1
- 17. (TS/B) Based on a 100% probability of surviving a mission the TAGBOARD is the most expensive vehicle. At the termination of a mission, in a predetermined recovery area, the camera, magazine, inertial navigation system and computer, stabilization system and other high-value components are jettisoned from the drone and are recovered by JC-130 aircraft. Pyrotechnic devices installed aboard the drone are used to destroy the vehicle automatically at the completion of the mission after the sensor package has been ejected or if the drone descends through a pre-set altitude at any time during the operational portion of the mission. This feature precludes recovery of the vehicle after it is launched. 2

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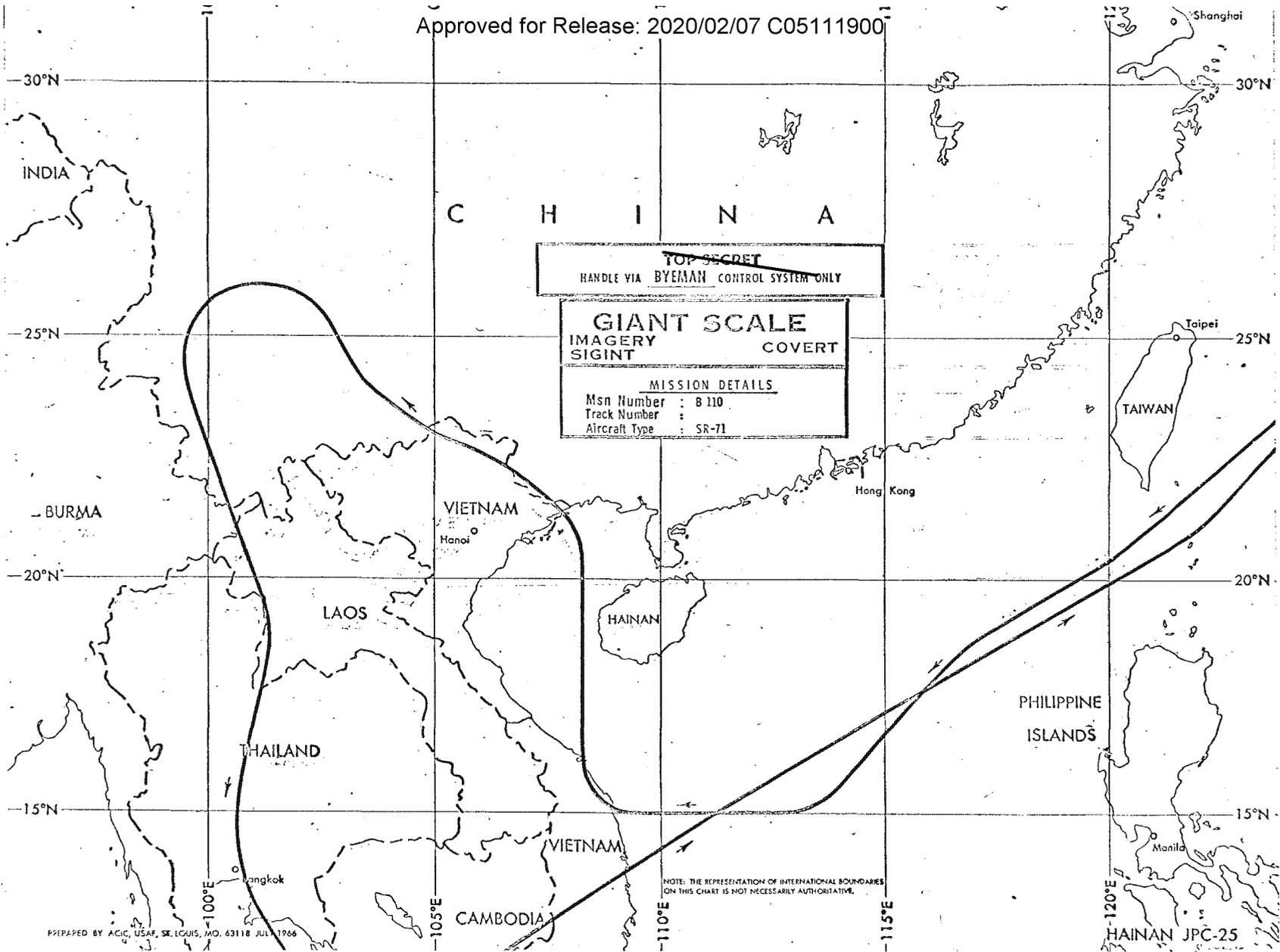


