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DDS&T Historical Paper  
No. OSA-1  
Vol. X of XVI

# DIRECTORATE OF SCIENCE & TECHNOLOGY HISTORY

(TITLE OF PAPER)  
History of the Office of Special Activities  
Chapters XV and XVI  
  
(PERIOD)  
From Inception to 1969

## DO NOT DESTROY

DECLASSIFIED UNDER AUTHORITY OF THE  
INTERAGENCY SECURITY CLASSIFICATION APPEALS PANEL,  
E.O. 13526, SECTION 5.3(b)(3)

ISCAP APPEAL NO. 2002-0049, document no. 10  
DECLASSIFICATION DATE: May 24, 2016

Controlled by : DDS&T

Date prepared : 1 April 1969

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CHAPTER XV. DETACHMENT C

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Detachment C - Officer Cadre

First Tour:

Col. Stanley W. Beerli, Commanding Officer, July 1956-October 1957  
[redacted] Acting Executive Officer, March-June 1957  
[redacted] Executive Officer, November 1957-November 1959

Lt. Col. Carl F. Funk, Director of Materiel and Deputy Commander  
Operations Staff:

- Lt. Col. Robert T. Larkin
- Maj. Raymond N. Sterling
- Maj. Richard D. Christensen
- Maj. William L. Dotson
- Maj. Leonard Crose
- Maj. John T. Clancy
- Capt. Joseph L. Giraud, Jr.
- Capt. Marion G. Vohland
- Capt. Hal H. Dunning
- Capt. Alva N. Hicks, Jr.
- Capt. Russell E. Johnson
- Maj. James T. Deuel, Medical Officer
- [redacted] Administrative Officer
- [redacted] Finance Officer
- [redacted] Senior Security Officer

Second Tour:

Col. Marion C. Mixson, Commanding Officer, November 1957-July 1960  
[redacted] Executive Officer, December 1959-July 1960

Operations Staff:

- Lt. Col. Raymond Burroughs
- Maj. Chester Bohart
- Maj. Thomas Pagano
- Maj. John T. Clancy
- Capt. Alva N. Hicks, Jr.
- Capt. Hal H. Dunning
- Capt. John Yates
- Capt. Roger Tremblay
- [redacted] Finance Officer
- [redacted] Senior Security Officer
- [redacted] Senior Communications Officer

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Detachment C - Contract Pilots

First Tour:

Barry H. Baker

James A. Barnes

Thomas L. Crull

Robert J. Ericson

Arthur W. Gorman (Released due to [redacted])

during training period, 13 December 1956)

Russell W. Kemp, Jr. [redacted]

returned to the Air Force)

Albert J. Rand

Walter L. Rudd

John C. Shinn

Frank L. Strickland ([redacted])

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of the Central Intelligence Agency  
FOIA 5 USC §552(b)(6)

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under statutory authority  
of the Central Intelligence Agency  
FOIA 5 USC §552(b)(6)

Second Tour:

Thomas C. Birkhead (Transferred from Detachment B)

Thomas L. Crull

Buster E. Edens (Transferred from Detachment B)

Edwin K. Jones (Transferred from Detachment B)

William H. McMurray (Transferred from Detachment B)

Walter L. Rudd

Sammy V. C. Snider (Transferred from Detachment B)

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## CHAPTER XV. DETACHMENT C

Activation and Training

When the third field detachment, Weather Reconnaissance Squadron, Provisional (III), was organized, the urgency attendant on the deployment of the first two units had abated somewhat due to the political stand-down of missions against the primary target subsequent to July 1956. The Commanding Officer of WRSP(III), Col. Stanley W. Beerli, was assigned to Project Headquarters early in July 1956 for a period of indoctrination and coordination with Headquarters Staff on the selection of his personnel. He also had the experience of monitoring the combat readiness tests of Detachment B at the end of July.

The first group of three contract pilots (along with one replacement for Detachment B) reported to Watertown for training on 4 August 1956 and the second group of four on 20 August. On 30 August a training accident occurred. The pilot was not seriously injured and while the aircraft was reparable, the number of aircraft available for training and testing was decreased. The very next day, 31 August, the Detachment B replacement pilot, Frank Grace, was killed in a night training accident, and another aircraft demolished.

It was decided to continue the training of the seven available pilots through operational readiness tests, borrowing the first USAF U-2's

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off the line, and to train and test the final group of four pilots separately. At that time it was still anticipated that Detachment C would deploy early in November 1956. The successful USCM of the first seven pilots was held 24-26 October 1956. Camera reliability was poor during the test and Col. Beerli requested a continuing test program during which his pilots could increase proficiency while running tests to improve camera reliability. Meanwhile the deployment date had slipped from November to about 15 January 1957 due to USAF turn-down on the use of Yokota. The Detachment's most pressing problem then was to maintain its franchise for living and working space at Watertown in the face of the encroaching SAC follow-on group, while higher headquarters in Washington battled for base rights in Japan.

#### Base Selection

The first efforts toward obtaining an operating base for Detachment C in the Far East were made in May 1956 when Col. Gibbs instructed Lt. Col. William Wilson to visit the Pentagon for the purpose of getting a list of available bases suitable for U-2 operations, and learning of any projected overflight programs by Far East Air Force (FEAF) which might work against simultaneous operations from those bases. [REDACTED]

[REDACTED] Air Officer, Col. C. D. Wright, on 15 June, was briefed on

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AQUATONE while on a visit to Headquarters and was instructed to seek the support of Gen. Laurence Kuter, Commanding General FEAF, and his Director of Operations, Gen. Hunter Harris, in obtaining an operating base, preferably in Japan, with first choice Yokota.

On 20 June 1956 Project Headquarters learned that a SAC team was visiting FEAF to request the use of Yokota for BLACK KNIGHT (an over-flight program using a converted RB-57 capable of 61,000 to 64,000 feet maximum altitude and 3,200 nautical miles range). A Project Headquarters team left for the Far East on 25 July to inspect available bases. The result was to narrow the choice to three, with Yokota still number one in all respects, including the cost to ready facilities in the minimum of time.

At a briefing on 13 August 1956, Admiral Radford, then Chairman of the Joint Chiefs of Staff, expressed opposition to the U-2 project's use of Yokota due to political ramifications and lack of security. He suggested Shemya (Northern Honshu) or a base in Korea. Col. Gibbs gave him the project staff's reasons for desiring Yokota in preference to any other available bases, but nothing came of this meeting in the way of support for obtaining the desired base rights. In September 1956 a BLACK KNIGHT detachment was deployed to Yokota.

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Squeeze Between SAC's U-2 and BLACK KNIGHT Programs

The SAC U-2 follow-on group (FOG) was pressing hard to move its training group to Watertown, where the Air Force had agreed, in the interest of protecting the security of AQUATONE, to hold their training program. Col. William Proctor, Commanding Officer of the SAC group, was authorized to move 21 FOG personnel to the base during September 1956 to prepare for the reception of SAC's U-2 aircraft and the training of his pilots. As the month progressed, more and more SAC personnel were flying in and out of Watertown Strip, some without prior Headquarters approval, and it became obvious that if Detachment C were delayed in deploying, SAC would have to delay phasing in its U-2 group to the training site.

The effort to keep the project going as a jointly sponsored and jointly supported endeavor ran into heavy weather during the fall and early winter with AQUATONE's U-2 aircraft being withheld from overflights while SAC was pushing its own bid for overflights with the RB-57D. Mr. Bissell was placed in the anomalous position of doing battle with the very Air Force Generals whose support was most needed by the project, while at the same time having as his own immediate superior an Air Force General.

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A meeting was scheduled for the first week of October 1956 between CIA and General Twining and Admiral Radford at which it was hoped to reach agreed recommendations for a joint presentation to the President on future project operations. Prior to the meeting, Mr. Bissell addressed the following memorandum to General Cabell, Acting Director in the absence of Mr. Dulles who was on a world tour of Agency installations:

"The following is my intellectual Last Will and Testament prior to our meeting with Radford and Twining. I am afraid my views differ at certain points from yours and I hope that you will excuse their rather blunt statements herewith:

"1. I profoundly hope it can be agreed that guidance will be sought tomorrow not only on access to the main target area but on overflights of China and the Satellites and on the chances for access to the main target next spring, so that we may chart our course intelligently.

"2. In the same vein, I hope guidance will be sought with respect not only to our activity but to those of the Air Force as well. If the Air Force is cleared to operate over second priority areas, I would hope that the same clearance would extend to us, whether you eventually decide to use it or not. In particular, I would urge that you use your influence as far as you feel able at this preparatory meeting to elicit an objective recommendation with respect to the Far East. This will not be easy because General Everest can be depended upon to oppose our entry into that theater while simultaneously supporting operations there by SAC with a lesser capability. More important considerations aside, I question whether anyone can maintain the morale of our people and their sense of urgency if it becomes known that politics of this sort enforce idleness upon us while others with less effective equipment are free to operate. I confess my own disillusionment would in this event be complete.

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"3. The crucial question is whether the joint recommendation to the President should be in favor of or opposed to operations (logically with the best available equipment) against second priority target areas during the next six months, assuming access to the top priority target area is denied. On this you know my opinion. I believe we should ask the political authorities (a) whether there is really a good chance of operations against the primary target next spring, and (b) whether a Chinese or Satellite protest in the meanwhile would gravely prejudice this chance. If the answers to both questions are affirmative, clearly we should stand down as should the Air Force. Unless both answers are affirmative I would at least try for permission to get some return on our investment. As things stand at this moment I would be willing to bet somewhere between two and three to one that what is denied to us today will still be denied to us in the spring. Under these circumstances, the result of keeping the car in the garage until better times will merely insure that it becomes obsolete before it is ever used at all. " 1/

None of the hoped-for answers and decisions as spelled out by Mr. Bissell were obtained and the meeting with the President was delayed for another month. Meanwhile, Mr. Dulles while on his tour met with Generals Lemnitzer and Kuter in Japan and discussed location of Detachment C with them. Their concern was not with potential over-crowding of Yokota, but with the security implications and possibility of Japanese political reaction. However there was not an actual turn-down on the part of the theater commanders. Therefore a negotiating team was sent to Japan to get a definite agreement from that end. Col. Geary, Lt. Col. Quinette, and Messrs. Cunningham,

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1/ TS-158576, 2 October 1956. Memorandum to Gen. Cabell from Mr. Bissell.

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made up the survey team which departed for the Far East on 29 October. The result of their briefings was agreement by Generals Kuter and Lemnitzer for use of Yokota if facilities could be arranged, and Gen. Kuter agreed to send a message to Headquarters, USAF, to that effect, which he did on 8 November 1956.

As soon as it was ascertained that the "no theater objection" message had reached the Chief of Staff, Mr. Bissell drafted a letter for the DCI's signature to General Twining outlining the operational, logistic, timing, and political considerations involved in deployment of Detachment C to a Far East base, concluding that the unit should be stationed at Yokota and should be deployed about 15 January 1957, subject to readiness of facilities. He requested Air Force support in the furnishing of facilities and in effectuating the deployment, with costs incurred in readying facilities to be discussed between the Air Force and CIA. In a covering letter transmitting the request he added:

"...if you believe it would be wise, we can seek more specific guidance on this from higher authority." 1/

Two weeks later on 28 November, General Twining replied as follows:

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1/ TS-158608, 14 November 1956. Memorandum from DCI to Chief of Staff, USAF.

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"...I would like to assure you of our continuing interest and support of Project OILSTONE. I believe past Air Force actions attest to this. Further, I agree that the Air Force's BLACK KNIGHT program and the AQUATONE project are complementary on a worldwide basis and should not be treated as competitive activities.

"Before we give consideration to seeking more specific guidance from higher authority, I should like to point out certain elements of the overall situation which I feel should be more carefully evaluated in order that we may realize the maximum potential of all available capabilities.

"a. As you recall, detachments of the Air Force's BLACK KNIGHT program and the AQUATONE/OILSTONE program became operational about the same time. Therefore, it was obvious that some correlation and integration should be effected between the two programs so as to exploit the maximum capability of each. Accordingly, the Air Force re-arranged its initial BLACK KNIGHT deployment plans from Europe to the Far East simply because the OILSTONE/AQUATONE detachments were going to the European area. Therefore, a BLACK KNIGHT detachment was deployed to Yokota AFB during September 1956. This was logical since it would give a world-wide capability at the earliest possible date and would tend to eliminate the highly undesirable morale and other problems created by the mixing of the military and CIA efforts.

"b. As a consequence of this action, BLACK KNIGHT is in position and ready to operate immediately if given a release. As you know, facilities in the Far East are limited. To deploy the U-2 detachment would require additional expenditures and facilities which the Air Force is unable to provide. While I recognize the superior altitude capability of the U-2, I do not believe this is an over-riding factor in the Far East and feel the BLACK KNIGHT capability is adequate to do any job which might be authorized in that area. Further, for operations against China, BLACK KNIGHT has certain advantages over the U-2, specifically

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a refueling capability and the better reliability afforded by a twin engine aircraft.

"In view of the above, it appears unnecessary to use the OILSTONE capability in the Far East. This is particularly true since there are a relatively small percentage of vital targets in this area and our past experience gives every indication that BLACK KNIGHT can effectively do the job. Assuming we are given an early release to resume activity, BLACK KNIGHT could cover practically all targets within a few months.

"Accordingly, I suggest that:

"a. You reconsider your decision to deploy the third AQUATONE/OILSTONE detachment to the Far East.

"b. You hold this detachment in reserve and plan to use it as an augmenting force wherever and whenever the world situation dictates. To accomplish such a plan, I realize another base will be required for this unit since access to Water-town is limited.

"Should you desire to further discuss the matter, I shall be glad to meet with you at your convenience." 1/

The Twining letter reached Mr. Bissell's attention in the first instance, and he sent it forward to the Director with the following forcefully worded memorandum:

"On 14 November you sent a memorandum and covering note to General Twining requesting Air Force support in the provision of facilities for AQUATONE Detachment C in Japan. We have now received (28 November) General Twining's reply

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1/ ~~TS-158612~~ (AFOIN WH 1340-6), 28 November 1956. Memorandum for Mr. Allen Dulles from Chief of Staff, USAF.

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to your letter. In effect it states that the Air Force is unable to support both AQUATONE and BLACK KNIGHT in the Far East and recommends that we hold Detachment C in reserve to use as an augmenting force whenever and wherever the world situation dictates.

"On 15 November we had our meeting with the President in the course of which you explained our intention of deploying a Detachment to Japan. The President after some discussion agreed that this unit should be based in Japan unless on further consideration the State Department expressed objection to such a location. He made clear by at least two remarks that he was aware that our aircraft possessed a greater capability than the B-57D's available to BLACK KNIGHT and that if any choice had to be made AQUATONE should receive priority. I would interpret this conversation not as a firm order to us to deploy to the Far East but as a permission to do so and I am sure the President was left with the impression that the deployment would be carried out.

"The more important facts that seem to me to have a decisive bearing on this issue are the following:

"a. The AQUATONE aircraft and associated equipment is superior to that in the hands of BLACK KNIGHT in range, altitude, quality of photography, quantity of photography per mission, and availability of Elint and Comint receivers and recorders (which the BLACK KNIGHT does not produce at all). In addition the AQUATONE detachment as soon as operational can begin

for which no other equipment is available at this time.

"b. It will require at least two months to prepare facilities for AQUATONE from the date a firm favorable decision is made. By our enforced indecision earlier in the autumn and by Air Force opposition for the last six weeks, we have already postponed the earliest possible operational date to mid-February. Every day's further delay postpones our operational date correspondingly.

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"c. The AQUATONE C Detachment's staffing and training are complete and its equipment will be complete long before it will be ready for deployment. In other words, it is all bought and paid for. Neither this unit nor its aircraft are required in the European Theater. These resources could not be efficiently utilized there even if we were permitted to operate virtually without restriction. While awaiting deployment the Detachment is helping with further development work at Watertown but essentially this valuable and costly asset is unemployed and will remain so unless and until it moves to the Far East.

"Although there are persuasive arguments both for and against the actual initiation of overflights of Communist China during the winter, I hardly need point out that there are overwhelming reasons for deploying the Detachment just as soon as possible so as to have this Government's best capability in place in the Far East in case it is needed. We are in the midst of two major political crises which have given rise to a sharp renewal of tension between East and West. Any situation in Europe or the Middle East that comes close to boiling over carries at least a threat in the Far East. And there is always the possibility of a new crisis arising in that area. Under the circumstances, it would be criminal to keep our reconnaissance capability, developed with such urgency and effort, waiting idle in the U.S. whence it could not be moved without two months' notice, merely because the Air Force desires to protect its BLACK KNIGHT project from competition.

"I believe we have fooled around with this problem long enough and I recommend just as strongly as I can:

"a. That a meeting be arranged promptly with General Twining, after careful consideration by you and General Cabell of its composition which should be designed to maximize the chance of frank discussion leading to a favorable outcome.

"b. That your position with them be substantially as set forth above, with the one additional element that CIA should offer to finance (in the amount of approximately \$350,000) the cost of preparing facilities for AQUATONE at Yokota (or any other suitable base in Japan).

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"c. That if the Air Force will not agree to support AQUATONE in Japan, you invite Secretary Quarles and General Twining to join with you and General Cabell in setting the essential facts before the President and ascertaining his desires.

"I would like especially to urge upon you that, before such a meeting, you and General Cabell determine exactly what arguments you will use and whether you are prepared, as here recommended, to take this issue to the top if necessary." 1/

The meeting recommended by Mr. Bissell took place on 5 December with the DCI, DDCI and Generals Twining and Everest present. The Air Force side was persuaded to allow Detachment C to deploy to the Far East, but not to Yokota (presumably at General LeMay's insistence). Atsugi Naval Air Station was then given consideration and [redacted] who was in Japan awaiting instructions, was directed to call on Admiral Fitzhugh Lee at Atsugi and brief him generally on the project, making a request for the use of one hangar. [redacted]

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A meeting

[redacted] was also arranged with Admiral Arleigh Burke, Chief of Naval Operations, on 6 December, at which time Admiral Burke gave his blessing to the stationing of Detachment C at Atsugi, but said he would not wish to proceed against USAF opposition, so would speak to General Twining.

1/ ~~PS~~-158611, 28 November 1956. Memorandum for DCI from R. M. Bissell, Jr.

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Nothing further was heard from either Admiral Burke or General Twining for a week, and on 12 December the DCI sent a memorandum to the General inquiring as to the results of his discussion with Admiral Burke. No answer was received to this inquiry for the next week and on 18 December the BLACK KNIGHT detachment at Yokota conducted its first (and last) three-aircraft mission over the USSR, provoking an official protest by the Russians. As a result, it was learned by Mr. Bissell that the whole question of deployment of Detachment C to Japan was going to be referred by General Twining to the Joint Chiefs of Staff for full discussion. As of 24 January this had not been done.

Meanwhile the SAC U-2 group were insisting on more billets at Watertown and were told that 45 was their limit until Detachment C was allowed to deploy. Mr. Bissell reaffirmed this on 24 January to Maj. Gen. Maurice Preston who had been put in charge of the Air Force U-2 program.

On 24 January Mr. Bissell also set forth in a memorandum to the DCI the status of AQUATONE with a resumé of his unsuccessful efforts to get a decision on a Far East base for the Project, which he described as one of the worst cases of bureaucratic foot-dragging and executive

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indecision he had witnessed in some 13 years of Government service.

He noted further:

"While this long drawn out interchange has been going forward on what should be the relatively minor and easy issue of deployment, the prospects for a favorable decision on the major issue of authority to perform overflights seem to have deteriorated. You report that the attitude toward overflights both in the White House and the State Department is very different from what it was a year or even six months ago. The President's inaugural address reaffirms a policy of peace at almost any price and those in authority seem to regard an overflight as a dangerously provocative act, a distinctly more alarmist view than that expressed in the special National Estimate on the probable Soviet reaction to overflights. At a minimum it must now be anticipated that any detected overflight will provoke a diplomatic protest, partly as a consequence of decisions on our part that have rendered preceding Soviet protests highly effective as a means of halting this activity.

"Along with the discouraging developments reviewed above, you should be aware that the attitude of the Air Force toward this Project has undergone a marked change since mid-autumn from one of full and open support and partnership toward one of increasing jurisdictional jealousy. The most important manifestation of the change has been the long continued effort to prevent AQUATONE from 'competing' with BLACK KNIGHT in the Far East.

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responsibility which should not be assumed by AQUATONE. Still another was the time-consuming and counterproductive insistence that any processing of AQUATONE film in the field should be done by units under Air Force command rather than by personnel attached to the AQUATONE field detachments. Finally, I am convinced that much of the pressure behind the SAC follow-on program involving the U-2 aircraft has as its purpose not the creation of a much needed hot war reconnaissance capability but the readying of Air Force units

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having the same capability as AQUATONE so as to undermine any argument for the retention of this capability by the CIA. This whole attitude of increasing competitiveness, suspicion and unconcealed eagerness (in some quarters) to have AQUATONE terminated is not only unpleasant in itself but is beginning to interfere with our activities and with necessary security arrangements... " 1/

Mr. Bissell finished by urging the Director to give high priority to settling the question of deployment to the Far East, if necessary by laying the whole matter before the President.

Five days later, no action having been taken, Mr. Bissell on 29 January fired off another memorandum to the Director saying that half a million dollars a month were being spent, quite a lot of scarce and valuable personnel was being tied up and the morale of the organization was going to pieces as a result of uncertainties. He suggested that if the Director couldn't force a decision, he had an obligation to so advise the President. 2/ As it turned out, this last memorandum was not needed since the Air Force had relented. On 30 January Gen. Cabell while attending an Air Force meeting at Maxwell Air Force Base, Alabama, called Headquarters to say that he had persuaded Gen. Twining to withdraw his objection to deployment of Detachment C to Japan. On

1/ TS-158780, 24 January 1957. (Full text at Annex 102).

2/ SAPC-12315, 29 January 1957. Memorandum for the DCI from R. M. Bissell, Jr.

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2 February 1957 this agreement was put in writing to the DCI, with the explanation that the decision had been dictated by the vital necessity for SAC to get on with developing its own U-2 reconnaissance capability, which could not be accomplished until Detachment C moved out of Watertown so that the SAC group could move in.

#### Deployment and Shake-down

The Project Engineer, [ ] had received a low bid of \$88,400 to renovate a hangar, work space, offices and quarters at Atsugi and the contract, which had been held in abeyance awaiting Gen. Twining's concurrence, was then signed and the Japanese contractor went ahead full speed with the work. Communications were established between Project Headquarters and the [ ] facility on the [ ] circuit on 13 February and the communications facility at the Detachment operating area [ ] was activated on 19 February 1957.

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The advance echelon of security and communications personnel departed Watertown on 20 February, the second echelon of administrative personnel on 4 March, and the main body of the detachment with two U-2 aircraft and equipment was airlifted from Travis Air Force Base, California, beginning on 15 March. The Detachment Commander cabled Headquarters on 29 March that all personnel and equipment were in place

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and all were pleased and grateful for the excellent billets, messing and working facilities provided. Operational readiness was forecast for the week of 8 April and theater operating procedures had been worked out satisfactorily by establishing liaison between the Detachment and the following local U. S. components:

FEEAF Headquarters, which had been requested by Headquarters, USAF, to give non-reimbursable support to WRSP(III).

FECOM (General Lyman Lemnitzer), who as theater commander was to have authority to postpone or cancel missions in the national interest, from the theater command viewpoint. The procedure would be for him to send such a cancellation message through Air Force channels to USAF Headquarters, to be transmitted to Project Headquarters.

The Agency's [redacted] which was to maintain continuous covert liaison with the Detachment and be responsible for dealings on behalf of the Detachment with the U. S. Embassy in Tokyo.

[redacted] a part of whose facilities at Atsugi were given over to WRSP(III), which was to continue to give assistance as required.

54th Weather Reconnaissance Squadron, which was to give local weather forecast assistance, and coordinate the typhoon hunting activities of Detachment C.

Atsugi Naval Air Station, whose Commanding Officer and Public Relations Officer were fully briefed on the Detachment's mission, who were to assist in preserving the security and cover of the unit, especially in the public relations field.

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At the time of deployment of Detachment C, the position of Executive Officer had not been filled. All suitable candidates interviewed had been unwilling to take an overseas assignment without family, and a single man with appropriate experience and stature had not been found. The Assistant Chief of Project Personnel, [ ] agreed to fill in during the deployment and shake-down period. At the end of the Detachment's first month in the field Col. Beerli agreed that the need existed for a permanent Executive Officer, who should be recruited in time to relieve [ ] at the end of May 1957. However, [ ] departed at the end of his temporary duty with a permanent Executive still unavailable. Col. Beerli at that time advised Headquarters that there was no need for haste in filling the slot and until a well qualified, single individual was available, he could continue to operate without an Executive.

In April 1957, when the Detachment had settled in, Dr. Richard Rhode, Chief Scientist, and Mr. Walter Bonney, Public Relations Officer, of NACA, visited the Detachment to give support to the cover story. A release to the press announcing WRSP(III)'s arrival and proposed program of weather and upper air flights was planned, but this was vetoed by General Lemnitzer. A U-2 accident resulting in the death of Lockheed test pilot, Robert Sieker, had just occurred in Nevada and the sensational

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treatment given this occurrence by some American newsmen was echoed in the Japanese press. It was agreed that in case of inquiries from local news media, the answer would be that certain features of the U-2 were still secrets of the manufacturer and the aircraft therefore could not be viewed by unauthorized persons.

Between the 13th and 20th of May 1957 the Project Director made an inspection visit to Atsugi and was favorably impressed with the state of readiness and the high morale of the group. Thirty sorties had been flown by mid-May: 14 photographic, 50X1, E.O.13526 4 weather, and 6 transition flights. All were planned, briefed and flown as dress rehearsals for the primary missions for which approval was awaited. During his visit to Japan, Mr. Bissell met with Generals Kuter and Harris at FEAF Headquarters and confirmed agreement to give them 24 hours' notice prior to overflights by the Detachment. Arrangements were also reviewed with Gen. Lemnitzer who agreed that no control should be exercised by FECOM or FEAF except negative control; i. e., to postpone or cancel a mission for an overriding reason. The Detachment would notify FEAF of the timing and area of expected missions and FEAF would inform FECOM. Understanding was reached that no landings would be made at Korean bases other than in extreme emergencies.

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Operational Period: Staging from Alaska

In May 1957, following high level approval, preparations were made to stage a primary mission from Alaska to collect photographic intelligence over the Kamchatka Peninsula of the USSR. Use of Eielson Air Force Base was coordinated through SAC Headquarters and a task force was airlifted to Alaska on 6 June 1967. The first mission on 8 June was aborted due to weather which remained unfavorable until 20 June when a successful mission was flown. A White House briefing on the results of this mission was given to Gen. Goodpaster on 23 July. A second staging from Eielson was later approved and a task force to support the mission departed Atsugi on 12 September 1957, launched one excellent photographic mission over Klyuchi on 16 September, and returned to Atsugi on 26 September.

