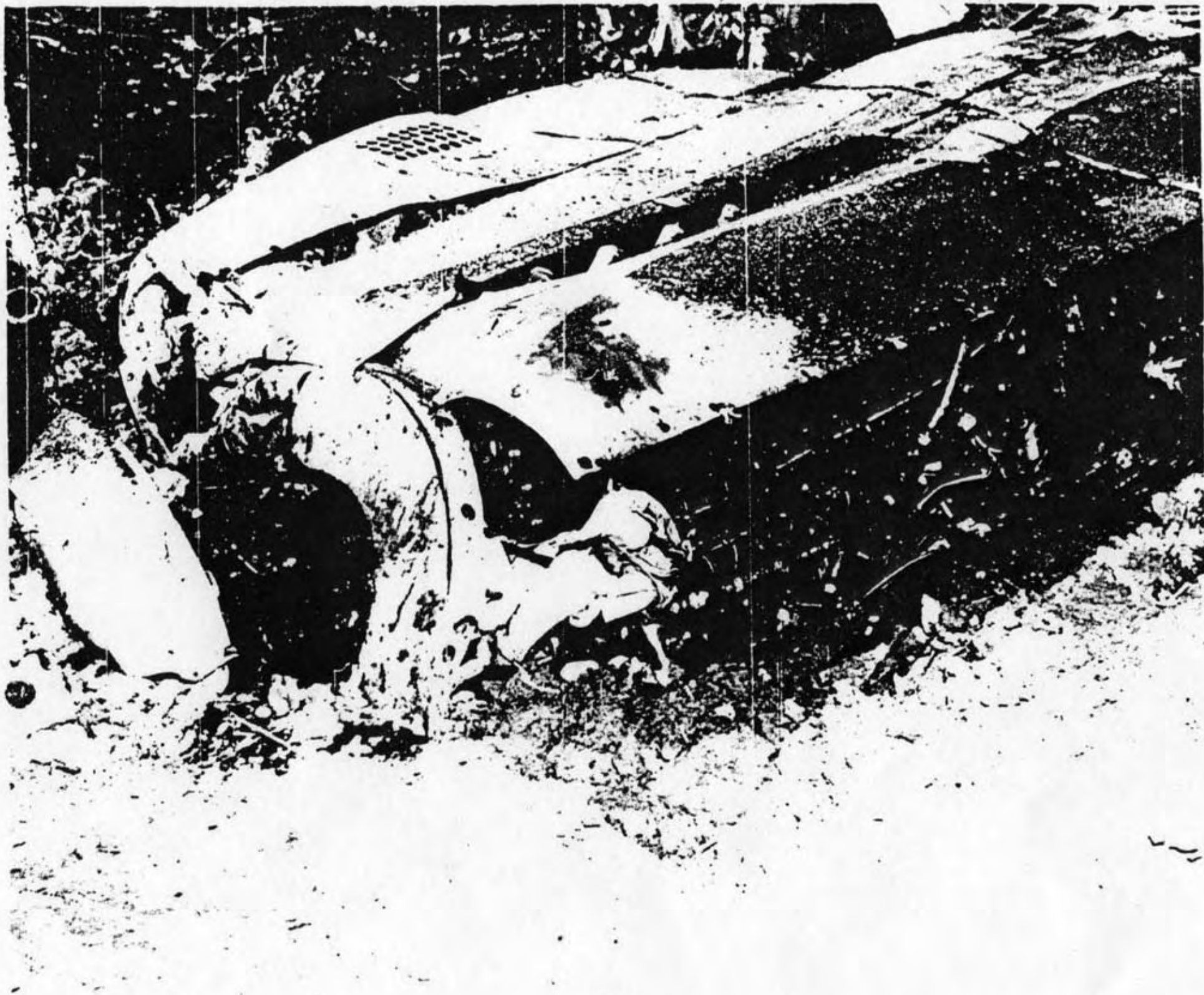


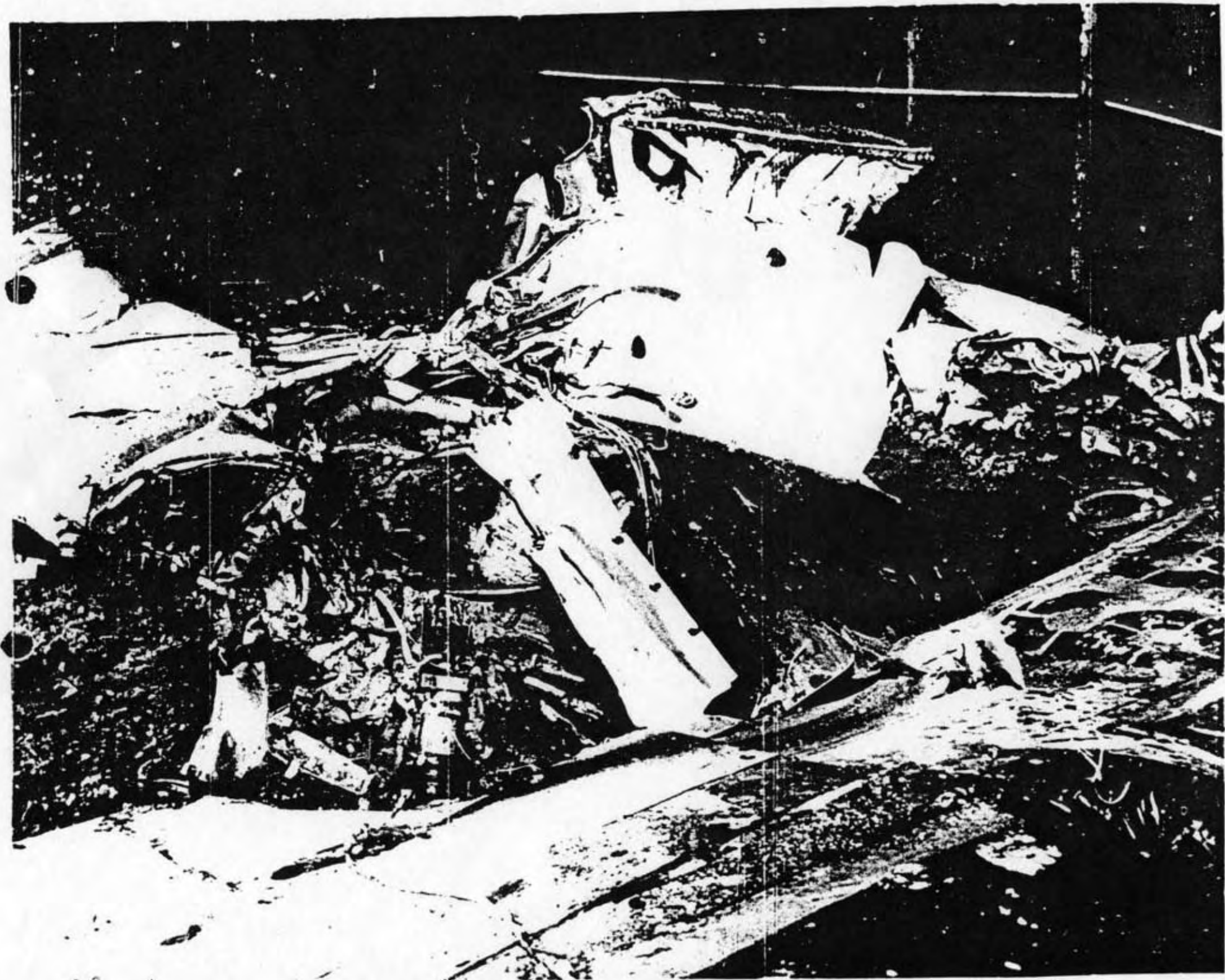
View of Central Wreckage - looking North.

