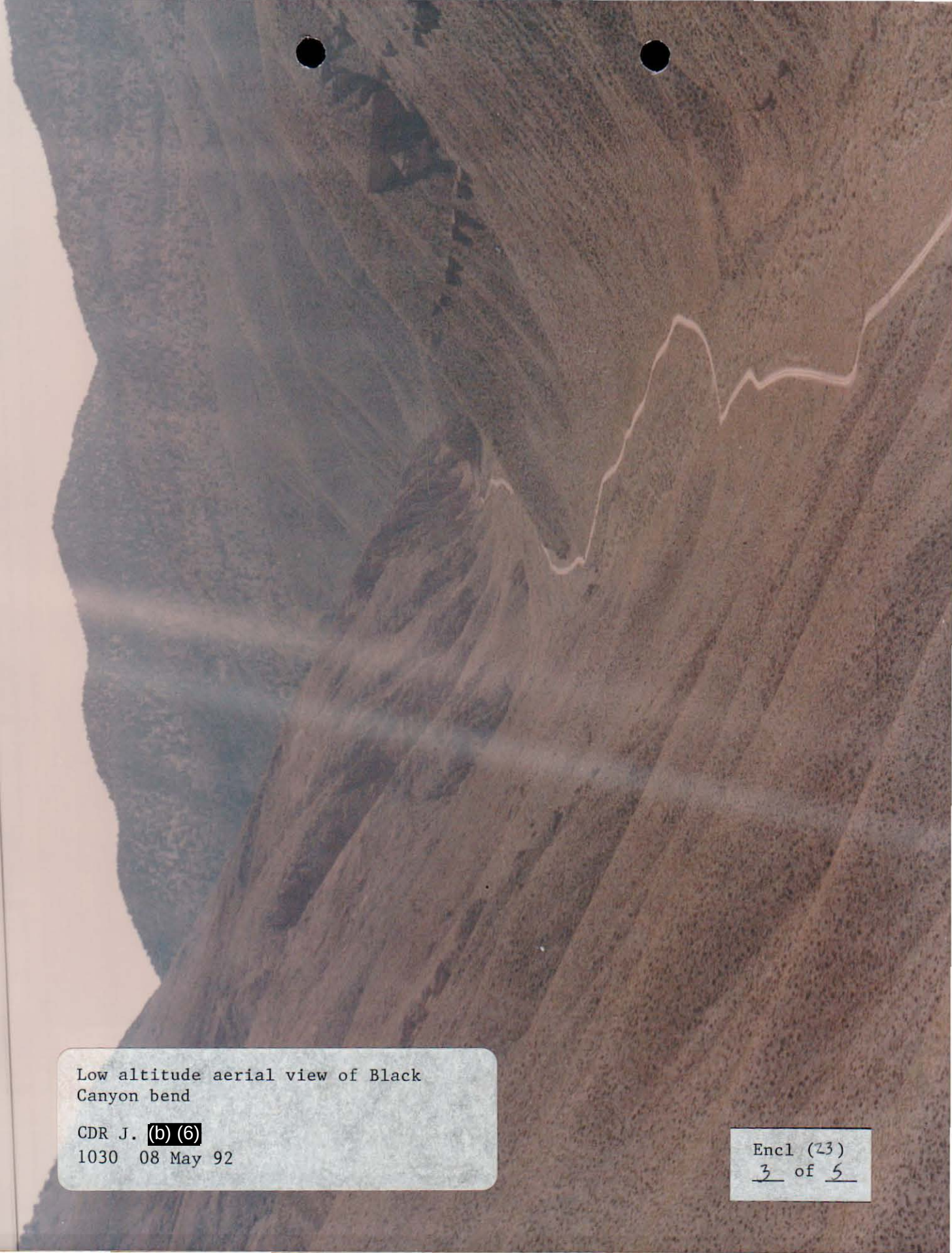

Low altitude aerial view of Black Canyon bend

CDR J. (b) (6)
1030 08 May 92

Encl (23)
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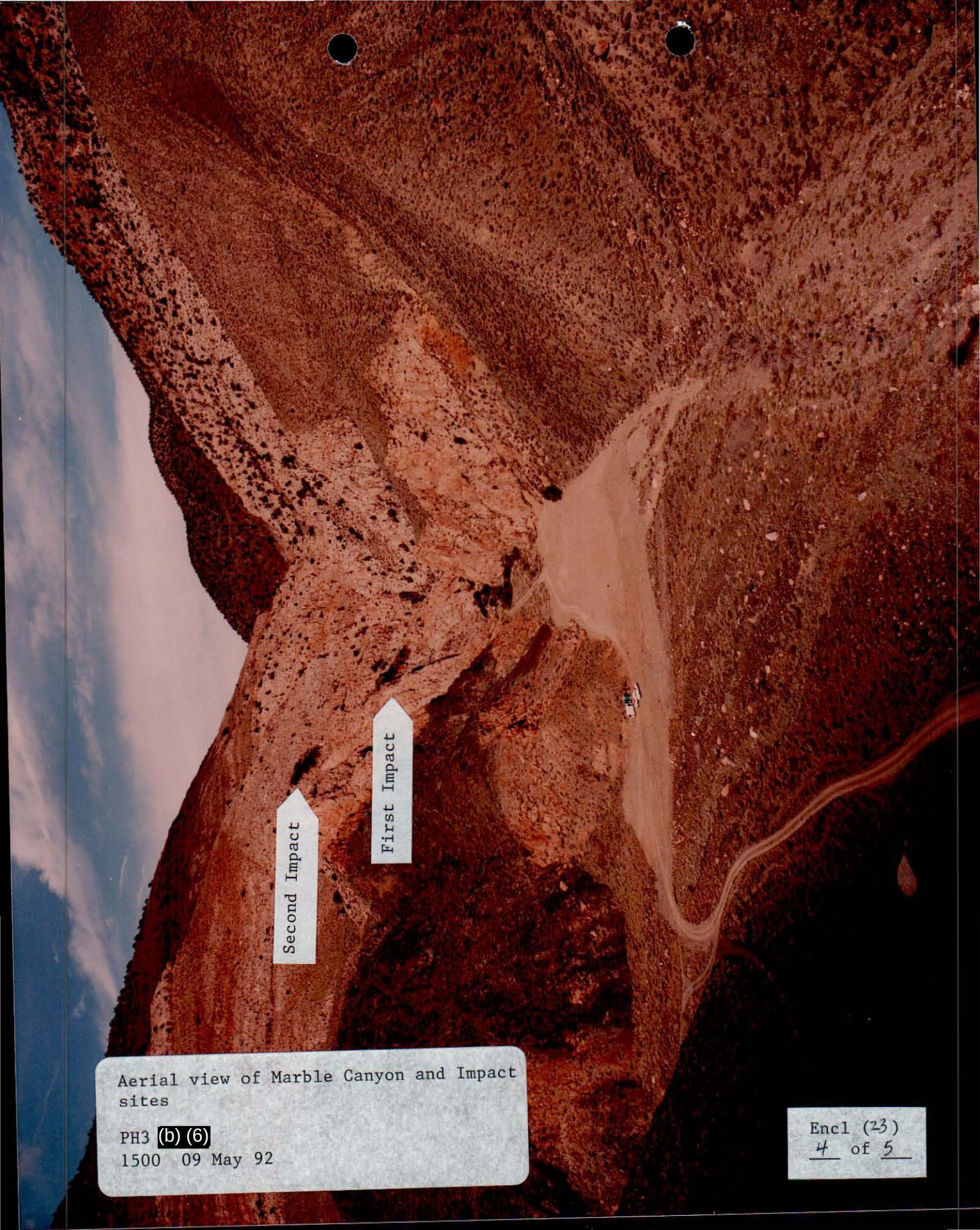

Aerial view of Marble Canyon and Impact sites

PH3 (b) (6)
1500 09 May 92

Encl (23)
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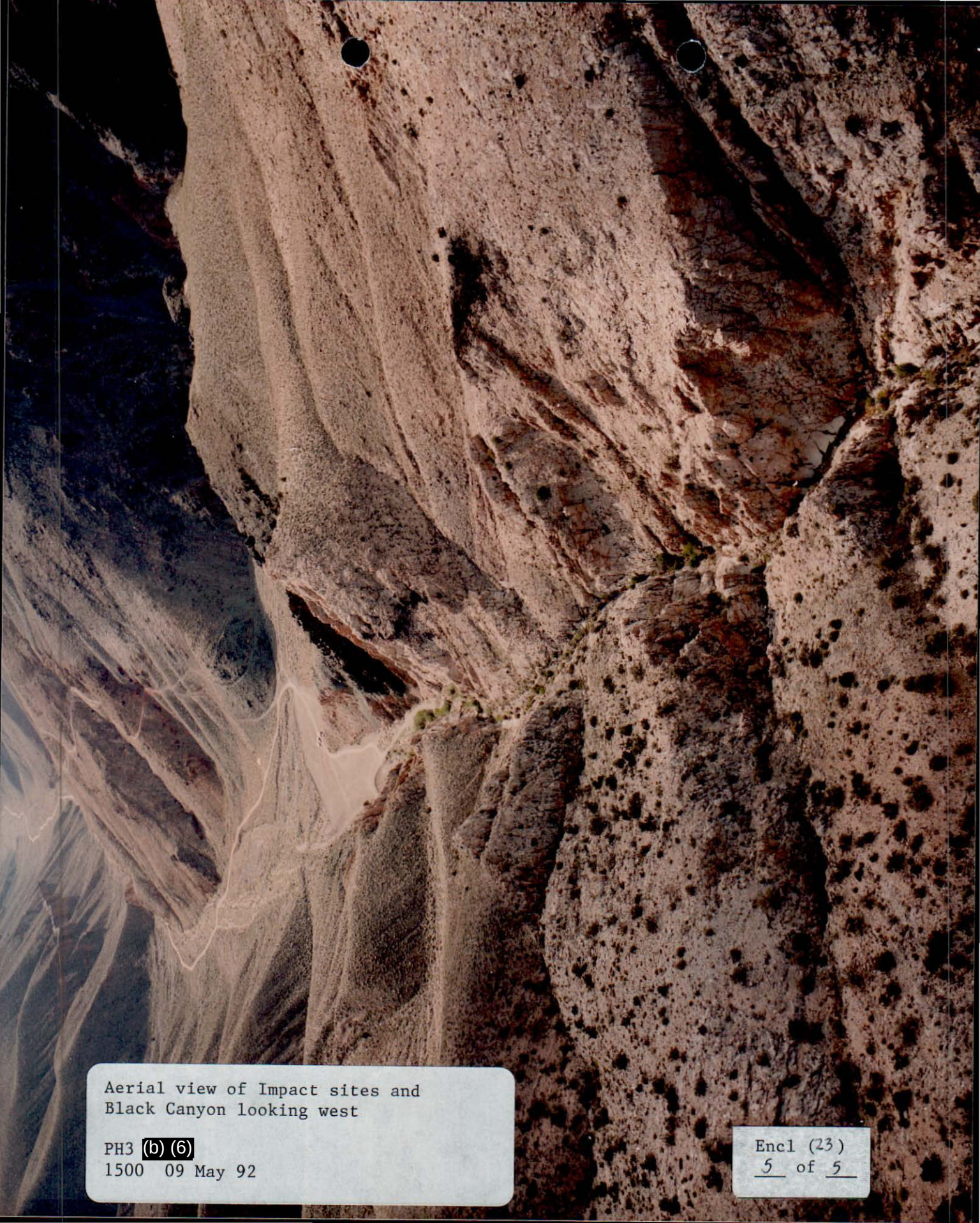

