

# 4.

HEADQUARTERS LUKE FIELD

OAHU, T.H.

PROCEEDINGS OF A BOARD OF OFFICERS  
APPOINTED TO INVESTIGATE THE  
CRASH OF MISS AMELIA EARHART AT  
LUKE FIELD, 20 MARCH 1937

CONFIDENTIAL





Investigation of Miss Amelia Earhart at Wake  
Field, 20, May, 1937.

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# HEADQUARTERS HAWAIIAN DEPARTMENT Air Office and Headquarters 18th Wing

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PROCEEDINGS OF A BOARD OF OFFICERS APPOINTED TO INVESTIGATE  
THE CRASH OF MISS AMELIA EARHART AT LUKE FIELD, 20 MAR.1937

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HEADQUARTERS LUKE FIELD, T. H.  
Office of the Group Operations Officer  
5th Composite Group

April 16, 1937.

MEMORANDUM TO: Lieut. Colonel H. Peabody,  
18th Composite Wing,  
Fort Shafter, T. H.

1. Herewith the "AMELIA EARHART" Board Proceedings - four (4) copies.
2. Copy Number 4, lacks several of the newspaper clippings (Exhibit "O") included with the others.

copies to  
1- OCF  
2- CMA  
1- File

*P.M.*  
PHILLIPS MELVILLE,  
Major, Air Corps,  
Operations Officer.



# HEADQUARTERS HAWAIIAN DEPARTMENT

## INTER-STAFF ROUTING SLIP

The inter-Staff routing slip is for use of the Department Staff and will not be sent to subordinate commanders.

This slip and accompanying papers, when transferred from one Staff Office to another, will be forwarded thru the Adjutant General, except that a General Staff section may route papers to another General Staff section direct. When time or other circumstances prevent routing thru the Adjutant General, notice of transfer will be sent the Adjutant General on form provided for that purpose. The Staff section originating a routing slip will fill in the subject at the end of the 1st Indorsement list accompanying papers. Notation of enclosures added subsequently will be made by the responsible office at the end of its ind. Indorsements hereon will be numbered in sequence and initialed by the officer in charge or an officer authorized to sign for him.

[illegible]

(OVER)

USE BOTH SIDES



PROCEEDINGS OF A BOARD OF OFFICERS APPOINTED TO INVESTIGATE AND REPORT UPON  
THE CRASH OF MISS ABELIA EARHART'S AIRPLANE NR 16020 AT LUKE FIELD, OAHU, T.  
H., AT 5:50 A.M., MARCH 20, 1937, AND CIRCUMSTANCES RELATING TO HER ARRIVAL  
AND STAY AT WHEELER AND LUKE FIELDS, MARCH 18 TO 20, 1937.

PERSONNEL FOR THE BOARD

Major PHILLIPS MCIVILLE, Air Corps, President (Luke Field)  
1st Lieut. KENNETH A. ROGERS, Air Corps, Member (Wheeler Field)  
1st Lieut. HARRY S. BISHOP, Air Corps, Member (Luke Field)  
2nd Lieut. NORMAN L. CALLISH, Air-Reserve, Recorder (Luke Field)

This Board comprises the standing ACCIDENT CLASSIFICATION COMMITTEE, LUKE FIELD, T.H., (A.C. Circular 15-14, 3/1/34.) with the addition of one member from WHEELER FIELD appointed per oral order of the Commanding General, 18th Composite Wing.

Oral instructions to the Board were to investigate and render a detailed, confidential report on the circumstances of the crash of Miss Earhart's, Lockheed "Electra" airplane at Luke Field on the morning of March 20, 1937, including, for record, an account of the preparation made for her arrival at Wheeler Field; her stay at that post; the transfer of her airplane to Luke Field; preparations for her take-off for Howland Island and a detailed report of all services rendered by the personnel of either post and the Hawaiian Air Depot, from the date of arrival until the airplane was shipped aboard the S. S. LUTHERINE, March 27, 1937.

The Board was convened at Luke Field in accordance with the foregoing instructions at 8:30 A.M., March 22, 1937.

Present: All members.

At this meeting the instructions to the Board were imparted to all members; arrangements made for the collection of signed statements from competent eye-witnesses; the Wheeler Field member was instructed to secure a statement covering the details of Miss Earhart's arrival and stay at that post; Headquarters Luke Field, were called upon for a similar report; The Commanding Officer, Hawaiian Air Depot was called upon for a report of the facilities placed at Miss Earhart's disposal and services rendered by Depot personnel; disposition of the wrecked airplane; inventory of equipment, etc. Members of the Board who had not previously done so then inspected the Luke Field landing mat, the wheel tracks of Miss Earhart's airplane and the damaged airplane in the Final Assembly Hangar, Hawaiian Air Depot.

The Board was adjourned, subject to call, at 11:30 A.M., same date.

The Board was reconvened at the call of the President at 8:30 A.M., March 24, 1937, to review the evidence then available.

Present: All members.



The Board was adjourned at 10:00 A.M., same date, pending completion of these proceedings.

Due to the fact that Miss Earhart and her party left Honolulu aboard the S.S. MALOLO at Noon, March 20, 1937, the Board was unable to obtain any statements from the personnel involved in the crash and has had recourse to Miss Earhart's statements to the Press as published in Honolulu newspapers.

After due consideration of the available evidence the Board reconstructs the details and sequence of events from the time of Miss Earhart's arrival on the morning of March 18 to her departure at Noon, March 20, 1937, substantially as follows:

#### WHEELER FIELD:

Miss Amelia Earhart with Mr. Paul Mantz, technical advisor; Captain Harry Manning, navigator and Mr. Fred J. Noonan, co-pilot and assistant navigator, landed in her Lockheed "Electra" airplane, Department of Commerce No. NR 16020 at Wheeler Field, T.H., at 5:45 A.M., March 18, 1937, having flown from Oakland, California on the first leg of a projected "Round-the-world" flight. Comprehensive preparations for her arrival previously made by the Commanding Officer, Wheeler Field were put into immediate effect. (See Exhibits B & C). The airplane was placed under cover in the hangar of the 75th Service Squadron and the personnel of the flight, after breakfasting at the quarters of the Commanding Officer, Wheeler Field, left for rest at the residence of Mr. Christian R. Holmes, Honolulu. No instructions were left by Miss Earhart or Mr. Mantz at this time relative to the care and maintenance of the airplane. At the direction of 1st Lieut. Kenneth A. Rogers, Station Engineering Officer, Wheeler Field and under the supervision of Mr. Wilber Thomas, Honolulu representative of the Pratt & Whitney Aircraft Company and 1st Lieut. Donald D. Arnold, Engineering Officer, Hawaiian Air Depot, the personnel of the Station Engineering Department undertook a routine inspection and servicing of the airplane and engines. (See Exhibit B for work performed). Mr. Mantz had stated, on arrival, that for the last six hours of the flight the right-hand Hamilton, constant-speed propeller had been frozen in a position of fixed pitch. Special attention was, therefor, paid to filling the propellers with fresh lubricant. At about 3:00 P.M., Mr. Mantz returned to Wheeler Field and the airplane was placed on the flying line for test. The self-adjusting pitch mechanism of the right-hand propeller still failed to function. The engines were stopped and the defective propeller removed for disassembly and inspection. The latter revealed a badly galled condition and that the blades were frozen in the hub due to improper or insufficient lubricant. As the necessary tools for dismounting the propeller and remedying this condition were not available at Wheeler Field, the left-hand propeller was also removed from the airplane and both propellers taken to the propeller section Hawaiian Air Depot, Luke Field, for reconditioning. The Depot personnel worked throughout the night on the propellers which were returned to Wheeler Field at 2:00 A.M., March 19 and re-installed on the airplane. (See Exhibits A & E). At this time the hour of Miss Earhart's departure for Howland Island, was still undetermined but it was generally understood that she would take-off late in the afternoon of March 19,



weather permitting. Mr. Mantz arrived from the city at 11:00 A.M. and was advised of the work that had been performed on the airplane and the propellers. He requested that the airplane be partially serviced with gasoline and an adjustment made to the right-hand oleo leg. This was done. The airplane was then placed on the flying line for engine test. During this test the propellers functioned perfectly. At about 11:15 A.M. Mr. Mantz with Mr. Christian R. Holmes and Miss Terry Mines as passengers took off for a test flight. Previous to the take-off he announced that he would land at Luke Field to have the airplane instruments checked at the Depot and if the landing mat at that station afforded better conditions for Miss Earhart's take-off, that he would remain there.

#### LUKE FIELD:

The Operations Officer, Luke Field was notified by telephone of Mr. Mantz's intention prior to his departure from Wheeler Field and steps were immediately taken to clear the airdrome. Mr. Mantz landed safely at about 12:00 Noon. The landing was reported by telephone to the Operations Officer, 18th Composite Wing, Fort Shafter. He was met by Brigadier General Barton K. Yount, Air Corps, Colonel Millard F. Harmon, Post Commander and Lieutenant Arnold, Depot Engineering Officer. Mr. Mantz stated at this time that the airplane engines and propellers were functioning excellently and that Miss Earhart would definitely make her take-off from Luke Field at an hour to be determined after study of expected weather reports. After making arrangements for the refueling of the airplane by the Standard Oil Company, Honolulu, Mr. Mantz left for the city at 1:30 P.M.

The Standard Oil gasoline arrived at Luke Field by truck at 2:30 P.M. and refueling through a chamois strainer was begun under the supervision of the Depot Inspector. Considerable sediment was observed in the chamois strainer and refueling was stopped at the order of Lieut. Arnold, who immediately notified Mr. Mantz by telephone of this difficulty. The latter requested that the airplane be refueled with Air Corps gasoline. Authority to do so was obtained by Lieut. Arnold from Lieut. Colonel Hume Peabody, Operations Officer, 18th Composite Wing, who happened to be present. As there was a possibility of misunderstanding due to the gasoline situation, Lieut. Arnold requested that Mr. Mantz return to Luke Field and assume responsibility for the refueling in person. The latter did so, reaching Luke Field at 4:15 P.M. After additional tests of the Standard Oil gasoline Mr. Mantz again requested Air Corps gasoline and 515 gallons were serviced into the airplane from the segregator-equipped Air Corps refueling truck, of the 72nd Bombardment Squadron. (See Exhibit Z, page 4). Servicing being completed, at Mr. Mantz's request the airplane was placed in the Final Assembly Hangar at 7:30 P.M. under guard. Somewhat earlier Lieut. Arnold had a telephone conversation with Miss Earhart and was informed she would take-off at 11:00 P.M. or at dawn, that the decision would be announced by 10:00 P.M. Shortly after the return of Mr. Mantz to Honolulu he telephoned that a dawn take-off had been decided upon and that Miss Earhart and her party would reach Luke Field about 3:30 A.M.

During the night it showered heavily. The Depot personnel who had remained to work on Miss Earhart's airplane spent the night in the Final Assembly Hangar using cots and bedding furnished by the Commanding Officer, Luke Field.



The only visitors were one or two press representatives. At 3:45 A.M. the airplane was placed on the apron, the area roped off and a heavy guard established. Traffic to the Fleet Air Base was halted, except for Navy personnel. Miss Earhart and party reached Luke Field via the Fleet Air Base at 4:30 A.M. On arrival Mr. Mantz requested 75 additional gallons of gasoline which were serviced, making a total of 590 gallons of Air Corps gasoline furnished and a total load of 900 gallons according to a statement made by Miss Earhart. At 4:45 A.M. a number of Press representatives arrived via the Navy. Due to the fact that the Luke Field ferry does not commence operations until 6:15 A.M. there were no casual visitors or sight-seers. At 5:00 A.M. Mr. Mantz thoroughly inspected the airplane, including the tires, warmed up the engines and then shut them off. Miss Earhart then took her place in the pilot's cockpit and at her request the Southwest flood-lights were turned on for a short period to permit her to survey the runway. She decided to delay take-off until there was sufficient daylight to see clearly. At 5:30 Captain Manning and Mr. Noonan boarded the airplane and Miss Earhart started the motors. At 5:40 she taxied slowly to the Northeast end of the runway accompanied by the Luke Field fire truck (also termed the "Crash Truck"). Members of the work detail of the Hawaiian Air Depot stationed themselves at intervals along the West side of the runway. A special guard of enlisted men had previously been stationed at 200 foot intervals between the hangar line and the runway for the dual purpose of keeping the mat clear and to check the point at which the airplane left the ground. As Miss Earhart taxied down the mat a Navy "Grumman" airplane taxied out from the Navy side and in spite of efforts by a Naval Officer to wave him down, followed her to the end of the runway and parked off the mat out of her way. Flying conditions at this time were good; ceiling about 3,000 feet; wind southerly, not exceeding 2 MPH; visibility at the surface about 3,500 feet rapidly increasing with advancing daylight.

#### THE CRASH:

On reaching the end of the mat Miss Earhart turned and after a brief delay opened both throttles. As the airplane gathered speed it swung slightly to the right. Miss Earhart corrected this tendency by throttling the left hand motor. The airplane then began to swing to the left with increasing speed, characteristic of a ground-loop. It tilted outward, right wing low and for 50 or 60 feet was supported on the right wheel only. The right-hand landing-gear suddenly collapsed under this excessive load followed by the left. The airplane spun sharply to the left sliding on its belly and amid a shower of sparks from the mat and came to rest headed about 200 degrees from its initial course. The fire truck had followed along the side of the mat during the take-off and reached the scene within a few seconds as did the observers nearest the crash. There was no fire. Miss Earhart and her crew emerged unhurt. The visible damage to the airplane was as follows:- Right wing and engine nacelle severely damaged, left engine nacelle damaged on under side, right hand rudder and end of stabilizer bent. Minor damage to the underside of the fuselage. Both propellers bent. The engines were undamaged. The oil tanks ruptured. The damaged airplane was roped off under guard as promptly as possible by the Officer-of-the-Day. All unauthorized persons were cleared from the mat and the work of salvage initiated by the Depot Engineering Officer without delay. The greater



part of the gasoline was first pumped from the tanks into a refueling truck. Depot personnel then commenced to disassemble the airplane, preparatory to removing it from the mat. All loose property of technical or personal nature was collected under the supervision of an officer and placed for safe keeping in a stock room at the Depot. The work of removing the damaged airplane was continued in spite of steady rains and was completed by 3:00 P.M. at which time the airplane was housed in the Final Assembly Hangar pending disposition. At 9:00 A.M. Mr. Emil Williams, Department of Commerce Inspector arrived at Luke Field for the purpose of investigating the crash. By order of the Wing Commander, he was accorded every assistance and permitted to interview and take statements from witnesses. On March 25 the Commanding Officer, Hawaiian Air Depot issued orders that the work of disassembly be continued and the airplane prepared for shipment to California. This work was completed March 26 and the airplane delivered to the representative of the Young Brothers Company for transfer by barge to Honolulu. It was shipped, addressed to Miss Amelia Earhart, Burbank, California, aboard the S.S. Lurline, which sailed for San Francisco at Noon, March 27, 1937.

#### FINDINGS:

The Board finds that Miss Amelia Earhart with Mr. Paul Mantz, technical advisor, Captain Harry Manning and Mr. Fred Noonan landed in Lockheed "Electra" airplane NR 16020 at Wheeler Field, Oahu, T.H., at 5:45 A.M., March 18, 1937; that adequate preparations had been made for her arrival by the Commanding Officer, Wheeler Field; that the personnel of the Station Engineering Department under competent supervision carried out a thorough check of the airplane and engines; that a dangerous condition of the propellers was discovered and remedied at the Hawaiian Air Depot; that subsequently the propellers functioned perfectly; that the airplane was flown to Luke Field at Noon, March 19, 1937; that at this time it was announced by Mr. Mantz, technical advisor for Miss Earhart, that she would take-off from Luke Field as the mat afforded better conditions than Wheeler Field; that during the afternoon 515 gallons of Air Corps gasoline were serviced into the airplane at the request of Mr. Mantz and on authority of Lieut. Colonel Hume Peabody, Operations Officer, 18th Composite Wing; that this was later increased to 590 gallons making a total gasoline load of 900 gallons according to statement by Miss Earhart; that at about 9:00 P.M., March 19, Luke Field was notified that the take-off would be made at dawn; that Miss Earhart and party reached Luke Field at 4:30 A.M., March 20, 1937, and that the airplane, including the tires, was inspected by Mr. Mantz shortly thereafter; that Miss Earhart with Captain Manning and Mr. Noonan as crew taxied out for take-off at 5:30 A.M.; that take-off was made from Northeast to Southwest; that after a run of approximately 1,200 feet the airplane crashed on the landing mat due to the collapse of the landing gear as the result of an uncontrolled ground loop; that lack of factual evidence makes it impossible to establish the reason for the ground loop; that as a result of the crash the airplane was damaged to an extent requiring major overhaul; that no injuries were suffered by Miss Earhart or her crew; that approximately 50 square feet of the Luke Field landing mat was damaged necessitating replacement; that no other damage was sustained by government or private property.