VIEW OF CENTRAL WRECKAGE- LOOKING NORTH



16.3 *nozzle*

CLOSEUP OF ENGINE



VIEW OF RIGHT WING INNER SECTION AND FUSELAGE TANK

827a

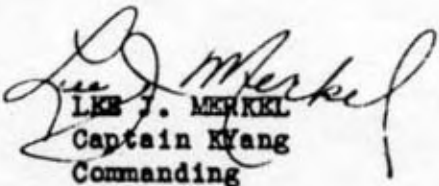
165TH FIGHTER SQUADRON (ANG)
Standiford Field
P. O. Box 1167
Louisville, Kentucky

21 January 1948

SUBJECT: Transmittal of WD AAF Form 14

TO : Headquarters, Army Air Forces, Field Office, The Air Inspector,
Langley Field, Va.

1. Transmitted herewith in accordance with NGB Air Memorandum 62-4 dated 27 January 1947 is WD AAF Form 14 and allied papers pertaining to aircraft accident 7 January 1948 involving P-51D type aircraft, serial number 44-63869, the P-51D # 44-63869 piloted by Captain Thomas F. Mantell Jr. ASN O-806 873, Pilot.


LEE J. MERKELL
Captain Kwang
Commanding

- 13 Incls: *PHK*
1. WD AAF Form 14
 2. WD AAF Form 23
 3. WD AAF Form 1A
 4. WD AAF Form 1
 5. List of previous write ups on Form 1A
 6. Statement of Investigating Officer
 7. Statement of Godman Field Control Tower Operator
 8. Lt. Clements Statement
 9. Statement of Glenn T. Mayes
 10. Statement of Mrs. Carrie A. Phillips
 11. Statement of William C. Mayes
 12. Statement of William J. Phillips
 13. Photographs of accident.
- 22
54

Fatal

3

imp

11/18/48. Person

*(2) Acc Analysis
Rec'd 1/8 12:00 SHH*

WESTERN UNION

LONG FHB 79 73/72 GOVT COLLECT LOUISVILLE KY 7 603P
CG AAF ATTN CHIEF FLYING SAFETY DIVN LGYFLD VA

Acft Acc Incident

File

A 7TH JAN 48 1630 HRS 5 MILES SOUTHWEST OF FRANKLIN KY

B PETER 51D SERIAL NO 44-63869 165TH FIGHTER SQDN /SE/ KENTUCKY ANG

C CAPT THOMAS F MANTELL JR 165TH FIGHTER SQDN /SE/ KENTUCKY ANG 123D
FIFTH GP FATAL NO CHUTE USED

D SAME

E NEGATIVE

F CAUSE UNKNOWN

G UNKNOWN

H UNDETERMINED

I FROM MARIETTA GEORGIA TO STANDIFORD FIELD LOUISVILLE KY

J TRAINING

K GOOD

L UNKNOWN

M YES

NOT COL USAF

48-1-7-1

1235000

-26-

JK

WESTERN UNION

LONG FHB 79 73/72 GOVT COLLECT LOUISVILLE KY 7 603P
CG AAF ATTN CHIEF FLYING SAFETY DIVN LGYFLD VA

A 7TH JAN 48 1630 HRS 5 MILEG SOUTHWEST OF FRANKLIN KY

B PETER 51D SERIAL NO 44-63869 165TH FIGHTER SQDN /SE/ KENTUCKY ANG

C CAPT THOMAS F MANTELL JR 165TH FIGHTER SQDN /SE/ KENTUCKY ANG 123D
FIFTH GP FATAL NO CHUTE USED

D SAME

E NEGATIVE

F CAUSE UNKNOWN

G UNKNOWN

H UNDETERMINED

I FROM MARIETTA GEORGIA TO STANDIFORD FIELD LOUISVILLE KY

J TRAINING

K GOOD

L UNKNOWN

M YES

WTT COL USAF 7 1948

1235000

-25

48-1-11-1

1 A

(1) 1/8 7:45 32.4

(2) 1/8 7:45 32.4

ANG-3
Apt A Fatal

7 in

1/8

48-1-11-1

1/8

MAXWELL FLIGHT SERVICE CENTER
Maxwell Field, Montgomery, Alabama
Operating Location 33-6

240 a

Date 8 January 1948

SUBJECT: Report of Aircraft Accident

TO: Field Office of the Air Inspector, Langley Field, Va.
ATTN: Flying Safety Division
Commanding Officer, Flight Service, Washington 25, D.C.
Commanding Officer, 104th Weather Gp, 71st A.F. BU,
Warner Robins, Georgia

1. Flight Plan: NG 3869, A P-51's, Mantell, Marietta, Ga. VFR to Standiford Fld, Louisville, Ky, airspeed 300 mph, VHF Channels A and B, departed 1342G, 7 January 1948, one hr, 10 min enroute, 3 hrs fuel aboard, pilot rating 3-2. Additional identity NG 3336, 3800 and 3737.

2. Date, time and scene of accident: 7 January 1948, approximately 1645G, 4.5 miles south of Franklin, Ky, 86°35' W, 36° 40' N.

3. Flight Service Clearance: (Yes) (~~No~~) (If "Yes" attach copy - If "No" Explain why)

4. ATC Clearance: (~~No~~) (No)

5. Flight Advisory Issued: (~~Yes~~) (No) (If "Yes" attach copy - If "No" Explain why) No advisory deemed necessary as there were no known hazards to the flight.