Aerial view of Impact sites and
Black Canyon looking west

PH3 (b) (6)
1500 09 May 92

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WRITTEN STATEMENT OF DR. (b) (6) (b) (6)
WITNESS IN BLACK CANYON

6-1-92

On the morning of May 7, 1992 at ~9:25 AM my family and i were in Black Canyon, southeast of Bishop. We were driving eastward at ~20 mph, windows down on a perfectly calm, sunny day. Unknown to us an F-18 jet was approaching the canyon behind us on a similar heading.

Our first awareness of the jet came as a high-pitched whine immediately building to deafening, vibrant thunder in the narrow defile. Our first visual contact was at 1 oclock high, approximately 150 feet above and 50 feet north of our vehicle, screaming straight through the canyon. The jet was horizontal initially, then rolled neatly about 60°-90° with the left (northernmost) wing downward and peeled a crisp turn up

canyon around the bend and out of our sight. "Vapes" were noted streaming off the lower wingtip through the middle of the turn. The entire visual encounter lasted 4-5 seconds and was exhilerating.

We accelerated to 30 mph and in 30 sec - 40 sec came around the bend where our second visual contact was flaming rock and the first wisps of smoke. At no time during the interim did we hear or feel any explosion or suspect any impact, but we were very interested in seeing the climb the jet would be pulling to get out of there.

Given by my own hand,

(b) (6) [redacted] MD

6-1-92

Dr. (b) (6) [redacted] works as an Emergency Room Doctor at the Inyo County Hospital. He has no flight experience. J. A.

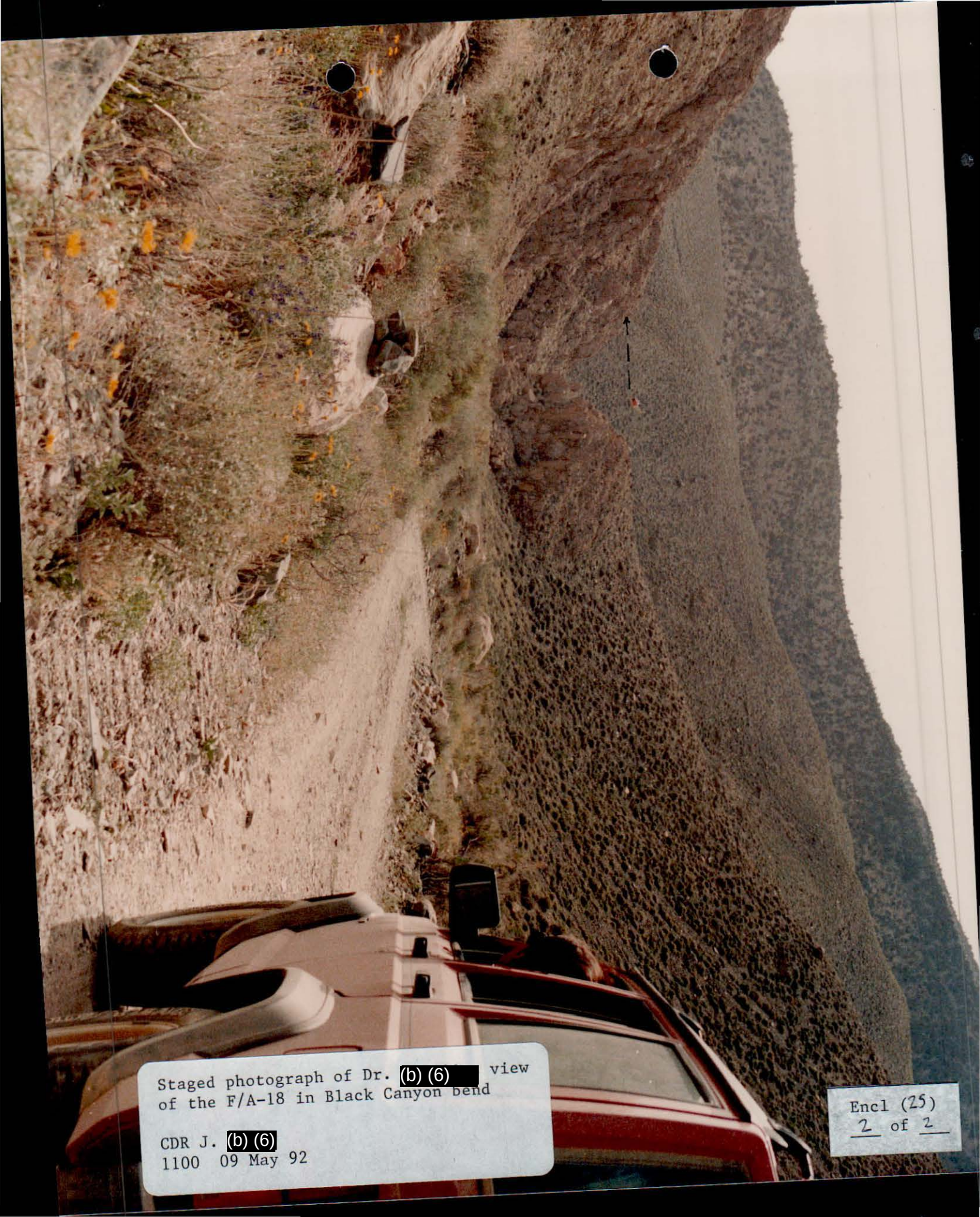
INVESTIGATING OFFICER'S NOTES FROM PERSONAL INTERVIEW WITH DR. (b) (6) (b) (6) WITNESS, ON 08 MAY 92

On the day after the mishap, I met with Dr. (b) (6) (b) (6) to discuss what he had seen. We drove to the location on the road in Black Canyon where he had witnessed BEEF 3 fly overhead. This position is approximately 1 mile below the impact site, and around a natural canyon bend.

Dr. (b) (6) was very explicit about what he saw, and very detailed in his description of the aircraft flight path. He was reluctant however, to estimate the aircraft's speed, because he was not a pilot and not familiar with high speed aircraft. He was remarkably observant, and his story matched well with the alignment of the impact marks and the canyon geography. I was especially surprised that he had noticed and described the white wingtip vortices (common to the F/A-18 under high G force), without prompting. He referred to the vortices as "white smoke or vapor coming from the wingtips". After talking with him for over an hour, I felt confident that he was a very credible witness.

While we were talking, the NAS Lemoore SAR helo overflew us several times. Using the helo as a reference, I had Dr. (b) (6) describe where he had seen BEEF 3, and how the aircraft moved through the canyon turn, just before Dr. (b) (6) lost sight of it. At one point, the helo reached the exact position that Dr. (b) (6) remembered seeing the F/A-18, and I took the attached picture. He further described that the F/A-18 had made a level turn so that it disappeared from view very quickly behind the rocky ridge. This description is also annotated on the picture.

(b) (6)



Staged photograph of Dr. (b) (6) view of the F/A-18 in Black Canyon bend

CDR J. (b) (6)
1100 09 May 92

Encl (25)
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INVESTIGATING OFFICER'S NOTES FROM TELEPHONE INTERVIEW OF LT (b) (6) (b) (6) USN, CHINA LAKE SAR PILOT, 08 JUNE 92

1. The NWC Rescue Report is considered priveleged information and was not available to the Investigating Officer.

2. Lt (b) (6) was the pilot of COSO 35, a Navy HH-1 helicopter based at NWC China Lake, CA.

3. NWC China Lake Air Traffic Control received a phone call about a possible down aircraft at 0930L on 07 May 92. ATC immediately initiated a recall of all China Lake aircraft in order to determine the missing aircraft identity.

4. At 0950L, China Lake ATC dispatched COSO 35 to conduct SAR for the mishap.

5. Using latitude and longitude information passed to them by ATC, COSO 35 located the mishap site at 1040L. Local Law Enforcement Officials were on the scene, but there was little other evidence of mishap (i.e., no fires and only occasional wisps of smoke).

6. After an initial search of the scene for survivors, COSO 35 landed in a large dirt parking area just below the first impact point. The SAR crewman spoke with the Sheriff on scene and was told that there was evidence of fatality.

7. The NWC SAR team began to assist in ground search of the mishap area. At around 1200L, Lt (b) (6) located the pilot's body. A Navy Flight Surgeon from China Lake, Lt. (b) (6), was on the scene and made a presumptive identification of LCDR McGuire, based on personal effects and flight gear markings.

8. A second NWC SAR helicopter joined COSO 35 at around 1130L. Both helicopters remained in the area most of the day, transporting personnel and equipment for securing the site.