The Board finds further that every reasonable facility and service requested by Miss Earhart or her representative, Mr. Paul Mantz, was accorded by



the Station Engineering Department, Wheeler Field and by the Hawaiian Air Depot; that no requests were refused; that Miss Earhart's technical advisor, Mr. Paul Mantz, landed the airplane on the mat at Luke Field about Noon, March 19, 1937, at which time he inspected it and pronounced it suitable for her take-off for Howland Island; that her decision to use it was based on his recommendation; that the nature and condition of the Luke Field landing mat had no bearing on the causes resulting in the crash; that in a signed statement to the Press (See Exhibit O) Miss Earhart stated: "The runway is excellent and every facility for safe flying available"; that, subsequent to the crash, prompt and efficient action was taken by the Engineering Officer, Hawaiian Air Depot, to remove the damaged airplane from the runway and to safeguard it and the technical and personal property it contained; that it was subsequently shipped to Miss Amelia Earhart, Burbank, California, on board the S.S. Turline sailing from Honolulu, March 27, 1937, in compliance with orders of competent authority based on the written request and authorization of Miss Earhart.

CONCLUSIONS:

It is the conclusion of the Board that every reasonable assistance and facility was accorded Miss Earhart by the 18th Composite Wing to facilitate her flight and that no claim of negligence or responsibility in connection with her crash can be sustained against the personnel, equipment or facilities made available to Miss Earhart by the Commanding General, Hawaiian Department.

RECOMMENDATIONS:

None.

*P. Melville*  
PHILIPS MELVILLE,  
Major, Air Corps,  
President.

*Kenneth A. Rogers*  
KENNETH A. ROGERS,  
1st Lieut., Air Corps,  
Member.

*Harry B. Bishop*  
HARRY B. BISHOP,  
1st Lieut., Air Corps,  
Member.

DEPARTMENT AIR OFFICE  
18th Composite Wing Headquarters  
Fort Shafter, T. H.

APR 17 1937

*Norman L. Callish*  
NORMAN L. CALLISH,  
2nd Lieut., Air-Reserve,  
Recorder.

APPROVED

*Barton K. Yount*  
BARTON K. YOUNT,  
Brig. General, A.C.,  
Commanding.



LIST OF EXHIBITS:

- "A" Statement by the Engineering Officer, Wheeler Field, T.H.
- "B" "Plan for Amelia Earhart Putnam Flight", Headquarters Wheeler Field, T.H.
- "C" Letter, "Amelia Earhart Putnam Flight", Headquarters Wheeler Field, T.H.
- "D" Statement by the Operations Officer, Luke Field, T.H.
- "E" Statement by the Engineering Officer, Hawaiian Air Depot.
- "F" Statement by Mr. Geo. H. Miller, Hawaiian Air Depot.
- "G" Statement by Mr. Fred D. Wood, Hawaiian Air Depot.
- "H" Statement by Mr. E. L. Heidlebaugh, Hawaiian Air Depot.
- "I" Statement by Mr. Lynn V. Young, Hawaiian Air Depot.
- "J" Statement by Corporal E. J. Cashman, R-4311524, 65th Service Squadron.
- "K" Statement by Private E. C. Schultz, 6878961, 65th Service Squadron.
- "L" Photographs of wrecked airplane.
- "M" Inventory of property shipped.
- "N" Request for shipment and release from responsibility.
- "O" Newspaper clippings.



Exhibits



STATEMENT OF FIRST LIEUTENANT NINETEEN A. ROGERS, Air Corps, Engineering Officer, Wheeler Field, T.H.

The enclosed copies of (a) General information about the Amelia Earhart Putnam Flight and, (b) Plan for Amelia Earhart Putnam Flight, published at Wheeler Field, give a comprehensive picture and understanding of the pre-flight preparation and plans at Wheeler Field, so the following deals entirely with what was done for Miss Earhart while she was here and on the way here.

From the time Miss Earhart left California the Group Radio Station stood by on all three frequencies it was possible for her to send on until she had landed at Wheeler Field. The Group Operations was on the alert during the entire flight and plotted her course throughout the night. They made periodical reports when requested by Globe Wireless, concerning the weather and field conditions at Wheeler Field.

After she landed, the Group Operations Officer and the Airdrome Officer, with sufficient enlisted personnel, directed Miss Earhart to the 75th Service Squadron hangar. The crash truck followed the plane to the hangar, and the ambulance with the flight surgeon in charge was available on the hangar line. Instead of stopping on the ramp, the airplane was taxied into the hangar before the motors were out. The hangar was kept clear of all people except those officially on duty there and the receiving party. The hangar was roped off and every effort made to safeguard the plane from damage.

As soon as the crew had cleared the plane and taken a little time for pictures, they were escorted to the Commanding Officer's quarters where food was awaiting them. A direct line telephone had been installed there for the use of Miss Earhart.

From approximately 3:00 a.m. on the morning of her arrival, and until after she departed, sufficient military police, augmented by a battalion of Infantry, furnished the necessary guard and controlled the traffic situation.

Mr. Matts departed with the rest of the crew with no word whatsoever as to what was to be done to the plane in the way of service and check-over. Mr. Thomas, the Pratt and Whitney engine man for this territory, was present and he and the Engineering Officer took it upon themselves to do what is usually done to put an airplane into suitable condition for the continuance of such a flight. The following work was done:

1. Checked pitch adjusting screws for proper setting.
2. Greased counterweight caps.
3. Pumped gasoline from right wing tank into left wing tank.
4. Drained oil.
5. Serviced with 68 quarts of oil: 34 quarts in each tank.
6. Spark plugs removed, cleaned, spark gap adjusted and reinstalled.
7. Magneto breaker points checked.
8. Intake packing nuts re-tightened.
9. Tightened carburetor heater nuts.
10. Removed both batteries and placed on charge.
11. Both batteries re-installed.
12. Greased propeller hubs with special grease brought with airplane.
13. Removed control box and installed spare control box.
14. Removed control box and checked same and found that the current control was set to cut at between 60 and 70 amperes.



15. Checked ignition system and found a fuse blown, caused by improper setting of current control, to cut out at between 60 and 70 amperes.
16. Adjusted both control box maximum current controls to cut out at 45 amperes, and reinstalled one control box.
17. Checked voltage control and reverse current cut-out on both control boxes.
18. The valves of No. 1 cylinder on each engine checked by Mr. Thomas.
19. The compression of each cylinder on both engines checked by Mr. Thomas.
20. Bulb in instrument light dimmed by painting it white.
21. Engine ring cowlings removed, cleaned, inspected and reinstalled.
22. Fuel and oil lines, connections and piping inspected.
23. Fire extinguisher line taped up.

When the plane arrived Mr. Mantz said that something had gone wrong with one of the propellers to the extent that the pitch could not be changed and that he had flown the airplane for the last seven or eight hours with the propellers in this condition. From the amount of grease pumped into the propeller hubs, it was clearly evident that these hubs had not left Oakland with very much grease in them.

It took all morning and until about three in the afternoon to finish the above checking, but the ship was then ready to be run up to find out if the grease which was forced into the hubs had cleared up the propeller trouble. Mr. Mantz very opportunely showed up at this time and proceeded to run the motors up. The controlling mechanism on the left propeller worked but the pitch on the right one would not change even the slightest degree. During this run up it was also determined that the reason the generator had failed to show a charge during the latter part of the trip was due entirely to the fact that the fuse was blown out and not to the control box being out of order, as Mr. Mantz had insisted upon landing.

The ship was pushed back into the hangar and the right propeller removed and taken to the propeller room for check. It was partly disassembled and found to be very badly galled and the blades frozen solidly in the hub. This was believed to have been caused by the lack of and use of improper lubricant: an opinion expressed by both Mr. Thomas and Master Sergeant Blando, the latter the best propeller man at Wheeler Field. The theory that the hubs were nearly dry when the plane left the mainland was further augmented, it previously having been noted that there was no possibility of the grease having leaked or been thrown out since the propellers and the engines presented a remarkably clean and grease-free appearance when work was first started. At this point it was thought that Wheeler Field did not possess the proper tools to complete the work required on the propellers, and upon the advice of the Depot Engineering Officer the left propeller was taken off the engine and both sent to the Depot for overhaul.

The propellers were returned to Wheeler Field about two o'clock in the morning and were installed by the crew which the Engineering Officer kept in the hangar for that purpose after being told by telephone by Mr. Mantz at seven o'clock that night that there was a possibility Miss Earhart would want to leave around eight or nine in the morning. When the installation had been completed and the cowlings safetied and checked, the crew retired for a much needed three hours sleep.

The crew and the Engineering Officer were back on the alert at seven in the morning but found they could have used the time for sleep to advantage when none of the Earhart party arrived until nearly eleven o'clock.



Mr. Mantz at this time requested that the gasoline which he had wanted pumped, (and which will be noted, Item 3, was pumped,) from the right wing tank into the left should be pumped back into the right wing tank. This was done and the ship rolled out of the hangar. Mr. Mantz was at this time told of everything which had been done to the plane and he said that was all there was to be done except servicing. The crew assisted the Standard Oil man in servicing with gasoline though the amount was told only to the Company man by Mr. Mantz.

Mr. Mantz wanted some air let out of the right oleo strut so that it would come down to the level of the left. This was done under his supervision and when completed left both struts with only about two inches clearance instead of nearly four inches which the right leg had when the plane had first landed.

The plane was run up by Mr. Mantz and it was found that the propellers worked perfectly.

Mr. Mantz, Mr. Holmes and Mrs. Miner, then climbed into the plane and Mr. Mantz took it off on a test flight, leaving with the instructions that if he did not return it would be known that the plane would be kept at Luke Field and would not return to Wheeler Field prior to takeoff contemplated the next morning. At two o'clock in the afternoon the Engineering Officer called Luke Field and verified the rumor that the plane had landed at noon and decided to remain at Luke Field.

*K. A. Rogers*  
K. A. Rogers  
1st. Lieut. A.C.

Station Engineering Officer



PLAN FOR AMELIA EARHART PUTMAN FLIGHT.

GUARD:

Military Police, Hawaiian Division.

AIRDROME

Guard around entire airdrome and at gate at Old Wheeler Field road.

A strong Infantry reserve.

75th SERVICE SQUADRON HANGAR

M. P. representative.

3 motorcycles (M. P.'s).

Extra guard with rope for emergency.

AIR CORPS:

Will furnish one squad under Airdrome Officer to meet and escort plane to hangar.

At Hangar - 2 orderlies with motorcycles at 75th Squadron hangar.

2 orderlies at telephone, 75th Squadron hangar, first floor.

Chairs.

Ropes for use in emergency.

Press under G-2, Hawaiian Division. Room with 4 telephones in 75th Squadron Operations Office, second floor.

2 toilets; 1 in hangar, 1 on second floor.

Announcer and loud speaker at 26th Attack Squadron in front of Operations Office with 2 runners (1 motorcycle).

Communications Section on air (receiving only) during both flights.

Relay information to loud speaker. All information relayed to

Lieut. TIBBETTS at 75th Squadron hangar. G-2 to censor and return to loud speaker.



GUESTS AND CROWD:

Reception committee and Staff, press and civilians connected with flight at hangar, to include any of the following who arrive:

RECEPTION COMMITTEE

1. Maj. Gen. and Mrs. Drum, Miss Rheume and party.
2. Maj. Gen. and Mrs. Moses, Colonel and Mrs. Chaffin and party.
3. Brig. Gen. and Mrs. Yount and party.
4. Admiral and Mrs. Murfin and party or representative
5. Amelia Earhart Reception Committee (4 or 5)
6. Governor and party or representative.
7. Mayor Wright and party or representative.
8. Lt. Colonel and Mrs. McDonnell.

HAWAIIAN DIVISION STAFF ON DUTY AT HANGAR

1. G-2, Hawaiian Division - Major Gwynn.
2. M. P. Officer - Major Bolling.
3. G-2, Hawaiian Department - Major Euell.

EIGHTEENTH PURSUIT GROUP

1. S-3, Major Frierson, Airdrome Officer at 19th Squadron initially.
2. Flight Surgeon - Major Cummings and ambulance at 19th Squadron initially.
3. Executive in Charge of general arrangements - Lt. Tibbetts.
4. Engineering Officer - Lieut. Rogers.

OTHERS

1. Representative Hawaiian Air Depot - Lieut. Arnold.
2. Representative Pratt and Whitney.
3. Representative Standard Oil Company.
4. Representative Press.



MILITARY GUEST AREA:

Military and Naval commissioned personnel in uniform, including guests, in area between 6th Sqdn. and 26th Sqdn. hangars normally used for reviews. The concrete runway in front to be roped off and 200 chairs provided. The following to be admitted:

1. General Officers and parties.
2. Colonels and parties.
3. All Air Corps Commissioned personnel and parties.
4. Naval Officers and parties.
5. Civilians, approved by Major Wheeler or his assistants.

Major Wheeler to represent the Commanding Officer in this area. Lt. Henderson to assist him. The loud speaker to be placed to serve this area.

Military and Naval enlisted personnel in uniform, and their guests, on ramp in front of 6th and 19th Squadron hangars.

CIVILIAN GUEST AREA:

Civilian cars to be parked in area east of Group Headquarters between flying field and main road. Captain Wriston and an assistant to be in charge of this area.

TRAFFIC CONTROL:

To be controlled by Military Police. The Press to be given identification by G-2.

PARKING:

1. Receiving party and staff at hangar--roads east and west of 75th Service Squadron hangar.
2. Military and Naval Commissioned personnel in uniform--area adjacent to base ball diamond.



3. Enlisted personnel in uniform on road between Group Headquarters and Carter Gate.

4. Civilian - all parking to be in area between Group Headquarters and Wright Gate.

A Guard to be placed on the inner loop, Officers' quarters area and the Commanding Officer's quarters by the Military Police.

One (1) Air Corps Motorcycle Orderly on duty at the Commanding Officer's quarters.

Admission to the Loop - Officers and guests living in the area, others at the discretion of the Military Police.

The Adjutant, Wheeler Field or replacement designated by him to determine final admission to quarters.

Mr. Cogswell and typist to be permitted access to quarters to assist Miss Earhart in writing a story for the press, at her request.

An Extra Telephone to be installed in Col. McDonnell's quarters for transmission of the story.

PROCEDURE UPON ARRIVAL:

When her airplane lands a squad in fatigue clothes under the Airdrome Officer to advance and escort her to the 75th Squadron hangar.

When the Plane Stops on Ramp: Admiral's representative, Gen. Drum, Gen. Moses, Gen. Yount, Governor Poindexter, Mayor Wright, G-2, Maj. Gwynn with press representative go to the plane.

Press permitted to take picture only until an interview is authorized by G-2.

Motorcycle escort to Commanding Officer's quarters.



S-3 TO CONTACT MR. MANNING AS SOON AS PRACTICABLE REGARDING:

1. Baggage to go to quarters.
2. Suggest parking of plane in hangar after departure for quarters.
3. Offer to place guard over it.
4. Verify responsibility of Pratt and Whitney Representatives for condition of plane, and Standard Oil for gassing.
5. Explain that we are prepared to furnish any assistance possible under regulations.
6. Verify the fact that they are to receive weather reports from other sources, and who is responsible for delivery. No weather reports will be given by the 18th Pursuit Group except to the Navy on their request.
7. Ascertain time of planned departure.
8. Deliver any mail or messages that may have been received.
9. Coordinate plan for laying out runway for take-off.