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Handle via BYEMAN Control System	
<b>BUMPY ACTION</b>	
DRONE	PHOTO
MISSION NUMBER : Q-654	
DRONE ALTITUDE : HIGH	

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Tab 1 to Annex

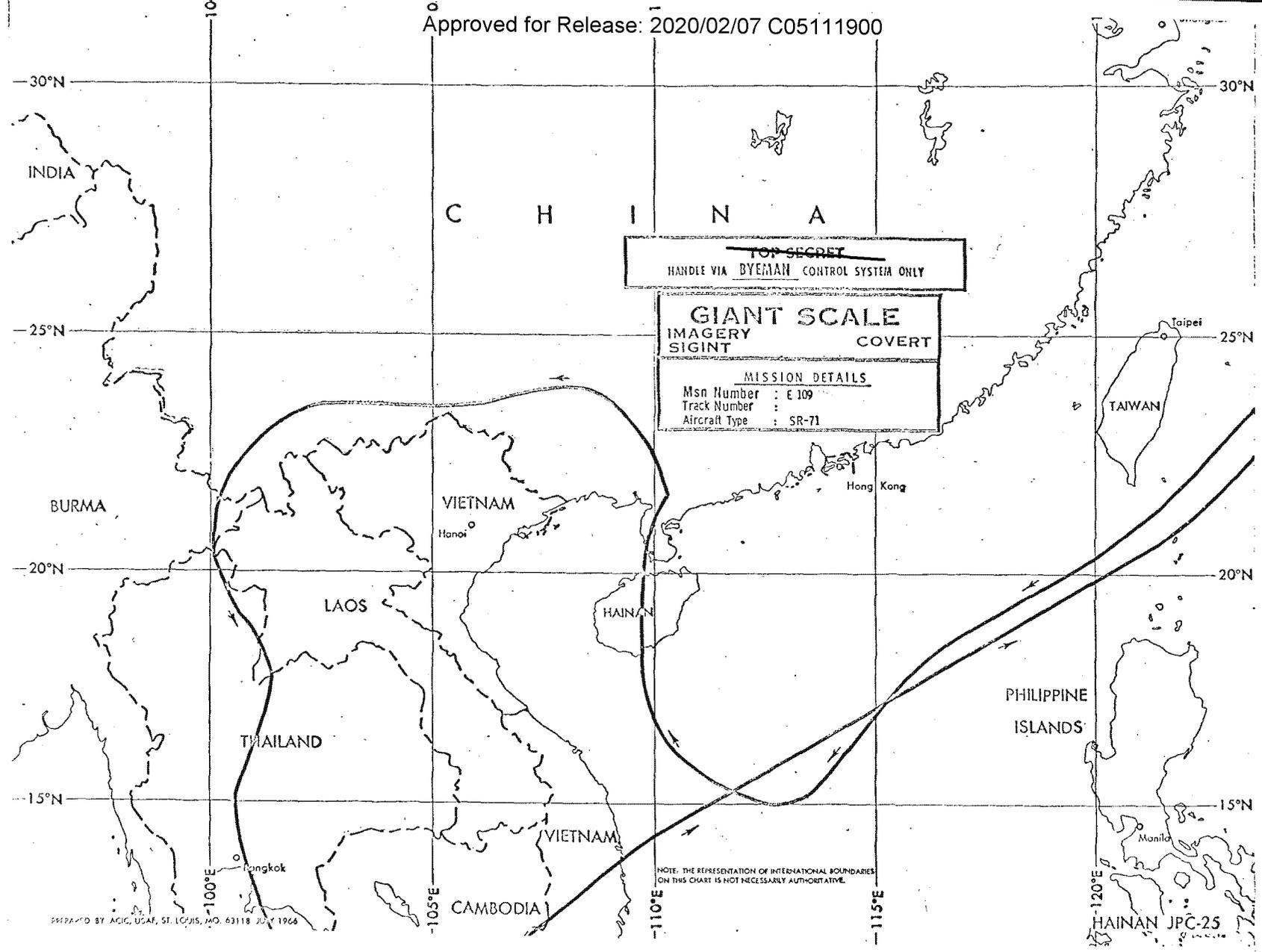