Theater and Detachment Command Changes: 1957

In June 1957 during a visit by Japanese Premier Kishi to Washington, President Eisenhower pledged that the U.S. would withdraw ground combat troops from Japan as early as feasible, and as one result the FECOM Headquarters in Tokyo was pulled back in August 1957 to Honolulu and became Pacific Command (PACOM) under the jurisdiction of Commander-in-Chief Pacific (CINCPAC). [50X1, E.O.13526]

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[redacted] whose principal function was liaison with CINCPAC, had been project-briefed, and [redacted] was added to the HBJAYWALK communications channel to receive information on project activities in the Pacific Theater. Authority to cancel Detachment C missions for reasons of national interest did not, however revert to CINCPAC. Only the Commanding General FEAF (then Lt. Gen. Fred H. Smith) or his deputy had this authority. This policy was understood and agreed to by CINCPAC.

After the second Eielson staging, Col. Beerli was requested to return to Washington for consultation and during his visit was persuaded to take command of Detachment B, relieving Col. Perry. Col. Mixson agreed to move to Detachment C, with family, when he finished closing out Detachment A at Giebelstadt.

The change-over from TDY to PCS status for overseas Project assignees and the lifting of the ban on dependents meant a heavier burden of work on the support staff, besides the difficult problem of obtaining sufficient satisfactory housing. At the end of September 1957 Cols. Gibbs and Geary and Mr. James Cunningham made an inspection visit to Atsugi and while there made an appeal to the local Air Force and

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Army commands for additional housing. A negative reply was received from both since they were short of housing to fill their own needs.

Mr. Cunningham recommended conversion of one [ ] BOQ to five two-bedroom and nine one-bedroom apartments and rental of ten houses on the local market. Headquarters approved this plan and set the sum of \$200,000 as a maximum for this construction and rental program:

[ ] was delegated authority to contract locally for modifying the BOQ and building four duplex units in the [ ] compound. [ ] Project Engineer, was dispatched to Atsugi to oversee the construction work.

Colonel Mixson arrived to take command at the end of October 1957. There were no primary missions flown during the period of change-over and most of the pilots were given the opportunity to take their accumulated leave. The construction, rental and furnishing of the new quarters for families were largely completed by the end of the year and Detachment personnel and their families comfortably settled in, thanks to the efforts of [ ] who moved into the Executive Officer slot in October. (Photographs of family housing converted or constructed at Atsugi during this period are included, overleaf.)

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Operations: Second Year

The first overflight of the USSR from Atsugi by Detachment C in 1958 was also the last. On 1 March the mission (#6011) from Japan over Ukrania, Khabarovsk and Komsomolsk obtained good photographic results, but was tracked by Russian radar (even though the U-2 aircraft had the project-developed anti-radar application). On 5 March 1958, Ambassador Mikhail Menshikov, Russian Ambassador to Washington, delivered a formal protest to the State Department concerning the violation of Soviet borders by "an American military jet aircraft". All U-2 overflights were ordered by highest authority to cease indefinitely. The State Department replied to the protest on 31 March saying that a thorough investigation had been conducted and that no U. S. military aircraft had been in the area in question.

The State Department reply was drafted by Ambassador Foy Kohler and was sent forward for the Secretary's approval through channels with a note which read in part:

"...It is clear from the terms of the Aide Memoire that:

"(1) The Soviets consider that they have convincing proofs of the intrusion charged.

"(2) It was written with a view to possible release and calculated to play on popular fears of the 'accidental' loosing of atomic war...

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"In the circumstances, it seems important that:

"(1) We simply deny the Soviet charges of intrusion, reaffirming our peaceful intentions but avoiding any reference to the Soviet allegations respecting flights of planes armed with thermonuclear bombs; and

"(2) We be prepared to move immediately to discredit any public charges or alleged 'evidence' as figured in the 'germ warfare' campaign." 1/

On 21 April 1958 the Russian Embassy delivered a second note to the State Department which stated that the Soviet Government had at its disposal carefully verified data that "an American military reconnaissance aircraft of the Lockheed U-2 type" had appeared from the direction of the Sea of Japan, violated the border to considerable depth and departed south of the Olga Bay. The inclusion of an entry and exit time in the Soviet note constituted admission that an overflight of four hours and six minutes (by their own calculation) had taken place.

On the same day a Soviet resolution was introduced in the United Nations Security Council to condemn U.S. SAC bomber flights in the direction of the Soviet's Arctic borders; it was withdrawn due to lack of support.

On 5 May the State Department reiterated its statement of 31 March, and on 13 June a further Soviet note was delivered, saying

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1/ Unnumbered, Secretmemorandum signed by Foy D. Kohler accompanying draft reply to Soviet Aide-Memoire of 5 March 1958.

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that the U.S. Government must bear the consequences of violations of Soviet space by American aircraft--the word "military" was not used in the last note. (See Annex 103 for text of diplomatic exchanges covering this incident.)

On 6 May 1958, Col. Gibbs visited Mr. Gordon Arneson at the State Department to ascertain how the Department stood with regard to the U.S. Ambassador to Tokyo (Douglas MacArthur II) remaining unwitting of Project CHALICE presence and operations in Japan in light of his awareness of the Soviet protest notes. (Both State and FECOM had opposed briefing the Ambassador when the Detachment arrived in March 1957.) Mr. Arneson after consultation in the Department reported that the recommendation was that the Ambassador not be briefed unless the Soviets created adverse publicity. The Department's feeling was that until the forthcoming Japanese elections of 22 May 1958, the Ambassador had enough worries and should not be burdened further.

Project ROBIN HOOD

On 19 March 1958 Detachment C was alerted to the requirement for photographic coverage of Indonesia. Uprisings had been taking place against the central government on Java and the Communists were

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trying to build up a sphere of influence with military aid to Sukarno. The Chief of Naval Operations agreed to the use of Cubi Point Naval Air Station, the Philippines, as a Detachment staging base, and a task force with equipment and fuel was airlifted there from Atsugi on 24 March 1958. Between 28 March and 11 June 1958, thirty missions were flown over the islands of Indonesia and besides the photographic military intelligence collected, valuable mapping of the area was accomplished. The operation was phased out between 12 and 15 June with one peripheral Elint mission employing System V, and one B-camera photographic mission being accomplished by the U-2's on the return flight to Atsugi.

#### Typhoon Hunting

In the summer of 1958 Detachment C, in coordination with the Air Weather Service 54th Weather Reconnaissance Squadron, had an opportunity to enter the field of "typhoon hunting". With the advantage of altitude, the U-2 could fly high above the eye of the typhoon, photographing it from above. Four of the principal typhoons that struck the South Pacific in the 1958 season were tracked and photographed: "Winnie" and "Alice" in July, and "Grace" and "Ida" in September. The photography and readings taken from the U-2's meteorological equipment during these missions were turned over to Air Weather Service in Japan to aid their meteorologists

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in the study of the structure and behavior of typhoons. (See also page 32, Chapter VII, and Annex 62 for cover activities in the weather field.)

Further Operations: 1958

Between June and August 1958, four missions against the China Mainland were accomplished and one of these, staged from Naha, Okinawa, had to make a forced landing at Tao Yuan Air Base on Taiwan, but was recovered without incident other than knowledge of its presence on Taiwan being made a matter of public record. The President was briefed on the results of the China missions on 29 August 1958 and agreed to the continuation of a series of tactical missions over China Mainland. This approval covered one sortie to the North which weather had thus far precluded, and shallow overflights of the Mainland every ten days or so. The Secretary of State agreed to this program at a meeting on 2 September at which General Twining was also present and raised no objections.

An inspection trip was made in August 1958 by Col. William Burke (then Deputy Project Director) who reported that the unit was at its peak capability operationally, discipline, morale and mutual confidence among the Detachment personnel were evident and the families, particularly those living on base, were happy with the support and conveniences being provided by Agency and Navy support facilities. Col. Burke reported to

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that the unit was funded and approved

through December 1959 and that plans were for staging tactical missions from forward bases away from Japan. [redacted] was very relieved to hear this in view of the local political situation. However, other than misgivings over tactical missions being flown from Atsugi, he said no serious problems existed and relationships between the unit and the Agency support group at Atsugi were good.

On 26 September the three U-2's on base were evacuated to Naha in expectation of the arrival of Typhoon "Ida". After photographing the eye of "Ida" from above, the aircraft were returned to base when the danger had passed.

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[redacted] on 21 October the Taiwan Straits and South China were covered, staging from Naha, with poor photographic results due to weather.

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[redacted] The year 1958 thus ended on rather a low level of accomplishment by the Detachment.

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1959 Operations

MILL TOWN

A priority requirement for coverage of Tibet and Southwest China on behalf of the Far East Division's Tibetan project (STBARNUM) was accomplished by Detachment C staging from Cubi Point. Presidential and State approval were obtained on 28 April 1959, and President Ayub of Pakistan and the U.S. Ambassador to Karachi (Langley) were informed of the operation at the request of the State Department. Two missions were flown on 12 and 14 May 1959 with "fair" results.

SOUTH GATE

In July 1959 Detachment C was requested to plan immediately for a "Fast Move" operation for coverage of Tibet and possibly North Vietnam and Laos, operating out of Takhli or Kurmitola in Thailand. Political approval from the Thais was delayed until mid-August and after arrival at Takhli of the launch team, an inspection of the base by non-project-cleared Thai officials necessitated withdrawal of the group to Clark Field. The operation finally began on 29 August and six missions were flown: two successful ones over Tibet, one partially successful one over Northwest China, two successful ones over North Vietnam and Laos, and one aborted over Laos due to weather.

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The weather was poor throughout the operation with several severe thunderstorms being experienced. The radio beacon at Takhli was weak, adding to letdown problems. Relatively speaking, this was a high risk operation for low priority requirements.

Fujisawa Accident and Publicity

On 24 September 1959 a weather mission photographing Typhoon "Vera" crash landed, gear up, near Fujisawa Airport south of Atsugi while making a GCA landing after experiencing a flame-out due to miscalculation of remaining fuel. The airplane plowed through a potato field and damaged a few bicycles, but there were no injuries. The airplane was damaged beyond local repair and had to be airlifted to Burbank. (A replacement was ferried from Edwards on 16 October.)

An Asahi reporter took pictures from a helicopter of the event which received wide public circulation. Also some complaints were later aired at great length in the local press to the effect that during the security party's retrieval of the U-2 pilot and the cordoning off of the wrecked airplane, Americans wearing Hawaiian sports shirts and brandishing pistols, threatened Japanese citizens at the scene. Although it was too late to do any good in this instance, Headquarters was moved to set forth the following rules for the security force's

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behavior on such occasions with regard to the use of firearms:

"In view of critical publicity and pinpoint interest of opposition in Japan, CHALICE security force will not carry weapons outside of unit area except on courier runs to the ZI or staging operation, or in extreme emergency. On these occasions weapons will be carried concealed, or in brief case. To further normalize unit appearance, suggest Air Force fatigue clothing be used in order to make the unit less conspicuous..." 1/

#### QUICK KICK

A second staging from Takhli in November 1959 was carried out for coverage of Tibet in support of STBARNUM, again using the "Fast Move" concept of operation and utilizing C-130 aircraft. Support at Takhli had considerably improved since the previous visit: the mess was better and the hangar and other facilities were being renovated and repaired. Only one mission was flown during the deployment covering Tibet and West China with fair photographic results.

#### 1960 Operations

In January 1960, a staff study performed by Headquarters Operations Staff evaluated potential alternate bases for Detachment C in the event the Japanese political situation forced the activity out of Japan. Clark Field in the Philippines was selected as the best available alternate for contingency planning. On 14 January 1960 Ambassador MacArthur, while

1/ ADIC-5255, 11 December 1959, to . 50X1, E.O.13526

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on consultation in the Department, was briefed on CHALICE by Mr. Bissell. He made no recommendation for withdrawal of the Detachment in the immediate future.

TOPPER

A third and final staging operation from Takhli in March 1960 to cover Tibet and West China ended in near disaster. The launch team with two U-2's arrived at Takhli on 29 March. Two sorties were flown successfully on 30 March. The third on 5 April 1960 had a successful photographic mission over Western China but crashed in a rice paddy some distance from Takhli on return. With the aid of local villagers and oxcarts, the retrieval team managed nine days later to deliver the aircraft in sections to the base and load it into a C-124 under cover of darkness. 50X1, E.O.13526 spent a very nervous time waiting out the retrieval. Only one Thai language newspaper printed a report of the crash (in Thai) which said that according to a special correspondent, at about 1600 hours on 5 April, a jet plane landed near a swamp behind Wat Wang Wah, Tambon Wangluk, Amphur Samchuk, Suphanburi Province. The plane was reported to have run out of fuel. A farang (white man) pilot, the only one in the plane, was safe. Fortunately this item was not picked up by any news service. As a token

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of appreciation to the villagers of Wat Wang Wah, a sum of money was presented to the headman 50X1, E.O.13526 to help build a new school for the village children.

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Post May Day Activities in Japan: Withdrawal of Detachment C

As soon as news reports were published in Japan concerning the May Day incident, the Japanese Communists and Socialists began a concerted effort to dig out all information which could be used to instigate anti-U.S. publicity. Socialist Party leaders in the Diet approached the Japan Meteorological Society to inquire what assistance the U-2 group in Japan had provided for its program in Japan. Neither of the two JMS officials with whom liaison had been maintained for cover purposes was available at that moment and the one official who was seen denied any knowledge or relationship with the American weather program.

The Embassy requested that detailed information, including description of typhoon data passed to the JMS, be furnished the Embassy

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within 24 hours; this was an impossible deadline for Headquarters to meet. Due to the failure to provide adequate contingency cover, the necessary material was not available  in a form useful for propaganda purposes. 50X1, E.O.13526

On 9 May the State Department informed Ambassador MacArthur that the U.S. was prepared to conclude an agreement with Japan that no intelligence missions would be flown over non-Japanese territory from U.S. facilities in Japan without prior consultation with the Government of Japan, and to give Kishi assurances that the U-2 in Japan was used solely for legitimate scientific purposes, making a public statement to that effect if Kishi so desired. Prime Minister Kishi felt that no formal agreement was necessary, but did desire a public statement. This was given in a Departmental Press Briefing on 10 May 1960 as follows: The United States Government has given the Government of Japan assurances that U-2 aircraft flying from air bases in Japan have been and will continue to be utilized only for legitimate and normal purposes and not for intelligence overflight missions.

On 19 May an orderly demonstration took place at the main gate to the Atsugi Naval Air Station with only about 100 people present due mainly to a heavy rainfall. A petition was presented to the Provost

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Marshal at the gate by a Socialist Diet Member, and the crowd dispersed without incidents.

On 21 May the Foreign Minister informed Ambassador MacArthur that a new Soviet note to Japan had been received protesting the Security Treaty and the illegal overflights of the USSR by U.S. aircraft. It requested assurances that no U.S. plane (U-2 or other) had conducted overflights of Soviet territory from Japan. The Department on 28 May informed MacArthur that he could give the necessary assurances.

On 6 June the decision was made at Project Headquarters to ferry the Detachment C U-2 aircraft back to Edwards Air Force Base on 15 July and phase out the personnel and equipment in stages by 1 September 1960. On 8 June the Ambassador urged by cable that the initiative be taken to announce immediate withdrawal of the U-2's rather than appear to withdraw them as a result of an official request of the Japanese or of threats from the Soviets. A meeting in the Department which considered this recommendation by the Ambassador decided in favor of the orderly phase-out planned by the Project. On 27 June the Detachment personnel were informed concerning the close-down and phased departure of all hands.

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On 8 July 1960 the Japanese Foreign Office formally requested the removal of the U-2 aircraft from Japan as a result of public pressure on the government. The two remaining U-2 aircraft were loaded aboard C-124's and airlifted from Atsugi, departing 9 July for Edwards Air Force Base. On 11 July the Foreign Ministry in Tokyo was informed of the removal and Foreign Minister Fujiyama on the same day announced the departure of the U-2 aircraft at a press conference in Tokyo.

Col. Mixson and family departed Atsugi on 17 July for reassignment to SAC and the Detachment personnel departed at intervals through July and August with a good number transferring to Detachment G at Edwards Air Force Base. The installation at Atsugi was closed out and the facilities turned back to  the Navy on 19 August 1960.

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24 January 1957

MEMORANDUM FOR: Director of Central Intelligence

SUBJECT: Status of Project AQUATONE

1. We do not seem to be making much progress with AQUATONE. I have just reviewed the record and find that we made a firm and formal request for facilities in the Far East on last October 25th, at a meeting attended by yourself, General Cabell, Admiral Radford and General Twining. Immediately thereafter we dispatched a survey group to the Far East to whom it was made clear that facilities could be provided if there were a desire to do so and who received encouragement from General Lemnitzer. On 13 November you addressed to General Twining a written review of the problem and formal request for facilities at Yokota. On 15 November this matter (among others) was reviewed with the President who acquiesced in our deployment to the Far East and implied that AQUATONE, having the superior capability, should have a priority over BLACK KNIGHT. On 5 December, having still had no reply from the Air Force, this matter was further discussed by you and General Cabell with Generals Twining and Everest and it was agreed that we would approach Admiral Burke with a request for facilities at Atsugi. This approach was made on 6 December and Admiral Burke indicated that facilities could and would be provided at Atsugi unless the Air Force objected to this arrangement and it was felt desirable to secure the approval of the JCS. On 12 December you dispatched a further memorandum to General Twining with a copy to Admiral Burke restating our request for facilities at Atsugi.

2. About 18 December BLACK KNIGHT conducted an overflight which was protested by the Russians. This incident is said to have given rise to new doubts in the minds of Admiral Radford and General Twining about security at bases in Japan and we have been told that the matter of the deployment of Detachment C to the Far East would have to be discussed with the JCS. It is now the 24th of January and it has not yet proved possible even to set a date for such a discussion, much less to obtain any assurance that a favorable decision, or indeed any decision, will be reached if and when such a meeting is held. Since there is an important Air Force Commanders meeting at Maxwell Air Force Base beginning on 26 January, the meeting probably cannot be held

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for at least another week. All in all, this is one of the worst cases of bureaucratic foot-dragging and executive indecision I have witnessed in some 13 years of Government service.

3. While this long drawn out interchange has been going forward on what should be the relatively minor and easy issue of deployment, the prospects for a favorable decision on the major issue of authority to perform overflights seem to have deteriorated. You report that the attitude toward overflights both in the White House and the State Department is very different from what it was a year or even six months ago. The President's inaugural address reaffirms a policy of peace at almost any price and those in authority seem to regard an overflight as a dangerously provocative act, a distinctly more alarmist view than that expressed in the special National Estimate on the probable Soviet reaction to overflights. At a minimum it must now be anticipated that any detected overflight will provoke a diplomatic protest, partly as a consequence of decisions on our part that have rendered preceding Soviet protests highly effective as a means of halting this activity.

4. Along with the discouraging developments reviewed above, you should be aware that the attitude of the Air Force toward this Project has undergone a marked change since mid-autumn from one of full and open support and partnership toward one of increasing jurisdictional jealousy. The most important manifestation of the change has been the long continued effort to prevent AQUATONE from "competing" with BLACK KNIGHT in the Far East.

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responsibility which should not be assumed by AQUATONE. Still another was the time-consuming and contraproductive insistence that any processing of AQUATONE film in the field should be done by units under Air Force command rather than by personnel attached to the AQUATONE field detachments. Finally, I am convinced that much of the pressure behind the SAC follow-on program involving the U-2 aircraft has as its purpose not the creation of a much needed hot war reconnaissance capability but the readying of Air Force units having the same capability as AQUATONE so as to undermine any argument for the retention of this capability by the CIA. This whole attitude of increasing competitiveness, suspicion and unconcealed eagerness (in some quarters) to have AQUATONE

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terminated is not only unpleasant in itself but is beginning to interfere with our activities and with necessary security arrangements.

5. Rightly or wrongly, these circumstances--the inability to obtain any decision in the Far East, the growing fear that overflights will never be resumed and the increasingly evident Air Force disfavor--are having a major effect on the morale of the personnel assigned to this Project. The fact that a definitive meeting on the Far East problem, which has been looked for each week since before Christmas, has not yet been scheduled is taken as evidence that this Project no longer has a high priority claim on the time and attention of senior officials. The failure to use the capability for so many months after the Russians were alerted to its existence is deeply discouraging to everyone but especially to the pilots who know well that the Russians are working hard to develop the means of interception. The increasing Air Force disfavor is particularly hard, of course, on Air Force personnel assigned to the Project. There are several senior officers who already feel that their Air Force careers have been prejudiced by their loyalty to this Project which has aroused the criticism of Generals Lewis and Everest (and quite possibly of General LeMay). I must remind you that for many of the personnel concerned, their assignment to this Project has involved real discomforts and disabilities, including separation from their parent organizations (unwelcome even to many Agency employees who have been pulled out of their regular offices where they must make their careers), a long period of duty overseas or at Watertown at locations remote from recreational facilities, and long separations from their families. By and large they were freely accepted in the belief that this is an urgent and enormously important enterprise, and that hardships will be put up with cheerfully as long as this belief is maintained. But when these circumstances are compounded by long inactivity, the loss of a sense of urgency, and the beginning of organizational jealousies, the effect on morale can be extremely serious. It is all very well to argue that in our business people must cultivate patience and accustom themselves to uncertainty but it is difficult to make this demand of people if they feel that delay and uncertainty are the products of indecision rather than of unavoidable circumstances.

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6. This review of the situation is a plea that you make a major effort to get the main policy decisions concerning this Project just as soon as possible. My specific recommendations to this end are presented in the following paragraph. Before making them I want to call your attention to a broader issue, on which I believe General Cabell will disagree with me. I believe it has been and is his opinion that our job is to maintain and further to develop the AQUATONE capability (at least for another year) as long as there was or is any chance that it will be used and that we should in effect continue to make it easy for the President to postpone any affirmative decision as well as to postpone a definitive negative decision which would permit us to liquidate the enterprise. Perhaps this was wise last summer and autumn (especially in view of RAINBOW) but I feel very strongly that the next time you approach the President you should do everything in your power to get a definitive decision and not merely a postponement. Quite aside from the considerations reviewed in this paper, I believe it to be a fact that our technological lead has only a few more months of life and I believe you will be misrepresenting the nature of the choice that is open to the President if this fact is not made crystal clear. Moreover, he should be told that ground-to-air missiles will probably increase their defensive capability faster than aircraft can be improved in altitude and range and that our present technological advantage in reconnaissance may be the last chance we will have to obtain good photography. If as I urge, you press for a decision either to overfly or to liquidate, you may well be told to liquidate. I am convinced that at this late date that would be better than hanging on for another six months under steadily more difficult circumstances with no reason to believe any change will be made.

7. In the light of this review my recommendations are as follows:

First, I urge that you give a high priority to settling the question of our deployment to the Far East. I do so in full realization of the fact that this has now reached a point where nobody but you can obtain a decision and that to do so will require more of your attention, energy and time than you have been able to devote to this matter in recent weeks.

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Second, if this issue can be promptly resolved in our favor I believe our next approach to the President should be made when the results of definitive tests of RAINBOW are in hand. If that program proceeds as we hope, these tests should be conducted soon after the middle of February and the approach to the President should be possible around the 20th. I believe an earlier approach is undesirable because you should be in a position to report definitively on this new development when you ask for a final decision on the future of this Project.

Third, in the event that no decision can be obtained to deploy Detachment C, I believe an approach should be made to the President within the next three weeks at which time the whole problem should be laid before him. I am convinced that further obstruction to our deployment will be evidence, in part, of the Air Force's jealousy I referred to above and in part of general discouragement in all of the Services concerning the possibility of overflight activities during the next year. This is a state of mind I think we cannot live with. If, therefore, we find evidence of this state of mind I do not believe we can afford to wait for another six weeks before obtaining clarification of our position. Although it would be better if the RAINBOW program could be further advanced when we seek a decision, I believe that by, say, 10 February we will know pretty well what is going to come out of it so this development can be taken into account.

RICHARD M. BISSELL, JR.  
Project Director

cc: DDCI

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ANNEX 103

5 March 1958

EMBASSY OF THE UNION OF  
SOVIET SOCIALIST REPUBLICS

## AIDE-MEMOIRE

According to precisely established data, on March 2, 1958, at 4:05 hours Moscow time, an American military jet aircraft, having appeared from the direction of the Sea of Japan, violated the state border of the Soviet Union in the area of the settlement of Velikaya Kema and penetrated into the airspace of the Soviet Union, remaining over its territory for a considerable period of time. Thereafter, the aircraft left in the direction of the Sea of Japan in the area south of the Olga Bay.

The information on this violation has been carefully checked and there is no doubt as to its authenticity. The military representatives of the United States, who in this case acted possibly without the knowledge of the Government of the United States, will perhaps deny the said violation, as has happened in the past. However, such a denial cannot eliminate the fact of violation itself. In any case, the Soviet side would have no interest in commenting on this incident if it had not actually taken place.

At the present time, when negotiations are being conducted on the holding of a summit meeting which could contribute to an improvement of relations and to strengthening trust between states, the violation of the Soviet border by an American military aircraft may be evaluated as an attempt to undermine the efforts aimed at convening such a meeting and to aggravate the international situation.

From the messages of the President of the USA and his conversations with the Soviet Ambassador, as well as from statements by other government officials of the USA, it is known to the Soviet Government that the Government of the USA desires a rapprochement between our governments and improvement in the relations between them. There can hardly be any doubt that such facts of violation of the borders of the USSR can have only one result--that of hindering this cause and upsetting Soviet-American relations.

The attention of the Government of the USA is invited to the fact that in the present situation the violation of the airspace of the USSR by an American military aircraft takes on a particularly dangerous character since, as has been repeatedly reported, American military planes make flights around the clock over many countries of the world carrying thermonuclear bombs. The Government of the USA cannot fail to be aware of what genuinely catastrophic consequences for the cause of peace will ensue when an American plane with such a load will find itself shot down.

The attention of the Government of the USA has already been previously directed to cases of violation of the state boundaries of the Soviet Union by American military aircraft. However, as proven by the case cited, the authorities of the USA have not taken the necessary measures to prevent such violations.

It is absolutely obvious that it is the duty of the governments of the USSR and the USA to do everything possible to prevent any acts capable of complicating the situation and the relations between the Soviet Union and the USA.

The Soviet Government cannot but protest against the violations of Soviet frontiers by an American military aircraft and it expects that the Government of the United States will punish severely those guilty of the violation of the airspace of the USSR which has taken place and that it will take steps to prevent such violations in the future.