6. Position Reports: 30 Miles SW of Standiford Fld, Louisville, Ky at 1450G

7. Pertinent Weather: (See Inclosure)

8. Narrative Summary of additional information: See attached sheet.

- 3 Incl. *revis*
1. FS Form 23
2. Pertinent Weather
3. Narrative Summary

Benjamin F. McQuiston
BENJAMIN F. McQUISTION
Major, USAFR
Commanding

1235000
-27-

48-1-7-1

copy

i. AF Sta. () Non-AF Sta. () C Enrt () MAT (x) Appd () Dtd and () Apl not Reqd

II. Orig Flight Plan: NG 3869 4 P-51 Mantell DMY VFR DIR
 Acft No. Type Acft. Pilot Int Dptr Alt Route

DMY 300 A-B P 1342C 110/ 300/ 3-2
 Destn A/S Fqcy Dptr Time ETI Hrs Fuel /R Altn(s)

Crew & Pass List Filed DMY Exp Date of Inst Card _____ Pilot's Home Sta DXL
 Add A/C 3336, 3737, 3800

III. Psn Rprt: _____ (Req Recd From)
 Request: _____
 ETE: _____ FUEL: _____ P/R: _____ Altn(s) _____

IV. Current Time: 1320
 I certify that I have adequately briefed the pilot on current and forecast weather for this flight.
 I certify that adequate weather information for this flight has been relayed to the pilot on his "Change Enroute."
 This flight should be conducted (~~IFR~~ VFR) from DMY to DXL
 (IFR) (VFR) from _____ to _____
/s/ WB R. Vivin, Capt., AC
 Forecaster

V. For NG 3869 FLIGHT SERVICE:
 Approves () Does not approve () Ackn receipt of FP (Airtel Dlvd to)
 IFR flight from DMY to DXL Altn(s) _____ RB
 VFR flight from DMY to DXL Altn(s) _____
 Only if on (written orders to land) that station
 Only if (official business)
 Only if _____ is your home station
 Obtain Airway Traffic Control Clearance { } Through _____
 { } Before take-off.
 And advises: _____

(x) Approval void at: 1420C
 (x) I certify that the (pilot) ~~(signature)~~ has acknowledged receipt of adequate weather briefing for this flight.

FOR THE COMMANDING OFFICER: _____ 1235000
/s/ H. L. Johnson -28
 Dispatcher 1st Lt, USAFR

8 January 1948

Item 7. Pertinent Weather

Bolling Green, Ky., 7 January 1948

- 1530C High scattered, 20 miles visibility, temperature 51^f, dew point 22, wind from S-SW at 14mph, altimeter setting 30.14
1630C High broken, 15 miles visibility, temperature 44°, dew point 25, wind from S-SE at 8mph, altimeter setting 30.12
1730C High scattered, 10 miles visibility, temperature 40°, dew point 24, wind from S-SE at 7mph, altimeter setting 30.12
1830C Clear, 8 miles visibility, temperature 38°, dew point 23, wind from S-SE at 9mph, altimeter setting 30.10.

Nashville, Tenn., 7 January 1948

- 1530C High scattered, 15 miles visibility, temperature 53°, dew point 18, wind from S-SW at 9mph, altimeter setting 30.16
1630C High scattered, 15 miles visibility, temperature 52°, dew point 20, wind from S at 5mph, altimeter setting 30.14
1730C High thin broken, 12 miles visibility, temperature 48°, dew point 18, wind from S-SE at 4mph, altimeter setting 30.14.
1830C High thin scattered, 12 miles visibility, temperature 46°, dew point 19, wind from S-SE at 7mph, altimeter setting 30.14.

1235-00

-29-

8 January 1948

8. Narrative Summary of Additional Information: A Flight of 4 P-51's was enroute from Marietta, Georgia; VFR to Standiford Field, Louisville, Ky, when approximately 30 minutes SW of Standiford Field, at 1450C, Godman Tower called aircraft and requested that they investigate unidentified object visible in sky in vicinity of Godman Field, Ft. Knox, Ky. NG 3336 landed at Standiford Field, and NG 3869, 3737, and 3800 began climbing. Upon reaching 22,000', NG 3737, and 3800 descended, but NG 3869 continued climbing.

At 1645C, aircraft NG 3869 crashed 4.5 miles SW of Franklin, Ky. Mr. Joe Walker, Traffic Policeman at Franklin, Ky, Phone 169, was contacted and he said crash was 1-1/2 miles W of Highway 31W, and that eye witnesses (he did not get their names) reported that aircraft was not doing acrobatics, and was not at abnormally low altitude (height not estimated) but seemed to explode with loud noise and flash of fire before it hit the ground. Parts of the aircraft were distributed over a large area; one wing was approximately 100 yards from point where aircraft hit ground; other wing, prop, empennage, seemed to be missing. Aircraft did not burn after hitting ground. When Mr. Walker arrived, body of pilot had been removed from crash, by unknown parties, had parachute on.

Standiford Field National Guard Unit is handling investigation and WFFLS suggested that an Air Force Officer aid in the investigation and requested Godman Field to do so.

1235000

-30-

Date 9 January 1948

SUBJECT: Report of Aircraft Accident

TO: Commanding Officer, Flying Safety Division, Field Office of the
Air Inspector, HQ USAF, Langley Field, Virginia
Commanding Officer, Flight Service, Washington 25, D.C.
Commanding Officer, 74th AFBW, 102nd Weather Group, Mitchel Field
Hempstead, New York

1. Flight Plan: 7 Jan 1947 NG3869 4-P51 Mantell Marietta Ga, VFR
Standiford Field, Louisville Ky 30 D1342C 110/300/32

2. Date, time and scene of accident: 7 Jan 1948 Approximately 1645C
2 miles SW Franklin Ky 36°- 42'N 86°- 35'W

3. Flight Service Clearance: (Yes)(No) (Not Necessary) (If "Yes" attach Copy -
If "No" Explain why) Flight was cleared by an established base operations office

4. ATIS Clearance: (Yes) (No)

5. Flight Advisory Issued: (Yes) (No) (If "Yes" attach Copy - If "No"
Explain why) No. No hazardous conditions were foreseen to exist for this
flight.

6. Position Reports: None

7. Pertinent Weather: (See Inclosure # 1)

8. Narrative Summary of Additional Information: NG3869 was contacted by Godman tower
as his flight of 4 P51 passed over Godman Field enroute from Marietta Ga. to Standiford
Fld, Louisville Ky and requested him to investigate unidentified balloon like object
hovering in the sky in the vicinity of Godman Field. Three of the ships started to
climb toward the object. Pilot Hendricks in N.G. 336 continued on and landed 1501C at
Standiford Field Louisville Ky. Pilots Hammond, NG737 & Clements NG800, climbed to
22,000 feet with Mantell in NG3869 then continued on to their original destination
because of lack of oxygen arriving there at 1540C. Mantell continued climbing toward
object. Standiford operations advised Wright Flight Service Center at 1750E that NG3869
pilot Mantell, crashed 2 miles southwest of Franklin Kentucky at approximately 1645C.
Accident fatal to pilot, major damage to aircraft.

FOR THE COMMANDING OFFICER:

1 Incl Hand
Weather Report

123
51

De Armond E. Matthews
DE ARMOND E. MATTHEWS
Major, USAF
Deputy Commander

WEATHER STATION
PATTERSON FIELD
FAIRFIELD, OHIO

8 JANUARY 1948

THE FOLLOWING WEATHER WAS RECEIVED FROM THE STATIONS
INDICATED AND IS NOW ON FILE AT THIS STATION. ALL WEATHER FOR
THE PERIOD 1430-1730E, 7 JANUARY 1948.

ATLANTA, GA.
CHATANOOGA, TENN
KNOXVILLE, TENN.
GODMAN FIELD, KY.
STANDIFORD FIELD, KY.

WEATHER FOR THE ABOVE STATIONS WAS ABOVE MARGINAL OFR MINIMUMS
(DEFINED AS CEILINGS 2000 FT OR BETTER AND VISIBILITIES 6 MILES
OR BETTER)

BOLLING GREEN, KY.