(b) (6)

Alignment of impact sites from canyon floor

CDR J. (b) (6)
1030 09 May 92

Encl (27)
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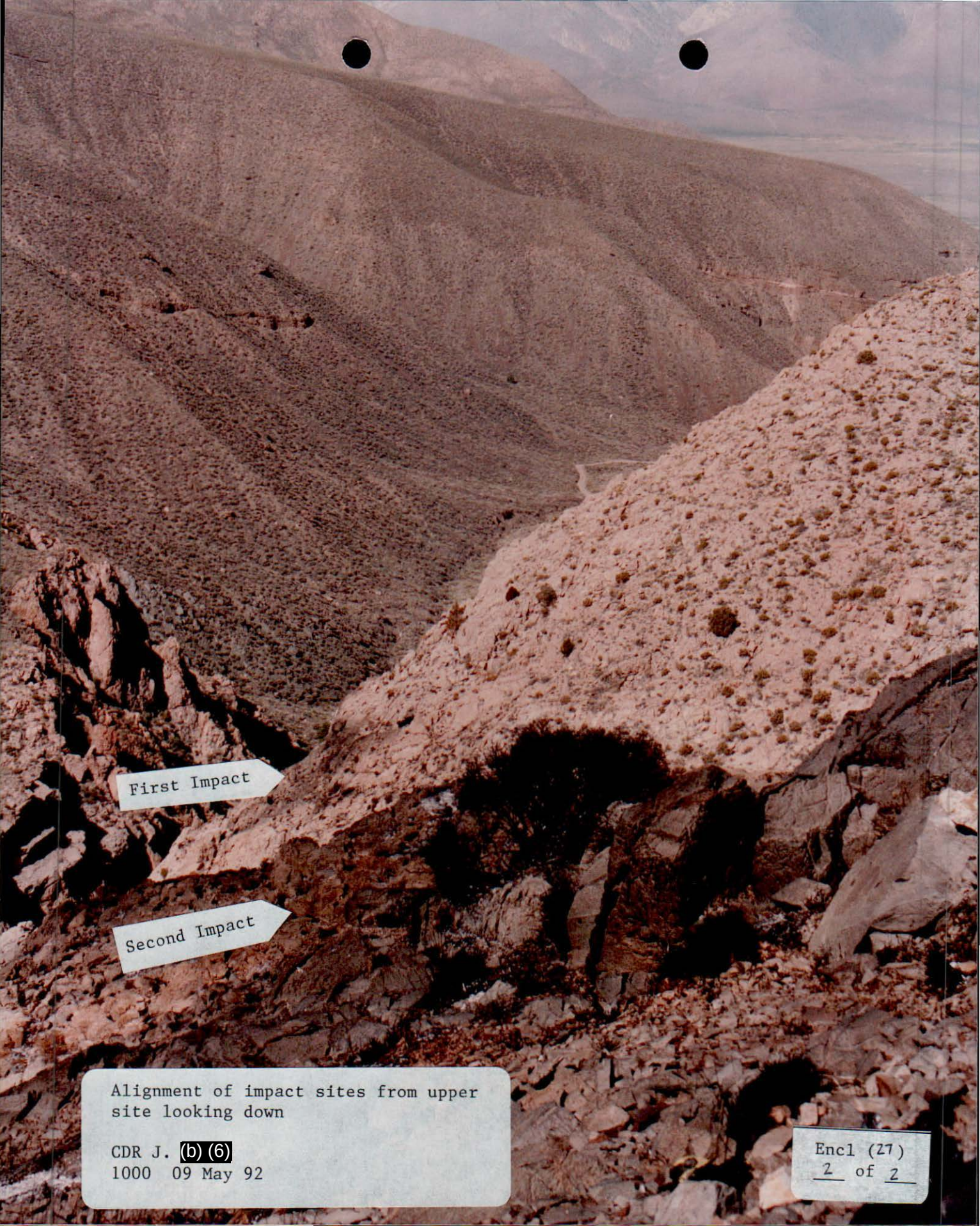
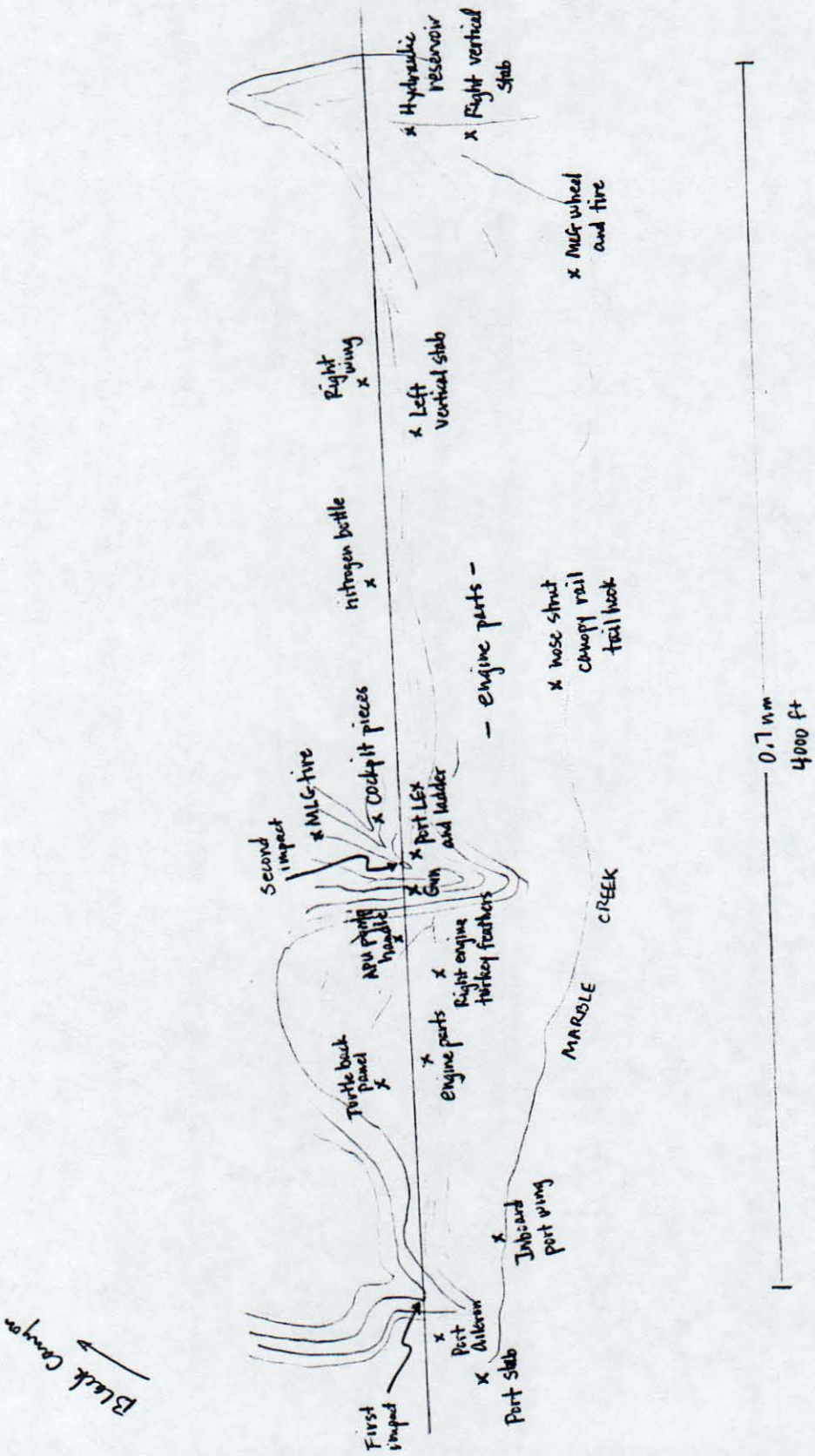


Alignment of impact sites from upper site looking down

CDR J. (b) (6)
1000 09 May 92

Encl (27)
2 of 2

PLOT OF MISHAP SCENE DEBRIS FIELD/WRECKAGE DISTRIBUTION



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ADMIN

NAVAVNDEPOT JACKSONVILLE FL//331//

STRKFITRON TWO TWO

NAVSAFECEN NORFOLK VA//133//

AIG FOUR TWO THREE

AIG SIX NINE EIGHT FIVE

INFO COMNAVAIRSYSCOM WASHINGTON DC//53612B/41043K//

COMSTRKFIGTWINGPAC LEMOORE CA//741//

COMCARAIRWING ELEVEN

COMNAVAIRPAC SAN DIEGO CA//722/7224//

NAVAVNDEPOTOPSCEN PATUXENT RIVER MD//JJJ//

NAVAVNDEPOT NORTH ISLAND CA//31510//

DPRO GE AIRCRAFT ENGINES MA//LE/LQ//

DPRO PRATT AND WHITNEY ACFT GP EAST HARTFORD CT//JJJ//

NAVAIRWARCENACDIV TRENTON NJ//JJJ//

UNCLAS //N04790//

MSGID/GENADMIN/NADEP JAX FL 331/-/-//

SUBJ/F404 FINAL ENGINEERING INVESTIGATION (EI) REPORT//

REF/A/TEL/NAVSAFECEN NORVA/14MAY92//

REF/B/RMG/VFA-22/191615ZMAY92//

REF/C/RMG/NADEP JAX/280733ZMAY92//

(b) (6) [redacted], AERO ENGR, 331, 3587 332/382/623

(b) (6) [redacted], SU AERO ENGR,331,3598

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REF/D/DOC/OPNAVINST 4790.2E/-//

NARR/REF A IS PHONCON BTWN MAJ (b) (6), CODE 133/(b) (6), NADEP JAX, CODE 331 DISCUSSING MISHAP. REF B IS EI REQUEST. REF C ASSIGNED EI CONTROL NR. REF D CONTAINS EI PROCEDURES.//

POC/(b) (6)/GS-11/PRIPHN:(904)772-3587/-/CODE 331/SECPHN:AV 942-3587//

RMKS/1. VFA-22/09561

2. R09561-92-0011

3. A/C MODEL: F/A-18C; BUNO: 164031; ENG MODEL: F404-GE-400; NOMEN: ENGINE, TURBOFAN; P/N: 6046T10G01; S/N: 311641 (LEFT), 311640 (RIGHT); WUC: 27400; MFG: 77445.