Taking into account the present situation, where a summit conference is being prepared, and also the spirit and purpose of the negotiations being conducted between our governments, the Soviet Government would not like to make this matter public or subject it to discussion in the UN.

The hope is expressed that this matter will be settled satisfactorily between the governments of the USSR and the USA and that there will be no need for the Soviet Government to resort to other means for its settlement.

Washington, March 5, 1958

(Initialled)  
M. Menshikov

## DEPARTMENT OF STATE

Washington, D.C.

31 March 1958

## AIDE-MEMOIRE

The Department of State refers to the aide-memoire of the Embassy of the Union of Soviet Socialist Republics dated March 5, 1958. The aide-memoire protested an alleged violation of the Soviet border in the area of the settlement of Velikaya Kema at 4:05 a.m. Moscow time on March 2, 1958 by an American military jet aircraft.

A thorough investigation has been conducted and it has been determined that at the time cited there were no United States military aircraft in the vicinity of the place mentioned in the Soviet aide-memoire either over or outside Soviet territory. Although the United States Navy and Air Force conduct routine weather and training flights over the Sea of Japan, standing regulations prohibit these aircraft from approaching Soviet territory.

The Soviet Government may be sure that the United States Government fully shares its expressed concern that incidents be prevented which might impair relations between the two countries.

21 April 1958

EMBASSY OF THE UNION OF  
SOVIET SOCIALIST REPUBLICS

Note No. 9

The Embassy of the Union of Soviet Socialist Republics presents its compliments to the Department of State of the United States of America and, referring to the Aide-Memoire of the Department of State dated March 31, 1958 and containing a reply of the Government of the United States of America to the Aide-Memoire of the Soviet Government dated March 5 concerning a violation of the Soviet state border in the Far East by an American military jet aircraft, has the honor to communicate the following:

In the reply Aide-Memoire of the Department of State an attempt is made to deny the fact of an American military aircraft having violated the Soviet border.

As has already been communicated, the Soviet Government has at its disposal carefully verified data on this violation, the reliability of which leaves no room for doubt. According to these data, on March 2, 1958, at 4:05 a.m. Moscow time, an American military reconnaissance aircraft of the Lockheed U-2 type, having appeared from the direction of the Sea of Japan, violated the state border of the Soviet Union in the area of the settlement Velikaya Kena, 32 kilometers south of that settlement. Then the violating aircraft deeply penetrated the airspace of the USSR and, after remaining over its territory for a considerable period of time, passed beyond the limits of the Soviet territory 45 kilometers south of the Olga Bay at 8:11 a.m.

In the light of the established facts the reply of the Government of the United States of America can in no way be recognized as satisfactory. Naturally, the question arises as to how to explain such a reply of the American Government: whether it was misled deliberately by its military representatives in the Far East or whether it considered it possible to protect such persons subordinate to it, who, without regard to the possible consequences, sanction violation of Soviet borders, thus creating a threat of international complications.

Such a reply of the Government of the United States of America to the communication of the Soviet Government cannot

fail to cause serious concern, the more so since the new case of violation of Soviet airspace took place after warnings on the part of the Government of the USSR to the effect that American authorities should take the necessary steps to prevent such violations.

In connection with the foregoing the Soviet Government expects that the Government of the United States of America will undertake further investigation of this act of violation of the airspace of the USSR by an American military aircraft and will punish severely those guilty of this violation.

The Soviet Government also expects that the Government of the United States of America will take the necessary steps to prevent violations of Soviet airspace by American aircraft in the future and states that in the event of new violations full responsibility for their consequences will rest with the Government of the United States.

Washington, D. C., April 1958

5 May 1958

DEPARTMENT OF STATE  
Washington, D.C.

The Department of State acknowledges receipt of Note No. 9 dated April 21, 1958 from the Embassy of the Union of Soviet Socialist Republics concerning an alleged violation of the Soviet border in the Far East by an American military jet aircraft.

As the Department stated in its aide-memoire of March 31, 1958 a thorough investigation of the alleged violation has been conducted and it has been determined that at the time cited in the Embassy's aide-memoire of March 5, 1958 there were no United States military aircraft in the vicinity of the place mentioned in the Soviet aide-memoire either over or outside Soviet territory. It was also stated in the Department's aide-memoire that standing regulations prohibit United States Naval and Air Force aircraft, conducting routine weather and training flights over the Sea of Japan, from approaching Soviet territory.

The United States Government has nothing further to add to its aide-memoire of March 31, 1958 concerning the alleged incident.

Department of State,

Washington, May 5, 1958.

Embassy of the Union of  
Soviet Socialist Republics

Note No. 16

In connection with the note of the Department of State of the USA dated May 5, 1958, the Embassy of the USSR has the honor to confirm the Soviet Government's note of April 21, 1958 regarding the violation of the Soviet state border in the Far East by an American jet plane.

The Soviet Government considers it necessary to state once again that the entire responsibility for the consequences of violations of Soviet space by American aircraft lies with the Government of the United States.

Washington, June 13, 1958

Department of State,  
United States of America,  
Washington, D. C.

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CHAPTER XVI. DETACHMENT G

Detachment G Commanders

Lt. Col. Roland L. Perkins, Commanding Officer      June 1957— July 1958  
Capt. Louis Setter, R & D Officer  
[redacted] Security and Administrative Officer

Lt. Col. Walter A. Rosenfield, Commanding Officer      July 1958 - Sept 1960  
Lt. Col. Robert Howe, R & D Officer

Lt. Col. William J. Gregory, Commanding Officer      Sept 1960 - June 1965  
Lt. Col. Joseph V. Cuttler, Deputy Commander

Lt. Col. Miles M. Doyle, Commanding Officer      July 1965 - Present  
Lt. Col. Robert G. Goold, Deputy Commander  
[redacted] Chief of Support

Withheld under statutory authority of the  
Central Intelligence Agency Act of 1949 (50  
U.S.C., section 403g)

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CHAPTER XVI - DETACHMENT G

Activation of WRSP (IV)

On 22 March 1957 the Air Research and Development Command (ARDC) of the Air Force agreed to the transfer of the residual test activities of Project AQUATONE's U-2 program to Edwards Air Force Base (North). The transfer from Watertown was made necessary by the AEC's planned series of shots at the Nevada Test Site. The residual group at Watertown had been designated Weather Reconnaissance Squadron, Provisional (IV) by Air Weather Service General Order on 10 May 1957. The move to Edwards began on 6 June 1957 when communications were opened between Washington Headquarters and Edwards (North) via the HBJAYWALK channel, and the transfer of personnel and equipment was substantially complete on 20 June 1957. The first commanding officer of Detachment G was Lt. Col. Roland L. Perkins, who had previously served as Operations Officer at Detachment B in Turkey. The important job of R & D Officer was filled by Capt. Louis C. Setter who had been recruited from Col. Yancey's SAC Training Unit at Watertown. The Security Officer, [redacted] also doubled for a time as Administrative Officer in view of the small size of the Detachment at the beginning.

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When the move was made to Edwards, the residual test and development activities were not expected to continue for more than a year and the only outlay of project funds for new construction was \$25,000 to conform the hangar to project requirements, including separate, secure work areas for the various company techreps assigned to the Detachment.

Continued Test Programs at Edwards:

Radar Camouflage

In June 1957 the first application of a new anti-radar process was tested at Edwards (North). This program stemmed from a discovery by Dr. Edward Purcell of Harvard University (for which he was later granted an award of \$10,000 by CIA). The research program (cryptonym RAINBOW and unclassified project name THERMOS), was under the guidance of Mr. Herbert Miller, who was responsible directly to the Project Director, Mr. Bissell. The work was conducted principally in the facility which later incorporated under Agency sponsorship as Scientific Engineering Institute (SEI) in Cambridge, Massachusetts.

The purpose was to develop radar camouflage applicable to the U-2 aircraft which, without impairing aircraft performance, would be sufficiently effective to permit a percentage of reconnaissance missions

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to go undetected, or to greatly reduce the accuracy and extent of radar tracking. SEI and Lincoln Laboratories at MIT reported favorable results in laboratory tests of the radar reflective materials in May 1957 and discussions were held with Lockheed preparatory to testing it on the U-2.

There were two different configurations: One was known as the "trapeze" and consisted of small gauge wires applied to the leading and trailing edges of the wings and fastened to wooden booms. It was flown with some success but only gave low frequency protection between 65 and 85 megacycles. The other type was referred to as "wallpaper" and consisted of a thin plastic material with metallic pattern imprinted thereon which was applied to certain areas of the fuselage, nose and tail of the aircraft. It was intended to be effective against S-band radar but the results obtained were rather disappointing.

The first RAINBOW configured U-2 was delivered to Detachment B at Adana in July 1957 and after local test flights it was used on five overflights of the USSR staging from Lahore, and one overflight of Kapustin Yar departing from Adana. Another "Dirty Bird" was flown by Detachment C in September 1957 over Klyuchi, and again in March 1958 over Ukrania (the latter mission resulting in a Russian protest).

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While these overflights were not all consecutively tracked, it was apparent by March 1958 that the application in use was inherently narrow-banded and frequency specific, and therefore of limited value. With the variety of radars being used by the Russians (many of World War II vintage), and with new types being introduced, it appeared quite impossible to conceive of any kind of covering that would protect the U-2 against all frequencies from 70 to 10,000 megacycles. Also the added weight and drag induced by the application to the aircraft had reduced the altitude capability across the mission profile by a minimum of 1500 feet.

In May 1958 the decision was made to curtail RAINBOW development and testing more rapidly than had been anticipated, enabling the return to active inventory of three U-2's which had been disassembled for the RAINBOW application. In August 1958 the Project Director reported to the DCI that all active work on RAINBOW had been terminated and the only costs for FY 1959 would be for cleaning off the last two aircraft and for a report by SEI on their two years of work in the field of radar camouflage.

Camouflage Paint

Tests were made at Edwards in 1958 on various colors and types of paints for the purpose of covering the gleaming aluminum surface of

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the U-2 and making it less easily visible against the sky. The Lockheed people gave assurance that the only weight addition would be approximately 25 pounds and that there was no perceivable performance degradation as a result of painting. An anti-corrosion program was on the books to be accomplished on all project U-2's and the painting was to be coordinated with that program. The type and color finally chosen was a black textured paint which, besides covering the light-reflective aluminum surface, had the additional thermal benefit of absorbing light in the extremely cold upper altitudes attained by the U-2. This black covering later gave rise to many descriptive names, such as the "Black Angel" which was the name given the airplane by Japanese newswriters.

#### Test Programs 1957-1960

In the summer of 1957, slipper tanks were tested for added range and sets were fabricated for all operational aircraft. However, the Project Director instructed that they were only to be used when the target could not be reached without them, since the added weight and drag caused some loss of altitude, which he considered undesirable.

The Perkin-Elmer/Hycon "C" camera was tested at Edwards but did not measure up to expectations and was shelved.

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equipment continued to be tested and refined in conjunction with the

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A noise elimination program was carried out throughout 1957-58 with the assistance of the Project Communications Staff for the purpose of improving the functioning of Elint systems.

Work on a dual oxygen system was instigated by Lockheed, due to Mr. Johnson's distrust of the Firewel Company's single regulator system. This effort was carried forward over many months and many solutions were proposed. Lockheed finally built its own dual system which has since been used by Lockheed's test pilots, but Project pilots have continued to use the single regulator. Product improvement efforts have gone forward continuously on pilot equipment, particularly with regard to the seat pack, but the equipment has remained pretty much in the same configuration from the beginning of the program.

U.S. Mule

At the end of 1958, as a low priority item, Lockheed was requested to design a device for the dropping of leaflets or other materials from the U-2. An interest was taken in this development by Gen. Cabell, who requested that the possibility of dropping a bomb (atomic or otherwise)

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from the U-2 also be investigated. The results of the latter investigation were set forth in the DD/P's memorandum to General Cabell of 18 February 1959 (see Annex 104), which recommended against any further consideration of a bombing capability for the U-2 aircraft.

Lockheed, meanwhile, by using the bomb bay door developed for the SAC version of the U-2, which had a downward ejection seat, devised a special hatch which was named the "U.S. Mule" and was designed principally for leaflet drops. The equipment was tested by Detachment G at Edwards between January and April 1961 with varying results. Procedures and techniques were refined to the greatest degree possible (considering the variables to be encountered in any given operation) and the Mule was declared operationally ready, but has never since been used operationally. Two of the units were sent to Detachment H for possible use in leaflet-dropping over Mainland China, but have not been so used.

#### Electronic Countermeasures and Collection Systems

Detachment G has played a major part in the development and testing of the U-2's electronic systems in coordination with the various concerned Headquarters technicians and company engineers. Until 1962 when the Development Project Division was reorganized as OSA under

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the DD/R, responsibility for development and testing in this field was shared by the [redacted]

[redacted] of DPD with technical assistance from the Office of Elint.

In 1962 an Engineering and Analysis Division was set up in OSA and given responsibility for all electronic programs. In the reorganization of 1966 within OSA, an Avionics Division was set up under the Materiel Directorate and has continued to maintain a small avionics section at Detachment G to supervise the electronic equipment testing at Edwards. Annex 43 gives a detailed description of the various Elint and counter-measures systems which have been and are being used in the U-2 program.

#### Conversion of U-2 to the J-75 Engine

In order to give the U-2 additional altitude which it needed to avoid interception, use of a more powerful engine was suggested by Mr. Kelly Johnson, and several power plants were considered during the fall and winter of 1958. The availability of the Pratt & Whitney J-75 engine (due to Navy cut-back of their Skymaster program) made it possible to borrow several for test purposes in January 1959. Mr. Johnson was able, by relocating the mounted accessories on the engine and enlarging the airscops, to fit the J-75 into the U-2. The

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Pratt & Whitney engineers estimated that the J-75 would give the U-2 a possible gain in altitude of 2,500 feet.

Lockheed's estimate for conversion of one U-2 plus four months flight testing was \$481,000 plus spares; conversion of all thirteen U-2 aircraft in the project inventory was put at \$2.5 million. With the life expectancy of the aircraft against Soviet fighters and missiles only a "best estimate", it was difficult to justify large outlays of funds at that stage. Therefore the first J-75 conversion program was for only four U-2's, begun in March 1959 at an estimated cost of \$1,250,000.

Successful tests were completed at Edwards in May and June 1959 and the first two operational J-75 U-2 aircraft were ferried to Adana by Detachment G pilots in August 1959. The remaining Agency-owned U-2's were converted, one or two at a time, the last in the summer of 1962. At that time the inventory had been cut by losses to seven aircraft. In May 1963 planning began for a dual staging capability by Detachment G in order to meet the worldwide requirements anticipated to be levied on the U-2 program. An inventory of at least nine aircraft was considered minimum to cover these tasks and in May the Director of CIA requested the Department of Defense to make two additional U-2 aircraft available for conversion to J-75 configuration and

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use by the Agency. Deputy Secretary of Defense Roswell Gilpatric approved the request and directed the Air Force to make the aircraft available from the SAC inventory, then totaling 22.

In June 1963 SAC borrowed three Project J-75 aircraft for their coverage of Cuba, one of which was lost near Key West, the other two being returned at the end of 1963. In 1964 two more SAC U-2's were turned over to the Project to be converted to J-75 engines as replacements for two lost in the TACKLE program.

On 17 August 1965, the Director of the National Reconnaissance Office, Dr. Brockway McMillan, ordered that a standard basic configuration be developed for the U-2's and that all SAC aircraft be so modified by the end of FY 1967. At the end of 1966, of the original 51 U-2 aircraft procured (20 by IDEALIST and 31 by the Air Force) there were only 17 left, four of which belong to the Air Force Systems Command, successor to ARDC.

Reorganization of Detachment G - September 1960

Between July and September 1960, Detachment C's remaining two U-2's and equipment, together with the personnel desiring to continue with the project, were phased into Edwards North Base, and under the command of Lt. Col. William J. Gregory, WRSP (IV) was reconstituted

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to provide an operational capability in addition to the development and testing activities previously carried out. Some key personnel replacements were required, renovation and reshuffling of available space was accomplished, and the staff and their families settled in, the military on base, and civilians principally in the town of Lancaster, California. With the attention of the Detachment being focussed more and more on operational missions, the development and testing programs became increasingly a Lockheed responsibility during this period.

The ungrounding of the U-2 subsequent to the May Day episode, which had been the subject of much high-level discussion during the summer of 1960, was accomplished at Edwards in late September when two long training missions in full simulation of actual operational overflights were successfully completed.

#### Inflight Refueling Capability - 1961

In consonance with the establishment of Detachment G as an operational reconnaissance group based in the ZI, the decision was made to modify the U-2 to give it inflight refueling capability for long distance staging. Headquarters USAF (Col. Geary) was requested in February 1961 to arrange for SAC to support the program by placing a KC-135

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tanker at Edwards to assist in the test program of the first IFR-configured U-2 (U-2F). Tests were successfully run in May and June 1961 and the first modified aircraft was turned over to Detachment G for pilot check-out and training. Six aircraft were so configured, one by one, as they went into Lockheed for IRAN and other modifications.

The training program required nine hours of ground school, a familiarization ride in the tanker to observe air refueling techniques before the actual air refueling training sorties were flown by the pilots. Pilot training in this technique has been built into the training course available at Edwards North Base under the direction of Detachment G personnel.

Two aircraft losses have occurred in the air refueling training program. The first, on 1 March 1962, was fatal to the pilot, Captain Campbell (SAC). In the case of the second loss, pilot Hall (CIA contract) bailed out and suffered only minor injuries. One IFR-version on loan to SAC was lost off Key West on an operational mission over Cuba in November 1963 (fatal to the pilot, Capt. Hyde, SAC), and two more were lost in the TACKLE program in March 1964 and February 1966. At the end of 1966 there was only one IFR-configured U-2 left in the Project inventory, and it has since been turned over to SAC.

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The introduction of inflight refueling allowed an increase in range up to the limit of the pilot's physical endurance. The longest mission flown was staged from Takhli on 10 November 1963 (Mission #3238, Pilot Al Rand), with air refueling over India, coverage of the Northeast Frontier, and return to Takhli. The mission was programmed for 11 hours and 45 minutes, and because of the physical condition of the pilot on landing after more than 12 hours of flying, it was concluded that no flights of more than 10 hours would be planned in the future.

Beginning of Detachment G Operations: Cuba, 1960

At the end of September, the proposal was made that a requirement by CIA and the Air Force for photographic coverage of Cuba be satisfied through two U-2 missions for which Detachment G had operationally ready aircraft standing by. The Joint Chiefs approved the plan and the proposal was put to the Special Group.\* The operation, which was in support of the Cuban counter-revolutionary invasion plan, was set forth by the Acting Chief of DPD, Col. Beerli, in the following terms, concurred in by Western Hemisphere Division, DD/P:

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\* Operation KICK OFF was the first U-2 overflight approval obtained under the procedure invoked after the 1 May incident. The mission plan is submitted in writing with justification, accompanied by a flight line map showing targets. A presentation of the mechanics and the security ramifications of obtaining political approvals is contained in Annex 105.

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"A requirement exists for complete aerial photographic coverage of Cuba, simultaneously if possible, in support of proposed clandestine paramilitary operations designed to bring about the overthrow of the present regime in that country.

"The photographic coverage is urgently needed in order to determine the following:

- a. Air order of battle.
- b. Ground order of battle.
- c. Targets.

"In addition, complete and current photographic coverage is essential to provide timely planning data on the following:

- a. Landing zones for air drops of troops and supplies.
- b. Landing zones along the coast for surface operations.

"Complete photographic coverage will also provide a base for comparative photography which will permit determination of any build-up and/or redeployment of opposition forces and assets.

"In addition to the initial complete coverage outlined above, there will be a subsequent requirement for periodic spot coverage to determine the following:

- a. Scope and disposition of expected military aid from Bloc countries (high performance aircraft, anti-aircraft artillery, radar, tanks, etc.).
- b. Current status of selected denied areas, aircraft and ship deployment and facilities, POL storage, troop concentrations, status of key sabotage targets, infiltration routes, and drop zone sites..." 1/

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1/ ~~TS~~-155523, 5 Oct 1960. Memo to DCI through DD/P from AC/DPD.

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The operation was approved in principle by the Special Group with each mission to be reviewed prior to launching. Del Rio, Texas, (Laughlin Air Force Base) was chosen as the staging base since it was a SAC U-2 operating base and had in place and available all facilities required to conduct the operation. The cover story was that the Agency U-2 unit was conducting an operational readiness test at a simulated staging base.

Operational procedures were generally as follows:

- a. The aircraft had all markings removed prior to take-off.
- b. Flight plan information was restricted at Del Rio to the Commanding Officer, flight planner and pilot.
- c. The pilot had all personal identification removed and was instructed to dispose of his flight plan and maps if bail out became necessary.
- d. The pilot was briefed on emergency actions for every minute of the flight. Glide range of 240 nautical miles (in event of power failure) would enable him to reach Key West; otherwise he should ditch at sea and in no event crash land on or near Cuba.
- e. A typical mission from Del Rio over Cuba and return was approximately 3,575 nautical miles for a duration of nine hours and twenty minutes with fuel reserve of 145 gallons on return to base.

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f. The B camera in Mode I and lateral separation of flight lines by forty nautical miles could cover the island in one successful sortie (provided there was no cloud coverage of strategic areas).

g. In the interest of security the film was to be airlifted to Eastman, not processed at the Del Rio facility.

Operation KICK OFF was staged between 26 and 30 October 1960 with a task force of 16 people, one mission aircraft and a back-up. Two missions were flown on 26 and 27 October. The photography was poor in both cases due to weather and cloud cover over the primary target area. Between 26 November and 13 December a second operation was approved (GREEN EYES) and three good missions were achieved.

Other Activities, 1960

During November 1960 Detachment G supported a series of [redacted]

[redacted] 50X1, E.O.13526

missions based in

Hawaii by providing a U-2 aircraft and logistics support. The operation (called STUDENT PRINCE) was successfully conducted between 9 and 28 November 1960. During this same period Detachment G also provided facilities and supported the organization and training of the Detachment H cadre who were dispatched to Taiwan in December 1960.

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Further Cuban Coverage: Counter-Revolution Fails

On 19 and 21 March 1961, two photo missions (LONG GREEN) were flown over Cuba to get the latest order of battle information in support of the invasion plan. For the period from 5 to 30 April 1961, Operation FLIP TOP gave daily or twice daily coverage during the period before, during, and after the Cuban counter-revolutionary activity, which ended so disastrously on 19 April at Bahia de Cochinos (better known as the Bay of Pigs). CINCLANT subsequently requested weekly coverage of Cuba which was carried out even though project officials considered this an undesirable use of the U-2 capability.

Vietnam Coverage - 1961-64

In 1961 it became apparent that United States interests and commitments in Vietnam had become so substantial as to justify the employment of the Agency's most sophisticated capabilities for obtaining essential intelligence required to support expanding operations in the area. Major concerns were supply routes and road communication networks supporting Viet Cong infiltration and their potential for logistic support in the event of an escalated war. The available maps and charts of this region were inadequate to permit planning for operations and countermeasures.

The first deployment in fulfilling these requirements (Operation POLE CAT) was by Detachment G staging from Cubi Point Naval Air Station,

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at the end of 1960, and seven sorties were flown over North Vietnam and Laos between 3 and 18 January 1961. At the beginning of August 1961, highest authority granted approval for further coverage (Operation EBONY) and one U-2 aircraft and party were deployed by Detachment G on 13 August 1961, again using Cubi Point for staging. One successful sortie was achieved for tactical coverage of North Vietnam on 15 August and the team returned to Edwards.

Between 1962 and 1964 further tactical coverage of North Vietnam and Laos was required from time to time and was accomplished by staging teams from Detachment G to Takhli, Thailand, or by U.S. contract pilots flying out of the Detachment H base on Taiwan. Thirty-six photographic missions (about 70% successful) were flown during this period. In April 1964, due to the increased tempo of Viet Cong activities and the breakdown of the "strategic hamlet" concept, what had been essentially a strategic reconnaissance requirement changed to a tactical support requirement responsive to the immediate needs of local military commanders and the responsibility for aerial reconnaissance of the area was given to the Strategic Air Command. SAC's U-2's were to be used over South Vietnam, parts of Cambodia within 30 miles of South Vietnam, all of Laos south of Paksane, and all of

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North Vietnam within 30 miles of South Vietnam or of the coast.

IDEALIST was to cover other parts of Laos and North Vietnam, or other targets as approved for operational efficiency. Film processing was to be done in the field — SAC's by their mobile units and IDEALIST's by ASPIC at Yokota.

Operation NIMBUS: Cuba During the Missile Build-up

From May 1961 to October 1962, Detachment G accomplished 28 overflights of Cuba on behalf of the U. S. Intelligence Community in an effort to determine the extent of the deployment of Soviet assets in Cuba and to ascertain the eventual probable purpose, whether defensive or offensive. On 29 August 1962, Mission 3088 confirmed the existence of numerous surface-to-air missile sites on the island of Cuba. The Committee on Overhead Reconnaissance (COMOR) requested re-coverage of the island as quickly as possible. A staging team from Detachment C deployed to Del Rio on 4 September and launched a photographic mission on 5 September.

A request for approval of additional flights was considered at an augmented Special Group meeting on 10 September. The Secretary of State expressed concern at the Agency's planned coverage of Cuba, which involved extensive peripheral coverage as well as two legs directly

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over Cuban air space, all in one flight. He had no objection to the peripheral parts and thought it useful to continue to exercise our right to fly over international waters. On the other hand he recognized the necessity of obtaining vertical coverage of the Isle of Pines and the eastern portion of Cuba at this time. Nevertheless, he felt it unwise to combine extensive overflying of international waters with actual overflights. The long peripheral flight would draw undue attention to the mission and further, should the aircraft fall into enemy hands after an overflight had occurred, this would put the U. S. in a poor position for standing on its rights to overfly international waters. The mission planners then broke the proposed coverage into four parts: The Isle of Pines, the area east of longitude 77 west, and two legs along the coast, one north and one south.

Within this framework, higher authority gave approval interpreted by Presidential Assistant McGeorge Bundy on 13 September, as permission for all four flights. Detachment G's staging team thereafter accomplished missions on 17, 26 and 29 September and on 5 and 7 October 1962.

On 9 October, discussion at the Special Group meeting reached agreement that the first priority in Cuban coverage was for one high

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performance mission in the western part of the island, to be accompanied by all out Elint support, to search out the suspected missile sites. Depending upon the results of that mission, other sorties would be flown. Meanwhile, due to the fact that this reconnaissance of Cuba was turning from a strategic to a tactical requirement and the limited Agency assets available would not be sufficient to keep up the pace demanded by such coverage, the Joint Chiefs recommended that SAC aircraft and pilots be used. This was agreed to by Secretary of Defense McNamara and on 12 October was approved by the President.