1630E -0/20 51/22/114/014

1730E -0/15 44/25/18/012

1830E -0/10 40/24/17/012

John F. Wall
JOHN F. WALL
MAJOR USAF
STATION WEATHER OFFICER

-122

-32

Jan 8 1948

ACCIDENT NO. 1-7-1

VOL. NO. _____

BRIEF NO. _____ (major)

TYPE & MODEL P-51D

AIRCRAFT NO. 44-33869

A flight of four P-51's departed a southern base on a ferry mission to their home base. The four planes were flying in formation and the flight was proceeding normally. As the flight neared a field, the leader called in a position report. The tower operator asked the nature of the flight and asked if they had the time and fuel to chase an object he had been observing in the sky. The leader acknowledged and was given a heading to fly. He immediately went into a steep climb with two of the other pilots in the flight following. The fourth pilot broke formation and proceeded to the destination. The leader continued to climb at high power settings and when 22,500 ft. was reached, the other two pilots broke off and went to the destination. When the leader was last seen, it appeared that he had the plane under control ^{and} was still climbing. A short time later the plane was observed in a spiraling dive to the ground. Between 10,000 and 20,000 ft., the left wing came off. The ~~remaining parts of~~ the plane crashed to the ground. Only one pilot in the flight (the element leader) had an oxygen mask and was using oxygen when higher altitudes were reached. The flight leader had stated that they would climb to 25,000 ft. and stay there for ten minutes in an attempt to overtake the object. The element leader broke off when his wingman indicated that he was having trouble due to lack of oxygen.

The board was of the opinion that the leader was overcome by anoxia at about 25,000 ft. As his plane was trimmed for maximum climb, it was believed that it continued to 30,000 before leveling off and starting its descent. Since the plane went so high, apparently the pilot was dead when it started down. The canopy lock was still in place in the wreckage indicating that he made no attempt to abandon the plane.

HLJ

1230000
-33-

GENERAL INFORMATION

BRIEF NO _____

DATE OF ACCIDENT _____

PILOT'S HOME STATION _____

PLACE OF ACCIDENT _____

Major Accident (N-Night, D-Day) _____
Minor Accident (N-Night, D-Day) _____
Number of Fatalities _____
Number of Major Injuries _____
Number of Wrecked Aircraft _____
Number of Major Damaged Aircraft _____

PHASE OF FLIGHT

Taxing _____
Take Off _____
In Flight _____
Final Approach and Landing _____
Go Around _____
Other _____

SUPERVISORY ERROR

** Control Tower _____
**Weather _____
**Base Operations _____
**Instructor _____ **Other _____
Inadequately Maintained Apt & Avy _____
Other _____

ACCIDENT TYPE

Collision with Other Aircraft _____
Collision with Ground or Water _____
Collision Other _____
Stall, Spin or Spiral _____
Hard Landing _____
Wheels Up Landing _____
Groundloop _____
Nose Up or Nose Over _____
Premature Retract or Collapse of Gear _____
Abandoned Aircraft _____
Other and Undetermined _____

OTHER PERSONNEL

Maintenance _____
Other _____

MATERIEL FAILURE

Power Plant _____
Airframe _____
Landing Gear _____
Fuel System _____
Hydraulic System _____
Electrical System _____
Communication System _____
Instruments _____
Safety Devices _____
Brakes _____
Other _____
Undetermined _____

PILOT ERROR

Inadequate Flight Preparations _____
Mistreated Airframe _____
*Power Plant _____
*Landing Gear _____
*Wing Flaps _____
*Fuel System _____
*Other Equipment _____
Confused Two Controls _____
Poor Technique in Ground Oper _____
Poor Technique in Flight _____
Other _____
Other Crew Member Error _____

MISCELLANEOUS

Airbase and Airways _____
Cause Undetermined _____

ACCIDENTS INVOLVING

Fire Before Crash _____
Forced Landing _____
Weather _____
Non-Compliance with T.O. _____
Violations _____
Out of Fuel _____
Faulty Navigation _____

*Incorrect Operation or Procedure

**Inadequately Supervised Aircrew Training or Operations

REPORT OF SPECIAL INVESTIGATION OF AIRCRAFT ACCIDENT
INVOLVING P-51D NO. 44-63869

1. DATE AND TIME OF ACCIDENT: 7 January 1948, 1518 CST
2. LOCATION OF ACCIDENT: 5 miles southwest of Franklin, Kentucky
3. AIRCRAFT: P-51D No. 44-63869
4. HOME STATION AND ORGANIZATION: 165th Fighter Squadron, Kentucky ANG,
Standiford Field, Louisville, Kentucky
5. RESULTS TO AIRCRAFT: Demolished
6. HISTORY OF AIRCRAFT AND ENGINES:

AIRCRAFT

Date of manufacture - 15 December 1944
Total hours - 164:50, 23 December 1947, EST 9:35 to time of crash
Date last overhaul - new

ENGINES

Model - V-1650-7
Number - V-328830
Total hours - 174:25
Hours since last overhaul - new

PROPELLER

Model - Hamilton Hydromatic
Hours since last overhaul - new

7. PILOT, HOME STATION AND ORGANIZATION: Thomas F. Mantell Jr., Captain, O-806873,
123rd Fighter Group, 165th Fighter Squadron,
Standiford Field, Louisville, Kentucky

8. PILOT HISTORY:

	<u>1st Pilot</u>	<u>Other</u>
Total hours	1608:00	559:00
Hours this type	67:00	00:00
Hours this model	67:00	00:00
Hours last 90 days	41:00	00:00
Hours last 30 days	14:00	00:00
Hours last 24 hours	2:00	00:00
Actual Combat hours	107:00	34:00

9. COPILOT HISTORY: Not applicable

10. FLIGHT ENGINEER AND NAVIGATOR NAMES, HOME STATION, ORGANIZATION AND HISTORY:

Not applicable

11. RESULTS TO CREW: Thomas F. Mantell Jr., Captain - fatal

12. NARRATION OF EVENTS: On the 9th of January, a flight of four P-51's departed Marietta Air Base, Marietta, Georgia, enroute to Standiford Field, Louisville, Kentucky. Captain Mantell was the acting Flight Commander and filed the Form 23 at Marietta for all four aircraft. The flight proceeded according to plan without incident to the vicinity of Godman Field, Kentucky. Captain Mantell was asked by Godman Tower to investigate an unidentified object in the sky to the southwest. Captain Mantell led the flight in that direction and started climbing at full power. At this time the one wingman, Lt. Hammond, broke formation and proceeded to Standiford and landed. At approximately 22,500 feet, the other aircraft turned back due to lack of oxygen. A short while later an observer on the ground noticed an aircraft circling at a high altitude then come diving down, slowly spiralling and evidently under full power. At approximately half way from the originally observed altitude and the ground, the plane was seen to disintegrate and subsequently crash on a farm near Franklin, Kentucky. This aircraft was identified as the one piloted by Captain Mantell who was found in the wreckage.