Rest Room for Women is prepared on the first floor, 2nd door on right of hangar -- for Men, on 2nd floor in Press Room.

Chairs to be arranged for receiving party.

Four telephone lines to Honolulu to be provided for in Press Room.

Chairs with Arms suitable for writing to be in Press Room.

Military Police to maintain the same guard during period of stay.

The same arrangement to be followed for take-off as for arrival.



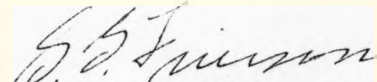
ADMINISTRATION:

1. The amphibian to be on the alert during incoming and outgoing flight.
2. Crash boat at Haleiwa to be on alert.
3. Request Luke Field Crash boat and amphibian to be on alert.
4. Flying at Wheeler Field to be discontinued on day of arrival and departure.
5. Airplanes except amphibian to be locked in hangars.
6. Any necessary flying except trips ordered to Hilo to be from Luke Field.
7. Uniform, Commanding Officer, Staff of Wheeler Field blouse, slacks, yellow gloves. Other personnel the same as on operating days.
8. Grounds and 75th Hangar, special attention to general police.
9. Weather reports to be forwarded to Commanding Officer's quarters periodically.
10. Headquarters Hawaiian Department, Hq. 18th Composite Wing, Hawaiian Division, C-2 and Military Police - Hawaiian Division to be notified of probable time of arrival and departure of plane as information is received. - (Lieut. Tibbetts)
11. No restrictions on cameras.
12. 11th Photo Section to make 2 cameras and 2 operators available to Division C-2.



13. Two (2) copies of photographs approved by C-2 to be delivered to Commanding Officer's quarters as soon as developed for Miss Barhart and navigator.
14. Air Corps Supply Officer to be thoroughly familiar with procedure for issue of spare parts.
15. ~~Communications~~ Officer to endeavour to ascertain from Naval Air Base frequency upon which airplane will operate.
16. A brief letter of instructions to be issued for guidance of all concerned.
17. All personnel to be instructed to give no information to the press.

For the Commanding Officer:



S. G. FRIERSON,  
Major, 18th Pursuit Group,  
Intelligence & Operations Officer.

DISTRIBUTION:

- 2- C of S, Haw Div
- 1- G-2, Haw Div
- 1- Pro Mar
- 3- CG, 18th Wng
- 1- CO, Luke Fld
- 1- CO, HAD
- 3- CO, WF
- 3- S-3, WF
- 3- Ex Off, WF
- 1- S-4, WF
- 4-Adj, WF
- 1- Maj. Wheeler



HEADQUARTERS EIGHTEENTH PURSUIT GROUP  
Wheeler Field, T. H.

March 12, 1937.

SUBJECT : AMELIA EARHART PUTNAM FLIGHT.

TO : All Concerned.

1. The following instructions are published for the information and guidance of all concerned during the Amelia Earhart Putnam Flight at Wheeler Field.
2. PRESS: G-2, Hawaiian Division, is in charge of all publicity and press relations. No information will be released by anyone of this command unless approved by G-2, Hawaiian Division.  
The pilots' room of the 75th Squadron Operations will be made available for Press Headquarters.  
Approved members of the Press will be furnished identification by G-2, Hawaiian Division. Cars will be parked in rear of Transportation Building.
3. GUARD AND TRAFFIC: Necessary guard and traffic control will be furnished by the Provost Marshal, Schofield Barracks. Coordination of seating arrangements and barriers for spectator control and ground arrangements will be handled by the Executive Officer, 18th Pursuit Group, 'phone 1162.
4. AERIAL: All aerial activities and arrangements for airplane maintenance, service, control, and aerial operations will be handled and coordinated by the Group Operations Officer. Mrs. Putnam's plane will be stored in the 75th Service Squadron hangar under control of the Group Engineering Officer.
5. POST ACTIVITIES: Upon announcement of "H" hour there will be no further flying by this Group. All hangars and buildings not ordered open will be locked. All duties other than guard, necessary fatigue, and work incident to this flight will be suspended. All Headquarters and Staff Departments will remain open with sufficient personnel to operate.  
UNIFORM: Group Staff--"A" with slacks and yellow gloves.  
Officers and enlisted men--normal duty uniform. Coveralls will be worn only by men engaged in work.
6. SPECTATORS: Seats for officers, their families and invited guests will be provided on the ramp between the 26th and 6th Squadron hangars. Cars will be parked in area adjacent to baseball diamond. Details of the flight will be broadcast over the Post Loud Speaker System on the hangar line.



Enlisted men in uniform and their families and invited guests on ramp in front of 6th and 19th Squadrons. Cars will be parked on road and area adjacent thereto between Group Headquarters and Carter Gate. Civilians will park and remain in roped area between Group Headquarters Building and Wright Gate.

7. INFORMATION: The following officers and representatives will be at the 75th Service Squadron Operations Hangar, 'phone 1177, G-2, Hawaiian Division; Provost Marshall, Hawaiian Division; S-3, 18th Pursuit Group; Executive Officer, 18th Pursuit Group; Flight Surgeon, 18th Pursuit Group; Liaison Officer, H. A. D.; representatives of Pratt and Whitney Aircraft Company and Standard Oil Company, immediately before and after the landing.

For general information call Group Operations Office, 'phone 1183.

The 11th Photo Section will make available two photographers to G-2, Hawaiian Division.

The 75th Service Squadron will furnish one OA-3 type airplane with pilot and crew available on call by Group Operations.

For the Commanding Officer:



S. G. FRIERSON,  
Major, 18th Pursuit Group,  
Intelligence & Operations Officer.

DISTRIBUTION: "B" plus  
1 - each Officer,  
25 - Extra.



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## Amelia Must Hit Howland lit Howland In Daylight urs of Daylight

By AMELIA EARHART

Written for The Advertiser  
By Special Arrangement with New York  
Herald-Tribune

When my Lockheed touched its wheels on Wheeler Field Thursday morning I had planned to continue to Howland island late in the afternoon. However, after seeing the weather map prepared by the navy's chief aerographer Theodore Lindeman at the Fleet Air Base, and reading the forecast from Howland, it seemed best to wait one day.

Mr. Lindeman shows on his map a blue and red line running north and south in the vicinity of Hawaii. It indicates a weather front moving slowly from east to west. After it, follows more normal weather. For the section following I can expect broken clouds beginning at 2,000 to 3,000 feet, rising to 4,000 or 5,000 feet, then higher and higher as the day progresses. The conditions are much the same as those which lay on our course from Oakland—and which I am told will be with me over the entire Pacific. Favoring northeast winds are predicted with these conditions.

### SPEED IS PROBLEM

Therein lies a problem. It is not often that speed is a handicap but I am likely to arrive too soon at my next destination.

The distance between Hawaii and Howland is 1,900 land miles. I prefer to leave in daylight during the late afternoon. At 150 miles per hour the trip should take about 12 hours. Of course, there are no night landing fields at Howland, so I MUST arrive there during daylight. The problem is, how can I fly slowly enough with my fast plane, plus tail winds, to accomplish both?

### DAYLIGHT START VETOED

In consultation with my navigators I have considered a daylight trip beginning at dawn. But

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## Amelia Must Hit Howland During Hours of Daylight

(Continued from Page 1)

weather conditions are not ideal for that. While the pilot might be suited, that is, as to visibility, ceilings and tail winds, the men who have to find the tiny island are not. They must see the sun when they want to.

The reports from the section to be covered are so meager no one knows whether the plane could top the cumulus clouds reported for during the day, or not. Perhaps there would be breaks in the clouds and perhaps not. The small size of the target eliminated dead reckoning as the only means of navigation. One must use celestial navigation with the radio as aid.

### PILOT'S STRAIN AHEAD

In addition to weather problems there is the important one of the welfare of both crew and ship. While none of the crew appeared tired at the end of this first flight, I noticed that all had eyes slightly bloodshot; the pilots probably because of continuously peering into the hazy night and then back to the lighted instrument panel; the navigators because of the close work done in a not too well lighted cabin. After all we had approximately 14 hours and 20 minutes of night flying. It is much better not to let fatigue of any kind creep into the early part of an expedition, for it cannot be eliminated later. Twenty-four hours of rest will make everyone fit—six or eight might not.

Mr. and Mrs. Christian R. Holmes are our hosts here. Their beautiful place is at Waikiki and is a paradise for transpacific airmen. Meals are served whenever one wakes up. Speaking of meals, we had the first one after arrival at Colonel and Mrs. John McDonnell's home at Wheeler Field. How Mrs. McDonnell managed to have scrambled eggs and bacon ready at the crack of dawn I do not know, but do know they were the best scrambled eggs any of us have ever eaten.

### ARMY SERVICES PLANE

Then there's the "ship." As Paul Mantz taxied into the hangar yesterday morning I noticed some of the same army men standing by who had done such valiant work

on the plane I had here before. They are assigned to help me again by the very understanding officers in charge, which include Gen. Barton K. Yount, Col. John McDonnell and Maj. Samuel Frierson. My needs were mostly for service check. Hardly had our crew hopped out when the inspection began. The cowl came off and the propellers were taken down for greasing.

Wilbur Thomas, the Pratt & Whitney representative in Hawaii, pleaded with me to let him check the valves of my Wasp engines and make a more intensive inspection than I had planned. I told him that he is only one of three or four men I would let touch my pets before the regular overhaul period many hours away. So the engines are having a mechanical rub-down and massage to keep them in perfect condition.

### NEW AMELIA ROLE

Thinking over the reasons for the delay have to include that incident to my new role as writer. I find it much easier to tell all to reporters than try to write it myself. However, as explained to the interviewers yesterday, I have joined their fraternity for the nonce and have saved them the trouble of writing about my flight by struggling to do it myself. May I hand the group here a bouquet, saying that they were sympathetic to my explanation and took my refusal about flight details as good sports.

I went to Wheeler Field early yesterday morning to ride over the take-off area. I changed the take-off from Wheeler to Luke Field by permission. Wheeler Field is being improved and worked, and is temporarily rough in spots. Luke Field has a 3,000-foot hard surface runway which is adequate to my needs and would save the landing gear from the beating it would have on rough ground.

I shall be sorry to drop the first member of the crew. Paul Mantz has helped in every way to prepare for this flight and came along on the first leg to watch developments. He took no rest yesterday but superintended work generally. May he have a pleasant journey homeward on the steamer.

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SEVENTY YEARS AGO  
The steamer sailed on Wednesday last for Lahaina and Kalapelo, and returns this morning, having but few passengers either way. She will leave again on

## History From

in letters in this column are not  
they or opinion of The Advertiser.  
t letters or to make deletions in his  
ust errors, letters should be type-  
r should accompany each letter not  
as an evidence of good faith.)

## the People

# Howland Isle, Pacific Dot, Is Next Stop

Aviatrix Decides Not To  
Start At Midnight Be-  
cause Of Adverse Local  
Weather Conditions

Amelia Earhart Putnam, scanning local weather reports, expressed confidence last night she would be in the air this morning en route to Howland island on the second hop of her 27,000-mile flight around the world.

She planned to take off early this morning from Luke field, accompanied by Fred J. Noonan, co-pilot, and Capt. Harry Manning, navigation officer. Paul Mantz, technical aide to Miss Earhart, remains in Honolulu.

### NOONAN TO DROP OFF

Noonan will leave the ship at Howland Island, to return to Honolulu aboard the coast guard cutter Shoshone. Capt. Manning will continue to Darwin, Australia, whence he will return to the United States by steamer.

Delay in the scheduled midnight hop came due to adverse local weather conditions.

At midnight, Mantz, queried about flight plans, said:

"Miss Earhart plans to take a 3 a.m. breakfast today at the Waikiki home of Mr. and Mrs. Christian R. Holmes.

"She will then proceed to Luke Field for a final check of the plane before her takeoff at dawn."

"I made the change to Luke Field because of the concrete runway there which, with our load, would give us a smoother takeoff."

Mantz and Miss Earhart went to Wheeler Field yesterday morning, and after conferences with army officials, they decided to move the Lockheed-Electra monoplane to Luke Field. It was rolled out on the runway, Mantz took the controls alone and hopped to Ford Island.

### LEISURELY FLIGHT

Miss Earhart returned to the Waikiki home of Mr. and Mrs. Christian Holmes. She had originally planned to depart between 5:30 p.m. and 6 p.m. yesterday, she said, making a leisurely flight so as to reach Howland island at daylight. However, the matter of weather came up, and she decided, upon the advice of weather officials, to wait until 11 o'clock last night for reports from the coast guard cutter Roger B. Taney, stationed 200 miles to the south of Honolulu.

She did not leave Waikiki until after the reports were received and definite decision to hop was made.

### PLANE FIT

The plane had been pronounced mechanically fit at 12 noon yesterday. The report that improper lubricants were used on the propellers on her flight from Oakland was verified by Wilbur Thomas, representative of the makers of the plane's motors. He said the fault was corrected here, and that a recurrence of the trouble should not occur between here and Howland.

Miss Earhart thanked Col. John C. McDonnell, commander of Wheeler Field, and Maj. Harry M. Gwynn for their kindness and cooperation, and she said a few good words to army mechan-

(Continued on Page 11, Col. 4)

## n Story! d Crashed

HART  
Special Arrangement with  
(tribune)  
0.—It's amazing how much

to Howland island by air-  
tra in just four hours will  
Oakland.  
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Contributors, and others who

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The strip-tease needs no expla-  
be segregated in a restricted dis-  
ers who, in any other nation with  
compelled to stand by and accept  
of sin, and the respectable men  
rotting Broadway, which is a he-  
district which decent people have  
which formerly was a decent am-  
Burlesque has created a theatric-  
American art.  
defended before a committee of  
Yet this is the form of theatri-  
in the vilest forms of filth.  
-which the profession applies to m-  
opera, and it is impossible to repe-  
The American theatrical profes-  
comedians engaged in the burles-

## Howland Isle Is Next Stop

### Tiny Pacific Dot To See Amelia

(Continued from Page 1)

ics who had worked on the plane.

Noonan estimated that cruising at the same speed maintained en route to Wheeler Field from Oakland, the plane would reach Howland at 9 a.m. today, as they would consume approximately nine hours in making the 1,600 mile flight.

Just when they will take off from Howland for Lae, New Guinea, Miss Earhart did not know.

"Again we will check the motors, and once more the weather will enter the picture," she said. "But I hope we can get away before sundown Saturday. I am not trying to establish a speed record around the world. At the same time, however, I want to get on as fast as possible.

"After Darwin, Australia, I will fly alone."

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st errors, letters should be  
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as an evidence of good faith.)

the People



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## AN ACORN

(The views and opinions expressed to be accepted as reflecting the judgment of the editor. To guard against errors, letters should be written. Name and address of writer for publication unless desired, but

## Letters From

Editorial Newspaper

in letters in this column are they or opinion of The Advertiser or to make deletions in letters should be 1 not errors, letters should be 1 as an evidence of good faith.)

## the People

# Amelia's Own Story! How Lockheed Crashed

By AMELIA EARHART

(Written for The Advertiser By Special Arrangement with New York Herald-Tribune)

LUKE FIELD, 7:30 A.M., March 20.—It's amazing how much can happen in one dawn.

Instead of being 150 miles en route to Howland island by airplane, the crew of the Lockheed Electra in just four hours will be taking the steamer Malolo back to Oakland.

The airplane which brought us here so gallantly is being dismantled by efficient army mechanics at Luke Field for shipment back to the factory at Burbank, California. Her landing gear is wiped off and one wing is damaged. The all-precious engines are not hurt nor is the body itself.

What happened?

Only one of the little incidents of aviation which are small in themselves but may have serious consequences.

### CAUSE UNKNOWN

Witnesses said a tire blew out. However, after studying the tracks carefully I believe that that may not have been the primary cause of the accident. The right shock absorber, as it lengthened, may have given way.