When the question of SAC taking over Cuban coverage with their U-2 aircraft was surfaced, the DCI requested OSA to give him an analysis of the factors involved in the designation of SAC as executive agent for the further conduct of Cuban reconnaissance.

In reply, on 14 October 1962, Mr. James Cunningham stated that the basic question at issue was: As a national policy, should covertly executed overhead reconnaissance of denied areas be performed by the Defense Establishment, or because of the plausible denial aspect, by the Central Intelligence Agency with DOD support? He noted further:

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"Since President Kennedy has not yet decided to overtly acknowledge overhead reconnaissance of Cuba with military assets, but has limited his official position to a reported willingness to acknowledge peripheral reconnaissance of the island by the military, and then only in the event of an incident, it would appear to us that grounds still exist to consider these missions as covert enterprises, deserving of professional execution by that staff most experienced in conducting operations within the smallest circle of knowledgeable people. On that basis, it is our recommendation that the DCI continue to support execution of Cuban U-2 reconnaissance under the command control and guidance of this Agency, with such additional support as may be required from USAF and SAC to carry out the mission in military guise." 1/

On 14 October 1962 a SAC pilot, using an Agency-owned U-2 and an Agency-prepared flight plan, flew Mission 3101 over Cuba. On read-out of the photography from that mission, the presence of MRBM/IRBM installations in Western Cuba was confirmed. At a meeting in the Defense Department on 16 October, Secretary McNamara said that political approvals were no longer a factor and he wanted the greatest number of missions flown in the shortest time possible to permit him to give the President an accurate idea of the threat to the United States. The decision was reached at that meeting to use both DOD and CIA U-2 assets, under the command and control of SAC. Agency contract pilots would only be used in extreme circumstances and would be given

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1/ BYE-3944-62, 14 October 1962. Memorandum for the DCI from DAD/OSA.

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light Air Force cover. In the event of capture they were supposed to claim to be Air Force officers. However, since they had been for many years openly known as Lockheed test pilots, such a story would not hold up. (Fortunately, they did not have to be used under these ground rules.)

The President's disclosure in his radio-television speech on 22 October of the presence of offensive missiles in Cuba, his naval and air "quarantine" on shipment of offensive weapons to Cuba, and Mr. Khrushchev's eventual undertaking to withdraw them, have been well covered in public media. Since October 1962, SAC has continued to be responsible for coverage of Cuba and Project IDEALIST has been involved only in the loan to SAC of J-75 configured U-2's for use in Cuban overflights when so instructed by higher authority.

On 12 February 1963, in response to CIA Legislative Liaison's request for information pertaining to the conduct of U-2 operations over Cuba during the period 9 to 14 October 1962 (which had come under question by certain Members of Congress) OSA gave the following report:

"...Special Group approval for Cuban overflights in the month of October 1962 included the one sortie, forecast by the CIA, in addition to two sorties carried over from the September approvals. Weather was reviewed daily and the September missions were completed by 7 October 1962. Favorable weather existed on 8 and 9 October; however, no aircraft were available in commission to accomplish the one remaining sortie. Weather

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was unfavorable on 10, 11 and 12 October. During this period Agency personnel at Edwards Air Force Base, California, supervised the requalification of military pilots in the U-2C. Operational control of Cuban overflight operations was delegated to JCS/SAC on 12 October 1962. An Agency detachment from Edwards Air Force Base was deployed to McCoy Air Force Base, Florida, 13 October to support SAC. Mission 3101 was planned by the CIA and was accomplished as a SAC mission on 14 October 1962 by a military pilot departing Edwards Air Force Base and landing at McCoy Air Force Base..." 1/

The version of what happened during the period following the last CIA flight over Cuba as described by Newsweek on 4 March 1963 read as follows:

"Another McGeorge Bundy initiative had major historical impact. Though he and his immediate associates will not discuss the matter, there is firm basis to credit him with breaking a deadlock in a dispute between the CIA and the Strategic Air Command as to which agency would conduct U-2 flights over Cuba. According to this account, it was that dispute--not bad weather--that left a gap of some two weeks in the U.S. overflights and that almost enabled Nikita Khrushchev to complete his missile installations before they were spotted. The CIA warned against making the flights a military operation, insisted on carrying them out with civilian pilots. Over its protest, Bundy arranged for SAC to send out its U-2 planes--and the very first flight thereafter produced the evidence that triggered the facedown crisis." 2/

No evidence was found in OSA files indicating that the false implications of this editorial were ever rebutted by CIA or the White House.

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1/ Letter to OGC/CIA, 12 February 1963, from DAD/OSA.

2/ Editorial: "Too Much Power?", Newsweek, 4 March 1963.

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IDEALIST coverage of Cuba during 1961 and 1962 equalled 459 hours of U-2 flying time and was estimated to have cost \$1,100,000 (at \$2711 per hour). This figure was given to Western Hemisphere Division to be incorporated into a report which the DD/P prepared in response to a White House Staff request in order to inform the President on the nature and cost of operations which CIA had directed against Cuba since Castro came to power.

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Sino-Indian Border Coverage, 1962-64

In November 1962 incursions by Communist Chinese forces into the territory of India brought a request from Prime Minister Nehru for United States military arms assistance. This was recognized as a situation which might be exploited to our advantage from the standpoint of intelligence collection and with specific reference to U-2 aerial reconnaissance. Although the U.S. intelligence community was interested in acquiring photo coverage of the Sino-Indian border and contiguous areas, a more compelling motivation was the possibility that by establishing a precedent for coordinated U-2 overflight operations with India, a staging base might ultimately be acquired from which to run electronic reconnaissance missions against the Soviet ABM site at Sary Shagan, and photo missions against West China targets out of reach of Detachment H.

After appropriate coordination with the U.S. Ambassador to New Delhi, John K. Galbraith, [ ] 50X1, E.O.13526 [ ] the President was asked to approve an approach to the Government of India with an offer of U-2 reconnaissance support. Approval was given by the President with the proviso that the Indians should specifically request that these flights be undertaken.

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On 9 November 1962, Presidential Assistant McGeorge Bundy sent the following message to Ambassador Galbraith:

"The President is eager to get hard information on Chinese Communist deployments against the Indians, and in response to his direct request, plans have been made for two U-2 flights staging out of Thailand and overflying India.

50X1, E.O.13526

"What the President wants for these flights is that the Indians should ask for them and agree to (1) refueling in the air over India (at about 35,000 feet); and (2) emergency landing rights as specified in separate message [redacted]. In return we of course will provide full information to the Indians on what is learned.

"What lies behind the President's own sense of urgency here is his conviction that most military estimates of what the Chinese Communists are doing rest on very little beyond thin speculation and standardized guesswork. This is no one's fault because nothing better is available. In a matter of this magnitude hard information can be absolutely decisive, as Cuba recently demonstrated..." 1/

In response to the direct request of the White House, OSA made plans for two IDEALIST flights out of Takhli overflying India (but not Burma) to and from the target area. Agreement to President Kennedy's request was obtained from Nehru by the Ambassador on 11 November (and approval by Sarit for use of Takhli was obtained on 14 November). A task force of 30 men with one U-2 aircraft was made ready to deploy by Detachment G. A delay ensued while [redacted] negotiated arrangements for inflight refueling of the U-2 over Indian

50X1, E.O.13526

1/ Message sent [redacted] to New Delhi. Citation unavailable.

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territory, and emergency landing rights. The team was in place at Takhli by the end of November 1962.

Because the Chinese had announced a withdrawal of their troops from the contested area, the first overflight was postponed so as not to give them a pretext for failing to withdraw. The first mission was flown on 5 December covering the Ladakh region (Nepal border and Kashmir) and was only 40% successful due to weather and turbulence. The next mission was flown on 10 December covering the Northeast Frontier. On both missions there were problems with fuel icing which caused much concern at Project Headquarters. Dr. Scoville (DD/R) sent a message to Mr. Johnson at Lockheed and Col. Gregory at Detachment G, saying:

"...Because of the sensitivity of this particular operation, it being the first timid step of the Indian Government toward anything as daring as a major overflight effort, the last thing we need is to have them discover when we abort or fail to fly in excellent target weather, that our problem is a persistent mechanical one with an aircraft whose long history of reliability has been stressed to them... Since we obviously cannot fly operationally until an acceptable solution is found... I am asking that test flights be programmed at Lockheed, Edwards and in the Takhli local area to check the limitations of the fuel flow system, screen and pumps..." 1/

Results of the test missions indicated that the use of Phillips 55MB additive in the fuel was a safe fix for the icing problem and the U-2 at

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1/ ADIC-0342, 12 December 1962 ( [ ] channel). [ 50X1, E.O.13526 ]

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Takhli was considered operationally ready upon receipt and use of the additive.

Four additional missions were approved by the Special Group but since the 10 December overflight of the NEFA had drawn a Chinese protest to the Indians (even though they had not identified the U-2 as the aircraft), the Indians showed reluctance and wanted to limit the operation to one flight, waiting to see if there would be another protest. All six missions approved for the border region were eventually carried out, the last on 22 January 1963.

Although the intention had been to press the Indians for use of one of their bases from which to direct U-2 flights, the DCI instructed that before an approach was made to the Indians a briefing (using materials from the border overflights) be given to Nehru and a reading be taken on his attitude toward more direct involvement in the overflight program. An initial briefing was given in January and another in March with the latest findings. From this intelligence Nehru was able to inform India's Parliament on Chinese movements on the border, troop build-up, road construction, etc. This triggered a news story by UPI that probably the Indians were using the U-2, administered by the U.S. from Okinawa, or by the Chinese from Taiwan.

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In April 1963 an official approach was made by the Ambassador

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for an operating base in India. The

Chief of the Indian Intelligence Service replied that due to internal conditions in the country, a secure base could not be made ready until September. A request was then made for refueling corridors and on 9 May the Indians advised that for the time being they were unable to allow flights to enter the border area from India. The staging party at Takhli which had meantime been covering priority Southeast Asia targets was withdrawn to the ZI on 19 May 1963.

In July further inquiry of the Indians regarding a firm commitment for a base brought the reply from the CIB that they were hopeful of obtaining use of Charbatia Air Base and would review the political situation with the Agency in another thirty days.

Against the background of nine months' experience in dealing with the Indians on U-2 and other operations, the Near East Division recommended to the Special Group on 30 July 1963 that the U.S. proceed with plans to stage a U-2 capability into India on a temporary basis in September 1963 for coverage of Tibet and contiguous areas of China, meanwhile continuing to support the Indians in establishing a maximum security base, and encouraging their reliance on their own Air Force's capabilities to complement U.S. reconnaissance efforts.

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An inspection team from Project Headquarters visited Charbatia between August 2nd and 13th and found runways not yet usable, the hangar not yet constructed, barracks and mess not completed, no medical facilities available and no ground equipment. A readiness date of 15 November was forecast by the Indians but was considered optimistic by the visiting team.

The decision was then made to launch the four approved missions from Takhli, refueling at Charbatia. However, on 23 August, Prime Minister Nehru refused political clearance for post-strike use of Charbatia, the reason given being that the Chief of CIB [ ] was unable to assure that use of the base by U-2's would not become known to the political opposition due to large numbers of unscreened construction workers in the area. OSA recommended that unless there was at least token participation by India, no approach be made to the Thais for use of Takhli; meantime, however, the Indians came through with approval for refueling at Charbatia. On 19 September permission for launching from Takhli was given by Sarit although he was far from enthusiastic. The launch team was in place at Takhli by 25 September and the four approved sorties were flown over Tibet between 29 September and 10 November 1963 with excellent results. After further coverage of the northern border regions

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of Thailand on behalf of Sarit, the team was withdrawn to Edwards.

A survey of progress in preparing the base at Charbatia was made in February 1964 and it was found that the hangar was still not erected and that the base could not securely support the U-2 operation until about the end of April 1964. The Special Group on 12 March 1964 authorized missions "as necessary" in the Sino-Indian border region, and one mission to the NEFA was successfully launched on 31 March from Takhli.

The Indians approved coverage of all border targets of concern to both Governments shortly thereafter, to be accomplished prior to the next monsoon season and completion of facilities at Charbatia was assured by 1 May 1964. Airlift of 17,000 pounds of communications gear to Charbatia was accomplished and communications were activated on 30 April 1964. Air Force supplies and equipment in the amount of 130,000 pounds were furnished from various USAF depots and also airlifted to Charbatia. The staging team moved forward as far as Cubi Point where it held temporarily to await the final clearance by the Indians. During this time the landing of a USAF C-124 and take-off without proper Indian clearances caused a furore and all flights were grounded for a time while the Indians sorted things out. The staging team was finally in place on 19 May, only to have the weather turn unfavorable, causing

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a delay in launching the first mission until 24 May. That mission achieved good photographic coverage but on return of the U-2 to the base at Charbatia, the aircraft brake failed and the landing gear was damaged beyond local repair during the overrun, necessitating airlift back to the U.S.

At that time, on 27 May 1964, the death of Prime Minister Nehru occurred, and on 30 May the staging party returned to Clark Field to await developments (since their stay at Charbatia had been restricted by the Indians to seven days from the beginning of operations). The decision was made to postpone further operations from Charbatia at that time and the team returned to Edwards.

The cost of airlifting the men and materiel from Edwards and the various supply depots to Charbatia (which required 15 support aircraft) was \$350,000 one way. On the planned basis of two stagings a year to Charbatia, this would mean \$1.4 million in airlift alone. It was agreed to leave the Air Force equipment and supplies and some communications gear at Charbatia under guard in order to save some of this cost.

The second staging from Charbatia took place in December 1964. Two U-2 aircraft were used and the team was in place and ready on 11 December. Weather in the target area caused a little delay but

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excellent missions were accomplished on 16, 17 and 20 December covering all COMOR targets along the Sino-Indian border. The group departed for home station on 22 December 1964.

Subsequently it was decided that in lieu of a permanent detachment in India (cost initially estimated at \$13 million), or periodic deployments (\$1.4 million for two each year), Takhli would be used as a base of operations with Charbatia being used only as a forward staging base.

The USIB/COMOR requirement for semi-annual coverage of the Sino-Indian border region was an estimated requirement, subject to specific review and sanction, and by mid-year 1965 coverage by other means (i. e. satellite and Indian Air Force) was satisfying all urgent needs. One purpose in keeping the U-2 operation from India alive was to keep the door open for possible negotiations with regard to air refueling, emergency landing rights, and radar suppression for the follow-on A-12 aircraft. On the other hand, the prospects for use of Elint systems against Sary Shagan were not good from Charbatia, distance-wise or politically, and OSA was opposed to establishment of a TACKLE-type detachment jointly with the Indians, using Indian pilots.

In the light of these considerations, plans for further staging from India were made only on a contingency basis, and no requirement

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for such operations has since been levied upon IDEALIST. The materiel left at Charbatia was airlifted out (with the exception of a fire truck and two vans, airlift for which was too heavy to land on Charbatia's runway) and most of it moved to Takhli to support the build-up there. The close-out operation was completed in July 1967.

Coverage of Venezuela and British Guiana

In the fall of 1963 the Western Hemisphere Division of DD/P developed a requirement for photographic coverage of Venezuela as a result of activities by anti-government elements (FALN) to interfere with free national elections, discredit the Betancourt government, and try to bring Venezuela into Castro's orbit. It appeared that outside support for the guerrilla activity, based in northeast Venezuela, was being infiltrated across the border from British Guiana.

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A proposal for U-2 photo reconnaissance of the area with IDEALIST assets to ascertain the scope and rate of build-up of guerrilla forces was put to the Special Group and approved on 30 November 1963. A task force, staging from Ramey Air Force Base in Puerto Rico, flew six

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good photographic sorties over the area and returned to Edwards on 22 December 1963 with mission successfully accomplished.

Results obtained from this coverage had to be subjected to special hold-down within the TALENT system lest the British become aware of the overflights of their territory, to the further detriment of relations between the services.

#### U-2 Carrier Version and Its Operations

The history of the conversion of the U-2 aircraft to a carrier launch and retrieval configuration and the successful operational exercise of this capability is contained in the OSA/DDS&T publication "U-2 Aircraft Carrier Operation--Project WHALE TALE--Operation FISH HAWK" (BYE-3525-64), which is included here in the immediately ensuing pages.

The successful coverage from the USS RANGER of the French atomic tests at Tuamotu Archipelago was achieved between 11 and 28 May 1964. Subsequently, in September 1964 and again in March 1965 (during crises on Cyprus), the planning of a joint exercise with the British, involving the ferrying of a U-2 via the U. K. to a U. S. carrier in the Mediterranean, was discussed but was never carried out.

The only serious accident during the carrier pilot training program occurred on 26 April 1965 when U-2 #382 crashed and burned near

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Edwards Air Force Base and the pilot, Mr. Buster Edens, sustained fatal injuries. The mission was to practice simulated carrier landings and the accident board findings indicated most probable cause to be low altitude, wing-low stall resulting in a spin from which the pilot could not recover. One carrier-modified aircraft (U-2 #362) was lost over Mainland China on a TACKLE mission on 7 July 1964 (although it was not being used in its carrier launch or retrieve mode). As of the end of 1967 there were four carrier-configured U-2's left in the CIA inventory.

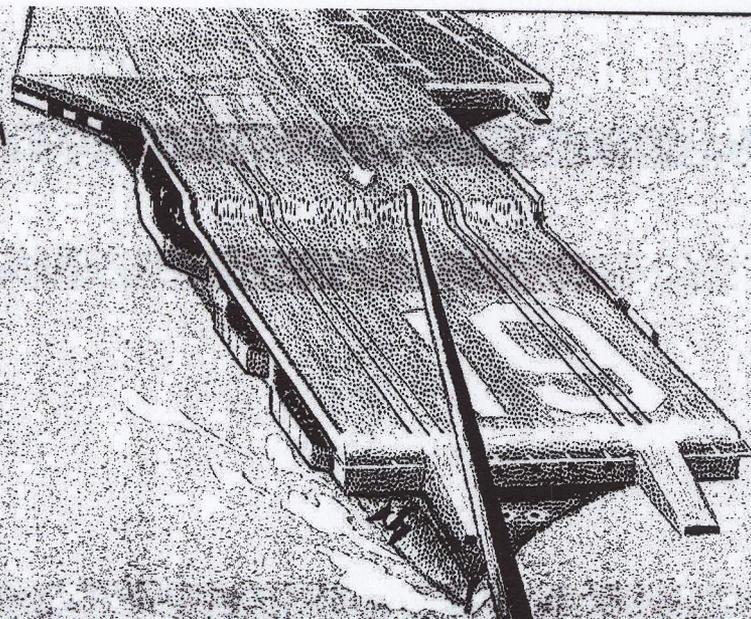
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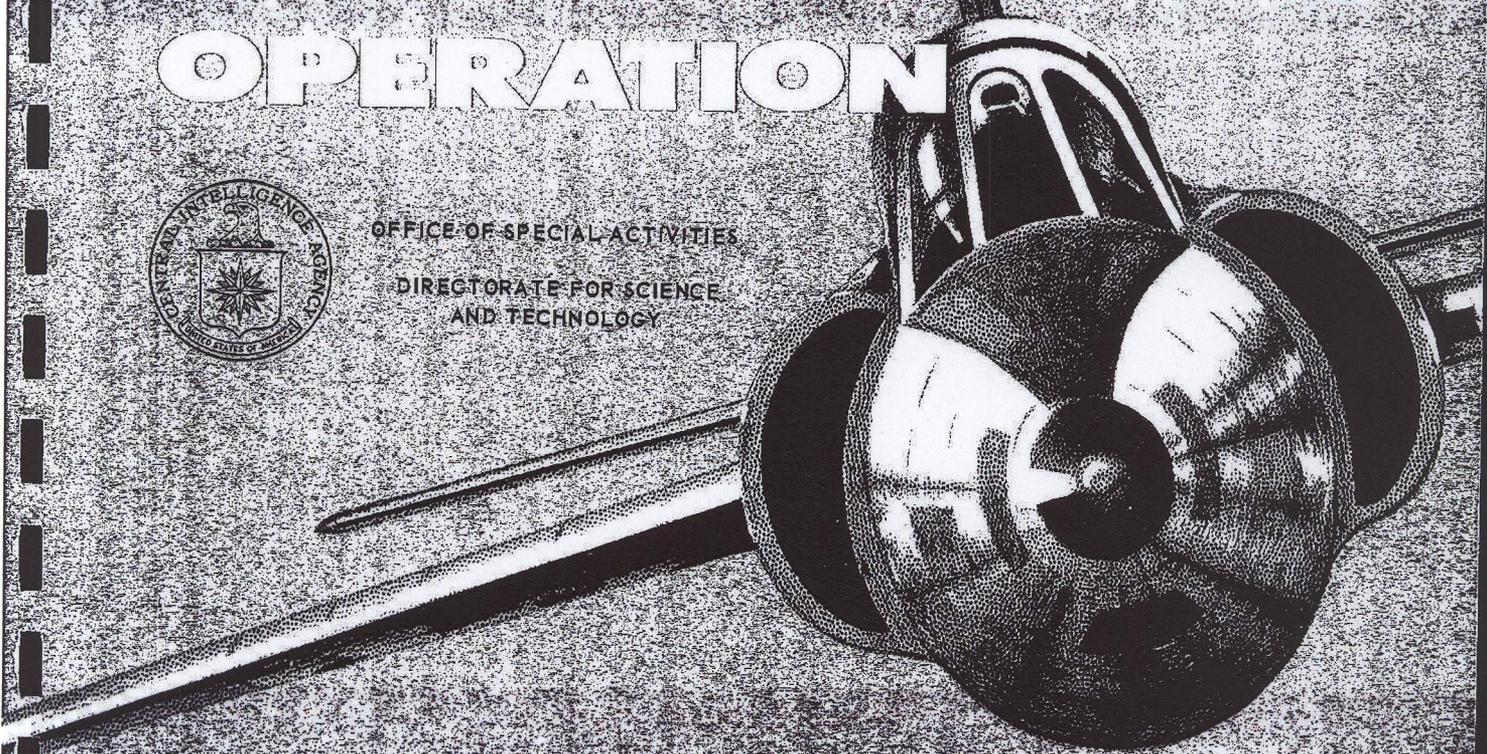
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December 1964  
28 Pages  
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# U-2 AIRCRAFT CARRIER OPERATION



OFFICE OF SPECIAL ACTIVITIES  
DIRECTORATE FOR SCIENCE  
AND TECHNOLOGY



Project "WHALE TAIL"  
Operation "FISH HAWK"

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BYE-3525/64

December 1964

# U-2 AIRCRAFT CARRIER OPERATION



**project "WHALE TALE"**  
**operation "FISH HAWK"**

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ACKNOWLEDGMENT

The Deputy Director for Science and Technology, Central Intelligence Agency, wishes to express his appreciation to the National Photographic Interpretation Center for assistance in the preparation for publication and printing of this report.

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## CHAPTER I

## EARLY HISTORY

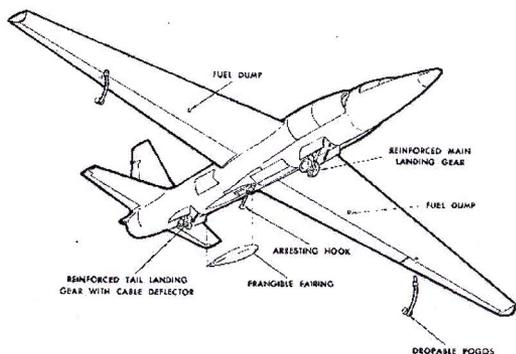
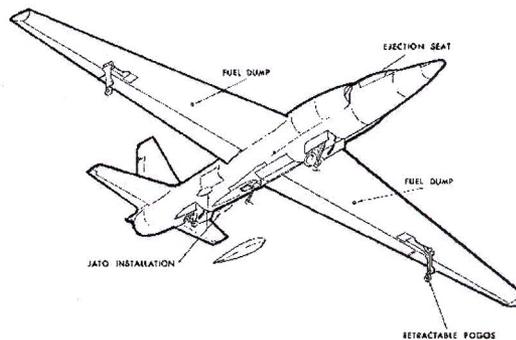
The U-2 overflight program commenced in the summer of 1956 and for the ensuing four years, operating from land bases in various parts of the world, scored a record of successes which have resulted in its being widely acclaimed as one of the most effective and productive intelligence collection programs in the history of the craft.

On 1 May 1960 the loss of a U-2 deep inside the Soviet Union brought a torrent of world-wide publicity. Subsequently, the problem of obtaining even temporary staging rights in friendly foreign countries became progressively more complicated. Because of the notoriety associated with the aircraft, its appearance in a foreign country, if detected, was likely to create political problems for the host government. This was likely to be true even in those instances where the host country was not subject to immediate pressure by the Soviet Union but was more often a function of internal domestic politics within the host government.

While all such foreign governments recognized the usefulness of the U-2 as an intelligence acquisition vehicle and all were eager for the protection such knowledge affords, few were readily willing to undergo the varied political pressures inherent in granting staging rights to the aircraft.

Given the state of affairs alluded to above, resorting to aircraft carrier based operations was a hopeful prospect not only for coverage of those targets not readily accessible from friendly foreign soil, but for any critical operations where valuable time could not be expended in protracted political negotiations.

The concept of operating the U-2 from an aircraft carrier was not a new or particularly imaginative idea at this time. In fact, it had been considered early in the U-2 program and had been the subject of a discussion during a briefing given to President Eisenhower in May of 1957.



*DESIGN PROPOSALS* for developing a U-2 with a carrier launch capability were submitted as early as 1957, as shown here. The configuration ultimately chosen most nearly resembles that in the lower drawing with the addition of some additional features such as the mechanical spoilers installed on the wings.

At this time, the Chief of Naval Operations, Admiral Arleigh Burke, recommended to the Director of Central Intelligence, Allen W. Dulles,

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that immediate action be initiated to develop a U-2 carrier based capability. On 2 August 1957, Lt. Gen. Charles P. Cabell, Acting Director, Central Intelligence Agency, in a memorandum to the Chief of Naval Operations stated as follows:

"(A) The carrier capability at this time would add little to the coverage of the Soviet Bloc obtainable by the U-2 from the land bases to which it now has access.

"(B) The availability of alternate land bases provides a fair degree of insurance against political evictions, but

"(C) Carrier operations, by reason of flexibility and independence of foreign jurisdiction, would generally enhance the reconnaissance capability of the United States, especially with respect to areas outside the Soviet Bloc. Accordingly, although the benefit to the project would be too limited to justify the expenditure of project funds for the conversion of aircraft, this Agency would be happy to see this additional capability in hand. These views have, of course, been made known to the Navy in recent conversations. It is suggested that the

Navy approach the Air Force directly and seek a resolution of the issue."

Since the U-2 project was a joint CIA-USAF project administered and operated by CIA and supported logistically by USAF, any proposal such as the conversion of U-2's for carrier suitability would have required both CIA and USAF concurrence. It subsequently developed that USAF decided there was no need for a carrier capability and in 1957 the attempt to develop the carrier capability was disapproved by the Chief of Staff of the United States Air Force.

