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FINAL REPORT
AERIAL PHOTO
ELEMENT

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FINAL REPORT

AERIAL PHOTO ELEMENT



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1370th PHOTO MAPPING GROUP
AIR PHOTOGRAPHIC AND CHARTING SERVICE
MATS

Statement A
Approved for public release
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Paul Rose
4/29/80

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FINAL REPORT

PROJECT HARDTACT

1370th PHOTO MAPPING GROUP

AIR PHOTOGRAPHIC AND CHARTING SERVICE

PALM BEACH AIR FORCE BASE, FLORIDA

WEST PALM BEACH, FLORIDA

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**AERIAL PHOTO ELEMENT (PROVISIONAL)
1370TH PHOTO MAPPING GROUP
Palm Beach Air Force Base, Florida**

September 1958

SUBJECT: Final Report of Field Operations, PROJECT HARDTACK

**TO: Commander
1370th Photo-Mapping Group
Palm Beach Air Force Base
West Palm Beach, Florida**

1. In compliance with PMGP Regulation 95-3, dated 25 January 1957, this report is submitted to provide a summary of activities of the Aerial Photo Element (Provisional) relative to PROJECT HARDTACK.

2. Mission: (Task Group 7.4 Operations Order 1-58)

a. To provide an aerial platform for photographic coverage of nuclear detonations in the Pacific Proving Grounds.

b. To augment inter-atoll airlift as required in support of Joint Task Force Seven and Task Group 7.4 Operations.

c. To provide airlift of personnel and equipment to and from the Pacific Proving Grounds.

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d. To provide island photography and photo-mapping as required.

3. Organization:

a. On 12 September 1957, the 1370th Photo-Mapping Group was first alerted to support Operation Hardtack. The following day a message was received from Headquarters MITS, ordering two (2) RB-50 aircraft to support Operation Hardtack in addition to the original three (3) C-54 aircraft requested.

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b. Our final UMD request for this project, authorizing sixteen (16) officers and fifty eight (58) airman at maximum strength, was approved in December 1957 and obtained 13 April 1958 upon arrival of the second RB-50 crew at Eniwetok Proving Ground. This strength was maintained until 11 June 58, at which date both RB-50's departed Eniwetok for the ZI. Other personnel were released as mission requirements permitted.

4. Personnel and Administration:

a. The Photo Element was under the Test Services Unit for Personnel and Administration functions. AFEP, however, was required to set up its own Administration Section in building 643, which also housed the Element Commander's office, Operations, Maintenance and Supply. This was a satisfactory arrangement as it minimized distribution and coordination resulting in a more efficient operation. The Administration Section was responsible for pay, required reports, correspondence, security and dissemination of all necessary information to all sections within the framework of the Photo Element. The Administration and Personnel Sections were combined in one office and functioned with no major problems during the project. Major John J. Dillon Jr. was the Personnel and Administration Officer with Lieut. Eckford as assistant. Lieut. Barrilleaux performed the duties of Security Officer. All officers comprising the Element, as well as maintaining additional duties, were primary crew members. **BEST AVAILABLE COPY**

b. High morale and excellent cooperation characterized the operation as a whole. This was evidenced by the absence of disciplinary action or delinquent reports.

c. Sports participation was varied. Volleyball, softball, swimming skin diving, and tennis held a high percent of interest. Besides arousing animation, the sports program directly contributed to high morale.

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5. Operations:

a. The five aircraft deployed to the Eniwotok Proving Grounds for PROJECT HARDTACK aerial photographic support had the following record:

<u>AIRCRAFT TYPE & NO</u>	<u>DEPARTED</u>	<u>DATE</u>	<u>DATE ARRIVAL, ENIWIOTOK</u>
C-54G, 5561	Palm Beach AFB	5 Mar '58	13 Mar '58
C-54G, 5615	Palm Beach AFB	5 Mar '58	13 Mar '58
RB-50E, 7131	Clark AB, P.I.	25 Mar '58	28 Mar '58
C-54G, 5482	Clark AB, P.I.	26 Mar '58	28 Mar '58
RB-50F, 7160	Palm Beach AFB	8 Apr '58	13 Apr '58

Ferrying time for this deployment was: 101:35 (C-54) and 46:35 (RB-50).

b. The Aerial Photo Element (Provisional) provided its own Operations Administration (publication of flight orders, maintenance of Forms 781-1, Forms 5 and 5a, mission accomplishment records, scheduling, daily and monthly operational reports, flying pay, certificates, etc) using flight crew members for this purpose. Having such flight crew members trained and experienced before leaving on such projects as these has shown notable effectiveness.

c. A breakdown of flying time by type aircraft during project participation was as follows:

	<u>C-54</u>	<u>RB-50</u>
Photography	78:30	48:40
Island Resupply	295:40	0
Mission Practice	36:15	23:15
Other	45:40	39:55
Total by type aircraft	456:05	111:50
Grand Total	567:55	

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(1) A programmed daily utilization rate of 4:00 hours for the C-54 aircraft and 1:05 hours for the RB-50 aircraft was established in OPLAN 1-58. The actual commitments for the C-54 aircraft, however, were too low to enable achievement of this rate. Task Group 7.4 established a policy of requiring back-up aircraft and readiness status for detonation participation. This forced non-utilization during periods of day-to-day detonation postponements. When this participation permitted, coordination for scheduling was effected with Documentary Photo Element, Test Base Unit, Test Service Unit, and Task Group 7.1. Although this coordination was complicated, it worked in a satisfactory manner.

(2) Fifty (50) missions were flown to off-atoll sites (Bikini, Kwajelein, Truk, Nauru, Tarawa, Johnston, Guam and Majuro) on island resupply requirements. **BEST AVAILABLE COPY**

d. RB-50, 7131, was equipped at Eniwetok for technical photography in connection with U.S. Navy requirements. With this equipment installed, availability for other requirements lessened; only documentary photography from the photo-navigator's position was possible. RB-50F, 7160, was used primarily for T-11 camera photography of pre-crater and post-crater photo-mapping. In addition to this, the aircraft was used for photo-mapping of Johnston Island, Eniwetok and Bikini Atolls.

e. The C-54 aircraft participated in the photographic coverage of ten (10) nuclear detonations. The RB-50 aircraft participated in two underwater detonations. One RB-50 was positioned directly over the blast by M-33 radar control; the other RB-50 took target array photo-mapping photography shortly before and shortly after the blast. No damage to any of the five aircraft or their personnel occurred from these detonations.

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f. Weather was of negligible effect in operations except in the postponement of some island photography. On several occasions photo-mapping was conducted at 1500 feet absolute altitude to avoid the hindrance of low scattered cloud layers but was considered acceptable by Task Group 7.

g. During operation NEWS REEL (high altitude shots at Johnston Island) Pewter 3, C-54 (05482), positioned itself midway between Hawaii and Johnston Island and functioned as a communications relay station for the final detonation on 11 August 1958.

h. Flying Safety, in all aspects, was given close attention during the project. There were no engine failures or declarations of emergency.

i. According to the Roll-Up plan, the five aircraft had the following record:

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<u>Aircraft type & No</u>	<u>Dept Eniwetok</u>	<u>Destination</u>	<u>Arrival Date</u>
RB-50E, 7131	11 June 1958	PB AFB, Fla	15 June 1958
RB-50F, 7160	11 June 1958	PB AFB, Fla	13 June 1958
C-54G, 45-561	22 June 1958	Clark AB, P.I.	23 June 1958
C-54G, 45-615A	30 June 1958	PB AFB, Fla	3 July 1958

Aircraft C54-G, 45-482 was released from Operation HARDTACK and departed Eniwetok on 4 August 1958 for Hickam Air Force Base via Johnston Island, arriving at Hickam Air Force Base, T.H. on 4 August 1958. This aircraft was released from Operation NEWS REEL on 15 August 1958, on which date it departed Hickam Air Force Base and arrived at Palm Beach Air Force Base, Florida on 17 August 1958. During the period at Hickam aircraft 45-482 accomplished three island resupply and one detonation participation mission to Johnston Island.

