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PROJECTS

Cuban Overflight Reconnaissance

NSAM 311 - CHRONOLOGY

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NSAM 311 Chronology

CUBAN OVERFLIGHT RECONNAISSANCE

1961-1962

Prior to October 1962, the Central Intelligence Agency was responsible for Cuban overflight reconnaissance. Flights were conducted by the CIA using IDEALIST (U-2) aircraft. Prior to November 62, flights by CIA were conducted on a spasmodic basis: 5 in 1960; 24 in 1961; and 21 up through October 1962. On 10 October 1962, due largely to fears that the Cuban crisis would eventually involve use of military invasion forces, and also because of growing dissatisfaction on the part of DOD over the lack of factual information on the military strength of Cuba, responsibility for Cuban overflight operations was transferred from the CIA to the DOD. DOD assigned mission responsibility to Strategic Air Command.

1962

Overflight reconnaissance of Cuba, under operational supervision of JCS, began on 14 October 1962. On this date, a SAC U-2, overflew Cuba and obtained photographs which verified estimates of missile buildup in Cuba and preceded a concentrated reconnaissance effort by high flying U-2's and low flying tactical reconnaissance aircraft of the Air Force and Navy.

23 October 1962

President Kennedy signed the Proclamation ordering interdiction of offensive weapons moving into Cuba. The next day, 24 October, a surface ship quarantine was established to block further offensive weapon shipments to Cuba.

28 October 1962

Soviet Premier Khrushchev ordered missile sites in Cuba dismantled and returned to Russia.

11 November 1962

By this date, all Soviet ships (reported by the Soviets) as those involved in withdrawal of missiles had been inspected by the U. S. Nine Soviet ships were involved in the withdrawal action - a total of 42 missiles were inspected and photographed aboard these ships.

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- November 1962 From the latter part of November 1962 until the present time, aerial reconnaissance of Cuba has continued to provide assurance against re-introduction of offensive missiles into Cuba.
- 29 June 1964 Mr. Califano of Department of Defense forwarded to State (Mr. Crimmins - Coordinator of Cuban Affairs) a memo prepared by the (S) NRO which summarized the technical and operational considerations associated with conducting Cuban reconnaissance. (See Tab No. 1)
- 10 July 1964 Mr. McGeorge Bundy signed NSAM 311, Subject: "Review of the Problem of Assurance Against any Missile Crisis in Cuba." (See Tab No. 2)
- 20 July 1964 Mr. McNamara directed full support of Department of Defense studies associated with NSAM 311. Mr. McNaughton of ASD/ISA was named to head Department of Defense contributions to problem. (Tab No. 3)
- From the latter part of July, DOD staff sections, the (S) NRO and other governmental agencies commenced serious consideration of the NSAM 311 problem.
- 23 July 1964 Mr. Krueger of the (S) NRO Staff prepared a paper which presented the capabilities and limitations of conducting long-range oblique photography of Cuba from aircraft flying around the periphery of the island. (Tab No. 4)
- 16 September 1964 A Special National Intelligence Estimate was published on "Likelihood of Re-Introduction of Soviet Offensive Missiles into Cuba," which concluded "They [the Cubans] can be fairly certain of U. S. detection methods and reactions against strategic missiles." (See Tab No. 5)
- September 1964 By early September, considerable attention was being given to evaluating alternative systems and techniques for conducting Cuban reconnaissance.