The Navy attempted on several occasions between 1957 and 1960 to obtain a joint agreement between CIA and Air Force to the effect that a carrier capability should be developed. These attempts met with little success due primarily to the fact that the Agency was able to land-base the U-2 at selected bases compatible with coverage of the Soviet Union and Bloc countries.

Despite the loss of the U-2 over the Soviet Union on 1 May 1960 and the limited operations of the U-2 which followed, the carrier proposal was not seriously pursued again until 1963.

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## CHAPTER II

## APPROVAL

The proposal to develop a carrier configured U-2, designated the U-2G, gained impetus early in 1963 when Lt. Gen. Marshall S. Carter, Deputy Director of the Central Intelligence Agency, took a personal interest in the project.

General Carter engaged in discussions with Mr. Clarence L. "Kelly" Johnson of Lockheed Aircraft Corporation, designer of the U-2, on the question of whether there would be major problems involved in modifying one or more of the CIA owned U-2's for carrier operations. Mr. Johnson assured General Carter that the aircraft could be modified with relatively minor design and engineering changes and at a reasonable cost.

In view of Mr. Johnson's assurances, General Carter instructed Colonel Jack Ledford, Assistant Director, Office of Special Activities, and his deputy, Mr. James A. Cunningham, Jr., to have their staff commence the required action for investigating the feasibility of operating CIA U-2's from aircraft carriers, and to determine the necessary measures to implement such a program.

The first of the actions taken by Col. Ledford and his staff featured a series of surveys and familiarization trips to various U.S. aircraft carriers and Naval air stations. The Agency team, headed by Mr. Cunningham, was accompanied by representatives from Lockheed Aircraft Corp. and the Office of the CNO. The purpose of the visits was to enable members of the Agency, Lockheed, and CNO jointly to investigate and define any potential problem areas which might affect the development of the U-2G and to work out, as quickly as possible, solutions to whatever problems that might

arise. It was during the course of these visits and discussions that a tactical doctrine for U-2 carrier based operations began to emerge.

After the initial series of visits and meetings, the group concluded that there were no insolvable problems that would preclude operation of the modified U-2's from an aircraft carrier. Based on the findings and recommendations of the survey team, Mr. Cunningham undertook a comprehensive staff study on the proposal which was subsequently submitted to General Carter.

In addressing the substance of the concept, Mr. Cunningham wrote in part, as follows:

"The basic question then is whether or not this aircraft can be economically adapted to work from carriers with an acceptable margin of safety in flight operations, and, once so adapted, can it operate with frequency varying from occasional to repeated, in this manner, without affecting the Navy's disposition of forces under existing Navy Single Integrated Operational Plan (SIOP) commitments. As indicated earlier, present engineering analyses confirm that the aircraft can be so operated theoretically as to produce a viable carrier capability for reconnaissance purposes.

"Aside from the unknown range and altitude characteristics of the converted aircraft (which will depend upon arresting gear weight for the most part), the only apparent aerodynamic question is associated with the behavior of the aircraft in the landing configuration when it is approaching a fast moving carrier from the stern. One suggestion which has been made

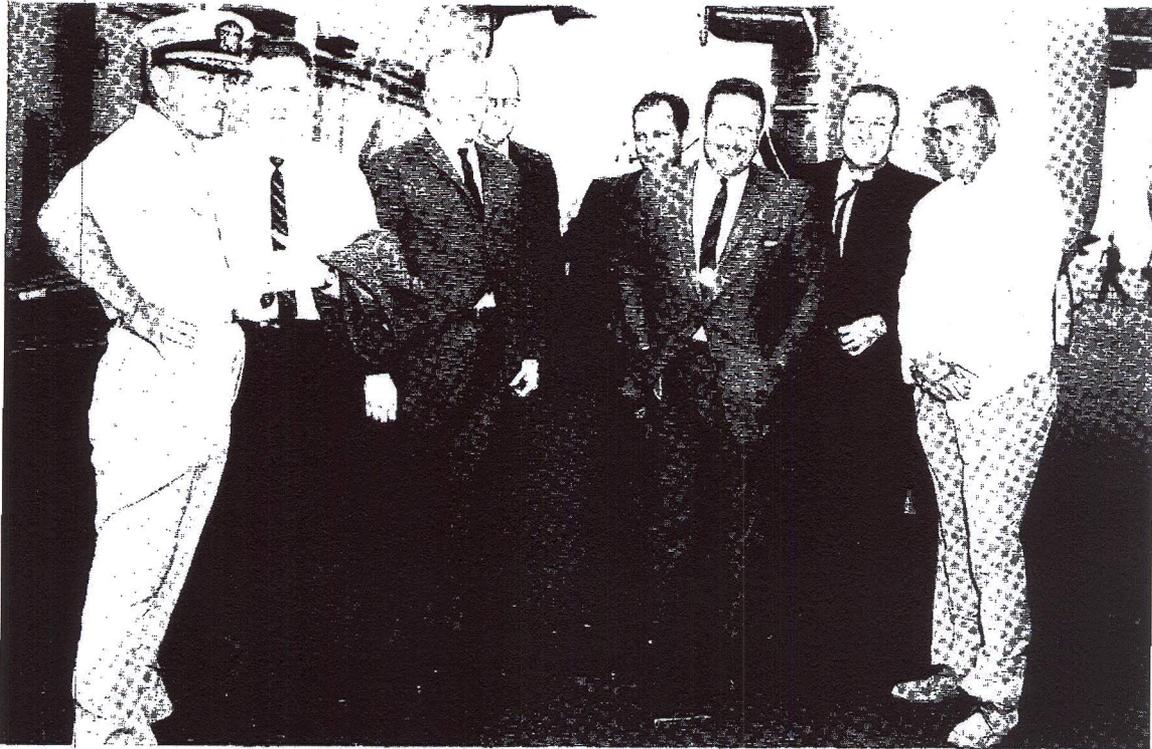
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*SURVEY PARTY aboard the U. S. S. INDEPENDENCE. Left to right: Capt. Swanson, U. S. S. INDEPENDENCE; Capt. Martin D. Carmody, Office of the CNO; Mr. William Cotter, Chief of Security, OSA; Mr. Edward L. Green, Eastman-Kodak; Mr. Fred Cavanaugh, Lockheed Aircraft Corp.; Mr. James A. Cunningham, Jr., DAD/OSA; Major James Chorbouneaux, OSA Project Officer; and Mr. Martin Knutson, Agency U-2 pilot.*

is that the standard angle of attack for such an approach with Navy aircraft which is three or four degrees to the horizontal be reduced to approximately 1 1/2 to 2 degrees in the case of the U-2 to permit a flatter angle of approach with power on so that "ballooning" of the aircraft prior to contact with the deck will be minimized.

"In a normal landing attitude, the U-2 rides tail high, which unless compensated for by a skillful power-on approach just above the stall speed may make the engagement of a carrier hook relatively difficult. There is a possibility that a problem may exist in wind pattern over the stern of a fast moving carrier, which according to Navy statistics, normally produces a

down-draft immediately to the rear of the stern, followed by an up-draft from 1,000 to 1,500 feet aft of the carrier. With its sizeable wing area and with flaps fully extended, there may be some adjustments in technique which will have to be accomplished in order to overcome the possible adverse effects of these phenomena.

"Stack wash from the carrier's funnels can largely be eliminated as a deterrent characteristic, since carriers on which the U-2 would be landed make their arrested landings on the angled deck, approximately nine degrees from the central axis of the hull away from the island, and the captains of both the USS LEXINGTON and USS INDEPENDENCE stated categorically that

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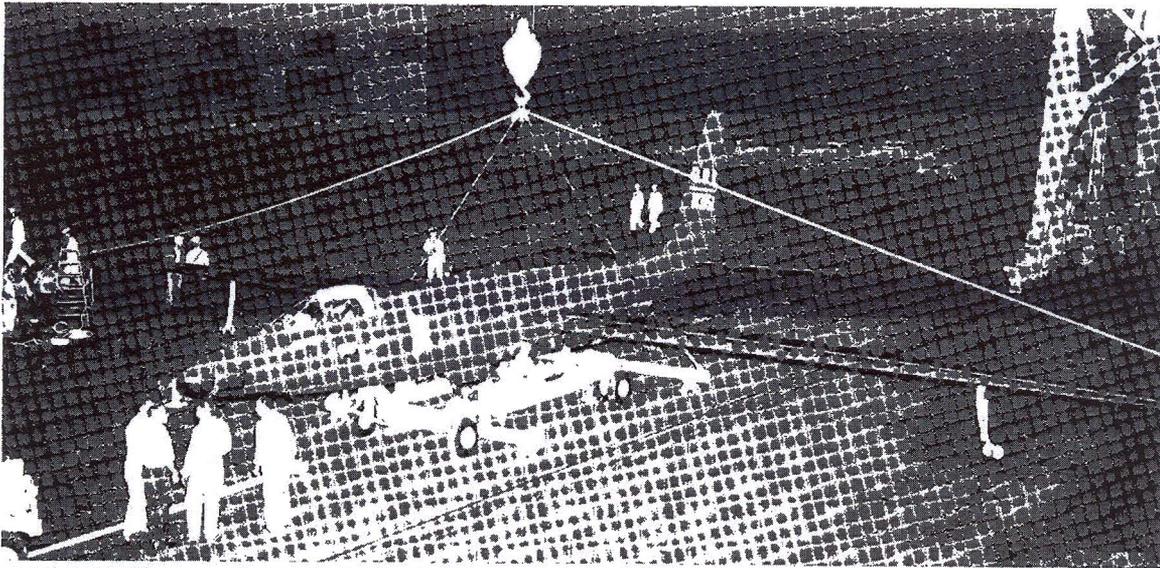
they 'could put the stack wash wherever the pilot wanted it.' This, of course, means that they could adjust the carrier's steaming angle to take maximum advantage of existing wind conditions to deflect stack wash. The only time this might be a modest problem would be when the aircraft is landed in a no wind condition, at which time it must rely solely on the carrier's forward momentum for relative wind."

Recognizing that the physical handling of the U-2G aboard a carrier would pose some unique problems, Mr. Cunningham further wrote:

"Movement of the aircraft from the hangar deck to the flight deck and conversely can be accomplished, despite the fact that no carrier in the United States Navy has elevators large enough to accommodate the U-2 without a portion of the wing extending beyond the outboard edge of the elevator. The largest elevator in the Fleet

measures only 70 by 52 feet, while those on the carriers in the group most likely to be employed in U-2 operations (CVA's 59 through 62), measure 63 by 52 feet. Lockheed has designed a special fuselage cart called a 'LOWBOY,' which permits side casting operations essential to movement from the hangar deck floor to the elevator and from the flight deck to the elevator, etc. This will be equipped with adjustable brakes to prevent any incident should the aircraft be on the elevator during period of rough weather.

"In addition, Lockheed has manufactured a special sling using a fuselage cart as the basic ingredient, which will permit on-and off-loading of the aircraft from the carrier when it is necessary to remove it or replace it aboard other than under its own power. The hangar deck offers adequate space for a compartmentalized working and refueling area.



*SPECIAL SLING was manufactured by Lockheed which permits on and off-loading of U-2 from the carrier when it is necessary to remove it or replace it aboard other than under its own power. This photo was taken at North Island NAS as aircraft is prepared for initial launch tests.*

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"Minor adjustments in the aircraft component of an operational carrier must be made to provide adequate storage space on the hangar deck, but Navy assures us that this is an administrative problem which can be encompassed by proper direction from higher authorities, beginning with the Chief of Naval Support and the CNO, augmented by the Joint Chiefs of Staff in those cases where such temporary depletion of the Air Carrier Group would affect the Navy's SIOP capabilities."

On the subject of cover, the staff study stated:

"A clear and plausible cover story, stoutly maintained by responsible persons concerned and supported by the IDEALIST Detachment aboard the carrier, can probably preserve the fiction of innocuous use of the U-2 for considerable time. This story will require precise and unequivocal attention to every detail. The IDEALIST Detachment and the carrier commander must be given detailed guidance, not only on the objective of the story, but also the necessary supporting actions. The basic requirement is to have a plausible reason for the presence of the U-2 aboard a carrier. Present discussions with the Navy, including Vice Admiral Rayburn, Director of Research and Development for the Navy, and his Deputy, Admiral Weakley, indicate that sponsorship for the U-2 aircraft on the carrier in the long run can be anticipated from the Office of Naval Research headed by Admiral Coates. The discussions thus far have not only indicated that ONR would be willing to have the U-2's attributed to its organization, but that a workable cover arrangement not unlike that which the Agency worked out in 1955 with NACA (ultimately NASA) could be effectuated."

The study concluded with a series of recommendations which, if approved, were designed to produce an operational capability at the earliest possible date.

On 23 July 1963, General Carter approved the staff study and its recommendation and Lockheed immediately began working on the design changes and modifications for two of the Agency U-2's. Concurrently, the OSA staff began coordination with the U.S. Navy for the implementation of the pilot training program and for U-2 suitability tests aboard a carrier.

The principal configuration changes incorporated in the U-2G in order to enable it to operate effectively from carriers included a mechanically operated fuel jettison system to permit the aircraft to be reduced to maximum gross landing weight in the event of either an inflight emergency requiring an immediate landing or in those cases where the aircraft is returned to the ship from a mission with fuel to spare. A further modification was the incorporation of a heavier landing gear which effectively more than doubled the original design specification of maximum deceleration in terms of feet per second. Coupled with this beefed-up landing gear were heavier pressure bulkheads in the landing gear section and augmented longerons in the fuselage at the trailing edge of the wing to withstand the added impact of carrier hook engagement. A modified T2V arresting hook was installed in the aircraft, covered by a plastic fairing which reduces aerodynamic drag, and which is jettisoned at the time the aircraft enters the traffic pattern around the carrier preparatory to landing.

The single most important modification, however, was the addition of a pair of mechanical spoilers situated midway outboard on the trailing edge of each wing. These are activated by a simple switch on the throttle quadrant. Upon actuation at the point of touch-down of

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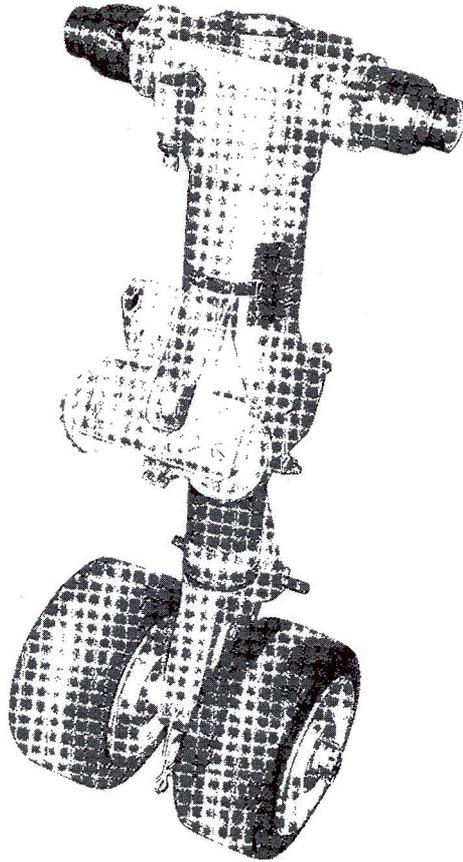
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the aircraft the wing stalls almost immediately, enabling the pilot to spot-land with nearly the same accuracy that would be encountered in more conventional aircraft. Light weight, one inch arresting cables have been substituted for the normal heavier arresting cables on the CVAs in order to reduce critical vibration encountered when the aircraft runs over the cables in the process of arrestment.

It subsequently proved necessary to depress the Fresnel lens landing system to an angle of 1.5 degrees to give the pilot of the U-2 a proper representation of the "meatball" during

his final approach to the deck. Experience has shown that under normal landing conditions with an approach speed of approximately 82 knots and with from 26 to 30 knots wind across the flight deck, effective arrestments at a relative speed of 50-55 knots can be obtained with the ship's arresting engines set at the lowest available figure of only 10,000 pounds of force. All takeoffs from the carrier with the U-2 are normally made on the axial as opposed to the angle deck which requires a clear deck forward in all cases. Catapult launch of the U-2G is not feasible for structural reasons.



*BEEFED UP LANDING GEAR more than doubled the original design specification of maximum deceleration in terms of feet per second.*

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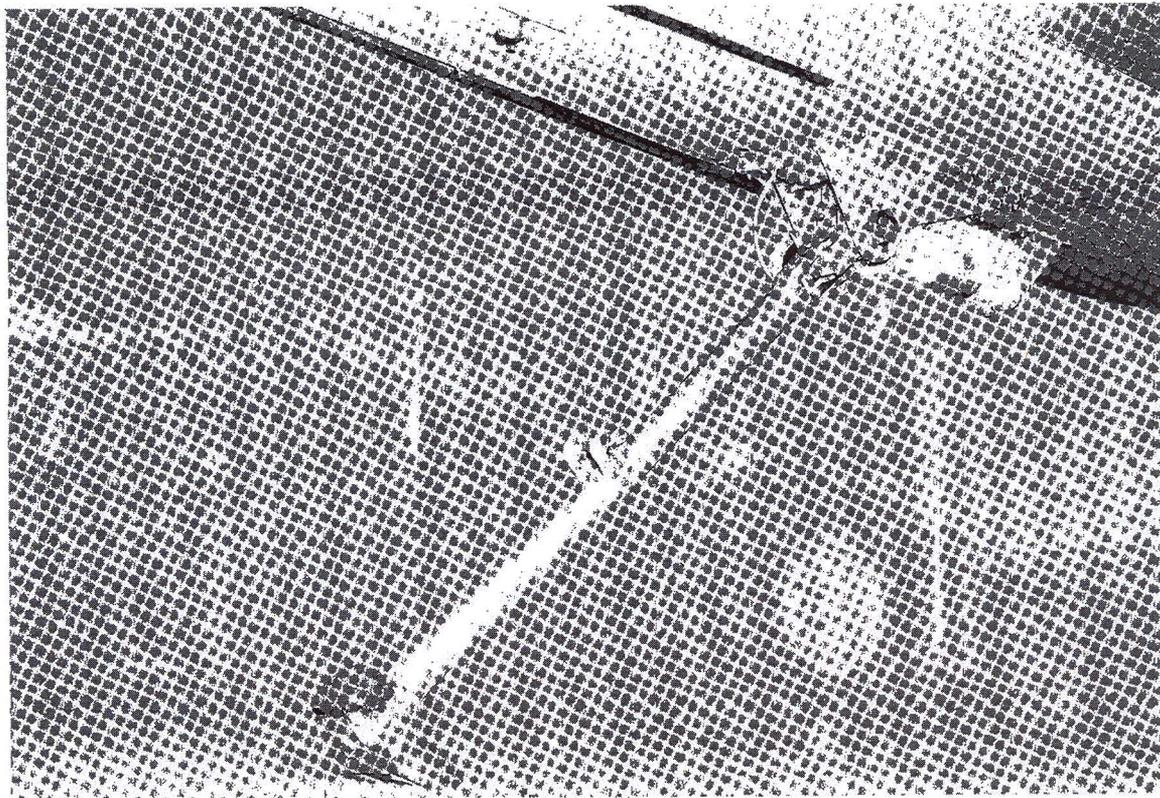
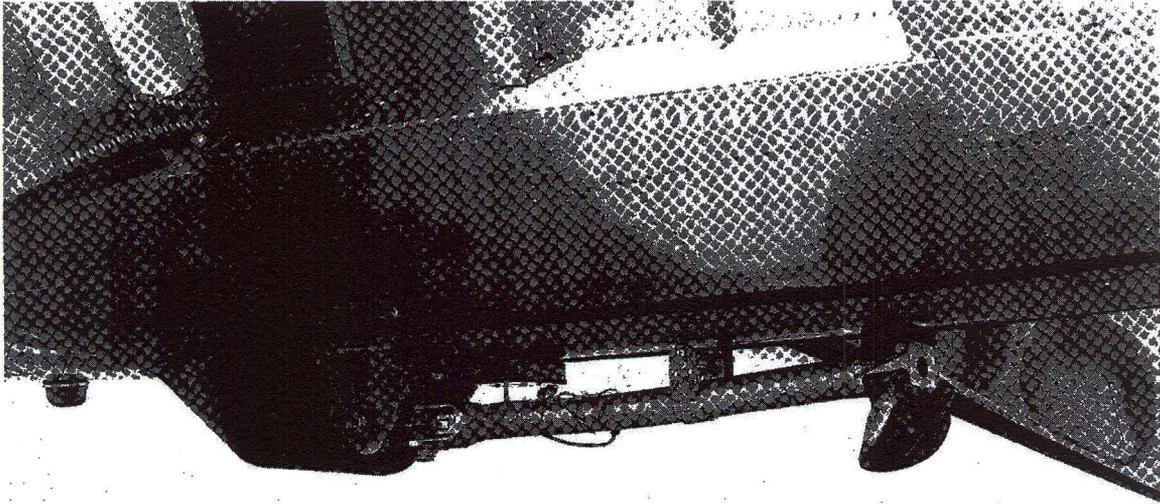
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*ARRESTING HOOK installed in U-2 is shown in both the retracted and extended positions. Note in the upper picture the partial plastic fairing which reduces aerodynamic drag.*

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## CHAPTER III

## PILOT TRAINING AND SUITABILITY TESTS

The first tests of a U-2 on an aircraft carrier were undertaken in August of 1963. For the preliminary tests a conventional (unmodified) U-2 was used. The operation was designated "Project WHALE TALE."

On the night of 2 August, an Agency U-2 was flown to North Island Naval Air Station at San Diego, California, where, under cover of darkness, and after midnight, it was loaded aboard the Aircraft Carrier USS KITTY HAWK and stowed below decks in the hangar bay. The most stringent security precautions were employed by both Naval and Agency security personnel to limit unwitting persons gaining knowledge of the operation. The North Island base personnel who assisted in moving and loading the U-2 (fire chief, SP's, crane operator, etc.) were briefed in general terms as to the sensitivity of the "ONR exercise" and were admonished not to discuss it with anyone.

The following day, the KITTY HAWK proceeded to a pre-determined test area approximately 50 miles off the coast. While a sharp look-out was maintained for any intruding surface or aircraft, the U-2 was brought up from the hangar deck and prepared for launch.

The aircraft was marked with the large letters "O.N.R." on the vertical stabilizer, in keeping with the agreed cover story that this was an Office of Naval Research project. All personnel participating in the tests were alleged to be either O.N.R. personnel or Lockheed civilian technical representatives.

While the U-2 was being readied for take-off, the commanding officer of the KITTY HAWK, Captain Horace H. Epes requested the attention of the ship's personnel on the public address sys-

tem and read the following prepared statement:

"This morning we will be conducting a series of tests sponsored by the Office of Naval Research to determine the suitability of launching the U-2 from a carrier. In today's operation we will be assisted by personnel from Lockheed Aircraft Corporation, the manufacturer of the U-2.

"The ultimate mission of the U-2 operating from a carrier will be to provide a long range, high altitude infrared submarine detection capability. The U-2 was selected for this mission because of its altitude and endurance performance which would permit coverage of vast areas of the oceans.

"The details of this program, and today's test, are classified because of the obvious far reaching implication of this program with relation to the deployment and surveillance of enemy submarines. In this regard, it is important that there be no discussion or disclosures of this test with unauthorized persons. This means anyone who is not aboard today. It is possible that you may read or hear something about this program in the newspapers or on the radio but this does not relieve you of your responsibility not to discuss today's test with unauthorized persons."

Insofar as it was possible to determine, this story was accepted without question by the carrier crew and as of the date of publication of this report, there have been no known security violations or even undesirable speculation by Naval personnel involved in the operation. The same cover story, with minor modifications,

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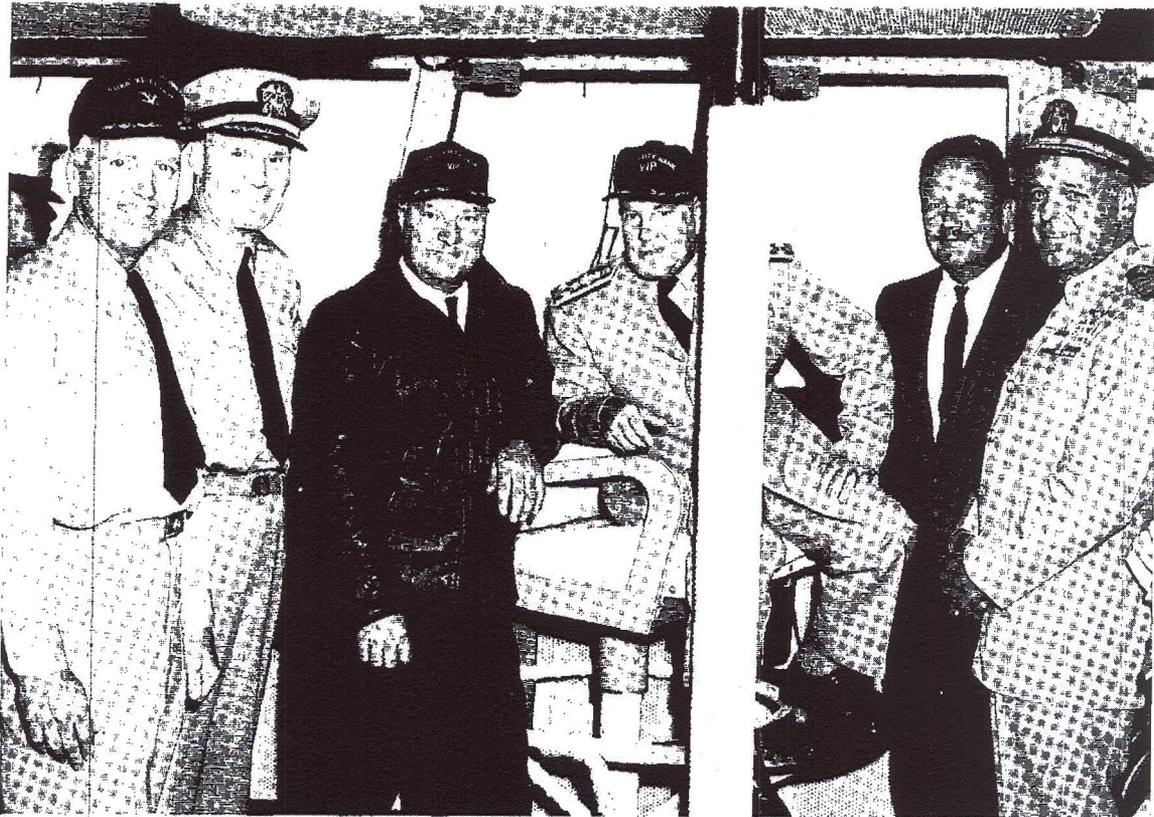
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INTERESTED OBSERVERS of the first U-2 carrier launch tests are photographed on the flag bridge of the U.S.S. KITTY HAWK on 4 August 1963. Left to right: Captain Horace H. Epes, Jr., USN, skipper of the KITTY HAWK; Captain Martin D. Carmody, USN, Office of the CNO; Mr. C. L. "Kelly" Johnson, Lockheed Aircraft Corp.; Vice Admiral Paul D. Stroup, USN, COMNAVAIRPAC; Mr. James A. Cunningham, Jr., CIA; and Captain George C. Duncan, Asst. Chief of Staff for Force Readiness, COMNAVAIRPAC.

was used on subsequent carrier operations, including the operational overflight mission in the South Pacific, with equally successful results.