4. NAVAVNDEPOT JACKSONVILLE FL

5. WC3-EI-F404-018-2M

6. TSN: (LEFT) 815 EFH/1103 EOT; TSR: NEW
(RIGHT) 815 EFH/1133 EOT; TSR: NEW

7. LRA: (LEFT) NEW
(RIGHT) NEW

8. BACKGROUND: REF A ADVISED ORIG OF ACFT MISHAP AND REQUESTED ON SITE INVESTIGATION OF LEFT AND RIGHT ENGINES AT NAS LEMOORE CA. SQUADRON FORMALLY REQUESTED AN EI ON BOTH ENGINES PER REF B. REF C

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PROVIDED EI CONTROL NR. EI CONDUCTED AT LEMOORE CA IAW REF D.

9. DESCRIPTION OF FINDINGS: REMAINS OF BOTH ENGINES, ALONG WITH VARIOUS ACFT STRUCTURE AND SYSTEM COMPONENTS, WERE DELIVERED TO NAS LEMOORE CA IN SEVERAL LARGE CONTAINERS. ENGINE DEBRIS WAS SEPARATED FROM OTHER ACFT DEBRIS AND COMPONENTS WHICH COULD BE ASSIGNED TO A SPECIFIC ENGINE, BASED ON PART S/N AND PLTS DATA, WERE SEPARATED. INSPECTION REVEALED THE FOLLOWING:

A. ENGINE S/N 311641 (LEFT):

1. FAN: THE STG ONE DISK WAS RECOVERED AS A SEPARATE COMPONENT. THIS DISK EXHIBITED MODERATE SCORING FULL THREE HUNDRED SIXTY DEGREES ON ITS FORWARD FACE. ONLY FIVE BLADES REMAINED IN THE STG ONE DISK. ALL FIVE WERE SHEARED OFF AT OR BELOW THEIR MIDSPAN DAMPERS AND EXHIBITED SEVERE BENDING/CURLING OF THEIR LEADING EDGE OPPOSITE DIRECTION OF ROTOR ROTATION (DORR). THE STG TWO AND THREE DISKS REMAINED CONNECTED AS A UNIT. THE STG TWO DISK EXHIBITED MODERATE SCORING ON THE SEAL TEETH AND DISK DRUM FULL THREE HUNDRED SIXTY DEGREES. ONLY NINE BLADES REMAINED THE STG TWO DISK. THREE OF THESE BLADES WERE SHEARED OFF EVEN WITH THEIR PLATFORM. REMAINING STG TWO BLADES EXHIBITED TIP BENDING OPPOSITE DORR AND SEVERE DAMAGE OF THE LEADING AND TRAILING EDGES. STG THREE DISK EXHIBITED SEVERE

DEFORMATION, SEVERE SCORING OF SEAL TEETH FULL THREE HUNDRED SIXTY DEGREES, AND SEVERE SCORING FULL THREE HUNDRED SIXTY DEGREES ON THE DISK DRUM. ONLY ONE BLADE REMAINED IN THE STG THREE DISK AND IT WAS SHEARED OFF EVEN WITH THE PLATFORM. NR ONE BEARING WAS INTACT AND SHINY. PORTION OF FRONT FRAME (S/N KSBH6263) OUTER FLOWPATH FAIRING WAS RECOVERED. TWO INLET GUIDE VANE (IGV) WITNESS MARKS WERE EVIDENT. BOTH IGV ANGLES WITH RESPECT TO ENGINE CENTER LINE MEASURED -20 DEGREES. THIS CORRESPONDS TO AN N1 SPEED OF APPROX 100 PERCENT.

2. HIGH PRESSURE COMPRESSURE (HPC): STG ONE AND TWO SPOOL, STG THREE DISK, AND STG FOUR THROUGH SEVEN SPOOL WERE RECOVERED AS SEPARATE COMPONENTS. STG ONE AND TWO SPOOL EXHIBITED SEVERE SCORING ON ITS FORWARD FACE, SEVERE SCORING ON ITS DRUM AREA FULL THREE HUNDRED SIXTY DEGREES, AND SEVERE SCORING ON BOTH STG ONE AND STG TWO SEAL TEETH FULL THREE HUNDRED SIXTY DEGREES. STG ONE SEAL TEETH WERE ALMOST COMPLETELY WORN AWAY. EXTREME DISCOLORATION (BLUEING) OF BOTH STGS OF SEAL TEETH WAS EVIDENT. SIX STG ONE BLADES AND THIRTY TWO STG TWO BLADES REMAINED IN THE SPOOL. ALL BLADES WERE SHEARED OFF EVEN WITH THEIR PLATFORM. STG THREE DISK EXHIBITED SEVERE SCORING ON THE FORWARD AND AFT SIDES OF THE DISK BLADE SLOT. THIRTY THREE STG THREE BLADES REMAINED IN THE DISK. ALL BLADES WERE SHEARED OFF EVEN WITH

THEIR PLATFORM. STG FOUR THROUGH SEVEN SPOOL EXHIBITED SEVERE SCORING ON STGS THREE THROUGH SIX SEAL TEETH. DRUM AREA OF SPOOL IN STGS FOUR THROUGH SIX EXHIBITED SEVERE SCORING. CONICAL AREA OF SPOOL AFT OF STG SEVEN EXHIBITED SEVERE DEFORMATION AND SCORING. TWENTY NINE STG FOUR BLADES, FORTY FIVE STAGE FIVE BLADES, FIFTY STG SIX BLADES, AND SEVENTY FIVE STG SEVEN BLADES REMAINED IN THE SPOOL. ALL BLADES WERE SHEARED OFF EVEN WITH THEIR PLATFORM. NR THREE BEARING WAS INTACT AND SHINY. NR TWO BEARING WAS NOT VISIBLE. COMBUSTION CHAMBER CASE WAS SEVERELY DEFORMED BY IMPACT FROM FIVE TO NINE O'CLOCK POSITION AFT LOOKING FORWARD (ALF). OUTLET GUIDE VANES IN COMBUSTION CASE EXHIBITED MODERATE LEADING EDGE DAMAGE. FUEL NOZZLES AVAILABLE FOR EVALUATION AND COMBUSTION CASE EXHIBITED NO UNUSUAL DISCOLORATION OR EVIDENCE OF HEAT DISTRESS.

3. HIGH PRESSURE TURBINE (HPT): APPROX 0.500 INCH AXIAL SECTION OF FORWARD SHAFT REMAINED ATTACHED TO THE HPC STG FOUR THROUGH SEVEN SPOOL. REMAINDER OF SHAFT WAS NOT RECOVERED. DISK WAS NOT RECOVERED. TWO SECTIONS OF REAR SHAFT WERE RECOVERED. OUTER DIAMETER OF MOUNT FLANGE EXHIBITED SEVERE SCORING FULL THREE HUNDRED SIXTY DEGREES. SEAL TEETH OF REAR SHAFT ALSO EXHIBITED SEVERE SCORING THREE HUNDRED SIXTY DEGREES.

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4. LOW PRESSURE TURBINE (LPT): DISK WAS RECOVERED. ONLY EIGHTEEN BLADES REMAINED IN THE DISK. ALL BLADES WERE SHEARED OFF EVEN WITH THE DISK POSTS. DISK EXHIBITED SEVERE SCORING THREE HUNDRED SIXTY DEGREES ON FORWARD FACE OF WEB. DISK WAS ALSO WARPED/DEFORMED. CONICAL SHAFT EXHIBITED SEVERE DEFORMATION IN WEB AREA AND SEVERE SCORING ON AFT FACE OF WEB. NR FIVE BEARING WAS INTACT AND SHINY.

B. ENGINE S/N 311640 (RIGHT):

1. FAN: ALL THREE DISKS WERE RECOVERED AS SEPARATE COMPONENTS. TWENTY BLADES REMAINED IN THE STG ONE DISK. ELEVEN BLADES WERE SHEARED OFF JUST ABOVE THEIR MIDSPAN DAMPERS. FOUR BLADES EXHIBITED "S" TYPE DEFORMATION WITH THE BLADE TIPS BENT OPPOSITE DORR. FIVE BLADES EXHIBITED TIP BENDING OPPOSITE DORR WITH SEVERE TIP DISCOLORATION (BLUEING). ALL STG ONE BLADES EXHIBITED SEVERE LEADING EDGE AND TRAILING EDGE CURLING/BENDING DAMAGE OPPOSITE DORR. STG TWO DISK EXHIBITED SEVERE SCORING ON THE SEAL TEETH AND DISK DRUM FULL THREE HUNDRED SIXTY DEGREES. THIRTY FIVE STG TWO BLADES REMAINED IN THE DISK. EIGHT OF THESE BLADES WERE SHEARED OFF EVEN WITH THEIR PLATFORM. TWO BLADES EXHIBITED TIP BENDING IN DORR. REMAINING BLADES EXHIBITED TIP BENDING OPPOSITE DORR. TEN STG TWO BLADES EXHIBITED MINOR LEADING EDGE CURLING/BENDING DAMAGE IN DORR. REMAINING BLADES

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EXHIBITED MINOR LEADING EDGE CURLING/BENDING DAMAGE OPPOSITE DORR. TRAILING EDGE OF ALL BLADES EXHIBITED CURLING/BENDING DAMAGE OPPOSITE DORR. STG THREE DISK EXHIBITED SEVERE SCORING ON THE SEAL TEETH AND DISK DRUM ACCOMPANIED BY EXTREME DISCOLORATION (BLUEING) FULL THREE HUNDRED SIXTY DEGREES. TWENTY THREE STG THREE BLADES REMAINED IN THE DISK. TWO BLADES WERE SHEARED OFF EVEN WITH THEIR PLATFORM. REMAINING BLADES EXHIBITED SEVERE TIP BENDING OPPOSITE DORR, SEVERE LEADING EDGE DAMAGE ACCOMPANIED BY CURLING/BENDING OPPOSITE DORR, AND MULTIPLE NICKS AND TEARS OF TRAILING EDGE. NR ONE BEARING WAS INTACT AND SHINY. SECTION OF FAN STATOR CASE (S/N PWA12002) WAS RECOVERED. ALL THREE BLADE PATHS EXHIBITED SEVERE BLADE TIP RUB WITH NUMEROUS NICKS AND GOUGES IN THE ABRADABLE COATING. STG ONE VANES EXHIBITED MINOR NICKS ON THE LEADING EDGE AND NUMEROUS SEVERE NICKS AND TEARS ON THE TRAILING EDGE. STG TWO VANES EXHIBITED MINOR NICKS ON THE LEADING EDGE AND MULTIPLE NICKS AND TEARS ON THE TRAILING EDGE WITH SEVERE CURLING/BENDING IN DORR. STG THREE VANES EXHIBITED MULTIPLE MAJOR NICKS ON THE LEADING EDGE AND MINOR NICKS ON THE TRAILING EDGE.