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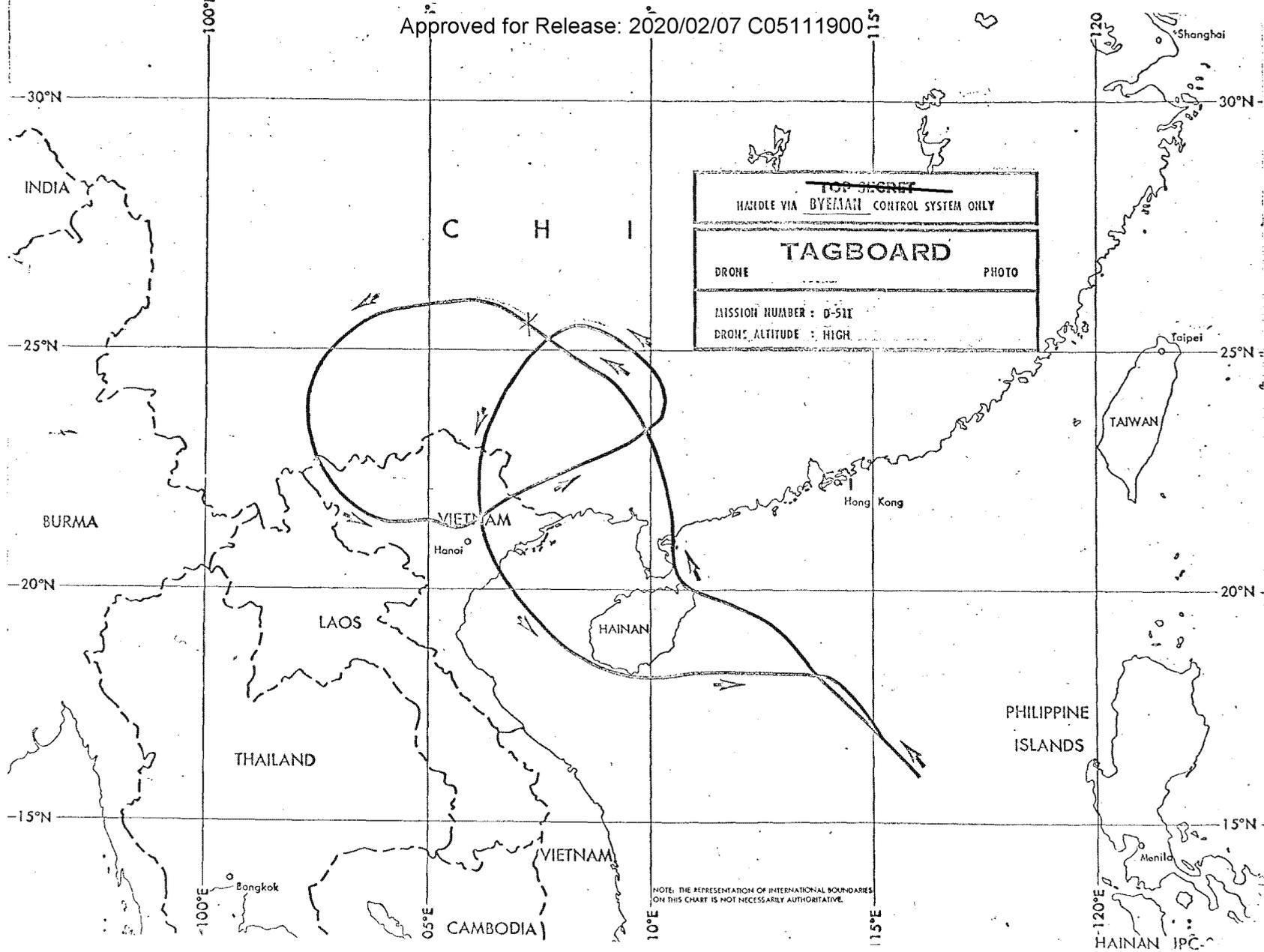
Tab 2 to Annex

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Tab 2 to Annex

~~TOP SECRET~~ HANDLE VIA BYEMAN CONTROL SYSTEMS/TAGBOARD



Tab 3 to Annex

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