Ferrying time for returning aircraft was 83:45 (C-54) and 66:05 (RB-50).

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6. Supply

a. The element supply section, under the supervision of Captain Marion W. Watkins, was established for the C-54 and RB-50 aircraft in two different locations. Technical Sergeant Shiflett was NCOIC of the C-54 supply tent, while Airman Second Class Coleman with Airman Third Class Bailey operated the RB-50 supply tent. These supply tents were on opposite sides of the runway, separated by more than one (1) mile.

b. All items of supply for the C-54 aircraft were prepositioned at Eniwetok. These items were kept in a Base Supply Pool with items of six other C-54 aircraft at EPG. Of 266 line items prepositioned, 84 were used for 32% utilization. Two Hundred and ten (210) items were requested of items not prepositioned; one hundred forty six (146) were received for 70%.

c. All items for RB-50 aircraft, except a few of the larger items (i.e. engines, props, maintenance stands, etc.) which were prepositioned, were contained in the RB-50 mission support kit shipped from the home station. Of 1818 line items in the kit 145 were used for 8%. Eighteen (18) line items not in the kit were ordered and 13 were received for 72% utilization. AACP on RB-50 aircraft was "zero" due to utilization of the mission kit.

d. With other aircraft as those utilized by this element also at Eniwetok and an adequate number of line items in a pool at Base Supply for these aircraft, along with the mission support kit, this element experienced very little difficulty in obtaining parts for maintaining our aircraft. The only significant AACP item was a "P" lead conduit which was ordered and received within three days but was packed in such a manner that it was not located by Base Supply until several days thereafter.

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7. Maintenance

a. The element Maintenance Section under the supervision of Captain James A. Bridges, with First Lieutenant Donald K. Harz (RB-50) and Lieutenant William E. Orth (C-54) as assistants, was successful in meeting all operational commitments, which on several occasions required all five aircraft to be airborne at the same time. The average in-commission rate for the entire project was 86.89%. There were no aborts on any scheduled operational mission.

b. The RB-50 section was located across the runway from the C-54 area. This caused some hardship but was overcome by the diligent work of the personnel concerned. The B-50 maintenance was coordinated with the Weather reconnaissance element in order to better utilize available manpower and equipment.

c. A breakdown of time devoted to the maintenance of the five aircraft is as follows:

	<u>RB-50</u>	<u>C-54</u>	<u>Total</u>
Time in commission	92.6%	81.18%	86.89%
Time loss to AACP	0%	4.45%	3.22%
Time required for TO compliances0 hrs	20 hrs	20 hrs
Time required for periodic maintenance0	259 hrs	259 hrs
Time required for malfunctions, mechanical difficulties and operational damage	227 hrs	837:15hrs	1064:15hr
Time required for pre-flight and postflight inspections	150 hrs	282:30hrs	432:30hr

8. Security

Security was of prime concern to all members of APEP during Operation HARDTACK. Prior to departure from Palm Beach Air Force Base, Florida all members were thoroughly briefed on security, and proper

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security clearances were obtained for each individual. Security briefings and lectures, by the Commander and Security Officer, were continued throughout Operation HARDTACK. As much of the classified material as was practicable was disposed of in accordance with AF Reg. 205-1 prior to departure from the Eniwetok Proving Grounds.

9. Difficulties Encountered

a. Supply coordination was difficult due to the fact that the element C-54 supply was on the opposite side of the field from Base Supply and stock catalogues were not available for research except at Base Supply. It was also inconvenient having the RB-50 and C-54 supply tents on opposite sides of the field.

b. Corrosion control was difficult for the RB-50 mission support kit due to inadequate and makeshift (under tarps) storage areas.

c. Due to delays in obtaining specialists' support from the Base shops, the maintenance section was somewhat hampered in completing both scheduled and unscheduled maintenance.

10. Recommendations

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a. That adequate supply catalogues for research accompany the element on future projects if it is determined that the element will not be in close proximity to adequate stock catalogues.

b. That, in case of utilization of different types of aircraft on future projects, these aircraft be located in a common area to prevent a split supply operation.

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c. That, due to the corrosion and storage problem for elements at EPG, the element either requests more storage space for the mission support kit on future projects or proposition these items to be stored and drawn through Base Supply at Enitewok.

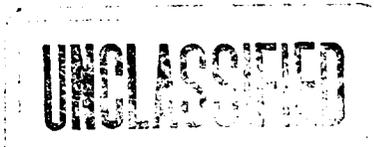
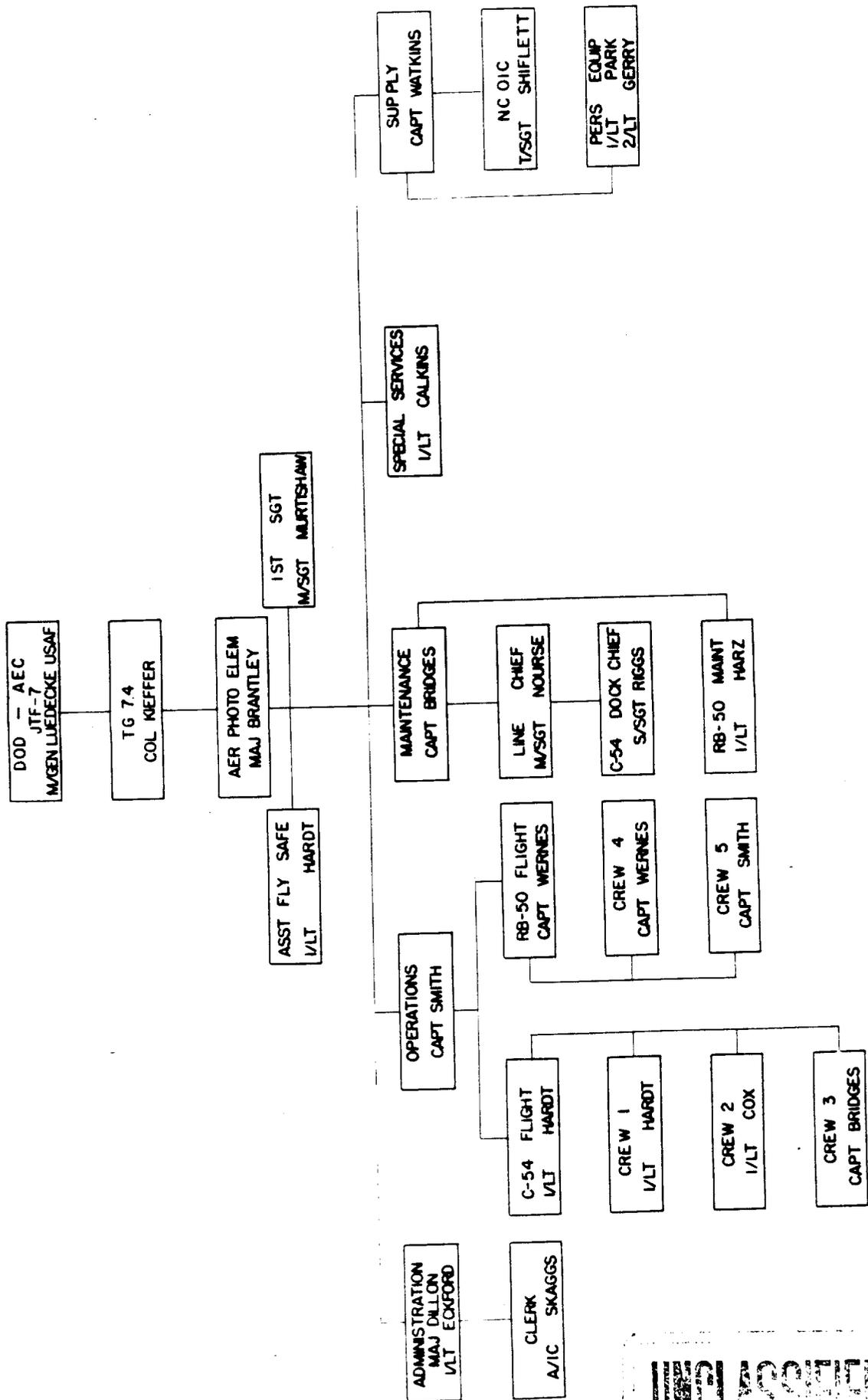
d. Recommend that on future projects the UMD include at least one (1) electrician 42350 and one (1) instrument technician 42250.