2. HPC: FORWARD SHAFT, STG ONE AND TWO SPOOL, STG THREE DISK, AND STG FOUR THROUGH SEVEN SPOOL WERE RECOVERED AS SEPARATE COMPONENTS. FORWARD SHAFT EXHIBITED SEVERE SCORING ON THE SEAL TEETH

WITH EXTREME DISCOLORATION (BLUEING). SHAFT ALSO EXHIBITED SCORING ON FORWARD SIDE OF WEB FULL THREE HUNDRED SIXTY DEGREES. STG ONE AND TWO SPOOL EXHIBITED SEVERE SCORING ON BOTH STG ONE AND STG TWO SEAL TEETH WITH EXTREME DISCOLORATION (BLUEING) FULL THREE HUNDRED SIXTY DEGREES. DRUM AREA OF SPOOL AT BOTH STGS ALSO EXHIBITED SEVERE SCORING FULL THREE HUNDRED SIXTY DEGREES. TWENTY FOUR STG ONE BLADES REMAINED IN THE STG ONE AND TWO SPOOL. TWENTY ONE BLADES WERE SHEARED OFF EVEN WITH THEIR PLATFORM. REMAINING THREE BLADES EXHIBITED SEVERE TIP BENDING OPPOSITE DORR AND MULTIPLE NICKS AND TEARS ON THE LEADING AND TRAILING EDGES. FIFTEEN STG TWO BLADES REMAINED THE STG ONE AND TWO SPOOL. EIGHT BLADES WERE SHEARED OFF EVEN WITH THEIR PLATFORM. REMAINING SEVEN BLADES EXHIBITED SEVERE TIP BENDING OPPOSITE DORR. THESE BLADES EXHIBITED SEVERE NICKS AND TEARS ON THE LEADING EDGE AND MINOR NICKS AND TEARS ON THE TRAILING EDGE. STG THREE DISK EXHIBITED SEVERE SCORING ON THE FORWARD SEAL LIP AND AFT SIDE OF THE BLADE SLOT FULL THREE HUNDRED SIXTY DEGREES. FIFTY TWO BLADES REMAINED IN THE STAGE THREE DISK. ALL BLADES WERE SHEARED OFF EVEN WITH THEIR PLATFORM. STG FOUR THROUGH SEVEN SPOOL EXHIBITED SEVERE SCORING ON STG FOUR, STG FIVE, STG SIX, AND STG SEVEN SEAL TEETH WITH EXTREME DISCOLORATION (BLUEING) ON STGS FIVE, SIX, AND SEVEN. FORWARD FACE OF

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BLADE SLOT ON STGS FOUR, FIVE, SIX, AND SEVEN EXHIBITED SEVERE SCORING FULL THREE HUNDRED SIXTY DEGREES. ALL STG FOUR BLADES REMAINED IN THE SPOOL. NINETEEN BLADES EXHIBITED TIP BENDING OPPOSITE DORR, NUMEROUS NICKS AND TEARS ON THEIR LEADING EDGE, AND MINOR NICKS ON THEIR TRAILING EDGE. REMAINING BLADES WERE SHEARED OFF EVEN WITH THEIR PLATFORM. SEVENTY TWO STG FIVE BLADES REMAINED IN THE SPOOL. TWENTY THREE OF THESE BLADES WERE SHEARED OFF EVEN WITH THEIR PLATFORM. REMAINING BLADES EXHIBITED TIP BENDING OPPOSITE DORR AND NUMEROUS NICKS AND TEARS ON THEIR LEADING AND TRAILING EDGES. SEVENTY STG SIX BLADES REMAINED IN THE SPOOL. TWENTY FIVE WERE SHEARED OFF EVEN WITH THEIR PLATFORM. REMAINING BLADES EXHIBITED TIP BENDING OPPOSITE DORR AND NUMEROUS NICKS AND TEARS ON THEIR LEADING AND TRAILING EDGES. THIRTY SEVEN STG SEVEN BLADES REMAINED IN THE SPOOL. NINE BLADES WERE SHEARED OFF EVEN WITH THEIR PLATFORM. REMAINING BLADES EXHIBITED TIP BENDING OPPOSITE DORR AND MINOR NICKS ON THEIR LEADING AND TRAILING EDGES. NR TWO AND NR THREE BEARINGS WERE INTACT AND SHINY. COMBUSTION CASE WAS SEVERELY DEFORMED BY IMPACT FROM ONE TO FIVE O'CLOCK POSITION ALF. OUTLET GUIDE VANES AND FUEL NOZZLES AVAILABLE FOR EVALUATION EXHIBITED LIGHT METALIZATION. NO UNUSUAL DISCOLORATION OR EVIDENCE OF HEAT DISTRESS WAS NOTED IN THE

COMBUSTION AREA. CRASH DEBRIS REMOVED FROM BETWEEN THE COMBUSTION LINER AND CASE WAS CHARRED/BURNED.

3. HPT: FORWARD SHAFT WAS ONLY ROTATING COMPONENT RECOVERED. DRUM OF SHAFT AND SEAL TEETH EXHIBITED SEVERE SCORING FULL THREE HUNDRED SIXTY DEGREES WITH EXTREME DISCOLORATION (BLUEING) OF THE SEAL TEETH EVIDENT.

4. LPT: INNER HUB OF EXHAUST FRAME CONTAINING NR FIVE BEARING WAS RECOVERED. BEARING WAS BADLY DAMAGED FROM IMPACT WITH SOME ROLLING ELEMENTS MISSING. PARTS OF BEARING AVAILABLE FOR INSPECTION WERE SHINY WITH NO UNUSUAL PRE-IMPACT CONDITION EVIDENT. NO OTHER IDENTIFIABLE COMPONENTS OF THIS SECTION WERE RECOVERED.

5. ACCESSORIES: A SMALL SECTION OF THE MAIN FUEL CONTROL WAS RECOVERED. NO USEFUL INFORMATION COULD BE GAINED FROM IT. NO OTHER ASSIGNABLE ACCY'S WERE RECOVERED.

C. MISC COMPONENTS:

1. REMNANTS OF THE VARIABLE EXHAUST NOZZLES (VEN'S) OF BOTH ENGINE AFTERBURNERS WERE RECOVERED. NO USEFUL INFO WAS GAINED FROM THESE COMPONENTS.

2. PORTIONS OF BOTH AFTERBURNER LINERS WERE RECOVERED. NO EVIDENCE OF EXTREME TEMPERATURE/HEAT DISTRESS WAS NOTED.

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3. APPROX EIGHTY PERCENT OF AN UPPER OUTER BYPASS DUCT (S/N 114) WAS RECOVERED. THIS DUCT EXHIBITED SEVERE DISCOLORATION ON THE EXTERNAL SURFACE AND DELAMINATED AND MELTED VITON ON THE INTERNAL SURFACE. FLOW OF MELTED VITON WAS IN A CIRCUMFERENTIAL DIRECTION FROM THREE TO TWELVE O'CLOCK POSITION AND NINE TO TWELVE O'CLOCK POSITION.

4. SECTION OF ONE LPT CASE (S/N PWA14018) WAS RECOVERED WITH LPT STATOR SHROUDS. SHROUDS EXHIBITED SEVERE BLADE TIP RUB AND NUMEROUS NICKS AND GOUGES.

5. ONE LPT NOZZLE SUPPORT (NOT IDENTIFIABLE) WAS RECOVERED AND EXHIBITED SEVERE WEAR IN THE HONEYCOMB SEALS. WEAR WAS ACCOMPANIED BY EXTREME DISCOLORATION.

6. ONE HPT NOZZLE SUPPORT (NOT IDENTIFIABLE) WAS RECOVERED AND EXHIBITED SEVERE WEAR IN THE HONEYCOMB SEALS. WEAR WAS ACCOMPANIED BY EXTREME DISCOLORATION.

7. TWO FAN VARIABLE GEOMETRY (FVG) ACTUATORS WERE RECOVERED. THE CYLINDERS OF BOTH ACTUATORS WERE BROKEN OPEN EXPOSING ACTUATOR PISTON POSITION AND INTERNAL WITNESS MARKS. PISTON OF ONE ACTUATOR (S/N APM2297) WAS IN A FULLY RETRACTED POSITION. THIS POSITION WAS CONFIRMED BY AN ACCOMPANYING WITNESS MARK AND CORRESPONDS TO AN N1 SPEED OF APPROX 100 PERCENT. PISTON OF OTHER ACTUATOR (S/N NOT

IDENTIFIABLE) WAS IN A FULLY EXTENDED POSITION. THIS POSITION WAS CONFIRMED BY AN ACCOMPANYING WITNESS MARK AND CORRESPONDS TO AN N1 SPEED OF APPROX 70 PERCENT OR BELOW.