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- 18 September 1964 The AFCRL, at Colonel Worthman's request, submitted a plan for using free flight balloons over Cuba. (See Tab No. 6)
- 24 September 1964 The COMOR published a paper which estimated the number of OXCART flights required to meet Cuban reconnaissance requirements. This paper also provided a comparative analysis of (expected) OXCART versus (actual) U-2 results. (Tab No. 7)
- 28 September 1964 Mr. Alvin Friedman, Deputy Assistant Secretary of Defense, International Security Affairs, was designated by Mr. McNaughton as the Dept of Defense action officer for NSAM 311 matters. A series of discussions, conferences and briefings were held to acquaint Mr. Friedman with the capabilities and limitations of the various reconnaissance systems available for use against Cuba. Various DOD elements participated in these early discussions, including: the JCS (JRC), Defense Intelligence Agency, various offices of the Air Staff and the ~~(S)~~ NRO.
- 1 October 1964 Mr. Friedman requested the ~~(S)~~ NRO to consider the various reconnaissance assets available to the U. S. which could be used as an alternative means of conducting reconnaissance of Cuba.
- 8 October 1964 Dr. Fubini requested, early on the morning of 8 October, that the ~~(S)~~ NRO provide (by 1200 hours) a brief summary of the considerations affecting reconnaissance of Cuba with satellites. Fortunately, much of this information had already been collected for inclusion in the work being done for Mr. Friedman on this subject. As a result of this paper the ~~(S)~~ NRO was directed by the Deputy Secretary of Defense (see marginalia on original memo) to: (1) prepare to fly an 8-day evenly spaced orbit - this orbit would provide optimum flight path cover of Cuba and not degrade Sino-Soviet coverage - it was not to be optimized as regards time over Cuba since the normal launch time (to cover Sino-Soviet targets) would place the vehicle over Cuba at about 1500 hrs local - too late in the day to avoid cumulus build-up;

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- 8 October 1964
(Continued) (2) the Deputy Secretary of Defense also directed the ~~(S)~~ DNRO to evaluate establishing a launch facility at Eastern Test Range from which ~~████████████████████~~ orbits could be flown to traverse the length - rather than the width - of Cuba. (Tab No. 8)
- 8 October 1964 AFXOP-R provided a paper showing existing capabilities for conducting peripheral oblique photographs of Cuba. (Tab No. 9)
- 9 October 1964 The ~~(S)~~ NRO produced a draft booklet entitled "Planning Facts - NSAM 311." (Tab No. 10)
- 13 October 1964 The ~~(S)~~ NRO requested the National Photographic Interpretation Center (NPIC) to define the specific informational content required by a P. I. to detect and identify - with assurance - IRBM or MRBM associated targets. Definition to include photographs from satellites, aircraft, drones and balloons. (Tab No. 11)
- 15 October 1964 A revised draft of "Planning Facts - NSAM 311" was completed by the ~~(S)~~ NRO Staff for Mr. Friedman.
- 15 October 1964 A NSAM 311 "briefing kit" was provided Dr. McMillan in anticipation of his meeting with Mr. Friedman to discuss this subject. (Tab No. 12)
- 19 October 1964 General Greer was requested to study the feasibility of flying an "8-day equally spaced" orbit against Cuba and to provide a plan for establishing a KH-4 ~~██████████~~ launch capability at AMR. (Tab No. 13)
- 21 October 1964 Copies of the final edition of "Planning Facts - NSAM 311" were forwarded to Mr. Friedman together with a cover memorandum signed by Dr. McMillan. Copies were subsequently furnished State, CIA, JCS, and the Deputy Secretary of Defense.

N. B.: This document, while useful as an educational aid on types and capabilities of various reconnaissance systems which could be applied against Cuba, was sub-

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- 21 October 1964
(Continued)

sequently refined by the introduction of more accurate and precise climatological data than was available for this edition of the Planning Facts book. Particularly, it was discovered that the climatology first used (while applicable to balloons) was not adequate for other types of sensors. (Tab No. 14)
- 21 October 1964

Mr. Friedman sent to Ambassador Thompson a copy of the "Planning Facts - NSAM 311" and, drawing upon information contained in the study, proposed a revision to a draft State Department position paper (dated 12 Oct 64) on NSAM 311. (Tab 15)
- 21 October 1964

NPIC provided an evaluation of the capability of satellite reconnaissance systems (KE-4/1015) to satisfy Cuban reconnaissance requirements. This was the first such paper published which was applied to the use of satellites over Cuba. (Tab No. 16)
- 22 October 1964

COMOR addressed the problem of Cuban reconnaissance (from satellites. Summary - WH-4 not much help [redacted]) (Tab No. 17)
- 22 October 1964

Mr. Friedman requested DIA to analyze whether a reconnaissance "package" composed of a "mix" of aircraft, drones, balloons and satellites could satisfy Cuban reconnaissance requirements. (Tab No. 18)
- 22 October 1964