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<u>JOB TITLE</u>	<u>PAFSC</u>	<u>DAFSC</u>	<u>NAME</u>	<u>GRADE</u>	<u>AFSN</u>	<u>CLR</u>	<u>PPT</u>	<u>ORG</u>
Commander	1416	1324C	Brantley, William L.	Major		S	X	1370
Clerk	70250	70250	Skaggs, Gilbert R.	A/1C		S	X	1371
Supply NCOIC	64173	64173	Shiflet, Merle H.	T/Sgt		S	X	1370
% Supply Spec	64131	64151	Coleman, Richard, Jr.	A/2C		S	X	1371
* Appr Supply Tech	64130	64131	Bailey, Alfred A.	A/3C		S	X	1371

HB-50 CREWS

Acft Comdr (07135)	1324C	1324C	Smith, Grafton N.	Capt		TS	X	1371
Pilot	1321C	1321C	Calkins, George C.	1/Lt		S	X	1371
Navigator	1525F	1525F	Dillon, John J. Jr.	Major		S	X	1371
Flt Eng	43171B	43171B	Williams, David L.	T/Sgt		S	X	1371
Radio Op	29352	29352	Jones, Granville R.	S/Sgt		S	X	1371
1st Photo	23170	23170	Canedo, Fred C.	T/Sgt		S	X	1371
2nd Photo	23160	23150	Hampton, John F.	A/1C		S	X	1371
Acft Comdr (07131)	1324C	1324C	Wernes, Lawrence J.	Capt		S	X	1371
Pilot	1321C	1321C	Harv, Donald K.	1/Lt		S	X	1371
Navigator	1534B	1521F	Park, Richard N.	1/Lt		S	X	1371
Flt Eng	43174	43174	Murtishaw, Lillis H.	M/Sgt		S	X	1371
Radio Op	29332	29352	Worford, Edward B.	A/1C		S	X	1371

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<u>JOB TITLE</u>	<u>PAFSC</u>	<u>DAFSC</u>	<u>NAME</u>	<u>GRADE</u>	<u>AFSN</u>	<u>CLR</u>	<u>PPT</u>	<u>ORG</u>
1st Photo	23170	23170	Cook, George P.	S/Sgt		S	X	1371
2nd Photo	23150	23150	Cain, Jack G.	S/Sgt		S	X	1371
<u>C-54 CREWS</u>								
Acft Comdr (05615)	4344	1044B	Bridges, James A.	Capt		S	X	1371
Pilot	1321C	1321C	Watkins, Marion W.	Capt	crypto	X		1371
Navigator	1534P	1534P	Flood, Donald A.	1/Lt		S	X	1371
Flt Eng	A43171B	A43171B	Conway, William L.	T/Sgt		S	X	1371
Radio Op	29332	29352	Andrews, Willie J.	A/3C		S	X	1371
Acft Comdr (05561)	1044B	1044B	Hardt, Howard R.	1/Lt		S	X	1371
* Pilot	1124Q	1321C	Orth, William E. Jr.	2/Lt		S	X	1371
Navigator	1534P	1534P	Barrilleaux, Elton A.	1/Lt		S	X	1371
Flt Eng	A43171B	A43171B	Pennell, James W.	T/Sgt		S	X	1371
Radio Op	29352	29352	Rogers, Herbert E.	S/Sgt		S		1371
# Acft Comdr (04482)	1041B	1041B	Cox, Kenneth L.	1/Lt		S	X	1371
# Pilot	1324C	1324C	Eckford, Douglas C.	1/Lt		S	X	1371
# Navigator	1531F	1531F	Gerry, James A.	2/Lt		S	X	1371
# Flt Eng	43171B	43171B	Sanders, Robert V.	T/Sgt	TS	X		1371
# Radio Op	29352	29352	Robins, Peter B.	A/Lt		S	X	1371

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JOB TITLE PAR3C DAF3C NAME GRADE AFSN CLR PFT SERG

MAINTENANCE

Line Chief 43171B 43171B Nourse, Werton W. N/Sgt S X 1371

RB-50 CREWS

Crew Chief (07131) 43171B 43171B Hopson, Glen L. T/Sgt S X 1371

.PG Mech 43151B 43151B Barfield, Thomas A. A/1C S X 1371

.PG Mech 43151B 43151B Johnston, Isaac U. A/1C S X 1371

.PG Mech 43151B 43151B Beville, Lawrence W. A/1C S X 1371

.PG Mech 43151B 43151B Miller, Elmer J. A/3C IS 1371

Crew Chief (07128) 43171B 43171B Ream, Melvin H. T/Sgt S 1371

.PG Mech 43151B 43151B Rider, Donald P. A/1C S X 1371

.PG Mech 43151B 43151B Werk, Donald W. A/1C S X 1371

.PG Mech 43251 43151B Antoniewicz, Edward J. A/3C S X 1371

.PG Mech 43131B 43151B Conn, Guy S. A/3C S X 1371

G-54 CREWS

Crew Chief 43151B 43151B Sullins, Larry J. S/Sgt S X 1371

Eng Mech 43251 43251 Young, Claud E. S/Sgt S X 1371

.PG Mech 43151B 43151B Harwell, Louis S. A/2C S X 1371

.PG Mech 43151B 43151B Kennedy, Royce J. A/2C S X 1371

Crew Chief 43151B 43151B Struve, Luther A. S/Sgt S 1371

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JOB TITLE	FAFSC	DAFSC	NAME	GRADE	AFSN	CLR	PPT	ORG
A/PG Mech	43151B	43151B	Newmarker, Donald R.	A/2C		S	X	1371
A/PG Mech	43151B	43151B	Bowman, Minot	A/1C		S	X	1371
A/PG Mech	43151	43251B	Ranson, Joseph R.	A/2C		S	X	1371
Crew Chief	43171B	43171B	Blakely, Robert V.B.	S/Sgt		S	X	1371
A/PG Mech	43151B	43151B	Hipple, William N.	A/1C		S		1371
A/PG Mech	43151B	43151B	Morgan, Hazle L.	A/1C		S	X	1371
A/PG Mech	43151B	43151B	Dunn, Arthur L.	A/3C		IS		1371
# Eng Mech	43151B	43251	Holt, Ray M.	S/Sgt		S	X	1371
# Eng Mech	43251	43251	Martin, Ralph J.	S/Sgt		S	X	1371
# Eng Mech	43251	43251	Thurman, James W.	S/Sgt		S	X	1371
# Eng Mech	43251	43251	Lappin, Robert H.	A/1C		S	X	1371
# Eng Mech	43251	43251	Stancil, Charles C.	A/2C		IS	X	1371
# Eng Mech	43251	43251	Gaves, Howard D. Jr.	A/3C		IS		1371
# Eng Mech	43251	43251	Raby, Andrew S.	A/1C		S	X	1371
# Eng Mech	43251	43251	Keasler, Billy C.	A/3C		IS	X	1371
## Eng Mech	43251	43251	Baysinger, John L.	A/1C		S		1705
## Eng Mech	43251	43251	White, Wilbur D.	A/1C		C		1705
## Eng Mech	43251	43251	Olsen, Herman, Jr.	A/1C		C		1705
## Eng Mech	43251	43251	Young, George J.	A/3C		C		1705