13. INVESTIGATION DISCLOSED:

- a. The purpose of the flight to Standiford Field, Louisville, Kentucky, was to return the four P-51's to the Air National Guard that were grounded at Marietta for weather a week previous.
- b. Form 23 was completed by Captain Mantell and weather was above defined VFR minimums. (Exhibit 1)
- c. In the vicinity of Godman Field, Kentucky, the flight leader was contacted by the tower operator who requested that he investigate an unidentified object if he had enough fuel. (Exhibits 4 and 5)
- d. Captain Mantell advised Godman tower that he had sufficient fuel remaining and that he would investigate the object as requested. (Exhibits 4 and 5)
- e. Captain Mantell did not advise the other aircraft in his flight of his intention. (Exhibits 4 and 5)
- f. The number 2 man in the flight broke away at this point and returned to Standiford. (Exhibit 3)
- g. Captain Mantell started a sharp spiraling climb to the right which necessitated power settings of 47" M.P. and 2700 RPM for the wingman to stay in position. (Exhibits 4 and 5)
- h. At 14,000 feet, Captain Mantell broke off the spiral and started a straight climb on a heading of approximately 220° at the maximum rate of climb. (Exhibits 4 and 5)

- i. At 16,000 feet, Lt. Clements, the right wingman, put on his oxygen mask and began breathing oxygen. (Exhibit 4)
- j. Captain Mantell, the flight leader and Lt. Hammond, the left wingman, did not have oxygen or oxygen masks. (Exhibits 4 and 5)
- k. At 18,000 feet, Lt. Clements attempted to pull up close to the flight leader and signal him with hand signals to listen out on Channel B. (Exhibit 4)
- l. Captain Mantell had at no time signaled for a change over to "B" baker Channel which is customary procedure for the flight leader. (Exhibit 4)
- m. At 20,000 feet, Lt. Clements advised Captain Mantell that their ETA for Standiford had elapsed and suggested that he notify Godman tower to relay their position to Flight Service to which Captain Mantell replied "Roger." (Exhibit 4)
- n. A few minutes later, Captain Mantell called the flights attention to a city with an airport beside it, which was identified by Lt. Clements as Bowling Green. (Exhibit 4)
- o. At approximately 20,000 feet, Captain Mantell called the flights attention to an object at 1200 o'clock. (Exhibit 4 and 5)
- p. Captain Mantell's transmission was garbled, but Lt. Clements stated he mentioned something about going to 25,000 feet for 10 minutes. (Exhibit 4)
- q. At 22,500 feet, Lt. Clements advised flight leader that he was breaking off to lead the other wingman back to Standiford Field, however, his transmission was not acknowledged by Captain Mantell. (Exhibit 4)
- r. Through the later stages of this climb, Lt. Hammond was signaling that he was having trouble due to the lack of oxygen and requested descending to a lower altitude. (Exhibit 4)
- s. At the time Lt. Clements and Lt. Hammond broke off from the flight, (22,500) Captain Mantell was observed climbing directly into the sun. (Exhibit 4)
- t. From 18,000 feet on, the point at which the high blower engaged, Lt. Clements had to use full power to maintain his position in the formation. (Exhibit 4)
- u. The last radio contact with Captain Mantell was at 20,000 feet and from all appearances he seemed to have the aircraft under perfect control. (Exhibit 4)
- v. Captain Mantell's aircraft was next observed by William C. Mayes, a civilian from Franklin, Kentucky, circling and after about three circles started into a power dive slowly rotating. (Exhibits 6 and 7)

RESTRICTED

- w. The aircraft was making a terrific noise, ever increasing as it descended according to the statement of the two witnesses. (Exhibits 6 and 7)
- x. According to the statements of the witnesses, the aircraft exploded half way between where it started the dive and the ground. (Exhibits 6 and 7)
- y. None of the witnesses observed any fire coming from the aircraft during the descent. (Exhibits 6, 7, 8 and 9)
- z. The aircraft crashed at approximately 1520 GST, southwest of Franklin, Kentucky. (Exhibits 6 and 7)
- aa. The aircraft did not explode or burn on impact. (Exhibits 6 and 7)
- bb. Parts of the ailerons fuselage, empennage and glass from the canopy, were scattered over an area of 1/4-of a mile. (Exhibits 10 and 11)
- cc. Captain Mantell, pilot, was found in the cockpit of the aircraft. (Exhibits 10 and 11)
- dd. The force of the crash snapped the pilot's safety belt.
- ee. The aircraft was not serviced with oxygen at Marietta as none was available at that station. (Exhibit 2)
- ff. Standiford Field did not have oxygen available, however, a bill of lading had been received showing that oxygen was being sent to the 165th Fighter Squadron.
- gg. Statements of other pilots in the flight confirm the fact that Captain Mantell did not have an oxygen mask. (Exhibit 4)

14. CONTRIBUTING CAUSE FACTORS:

- a. The poor judgement displayed by Captain Mantell in that he elected to climb to altitude without oxygen equipment.
- b. The effects of anoxia rendering Captain Mantell unconscious causing, loss of control of the aircraft.

15. COMMENTS:

- a. It is the opinion of the undersigned that the effects of anoxia on Captain Mantell was the underlying cause of this accident. While no definite altitude can be given as the exact limit of human tolerance to a lack of oxygen, it is a well known fact that rapid lowering of the oxygen saturation of arterial blood, as occurred in the rapid ascent of Captain Mantell, will produce symptoms of acute anoxia in a very short time. AF publication

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contend that it is possible to remain conscious for a few minutes at 25,000 feet but collapse occurs very rapidly. It is reasonable to assume that Captain Mantell was not aware of the symptoms of anoxia in that his high altitude flying experience was very limited. Prior to his separation from the service and affiliation with the Air National Guard, Captain Mantell was assigned to Troop Carrier Command and according to fellow officers had no occasion to participate in high altitude flights.

- b. At the time Lt. Clements and Lt. Hammond, who incidently, had been aware of anoxia symptoms for some time, broke away from the lead ship, they estimated that their altitude was 22,500 feet. The range between 15,000 and 20,000 feet is referred to as the disturbance stage and occasionally there are no subjective sensations up to the time of unconsciousness. The critical stage is between 20,000 and 25,000 feet at which altitude consciousness can be lost rapidly, depending on the physical condition of the individual.

It is believed that Captain Mantell was rendered unconscious from anoxia and the uncontrolled aircraft started a slow spiral culminating into a dive which was precipitated by the high power settings and torque. Consequently, the aircraft with its engine producing full power rapidly exceeded its design limitation as was evidenced from the photos, disposition of the wreckage, and later supplemented by civilians statements to the effect that the aircraft disintegrated approximately half way from its initial point of dive to the ground.

- c. Assuming that Captain Mantell was rendered unconscious, it is not likely that he would have had sufficient time to recover and abandon the aircraft before it crashed.
- d. It is the opinion of the undersigned that all fighter aircraft should be serviced with oxygen before each flight and that it be compulsory that the pilot have an oxygen mask in his possession.

The above would preclude the possibility of a pilot taking any unnecessary chances by flying at altitude without the proper oxygen equipment.

