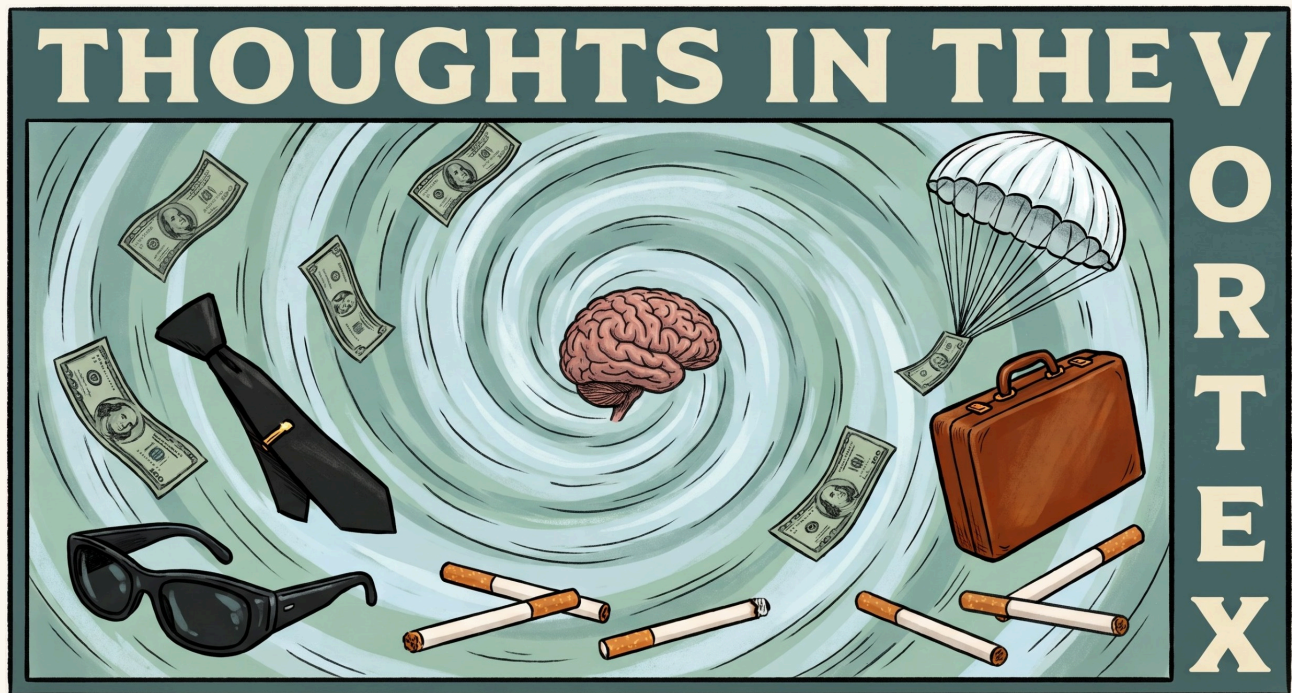




NORJAK • NORTHWEST ORIENT FLIGHT 305 • THE JUMP AND THE DROP ZONE

We're Getting Some Oscillations in My Sanity

Companion: the FBI pages cited

Every FBI Vault page cited in *Where the F@\$\$ Did He Jump*, reproduced in full and in order. A header on each page names the report section(s) that cite it, with its Part, PDF page and Bates number and a link to the Vault.

96 pages

Every FBI page the report cites, in Part and page order

18 Vault parts

From the FBI Vault D.B. Cooper release, Parts 1–122

9 sections

Each page's header says where in the report it is used

Sources

FBI Vault, D.B. Cooper files, Parts 1–122

NOAA NCEI radiosonde archive (IGRA v2), Nov 24–25, 1971

October 2026

Citations: Vault part / PDF page / Bates no.