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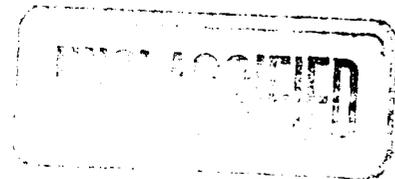
<u>JOB TITLE</u>	<u>PAFSC</u>	<u>DAFSC</u>	<u>NAME</u>	<u>GRADE</u>	<u>AFSN</u>	<u>CIR</u>	<u>ACT</u>	<u>ORC</u>
### Eng Mech	43251	43251	Tarwater, Melvin W.	A/2C		C		63
### Eng Mech	43251	43251	Holtz, Arthur W.	A/2C		S		62
### Eng Mech	43251	43251	Hamby, L D	A/2C		C		63
Eng Mech	43271	43271	Riggs, Thomas O.	S/Sgt		S		1371
<u>C&E SHO</u>								
## Photo Repairman	40270	40270	Parkes, Chester C.	T/Sgt		S	X	1374

JAMES C. FORREST
1/Lt, USAF
Project Officer

- % Denotes Mission Kit Guard - departed Palm Beach AFB, 17 February 1958,
- # Denotes personnel departing Travis to Clark o/a 6 March via airlift.
- * Denotes advance party departing Palm Beach AFB, o/a 1 March via airlift.
- ## Denotes personnel departing Palm Beach AFB to EHG o/a 24 March via airlift.
- ### Denotes attached personnel.

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AERIAL PHOTO ELEMENT (PROVISIONAL)
ROLL-UP PLAN 1-58



AERIAL PHOTO ELEMENT (PROVISIONAL)

ROLL-UP PLAN

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SUBJECT

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Task Sections

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 - b. Operations
 - c. Maintenance
 - d. Supply
4. Logistical Matters
5. Command and Organization

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Aerial Photo Element (Provisional)
APO #187
San Francisco, California
10 May 1958

ROLL-UP PLAN 1-58

REFERENCES:

Task Group 7:4 Operations Plan 1-58
Current Task Group Regulations
Test Services Unit (Prov) Roll-Up Plan 1-58

CHART AND MAP REFERENCES:

Eniwetok Marshall Islands via direct route to Hickam Air Force Base, T.H., MATS route to Travis Air Force Base, California. From Travis Air Force Base via Airways to Palm Beach Air Force Base, Florida. Also direct route to Anderson Air Force Base, Guam, and direct route to Clark Air Force Base, P.I. Finally, direct route from Eniwetok to Yokota Air Base, Japan.

TASK SECTIONS:

Administration	Major John J. Dillon Jr.	5-2174
Operations	Captain Grafton N. Smith	5-2176
Maintenance	Captain James A. Bridges	5-2172
Supply	Captain Marion W. Watkins	5-2172

1. GENERAL SITUATION:

a. Upon completion of their assigned tasks at Eniwetok Proving Grounds, personnel and aircraft of the Aerial Photo Element will commence re-deployment to their home stations. The main body of APEP, utilizing C-54 aircraft, will commence their re-deployment from this station following the last shot, to their home station and squadron: 1370th Photo Mapping Group, Palm Beach Air Force Base, Florida.

APEP RUP 1-58
10 May 1958



b. Friendly Forces

(1) The main body of the Aerial Photo Element (Prov) will:

(a) Provide three C-54 aircraft, personnel and necessary equipment for the manning and operation of the main body.

(b) Provide support as necessary in preparation for and initiate action toward re-deployment.

2. MISSION:

a. The main body and attached TDY personnel will deploy from Eniwetok Marshall Islands in five phases.

(1) Phase I - The flight crew (three officers and four airmen) and assigned ground crew (five airmen) of RB-50 #07160 will deploy as soon as in commission rates permit after the firing of UMBRELLA. This aircraft will return to Palm Beach Air Force Base, Florida.

(2) Phase II - The Flight Crew (three officers and four airmen) and assigned ground crew (five airmen) of RB-50 #07131 will re-deploy no earlier than in commission rate permits after firing of UMBRELLA and no later than L/3, or at any time during this period, depending on mission requirements. This aircraft will return to either Yokota Air Base, Honshu, Japan, or will return to Palm Beach Air Force Base, Florida. This is to be decided at a later date.

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(3) Phase III - The main body of the Aerial Photo Element (Prov) (consisting of three C-54 aircraft and possibly one RB-50 aircraft) will depart on or about L/3. One C-54 plus crew (three officers and two airmen) will re-deploy to Clark Air Force Base, P.I. as soon as in commission rate permits after the last shot (L). This crew will be further transported from Clark Air Force Base, P.I. via MITS to Palm Beach Air Force Base, Florida.

APEP RUP 1-58
30 May 1958

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Two C-54 aircraft with crews (six officers and four airmen), ground crews, and other Element personnel will re-deploy L/3. These aircraft will return to Palm Beach Air Force Base, Florida.

(4) Phase IV - The ground echelon (of the main body, thirteen airmen) with its remaining attached TDY ground personnel (seven airmen) and accompanying equipment will re-deploy via organizational airlift (C-54) on or about L/3. The seven airmen TDY to the 1370th FM-GP will return directly to their home stations while the remaining six airmen will return to Palm Beach Air Force Base, Florida.

(5) Phase V - Three roll-up personnel of this element will re-deploy L/30 to 60 days via air transportation. These personnel will return to Palm Beach Air Force Base, Florida.

3. TASKS FOR SECTIONS:

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a. The Administration Section will:

- (1) Insure necessary orders are published or indorsed.
- (2) Process all personnel as directed.
- (3) Effect necessary coordination with supplemental sections.
- (4) Submit progress reports as directed.
- (5) Insure necessary records, supplies, and equipment accompany

the re-deployment to the parent organization.

b. The Operations Section will:

- (1) Designate aircraft loading and aircrew assignments.
- (2) Insure necessary supplies and equipment accompany the re-deployment back to parent organization.
- (3) Provide aircrews with adequate briefing on movement.

c. The Maintenance Section will:

(1) Prepare all aircraft for re-deployment.

(2) Insure necessary supplies, records, and equipment accompany the re-deployment back to the parent organization.

d. The Supply Section will:

(1) Insure and coordinate all turn-ins of C-54 Kit "B" items to base Supply.

(2) Provide for the packing and crating of records, supplies, and RB-50 Kit "B" which are to be shipped back to the parent organization.

(3) Insure all items crated for shipment to the home station by air are delivered to base supply for shipment.

4. LOGISTICAL MATTERS:

a. Test Services Unit, Task Group 7.4, will furnish any logistical support needed.

b. Logistical capabilities of departure and enroute base will be utilized to the maximum extent possible.

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5. COMMAND AND ORGANIZATION:

The Aerial Photo Element (Provisional) has been organized to provide aerial platforms for photography and to provide inter-island transport support at Eniwetok Proving Ground during Operation HARDTACK. This unit, upon completion of its assignment to Test Services Unit, Task Group 7.4, will depart to its parent organization, 1370th Photo Mapping Group, Palm Beach Air Force Base, Florida.