16. RECOMMENDATIONS:

- a. This accident be publicized through the medium of Flying Safety publication "Crash and Consequence."

17. STATEMENT OF REBUTTAL:

- a. Inasmuch as the pilot was killed in the accident, it was impossible to obtain a statement of rebuttal regarding pilot error.

RESTRICTED

E X H I B I T S

1. Clearance Form 23
2. Statement of Major Denby
3. Statement of 1st Lt. Robert K. Hendricks
4. Statement of 1st Lt. Albert W. Clements
5. Statement of Mrs. Carrie A. Phillips
6. Statement of Glen T. Mayes
7. Statement of William J. Phillips
8. Statement of William C. Mayes
9. Statement of Harry W. Booker
10. Sketch of scene of accident

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RESTRICTED

OPERATIONS OFFICE
ADDRESS
ARIETTA ARMY AIR FIELD

DATE
7 Jan 1948

PILOT'S NAME T.F. Mantell Jr. O-806873	RANK Capt	HOME STATION DLX	ORGANIZATION 165th Ptr Sq.	AIRCRAFT NUMBER 14-63869
NAME, INITIALS, RANK, HOME STATION OF OTHER OCCUPANTS				
R.L. Hendricks 1st. Lt. O-2063831		73336		
A.W. Clements 1st. Lt. O-732166		73800		
B.A. Hammond 2nd. Lt. O-2085976		73787		
certify that the weight and balance on this aircraft is identical with that shown on Form "F" filed at DLX DATE 1-1-48 Pilots Initials TFM				
This aircraft is equipped with instruments and flashlight for DLX and night flights Pilots Initials TFM				

LIST ADDITIONAL PASSENGERS ON SEPARATE SHEET

C WEATHER DATA		EXISTING LOCAL	ALTIMETER SETTINGS
EXISTING ROUTE			LOCAL
DESTINATION (LATEST)	TIME	A CERTIFIED TRUE COPY <i>Edwin A. Wood</i> EDWIN A. WOOD Capt., USAF Operations Officer	DESTINATION
ALTERNATE (LATEST)	TIME		ALTERNATE
FORECASTS (ESTIMATED FLIGHT TIME PLUS 2 HOURS)			RESET ALTIMETER BEFORE APPROACH
ROUTE			
DESTINATION			
I have been adequately briefed on the current (S) and forecast (S) effecting my flight and I understand the (S) situation. (S) Thomas F. Mantell Jr.			
ALTERNATE PILOTS SIGNATURE			
WINDS ALOFT GIVE ALT. DIR. VEL. AS PILOT REQUESTS			
AAF FORM 23A REQUIRED	<input type="checkbox"/> NOT REQUIRED	<input checked="" type="checkbox"/> FORECASTER	VOID 11:00 TIME

FLIGHT PLAN NO 3869	TYPE OF AIRCRAFT 4 P51	PILOT (LAST NAME ONLY) Mantell	POINT OF DEPARTURE ARIETTA AAF
1 ALT VFR	2 ALT	3 ALT	4 ALT
CFR ROUTE Drot	CFR ROUTE	CFR ROUTE	CFR ROUTE
IFR TO DLX	IFR TO	IFR TO	IFR TO
AIRPORT OF FIRST INTENDED LANING DLX	TRUE AIR SPEED 300	TRANSMITTING FREQUENCIES 126.18 "B" "A"	RECEIVE ONLY NO RADIO <input type="checkbox"/>
PROPOSED TAKE OFF TIME 1330 G	EST. TIME ENROUTE 1 Hr. 10 Min.	ALTERNATE AIRPORT	HOURS OF FUEL (CHUM) 3 Plus
REMARKS SHOW FIXES WHICH WILL BE REPORTED WHILE ON INSTRUMENT FLIGHT.		INSTRUMENT RATING NONE	
TOWER FREQUENCY 396 KCS and 11.4 Channel		PILOT'S SIGNATURE (S) Thomas F. Mantell Jr.	
DESTINATION DLX	ALTERNATE DLX	RECEIVED <input type="checkbox"/>	DESTINATION 310
COMMAND PILOT <input type="checkbox"/>		SENIOR PILOT <input type="checkbox"/>	
CONTRACT PILOT OF CARGO AIRCRAFT <input type="checkbox"/>		PILOT <input type="checkbox"/>	

E FLIGHT CLEARANCE AUTHORIZATION			
SUBMITTED TO AFS	TIME 11:20	RC RC	OPERATIONS IDENTIFICATION NO.
TIME APPROVAL RECEIVED	CONTROL INSTRUCTIONS RECEIVED		ROBERT C. ... COL AF, CO. AFS/AS
INSTRUCT ONE AND APPROVAL TO BE SUBMITTED TO PILOT OR TOWER BY TFM		ACTUAL TAKE OFF TIME	

3 January 1948

RESTRICTED

P-51 NO. 41-63869

Aircraft were not serviced with oxygen as none was available at this station.

Pilots of aircraft did not request oxygen on checking in with line chief or operations.

Subject aircraft was fully serviced with 100/130 octane fuel - right, left and fuselage tanks were serviced. Oil was checked on all aircraft and those serviced requiring same.

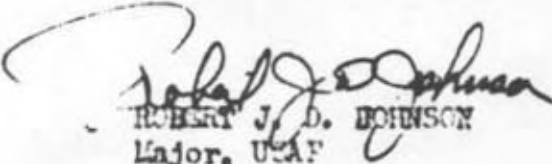
Aircraft arrived this station on 29th December 1947, service was accomplished this date.

Aircraft were preflighted on 6th January 1948 by alert crew. Same were dated and preflighted by crew brought from Standiford Field on date of departure - 7th January 1948.

No mechanical trouble was reported on any of the aircraft.

s/Bernard M. Durey
Major, AC (NG)

A CERTIFIED TRUE COPY:


ROBERT J. D. JOHNSON
Major, USAF

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RESTRICTED

HEADQUARTERS, 123RD FIGHTER GROUP (ANG)
STANDIFORD, FIELD
P.O. Box 1167
Louisville, Kentucky

A flight of four P-51 departed Marietta, Georgia at 1342 G direct to Standiford Field, Louisville, Kentucky. Captain Thomas Mantell was in the lead ship as flight leader.

The flight was off course slightly to the left and therefore came over Godman Field on a course of about 45 degrees. I, Lt. Robert K. Hendricks, flying in the number two position was on channel C as we had been the entire trip, when I noticed Captain Mantell was talking so I went over to channel B.

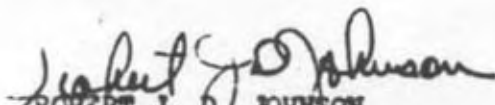
The only part of the conversation between Captain Mantell and Godman Field that I heard was as follows, "we would like for you to take a look at it, come over the field on a heading of 330° and we will try to guide you." Captain Mantell answered "Roger, I'll give you a call when I identify it."

Upon hearing this I requested permission to leave the flight to return to Standiford Field, the request was granted by Captain Mantell, I left the flight at approximately 1440 G and landed at Standiford at 1501 G.