The KITTY HAWK was underway at 20 knots; this, combined with a 10 knot headwind resulted in a 30 knot wind across the flight deck. The impressive wing span and light construction of the U-2 under these conditions gave the maintenance crew some difficulty in holding the aircraft on the deck, even without application of power. On signal, the U-2 with Robert Schumacher, LAC test pilot, at the controls, started its take-off run down the flight deck. As the throttle was advanced, the 16,000 pound thrust

Pratt & Whitney J-75 engine catapulted the U-2 toward the bow of the ship. In approximately one-third the length of the flight deck the aircraft was airborne, the pogos fell away, and by the time the U-2 cleared the bow it was already approximately 1,000 feet above the carrier. Then, with pardonable exhibitionism, Schumacher racked the U-2 into a steep climb--a breath-taking spectacle to anyone who had never previously witnessed a U-2 take-off climb under full power. To the carrier crew, accustomed to the flat trajectory take-off of the heavier and more conventional carrier-based aircraft, the U-2 maneuver was a new and somewhat startling experience.

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The ensuing flight maneuvers were accomplished without incident. Schumacher made several low approaches to the flight deck to ascertain whether there were any aircraft controllability problems in the landing area and found that the U-2 was easily controlled throughout all the maneuvers. On his last pass at the KITTY HAWK's deck, he let the U-2 touch-down briefly and then reapplying power lifted off and set course for the LAC plant at Burbank, California. The initial tests were complete and proved that the U-2 could be operated successfully from carriers of the FORRESTAL class. They also furnished the Lockheed engineering staff with valuable data for use in the development of design changes necessary for modification of the U-2 for arrested landings aboard ship.

The U-2 pilots' Carrier Training Program, already well advanced in planning, was designated Project WHALE TALE II.

The decision to implement a training program for the Agency U-2 pilots was made concurrent with the decision to modify the U-2 for carrier operations. Mr. Cunningham, with other Agency staff members and Captain Martin Carmody, Office of Naval Operations, had previously met with the Naval Air Training Command Staff at Pensacola NAS, Florida, on 5 June 1963 to formulate and approve a syllabus for a training program for the pilots selected for the project.

It was agreed that these pilots, because of their high degree of competency and proficiency, would require only a short, but comprehensive, flight training program to qualify them for carrier operations. It was decided that the program would be accomplished in three phases, as follows:

(1) Phase One - Initial flight check-out in the Navy T2A aircraft and carrier type approaches and landings, all under the supervision of highly qualified Naval Landing Signal Officers at Monterey NAS, California.

(2) Phase Two - Further carrier type landings and approaches in the T2A at Pensacola NAS, Florida, until the Landing Signal Officer considered each pilot ready to land aboard an aircraft carrier. Actual T2A landings and qualifications aboard the aircraft carrier LEXINGTON in the Gulf of Mexico completed this phase.

(3) Phase Three - Initial carrier type approaches and landings in the U-2G at Edwards AFB until the Landing Signal Officer considered each pilot ready to land the U-2 aboard ship. Actual U-2 landings and qualifications aboard a FORRESTAL Class Carrier completed this phase.

The first group of four pilots began Phase One of the Carrier Flight Training at Monterey NAS on 17 November 1963, under the supervision of Lt. Cmdr. John Huber, USN, (subsequently assigned to Project IDEALIST as resident Landing Signal Officer). After two weeks of training at Monterey, the group was ready for Phase Two, and on 21-23 November proceeded to Pensacola NAS where all four pilots performed the transition to qualified carrier pilots in their usual professional manner.

The second group consisting of four Agency pilots, Lockheed test pilot Mr. Schumacher and the Edwards Detachment Commander, Lt. Col. William J. Gregory, USAF, were initially scheduled to begin Phase One in December of 1963. However, due to heavy project operational commitments, their training was delayed until 5 January 1964. Training, once begun, went smoothly and professionally, and was completed on 15 February.

Phase Three commenced on 29 February 1964, the date the first U-2G was delivered to the Edwards AFB detachment. Each of the Agency pilots was given numerous sorties in the "G" where much practice went into the development of his flying techniques as derived

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*PRECISION PERFORMANCE of U. S. Navy T2A's is demonstrated in this photograph of Project Headquarters personnel being air-lifted to the U. S. S. LEXINGTON to engage in planning for the WHALE TALE program. These aircraft were the training ships which initially were used to check-out U-2 pilots in carrier operations.*

from his experience in the T2A. It should be noted that when Commander Huber declared the pilots operationally ready, each felt confident of his ability to undertake the arrested landings, having developed a profound respect for Commander Huber's judgement and experience in carrier operations.

As the development of the U-2G was reaching its final stages by Lockheed and pilot training was nearing completion, the OSA staff began coordinating details for the suitability tests and pilot qualification with representatives from the Office of the Chief of Naval Operations and the Commander Naval Air Pacific, Vice Admiral Paul D. Stroup. With the cooperation and assistance of these officers, the program proceeded to the point where all elements were ready at the same time; the U-2G, project pilots, and the aircraft carrier USS RANGER which had been selected for the tests.

The RANGER operations were planned in three phases designed to take full advantage of the time the carrier was allotted for project use. This phase was designated WHALE TALE III and consisted of the following:

(1) Phase One - This phase was to be devoted to Lockheed Aircraft Corporation's exclusive use in testing the U-2G in carrier landings and suitability of operations aboard ship.

(2) Phase Two - Agency pilots' U-2G qualifications. This phase was to begin as soon as Lockheed had completed the Phase One test and had turned the aircraft over to the Edwards Detachment.

(3) Phase Three - This phase was to exercise the Edwards Detachment's operational capability and effectiveness while aboard ship.

WHALE TALE III began when a team composed of Headquarters, Detachment and Lock-

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heed personnel proceeded to the RANGER on 25 February 1964 and briefed and cleared the ship's Commanding Officer, Captain William E. Lemos, and other personnel for Project IDEALIST and the WHALE TALE III operations.

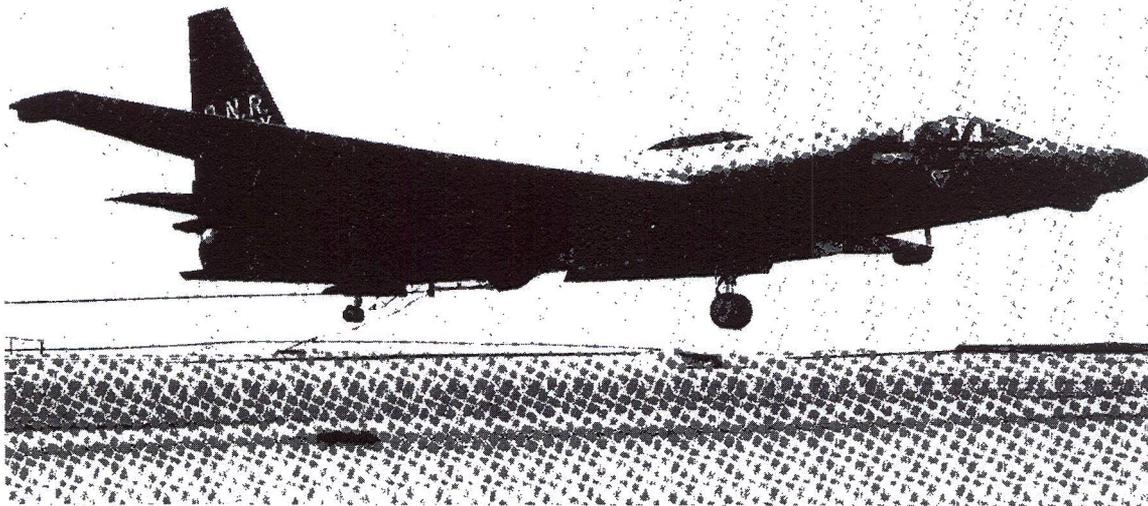
On 28 February 1964, Lockheed and Detachment personnel and equipment were loaded aboard the RANGER. On the following morning, the RANGER proceeded to the test area off San Diego where the operations were to be conducted. Phase One began with LAC pilot Schumacher flying aircraft number 362 in a series of touch-and-go landings on the RANGER. The touch-and-go landings all went smoothly; however, on the first attempt for a hook engagement landing, the aircraft bounced and the hook engaged the wire while the aircraft was in the air. This caused the aircraft to be slammed back on deck and nose over. Minor damage resulted to the nose section of the aircraft which was taken below deck for repairs. After repairs were completed, the aircraft was flown back to Bur-

bank for the instrumentation read out. As a result of this incident, Phase One was rescheduled for 2 March 1964.

On 2 March, LAC pilot Schumacher returned to the RANGER in aircraft 348 and completed four successful arrested landings. This completed Phase One. The aircraft was then turned over to the Edwards Detachment and Phase Two began.

On the same day, the first Agency pilot, Robert J. Ericson, began his U-2G qualifications in 348 and made several touch-and-go landings, but was unable to perform any arrested landings. He ran short of fuel while waiting for the RANGER to maneuver away from a foreign ship which had entered the operational area. He proceeded to North Island NAS for landing, and air operations were discontinued for the day.

On 3 March 1964, Mr. James Barnes, the next pilot, flew out to the RANGER from North



MINOR MISHAP aboard the U. S. S. RANGER is recorded in this series of photos. In the first photo the aircraft is making a normal approach to engagement.

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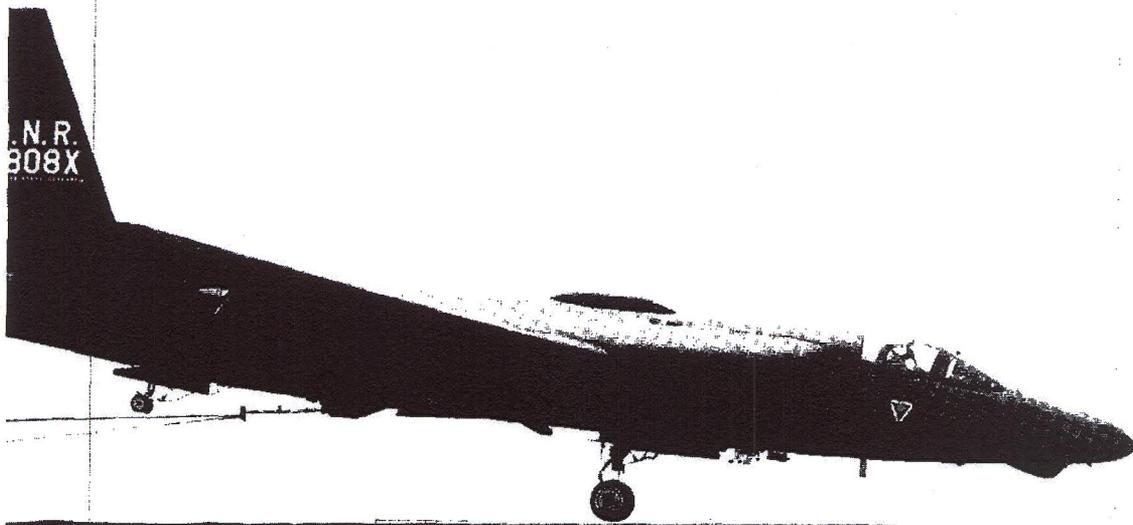
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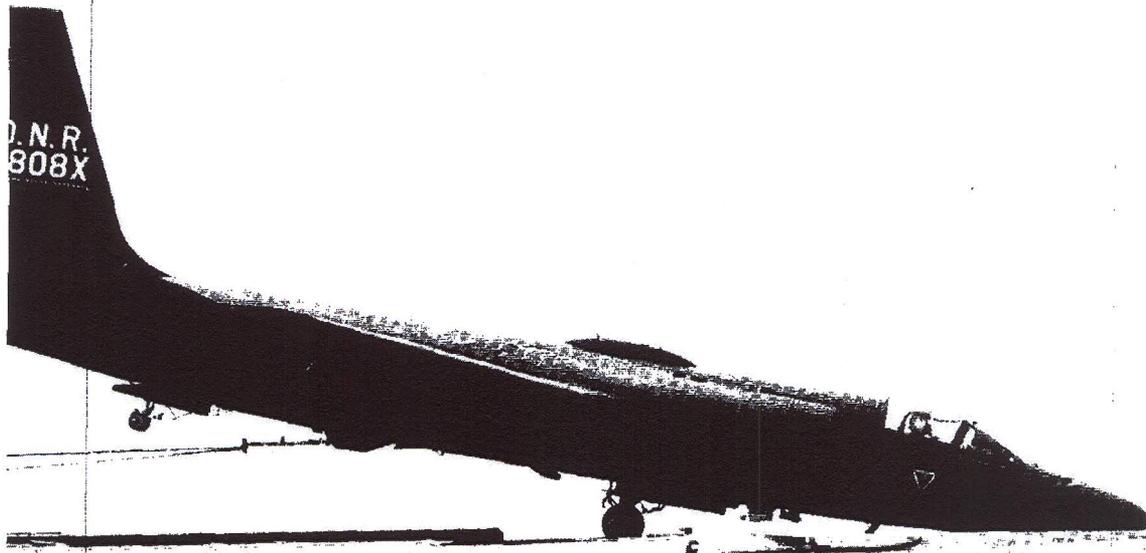
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*The U-2 has already touched down and has bounced back into the air. The engagement has taken place while still airborne.*



*The minor damage to the nose section was the result of the engagement taking place while still airborne. The damage was readily repaired aboard the carrier.*

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*DESIGNING WAYS of C. L. "Kelly" Johnson, a Lockheed vice president and designer of the U-2, were put to the test in configuring the aircraft for carrier operations. Here he appears to be not displeased with the results on completion of the initial launch and recovery tests.*

Island NAS in aircraft 348 to continue Phase Two. Mr. Barnes, on his first touch-and-go landing, allowed the right wing to drop. The right wing skid caught on an arresting cable and was torn off. Mr. Barnes then flew the aircraft to Edwards and landed safely on the dry lake bed without further incident.

As a result of these two incidents, both of the modified U-2's needed minor repairs before Phase Two could be continued. Therefore, with the Navy's concurrence, the remainder of

this exercise was planned to be conducted on 9 and 10 March 1964. This delay, as it worked out, was advantageous for all. The pilots refined their approach techniques by applying the experience gained from the 3 March flights.

On 9 and 10 March 1964, Agency pilots Barnes, Bedford, Edens and Squadron Leader Webster of the RAF qualified in the U-2 without further incident. Phase Two and Phase Three were concluded. At this time the Detachment was considered operationally ready.

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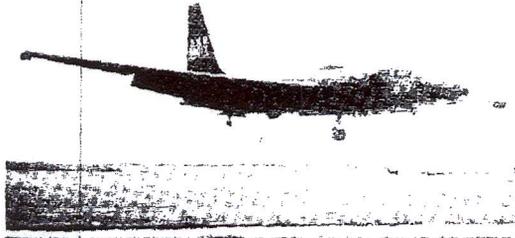
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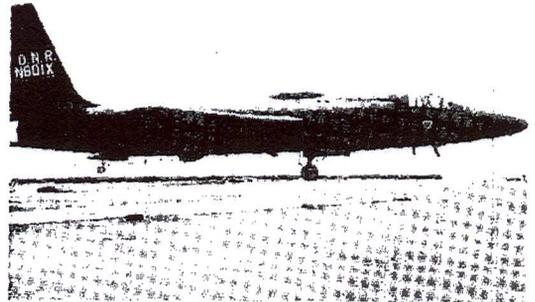
IN THE GROOVE ALL THE WAY



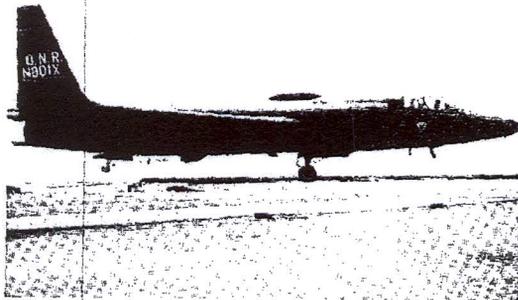
A REAL SOFT TOUCH DOWN



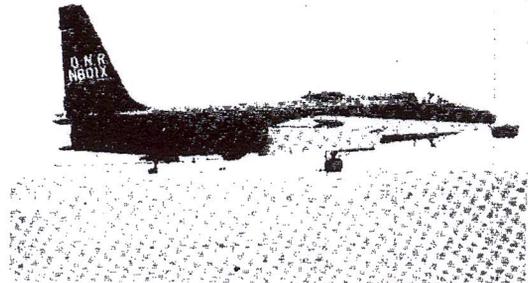
THE HOOK ENGAGEMENT



A SLIGHT NOSE OVER TENDENCY



RUNNING THE WIRE OUT



THE END OF THE LANDING

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## CHAPTER IV

## OPERATION FISH HAWK

An opportunity to test the newly acquired U-2 carrier operation capability on a priority photo intelligence overflight mission was not long in coming.

For many months the U.S. Intelligence community had been seeking, through all available sources, to determine the status of the French Nuclear Test Area in the Tuamotu Archipelago, in a remote area of the South Pacific, and to ascertain the imminence of actual nuclear tests.

By April of 1964, the desired hard intelligence had not been obtained and the prospects of acquiring this priority information with available collection methods were far from promising. The Agency, at this point, proposed the use of the carrier based U-2 and on 24 April 1964 the Special Group (303 Committee) approved a single mission to obtain the desired base line photography. Ultimately, as it turned out, two sorties were required to accomplish the objectives of the mission. The operation was given the code name FISH HAWK.

Prior to these missions, the possibility of the French becoming aware of the operation was studied. It was concluded that the security precautions normal for such an operation probably would preclude French knowledge of the operation. The ship and all her aircraft maintained emergency communications silence well before, during, and after the operation. Traffic and schedule analyses were made of the existing commercial airways and sea lanes in the general target area to select a specific operating area which would afford the greatest degree of security from observation. Security precautions were implemented well before the carrier left the west coast. We have confirmed that there has

been, to our knowledge, no foreign awareness of our operations in the area.

The operation had many "firsts" which are noteworthy. It was the first time a U-2 was flown on an operational overflight from, and recovered back aboard an aircraft carrier. It was the first time the special Dual Itek Camera (an improved system with higher resolution than the standard "B" configuration) was flown on an operational mission. It was the first time Agency U-2 detachment personnel were to integrate themselves into carrier living and working conditions. It was the first time that the detachment commander was delegated the authority to plan and launch an operational mission. And finally, it was the first time most of the detachment personnel were inducted into the Shellback Clan of those who have crossed the equator on a U.S. Navy vessel.

The detailed planning for this operation began shortly after the Special Group approved this method of obtaining photographic and electronic coverage of the test area. The plan included the final tests of the Edwards Detachment shipboard operational capability prior to the departure of the USS RANGER to the target area. This plan was changed somewhat when the Navy indicated that the RANGER would be in a radio silence condition throughout their steaming time to and from the target area. The detachment had a continuous communications link with Headquarters via a clandestine net. The ultimate success of this mission was greatly contributed to by the competence of the Agency Communications Staff which merits special mention.

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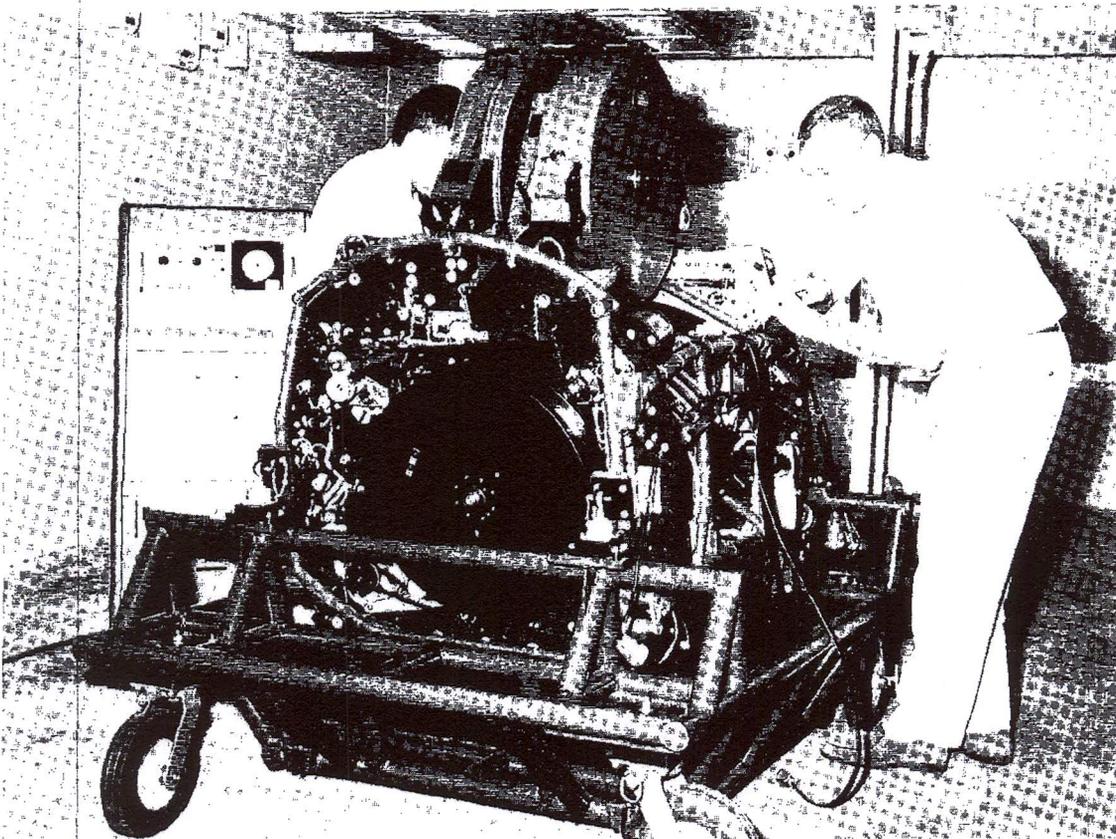
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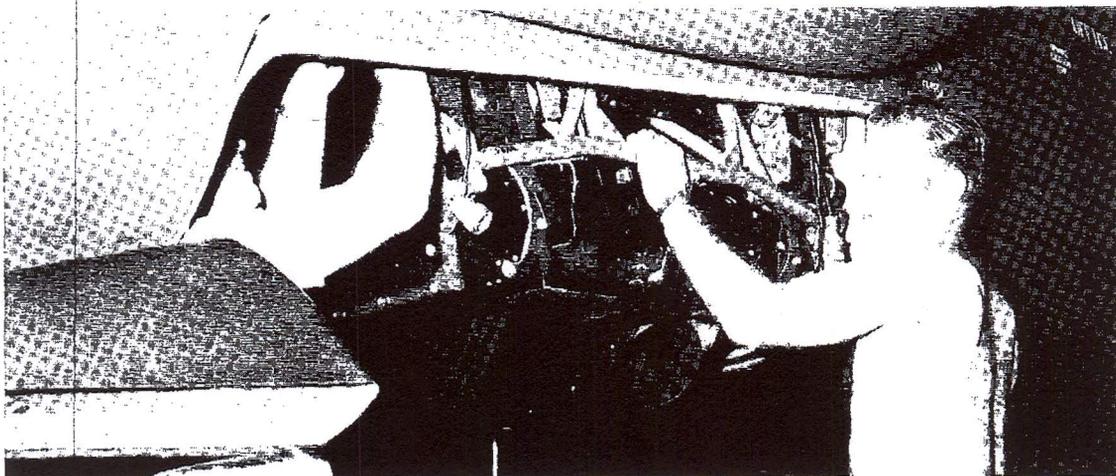
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*PRE-MISSION CHECKOUT of the Dual Itek camera is meticulously performed by the maintenance technicians (above) and (below) the camera is installed in the U-2 equipment bay.*



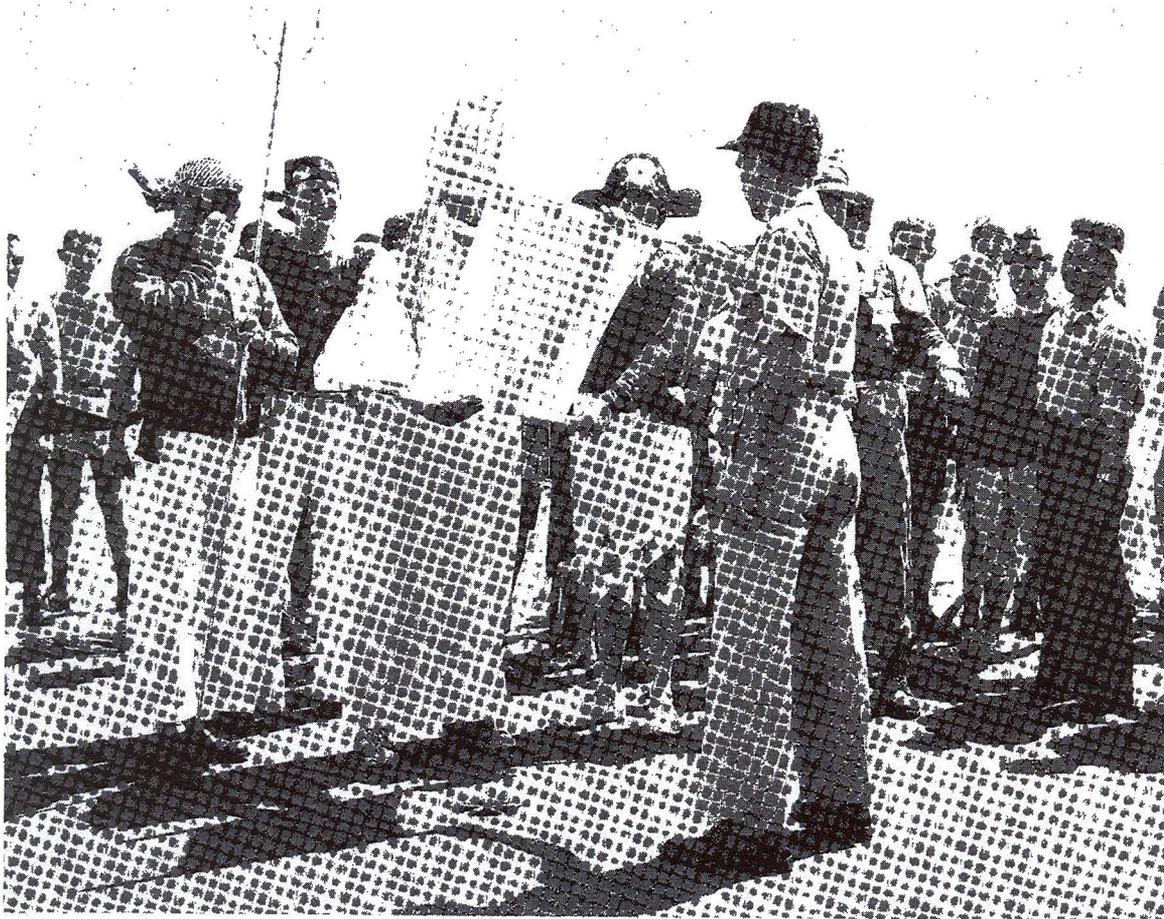
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*SHELLBACK RITES - The traditional ceremony of inducting into the Shellback Clan those who have not previously crossed the equator, is held as the RANGER crosses the imaginary line on return from the mission. "Father Neptune" reads the scroll.*

The inclusive dates of the mission were from 11 May to 28 May 1964 during which time two operational missions were flown over the selected South Pacific islands of special interest. Requirements of the exercise consisted of coverage of five targets with one considered primary and the other four secondary. Complete coverage of the targets was accomplished on the two missions.