D. LAB FINDINGS: THREE VEN ACTUATORS (ATTACHED TO SAME AFTERBURNER) AND ONE COMPRESSOR VARIABLE GEOMETRY (CVG) ACTUATOR WERE SUBMITTED TO NADEP JAX MATERIALS LAB FOR SECTIONING AND WITNESS MARK ANALYSIS. FOLLOWING OBSERVATIONS AND MEASUREMENTS WERE RECORDED:

1. VEN ACTUATORS: SECTIONING OF HOUSINGS REVEALED WITNESS MARKS IN ONLY TWO OF THE THREE ACTUATORS SUBMITTED. ACTUATOR S/N NWLCB1D8 MEASURED 16.250 INCHES EXTENDED. ACTUATOR S/N NWLCB1F3 MEASURED 16.400 INCHES EXTENDED. THESE MEASUREMENTS INDICATE VEN OF ONE ENGINE OPEN APPROX 55 TO 58 PERCENT.

2. CVG ACTUATOR (S/N ARK00271): SECTIONING OF HOUSING REVEALED A WITNESS MARK WHICH MEASURED 4.095 INCHES FROM FORWARD FACE OF HOUSING TO FORWARD FACE OF PISTON. THIS MEASUREMENT CORRESPONDS TO AN N2 SPEED OF APPROX 99 TO 100 PERCENT.

10. CONCLUSIONS: EXTREME FRAGMENTATION OF BOTH FAN AND COMPRESSOR SECTIONS OF EACH ENGINE INDICATES A HIGH ENERGY IMPACT. SEVERITY OF DAMAGE TO TURBINE SECTIONS OF EACH ENGINE INDICATES AFT END OF ENGINES IMPACTED FIRST. LOCATION OF DEFORMATION TO THE COMBUSTION

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CHAMBER CASES INDICATES A MULTIPLE IMPACT. ROTATIONAL DAMAGE (BLADES BENT OPPOSITE DORR, SCORING ON DISKS AND SPOOLS, SEVERE SCORING WITH DISCOLORATION TO ROTATING SEAL TEETH) EXHIBITED BY FAN, COMPRESSOR, AND TURBINE SECTIONS OF BOTH ENGINES INDICATES HIGH ROTATIONAL ENERGY AT IMPACT. FAN VANE IMPACT MARKS FROM ENGINE S/N 311641 (LEFT) WERE THE ONLY INDICATORS OF ENGINE SPEED WHICH COULD BE CONCLUSIVELY ASSIGNED TO A SPECIFIC ENGINE. THESE MARKS INDICATE N1 SPEED OF THIS ENGINE TO BE APPROX 100 PERCENT AT IMPACT. CVG ACTUATOR POSITION INDICATES N2 SPEED OF ONE ENGINE TO BE APPROX 99 TO 100 PERCENT AT IMPACT. EFFORTS TO PLACE THIS ITEM WITH A SPECIFIC ENGINE USING MFG DATA WAS UNSUCCESSFUL. FVG ACTUATOR S/N APM2297 PISTON POSITION INDICATES N1 SPEED OF ONE ENGINE TO BE APPROX 100 PERCENT AT IMPACT. THIS ACTUATOR IS MOST LIKELY FROM ENGINE S/N 311641 (LEFT) DUE TO CORRELATION WITH FAN VANE WITNESS MARKS EXHIBITED FROM THIS ENGINE. OTHER FVG ACTUATOR (S/N NOT IDENTIFIABLE) PISTON POSITION INDICATES N1 SPEED OF OTHER ENGINE TO BE APPROX 70 PERCENT OR BELOW AT IMPACT. HOWEVER, THIS IS NOT CONSISTENT WITH ROTATIONAL DAMAGE EXHIBITED BY THE ROTATING COMPONENTS OF EITHER ENGINE AND IS MOST LIKELY A RESULT OF THE FVG ACTUATOR CYCLING FULL CLOSED BETWEEN INITIAL AND SECONDARY IMPACT. CHARRED DEBRIS AND METALIZATION IN COMBUSTION SECTION OF

14 15 JUN 92 RR UUUU

ENGINE S/N 311640 (RIGHT) INDICATE THIS ENGINE WAS OPERATING AT IMPACT. VEN ACTUATOR MEASUREMENTS CORRESPOND TO VEN POSITION OF ONE ENGINE WITHIN AFTERBURNER POWER RANGE OF OPERATION AT IMPACT. HOWEVER, IT IS IMPOSSIBLE TO CONCLUSIVELY DETERMINE WHAT AREA OF AFTERBURNER OPERATION FROM COMPONENTS RECOVERED AND ON WHAT ENGINE THE ACTUATORS WERE INSTALLED. NO EVIDENCE OF INFLIGHT FIRE OR INTERNAL OVERTEMPERATURE PRESENT ON OR IN EITHER ENGINE. DAMAGE TO SECTION OF TITANIUM OUTER BYPASS DUCT IS ATTRIBUTED TO GROUND FIRE BASED ON DIRECTIONAL ORIENTATION OF MELTED VITON FLOW. BASED ON ALL AVAILABLE EVIDENCE, IT IS CONCLUDED THAT BOTH ENGINES WERE OPERATING AT HIGH ROTOR RPM AT IMPACT. ROTOR SPEED OF ENGINE S/N 311641 (LEFT) WAS APPROX 100 PERCENT. EXACT ROTOR SPEED OF ENGINE S/N 311640 (RIGHT) COULD NOT BE CONCLUSIVELY DETERMINED.

11. RECOMMENDATIONS: NONE.

12. RELATED INFORMATION: FINAL REPORT WAS DELAYED TWO WEEKS AWAITING MFG BUILD DATA FROM P&W. USE OF DATA WAS TO PLACE ACTUATORS ON SPECIFIC ENGINES. HOWEVER, DATA SUPPLIED DID NOT CONTAIN THIS INFORMATION.

13. PENDING ACTION: NONE.

14. CLOSING ACTION: THIS MSG CONSTITUTES CLOSING ACTION ON EI CONT NR

15 15 JUN 92 RR UUUU

WC3-EI-F404-018-2M.//

ADMINISTRATIVE MESSAGE

PRIORITY ROUTINE

P R 011932Z JUN 92 ZYB PSN 146089028

FM NAVAVNDEPOT NORTH ISLAND CA//314/05//

TO STRKFITRON TWO TWO//00/AMO// NAVSAFECEN NORFOLK VA//10/11/13//
AIG FOUR TWO THREE AIG SIX NINE EIGHT FIVE

INFO COMNAVAIRSYSCOM WASHINGTON DC//41053/5116F/5162/
/53014/5312I/PMA265//
COMCARAIRWING ELEVEN//00// DPRO ST LOUIS MO//RDALC/RDEPA//
COMSTRKFIGHTWINGPAC LEMOORE CA//741//
NAVAVNDEPOT NORFOLK VA//98340C/98821//
NAVAIRWARCENACDIV WARMINSTER PA//5320A//

BT
UNCLAS //N04790//

SECTION 01 OF 02
MSGID/GENADMIN/NADEP NORTH ISLAND/31420//
SUBJ/F/A-18 ACFT FINAL ENGINEERING INVESTIGATION (EI) REPORT//
REF/A/DOC/OPNAVINST 4790.2E/-//

DLVR:COMCARAIRWING NINE(2)...INFO
DLVR:STRKFITRON ONE FIVE ONE(2)...INFO
DLVR:TACELRON THREE FOUR(2)...INFO
DLVR:STRKFITRON TWO FIVE(2)...INFO
DLVR:STRKFITRON TWO TWO(2)...ACT
DLVR:NAFSU DET LEMOORE CA(1)...INFO
DLVR:NAMTRAGRU DET LEMOORE CA(2)...INFO
DLVR:STRKFITRON NINE FOUR(2)...INFO
DLVR:STRKFITRON ONE ONE THREE(3)...INFO
DLVR:STRKFITRON ONE TWO FIVE(4)...INFO
DLVR:STRKFITRON THREE ZERO THREE(2)...INFO
DLVR:ASO FA EIGHTEEN ARF LEMOORE CA(1)...INFO
DLVR:STRKFITRON ONE FOUR SEVEN(2)...INFO
DLVR:STRKFITRON ONE FOUR SIX(2)...INFO
DLVR:STRKFIGHTWPNSCOLPAC LEMOORE CA(1)...INFO
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CWO(1)...INFO FOR NAS LEMOORE CA(13) /18/0001
CWO ASSIGN DISTRO IAW SOP
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70(2)...INFO FOR COMSTRKFIGHTWINGPAC(13) 19939/17/0469
(10)80(1) 60(1) 41(1) 40(2) 31(1) 30(1) 19(1) 079(1) 01(1) 00(1)

RTD:000-000/COPIES:0029

146089/5729/153 1 OF 4 M1 0038 156/00:46Z 011932Z JUN 92
CSN:RXLA0039 NAVAVNDEPOT NORTH ISLAND CA//314/05//

AND EXHIBITED A DENTED PRIMER.

(C) FIRING PIN WAS NOT PROTRUDING FROM THE END OF THE GAS OPERATED FIRING PIN UNIT.

(D) DISASSEMBLY OF THE GAS OPERATED FIRING PIN UNIT ASSY REVEALED LACK OF BALLISTIC GAS RESIDUE ON THE INTERIOR, THE FIRING PIN'S SHEAR PIN SHEARED, AND THE FIRING PIN WAS LOCATED IN THE RETRACT POSITION.

(E) THE DROGUE GUN LOWER HOUSING HAD THE SUB-ASSY FIRING LINK, P/N MBEU 69557, AND THE SLOTTED END ASSY, P/N MBEU 69333, RETAINED IN PLACE. THE UPPER END OF THE SLOTTED END ASSY WAS BENT APPROX 30 DEGREES FORWARD. THE SLOTTED END ASSY RETAINED THE LOWER THREADED PORTION OF THE RACK AND FIRING PIN (SECTION BELOW THE SELF LOCKING SCREW).

(3) MANUAL OVERRIDE FIRING PIN ASSY: VISUAL INSPECTION OF THE FIRING PIN REVEALED THE UPSTANDING LEGS, WHICH TRAP THE SEAR, WERE BENT APPROX 33 DEGREES, AND THE SEAR WAS WITHDRAWN. CARTRIDGE, P/N MBEU 69690, WAS UNFIRED.

(4) CATAPULT OUTER BARREL: VISUAL INSPECTION REVEALED THE FOLLOWING:

(A) THE CATAPULT OUTER BARREL WAS BENT APPROX 30 DEGREES PORT AT APPROX 27 INCHES FROM THE LOWER END.