The first satellite photographs of Cuba, taken specifically as a result of NSAM 311 (resulting from an arrangement made by Colonel Worthman through DIA and thence to USIB), were received by 48-NRO. Photographs (mission 1011-1) were 90% degraded by clouds. (Tab No. 19)
- 26 October 1964

A draft memorandum for record, prepared by Mr. Friedman of IEA, indicated he had been informed by Mr. McCone that he (McCone) was very exercised over inclusion of OXCART data in the NSAM 311 Planning Facts study. (Tab No. 20)

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- 25 October 1964 At request of Mr. Friedman, Mr. Agnewstein of DDR&E prepared a paper on "Additional Reconnaissance Capabilities of Interest in Future Surveillance Missions." (Tab No. 21)
- 25 October 1964 A draft Department of Defense paper, Subject: "XRAM 21 Possible Courses of Action" was prepared by MA, working in conjunction with the 489-NRO Staff. This paper analyzed existing Cuban reconnaissance requirements and evaluated the capabilities of various individual sensors, or combinations of reconnaissance sensors, to reconnoiter Cuba. (Tab No. 22)
- 26 October 1964 A first attempt was made at estimating the amount (percentage) of Cuban real estate which would be cloud covered during each month of the year. (Tab No. 23)
- 26 October 1964 A paper was prepared by the 489-NRO for MA which analyzed costs and other relevant factors of an "Integrated Reconnaissance Package." This was a theoretical approach to the practical matter of substituting Cuban reconnaissance with a "mixture" of alternative reconnaissance sensors. (Tab No. 24)
- 2 November 1964 COMOR defined its estimate of what satellite reconnaissance could contribute to Cuban reconnaissance requirements. This was an extremely pessimistic paper; dealt mainly with the problems involved in satellite reconnaissance and studiously avoided a direct consideration of the problem, i.e. "If we could not use D-1's, what else do we have in the reconnaissance inventory which could be used to contribute to a solution to the problem?" (Tab No. 25)
- 9 November 1964 Primarily as a result of the foregoing reference, the 489-NRO published a more objective and realistic estimate of the capabilities of satellite systems (KH-4) to cover Cuba. (Tab No. 26)
- 4 November 1964 United States Intelligence Board considered the COMOR and 489-NRO papers (Tab 25 and 26). The Board was briefed by the 489-NRO that he considered the COMOR