The USS RANGER's specific mission was derived from the basic FISH HAWK Operations

Order 3-64. In general terms, RANGER was to spend one day, 12 May, engaged in refresher landings for the U-2 pilots, and in recovering two U-2G aircraft for the mission. Upon completion of this phase, RANGER was to check out of the movement report system, set EMCOM below 30 Mcs. and head for the target area 3,000 miles away.

Approximately halfway to the target, RANGER was to refuel from the the oiler USS PLATTE, rendezvous with the destroyer USS PARSONS,

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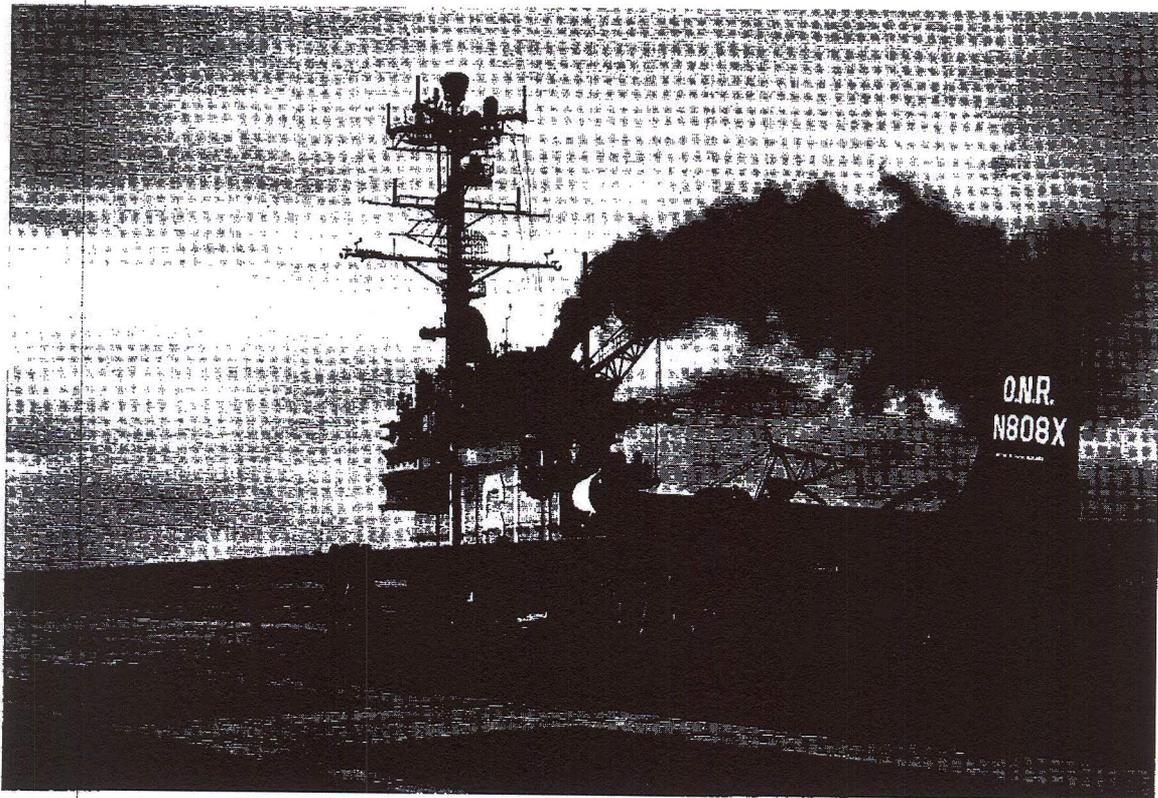
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and complete the run to the target at 25 knots. When the mission was declared complete, RANGER was to head back with PARSONS and PLATTE, refueling enroute. After refueling, RANGER was to leave PARSONS and PLATTE and return to port on its own. RANGER was to dispatch the mission film to San Diego via A3B aircraft at the earliest practicable time. EMCOM was to be lifted on arrival back at the west coast operation area.

Actual conduct of the mission is graphically described in the following excerpts from the report of Colonel William J. Gregory, the Agency Detachment Commander:

"Tuesday, 19 May 1964 - Our position at 0001Z 1425S and 13959W. A message

was received from Headquarters at approximately 0200L indicating concurrence on 'go weather.' We had already decided that this date looked favorable and were working through our sequence of events leading up to the mission. The preparations proceeded without any hitches and our timing schedule for the various stages from system loading to take-off went almost exactly as planned. It was very dark on deck during the positioning of the aircraft from the hangar deck to the take-off position with only very dim red lights being used. A hard tropical rain drenched the ship and aircraft about 45 minutes before take-off and it was necessary to delay loading the pilot for about 5 min-



*DAWN'S EARLY LIGHT faintly illuminates the mission aircraft, with U. S. S. RANGER's stack in the background, as preparations are completed for the first carrier launch of a U-2 on an operational overflight.*

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utes, but we had a pad built-in to the timing schedule at this point. The engine was started 4 minutes before launch, power units were recovered, pogos were pulled and at precisely 0700L the take-off was made as scheduled. The take-off roll was straight

as an arrow with the aircraft lifting off the deck just beyond the island super-structure. The carrier was ten miles off position at take-off due to weather, but the pilot quickly regained track and the radar viewers were surprised to see the trace disappear



*MISSION PILOT receives last minute briefing by U-2 crew chief prior to take-off. Note walk-around oxygen bottle beside pilot, used to maintain oxygen pre-breathing sequence which commences three hours prior to launch.*

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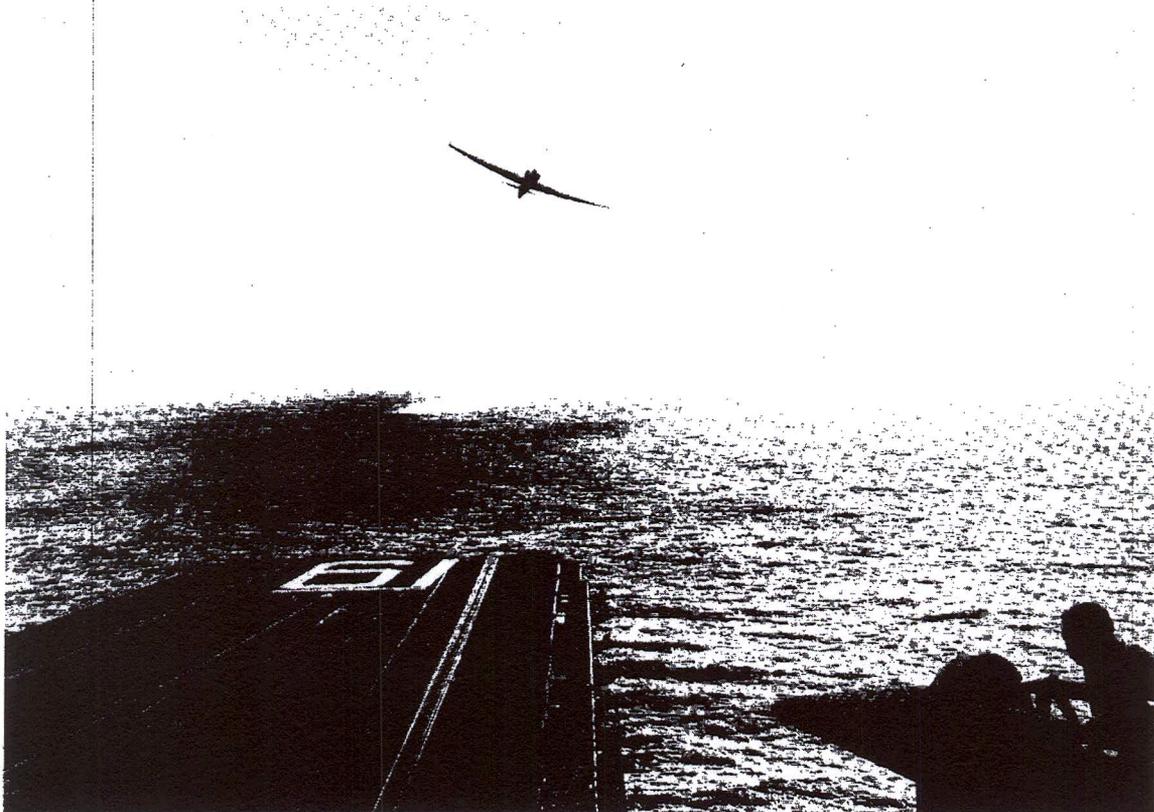
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from the scope on the exact predicted course near the 300 mile point. They were even more impressed when they observed him appear again on the inbound wax pencil mark denoting his line of flight to the carrier. One radio transmission at the 100NM point was made by CIC for start descent but no course corrections were necessary in spite of a thick overcast from 45,000 down to 10,000 feet. Let down beginning at the 100NM point is ideal, for in this case the article arrived over the carrier at 4,000 feet from a continuous descent. We were concerned over the landing, for the sea had gone to an unpredicted state 4 with 6-8 feet

swells and occasionally 10-12 feet. The pilot made a nice approach and good landing, trapping the number 1 wire. The ships operations personnel were amazed that the landing was made within 30 seconds of the predicted time given to them prior to take-off. The aircraft was in good shape on landing and was ready to go the next day. The second run over the primary target was an exceptionally wise plan on the part of Headquarters because we got practically nothing on the first run and 85% of the area on the second run only ten minutes later which covered all the area of interest. We were very pleased with the way the first opera-



"SAYONARA" - The mission aircraft lifts gracefully off the bow of the carrier and starts bank to right to pick up course to target area approximately 300 miles away.

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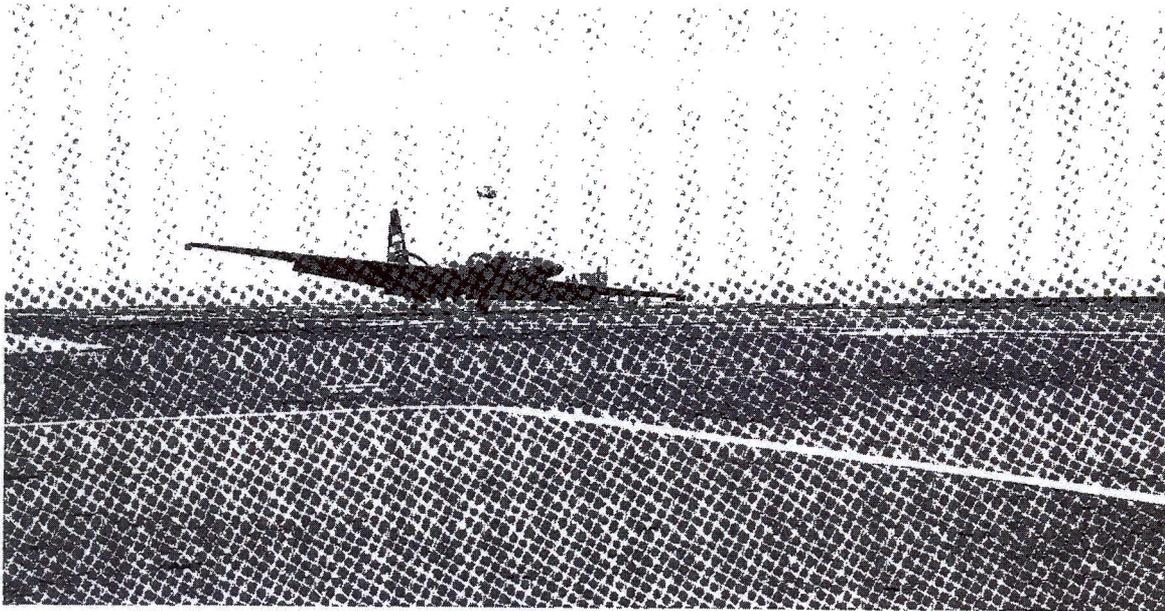
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tional mission was executed and could find very little reason to make any significant changes in our plans or procedures after going through a post-mission critique with the idea of improving methods. All systems operated throughout the mission with no malfunctions. BIRDWATCHER checks were scheduled at 30 minute intervals throughout the mission and all readouts were good except for one out of the scheduled 12 which was not received. (Editors Note: BIRDWATCHER is an Agency designed electronic telemetry system which periodically transmits back to the ground or carrier-based detachment, performance data on the functioning of more than 30 critical components of the aircraft.)

"Friday, 22 May 1964 - Our position at 0001Z 1207S and 13752W. The final weather was received at 0230L and showed a very slight improvement for target Bravo

which was forecast as CAT II, but the other three targets were CAT IV with little hope of any coverage. The preparation for the mission proceeded according to plan and each phase was on schedule. The take-off was precisely on time and again it was very straight down the deck with no problem in maintaining perfect directional control. The mission flight plan showed 5+30 with targets Bravo and Delta of primary interest since they were overcast in the first mission and Alpha and Cocoa also re-scheduled as flight lines since they were along the route. Weather covered approximately 90% of the entire area but surprisingly all four targets were open and good coverage was obtained on all of them. The descent was again begun at 100NM which worked out very well and is now established as the optimum for approaches to the carrier. Again an unpredicted sea state 4 existed



*MISSION COMPLETE - Within 30 seconds of predicted landing time, the mission aircraft touches down on the RANGER flight deck, approximately six hours after take-off. Helicopter in background was available for plane guard and rescue operations, if required, and also maintained surveillance of area for possible intruders.*

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on recovery and the deck was pitching a good 6 - 8 feet which now makes it obvious that the ships aerologist cannot predict sea state with much accuracy. The pilot made a very fine level approach averaging out the ups and downs of the unstabilized meat ball and made a perfect trap on the number 3 wire. An evaluation of the material showed that all

targets were well covered and it really 'put the icing on the cake' with complete coverage on all targets provided by combining the two missions. The aircraft landed one minute later than predicted but the pilot had to stretch out his pattern slightly to get down to 320 gallons of fuel."



WELCOME - A tired but grinning mission pilot is congratulated by U-2 operations personnel as they assist him from the cockpit. Subsequent analysis of the flight and photos obtained proved that the congratulations were well deserved.

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## CHAPTER V

## CONCLUSION

On completion of Operation FISH HAWK, the Commanding Officer of the USS RANGER in his final report stated:

"Recovery of the U-2 was exactly on schedule at 1320V and without incident. All available take-up in the way of interceptors, SAR aircraft, etc., were held in readiness on deck. The precision with which the whole U-2 operation was planned and executed was outstanding in all respects. In summary, no serious problems were encountered. The mission pilots had a boarding rate of 1.0 which cannot be improved upon."

The report concluded with the following observations:

"a. The aircraft carrier/U-2 combination constitutes a naturally compatible and potent intelligence tool.

"b. Operations of this type were well within the capabilities of RANGER and present no unusual problems. While the operation is not routine in nature, it could be readily integrated in slightly curtailed air wing operations reduced by about 16 points deck load multiple.

"c. A possible problem in the area of security stems from the large number of ship's crew who can deduce a great deal of information on ship's position, the past history of the U-2, etc. Every effort was made to limit navigational information to a very few individuals."

An endorsement to the report by the Com-

mander First Fleet stated:

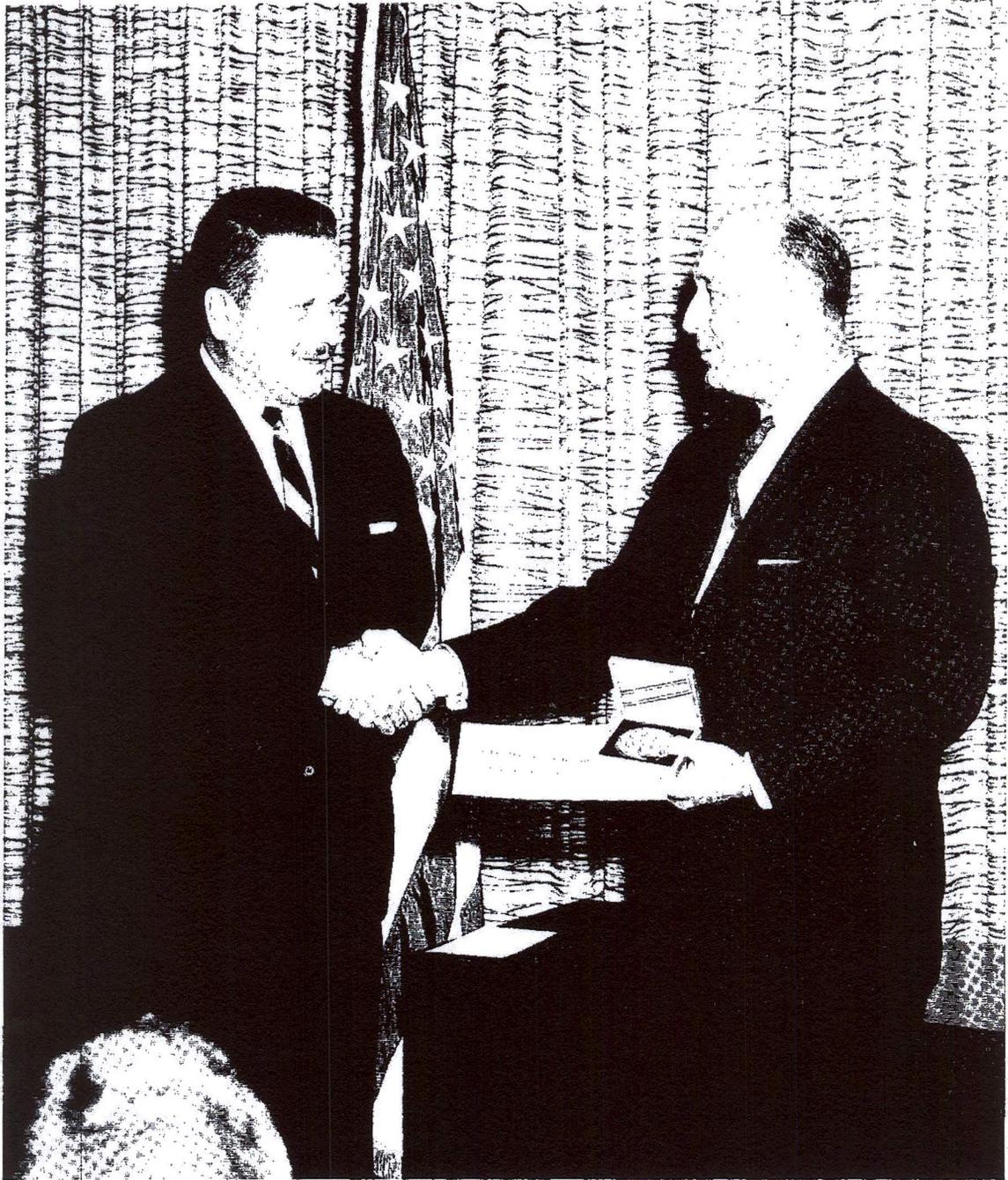
"That the operation was concluded successfully attests to the suitability and reliability of a CVA as a launch platform for this type operation."

The photography acquired on the two operational missions was of excellent quality and although the substantive intelligence derived is excluded from this report for security reasons, the results are probably best described in the preliminary report of the operation prepared by the Directorate for Science and Technology, CIA, which stated:

"From an operational and security standpoint, this was one of the most successful operations of this nature ever conducted by the United States. The Navy is to be complimented for its excellent cooperation and assistance in accomplishing this task."

From the standpoint of those who devoted their time and efforts to the successful culmination of this project, the results were especially gratifying. The addition of this proven intelligence collection system to the U.S. array of reconnaissance systems provides a flexibility and latitude of operations, the value of which may truly be assessed only in the light of future events.

It further, and perhaps more importantly, demonstrates the accomplishments which can be achieved by a full and uninhibited cooperation and melding of the assets and talents of two separate government agencies.



*RECOGNITION - On 30 September 1964 before a capacity audience in the United States Intelligence Board meeting room of the Langley Headquarters of CIA, Lt. Gen. Marshall S. Carter, Deputy Director of CIA, (Right) presents the Distinguished Intelligence Medal to Mr. James A. Cunningham, Jr., DAD/OSA, for his singular contribution to the development of the U-2 carrier capability. Mr. Cunningham, a former U. S. Marine pilot himself, was cited for "the development of a unique method of acquiring foreign intelligence information."*

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Dual Staging Capability at Detachment G

At the end of 1962, planning assumptions took into account requirements for continuing U-2 coverage of the China Mainland, the prospective semi-permanent IDEALIST base in India, a standby ECM-configured U-2 aircraft at Edwards available for Cuban coverage when required, and a J-75 and a J-57 configured U-2 available for supporting OXCART equipment test programs. Manpower at Detachment G therefore was required for more than a single staging capability. By spring 1963, programming was underway for full dual staging capability and the addition of 21 staff personnel (including military detailees), appointment of a deputy commander and recruitment of two contract pilots were covered in the FY 1964 budget presentation. Full staffing for dual capability was not achieved until the end of 1963 and meanwhile it was necessary at times to borrow medical, weather and communications personnel on a TDY basis from their parent services.

In the spring of 1964, SAC was given the responsibility for tactical coverage of Southeast Asia targets in support of the Vietnam military command which relieved Detachment G's thinly stretched resources, and by 1965 Detachment G was able to deploy sufficient personnel and equipment to Takhli to provide a semi-permanent launch/recovery

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capability there for special requirements and also to augment the staff at Detachment H with TDY personnel for simultaneous operations from Tao Yuan (using American contract pilots when required).

At the end of 1965, Detachment G under the command of Lt. Col. Miles M. Doyle numbered 91 Agency Staff and military assignees; in addition there were nine contract pilots and six contract guards, and one U.S. Navy officer on loan for the carrier training program.

Annex 106 gives a listing of all overflight missions accomplished by Detachment G from October 1960 to April 1968, and a description of the procedures followed in planning, obtaining approval for, and directing a normal overflight mission.

#### Build-up of Facilities at Detachment G, 1964-66

Following the reconstitution of Detachment G as an operational unit and its build up through 1961-62 to a dual capability in late 1963, the available facilities at Edwards North Base became overcrowded and in such poor repair that a construction and refurbishing program became necessary. Under the supervision of the Project Engineer,

a program was entered into in 1964 which eventually cost the grand total of \$1.5 million. The construction included:

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Office building  
Two warehouses  
Mess Hall  
Physical fitness building  
Guards building (for Lockheed contract guards)  
Communications facility; transmitter  
Outdoor lighting of area for security  
Avionics building  
Hangars #1 and #3 remodeled  
Fuel storage tanks  
Fencing around the perimeter  
Office for Lockheed U-2R team  
Runway resurfaced

Continued Development and Testing at Edwards, 1963-66

Improved Camera Systems

During the summer of 1963, tests were run on the B camera to determine what improvement in ground resolution could be obtained by using higher resolution film and variable shutter speed. The tests proved successful, achieving 2 foot resolution as compared to the previous 2-1/2 to 3 feet. Delivery of three new B cameras approved for procurement was completed in September 1963.

Concurrently the Itek Triple Prime Camera (which had been built for the CORONA program) was approved for procurement by the DD/R in April 1963 and was modified to go into the U-2 with flight tests beginning in September 1963. The proposal was to procure four of the dual configurations of the system, called Delta II. This system furnished

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17.3 nautical miles swath width with 26 degrees convergent stereo, 70 degrees lateral coverage, two to one contrast, target specifications calling for better than 10 inches ground resolution with 3,000 plus nautical miles linear coverage. Delivery of the first system was promised for four months after the equipment bay mock-up was agreed. The cost was estimated at \$1,136,000 with anticipation of achieving a price break by ordering jointly with the Air Force who were expected to procure a number of the systems. The operational plan was to be able to fly with the B configuration on one day and the Delta a day or two later with the same aircraft. This interchangeability was achieved, but Air Force procurement of this system was not undertaken. Successful testing was accomplished in December 1963 and the photo interpreters agreed that the Delta II could produce more detailed information on individual targets than any other available camera. The first unit was delivered to Detachment H and was installed and ready for operation by 25 December 1963. Delivery of four cameras was complete by August 1964.

With the Chinese Communist nuclear capability as target, an infra-red capability for the U-2 was studied in mid-1963. In September the Air Force made available two AFSC U-2's at Edwards for testing

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the HRB-Singer and the Texas Instruments IR systems. The Texas Instruments version (FD-3) was chosen with initial procurement of two. (A third was stereo-configured for the OXCART program). The IR camera was tested and declared operational on 26 October 1964 and was deployed to Detachment H on 7 November 1964 for use over Mainland China. Because of the vulnerability of the TACKLE aircraft to the missile defenses surrounding the Chinese nuclear installations, only one overflight has been made with the IR camera to date.

Product Improvement Program

Auto Pilot. In February 1963 Lockheed was requested to do an engineering study on a new improved auto pilot to improve the stability of the airborne platform. The Lear Siegler autopilot was evaluated and selected as most suitable for the U-2, and the first operational model was delivered in August 1964.

Instrument Panel: In April 1963 a study was made by the Project Staff and the Air Force U-2 group with a view to redesigning the instrument panel in order to provide better visibility and panel presentation. This in turn would ease the pilot's burden on long-range flights and help solve some of the human factors problems. This was accomplished along with the new autopilot installation in the summer of 1964.