WILLIAM L. BRANTLEY
Major, USAF
Commander

..PEP RUP 1-58
10 May 1958

ANNEXES:

ALPHA--ADMINISTRATION

BRAVO--OPERATIONS

APPENDIX I -- Aircrew/Aircraft routing and Support

COCOA--MAINTENANCE

DELTA--SUPPLY

ECHO--PERSONNEL RE-DEPLOYMENT SCHEDULE

DISTRIBUTION:

NR COPIES

Comdr M.LTS	1
Comdr L.PCS	1
Comdr 1370th PMG	2
Comdr TG 7.4	1
Comdr TSU	2
Comdr TBU	1

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ANNEX ALPHA

TO

MERL PHOTO ELEMENT (PROVISIONAL)

ROLL-UP PLAN 1-58

ADMINISTRATION

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Annex ALPHA
MPEP RUP 1-58
10 May 1958

ANNEX ALPHA

TO

AERIAL PHOTO ELEMENT (PROVISIONAL)

ROLL-UP PLAN 1-58

Administration and Personnel

1. General Situation: As stipulated in Basic Plan.
2. Mission: To provide administrative and personnel support for Aerial Photo Element (Provisional) in preparation for re-deployment.
3. Tasks for the Section:
 - a. The Administrative and Personnel Section will:
 - (1) Submit progress reports as directed by Headquarters T.S.U.
 - (2) Pack all files and non-expendable items.
 - (3) The following records will be picked up by orderly room personnel, crated and returned to the home station:
 - (a) Military Pay Records (to be hand carried)
 - (b) Medical and Dental Treatment Records and Immunization Register (SF 601).
 - (4) Dispose of records in accordance with applicable directives.
4. Reports:
 - a. Unit reports will be discontinued during actual movement.
5. Security:
 - a. The Administration Officer will insure the safeguarding of all classified material, and will hand-carry all necessary documents.
6. Roll-Up Personnel:
 - a. The Administrative Officer will insure that the following personnel, and all records pertaining to these personnel, remain at Eniwetok for base

Roll-Up:

ANNEX ALPHA
AEP RUP 1-58
10 May 1958



(1) 1 supply

(2) 2 maintenance

7. Publications, equipment and expendibles will be packed for movement to the home station via organizational aircraft. Packing crates and/or boxes for the movement to the home station are as follows:

a. Box 1 of 2 Boxes (Correspondence Files)
Approximate total weight: 150 Lbs
Approximate total cubage: 4 Cu. Ft.

b. Box 2 of 2 Boxes (Personnel Records)
Approximate total weight: 120 Lbs
Approximate total cubage: 4 Cu. Ft.

TOTAL BOXES
Approximate total weight: 270 Lbs
Approximate total cubage: 8 Cu. Ft.

WILLIAM L. BRANTLEY
Major, USAF
Commander

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ANNEX BRAVO
TO
AERIAL PHOTO ELEMENT (PROVISIONAL)
ROLL-UP PLAN 1-58
OPERATIONS

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ANNEX BRAVO
APEP RUP 1-58
10 May 1958

UNCLASSIFIED

ANNEX BRAVO

TO

AERIAL PHOTO ELEMENT (PROVISIONAL)

ROLL-UP PLAN 1-58

Operations

Chart and Map References: As stipulated in Basic Plan.

1. General Situation: As stipulated in Basic Plan.
2. Mission: To provide and control aircrews for re-deployment of three C-54 aircraft and two RB-50 aircraft and direct movement of operations support personnel and equipment.

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2. Task for Section:

a. The Senior Officer will:

- (1) Assign aircrews to specific aircraft for re-deployment and designate aircraft assignment of support personnel for airlift.
- (2) Insure that aircrews/aircraft are adequately equipped.
- (3) Coordinate with enroute facilities to insure adequate support.

(See Appendix 1)

(4) Insure that aircrews are adequately briefed prior to each flight.

(5) Publications, equipment and expendibles will be packed for movement to the home station. Packing crated and/or boxes for the movement to the home station are as follows:

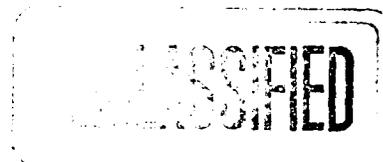
a. Operations Forms and/or Publications

- (1) Box 1 of 1 Box (Forms and Files)
Approximate total weight: 150 Lbs.
Approximate total cubage 4 Cu. Ft.

ANNEX BRAVO
AEP RUP 1-58
10 May 1958

WILLIAM L. BRANTLEY
Major, USAF
Commander

APPENDIX I: Aircraft/Aircrews Routing and Support.



APPENDIX I

TO

ANNEX BRAVO

AERIAL PHOTO ELEMENT (PROVISIONAL)

ROLL-UP PLAN 1-58

Aircrews/Aircraft Routing and Support

1. General:

a. One RB-50 #07160 aircraft/aircrew with five ground crew departing Eniwetok Marshall Islands for Palm Beach Air Force Base, Florida will make a 24 hour stop at Hickam Air Force Base, T.H., and proceed to McClellan Air Force Base, California, where they will make a 48 hour stop before proceeding to the home station.

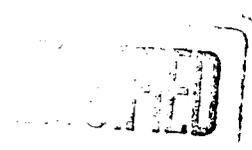
b. One RB-50 #07131 aircraft/aircrew with five ground crew departing Eniwetok, Marshall Islands will use the same route and enroute stops as in a. above if going to the home station, however if its destination is Yokota Air Base, Japan the following would apply: **BEST AVAILABLE COPY**

One RB-50 #07131 aircraft/aircrew without ground crew departing Eniwetok, Marshall Islands will proceed to Yokota Air Base, Japan where they would be returned to Palm Beach Air Force Base, Florida via MITS.

c. Two C-54 aircraft/aircrews of the main body of APEP departing Eniwetok, Marshall Islands for Palm Beach Air Force Base, Florida will make a 48 hour stop at Hickam Air Force Base, T.H., and proceed to Travis Air Force Base, California where they will make a 24 hour stop and proceed to Palm Beach Air Force Base, Florida.

d. One C-54 aircraft/aircrew of the main body of APEP departing

APPENDIX I TO ANNEX BRAVO
APEP RUP 1-58
10 May 1958



Eniwetok, Marshall Islands for Clark Air Force Base, P.I. will make a 24 hour stop at Anderson Air Base, Guam and then proceed to Clark AFB. They will be airlifted via MATS from Clark AFB, P.I. to Palm Beach AFB, Florida.

Enroute Requirements:

a. At Hickam Air Force Base, T.H.

(1) Billeting and messing for a maximum of 20 officers and 65
irmen.

(2) Necessary servicing of aircraft.

(3) Post-flight inspection of aircraft (C-54).

(4) MATS route briefing.

b. At McClellan Air Force Base, California.

(1) Billeting and messing for a maximum of 7 officers and 24
irmen.

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(2) Necessary servicing of aircraft.

(3) Post-flight inspection of aircraft (RB-50).

c. At Travis Air Force Base, California.

(1) Billeting and messing of a maximum of 7 officers and 32
irmen.

(2) Necessary servicing of aircraft.

d. Andersen Air Base, Guam.

(1) Billeting and messing for a maximum of 4 officers and 3
irmen.

(2) Necessary servicing of aircraft.

(3) MATS route briefing.

e. At Clark Air Force Base, P.I.

(1) Billeting and messing for a maximum of 3 officers and 2 airmen.

(2) Arrange transportation via MILTS for aircrew luggage and accompanying personnel (3 officers, 2 airmen, and 825 lbs baggage) to Travis Air Force Base, California for final shipment to Palm Beach AFB, Florida.

f. At Yokota Air Base, Japan,

(1) Billeting and messing for a maximum of 3 officers and 4 airmen.

Arrange transportation via MILTS for aircrew luggage and accompanying personnel (3 officers, 4 airmen, and 1150 lbs baggage) to Travis Air Force Base, California for final shipment to Palm Beach Air Force Base, Florida.

g. Travel from Travis AFB to Palm Beach AFB, upon arrival at Travis AFB, will be coordinated by the responsible aircraft commander of the crew involved. Aircraft Commander will send message to Air Traffic Control Officer, Travis AFB while at Yokota stating airlift requirements from Travis to West Palm Beach.

3. Remarks:

Designated bases along each flight route will be notified of arrival time in advance and exact number of personnel to be cared for at that base.