Watchers on the ground saw the wing drop. Suddenly the plane pulled to my right. I immediately reduced power on the left, or opposite, engine and succeeded in changing the swing of the plane from the right to the left. For a moment I thought I would be able

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## Amelia Tells Own Story Of Luke Field Crash

(Continued from Page 1)

to gain control of the Electra and straighten out the course.

But, alas. The load was so heavy that once we were started in an arc there was nothing to do but let the plane ground loop as easily as possible.

### GASOLINE SPILLS

With the excessive weight placed on the landing gear on the right, it was wrenched free and gasoline sprayed from the drain of the right well. That there was no resulting fire is surely a result of the kind wishes and generous thoughts which have come from all over the world. That no one was even shaken attests to the sturdiness of construction and the general safety of the aircraft.

I must say a good word for Fred Noonan and Harry Manning. They were both calm as could be. In fact, when the first men reached the plane and opened the cabin door Fred Noonan methodically began folding up his charts. He says that when I fly again he is ready to go along.

I feel that this is only a postponement of my flight. I hope to try again to carry out the original plans. That will mean the Honolulu-Oakland part of the Pacific for the third time!

### HEAVY FUEL LOAD

I had 900 gallons of gasoline aboard. That was almost as much as I had to come here from Oakland although the contemplated distance to Howland Island is 600 miles shorter.

I was doubtful of the weather and took along enough to return after eight hours if it was necessary for any reason. However, this load was not the ship's limit by any means. So easily was the plane running down the runway that I thought the takeoff was over. In ten seconds more we would have been off and would have had the landing gear up. There was no indication that anything was off normal until something happened on the right side.

In retrospect I am thankful that the failure occurred here rather than landing on perhaps some isolated corner far from help.

### SAYS 'THANKS, ALL'

I am particularly sorry to have had any kind of a mishap on Luke field. The runway is excellent and every facility for safe flying available. My present wish is to follow through as soon as the plane and engines are reconditioned.

May I express my thanks to all who have been standing by so faithfully and warn them that I shall ask their cooperation again? This list includes members of the U. S. coastguard, army and navy officials, radio men both private and governmental, mechanics around the world, fuel and oil distributors and others who promised their help in countless ways.

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# AMELIA CRASH MAY NEVER BE FULLY SOLVED

Army Opens Investigation  
But Air Chief Doubts  
Complete Solution

Undercarriage of Plane Is  
So Badly Damaged It  
Balks Conclusions

OAKLAND, Cal., March 22. (AP)

—Amelia Earhart plans a new  
attempt to fly around the world  
at the equator after her wrecked



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Antanacio Iao, 35, the homeless man who was in three jails in less than 24 hours, was given another chance Saturday by Judge Louis Baton of district court.

AN JAILED 3 TIMES  
GETS ANOTHER CHANCE

Each morning at 9:30 from Monday to Thursday inclusive, the church of the Epiphany will have a children's mission on Prayer, to adults but planned especially for children from the fourth grade up.

Each morning at 9:30 from Monday to Thursday inclusive, the church of the Epiphany will have a children's mission on Prayer, to adults but planned especially for children from the fourth grade up.

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## AMELIA CRASH BALKS PROBERS

(Continued from Page 1)  
what evidence we have available, is not worth a whoop.

"Publication of such an opinion might result in unfavorable, acrimonious discussion which would not benefit anyone.

"Only Miss Earhart's coolness prevented injury," Gen. Yount said.

"I have seen and participated in many crashes and never saw any one come out so coolly as she."

Gen. Yount stressed the fact the army inquiry is thoroughly routine; does not seek to place blame or responsibility on anyone.

Meanwhile Miss Earhart's damaged plane is in the Luke Field hangar awaiting instructions from Miss Earhart.

Emil Williams, department commerce inspector, was expected to make a civil inquiry into accident.



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# Army Seeks Exact Cause Of Crack-Up

## Earheart Crash Inquiry to Begin Today; Wrecked Plane Being Shipped to Lockheed Factory

While Amelia Earhart's wrecked Lockheed-Electra "flying laboratory" lies partly dismantled at Luke Field preparatory to being made ready for shipment on the Lurline Saturday, Army officials will start an inquiry this morning to determine the causes behind Saturday's near-tragedy.

The first step will be to study photographs of the wreckage that once was the pride of Amelia's heart and to closely question witnesses who were present at the unfortunate attempted takeoff.

## THEORIES EXPRESSED

Army officers, when questioned as to what they considered to be the cause of the crack-up, said, unofficially, that they favored the opinion that the landing gear gave way before the tire blew out. They pointed out that new tires had been installed and were checked carefully just three minutes before the takeoff.

They also pointed out that the right tire track was wider from the point where the plane began to skid. This indicated, the officers said, that the right tire was either becoming deflated or that it was required to bear increased weight due to the starboard tilt of the plane. This tilt to the right, they said, would be due possibly to failure of the shock absorbers or other parts of the right wheel gear.

**BEING SENT TO FACTORY**

The damaged Lockheed-Electra is being shipped back to the Lockheed factory in Burbank, Calif., for

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## MAN JAILED 3 TIMES GETS ANOTHER CHANCE

Antanacio Iao, 35, the homeless man who was in three jails in less than 24 hours, was given another chance Saturday by Judge Louis Baron of district court.



**MRS. GURNEY ON TRIP**  
Mrs. A. le Baron Gurney was among the several islanders who left at noon Saturday by the Ma-  
loilo for Los Angeles and San Fran-  
cisco.

ch will contest with two Stanford  
left to right, Calvin C. McGregor,  
odore Morgan, faculty coach, Mc-  
es. The Stanford debaters will ar-

## Army Seeks Cause Of Amelia's Crash

(Continued from Page 1)

repairs. Amelia says she will "try again" as soon as her plane is ready. Her husband, George Palmer Putnam, announced: "The flight will be continued. The crew will stay with her until hell freezes over."

The three men who flew with her from Oakland, Paul Mantz, technical adviser; Capt. Harry Manning, co-pilot, and F. J. Noonan, her adviser navigator, all expressed confidence in Miss Earhart and said they are ready to take off with her again on her proposed 27,000-mile a round - the - world flight.



3-20-37 THE ADVERTISER

3-20-37 THE ADVERTISER

3-21-37 THE ADVERTISER

3-21-37 THE ADVERTISER

3-21-37 THE ADVERTISER

3-21-37 THE

3-22-37 STAR

3-22-37 THE ADVERTISER

3-22-37 STAR BULLETIN

Baron of district court.  
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in 24 hours, was given another  
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Antanacio Iao, 35, the homeless  
GETS ANOTHER CHANCE

AN JAILED 3 TIMES  
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-Holy communion will be cele-  
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e children from the fourth



MRS. A. le Baron Gurney was  
among the several islanders who  
left at noon Saturday by the Ma-  
lolo for Los Angeles and San Fran-  
cisco.

1937

## Ground Loop Alone Called Cause Of Amelia's Crash

Every pilot who has flown a bi-motored plane has been where Amelia Earhart was Saturday morning.

No blowouts, no soft tires, no wet spots in the runway.

Just two tremendously powerful motors, their 1,100 horsepower unleashed, leaping forward at opposite ends of an airplane wing, each straining to get past the other.

Suddenly one motor edges a tiny bit ahead of the other. The pilot sees the shift in the plane's course, applies opposite rudder, slacks off one throttle. But the wing continues to yaw. The pilot bears down hard on the rudder.

There comes a moment when the plane is fighting to swing in one direction, the pilot fighting as hard to bring it back. The pilot wins, but he wins too fast. The plane comes back in a swift swing and all the rudder in the world is of no avail. The plane goes into a ground loop from which there is no returning.

This, and this alone, is what Hawaii's veteran pilots believe, indeed, feel certain, happened at Luke Field Saturday morning.

A ground loop is the name applied by pilots to the mishap which occurs when the plane, while traveling on the ground, gets out of control and turns in a circle.

If it is traveling slowly no harm is done. If it is going fast, the plane goes over on its side.

An airplane on the ground is traveling not on four wheels, like an auto, nor even three, but only two.

One of the most important phases of a takeoff is to keep it on a straight course until it leaves the ground.

With a bi-motored ship this increases in difficulty many fold.

### Job for Strong Man

One other factor may have been a contributing cause.

The task of turning a plane of the Electra's size on the ground is no small one. Consider that the ship is traveling 80 to 90 miles an hour. A wind of this force is being exerted against the tail surfaces besides the terrific blast poured out by the propellers.

To turn the rudders against this hurricane requires strength and lots of it. And Miss Earhart is no Hercules.

The only thing the veterans don't understand about her crash is that there was no fire.

Gasoline of the type she was using is so highly volatile the slightest spark will set it off.

Yet, although gasoline was splashed all over the runway, and the metal plane sent up a shower of sparks as it went skidding along the concrete runway on its belly, nothing happened.

Her number, say the pilots, just wasn't up.

EXHIBIT "O"



LUKE FIELD, OAHU, T.H.  
March 25, 1937.

STATEMENT BY THE GROUP OPERATIONS OFFICER, LUKE FIELD.

ARRIVAL AT LUKE FIELD:

The first information that Miss Earhart might make use of LUKE FIELD was a telephone message from Headquarters Wheeler Field at 11:15 A.M., March 19th, to the effect that Mr. Mantz was about to make a test flight of Miss Earhart's airplane and would land at LUKE FIELD in about 30 minutes for the purpose of checking instruments at the Hawaiian Air Depot. About 11:30 A.M. a second telephone message was received from Major Don L. Hutchins, Headquarters 18th Composite Wing to the effect that Mr. Mantz would land at LUKE FIELD and provided he found the runway suitable Miss Earhart would make her take-off for Howland Island from this station; he requested to be notified when the airplane landed. Steps were immediately taken to recall all airplanes and clear the airdrome. Mr. Mantz landed safely about 12:00 Noon. He was met by General Yount, who happened to be on the field, Colonel Harmon, Lieut. Arnold and the undersigned.

Mr. Mantz announced that the airplane was performing excellently; that the runway afforded better take-off conditions than Wheeler Field and that Miss Earhart would definitely take-off from LUKE FIELD. He stated that he had radioed this information to Wheeler Field before landing. The undersigned notified Wing Headquarters and the Operations Officer, Wheeler Field. Mr. Mantz made arrangements with Lieut. Arnold relative to servicing the airplane and left for the city.

PLAN FOR GUARD & TRAFFIC CONTROL ESTABLISHED:

At 1:15 P.M., Colonel Harmon called a meeting of the Group Staff Officers at his quarters at which he outlined a plan for guard and traffic control while Miss Earhart's airplane was at this station. Two additional officers-of-the-guard were detailed and the normal guard augmented by twenty super-numerics. In addition twenty-five men were to be retained in each squadron area for emergency use. The Group Operations Officer was charged with the airdrome activities. An officer was appointed to assist and control the representatives of the press, so far as possible. The Post Fire Department and Flight Surgeon were notified to be on the alert.

During the afternoon the airplane was serviced. The undersigned was present during the preliminary stage and observed with others that there was sediment in the chamois strainer during a test made by Mr. Mantz. As a result of this Mr. Mantz requested the airplane be serviced with Air Corps gasoline, which was provided.

After servicing was completed the airplane was placed in the Final Assembly Hangar, the gates closed and a guard posted by the Officer-of-the-Day.

At about 5:00 P.M., Colonel Harmon notified the undersigned that he



talked with Miss Earhart on the telephone and was advised that she intended to take-off at 11:00 P.M. or at dawn; that the decision would depend on weather reports to be received from Howland Island.

At dusk orders were issued that the field boundary and obstacle lights should be turned on and left on all night. Lights were also set out to outline the edges of the landing mat.

At about 9:30 P.M. word was received that the take-off was scheduled at dawn and that Miss Earhart and her party would arrive at LUKE FIELD about 3:30 A.M., March 30th.

During the night it rained moderately.

#### PREPARATIONS FOR TAKE-OFF:

At 3:45 A.M. the Officer-of-the-Day, (2nd Lieut. R.C. Cannon, Air-Reserve) reported with a guard detail of twenty men at the Final Assembly Hangar, Hawaiian Air Depot and established a rope barrier. A sentry was placed on the road to the Fleet Air Base with orders to turn back all but Navy personnel. An officer (1st Lieut. H.B. Thatcher, Air Corps) was sent with sixteen men to establish a line of sentries at two hundred foot intervals along the West side of the mat and to relight and relocate certain of the lights around the mat. These sentries were instructed to keep unauthorized persons off the mat and to observe as closely as possible the point at which the airplane left the ground.

Miss Earhart and her party which included, Mr. Mantz, Captain Manning, Mr. Noonan, Mr. Holmes and Miss Minor, arrived at LUKE FIELD about 4:15 or 4:30 A.M. via the Fleet Air Base. Several newspaper reporters also arrived at this time. There were no casual visitors as the Luke Field ferry had not yet commenced operation for the day.

The airplane was removed from the hangar and placed on the warming-up apron. Mr. Mantz was observed to make an inspection of the airplane, including the landing gear and tires, after which he entered the pilots cockpit, ran up the engines and then shut them off. They appeared to be functioning excellently. Miss Earhart had meanwhile been going over her charts and the weather forecast provided by the Fleet Air Base, in the room set aside for her in the rear of the Final Assembly Hangar. After Mr. Mantz had warmed up the airplane she left the hangar and got into the airplane. At her request the Southwest flood lights were turned on for about ten minutes while she surveyed the runway from her seat in the cockpit. Apparently satisfied she then asked that they be turned off. After a brief discussion with Mr. Mantz she stated that she would await daylight for her take-off.

At 5:30 A.M. the motors were started. Captain Manning and Mr. Noonan took their places and at 5:40 she taxied out.

About the time the engines were started Lieut. Arnold notified the fire truck to start its motor and be on the alert. The Post Dispensary was also notified to have the ambulance standing by.



#### THE CRASH:

Miss Earhart taxied to the Northeast end of the runway preceded by Mr. Mantz in an automobile. At this instant a navy amphibian taxied out from the Fleet Air Base hangars and in spite of attempts to recall him with flashlights, followed Miss Earhart's airplane to the Northeast end of the mat where it parked out of the way on the East side.

Some of the personnel of the Hawaiian Air Depot stationed themselves at intervals along the side of the mat.

At this time there was sufficient daylight to see Miss Earhart dimly at the far end of the runway. Atmospheric visibility was good. The sky was overcast at 3,000 - 4,000 feet. A light drift of wind from the Southwest barely fluttered the wind sock on building #78. The horizon was quite bright toward the South.

Miss Earhart paused very briefly in take-off position then apparently opened both throttles wide. From where the undersigned was standing near the Southwest end of the mat the airplane appeared to gain speed quickly. The wing tips were observed to wobble slightly as it ran over un-evennesses on the mat. Suddenly, the airplane was seen to be veering to the left with increasing rapidity as in the initial stage of a ground loop; as it swung it tilted with the outer (i.e. right-hand) wing almost scraping the mat. The right hand landing gear suddenly collapsed followed by the other and the airplane slid in an abrupt left hand skid on its belly. A shower of sparks spurted from between the airplane and the mat.

The LUKE FIELD crash truck had followed the airplane on the take-off and was on the scene immediately. The persons nearest the scene reached it within a few seconds. The undersigned leaped into an automobile and hurried to the scene, arriving first as Miss Earhart and her crew emerged unhurt. As promptly as possible the Officer-of-the-Day established a guard around the wrecked airplane and all unauthorized persons were ordered off the mat. A long rope was obtained and held by sentries at twenty pace intervals. Strict orders were issued against smoking.

#### REMOVAL OF DAMAGED AIRPLANE:

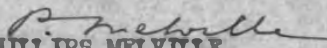
The Engineering Officer, Hawaiian Air Depot, (Lieut. Arnold) with personnel from the Depot immediately commenced the work of removing the damaged airplane. The major portion of the gasoline load was first withdrawn into the 72nd Bombardment Squadron refueling truck. All personal and technical equipment was removed and placed in safe-keeping in the Depot at Lieut. Arnold's direction. At about 8:00 A.M. the guard was withdrawn as being no longer necessary. In spite of steady rain the work of removal was continued and the damaged airplane placed in the Final Assembly Hangar, Hawaiian Air Depot, pending disposition, by 3:30 P.M.