The above statements are true and correct to the best of my knowledge.

s/Robert K. Hendricks
ROBERT K. HENDRICKS
1st Lt. Kentucky N.G.

A CERTIFIED TRUE COPY:


ROBERT J. D. JOHNSON
Major, USAF

1235000

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RESTRICTED

January 9, 1948
Standiford Field
Louisville, Kentucky

The flight of four P-51s was begun from Marietta Army Airbase, Marietta, Georgia. Each pilot started his engine about 1335 GST, and immediately switched his radio to B Baker channel. Capt. Mantell, who was to lead the flight, contacted the tower and obtained take-off instructions and the flight taxied out, led by Capt. Mantell, Lt. Hendricks his wingman, as the element wingman. The first two ships were off the ground at about 1335, followed by the second two a minute later. Following the join-up in regular four ship formation, the flight proceeded on course towards Louisville, climbing up to 5000' and leveling off at this altitude. Capt. Mantell signaled for a channel switch to #3 C Charlie channel.

The flight proceeded without incident until over the Dale Hollow Reservoir at which point Capt. Mantell signaled for intrail formation and proceeded to drop down and make two 360° orbits over the reservoir and then climbed back up to 5000' and proceeded on course again. The flight again proceeded without further incident to a point about five miles North of Godman Field, Godman Field was slightly off course and the flight drifted off to the right making contact with the Ohio River just north of Godman Field. At this point 1455 Lt. Hendricks, #2 man, broke away from the formation and headed towards Standiford Field. Capt. Mantell immediately after this began a rather sharp spiraling climb to the right at rather high power settings, necessitating a power setting of 47" MP and 2700 RPM to maintain position in the formation with him. He continued spiraling at about 14,000' where he broke off the spiral and headed on a south-westerly heading of approximately 220°, still climbing at the maximum rate of 180 IAS. At about 16,000' I put on my oxygen mask and began taking oxygen because it became apparent that Capt. Mantell was heading for much higher altitudes even though it was known before hand that he did not have oxygen equipment and neither did the element wingman Lt. Hammond. The flight continued on this south-westerly course and at about 18,000' I attempted to pull up fairly close to the flight leader and try to signal him with nasal motions and to contact him on B Baker channel asking where the flight was headed. Capt. Mantell had at not time signaled for a change over to B Baker channel which is always customary from the flight leader, either visual signal or on the radio.

In one of my transmissions I notified Capt. Mantell that we were considerably over our ETA for Standiford Field and suggested that he notify Godman Field to relay our position to Flight Service, to which he replied "Roger". However, I failed to hear Capt. Mantell contact Godman Field on this. In the next few minutes I heard Capt. Mantell say "Look, there's a town down there with an airport beside it", and from previous flying in this area I recognized it to be the town of Bowling Green with it's airport to the south east, and at this point I noted that we were at 20,000' and still climbing. I called Capt. Mantell and notified that this was Bowling Green and again asked him what were looking for.

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He then replied "Look, there it is out there at 1200 o'clock", and I was able to discern a bright appearing object, very small, and so far away as to be unable to identify it as to size, shape, color, but it was definitely something which could be seen. Its position was slightly lower and to the left of the sun. This was at approximately 1515. I called Capt. Mantell and told him I could see the object but suggested that since we did not seem to be making a gain on the object, that it would be better if we leveled off and tried to pick up some speed and possibly get under the object. His transmissions were garbled but he mentioned something about going to 25,000 feet 10 minutes and then if we were unable to make any further progress towards the object, we could drop down.

From the time that the high blower kicked in at about 18,000' on up even though I was using these maximum power settings. At about 22,500' realizing that it was too high to maintain without oxygen, I broke off the flight out of formation and Capt. Mantell disappeared, still climbing almost directly into the sun. I called him and informed him that we were breaking off the flight and returning to Standiford Field, but he did not acknowledge. Through the later stages of this climb Lt. Hammond was signaling that he was having trouble because of his lack of oxygen and wished to go down to a lower down altitude. From the time we broke off from the formation we began a rather sharp descent back on course to Standiford Field, about 40° and finally established contact with Godman Tower giving them a position report and our destination, and asking them if they would try to contact Capt. Mantell and inform him that we were returning, in as much as he failed to acknowledge our previous message.

The last contact by radio which we had with Capt. Mantell was when he said he could see the object at 1200 o'clock which was from 20,000', and when last seen he seemed to have the airplane under perfect control and still climbing towards the object. I relayed my thoughts to Godman Tower as to what we had seen and proceeded with Lt. Hammond on my wing to Standiford Field, landing without further incident at approximately 1540. As near as I can recall, the last time we saw Capt. Mantell was approximately 1520. At no time did I observe Capt. Mantell to be in trouble and not until the later stages of the flight, prior to our breaking off of formation, did I realize what the object of this high rate of climb and unusual heading away from our ultimate destination was. By the time that I switched to B Baker channel, after we started climbing, we were apparently out of range of the Godman Tower. In conjunction with the last time when we left Capt. Mantell I would judge our position to be about 40 miles northwest of Bowling Green.

s/Albert W. Clements
ALBERT W. CLEMENTS
1st Lt AC Ky APO

A CERTIFIED TRUE COPY:

s/Robert J. D. Johnson
ROBERT J. D. JOHNSON
Major, USAF

1235000

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RESTRICTED

AFFIDAVIT

7 January 1948
5 miles southwest of
Franklin, Kentucky on
W. J. Phillips' Farm

I, Mrs. Carey Phillips was sitting in my front room when I heard one explosion, ran to my front window and saw an airplane crash into my left front yard, about two-hundred and fifty yards from my home. The airplane did not burn and did not explode after it hit the ground.

In witness whereof, I have hereunto set my hand and seal at my home on Route #3, Lake Spring Road, Franklin, Kentucky this 7th day of January 1948.

s/Mrs. Carrie A. Phillips

Sworn to and subscribed before me
this 7th day of January 1948.

s/Richard L. Tyler
RICHARD L. TYLER
Captain Ky ANG
Summary Court Officer

A CERTIFIED TRUE COPY:

s/Richard L. Tyler
Captain Ky ANG

1235000

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RESTRICTED

AFFIDAVIT

January 7, 1948
Franklin, Kentucky

I, Glenn T. Mayes of Route #3, Simpson County, Lake Spring Road, Franklin, Kentucky do state that on 7 January 1948 at approximately three-fifteen P.M. I heard an airplane overhead making a funny noise as if he were diving down, and pulling up, but it wasn't, it was just circling. After about three circles the airplane started into a power dive slowly rotating. The plane was so high I could hardly see it when it started down. It started to make a terrific noise, ever increasing, as it descended. It exploded half way between where it started the dive and the ground. No fire was seen. It hit or crashed at three-twenty P.M. Central. It didn't explode when it hit the ground and did not burn.