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WILLIAM L. BRINTLEY
Major, USAF
Commander

ANNEX COCOA
TO
AERIAL PHOTO ELEMENT (PROVISIONAL)
ROLL-UP PLAN 1-58
MAINTENANCE

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ANNEX COCOA
APEP RUP 1-58
10 May 1958

ANNEX COCOA

TO

AERIAL PHOTO ELEMENT (PROVISIONAL)

ROLL-UP PLAN 1-58

Maintenance

1. General Situation: As stipulated in Basic Plan.

2. Mission:

a. To prepare three C-54 aircraft and two RB-50 aircraft, equipment spare parts and tools for movement.

b. To perform pre-flight, post flight, and unscheduled maintenance enroute within aircrew capability.

3. Tasks for the Section:

a. The Maintenance Officer will insure that:

(1) The five assigned aircraft are operational with no overdue or outstanding time changes or technical order compliances.

(2) The designated 780 equipment is aboard each aircraft.

(3) Spare parts, tools and accountable equipment will be turned in to APEP Supply.

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(4) Appropriate records will accompany the aircraft.

(5) Ground crews will accompany their respective aircraft except in the case of the one C-54 going to Clark Air Force Base, P.I.

(6) Police the area for cleanliness.

(7) Insure that all aircraft arrive at their home station before periodic inspection becomes due.

(8) Publications and records will be packed and crated for movement to the home station as follows:

ANNEX COCOA
APEP RUP 1-58
10 May 1958



(a) Box 1 of 1 Box (Records and Files)
Approximate weight: 150 lbs.
Approximate cubage: 4 Cu. Ft.

(9) Aid AFEP supply in preparing RB-50 Kit "B" for shipment
to the home station.

4. Logistics: As stipulated in Basic Plan.

WILLIAM L. BRANTLEY
Major, USAF
Commander

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ANNEX COCOA
AFEP RUP 1-58
10 May 1958

CLASSIFIED

ANNEX DELTA

TO

AERIAL PHOTO ELEMENT (PROVISIONAL)

ROLL-UP PLAN 1-58

SUPPLY

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ANNEX DELTA
RUP RUP 1-58
10 May 1958



ANNEX DELTA

TO

AERIAL PHOTO ELEMENT (PROVISIONAL)

ROLL-UP PLAN 1-58

Supply

1. General Situation: As stipulated in Basic Plan.
2. Mission:
 - a. To prepare C-54 Kit "B" project property for turn-in to Air Force Base 2872.
 - b. To prepare organizational property for return to the home station.
3. Tasks for the Section:
 - a. The Supply Officer will insure that:
 - (1) C-54 Kit "B" items are indentified for turn-in to base supply in corrosion free condition.
 - (2) Auxiliary equipment pool property is returned.
 - (3) U.S.E. property is corrosion free and properly indentified or turn-in.
 - (4) Cancellations are submitted to base supply for back ordered items.
 - (5) Supply records are current and ready for CLOSE OUT.
 - (6) All items obtained from Task Group 7.2 be returned to Task Group 7.2, including all office and housekeeping supplies.
 - (7) Each section is provided packing boxes for equipment to be returned to the Z.I.

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ANNEX DELTA
PEP RUP 1-58
10 May 1958

(8) A schedule be set up for Turn-ins showing the relationship of articles of turn-in to the last shot date at Eniwetok. This schedule should utilize maximum turn-in prior to last shot to facilitate roll-up after that date.

(9) All packing boxes are properly prepared with master ditto shipping documents before notifying base supply for pickup. Kit "B" for RB-50 aircraft which is to be air shipped to Palm Beach Air Force Base, Florida has the following approximate shipping dimensions:

- (a) Approximate Total Number of Pieces 210.
- (b) Approximate Total Weight of Shipment 26,000 lbs.
- (c) Approximate Total Cubage of Shipment 2,200 Cu.Ft.
- (d) Approximate Dimensions of Largest Piece. Length 120 in.
Width 48 in.
Height 48 in.

WILLIAM L. BRANTLEY
Major, USAF
Commander

ANNEX DELTA
AFEP RUP 1-58
10 May 1958

ANNEX ECHO
TO
AERIAL PHOTO ELEMENT (PROVISIONAL)
ROLL-UP PLAN 1-58
PERSONNEL RE-DEPLOYMENT SCHEDULE

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ANNEX ECHO
APEP RUP 1-58
10 May 1958

ANNEX ECHO

TO

AERIAL PHOTO ELEMENT (PROVISIONAL)

ROLL-UP PLAN 1-58

Personnel Re-Deployment Schedule

<u>RDY DATE</u>	<u>METHOD/TVL</u>	<u>OFF.</u>	<u>AMN.</u>	<u>TOTAL</u>	<u>DEST</u>
L-19	APEP Orgn A/C 1 RB-50	3	9	12	Palm Beach AFB
L-2	APEP Orgn A/C 1 RB-50	3	4	7	Yokota AB
L-1	APEP Orgn A/C 1 C-54	3	2	5	Clark AFB, P.I.
L-3	APEP Orgn A/C 1 C-54	5	21	26	Palm Beach AFB
L-3	APEP Orgn A/C 1 C-54	6	20	26	Palm Beach AFB

WILLIAM L. BRANTLEY
Major, USAF
Commander

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ANNEX ECHO
APEP RUP 1-58
10 May 1958

AERIAL PHOTO ELEMENT (PROVISIONAL)
 TEST SERVICES UNIT, TASK GROUP 7.4
 APO 187, San Francisco, California

APEP

21 June 1958

SUBJECT: Change No. 1 to Aerial Photo Element (Provisional) Roll-Up Plan 1-58

TO: MLTS 1370th FMC TSU
 MPCS TG 7.4 TBU

1. Due to the changing status of Project HARTLOCK and the resultant changes on the Aerial Photo Element (Provisional), Change No. 1, APEP RUP 1-58, dated 10 May 1958, is hereby submitted so that these changes may be reflected in your copy/copies of this plan:

a. Reference page 1, CHART AND MAP REFERENCES, delete the last sentence of this paragraph: "Finally, direct route, Japan."

b. Reference page 2, paragraph (2), delete the last two sentences of this paragraph and add in its place: "This aircraft will return to Palm Beach Air Force Base, Florida."

c. Reference page 2, paragraph (3), delete entire paragraph and add: "(3) Phase III - The main body of the Aerial Photo Element (Prov) (consisting of three C-54 aircraft) will depart according to mission requirements after the firing of UMBRELLA. The first C-54 released plus crew (three officers and two airmen) will re-deploy to Clark Air Base, P.I. This crew will further be transported from Clark Air Base via MLTS to Palm Beach Air Force Base, Florida. The remaining two C-54 aircraft with crews (six officers and four airmen) will depart as released by TSU, carrying ground crews and other element personnel. These aircraft will return to Palm Beach Air Force Base, Florida."