#### PUBLICITY:

In accordance with instructions from the Commanding General 18th Compo-



site Wing, all concerned were notified not to make any statements or express any opinions as to the causes of the crash, and to refer all inquiries to Wing Headquarters.

  
PHILLIPS MELVILLE,  
Major, Air Corps,  
Operations Officer.



HAWAIIAN AIR DEPOT,  
Luke Field, T. H.  
March 25, 1937.

STATEMENT OF FIRST LIEUTENANT DONALD D. ARNOLD, Air Corps, Engineering Officer, Hawaiian Air Depot, Luke Field, T. H.

On March 12, 1937, I was verbally notified by Major Chas. E. Branchaw, Air Corps, that I was appointed to act as Hawaiian Air Depot Representative in connection with the Amelia Earhart Putnam Around the World Flight. My understanding was that the facilities of the Hawaiian Air Depot were at the disposal of Mrs. Putnam's representatives and that I was to coordinate all activity between Wheeler or Luke Field and the Depot. I was directed to report to Major S. G. Frierson, Air Corps Officer in charge of activities at Wheeler Field, and did so on March 12, 1937. He directed that I keep in touch with him and that I report to him at the scheduled hour of arrival of Mrs. Putnam.

During the few days prior to the arrival of Mrs. Putnam I organized an alert crew, and the following named Depot employees agreed to offer their time and services without extra compensation:

R. C. Miller, Shop Superintendent  
B. M. Johnson, Administrative Assistant  
H. L. Roberson, Propellers  
H. R. Beacom, Instruments  
L. A. Fry, Engine Mechanic  
C. J. Murphy, Airplane Mechanic  
H. F. Geslien, Electrician  
F. C. Jones, Welder  
V. H. Dittmer, Welder

It did not become necessary to use this alert crew.

On March 17, 1937, I received word that Mrs. Putnam, Mr. Paul Mantz, Captain Harry Manning, and Captain Fred Noonan had departed for Wheeler Field at 2:05 P.M. in a Lockheed Electra Airplane NR16020. At 8:00 P.M. I visited the Fleet Air Base Administration Building and followed the radio progress reports of the flight until 4:00 A.M. the following morning. I then departed for Wheeler Field and was on hand for the arrival at 5:45 A.M. March 18, 1937. A wheels-first landing was made satisfactorily.

Subsequently I became acquainted with Mr. Paul Mantz, Technical Advisor on the flight, and talked briefly about the mechanical performance of the airplane. He stated that the right hand constant speed Hamilton Standard propeller blades had become inoperative about six hours before he reached Hawaii but that during the first part of the trip everything functioned satisfactorily. He stated that just prior to the propeller difficulty he had experienced icing conditions for a brief time.



Inasmuch as the 75th Service Squadron mechanics had the situation in hand, Major Frierson notified me that the services of the Depot would not be required from present indications. Mr. Mantz contacted Mr. Thomas, Pratt & Whitney Representative, and explained the check-over he wanted made on the S3H1 type engines. Mr. Mantz requested thirty-six new spark plugs from the Wheeler Field Station Supply, but it developed that the Air Corps could furnish only reconditioned plugs, as the supply of new plugs had long since been exhausted. Mr. Mantz and Mr. Thomas decided that the plugs did not require replacing and the thirty-six Air Corps plugs were returned to stock.

I remained available at Wheeler Field and watched the progress of the maintenance work on the airplane during the day, but did not engage in any operation. The Wheeler Field mechanics removed the right propeller from the airplane and attempted to disassemble it, under orders of the Station Engineering Officer. At 2:40 P.M. I was asked by Mr. Mantz to take both propellers to the Depot as Wheeler Field lacked special tools to complete the disassembly. Mr. Mantz was reluctant in asking for services so late in the day and I assured him that we were willingly at his disposal. He did not accompany me to the Depot but returned to Honolulu for a much needed rest. However, before he left I explained that whereas the Depot facilities were at his disposal, we could do no work on his airplane without specific instructions from him and requested his supervision where possible.

The Commanding Officer of the Depot was notified and the following qualified employees were assigned to the propeller job:

R. C. Miller, Superintendent  
R. G. Owens, Inspector  
E. L. Heidlebaugh, Foreman  
H. I. Roberson, Mechanic  
Cpl. E. J. Cashman, Assistant  
Pvt. T. A. Dybicz, Assistant

The propellers arrived at the Depot at 4:00 P.M. March 18, 1937 and were returned to Wheeler Field via their own transportation on the 12:45 A.M. Ferry Boat the following morning. These employees worked continuously on the job and I obtained sandwiches and coffee through the courtesy of the 65th Service Squadron Mess. Colonel Harmon, Major Branahaw, and Mr. Thomas visited the Depot at 8:00 P.M. I kept Mr. Mantz frequently informed by telephone of our progress.

The blades of the right hand propeller were found to be frozen solidly to the hub approximately half way between high and low pitch, and it was necessary to use hot kerosene to accomplish disassembly. The bearing surface was found slightly galled which was removed by hand honing. The hub was found lubricated with a soft putty-like compound which, according to consensus of opinion, was much thicker than our Air Corps Specification Grease. It may have been the icing encountered on the flight by Mr. Mantz that rendered this



compound useless as a lubricant, thereby causing the blades to bind in the hub. On this type propeller the blades should have a certain freedom of movement between low and high pitch positions. Inasmuch as it was desired to reassemble this propeller at the designed pitch, I contacted Mr. Mantz for information, but as he did not have this information about the pitch angle he ordered that the maximum pitch be made to correspond with the left hand propeller which we had not yet disassembled. This was found to be twenty-six degrees and that setting was made. We then overhauled the left hand propeller and found that slight galling had occurred. Both propellers were cleaned and lubricated with Mobile No. 2 lubricant which is Air Corps Specification for summer use.

I went to Wheeler Field on the morning of March 19, 1937 and explained thoroughly to Mr. Mantz the exact procedure on the propellers at the Depot and he agreed to give me a report after his test flight. At noon Mr. Mantz, Mr. Chris Holmes, and Miss Terry Minor made a normal take-off from Wheeler Field and landed at Luke Field shortly thereafter. A satisfactory wheels-first landing was made at Luke Field and the following crew was assigned to Mr. Mantz.

Fred Wood, Chief Inspector, in charge  
Geo. Miller  
A. L. Sanderson  
L. Lewis  
L. Fry  
E. L. Heidlebaugh  
H. R. Beacon  
L. V. Young

Mr. Mantz reported to me that the propellers worked excellently and functioned better than they had ever done previously. This remark was made in the presence of General Yount.

In the early afternoon Mrs. Putnam told me that her plans were dependant upon the weather entirely. Mr. Mantz requested me to house his airplane and the following procedure was outlined by him.

1. Furnish him with Sperry Instrument Mechanic. Mr. Gibson and Mr. Beacon were assigned, and after a brief check of the instruments they were pronounced OK by Mr. Mantz and no work was performed or was necessary.

2. The right oleo leg clearance was 2-1/8 inches and the left was 2-5/8 inches. A leaky valve core was found in the right leg and Mr. Mantz requested Mr. Young to replace this and bring the right leg up to the measurement of the left leg. This was accomplished, inspected by Mr. Mantz, and pronounced OK.

3. The engine oil screens needed cleaning and Mr. Mantz specified this was to be accomplished under the supervision of Mr. Thomas, Pratt & Whitney Representative. Mr. Thomas chose Geo. Miller, L. D. Lewis, and A. L. Sanderson to assist him.



4. The gasoline tanks were to be serviced as specified to Mr. Young by Mr. Mantz, direct from the Standard Oil Company gas truck, through a chamois lined funnel. Mr. Mantz left Luke Field at 1:30 P.M. and the gasoline arrived at 2:30 P.M. Mr. Wood, Civilian Depot Inspector, supervised the servicing. Fifteen gallons of gasoline were pumped during a forty-minute period, due to the failure of the gasoline to flow freely through the chamois. Mr. Wood found that considerable sediment had collected from the gasoline hose and clogged the chamois. I ordered the servicing stopped and immediately telephoned Mr. Mantz in Honolulu of our findings. He requested that servicing be continued with Air Corps gasoline, which was subsequently arranged for through Lieut. Colonel Peabody, who was at the Depot at that time. I requested Mr. Mantz to handle this matter himself direct with the Standard Oil Company Representative, who was also at the Depot at that time, and placed that gentleman on the telephone connection I had made with Mr. Mantz and gathered from their conversation that considerable wrangling and arguing was taking place over the gasoline situation. I had suspended all servicing operations at the request of Mr. Mantz, pending his arrival from Honolulu at 4:15 P.M. In the meantime the Standard Oil tank man drew off a sample of gasoline through a chamois, and out Mr. Wood observed tiny, hard specimens of sediment on the chamois. Lieut. Colonel Peabody, Lieut. Colonel Harmon, Major, Reeves, and Lieut. Bishop were present and each examined the chamois but made no open comment. I extracted a small piece of sediment and examined it under a microscope. The Standard Oil Representative asked if he might also take a look. He made the statement to Lieut. Bishop and me that it looked like rust. He urged me to proceed with the servicing and while I awaited the arrival of Mr. Mantz he made the following overtures to me:

- a. Pump the gasoline out of his truck into an empty Air Corps truck and repump through our truck's segregator into the airplane.
- b. Rearrange his truck hose so as to draw off gasoline from the top of his tank rather than from the bottom.
- c. Service the airplane with Air Corps gasoline and permit him to dump the equivalent amount from his truck into the Air Corps underground tanks, thus hoping to satisfy Mr. Mantz.

After listening to his proposals I informed him that the Air Corps had no interest in the matter whatsoever and I had neither official nor personal authority in connection with the flight, the crew, or the sponsors, and must wait for Mr. Mantz.

Mr. Mantz arrived and ordered the Standard Oil Representative to pump some gasoline through a chamois. This was done and a deposit of sediment was found. The Standard Oil Representative argued with Mr. Mantz that the dirt was already in the chamois and did not come from his tank. Mr. Mantz procured a new chamois and another test showed signs of sediment. Mr. Mantz then requested Air Corps gasoline and we placed 515 gallons in the airplane.



The airplane was then locked in the Final Assembly Hangar at 7:30 P.M. and a guard was furnished by the Commanding Officer of Luke Field,

I obtained eight sets of sleeping equipment from Major Reeves and the crew of Depot employees retired in the Final Assembly Hangar at 11:30 P.M. Mosquitoes, however, prevented their sleeping comfortably.

At 3:45 A.M., March 20, 1937 we opened the Hangar and placed the airplane on the Line. Mrs. Putnam and crew arrived about 4:30 A.M. Mr. Mantz requested an additional seventy-five gallons of gasoline, making a total of 590 gallons furnished.

At 4:45 A.M. Press representatives arrived and established themselves in my office without advance notice. As soon as this was brought to my attention I notified these gentlemen that all telephone charges were to be reversed and positively not charged to me or to the Government. I arranged specific desks for their use and notified the Luke Field Operator of the telephones designated for Press use. At 5:00 A.M. Mr. Mantz thoroughly inspected the airplane, tested the engines, and shut them off. The flood lights were turned on and Mrs. Putnam inspected the runway from the cockpit of the airplane. A light rain during the night had wet the runway. The lights were turned off and Mr. Noonan and Mr. Manning boarded the airplane. Mrs. Putnam started the engines at 5:30 A.M. and at 5:40 taxied Northeast down the Navy side of the runway to the lower end accompanied by Mr. Young and Mr. Mantz on the ground with flashlights. After Mrs. Putnam had taxied about one-third of the way down the runway a Grumman Amphibian taxied out from the Navy Hangars and followed her airplane down the Field. I believe it parked at the far end of the Field as I did not see it take-off. One of the Naval Officers present with our own group attempted to signal the airplane to stop but his efforts were unavailing. I took position on the Final Assembly ramp with Mr. Chris Holmes. The tee indicated wind direction exactly on the center line of the runway from the direction of Barbers Point. A very slight intermittent breeze was blowing, possible not more than one mile per hour. The buildings and various objects were distinguishable in the grey dawn but there was insufficient light to permit photography without flashlights. The sky toward Honolulu was dark and Koolau Range was barely discernable against the background of dark clouds. Off Barbers Point, however, the sky was surprisingly bright with good visibility. Smoke from two dredges at the mouth of Pearl Harbor was plainly noticeable. A scattered broken ceiling was perhaps 3,000 feet.

General Yount assured himself that the crash truck and ambulance were placed on the alert. Mrs. Putnam made a 180 degree left turn at the far end of the runway and momentarily halted the airplane on the center line of the runway. The air being still, there was but the usual lag in sound travel and as soon as the airplane moved forward I heard the steady synchronous roar characteristic of full throttle application. The airplane appeared to assume the normal initial attitude for the take-off and slowly gained speed. Before the airplane had reached the halfway mark on the Field the right wing seemed to drop slightly lower than the left and the airplane made a slow even forty-five degree turn to the left. Half way between the center of the runway and



the Navy side I saw a long streak of flying sparks under the airplane, followed instantly by the sound of grinding metal. The airplane instantly dropped on its belly and alid to a stop, right side up, but headed in the direction from which it had come. No fire ensued. I grabbed Mr. Chris Holmes by the arm and together we sped to the scene of the crash in my car. Mrs. Putnam was standing upright in the cockpit but Mr. Noonan and Capt. Manning had not yet alighted. Mr. Holmes proceeded to assist Mrs. Putnam and the crowd formed immediately. Lieut. Colonel Harmon established a guard around the airplane. The Luke Field crash truck was at the airplane when we arrived with fire hose extended to the fuselage. None of the crew was injured. Mr. Manning slightly bruised his right arm at the elbow. I escorted Mrs. Putnam, Mr. Holmes, Mr. Noonan, and Mr. Manning to my car down the runway while she reconstructed the accident. I made no attempt to question her and she volunteered all information. The Press had not yet interviewed her as we were alone in my car. I heard her say to the crew, "The ship functioned perfectly at the start. As it gained speed the right wing dropped down and the ship seemed to pull to the right. I eased off the left engine and the ship started a long persistent left turn and ended up where it is now. It was all over instantly. The first thing I thought of was the right oleo or the right tire letting go. The way the ship pulled it was probably a flat tire." We stopped at intervals and she examined the marks of the tires and mentioned that the right track was much wider than the left. Mr. Noonan remarked, "This is a piece of G. D. bad luck." Mrs. Putnam replied, "Yes, it is a little bit disappointing." Mr. Manning was non-committal. We returned to the airplane for a closer examination and the Press began firing questions from all sides. It was noticeable that most of the questions were leading questions, such as, "You ran through bunches of grass, didn't you?" Her answer to this was, "The runway was perfect. The grass had nothing to do with it. I am sure of a structural failure." She then asked me to drive her to a telephone where she could make a Trans-Pacific call to her husband. Mr. Holmes suggested we all go to his house. I drove them to the Navy Boat Dock and they departed for Honolulu. Mrs. Putnam and her crew were profuse in expressing their appreciation for the cooperation of the Air Corps. The morning she arrived at Luke Field she remarked, "My Goodness, none of you people have had a moment's rest!"

I immediately returned to the airplane and found that Mr. Mantz had already begun unloading equipment from the airplane. I reported to General Yount that Mantz had requested me to move the airplane to the Final Assembly Hangar and store the personal effects in the tool room of that building. I assigned the following employees, with Mr. Wood in charge, for this purpose, and he received instructions from Mr. Mantz. I obtained trucks for the use of Mr. Mantz and commandeered one of the Luke Field guards to accompany each load of baggage to the Final Assembly tool room, and all articles received were locked up.

E. L. Heidlebaugh	H. E. Hicks	C. F. Brady	J. Nelson )
L. V. Young	C. DeVelschow	R. G. Owens	F. A. Knox)Supply
Geo. Miller	M. M. Summers	E. E. Finch	J. Fries
L. D. Lewis	Cpl. E. Cashman	Pvt. F. E. Gaines	
A. I. Sanderson	F. O. McFall	Pfc. A. F. Harger	
L. A. Fry	W. Holloway	Pvt. E. V. Kozloski	
H. R. Beacon	C. F. Bay	F. D. Wood, Acting Supt.	
Pvt. E. C. Schultz	W. Jurgens	E. Baker, Supply Supt.	