(B) THE LOWER END WAS EXTRACTED FROM THE LOWER FITTING AND FLATTENED.

(C) THE OUTER BARREL WAS ALSO BENT APPROX 15 DEGREES AT APPROX 6.5 INCHES FROM THE LOWER END.

(D) THE INNER AND INTERMEDIATE PISTON ASSYS WERE CAPTIVATED, AT THE SAME LENGTH, WITH NO EXTENSION.

(E) THE SECONDARY CARTRIDGE HOUSINGS AND GUIDE RAILS WERE NOT ATTACHED TO THE CATAPULT GUN. HOWEVER, A SECONDARY CARTRIDGE HOUSING WAS RETRIEVED WITH AN UNFIRED CARTRIDGE INSTALLED. CARTRIDGE PRIMER HAD RUPTURED OUTWARD AND INTERNAL GUN POWDER WAS VISIBLE.

(F) THE CATAPULT GUN LOWER END FITTING HAD A 1.75 INCH BY 4 INCH PIECE MISSING ON THE FORWARD SECTION BETWEEN THE 9 TO 12 O'CLOCK POSITIONS.

(5) EJECTION SEAT ROCKET MOTOR: ROCKET MOTOR CENTER BODY EXHIBITED SOME BENDING AND HAD ONE ROCKET MOTOR TUBE ATTACHED. VISUAL INSPECTION REVEALED THE ROCKET MOTOR EFFLUX NOZZLE BLOW-OUT DISKS WERE IN PLACE.

(6) ROCKET MOTOR TUBES:

(A) EIGHT ROCKET MOTOR TUBES WERE RETRIEVED FROM THE MISHAP SITE.

(B) VISUAL INSPECTION REVEALED 4 OF THE TUBES HAD VARIOUS AMOUNTS OF SOLID PROPELLANT INSIDE.

B. HORIZ STAB SERVOCYLINDER, P/N (93835) 3014000-6, S/N UNK: VISUAL INSPECTION REVEALED WITNESS MARKS ON THE CYLINDER AT APPROX 3.75 INCHES FROM THE FULL RETRACT POSITION.

UNCLAS //N04790//

FINAL SECTION OF 02
G. PORT LEF SWITCHING VALVE, P/N (76050) MC14448-1, S/N 193X: VISUAL INSPECTION REVEALED NO ABNORMALITIES EXCEPT IMPACT DAMAGE.
H. PORT RUDDER SWITCHING VALVE (LOCATION DETERMINED FROM ATTACHING HARDWARE), P/N (99643) 59440-7, S/N 3344:
(1) TESTING OF THE SWITCHING VALVE REVEALED THE VALVE WOULD NOT SHIFT INTO THE BACK-UP POSITION.
(2) TESTING OF THE SWITCHING VALVE REVEALED THE INTER SYSTEM LEAKAGE RATE WAS WITHIN LIMITS.
I. SWITCHING VALVE (POSITION UNKNOWN), P/N (99643) 59440-7, S/N 405X: VISUAL INSPECTION REVEALED MINOR WEAR ON THE THIRD AND FOURTH SEAL LANDS IN THE MAIN BORE OF THE RETURN MANIFOLD. VISUAL INSPECTION OF MAIN SPOOL AND SLEEVE ASSEMBLY REVEALED SPOOL MOVED FREELY BETWEEN ALL THREE POSITIONS.
J. HYDRAULIC RESERVOIR, HS1, P/N (92003) 3780017-104, S/N UNK: VISUAL INSPECTION REVEALED WITNESS MARKS AT THE "FULL" RESERVOIR POSITION.
K. TEF SERVOCYLINDER, P/N (28106) 287800-1005, S/N UNK: VISUAL INSPECTION REVEALED WITNESS MARKS AT APPROX 1.63 INCHES, 4.25 INCHES, AND 7.75 INCHES FROM THE FULL RETRACT POSITION.
10. CONCLUSIONS:
A. EJECTION SEAT COMPONENTS:
(1) NORTH ISLAND COULD NOT DETERMINE WHETHER THE CREW MEMBER

DLVR:COMCARAIRWING NINE(1)...INFO
DLVR:STRKFITRON ONE FIVE ONE(1)...INFO
DLVR:TACELRON THREE FOUR(1)...INFO
DLVR:STRKFITRON TWO FIVE(1)...INFO
DLVR:STRKFITRON TWO TWO(1)...ACT
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DLVR:ASO FA EIGHTEEN ARF LEMOORE CA(1)...INFO
DLVR:STRKFITRON ONE FOUR SEVEN(1)...INFO
DLVR:STRKFITRON ONE FOUR SIX(1)...INFO
DLVR:STRKFIGHTWPNSCOLPAC LEMOORE CA(1)...INFO

CWO(1)...INFO FOR NAS LEMOORE CA(1) /18/0001
CWO ASSIGN DISTRO IAW SOP

70(2)...INFO FOR COMSTRKFIGHTWINGPAC(13) 19939/17/0469
80(1) 60(1) 41(1) 40(2) 31(1) 30(1) 19(1) 079(1) 01(1) 00(1)

RTD:000-000/COPIES:0029

146097/5730/153 1 OF 3 M1 0039 156/00:47Z 011932Z JUN 92
CSN:RXLA0040 NAVAVNDEPOT NORTH ISLAND CA//314/05//

INVESTIGATING OFFICER'S OBSERVATIONS

Throughout the course of this investigation, I have observed and noted the following:

1. There are 2 distinct impact marks from the aircraft mishap. The second is located well uphill of the first, at an angle of about 20 degrees above the horizontal. Aligning the marks from both below and above suggests that the aircraft pulled up from a very low altitude, and a position very close to the south canyon wall (the outside of the aircraft turn).

2. Small brush fires ignited by the aircraft explosion consumed only a small amount of dry and dead brush and grass around the impact sites. Altogether, I would estimate that less than one acre of the rocky, treeless slope was burned.

3. Debris from the aircraft was scattered over a large area, approx one mile long, and up to 1/2 mile wide. The entire area is a steep, rocky mountainside and adjoining ravine. Most of the pieces of wreckage were sized between a tennis ball and a basket ball.

4. I spoke with members of the mishap team regarding the salvage operation. Team members had picked up all pieces that they could find, and eventually filled 35 tri-wall containers with wreckage over the 10 day salvage evolution. While they couldn't be certain that they had found every piece, they picked up even tiny bits of debris during several sweeps of the mountainside.

5. One member of the mishap team, LCDR (b) (6) [redacted], was questioned by a civilian from Bishop who owned some land at the mouth of Marble Canyon. The man, Mr. (b) (6) [redacted] was wondering if there was any residual hazardous material from the aircraft which might have fallen or washed down into the Marble Canyon stream. He said that he intended to use the Marble Canyon stream water in a holding pond on his property.

6. Based upon my own experience in the F/A-18, I feel certain that the Radar Altimeter would not register correctly in a hard turn through Black Canyon. The Radar Altimeter, which is a primary information source for low altitude flight, would register either 5000 ft (the maximum indication possible) or would range off of the canyon wall, indicating 500-700 ft.

7. I personally conducted tests in the F/A-18 flight simulator to determine some F/A-18 performance values. At 35000 lbs. gross weight, 5500 ft. MSL and 450 KCAS, I obtained the following data:

Maximum AOA attainable with full aircraft stick (7.5G) = Approx 10°

Minimum time to change FPA from +5° to +20° using full aft stick (7.5G) was approximately 2 seconds.

8. I am a Navy test pilot with 4700 flight hours of tactical jet experience and 1800 hours in the F/A-18.

(b) (6) [redacted]

AIRCRAFT FLIGHT PATH, TURNING G, AND PULL-UP DISTANCE CALCULATIONS

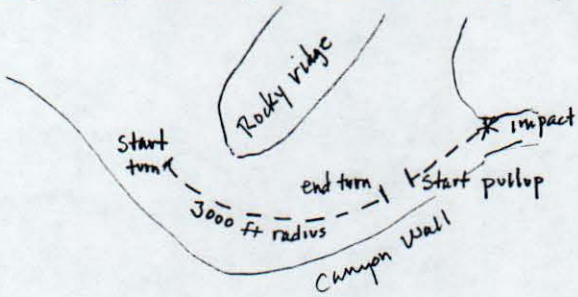
1. The following calculations were made by the Investigating Officer in order to approximate the flight profile of the mishap aircraft in the final seconds before impact. Letter annotations preceding numerical values in the matrix denote the following:

   A= assumed value
   M= measured value
   C= calculated value

2. Turning G calculations were based on the following relationship:

$$G = \frac{\text{radial acceleration}}{32} = \frac{(\text{velocity})^2}{(\text{turn radius}) \times 32}$$

3. The following diagram is provided for clarity:



AIRCRAFT SPEED			START TURN TO IMPACT		START TURN TO END TURN		START PULL-UP TO IMPACT		TURNING G	
KCAS	KTAS	FPS	Distance ft	time sec	Distance ft	Time sec	Time sec	Distance ft	Radius 2000 ft	Radius 3000 ft
A 360	C 390	C 650	M 4200	C 6.5	M 3000	C 4.6	M 2	C 1300	C 6.6	C 4.4
A 450	C 480	C 800	M 4200	C 5.2	M 3000	C 3.8	M 2	C 1600	C 9.9	C 6.6
A 540	C 570	C 950	M 4200	C 4.4	M 3000	C 3.2	M 2	C 1900	C 14.1	C 9.4

NOTES:
1. 360 KCAS is the minimum comfortable speed for low altitude flight.
2. 540 KCAS is the maximum speed attainable in military power for the aircraft configuration and weight.
3. Start of turn was determined by witness statement and canyon geography.
4. Time required to pull-up 20 degrees was determined by flight simulator tests to be 2 seconds.
5. 3000ft is the maximum turn radius possible in the Black Canyon bend.