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d. Reference page 3, paragraph (4), delete first sentence of this paragraph and add: "(4) Phase IV - The ground echelon (APEP Commander and twenty airmen) including the attached TDY ground personnel (seven airmen) and accompanying equipment will re-deploy via organizational airlift (C-54) as these aircraft are released by TSU for return to the home station."

e. Reference page 11, paragraph 1. b., delete the following: "If going to the home.....Palm Beach Air Force Base via MLTS."

f. Reference page 11, reverse letters of paragraph f. and g.

g. Reference page 21, Personnel and Re-deployment schedule, revise completely as follows:

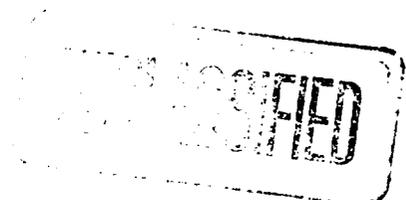
<u>RDY DATE</u>	<u>METHOD/TVL</u>	<u>OFF</u>	<u>MMN</u>	<u>TOTL</u>	<u>DESTINATION</u>
UMBRELLA #2	APEP Orgn A/C 1 RB-50	3	9	12	Palm Beach AFB
UMERELLA #5	APEP Orgn A/C 1 RB-50	3	9	12	Palm Beach AFB

Change No. 1 to APEP Roll-Up Plan 1-58 continued

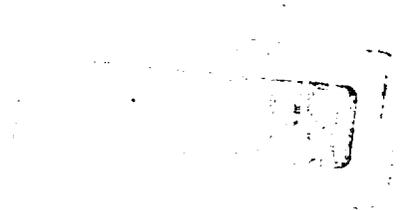
<u>RDY DATE</u>	<u>METHOD/TVL</u>	<u>OFF</u>	<u>ACFT</u>	<u>TOTAL</u>	<u>DESTINATION</u>
UMBRELLA /6	MATS	0	7	7	Palm Beach AFB
As released	APEP Orgn	3	2	5	Clark AB, P.I.
As released	MATS	0	4	4	Palm Beach AFB
As released	APEP Orgn A/C 1 C-54	3	12	15	Palm Beach AFB (or home sta. for TDY pers.)
As released	APEP Orgn A/C 1 C-54	4	12	16	Palm Beach AFB (or home sta. for TDY pers.)
L /30 to /60 (Roll-Up)	MATS	0	3	3	Palm Beach AFB
	TOTALS	16	58	74	

WILLIAM L. BRANTLEY
Major, USAF
Commander

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ANNEX B



1352D MOTION PICTURE SQUADRON
LOOKOUT MOUNTAIN LABORATORY
AIR PHOTOGRAPHIC AND CHARTING SERVICE (HATS)
8935 WONDERLAND AVENUE
LOS ANGELES 46, CALIFORNIA

CO

29 April 1958

SUBJECT: Air Support Element

TO Commander
Air Photographic & Charting Service
Attn: DCS/Operations
Orlando Air Force Base, Florida

1. The Air Support Element, Test Services Unit, Task Group 7.4 of Joint Task Force SEVEN has been deployed in the Eniwetok Proving Ground since 13 March 1958. As Commander of the Documentary Photographic Element, I worked closely with Major William L. Brantley and the C-54 aircraft commanders and crews who comprise the Element. These officers, in my opinion, are supporting the Documentary Photographic Element in an outstanding manner. Prior experience on four operations involving these aircraft and their previous crews provide adequate grounds for comparison of crew effectiveness. Constant drilling in all flying safety procedures is particularly evident. I am confident that through the continued cooperation of these two Element the APCS HARDTACK mission will be successfully accomplished.

2. Request that my comments be passed to the Commander of the 1370th Photo Mapping Group.

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cc: Maj Brantley

/s/t/JAMES P. WARNDORF
Lt Colonel, USAF
Commander

HEADQUARTERS
TEST SERVICES UNIT, (PROVISIONAL)
APO 187, San Francisco, California

TSUCDR

19 May 1958

SUBJECT: Well Done

TO: Commander
Aerial Photo Element (Prov)
APO 187, San Francisco, California

1. We have been in place at EPG for two months now. My observation of APEP during these two months has pleased me. It is evident that APEP knows its mission and is performing it effectively.
2. APEP has worked smoothly and effectively with other Elements of TSU, of TG 7.4 and with other task groups of JTF-7. With this teamwork the Task Force has accomplished part of its mission as we are all aware.
3. Please tell your people that I have observed their spirit and their work and I wish to say to each of them "Thank you. Good Work. Keep it up".

W. H. NEAL
Colonel, USAF
Commander

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HEADQUARTERS
TEST SERVICES UNIT, PROVISIONAL
APO 187, San Francisco, California

TSUCDR

11 June 1958

SUBJECT: Letter of Appreciation

TO: Commander
Aerial Photo Element (Provisional)
APO 187, San Francisco, California

1. The placing of the two RB-50's in orbit on time for the two underwater test shots is a very noteworthy feat. I congratulate each person in APEP who contributed to its accomplishment.

2. Please convey to the crews and maintenance personnel of the RB-50's my congratulations. Also, I wish to add my thanks and appreciation for the way they performed their jobs to bring about the accomplishment of their mission.

W. H. NEAL
Colonel, USAF
Commander

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HEADQUARTERS
1370th PHOTO-MAPPING GROUP
AIR PHOTOGRAPHIC AND CHARTING SERVICE (ILTS)
Palm Beach Air Force Base
West Palm Beach, Florida

Major William L. Brantley, 11510A
Commander
Aerial Photo Element (Provisional)
Test Services Unit, Task Group 7.4
APO 187, San Francisco, Calif.

Dear Major Brantley:

I was very highly impressed with the fine organization you have under your command. It was a pleasure to have the opportunity to meet all of your people and to see all of your sections and your aircraft. As far as I can see everything was in perfect order. This is a tribute to your fine leadership and to the men that are serving you so honorably.

Your mission is an important one. In fact, the national policy of the United States is contingent upon the success of your operations. The conditions under which you and your men are serving are difficult and trying, however, the esprit de corps displayed by each individual is highly commendable.

I wish to express my appreciation to you and your men for your outstanding accomplishments.

Sincerely,

GEORGE W. HUMBRECHT
Colonel, USAF
Commander

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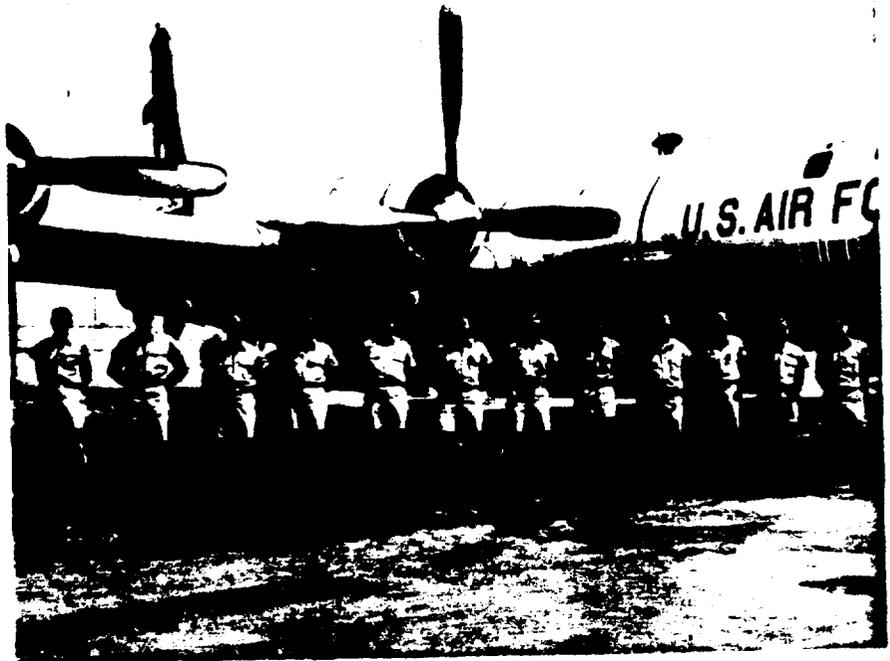
ANNEX C