At 11:00 A.M. Major Branchaw informed me that all members of the flight had left Luke Field to sail on the Malolo at noon for the mainland and that he had obtained a release from Mrs. Putnam. The cranes available at the depot were of insufficient capacity to lift the airplane to a trailer, and through the courtesy of Commander Mullinix a large crane was obtained from the Fleet Air Base. As the Base is closed all day on Saturdays, and as the services of a qualified operator are required to operate this complicated machine, it was necessary for them to order out their civilian crane operator from his home in Honolulu. In spite of a continual tropical rain, all workmen continued steadily on the job of salvage, and at 3:00 P.M. all property was under lock and key and Major Branchaw was so notified by telephone. Before the airplane was removed from the runway 650 gallons of gasoline were pumped into the 92nd Squadron Service Truck to lessen the weight of the airplane and reduce the fire hazard. This truck was turned over to Lieut. Bishop, Station Engineering Officer, Luke Field. On March 21, 1937 Sergeant Charbaugh and I plotted the wheel marks on the runway and a chart was prepared. The permanent white center lines of the runway were used as base lines in preparing this chart, and measurements were frequently checked back on these lines. A sheet of graph paper was used and the track was plotted at five-foot intervals. Due to the many automobile and airplane tracks on the runway at the turn around and beginning to take-off it was impossible to identify the Lockheed tracks, and no attempt was made to plot unidentified tracks or to locate position of actual turn around or point of take-off. Only those points easily identified were plotted. Mr. Williams, Department of Commerce Inspector, had taken only a few measurements of the tracks, and I deemed it advisable to preserve as much information as possible. At 9:00 A.M. March 22, 1937, Mr. Williams arrived at my office and announced he was prepared to begin his investigation. I requested Mr. Williams to please advise General Yount of his intentions, and he did so. General Yount ordered me to render Mr. Williams such assistance as was necessary in connection with his official duties. General Yount also advised that the forming of an opinion of the accident was Mr. Williams' own responsibility. Mr. Williams spent the entire day in routine investigation work on the airplane and did not discuss the accident with me. He left Luke Field at 3:00 P.M. Depot employees removed the wings from the airplane upon order of Major Branchaw, but no further work was done. On March 23, 1937 the remaining 165 gallons of gasoline, which could not be removed when the airplane was on the runway, was drained. This gasoline was placed in 55 gallon drums, marked with the number of the airplane, NR16080, and the words, "Hold Until Further Notice." The drums were turned over to the Depot Supply Officer with verbal instructions as shown in quotes above. Major Branchaw notified me at 10:00 A.M. to withhold all work in connection with the airplane until further orders. However, I was to lay temporary plans to crate and prepare for shipment upon short notice. Mr. Baker of the Depot Supply already had plans laid and material ready, including engine crates, in case the engines are removed for shipment. Mr. Williams was on duty all day and asked the following employees for statements on what they saw at the time of the accident.

Miss K. A. Haenisch  
 Fred Wood  
 I. D. Lewis  
 Spl. E. J. Cashman

A. I. Sanderson  
 E. L. Heidlebaugh  
 G. H. Miller  
 I. V. Young

Pvt. E. C. Schultz  
 H. R. Beaton  
 L. A. Fry



On March 24, 1937 no work was accomplished on the airplane. The Air Corps Accident Board, consisting of Major Melville, Lieut. K. A. Rogers, and Lieut. H. S. Bishop, inspected the airplane. On March 25, 1937, at 9:10 A.M. Major Branshaw notified me to proceed with preparing the airplane for shipment on the Turline. Mr. Hood and I checked the pitch angle of both propellers after they were removed from the engines and found them to be in low pitch position and identical as to setting. Both oleo leg air valves were inspected and found apparently in good order. The engines were removed and crated and all miscellaneous articles were inventoried by the Supply Section and packed for shipment. The airplane fuselage and engines were coated with a rust and corrosion preventive. Fabric covers and boots were installed over the engine nacelles and wing butts. A cradle was fitted to the fuselage as a support in place of the landing gear. Due to the short notice given on deadline for shipment, the crew worked continuously on the job until 8:00 P.M. Very close supervision has been given all operations on this airplane since it was placed in the Depot's care by Mrs. Putnam, and absolutely no damage was done to the airplane or accessories while in our care. The Cost Accounting Department has maintained an accurate record of time and labor on all operations in which this Depot was involved.

Depot employees were cautioned from time to time that although there was no secrecy concerning this flight, it would not be considered good policy for them to express themselves on any matter involving their personal opinion. All inquiries were referred to members of the crew on the flight when possible, or were referred to Major Melville. On March 26, 1937 the process of completing the airplane for shipment was completed. Slings were adjusted and wrapped with felt padding to prevent scratching the fuselage. A thorough inspection was made of the completed job by Major Branshaw, and the windows and nose section compartment were sealed. The cabin door was locked and all property was officially placed in the care of the Young Brothers Representative at 2:30 P.M. All Depot employees cooperated whole-heartedly and willingly. In spite of long hours and adverse conditions they enjoyed it.

*Donald D. Arnold*  
DONALD D. ARNOLD,  
1st Lieut., Air Corps,  
Depot Engineering Officer.



HAWAIIAN AIR DEPOT  
Luke Field, T.H.  
March 23, 1937.

Eye-witness account of crash of AMELIA EARHART'S airplane at Luke Field,  
T.H., Saturday, March 20, 1937.

On Friday, March 19th, Mr. Thomas, Pratt & Whitney representative, asked me if I would do a little work on the engines of Miss Earhart's ship. I went over to the ship and removed the two oil strainers and cleaned them. After a good cleaning, I reinstalled them and securely safetyed them under Mr. Thomas' supervision. I then helped to refuel the ship and also cleaned the fuel strainers. The ship was then put into the hangar and the doors were closed and guards placed around the hangar.

Shortly after 4:15 A.M., March 20th, the ship was taken out on the line where Mr. Paul Mantz gave the engines and ship a thorough going over. The ship was then taxied down to the north end of the flying field in preparation for the take-off to Howland Island; the time was about 5:30 A.M.

I had walked down to about the middle of the flying field to be on hand in case of any mishap. In a few minutes the ship was turned around and headed back up the field on the take-off. It seemed to me that the left engine was turning over a little faster than the right engine and the ship was taking its course slightly toward the right of the field where I was standing. At about one hundred yards away from me the right engine seemed to take a quick hold and the ship at once changed its course from the right to a sharp left -- about a quarter circle. At this point the right wing seemed to settle toward the ground and the left wing upwards. The left wheel had left the ground and remained in that position for about fifty or sixty feet before the right running gear gave way and let the ship come down on its under-carriage. The tire gave way just as the ship settled down on its right side.

This is a true statement of what I saw of the crash from where I was standing.

*George H. Miller*  
GEORGE H. MILLER,  
Civilian Employee,  
Hawaiian Air Depot.

EXHIBIT "F"



HAWAIIAN AIR DEPOT  
Luke Field, T.H.  
March 23, 1937.

Eye-witness account of crash of AMELIA EARHART'S airplane at Luke Field, T.H., Saturday, March 20, 1937.

On Saturday, March 20th, 1937, the following was observed by the undersigned.

After having added extra fuel, Mr. Mantz warmed up the engines of Miss Earhart's plane. After checking the engines, Mr. Mantz ~~SHUT~~ the engines off and Miss Earhart prepared to get into the plane for the take-off. Miss Earhart and two (2) assistants entered the plane for the take-off and waited for approximately an hour for daylight. Flood lights were turned on so that Miss Earhart could get the lay of the landing field.

At daybreak the plane was taxied by Miss Earhart to the far end of the runway for the take-off. After turning, the take-off was immediately started. The engines appeared to be running wide open and sounded satisfactory.

Approximately 800 to 1000 feet after the start for take-off, the plane appeared to turn to the right slightly, and then turned to the left doing a left ground loop. In this ground loop, the landing gear, both right and left, appeared to have been knocked off, the right going first. Soon after losing the landing gear the right wing struck the run-way. After the wing struck the ground the fuselage and motors settled on the ground and seemed to skid for some distance.

By the time the airplane had stopped doing the ground loop, the Luke Field fire department was at the plane prepared to put out any possible fire. The mechanics from the Hawaiian Air Depot who were standing along the edge of the landing mat ran across the run-way to the plane with fire fighters. Mr. Mantz with a fire fighter accompanied these mechanics.

Miss Earhart was standing up in the cockpit soon after the plane had stopped turning, and a short time after that, crawled out of the cockpit and went to the rear cabin door.

The batteries and all electrical leads from the batteries were disconnected by Mr. Mantz assisted by Hawaiian Air Depot mechanics. Parts and supplies were removed from the plane by Mr. Mantz assisted by Hawaiian Air Depot mechanics and loaded into a government truck and taken to the Hawaiian Air Depot for storage. The fuel tanks were then drained, by order of Mr. Mantz, into a service truck from Luke Field. After draining off the gas, preparation was made to remove the airplane from the field by order of Mr. Mantz.

Mr. Mantz instructed me to first remove the wings before lifting



the airplane. This was partly accomplished, when the order was changed and the plane was lifted partly with an electric crane from the Depot and a crane furnished by the Navy. At this point the Navy furnished a power shovel; the other cranes were removed, slings were installed, and the plane raised and placed on a trailer furnished by the Depot Supply. The plane and trailer were removed from the landing mat to the Hawaiian Air Depot as far as the Depot end of the mat by means of a government truck.

It was necessary to use a steam shovel to pull the plane and trailer the rest of the distance from the mat to the Final Assembly hangar of the Hawaiian Air Depot on account of the soft and wet condition of the flying field between the end of the mat and the Depot. The plane was put into the Final Assembly hangar, the doors closed, and the mechanics who had been working on the plane went home.

*Fred D. Wood*  
FRED D. WOOD,  
Civilian Employee,  
Hawaiian Air Depot.



HAWAIIAN AIR DEPOT  
Luke Field, T.H.  
March 23, 1937.

Eye-witness account of crash of AMELIA EARHART'S airplane at Luke Field,  
T.H., Saturday, March 20, 1937.

On Saturday morning, March 20, I was standing at the edge of the runway approximately half way between each end with a 1 qt. fire extinguisher on the alert in case of an accident.

The motors on the Earhart plane sounded as if they were opened up to about half throttle. The plane proceeded up the runway approximately 100 yards when both motors were given full throttle. Very shortly thereafter I noticed a slight tendency to turn to the right, immediately the motors sounded as if one had been slightly reduced in speed. The plane began a turn to the left which was very pronounced and at an angle approximately 45 degrees to parallel with the runway both motors were turned off, the plane proceeded approximately 10 feet and started to turn in a very short circle, the landing gear collapsed and the plane slid backwards a short distance. Then I immediately ran in to render aid.

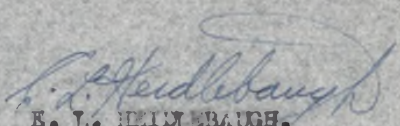
  
E. L. HEINLEBAUGH,  
Civilian Employee,  
Hawaiian Air Depot.

EXHIBIT "H"



HAWAIIAN AIR DEPOT  
Luke Field, T.H.  
March 23, 1937.

Eye-witness account of crash of AMELIA EARHART'S airplane at Luke Field,  
T.H., Saturday, March 20, 1937.

While stationed about midway of the runway and about thirty yards off the edge, I watched Miss Earhart's Electra, NR16020, attempt to take off. I noticed that when she swung around at the end of the runway to take-off she was slightly to the right of the runway center line. With the ship in this position I was on her right. About three or four minutes later she gave both engines the throttle and started to take-off. About one-third of the way down the runway I noticed the right wing begin to sag and the ship veer slightly to the right. Then, just as suddenly as the ship veered to the right, it started back to the left. After it travelled about fifty yards with the right wing very low, I heard a report similar to a tire blow-out, and a loud screeching as though it were tires. The ship continued on around to the left in a ground loop with a shower of sparks coming out from underneath its belly, and came to rest headed almost in the same direction from whence it came.

*Lynn V. Young*  
LYNN V. YOUNG,  
Civilian Employee,  
Hawaiian Air Depot.

EXHIBIT "I"



LUKE FIELD, T. H.  
March 23, 1937.

Eye-witness account of crash of AMELIA BARNHART'S airplane at Luke Field,  
T.H., Saturday, March 20, 1937.

On Saturday, March 20, when Miss Barnhart taxied her plane from the Final Assembly hangar to the runway I boarded the Luke Field Crash truck and rode to a point adjacent to the take-off position. When the plane started to take-off the driver of the truck rode parallel to the plane and along the edge of the runway. When 1/3 of the runway had been covered the plane started to swerve to the left. The right landing gear tire blew out, the right landing gear gave way and the plane ground looped.

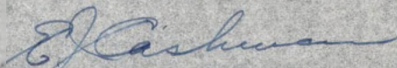
  
E. J. CASHMAN, R-4311524,  
Corporal,  
65th Service Squadron.

EXHIBIT "J"



LUKE FIELD, T. H.  
March 23, 1937.

Eye-witness account of crash of AMELIA EARHART'S airplane at Luke Field,  
T.H., Saturday, March 20, 1937.

I accompanied the fire truck crew in following Miss Earhart's plane down the northeast end of the runway prior to her take-off. After turning the plane around and warming the motors for a few minutes, she gunned them and started down the field.

At the same time she gunned the motors the fire truck started down the field. We had reached a speed of approximately 50 miles per hour when the plane passed us about 50 yards to the left. As it passed us it started swerving to the east side of the field. As the plane started to turn there was a sharp report as if a tire had blown out. As this report came, the right side of the plane's landing gear collapsed, snapping the plane in a wide arc amid a shower of sparks.

The right side of the plane ground iton the concrete and then settled on the sternack of the fuselage.

*Edward Charles Schultz*  
EDWARD CHARLES SCHULTZ,  
6878961, Private,  
65th Service Squadron.

EXHIBIT "K"



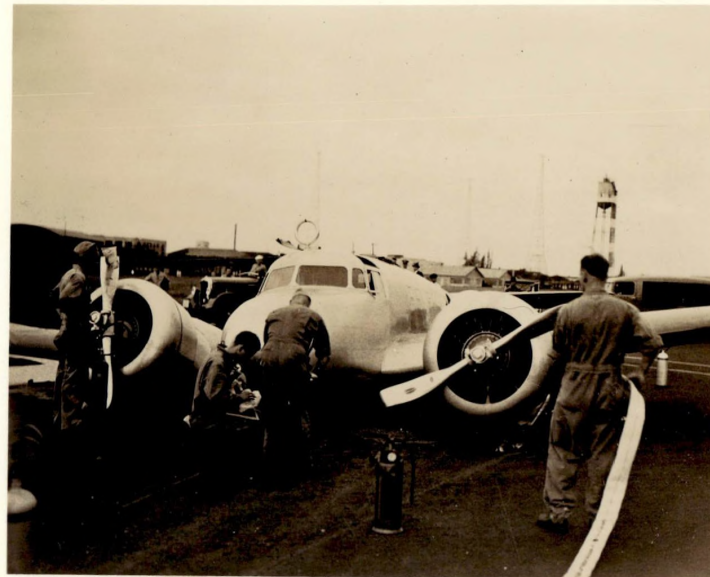
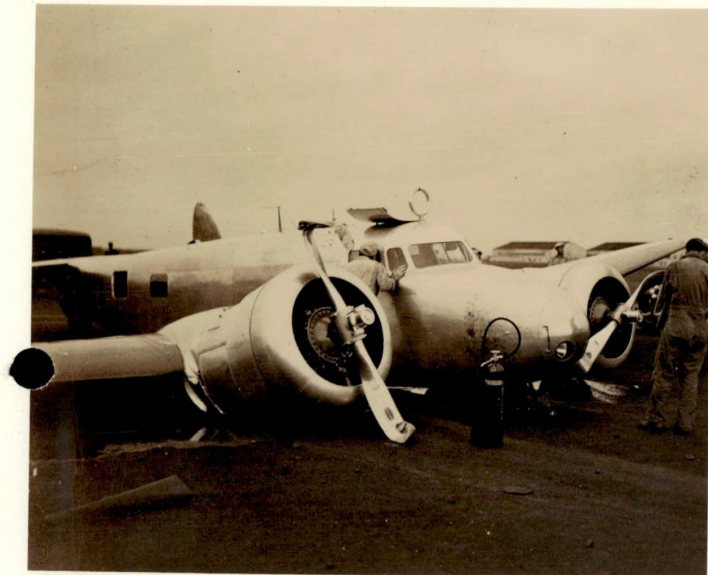


EXHIBIT "L"





**MEMORANDUM RECEIPT**  
**RECEIPT**

No. \_\_\_\_\_

Station Lake Field, T. H.