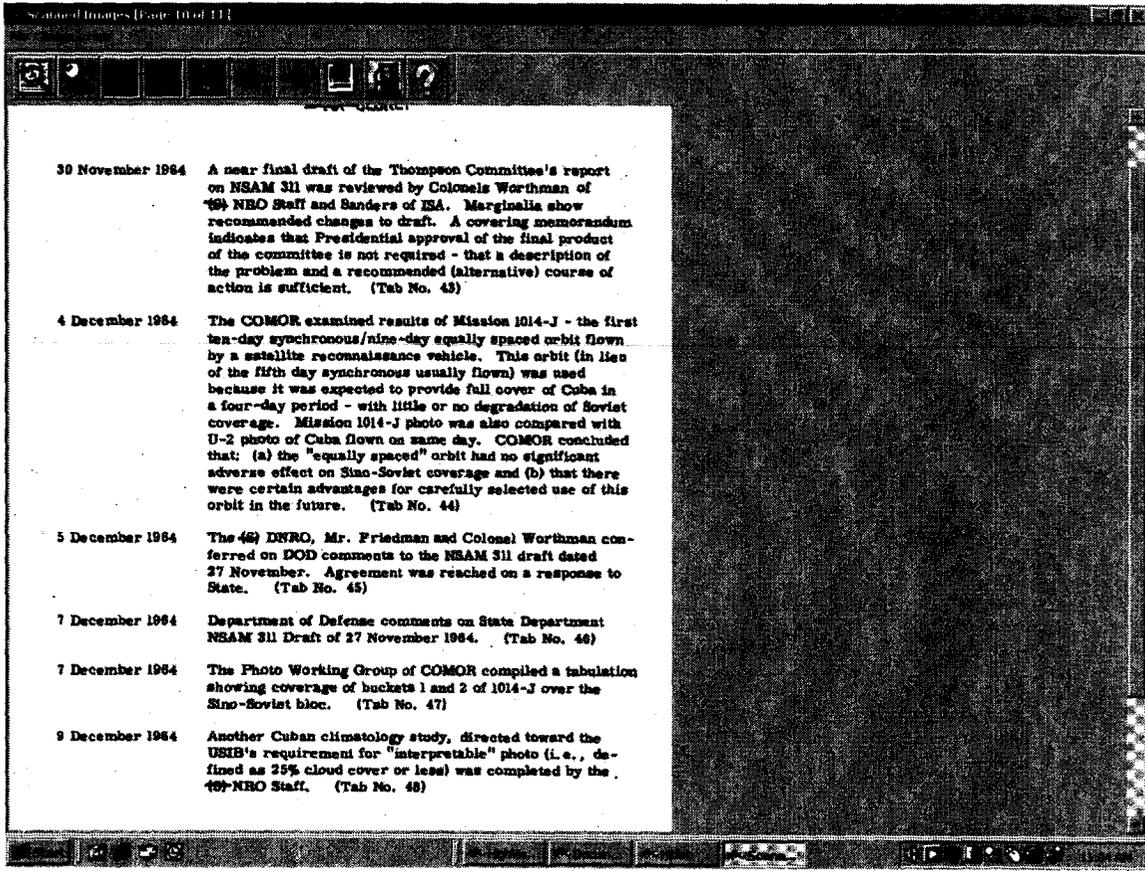
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- 4 November 1964 (Continued) appraisal to be inconsistent with actual experience. The Board then remanded the offending document (Tab 25) to COMDE for rewrite. (Tab No. 27)
- 12 November 1964 Lt Colonel Quiggins provided ISA (Mr. Friedman) with a resume of Department of Defense actions which had been initiated to date in response to NSAM 311. (Tab No. 28)
- 12 November 1964 ~~109~~ DNEO asked for an analysis of best MIG/Fighter capability known to be available to Cubans. AOB estimates showed 40 MIG-21's. (Tab No. 29)
- 18 November 1964 In preparation for a meeting of the "Thompson Committee" Messrs McNaughton and Friedman of ISA, working with Colonel Worthman, prepared two briefing papers - one considering the reasons why Cuban reconnaissance is necessary - the other directed at what we must see and how well various reconnaissance systems are adapted to the problem. (Tab No. 30)
- 18 November 1964 The Thompson Committee met to consider NSAM 311. Three primary areas discussed: (1) capabilities of satellite reconnaissance to assist in solution; (2) what can the "advanced aircraft" contribute; and (3) a "scenario" to use in dispelling concern (mostly Cuban concern) over continuation of U.S. overflight operations. (Tab No. 31)
- 18 November 1964 A final draft of the Thompson Committee response to NSAM 311 was received by Department of Defense. It was reviewed and annotated by the ~~109~~ DNEO and subsequently by Secretary of Defense. (Tab No. 32)
- 19 November 1964 A CIA input to the final draft of the NSAM 311 paper was (belatedly) received which dealt in cursory fashion with what OXCART could contribute to the Cuban reconnaissance problem. Summary: "It is possible to use," but "We are unable to make a firm estimate of its capability." This latter reference applied primarily to vulnerability of the SR-71 to Cuban air defense. (Tab No. 33)

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- 19 November 1964 The 463-NRO produced a paper showing the percentage of Cuban coverage (useful photo) versus number of flights - for various reconnaissance systems. These data were subsequently found to be erroneous in several regards, but particularly as applied to satellites, since we had considered only a one bucket, rather than dual bucket, KH-4 capability. Embarrassing - but discovered prior to distribution and corrected in a later edition. (Tab No. 34)
- 19 November 1964 463 DNRD sent to Secretary of Defense the corrected coverage tables referred to above. (Tab No. 35)
- 19 November 1964 The DCI, before the USIB, stated that the draft COMOR rewrite of the "satellite contribution paper." (Tab 27) did not deal sufficiently with the operational delays which might be encountered with satellites in a crisis management situation. (Tab No. 36)
- 19 November 1964 Handwritten notes by Mr. McNamara on coverage tables shown as Tab 35. (Tab No. 37)
- 20 November 1964 Request for Cuban climatology study. (Tab No. 38)
- 20 November 1964 Cuban Climatology Study prepared by Captain Forsythe of the 463 NRO Staff. (Tab No. 39)
- 20 November 1964 COMOR passed a message (TWX) request to members asking for review of a new statement of requirements for Cuban reconnaissance. (Tab No. 40)
- 24 November 1964 NPIC responded to request of 13 October for an Assessment of Photo Interpretation Capabilities to Detect any Re-introduction of Offensive Missiles into Cuba. (Tab No. 41)
- 27 November 1964 The USIB approved, with amendments, Cuban requirement paper prepared by COMOR. (Tab No. 42)