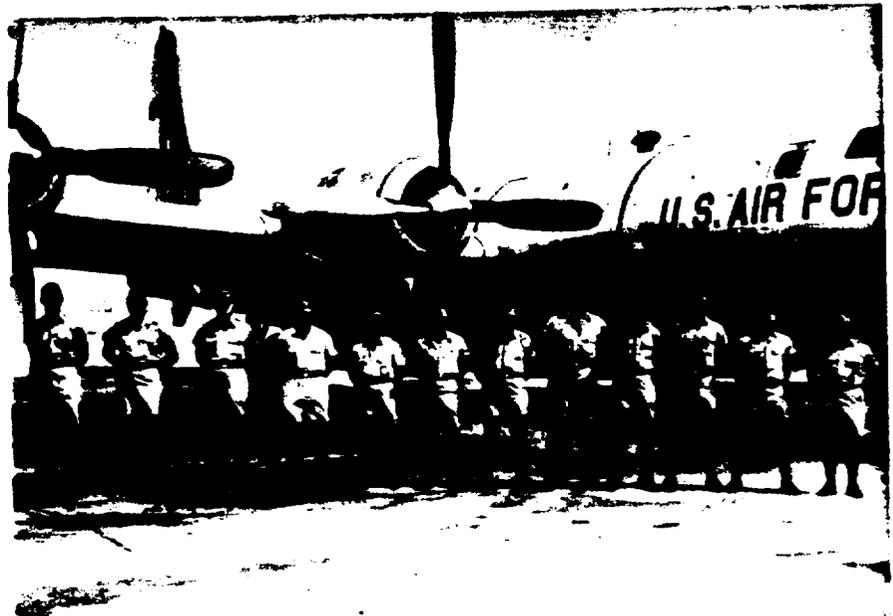
MAINTENANCE AND SUPPLY



OPERATIONS



**CARTER #2
CAPT. WERNES AND CREW**



**CARTER #1
CAPT. SMITH AND CREW**



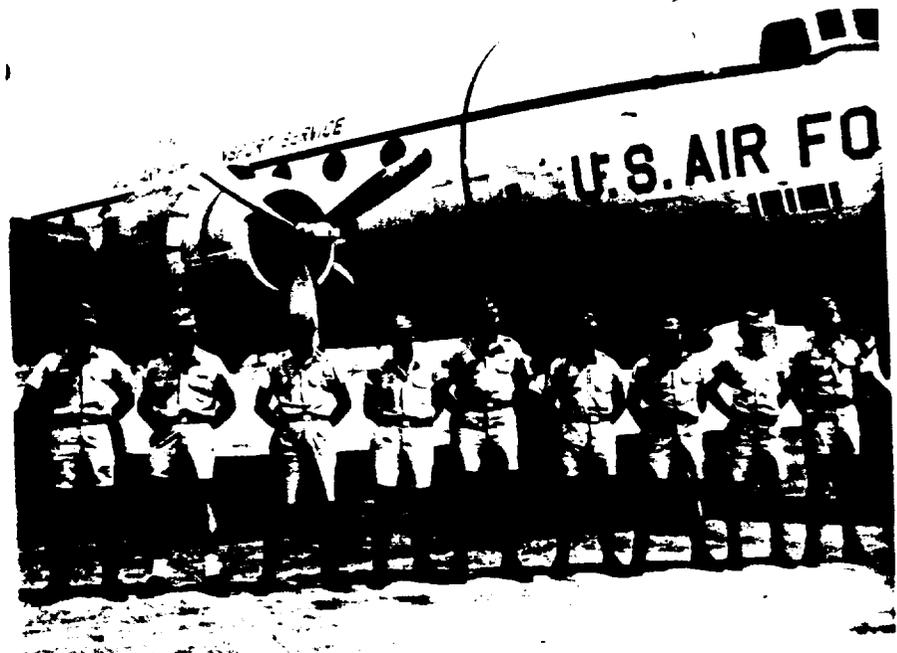
**PEWTER #2
LT. HARDT AND CREW**



C-54 POST FLIGHT CREW

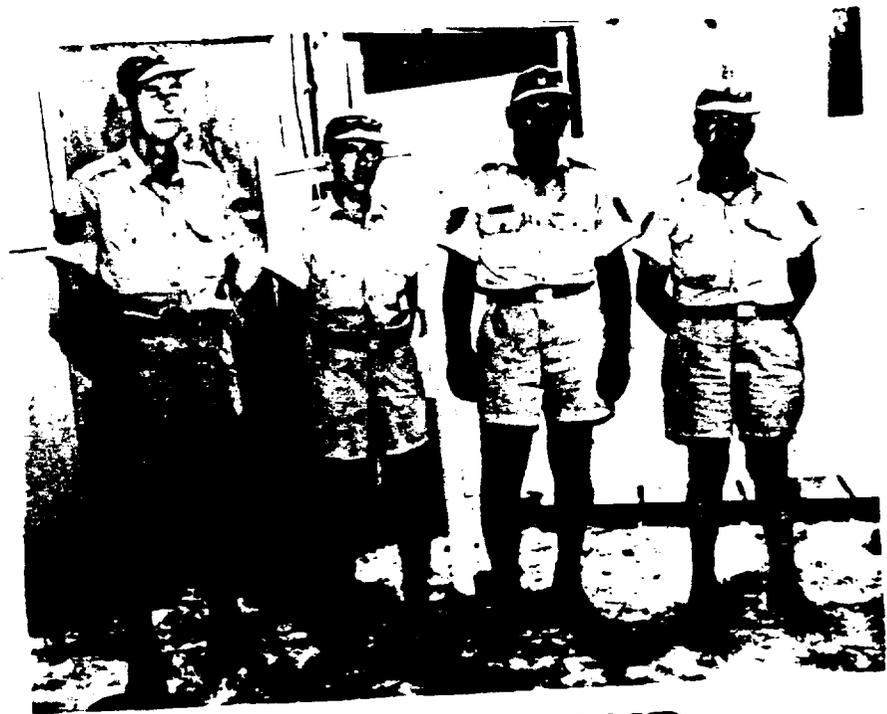


**PEWTER #1
CAPT. BRIDGES AND CREW**

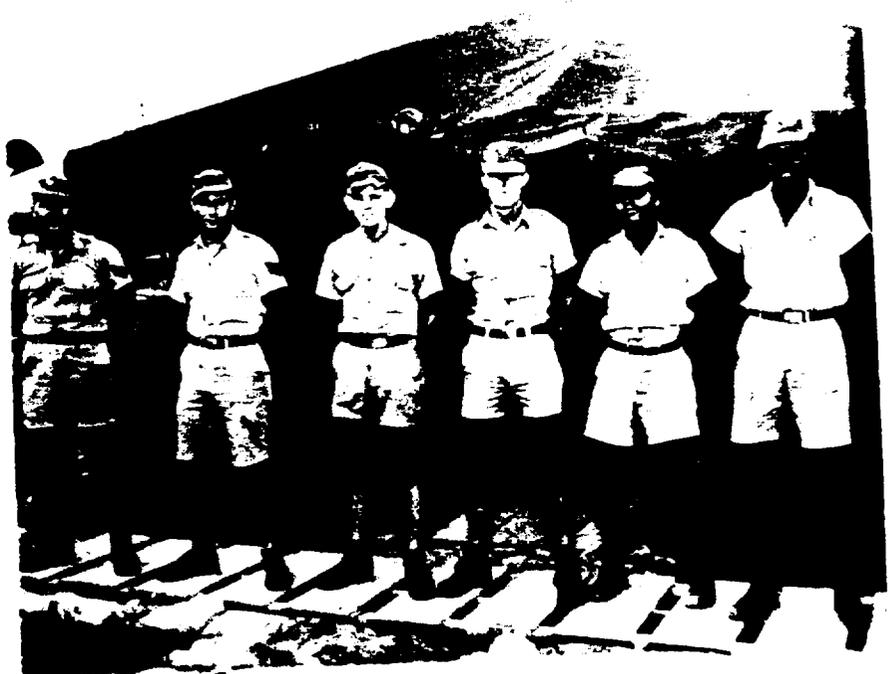


**PEWTER #3
LT. COX AND CREW**

UNCLASSIFIED



**NCOIC'S AND
ADMIN. CLERK, AMN. SKAGGS**



**B-50 POST FLIGHT CREW
AND SUPPLY MEN**

UNCLASSIFIED



**SGT PARKES
CAMERA MAINTENANCE**



MAJOR W. L. BRANTLEY
COMMANDER, APEP