Date March 26, 1937

Issuing organization Hawaiian Air Depot, Lake Field, T. H.

\* Issued to Amelia Barhart Representative at Lake Field

\* Turned in by \_\_\_\_\_

QUANTITY	UNIT	INVENTORY NO.	Contents	WEIGHT	CU. FT.
1	Box	No. 1	Miscellaneous Parts & Articles found in Airplane (See attached list) 4 pages)	123	28
1	"	2	Two (2) Propellers	535	15
1	"	3	Five (5) Pieces Engine Ring Cowl and miscellaneous parts consisting of: cowlings, exhaust tubes, and carburetor tubes	710	89
1	"	4	One piece Engine ring cowl. One oil temperature regulator and miscellaneous parts consisting of: cowlings, exhaust tubes and carburetor tubes	268	37
1	"	5	Two (2) landing gear forks with wheels & tires		
1	"	6	One (1) exhaust tube	510	57
1	"	7	Two (2) landing gear retracting struts	306	27
1	Crates	8	One (1) right wing		
1	"	9	One (1) left wing	3000	1680
1	Crates	10	Two (2) Horizontal Stabilizer Assemblies	138	216
1	Crates	11	Two (2) Vertical Stabilizer & Rudder Assy.	210	139
1	Box	12	Two (2) Wing Flaps	207	25
1	Box	13	One (1) Wasp Engine & accessories right	1600	118
1	"	14	One (1) Ditto left	1600	135
1	"	15	Two (2) Aircraft Storage Batteries	170	4
1	"	16	Miscellaneous Oil Tubes & Cowling	68	4
1	"	17	Fuselage, less wings & tail surfaces	4000	5130
TOTAL				11,114	7,764
* Estimated Weights					
A TRUE COPY:					
<i>[Signature]</i>					
D. W. TITUS,					
1st Lt., Air Corps.					

I acknowledge receipt of the above-listed Air Corps property:

(S) Young Bros., Ltd.  
(Signature with rank and organization)

(S) By D. V. Bordner  
(Official designation)

\* Strike out words not applicable.

U. S. GOVERNMENT PRINTING OFFICE

3-9851

"M"

EXHIBIT "M"



SHEET NO. 3

<u>No.</u>	<u>Quantity</u>	<u>Unit</u>	<u>Items</u>
53	4	Ea.	Life Preserver Vests, pneumatic
54	1	"	Waterproof zipper bag containing: 4 - 1/2 lb. nestle chocolate bars, 1 pkg. sipping straws, 6 cans malted milk tablets, 3 - 1 lb. pkg. raisins, 1 pkg. dried apricots, 1 pkg. prunes, 2 cans ripe banana, 3 cans tomato juice, 3 dish towels
55	*1	"	5 lb. can Lubriplate
56	*1	"	10 lb. can Mobilgrease, No. 2
57	*1	"	5 lb. can Mobilgrease, No. 2
58	*1	"	2 qt. can Lockheed brake fluid
59	1	Otn.	Spare Propeller bearings
60	*1	Ea.	Base Plate for speed and drift meter
61	1	Pkg.	Rubber vent covers
62	2	Ea.	Cover Plates for wheels
63	1	"	Snap Ring
64	1	"	Control column wheel
65	2	Pos.	Sheet metal Alcoa
66	1	Ea.	Waterproof bag containing: 2 flying suits, 1 rain-coat, 1 pr. gloves and 1 pr. shoes
67	1	Bag	Canvas bag containing: --
			8 Ea. No. 2 Unicell Burgess batteries
			1 " Waterproof match container with matches
			1 " 6" Crescent Adj. wrench
			1 Pr. Glasses type A-1
			1 Tube Cold Cream - 1 spiral notebook
			1 Pr. Thin nose comb. pliers
			1 - 6" screwdriver, 1 personal letter to R. B. Black
			1 Awl, 1 chamois
			1 bottle Collyrium, 1/4 full
			2 cans 10 Amp. Fuses
			1 Tiger #2 pencil
			1 broken carton absorbent cotton
			1 roll brass wire - 1 roll cord
			1 pkg. containing: - 4 ea. .09 C.P. 11A. 122 bulbs and fuses
			2 - 7/16" Shackles, 2 spanner wrenches
			2 jack pads
68	12	Ea.	Battery, #935 Ever-ready
69	100	"	Sipping Straws
70	1	Kit	First Aid, Bauer & Black No. 142
71	2	Ea.	Thermo Jug, 1 qt.
72	1	Kit	First Aid, "Tabloid", Burroughs Wellcome & Co.
73	*1	"	Fire Extinguisher, Pyrene, 1-1/2 qt. Ser. 116610
74	1	Set	Cord, plug and clips, "Cannon A2R"
75	1	Ea.	Tie down rope
76	1	"	Broken container Vortex paper cups
77	1	"	Broken package paper drinking cups
78	1	"	High pressure hand pump, Ser. 799
88	1	Otn.	Copperhead diamond matches
	5	Pkg.	Air Travelers chewing gum

EXHIBIT "M"



SHEET NO. 4

<u>No.</u>	<u>Quantity</u>	<u>Unit</u>	<u>Items</u>
81	8	Ea.	1 Qt. Sealright containers
82	2	"	Canteens, type 4 M
83	1	"	Ditto 6 M
84	1	Bdl.	Containing: 4 Prop. Blade Covers and 2 engine covers
85	1	Pkg.	Kleenex
86	*1	Ea.	Funnel with ohmcois strainer
87	1	Pkg.	Air Bottles for life jackets
88	2	Ea.	Fuel tank gauges
89	1	Book	Radio Aids, Navigation
90	1	Box	Lead Pencils
91	1	Book	List of Broadcasting stations
92	2	"	American Nautical Almanac 1937
93	1	"	List of Coast Stations & Ship Stations
94	1	"	List of Aeronautical Stations & aircraft stations
95	1	"	List of Stations performing special services
96	2	"	Navigation tables for Mariners and Aviators
97	1	Ea.	Envelope containing miscellaneous navigation papers
98	1	"	Parallel
99	2	"	Dividers
100	3	"	Scratch Pads
101	1	"	Whistle
102	*1	Box	Containing: lights, bulbs, and tubes
103	1	"	Triangle
104	1	Pkg.	Index Cards
105	1	Ea.	Broken Box Kleenex
106	1	Pkg.	Navigation Charts and airplane log
107	*1	Ea.	Speed & drift indicator, type D-270, with handbook
108	5	Rolls	Miscellaneous maps
109	1	Ea.	Battery container cover
110	2	"	Hose Clamps
111	1	"	Prop. hub nut wrench
112	3	"	Folders with maps
113	*2	"	Lens for cockpit instrument light
114	1	Pe	Rubber Hose, 1/2"
115	1	"	Pencil type flashlight
116	*1	Ea.	Vibracorder "Ommer-Kiensle"
117	*4	"	Clocks, Start & Stop "Omega"
118	*1	"	Airspeed Indicator "Pioneer"
119	*1	"	Gage Air Temp. Model 602
120	*1	"	Anemeter, Weston 425
121	*1	"	Altimeter, Kohlman, 0 to 20,000
122	*1	"	Pelorus drift sight, MK II B with extra base
123	*1	"	Straight flight compass
124	1	"	Steamer rug
125	*2	"	Parachute flares

EXHIBIT "M"



SHEET NO. 2

<u>No.</u>	<u>Quantity</u>	<u>Unit</u>	<u>Items</u>
			1 Ea. PWA-28 Rocker Lock
			1 " PWA-29 Screwdriver
			1 " PWA-31 Pliers
			1 " PWA-32 Cold Chisel
			1 " PWA-33 Punch
			1 " PWA-34 Hammer
			1 " PWA-35 Gage
			1 " PWA-36 Kit
			1 " PWA-43 Pliers
			1 " PWA-114 Wrench
			1 " PWA-177 Wrench
			1 " PWA-178 Wrench
			1 " PWA-186 Wrench
			1 " PWA-211 Bag
			1 " PWA-314 Carb. metering jet
			1 " PWA-321 Adjustor
			1 " PWA-439 Wrench
			1 " PWA-455 Depressor
			1 " PWA-459 Depressor
26	*1	Ea.	Tail wheel guide handle
27	1	"	Bundle containing: 1 set refueling pipes, clamps, and hose couplings
28	1	"	Box Kite
29	*1	Pr.	Glasses, type C-2
30	12	Ea.	Aircraft Water Lights
31	*7	"	Aluminum Direction Bombs
32	1	"	5 Watt, 12 Volt Lamp
33	*14	"	Signal Pistol Shells
34	1	"	Detachable door with shade
35	1	Box	Assorted fuses
36	1	Ea.	Cutout Box
37	1	"	Toe Handle Socket Wrench
38	*1	"	Bamboo message passer
39	2	"	Cowl locking pins
40	1	"	Kit containing: 3 Mooring rods, 1 driving rod, and 6 mooring arrows
41	1	"	Grayco lubricating gun, P-600 unit
42	1	"	Canvas, wing catwalk
43	1	"	Sun Helmet
44	1	"	Used Roll friction tape
45	1	"	Tail wheel complete with tire & tube
46	2	"	Floor boards
47	2	"	Flap control covers
48	1	"	Drift meter stand
49	1	"	Anti-glare panel for instrument board
50	1	"	Rubber seat cushion
51	1	"	Carrying case with key containing 14 folders
52	2	"	Red pneumatic cushions

EXHIBIT "M"



SUPPLEMENT TO RECEIPT

SHEET NO. 1

NOTE: \*Items placed in airplane.

<u>No.</u>	<u>Quantity</u>	<u>Unit</u>	<u>Items</u>
1	1	Ea.	Cloth Flying Helmet
2	1	"	One Pound Ball of left twist, type B, 9 cord look-stitch string
3	1	"	Package containing 23 rolls Pan-chromatic Kodak film, 88 620
4	1	"	Cloth Sack containing: 3 Resistance Bulbs, 3 Cambridge Wools, 1 Pesco Fuel Pump
5	1	"	Cloth Sack containing: 3 Transmitter Tubes, #282 A
6	*1	"	Roll containing: 11 tubes sealed and marked as follows: 3 Bureau of Plant Industry, 8 Office of Cooperative Extension Service, Department of Agriculture, Washington, D. C.
7	1	"	Cloth Sack containing: Soap, Cold Solder, Adhesive Tape
8	1	"	Cloth Sack containing: Chamois Strainer, Cowling Hinges, Grasshopper, Door Handles, 2 Can-o-lites, 12 Dural Plates, Fishing-Tackle, Twisted Linen Line, Roll of Tape Linen, Rubber Hose, Vacuum Line thru Firewall
9	23	"	Unused Lead Seals
10	2	"	Two-Cell Ever-ready Flashlights
11	1	"	Small two-cell Flashlight, made in Japan
12	8	"	Pen size Flashlight Batteries
13	2	"	No. 950 Ever-ready Flashlight Batteries
14	6	"	No. 340 Gem Flashlight Batteries
15	*1	"	Bausch & Lomb Field Glasses, 6 x 30 Serial No. 221939 with carrying case
16	1	"	Carton, unsealed, marked in pencil "Magneto Parts, Gears and Coils"
17	*1	"	One Quart Fire Extinguisher Pyrene, Serial No. Q-990198, Seal Broken, full of fluid
18	*1	"	Kodak Duo Six-20, lens No. 865715 with carrying case, shutter housing No. 5116031, Film loaded
19	*1	"	Kodak carrying case with Key, Empty (It is believed that Mrs. Putnam has the Kodak in her possession per Lt. Bonner)
20	*3	"	Western Electric Radio Head Phones, type No. 588A (2 equipped with ear cushions)
21	*2	"	Microphones with Cord, Western Electric type No. 631 B
22	1	"	Nickel plated hand-ax, Marbles No. 2 with Blade Guard
23	*1	"	Signal Pistol, No. A-56, Mark III, one inch
24	1	"	Bone Handle, double blade Jack Knife, large Blade No. 22309
25	1	"	Tool Kit containing: -- 1 EA. PWA-19 Monkey Wrench 1 " PWA-20 Crescent Wrench 1 " PWA-21 D. E. Wrench 1 " PWA-22 D. E. Wrench 1 " PWA-23 Magneto Wrench 1 " PWA-24 Socket D.E.

"M"

EXHIBIT "M"



Honolulu, T. H.  
March 20, 1937

Commanding Officer  
Hawaiian Air Depot  
Luke Field, T. H.

Dear Sir:

You are requested to perform all necessary work required in connection with the removal from the airdrome, crating, and preparation for shipment of my Lockheed airplane which was wrecked at Luke Field, T. H., this date. You are further requested to load this airplane on board ship for shipment to me or my agents in California, the method of loading and crating to be at your discretion.

I hereby waive all claim for damages against the War Department or any of its agents in connection with this work, and agree to be responsible for all expenses involved, including labor, materials and shipping charges.

(Sgd) Amelia Earhart  
(Tpd) AMELIA EARHART

A TRUE COPY:

*Marshall Bonner*  
MARSHALL BONNER  
1st Lt., Air Corps



LINE FIELD, F.H. Expedition to the American Equatorial Islands in connection with the Amelia Earhart flight.

Mr. Richard B. Black, Department of Interior--Loader  
Capt. Alexander M. Neilson, Army (Engineers)--Observer  
1st. Lieut. Daniel A. Cooper, Army (Air Corps)--Observer  
Air Corps representative  
Staff Sgt. Floyd W. Thacker, Army (Air Corps)--Airplane  
mechanic  
Staff Sgt. Anton Hanson, Army (Air Corps)--Photographer  
Sgt. James L. Story, Army (Air Corps)--Armament  
1st. Sgt. Joseph J. Knopping, Army (Engineers)--Guest  
(AMMC) C. G. Taylor, Navy--Airplane mechanic  
(AMMC) K. A. Perry, Navy--Airplane mechanic (helper)  
First class R. D. Woodall, Navy--Photographer  
Hawaiian Colonist replacements  
Associated Press representative  
United Press representative  
U. S. Coast Guard crew of ITASCA

The proposed route was Howland, Baker, Jarvis and Fanning. Due to the failure of the Earhart flight and resulting search the route was Howland, Baker, Howland, Arorai, Funafu, Tarawa and other islands of the Gilbert group, Howland Island and return to Honolulu.

The ITASCA sailed at 4:00 p.m. June 18, 1937 and after an uneventful trip we sighted Howland at 9:00 p.m., June 23. Howland is a kidney shaped barren desert island about twenty feet high, two miles long (N & S) and half mile wide (E & W). There is no anchorage or fresh water and the island is infested with numerous large birds, rats and hermit crabs. The birds number approximately 10,000 Frigates, 8,000 Booby and 14,000 Terns. The Frigates and Boobies are the size of large buzzards while the Terns are the size of young pigeons.

The following day supplies were landed while I inspected the airport, erected the wind socks and marked off the runways with red cloth. Numerous birds were forcibly removed from the runways so that an airplane could make a reasonably safe landing.

The next day we went to Baker Island, 30 miles Southeast of Howland and unloaded supplies. The bird, rat and crab situation here was quite similar to that at Howland. While Baker Island is better situated as to runway length,--one and a half miles in any direction--the island being almost solid coral would necessitate endless blasting and coupled with the lack of fresh water, no anchorage and difficulty in landing supplies through high surf, it should be discarded as an airport site unless a very large sum was available for construction purposes.