In witness whereof, I have hereunto set my hand and seal at my home on Route #3, Lake Spring Road, Franklin, Kentucky this 7th day of January 1948.

s/Glenn T. Mayes
Route #3, Lake Spring Road
Franklin, Kentucky

Sworn to and subscribed before me
this 7th day of January 1948.

s/Richard L. Tyler
RICHARD L. TYLER
Captain, KI AWO
Summary Court Officer

A CERTIFIED TRUE COPY:

s/Richard L. Tyler
RICHARD L. TYLER
Captain Ky AWO

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RESTRICTED

AFFIDAVIT

8 January 1948
Franklin, Kentucky

I, William J. Phillips do hereby state that none of my buildings or appurtenances were damaged in any way by crash of aircraft piloted by Captain Thomas F. Mantell Jr., Kentucky Air National Guard when it crashed in my field one hundred and fifty yards to the left of my home.

s/William J. Phillips

WITNESS: I s/Douglas J. McGill
1050 Howland Avenue, Louisville, Kentucky

II s/Richard L. Tyler
132 Fortress Street, Louisville, Kentucky

A CERTIFIED TRUE COPY:

s/Robert R. Rankin
Captain, USAF

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RESTRICTED

AFFIDAVIT

January 7, 1948
Franklin, Kentucky

I, William C. Mayes of Route #3, Lake Spring Road, Franklin, Kentucky, Simpson County do state that on 7 January 1948 at approximately three-fifteen P.M I heard an airplane overhead making a funny noise as if he were diving down, and pulling up, but it wasn't, it was just circling. After about three circles the airplane started into a power dive slowly rotating. The plane was so high I could hardly see it when it started down. It started to make a terrific noise, ever increasing, as it descended. It exploded half way between where it started the dive and the ground. No fire was seen. It hit or crashed at three-twenty P.M., Central. It didn't explode when it hit the ground and did not burn.

In witness whereof, I have hereunto set my hand and seal at my home on Route #3, Lake Spring Road, Franklin, Kentucky this 7th day of January 1948.

s/William C. Mayes
Route #3, Lake Spring Road
Franklin, Kentucky

Sworn to and subscribed before me
this 7th day of January 1948.

s/Richard L. Tyler
RICHARD L. TYLER
Captain Ky ANG
Summary Court Officer

A CERTIFIED TRUE COPY:

s/Richard L. Tyler
RICHARD L. TYLER
Captain Ky ANG

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RESTRICTED

AFFIDAVIT

7 January 1948
Franklin, Kentucky

I, Harry W. Booker, Coroner of Simpson County, Franklin, Kentucky, upon examining the dead body of Captain Thomas F. Mantell Jr. do state that the shattered watch of Captain Mantell stopped at 3:18 P.M. Central, which I fix as the time of death of Captain Mantell.

In witness whereof, I have hereunto set my hand and seal at Franklin, Kentucky this 7th day of January 1948.

s/Harry W. Booker
Coroner, Simpson County,
Kentucky

Sworn to and subscribed before me:
this 7th day of January 1948.

s/Richard L. Tyler
RICHARD L. TYLER
Captain Ky ANG
Surgery Court Officer

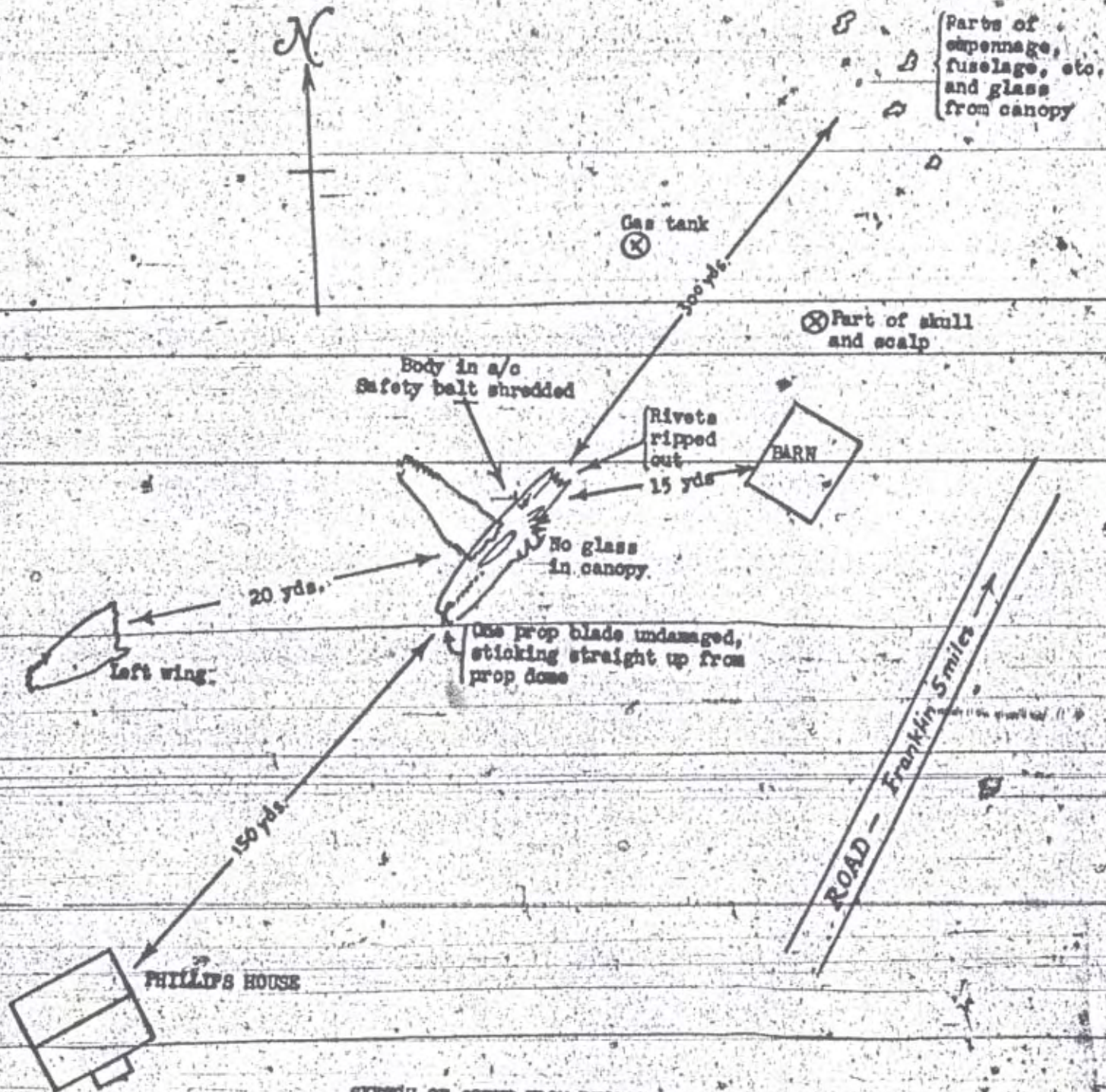
A CERTIFIED TRUE COPY:

s/Richard L. Tyler
RICHARD L. TYLER
Captain Ky ANG

220000

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SKETCH OF SCENE FROM PHOTOGRAPHS AND DESCRIPTION OF OFFICER AT SCENE