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Improved Seat Pack. Rocket Jet Corporation was subcontracted by Lockheed in February 1963 to develop a more satisfactory seat kit and produced the Q445 for testing during the summer. Comparison tests by Project Staff found the Q445 more suitable than a new Air Force parachute seat kit and it was agreed in August 1963 that Lockheed would procure and integrate the Q445 kit into the IDEALIST aircraft as they went through IRAN.

\* \* \* \*

At the end of 1966, as on one or two occasions previously, the Bureau of the Budget raised the question of moving Detachment G from Edwards North Base to Davis-Monthan Air Force Base at Tucson, Arizona, where the SAC U-2 Wing was located, for the purpose of improving efficiency and reducing costs. A joint NRO/CIA/USAF study was made and the report of March 1967 concluded that the collocation of the Agency program with the SAC U-2 operation was operationally infeasible and in any case would not result in any significant monetary savings; therefore Detachment G should remain at Edwards.

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Postscript on U-2 Airframe

In October 1967, a SAC U-2 assigned at Bien Hoa, Saigon, in tactical reconnaissance support of the Vietnam Command, was discovered to have a wing crack, determined to be the result of metal fatigue. The particular aircraft had over 4,000 flying hours to its credit. All IDEALIST U-2's were grounded on 6 November and subsequently underwent an ultrasonic inspection by a Lockheed team. The inspection revealed that Nos. 385, 349 and 359 had flaws and these aircraft were immediately scheduled into Lockheed for modification to correct the problem.

Commenting on the problem of metal fatigue to Mr. Parangosky, Deputy Director of Special Activities, Mr. C. L. Johnson drew attention to a letter he had written to Mr. Bissell on the subject eleven years previously, and went on to say:

"I think you will find it of interest, in that at that time I referred to an anticipated life for the U-2 wing of some 5,000 hours. That is just about what it made. I don't know how often we can call fatigue problems this accurately.

"With the new fix we are putting into the center sections, we will definitely eliminate conditions at that point. I do think, however, that you should expect increasing fatigue problems in other areas as time goes on, in spite of our very good record to date..." 1/

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IDEA-0743-67, 30 Nov 1967. Letter to Mr. Parangosky from Mr. Johnson.

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ANNEX 104

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CHAL-0573

18 February 1959

MEMORANDUM FOR: Deputy Director of Central Intelligence  
SUBJECT: Bombing Capability for the U-2

1. I shall attempt to summarize the U-2 bombing capability situation in the following remarks:

a. Lockheed has developed a bomb door installation which was used during the tests of downward ejection seats from the equipment bay. With the construction of a simple bomb rack, the equipment bay could be used to carry bombs. It appears that the drift sight could substitute as a bomb sight.

b. A bomb of approximately 500 pounds weight and of the approximate size of a 500 pound GP bomb would fit into the equipment bay.

c. The yield of a nuclear bomb of this weight could be any desired value up to an expected maximum of about

d. Lockheed has examined the effects on the aircraft caused by the detonation of a 10 KT bomb. According to their report no damage is expected with the aircraft flying at maximum altitude, approximately 13 miles, and performing a 180° turn immediately after drop. This places the aircraft at a slant range of some 18 miles at the time of explosion.

e. Based on information obtained from AFSWP there is presently no existing bomb which weighs in the neighborhood of 500 pounds and is suitable for dropping from the U-2. AFSWP expects that by 1964 or 1965 a bomb of this approximate size and weight will be available with a possible yield of between  We have been informed also that with special priority and an expedited project that an elemental bomb of this approximate size and weight could be put together in about two years.

f. Rough calculations have been made of the effects on the U-2 of the detonation of bombs with yields of 10, 50, 250 and 400 KT. There is considerable difference in the

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amended, and regulations under the Act

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estimates of over-pressure made by Lockheed and those furnished by AFSWP. With the more conservative AFSWP data the over-pressures which would be encountered at the slant range in question, even from the highest yield of the bombs considered, would be much below the [ ] which is considered approaching the danger point. The heating effect, again considering the largest yield, is also estimated to be well below the [ ] limit. Neutron and gamma radiation at the distance involved is so low as to be practically incalculable.

2. In all of the above calculations standard pressures, temperatures and visibility of about 10 miles were assumed. The remaining factor which seems most likely to cause difficulty is the wind velocity immediately behind the advancing shock front. This gust would strike the aircraft from the rear and may possibly exceed the design gust velocity for yields between 250 and 400 KT. It appears that for smaller yields up to perhaps 50 KT, this would not be a serious problem.

3. It is recommended that no further consideration be given to tests of the U-2 in a bombing configuration due to the reported unavailability of nuclear weapons of this size and weight.

(Signed)  
RICHARD M. BISSELL, JR.  
Deputy Director  
(Plans)

Recommendation Paragraph 3

APPROVED: To advise the Air Force that CIA does not intend to consider further unless urged to do so by Air Force. We would then consider it.

(Signed) C. P. CABELL  
Deputy Director

DCI concurs.  
6 March 59.

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ANNEX 105

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IDEA-0397

26 July 1961

MEMORANDUM FOR: Chief, Security Branch, DPD

SUBJECT: Briefing of Policy Officials on DPD Activities

1. I am gravely concerned about the erosion of security inherent in the recent expansion of the requirement to brief high level policy officials on DPD operations in the course of obtaining necessary political permission to conduct these operations. I have specific reference to what we have come to call the "Black Book" type of presentation which came to be a fashion with the IDEALIST Program on a much smaller scale some years ago.

2. There were signs even in the last days of the previous Administration that this system of briefing could easily get out of hand. However, at that time the majority of the pre-operation briefings of this sort were carried on personally by the Director, the DDCI, or the DD/P with the sometime assistance of personnel in DPD Operations. In most instances it was possible to fulfill the requirement for the production of this material with a single, or at most two, such Black Books. In the case of operations other than IDEALIST, it was only occasionally necessary to create Black Books of this sort in modest quantities, and for the most part these remained exclusively within Agency or DPD control.

3. Since January of this year, several things have combined to increase the requirement for briefings of this sort with the resultant ill effects I have alluded to above. Without attempting to rank these factors, I would identify them as about as follows:

a. The new Administration has made not only the expected changes in personalities and previously established ways of doing things, but as is the case with any major shift of this sort, new lines of coordination and responsibility are rapidly established and frequently take many months to sort themselves out before a harmonious working relationship can be achieved. For example, the position of the so-called

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5412 Committee in the present Administration is much stronger in my view than under Mr. Eisenhower. As a consequence, more subjects tend to come before it for consideration, and these are not solely confined to those extremely sensitive operations which formerly came to the 5412 Committee. Also, the Foreign Intelligence Advisory Board, which under the previous Administration had an almost invisible policy role, now has emerged as a strong policy group with a vested interest in all covert operations. To this body we are also entrusting detailed information regarding sensitive operations on a fairly regular basis, though at the present moment not in the Black Book format.

b. In the wake of the Cuban disaster, there has been a natural emergence of additional control mechanisms on all types of covert operations under the aegis of the Government. The Administration at all policy levels appears highly sensitized to anything covert, and consequently many people become interested in all covert operations and to a far greater degree than was heretofore the case. As an example of this, I cite the establishment following Cuba of the so-called situation Room in the White House where all clandestine activities of the Government are posted in such a way as to be available to the Chief Executive. Although at the present we do not submit Black Books to this source, it is not impossible that such a requirement could develop, since we do furnish them a monthly forecast of all air operations. At the same time the Joint Reconnaissance Center in DOD has finally matured and becomes the resting place for sensitive operational information being undertaken within the purview of the DOD. To this body DPD regularly contributes basic information regarding certain of its operations, simply in order to avoid areas of conflict with ongoing programs there.

4. There are other influences which have tended to make the problem of pre-mission coordination more complicated. One of these is that in contrast to 5412 Committee meetings in past years where subjects came up for discussion and were resolved in one or two meetings, some items have dragged on for months since the first of the year, necessitating the almost weekly production of Black Books for each of the members of the Committee, detailing at great length

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various operational proposals. It could be inferred that this has resulted from not only the change of Administration and the strengthening of the role of the 5412, but the concurrent involvement of the DD/P in other matters to the point where he was no longer able to personally brief the Special Group from a single book as he had been accustomed in the past. Another measure of the problem can be taken from a comparison of our pre-mission coordination procedure with the Department of State in the previous Administration with the order followed at present. On a sensitive operation in the past, the Director, General Cabell, or Mr. Bissell usually briefed the Secretary or Under Secretary of State personally, again from material retained by them. On occasion the Director of Intelligence and Research would make it possible for the Acting Chief, DPD, or his representative to personally brief the Secretary on a given mission working from briefing charts. At the present time it is necessary for us to create an extremely detailed Black Book here in the Division, which then is sent to the present Director of Intelligence and Research, his deputy, or one of his special assistants, and they then accept responsibility for briefing the Secretary or the Under Secretary across the board without the presence of any one from the Agency. This Black Book is then carried to the Special Group meeting by the Under Secretary. The problem really is that once you give a Black Book to a single member of any policy body there ensues an immediate requirement to give everyone else attending the meeting a book with the same detailed information. As a horrible example of the lengths to which this can be carried, the material on Project TACKLE, which was prepared for 5412 consideration earlier this month and in connection with a highest level White House meeting on 14 July, DPD Intelligence Staff was obliged to create no less than nine Black Books (red in this instance) which contained the ingredients of the entire TACKLE Program: listings of highest priority targets, cover story, sample mission routes, etc. As if this were not enough, subsequent to the 14 July meeting a requirement originating with General Taylor called for a more condensed version of the earlier material, including the actual mission track of the new POLECAT Operations.

5. Not only have we literally gone into the publishing business on this sensitive material, but I feel that we have lost almost complete control of the actual location of the books once they have left this office.

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Operating against us are the simple facts that because this material is going to busy VIP's who are frequently inaccessible, the responsibility for receipting for this material rarely, if ever, falls to the VIP himself but is delegated to the secretary or typist nearest the door of the high level official. Once she has signed for the document she does not have the foggiest idea of its physical location, I am sure. The other factor working away from good security is that the recipient of this material has no restriction placed on him as to those persons to whom he shows the book or in some cases gives it for temporary retention. In some cases I am certain that it is literally passed around among interested officials close to the VIP but about whose clearance status we have no way of knowing anything. In addition, there is the always present problem of retrieving these books after a policy approval meeting. I venture that there are still outstanding copies of some of these Black Books outside the Agency where we cannot say for sure how long, if ever, it will be before we get them back.

6. The day does not go by but what I shudder to think of the repercussions that would follow the loss of one of these books by someone in a public conveyance or in some equally compromising situation where knowledge of its contents could pass to unauthorized personnel including members of the press. Should this occur I am virtually certain that we would have a repeat of the highest level concern, resulting from the publication in NEWSWEEK of the Administration's plan for meeting the Berlin Crisis. In addition to all the things I have said to date, there is the sheer physical problem of reproduction of these materials within the DPD Intelligence Staff. They simply are not manned to turn out books with the detail and art work frequently necessary. I have had one suggestion from that quarter regarding a possible way in which some control might be introduced and that is that each book be preprinted in gold letters with its classification on the cover, together with a printed control number as well as a brief description of its contents; i. e., "Development Projects Division, Central Intelligence Agency, Operations Briefing Book." The thought is that a combination of the number and the vivid description might impel the recipients to take better care of its movements and storage once it was in their hands. It has also been suggested that in contrast to the present "Hand Carry" system for these materials that a rigid Top Secret Control System be substituted, calling for actual signatures, not only of recipients, but of everyone who sees

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its contents. Given the usual time envelope for submissions of this material, such a slowdown would undoubtedly provoke complaints and criticisms from a number of quarters. I maintain, however, that these criticisms, however vocal, are preferable to the compromise of a single sensitive operation. The root of the problem, however, seems to me to lie with the fact that the number of books in circulation must be drastically reduced, and this without hurting the inevitable feelings of the officials involved. Such a reduction will call for the increased personal participation of the DCI, the DDCI, or the DD/P, working from a single Black Book in the actual physical briefing of high level officials whose approval is required for a given mission. We can also hope that as a confidence factor in the Agency method of operations is gradually re-established, the number of subjects requiring detailed presentations of this type will be progressively reduced. In the meantime, however, I think we are in real danger, and I earnestly request that you not only consider this problem yourself but that you discuss it with the Director of Security and others in the Agency whose opinions you value, culminating hopefully in a recommendation as to the course we should follow in order to be consistent with the best security practice. If we are not able to control this situation, I think that a major leak is just a matter of time and that at a minimum the requirement for more and more books with greater amounts of detail will continue. It is a very short step indeed between giving a mission track in advance of an operation to actually circulating the Operations Order for pre-mission coordination within the Government. Let me have your views on this at your earliest convenience.

(Signed)

James A. Cunningham, Jr.  
Assistant Chief, DPD-DD/P

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NORMAL U-2 MISSION OPERATIONS PLAN

The conduct of operations, as evolved since 1956 and practiced with regard to all overflights since, follows a general pattern of planning, preparation, direction and execution. Planning begins with preliminary target requirements which COMIREX (formerly COMOR) forwards to USIB and the Special Group for approval. At this time information pertaining to a proposed mission is contained within the Operations Division of OSA. Upon approval by the Special Group, the implementation mechanism is set in motion.

Execution procedures are the same for forward staging bases as for operations conducted from a permanent base except for the lead time required to preposition necessary equipment and personnel. The following operational control procedures are standard for Agency activities:

**ALERT:** The initial action is to review the weather in the target area. When the weather is acceptable for photographic reconnaissance the Agency U-2 detachment is alerted. This alert is provided not less than 24 hours prior to take-off for a mission. At this time the detachment is given the general framework of the intended mission in order to allow proper preparation. This information includes take-off time, general area of operation, equipment desired and special instructions as appropriate. At this time support agencies such as NORAD, Search and Rescue, CINCLANT for fighter cover, JRC for over-all coordination, NPIC, HEPC, selected processing facility, and Headquarters USAF are advised. In addition, higher echelons of the Agency are advised of impending activity.

**MISSION PLAN:** Weather in the target area is again reviewed and if satisfactory, the detailed mission plan is provided to the operating detachment not later than twelve hours prior to take-off. Included in the plan are detailed requirements including penetration times, altitudes, headings, targets, and camera flight lines. Also included are emergency instructions, authorized emergency landing bases in order of priority and any special information regarding survival, cover and friendly forces that may be pertinent to the mission. Hostile air and radar order of battle, etc., are also provided at this time to prepare for the pilot briefing.

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GO-NO-GO: A final review of target weather is accomplished and the authority to launch the mission is provided to the detachment not less than two hours prior to take-off. At this time the information is also passed to supporting agencies as well as higher echelons of the Agency. A final re-check is made in Headquarters to see that political approval is still not affected by late breaking developments.

By utilizing the procedures above, complete planning, direction and control of operations is retained by the Agency Project Headquarters. Maximum hold-down is maintained on the mission track and on general knowledge that a mission is in fact in progress. Upon completion of the mission the community is made aware of results via the TALENT System.

(Taken from Attachment B to  
BYE-3944-62)

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ANNEX 106

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<u>Date</u>	<u>No.</u>	<u>Pilot</u>	<u>Base</u>	<u>Coverage</u>	<u>Results</u>
26 Oct 1960	3001	Rand	Del Rio, Texas	Cuba	Poor
27 Oct 1960	3002	Rand	Del Rio, Texas	Cuba	Poor
27 Nov 1960	3003	Jones	Del Rio, Texas	Cuba	Good
5 Dec 1960	3011	Cherbonneaux	Del Rio, Texas	Cuba	Good
11 Dec 1960	3016	Edens	Del Rio, Texas	Cuba	Good
3 Jan 1961	3018	Baker	Cubi Point	North Vietnam, Laos	Fair
4 Jan 1961	3019	Cherbonneaux	Cubi Point	" " "	Fair
4 Jan 1961	3020	Rand	Cubi Point	" " "	Good
9 Jan 1961	3023	Jones	Cubi Point	" " "	Good
10 Jan 1961	3024	Edens	Cubi Point	" " "	Poor
16 Jan 1961	3025	Baker	Cubi Point	" " "	Excellent
18 Jan 1961	3026	Cherbonneaux	Cubi Point	" " "	Good
19 Mar 1961	3028	Barnes	Del Rio, Texas	Cuba	Good
21 Mar 1961	3029	Knutson	Del Rio, Texas	Cuba	Good
6 April 1961	3030	Kratt	Del Rio, Texas	Cuba	Good
8 April 1961	3032	Rand	Del Rio, Texas	Cuba	Good
11 April 1961	3033	Jones	Del Rio, Texas	Cuba	Good
13 April 1961	3034	Edens	Del Rio, Texas	Cuba	Fair
15 April 1961	3035	Dunaway	Del Rio, Texas	Cuba	Good
15 April 1961	3036	Baker	Del Rio, Texas	Cuba	Good
16 April 1961	3037	Cherbonneaux	Del Rio, Texas	Cuba	Good
17 April 1961	3038	Barnes	Del Rio, Texas	Cuba	Good
17 April 1961	3039	Knutson	Del Rio, Texas	Cuba	Good
18 April 1961	3040	Kratt	Del Rio, Texas	Cuba	Good

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18 April 1961	3041	Rand	Del Rio, Texas	Cuba	Good
19 April 1961	3042	Jones	Del Rio, Texas	Cuba	Good
20 April 1961	3043	Edens	Del Rio, Texas	Cuba	Excellent
23 April 1961	3045	Dunaway	Del Rio, Texas	Cuba	Good
29 April 1961	3047	Baker	Del Rio, Texas	Cuba	Good
23 May 1961	3048	Cherbonneaux	Del Rio, Texas	Cuba	Good
15 June 1961	3049	Barnes	Del Rio, Texas	Cuba	Good
28 June 1961	3051	Knutson	Del Rio, Texas	Cuba	Good
29 June 1961	3054	Baker	Del Rio, Texas	Cuba	Good
15 Aug 1961	3055	Rand	Cubi Point	North Vietnam	Good
3 Sept 1961	3058	Cherbonneaux	Del Rio, Texas	Cuba	Good
26 Oct 1961	3060	Knutson	Del Rio, Texas	Cuba	Good
6 Dec 1961	3061	Barnes	Del Rio, Texas	Cuba	Good
19 Jan 1962	3062	Cherbonneaux	Del Rio, Texas	Cuba	Good
2 Feb 1962	3065	Rand	Del Rio, Texas	Cuba	Fair
21 Feb 1962	3066	Ericson	Tao Yuan, Taiwan	SEA, North Vietnam	Good
21 Feb 1962	3067	Baker	Del Rio, Texas	Cuba	Good
13 Mar 1962	3069	Ericson	Tao Yuan, Taiwan	SEA, North Vietnam	Poor
15 Mar 1962	3071	Edens	Del Rio, Texas	Cuba	Good
21 Mar 1962	3072	Ericson	Tao Yuan, Taiwan	SEA, North Vietnam	Fair
1 Apr 1962	3074	Barnes	Del Rio, Texas	Cuba	Good
7 Apr 1962	3076	Ericson	Tao Yuan, Taiwan	SEA, North Vietnam	Good

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2 May 1962	3078	Rand	Del Rio, Texas	Cuba	Good
6 May 1962	6056	Knutson	Tao Yuan Taiwan	SEA North Vietnam	Good
22 May 1962	3079	Edens	Del Rio, Texas	Cuba	Excellent
6 June 1962	3080	Barnes	Del Rio, Texas	Cuba	Good
15 June 1962	3081	Cherbonneaux	Del Rio, Texas	Cuba	Good
18 June 1962	3082	Knutson	Del Rio, Texas	Cuba	Good
22 June 1962	6058	Baker	Tao Yuan, Taiwan	SEA, North Vietnam	Fair
29 June 1962	3083	Cherbonneaux	Del Rio, Texas	Cuba	Good
8 July 1962	3084	Knutson	Del Rio, Texas	Cuba	Fair
12 July 1962	3085	Cherbonneaux	Del Rio, Texas	Cuba	Good
21 July 1962	6060	Barnes	Tao Yuan, Taiwan	SEA, North Vietnam	Poor
5 Aug 1962	3086	Baker	Del Rio, Texas	Cuba	Good
29 Aug 1962	3088	Ericson	Del Rio, Texas	Cuba	Good
5 Sept 1962	3089	Edens	Del Rio, Texas	Cuba	Good
17 Sept 1962	3091	Baker	Del Rio, Texas	Cuba	Fair
26 Sept 1962	3093	Rand	Del Rio, Texas	Cuba	Good
29 Sept 1962	3095	Edens	Del Rio, Texas	Cuba	Excellent
5 Oct 1962	3098	Barnes	Del Rio, Texas	Cuba	Fair
7 Oct 1962	3100	Knutson	Del Rio, Texas	Cuba	Fair
5 Dec 1962	3201	Rand	Takhli, Thailand	Tibet	Good
10 Dec 1962	3203	Baker	Takhli, Thailand	Tibet	Good
27 Dec 1962	3206	Knutson	Takhli, Thailand	SEA, North Vietnam	Good
31 Dec 1962	3208	Rand	Takhli, Thailand	Tibet	Fair

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3 Jan 1963	3210	Baker	Takhli, Thailand	Tibet	Fair
19 Jan 1963	3213	Cherbonneaux	Takhli, Thailand	Tibet	Good
22 Jan 1963	3215	Edens	Takhli, Thailand	Tibet	Good
1 Mar 1963	3218	Cherbonneaux	Takhli, Thailand	SEA, N. Vietnam	Fair
2 Mar 1963	3219	Cherbonneaux	Takhli, Thailand	SEA, NVN, Laos	Good
30 Apr 1963	3221	Knutson	Takhli, Thailand	SEA, NVN, Laos, China	Good
3 May 1963	3222	Rand	Takhli, Thailand	SEA, NVN, Laos, China	Good
13 May 1963	3224	Knutson	Takhli, Thailand	SEA, NVN, Laos, China	Fair
14 May 1963	3225	Rand	Takhli, Thailand	SEA, NVN, Laos	Fair
15 May 1963	3226	Baker	Takhli, Thailand	SEA, NVN, Laos	Fair
10 Aug 1963	6066	Knutson	Takhli, Thailand	SEA, NVN	Good
29 Sept 1963	3227	Barnes	Takhli, Thailand	Tibet	Good
10 Oct 1963	3230	Barnes	Takhli, Thailand	Tibet	Fair
11 Oct 1963	3231	Barnes	Takhli, Thailand	SEA, NVN	Good
26 Oct 1963	3235	Baker	Takhli, Thailand	SEA, NVN, Laos	Fair
29 Oct 1963	3236	Rand	Takhli, Thailand	Tibet	Good
10 Nov 1963	3238	Rand	Takhli, Thailand	China, NEFA	Good
14 Nov 1963	3239	Edens	Takhli, Thailand	SEA, Burma Border	Poor
15 Nov 1963	3241	Bedford	Takhli, Thailand	SEA, Burma, Laos	Fair
17 Nov 1963	3243	Edens	Takhli, Thailand	SEA, NVN	Excellent
3 Dec 1963	3250	Barnes	Ramey AFB, P. R.	Venezuela	Good
6 Dec 1963	3252	Ericson	Ramey AFB, P. R.	Venezuela	Good
13 Dec 1963	3253	Edens	Ramey AFB, P. R.	Venezuela, Guiana	Good
14 Dec 1963	3254	Barnes	Ramey AFB, P. R.	Venezuela, Guiana	Good
18 Dec 1963	3256	Ericson	Ramey AFB, P. R.	Venezuela	Good
19 Dec 1963	3257	Edens	Ramey AFB, P. R.	Venezuela	Good
29 Dec 1963	6070	Rand	Takhli, Thailand	Cambodia, SVN	Excellent
30 Dec 1963	6071	Bedford	Takhli, Thailand	SEA, NVN, Laos	Excellent

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7 Jan 1964	0014E	Rand	Tao Yuan, Taiwan	SEA, SVN, NVN, Laos, Cambodia	Good
23 Feb 1964	0034E	Baker	Tao Yuan, Taiwan	SEA, SVN	Good
28 Feb 1964	0064E	Knutson	Tao Yuan, Taiwan	SEA, NVN	Poor
1 Mar 1964	S074E	Baker	Tao Yuan, Taiwan	SEA, NVN, Laos	Good
6 Mar 1964	S104E	Baker	Tao Yuan, Taiwan	SEA, NVN, Laos	Good
10 Mar 1964	S014A	Ericson	Takhli, Thailand	SEA, NVN, Laos	Poor
12 Mar 1964	S024A	Knutson	Takhli, Thailand	SEA, NVN, Laos	Fair
14 Mar 1964	S034A	Ericson	Takhli, Thailand	SEA, NVN, Laos	Poor
15 Mar 1964	S044A	Knutson	Takhli, Thailand	SEA, NVN, Laos	Good
16 Mar 1964	S064A	Knutson	Takhli, Thailand	SEA, NVN, Laos	Poor
17 Mar 1964	S074A	Edens	Takhli, Thailand	SEA, NVN, Laos	Poor
20 Mar 1964	S084A	Knutson	Takhli, Thailand	SEA, NVN, Laos	Excellent
24 Mar 1964	S114A	Ericson	Takhli, Thailand	SEA, NVN, Laos	Poor
31 Mar 1964	T124A	Edens	Takhli, Thailand	China, NEFA	Excellent
4 Apr 1964	S144A	Knutson	Takhli, Thailand	SEA, NVN, Laos	Fair
6 Apr 1964	S154A	Ericson	Takhli, Thailand	SEA, NVN, Laos	Fair
7 Apr 1964	S164A	Edens	Takhli, Thailand	SEA, NVN, Laos	Poor
12 Apr 1964	S184A	Knutson	Takhli, Thailand	SEA, Cambodia	Good
15 Apr 1964	S194A	Ericson	Takhli, Thailand	SEA, NVN, Laos	Good
24 Apr 1964	S214A	Rand	Cubi Point	SEA, NVN, Laos	Poor
19 May 1964	W224A	Barnes	RANGER	French Atomic Test	Excellent
22 May 1964	W234A	Edens	RANGER	French Atomic Test	Excellent
24 May 1964	T284A	Ericson	Charbatia, India	Tibet, Sino/Indian Border	Good
16 Dec 1964	T314A	Knutson	Charbatia, India	Tibet, Sino/Indian Border	Excellent
17 Dec 1964	T324A	Baker	Charbatia, India	Tibet, Sino/Indian Border	Excellent
20 Dec 1964	T344A	Schmarr	Charbatia, India	Tibet, Sino/Indian Border	Excellent

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29 Oct 1965	S015A	Schmarr	Takhli, Thailand	Cambodia	Good
7 Nov 1965	S025A	Barnes	Takhli, Thailand	Cambodia	Excellent
27 Mar 1968	S018E	Hall	Takhli, Thailand	Cambodia Border	Excellent
3 Apr 1968	S028E	Hall	Takhli, Thailand	Cambodia Border	Excellent

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