LUKE FIELD, T.H. Expedition to the American Equatorial Islands in  
Connection with the Amelia Earhart flight.

SUMMARY:

1. There was no relief pilot, radio operator or relief navigator carried in the airplane.
2. Personal contact between airplane crew was not possible.
3. Radio operation. (Miss Earhart was radio operator and pilot).
  - (a) Earhart was not fully experienced in use of radio when used over long distances and at no time did she request technical advice from the ITASCA on radio matters.
  - (b) Earhart used voice instead of key thus cutting down radio range approximately 1/3 the possible range considering the power of her set.
  - (c) Earhart apparently inexperienced in correct operation of direction finder reporting that she heard ITASCA but couldn't get a null. (In all probability the null was in a direction different from which she expected and she therefore discontinued it). She previously notified the ITASCA that her direction range was 200 K.C.-1500 K.C.
  - (d) Earhart asked the ITASCA to take a radio bearing on her on 3105 K.C. after being informed by radiogram prior to flight and also by radio during the flight that the ITASCA could not accomplish this due to lack of suitable calibrated equipment on that frequency but that the ITASCA could take bearings on 500 K.C. (ships B.F. equipment). Earhart had previously informed the ITASCA that she could transmit on 500 K.C. if necessary. It is true that an airplane direction finder capable of working 3105 K.C. had been borrowed from the Navy just prior to sailing. This was set up on Howland mainly as a standby in case the ship's direction finder on 500 K.C. should go out. However the direction finder on Howland had not been calibrated and as a result its readings could not be depended upon. A qualified radio operator controlled this direction finder throughout the entire flight but while he could hear her, he could not get any radio bearings on 3105 K.C. largely due to the fact that she only left her set on for brief periods of approximately 8 or 10 seconds. Ordinarily a set must be left on for several minutes while bearings are being taken. Radio bearings using frequencies above 1500 K. C.



**LINE FIELD, T.H. Expedition to the American Equatorial Islands in connection with the Amelia Earhart flight.**

are in general unreliable especially in the early morning (night effect) and at any distance beyond the optical path of short wave. In this case when she was flying at 1000 feet--per her message over radio--the approximate optical range would be 40 miles or less.

- (e) At no time did Amelia Earhart acknowledge any of our messages or requests for her position although we were heard all over the Pacific on 3105 K.C., 7500 K.C. and 500 K.C. Either she was unfamiliar with the radio equipment or her receiver was out.

- (f) Her signal strength was as follows:

0355----very faint-----3-1  
0443----faint-----3-2  
0600----fair-----3-3  
0646----good-----3-4  
0741----very loud-----3-5  
0750----very loud-----3-5  
0758----very loud-----3-5  
0843----very loud-----3-5

The radio operator reported that from 0741 on, her signal strength was at a maximum and judging from her volume, she was practically over Howland. All this seems to indicate that she passed close to Howland, probably within 30 miles.

4. Gasoline supply was estimated to last 24 hours with a possibility of lasting 30 hours. Judging from her last message at 0843 that she ran out of gas shortly thereafter as there were no more messages, her gasoline supply lasted approximately 21 hours--taking into account 1000 take off at Lae and allowing 2 hours zone time difference between Lae and Howland. Judging that her estimated time of arrival at Howland to be 0733 and the end of her gas supply at 0900 gives a gasoline safety factor of only 1 hour 23 minutes or approximately 7%.



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Note that 20% gas reserve is usually required. Running her engines at a higher R.P.M. than ordinary or poor mixture control would account for increased gasoline consumption.

**5. Navigation:**

- (a) The airplane was not sighted or heard by the CHURCH on station midway between Lee and Howland.
- (b) No position reports were given at any time.
- (c) Weather and radio reports indicate possibility of high overcast making star sights impossible over major portion of the route.
- (d) The airplane was not heard passing over the Gilbert Islands. However, it was about 3 or 4 a.m. and very probable at 10,000 feet and thus could easily have passed over these islands without being heard.
- (e) The airplane was not heard on either Howland or Baker Island (30 miles SE of Howland).
- (f) No relief navigator was provided thus increasing the possibility of human error especially after 21 hours of continuous navigation.

**6. Pilot:**

There was no relief pilot thus increasing the possibility of pilot error (flying off course) and error in radio direction finding and radio operation, particularly after 21 hours continuous flying. It is true that the airplane was equipped with an automatic pilot but even then this instrument must be continually checked and reset at intervals not longer than 10 to 15 minutes.

**7. Weather:**

Weather forecast based on opinion, as insufficient data was unavailable for an accurate prediction, was made by a competent Navy Aerologist and as the understanding that it was opinion backed up by study of this area predicted as follows:

Headwinds 15-25 miles per hour.

Local squalls and rain.

General cloudiness until vicinity of Howland.



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After a careful consideration of all facts at my disposal and making due allowances for the following:

1. Noonan's reputation as an Aerial Navigator. He instructed all Pan American Airline Navigators on the Trans Pacific run and navigated on all the P.A.A. pioneer trips in the Pacific.
2. The loudness of Radio signals.
3. That the airplane was not sighted nor did it sight Baker Island (30 miles SE of Howland).
4. That a line of position (157-337) was given--presumably through or near Howland.
5. That weather conditions at Howland were:

Clear and unlimited.

Scattered clouds with occasional local light rain.

Visibility generally 25 miles or more.

Cloud conditions to the North and West of Howland would prevent seeing the island from a distance greater than 10 miles unless under the clouds or very high above them.

Cloud conditions to the East and South would permit seeing Howland 20 or more miles at almost any altitude.

The sun bore East making Howland or the smoke screen very difficult to see from the West.

6. That the pilot most probably flew from the left hand seat and thus would have a poor field of view to the right. That the navigator had limited vision due to a wing under him.
7. That the last radio message stated "we are running on line North and South" presumably North and South generally on the line of position 337-157

It is my opinion that the Earhart plane missed Howland Island within 50 and probably 30 miles to the North and that the airplane went down most probably within 180 miles of Howland to the Northwest and that wreckage or boat if still floating will



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drift to the Gilbert Islands, due to wind and current, arriving in that locality around August.

RECOMMENDATIONS:

1. That no more flights of this nature be permitted.
2. That only flights backed by U.S. Army, Navy or Airlines similar to Pan American Airlines with competent personnel and adequate equipment be made to Howland Island.
3. That Howland Island be completed as a permanent airport or abandoned. The four Hawaiian residents have neither the equipment, engineering ability, nor the time necessary for the proper completion or maintenance of this project.

DANIEL A. COOPER,  
1st. Lieutenant, Air Corps



Record Group 395, Records of the U.S. Army Overseas Operations and Commands

Hawaiian Department of Air Officer

General Administrative File, 1931-42

File 334

National Archives and Records Service



LUKE FIELD, T.H.  
July 27, 1937

Subject: Expedition to the American Equatorial Island in connection with the Amelia Earhart flight.

To: The Commanding General, Hawaiian Department, Fort Shafter, T. H.

The following is an account of a visit to the American Equatorial and Gilbert Islands and resulting search for the Amelia Earhart airplane.

Island visited:

Howland (United States)	Lat. 0 49'N; Long. 176 45'W.
Baker ( " )	Lat. 0 13'N; Long. 176 33'W.
Arorai ( England )	Lat. 2 41'S; Long. 176 54'E.
Tanana ( " )	Lat. 2 30'S; Long. 175 58'E.
Tarawa ( " )	Lat. 1 30'N; Long. 173 03'E.

Other Islands in the Gilbert group where natives were questioned:

Kuria (England)	
Aranuka ( " )	
Aperana ( " )	

The purpose of the expedition was to replace food supplies and colonists on Howland, Baker and Jarvis Islands. In addition the U. S. Coast Guard Cutter ITASCA was to be the base ship for Amelia Earhart's flight to Howland Island. Specifically, the ITASCA was to act as radio station furnishing weather data, radio communications and radio beacon for the airplane to "home on". A smoke screen was to be laid as an additional aid in sighting the Island. At night searchlights were to replace the smoke screen. A direction finding loop as standard equipment on the ship could be used to obtain radio bearings on the airplane. The ONTARIO and SWAN were to act as plane guards midway between Lee and Honolulu respectively.

On June 15, 1937 I received orders from Headquarters, Hawaiian Department detailing myself and three enlisted men (Air Corps) to accompany the ITASCA. I was to act as Military Observer and in particular to take charge of handling the Amelia Earhart Airplane at Howland Island. This included servicing, mechanical repairs, technical details, organization of the land crash crew and supervision of the landing field in regard to marking unsafe areas and erection of wind socks.

Personnel was furnished by the Army, Navy and Coast Guard and consisted as follows:



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The commercial value of Howland and Baker lies in the fact that these islands are the only United States possessions on a Honolulu--New Guinea--Australia landplane route.

In my opinion there is very little military value in Howland or Baker Islands except as an airport that could be used as a base for aerial operations against Mandated Islands to the West (1,000 miles or less).

Having completed our business on Baker we returned to Howland. The next six days were spent in repairing the worn-out tractor and laying a strip of crushed coral 50 feet wide and 200 feet long on the West end of the East-West runway. This end of the runway was of loose sand and in my opinion not safe for an airplane. This increased the usable length of this runway to 2280 feet. The usable length of the North-South runway was 4100 feet and the Northeast-Southwest runway 2800 feet. Labor was furnished by the Hawaiian boys and Army personnel.

During this period we had almost no news from Amelia Earhart in regard to her take off, except for a false start. She had been notified of runway conditions and that everything was in readiness at Howland. In the meantime, the crew of the ITASCA caught sharks and barracuda which are plentiful, this being a good fishing locality.

Late in the afternoon of July 1 we received word that Amelia Earhart had taken off at 10:00 a.m. local time, that day. The ONTARIO on station midway between Looe and Howland did not hear or contact her by radio and it wasn't until 0345 that the ITASCA heard her on 3105 K.C. I estimated her time of arrival at 0630 to 1000 with the best guess being 0730-0800. Accordingly all shore parties took station at dawn. Shore parties consisted of Mr. Black, Lt. Commander Baker of the ITASCA, Captain Neilson, myself, mechanics, photographers, newspaper men, land crash detail from the ITASCA armed with fire extinguishers etc. and a surf detail. Off shore the ITASCA furnished a smoke screen. When Amelia Earhart failed to arrive by 0900 all hands except a radio operator and several colonists returned to the ship and at 1000 started out in search to the North of the island.

Study of the attached extract from the radio log and remarks in the summary indicated that the most probable area to search was to the North and accordingly we searched this area covering a strip about 14 miles wide as we went. Since Amelia Earhart at no time had given us her position and the Pacific Ocean being very large, the search was just about hopeless. A Navy flying boat from Pearl Harbor was turned back 500 miles short of Howland due to bad weather and a few days later the Navy took charge of the search. During this time we ran down various false radio clues given by amateur radio operators. While the COLONADE searched the Phoenix group we searched to the West of this group and later on while the LEXINGTON searched



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to the North and West of Howland we searched the Gilbert group. In the meantime the WAVE searched various areas. In every case all intercepted messages by radio amateurs proved false as did radio bearings on a carrier wave made by P.A.S. from Wake and Honolulu and at Howland Island.

Having exhausted all means and being out of fuel the search was abandoned on July 18, 1937, and after picking up the radio operator who was left on Howland we returned to Honolulu.

0345. ----"Will listen on hour and half hour on 3103"----(very faint S-1).

0400. ITASCA to Earhart. Transmitted weather data on 3103 K.C.

0430. ITASCA to Earhart. Transmitted weather data on 3103 K.C.

0453. ----"Partly cloudy"----(very faint S-1)

0500. ITASCA to Earhart. Transmitted weather data and asked position.

0530. ITASCA to Earhart. Transmitted weather data and asked position.

0600. ----"About 200 miles out"----(fair volume S-3)

0605. ITASCA to Earhart. Transmitted weather data.

0630. ITASCA to Earhart. Transmitted weather data and asked position.

0646. ----"About 100 miles out"----(good volume S-4)

0700. ITASCA to Earhart. Transmitted weather data and maintained schedule on 500 K.C. for "homing".

0715. ITASCA to Earhart. Cannot take bearing on 3103 please send on 500 K.C. or do you wish to take bearing on us. No answer. Having broadcast on 500 K.C. resumed.

0730. ITASCA to Earhart. Transmitted weather data and asked position. Having broadcast on 500 K.C. continued.

0741. Earhart. "We must be on you but cannot see you but gas is running low been unable to reach you by radio we are flying at 1,000 feet, (very loud S-5).

0750. Earhart. "We are circling but cannot hear you. Go ahead on 7500 with a long count either now or on the scheduled time or half hour". (very loud and spoken very rapidly S-5).



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0753. ITASCA to Earhart on 7500 K.C. and 3105 K.C. "What is your position long count". Continuous transmission on 500 K. C. for "homing".
0758. Earhart. "We received your signals but are unable to get a minimum (on her direction finder presumably on 500 K.C.). "Please take a bearing on us and answer on 3105 with voice". (very loud and too fast for accurate reception 8-5)
0805. ITASCA to Earhart. Your signals received o.k. It is impractical for us to take a bearing on 3105 K.C. on your voice. Please transmit on 500 K.C. and we will take a bearing. (The operator on Howland with emergency direction finder had heard all conversation on 3105 K.C. after 0600 but was unable to take any bearings due to the general difficulty and unreliability of bearings on this frequency and due to the fact that she was on the air seven or eight seconds only. In the meantime a continuous watch on the ship direction finder (500 K.C.) had been maintained but at no time was there any transmission on this frequency.
0807. ITASCA on 3105 K.C., 500 K.C., 7500 K.C. Go ahead on 3105 K.C. so that we may take a bearing on you. It is impossible to take a bearing on 3105 K.C. please acknowledge. No answer. (The operator on Howland had just notified the ITASCA that he was unable to get a bearing on 3105 K.C.)
0843. Earhart. "We are on the line 157-337 will repeat message we are on the line 157-337. (very loud and too rapid for accurate reception 8-5)
0845. Earhart. We are running on line North and South. (Very loud 8-5 and far too rapid for accurate reception. Earhart sounded as if she was very excited and did not talk distinctly).
0854. ITASCA. Your signals received. Go ahead with position on 3105 K.C. or 500 K.C. No answer.

No other reception from Earhart on this frequency 3105 K.C. or 500 K.C. although a continuous watch was maintained for several weeks. Numerous false reports were received from amateurs radio operators. These were thoroughly investigated. Doubtful radio bearings on a carrier wave by P.A.A. at Honolulu and Wake and by the direction finder on Howland were received. The point of intersection was carefully searched by the COLORADO (near Carandolet Reef) without result. It will be noted it was later proven that the Earhart plane could not transmit while in the water.



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Note that 20% gas reserve is usually required. Running her engines at a higher R.P.M. than is ordinary or poor mixture control would account for increased gasoline consumption.

5. Navigation:

- (a) The airplane was not sighted or heard by the ONTARIO on station midway between Lee and Howland.
- (b) No position reports were given at any time.
- (c) Weather and radio reports indicate possibility of high overcast making star sights impossible over major portion of the route.
- (d) The airplane was not heard passing over the Gilbert Islands. However, it was about 3 or 4 a.m. and very probably at 10,000 feet and thus could easily have passed over these islands without being heard.
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- (f) No relief navigator was provided thus increasing the possibility of human error especially after 21 hours of continuous navigation.

6. Pilot:

There was no relief pilot thus increasing the possibility of pilot error (flying off course) and error in radio direction finding and radio operation, particularly after 21 hours continuous flying. It is true that the airplane was equipped with an automatic pilot but even then this instrument must be continually checked and reset at intervals not longer than 10 to 15 minutes.

7. Weather:

The weather forecast was based merely on opinion, since sufficient data was unavailable for an accurate prediction, and was made by a competent Navy Aerologist. Miss Earhart asked several times for a weather forecast along this route and the Aerologist at Pearl Harbor was unable to comply due to lack of sufficient data for an accurate prediction. Consequently he gave her a prediction which was based merely on his opinion of probable weather conditions in that area and could not be considered reliable.