(b) (6)

Black Canyon bend as seen from start of aircraft turn

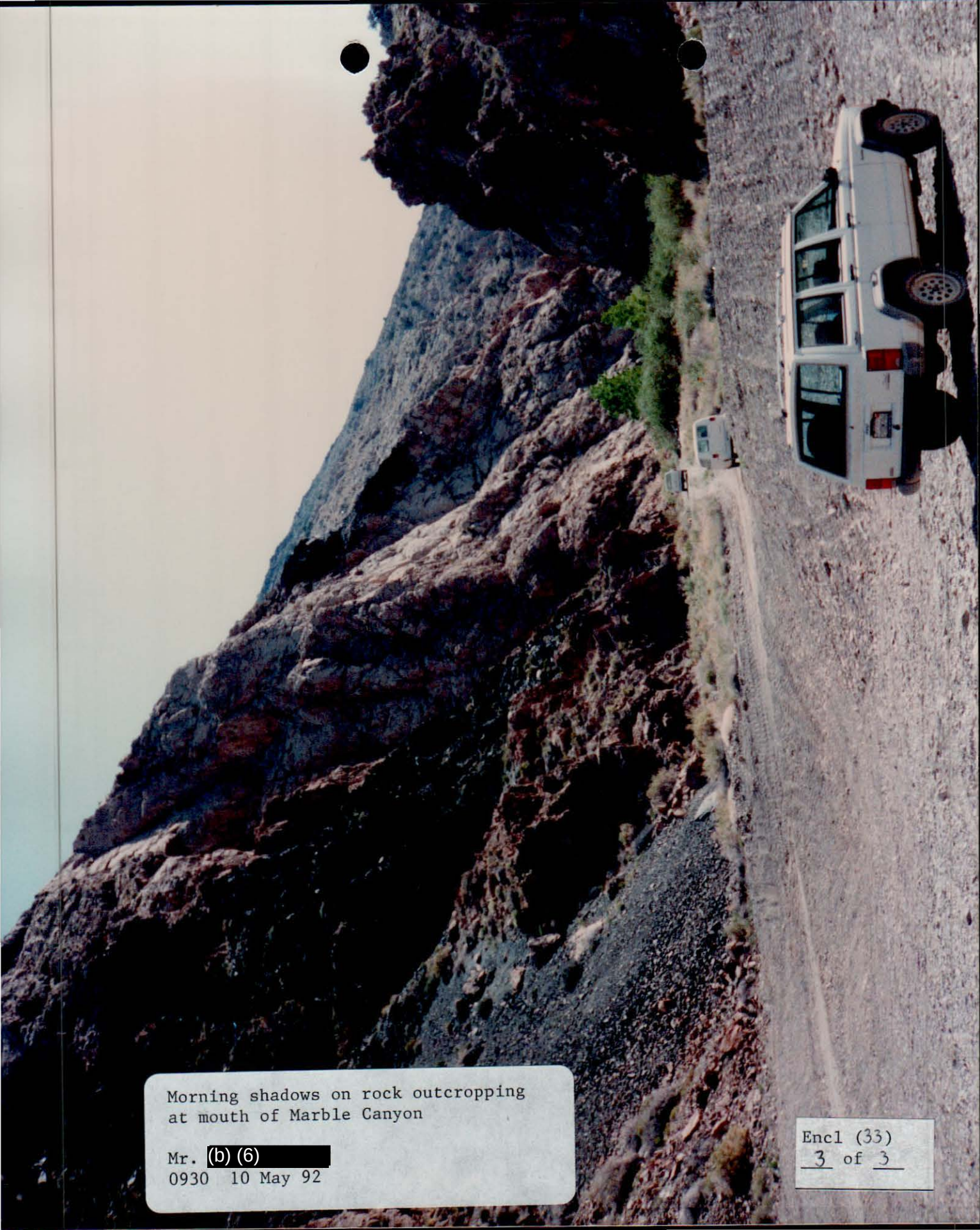
Mr. (b) (6) [redacted]
0925 10 May 92

Encl (33)
1 of 3

Morning shadows at mouth of Marble Canyon as seen from Black Canyon bend

Mr. (b) (6) [redacted]
0930 10 May 92

Encl (33)
2 of 3



Morning shadows on rock outcropping
at mouth of Marble Canyon

Mr. (b) (6) [redacted]
0930 10 May 92

Encl (33)
3 of 3

72 HOUR HISTORY FOR LCDR MCGUIRE

Monday 04 May 92
0630 woke, ate breakfast
1000 returned rental truck with son
1200 lunch at school with daughter
1300 cleaned old house
1400 picked up more boxes
1500 picked daughter up from school
1600 unpacked at new house
1800 Boston House Pizza and movie ("Silence Of The Lambs")
2000 friends stopped by to chat
2200 read book on couch
2330 to bed

Tuesday 05 May 92
0630 woke, ate breakfast
0900 took lawn mower to shop for repair
0930 to old house to clean
1100 picked up son and went to base to return moving blankets
1200 lunch at Señor Ponchos with wife and kids
1300 cleaned old house
1500 to glass shop and K-Mart
1530 picked up daughter from school
1600 to Visalia for mini-blinds and carpet
1800 Dinner at Little Cesears then home
1930 laid carpet at new house
2100 watched movie ("Doctors")
2330 read book, then bed

Wednesday 06 May 92
0500 woke up, ate cereal and juice
0600 to work
0630 brief
0800 launch on low-level warm-up
1000 recover and to meeting at SFWS
1200 left meeting, cold pizza for lunch
1300 called home and talked to wife
1530 picked daughter up from school
1540 to old house to move boxes
1600 working in yard, cottonwood trees bugging allergies, took Sudafed for itching eyes
1800 dinner at new house, spaghetti
1900 to couch to relax, rest, and read book
2300 to bed

Thursday 07 May 92
0600 woke up
0615 showered, ate cereal and juice
0700 in regular cheerful way, said goodbye to wife and hello to his truck as he left for work
0730 brief, bogey for 3 plane sweep
0907 launched
0926 mishap

SUMMARY OF AUTOPSY REPORT

NAVAL HOSPITAL, SAN DIEGO, CALIFORNIA
AUTOPSY REPORT PROTOCOL

NAME:	McGUIRE, Kenneth F.	Rank, Rate, Service:	LCDR/AD/USN
SSN:	20/(b) (6) [redacted]	Unit:	VFA-22, NAS Lemoore
Age:	33	Date/Hour Died:	05-07-92/1200
Race:	Caucasion	Date/Hour Autopsy:	05-08-92/1000-1130
Sex:	Male	Typist's Initials:	vml
Autopsy #:	A92-061	Transcription Date:	05-08-92
			06-08-92

Prosector: [redacted] (b) (6) [redacted], LCDR MC USN (b) (6) [redacted]
Assistant: HM1 (b) (6) [redacted]

APPROVED: (b) (6) [redacted], CDR MC USN (b) (6) [redacted]

Cause of Death: "Multiple blunt force injuries from high-G impact."

Manner of Death: "Accident."

Identification: "Fingerprint comparison (positive match)."

TOXICOLOGY: Skeletal muscle: Pseudoephedrine detected by gas chromatography/mass spectrometry.

Negative for amphetamine, antihistamines, barbiturates, benzodiazepines, cannabinoids, cocaine, lidocaine, meprobamate, methaqualone, narcotic analgesics, nicotine, opiates, phencyclidine and tricyclic antidepressants.

Opinion: "Toxicology studies showed negligible levels of pseudoephrine and are consistent with history of ingestion of 1-2 tablets one day prior to the crash."

* Summary provided in lieu of the full report. Full report contains descriptive information which is not important to this investigation.

(b) (6) [redacted]

Encl (35)
1 of 1

08 Jun 92

From: LT (b) (6) [redacted], VFA-125 Flight Surgeon
To: CDR (b) (6) (b) (6) JAG Investigation

Subj: JAG INVESTIGATION ICO LCDR K. F. MCGUIRE, (b) (6) [redacted]

1. At your request I have reviewed the case of LCDR McGuire and put forth to you the following findings: LCDR McGuire had taken Sudafed the day prior to his 07 May 92 Mishap for allergies. Toxicology reports show evidence of Sudafed in recovered tissue. It is highly likely that medication such as this would be found in the tissue many hours after the fact. I feel that the Sudafed detected in his tissue was that resulting from his taking it the day prior to the mishap.

2. I do not feel that this would have impacted his performance in the aircraft. NAMI does not allow aviators to fly while taking anti-histamines such as Sudafed. Many flight surgeons will allow aviators to fly as soon as 12 hours after taking Sudafed for minor allergic problems.

3. If you have any questions, please do not hesitate to contact me.

Sincerely,

(b) (6) MD

LT MC (FS) USNR

Encl (36)
1 of 1

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[redacted] C L A S S I F I E D [redacted]
UUUUUUUU[redacted]UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU

ADMINISTRATIVE MESSAGE

ROUTINE

R 072226Z MAY 92 ZYB PSN 013330Q10

FM STRKFITRON TWO TWO

TO COMNAVAIRPAC SAN DIEGO CA//72ZA//
COMSTRKFIGHTWINGPAC LEMOORE CA//711//

INFO CNO WASHINGTON DC//515// COMCARAIRWING ELEVEN
NAVSEALOGCEN MECHANICSBURG PA//612//
NAVAVNMAINTOFF PATUXENT RIVER MD//322//
NAVAVNDEPOTOPSCEN PATUXENT RIVER MD//411//

BT
UNCLAS //N05442//

SUBJ: PAC XRAY VFA-22 001 OPNAV 5442-1

A. 164031
B. 000252
C. 050792
D. S
E. 1S0
F. FA-18C
G. 000
H. 0000
J. 1AA2
K. 070590
M. 000
V. LEMOORE
REMARKS: AIRCRAFT CRASHED AT 0930 LOCAL TIME. STRICKEN IAW OPNAVINST 5442.2F. LAST XRAY 013 DTG 241700Z NOV 91.
BT

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70(2)...ACT FOR COMSTRKFIGHTWINGPAC(8) 20827/17/0344
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013330/3984/128 1 OF 1 M1 0216 129/05:20Z 072226Z MAY 92
CSN:RXLA0218 STRKFITRON TWO TWO

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Encl (37)
1 of 1