- 30 November 1964 A near final draft of the Thompson Committee's report on NSAM 311 was reviewed by Colonels Worthman of 407 NRO Staff and Sanders of EA. Marginalia show recommended changes to draft. A covering memorandum indicates that Presidential approval of the final product of the committee is not required - that a description of the problem and a recommended (alternative) course of action is sufficient. (Tab No. 43)
- 4 December 1964 The COMOR examined results of Mission 1014-J - the first ten-day asynchronous/nine-day equally spaced orbit flown by a satellite reconnaissance vehicle. This orbit (in lieu of the fifth day synchronous usually flown) was used because it was expected to provide full cover of Cuba in a four-day period - with little or no degradation of Soviet coverage. Mission 1014-J photo was also compared with U-2 photo of Cuba flown on same day. COMOR concluded that: (a) the "equally spaced" orbit had no significant adverse effect on Sino-Soviet coverage and (b) that there were certain advantages for carefully selected use of this orbit in the future. (Tab No. 44)
- 5 December 1964 The 467 DNRD, Mr. Friedman and Colonel Worthman conferred on DOD comments to the NSAM 311 draft dated 27 November. Agreement was reached on a response to State. (Tab No. 45)
- 7 December 1964 Department of Defense comments on State Department NSAM 311 Draft of 27 November 1964. (Tab No. 46)
- 7 December 1964 The Photo Working Group of COMOR compiled a tabulation showing coverage of buckets 1 and 2 of 1014-J over the Sino-Soviet bloc. (Tab No. 47)
- 9 December 1964 Another Cuban climatology study, directed toward the USIB's requirement for "interpretable" photo (i.e., defined as 25% cloud cover or less) was completed by the 407-NRO Staff. (Tab No. 48)

- 10 December 1964 A DOD footnote to NSAM 311 final response was prepared to express the ease with which orbital mechanics could be converted for optimization of Cuban reconnaissance. (Tab No. 49)
- 10 December 1964 The CIA challenged the DOD statement that reconnaissance drones could be flown effectively against Cuba. The DOD position, based on factual experience with drones in South East Asia and over China, was verified by a detailed examination of past experience. (Tab No. 50)
- 10 December 1964 A study indicated numbers of HPL targets in Sino-Soviet [REDACTED]
- 11 December 1964 Last minute changes to Department of Defense comments sent to State Department involved primarily use of balloons and drones as an alternative Cuban reconnaissance resource. CIA not enthusiastic about this proposal. (Tab No. 52)
- 11 December 1964 The State Department published a recommended response to the Principals concerned with NSAM 311. (Tab No. 53)
- 14 December 1964 The 48th NRO Satellite Operations Center published a post mortem report on Mission 1914-J showing intended versus actual orbital characteristics and results. This report also confirmed that there was no degradation of Sino-Soviet coverage on this mission. (Tab No. 54)
- 15 December 1964 Mr. Friedman sent to the Secretary of Defense a brochure containing (a) the final draft of the Thompson Committee report on NSAM 311; (b) a commentary on inadequacies of the paper; (c) a draft transmittal in the event Secretary of Defense should decide to have the JCS review the final NSAM 311 draft and (d) a memorandum containing minutes of the 16 November committee meeting. (Tab No. 53)
- 16 December 1964 To preclude out-of-context use of the NSAM 311 Planning Facts book, all copies (except Copy No. 1 held by Mr. Friedman of ISA) were withdrawn. (Tab No. 56)