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Document: Las Vegas teletype summary of the crew interview ("reported by radio ... at time")

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LV 164-60

PAGE EIGHT

BY HIJACKER DEPARTING FROM AIRCRAFT VIA REAR DOOR. OSCILATION
REPORTED BY RADIO TO NORTHWEST HEADQUARTERS MINNEAPOLIS
AT TIME.

IN SUMMARY, CREW DESCRIBED HIJACKING AS OBVIOUSLY WELL
PLANNED BY INDIVIDUAL KNOWLEDGEABLE RE THIS AIRCRAFT AND FLYING
GENERALLY AND BY AN INDIVIDUAL WHO WAS AT ALL TIMES COOL AND
CALCULATING. ALSO SPECULATED SUBJECT WELL AQUAINTED WITH SEATTLE
-- PORTLAND AREA GENERALLY, AND PROBABLY PARACHUTED FROM
PLANE EITHER WITHIN OR IN PROXIMITY OF PORTLAND OREGON. PRIOR
TO LEAVING PLANE HIJACKER TOLD CREW HE WOULD EITHER TAKE EXPLOSIVE
DEVICE WITH HIM OR WOULD DISARM SAME.

PRESS INQUIRY IN RENO AND LAS VEGAS ANSWERED TO EFFECT THAT
HIJACKER DEPARTED PLANE PROBABLY BY REAR DOOR AND BY PARACHUTE SOME-
WHERE BETWEEN SEATTLE, WASHINGTON AND PORTLAND, OREGON.

PRESS INFORMED FBI CONDUCTING INVESTIGATION TO IDENTIFY AND APPREHEND

HIJACKER.

END PAGE EIGHT

DB Cooper-1570

Section 7: Every FBI drop-zone determination, 1971-1980

Document: Minneapolis landing-zone line and NWA log times, 11/26/71

FBI Vault, D.B. Cooper Part 10 · PDF p. 427 · Bates DB Cooper-1660 · open in the Vault

NR002 MP PLAIN

1159 AM URGENT 11-26-71 JMJ

TO DIRECTOR

PORTLAND SEATTLE

FROM MINNEAPOLIS (164-NEW) 3P

UNSUB; NORTHWEST FLIGHT THREE ZERO FIVE, NOVEMBER TWO FIVE,
NINETEEN SEVEN ONE, CAA DASH HIJACKING; EXTORTION.

RE MINNEAPOLIS TELETYPES TO DIRECTOR AND SACS NOVEMBER
TWO FIVE, LAST, AND MINNEAPOLIS TELEPHONE CALLS TO SEATTLE
AND PORTLAND, NOVEMBER TWO FIVE, LAST.

[REDACTED] NORTHWEST
AIRLINES, BASED ON REVIEW OF NOTES MAINTAINED WHILE IN
COMMUNICATION WITH HIJACKED AIRCRAFT FLIGHT THREE ZERO FIVE,
PLUS MATHEMATICAL COMPUTATION, ADVISES POSSIBLE AREA OF
LANDING OF HIJACKER COULD BE EITHER SIDE OF A LINE BETWEEN
TWO POINTS: THE FIRST POINT BEING APPROXIMATELY TWO MILES
SOUTH SOUTHWEST OF THE FACE OF THE DAM ON LAKE MERWIN,
WASHINGTON; WITH THE SECOND POINT BEING A POINT ONE MILE
END PAGE ONE

b6
b7cSEARCH
AREAmanning
advise
11/26/71
JD

cc-sub e

J

164-81-39

SEARCHED.....	INDEXED.....
SERIALIZED.....	FILED.....
NOV 26 1971	
FBI - SEATTLE	
TARRELL	

DB Cooper-1660

Section 4: Did he know where he was? Criminal Mastermind or Dumb Luck · Section 7: Every FBI drop-zone determination, 1971-1980

Document: Minneapolis landing-zone line and NWA log times, 11/26/71

FBI Vault, D.B. Cooper Part 10 · PDF p. 428 · Bates DB Cooper-1661 · open in the Vault

MP164-NEW

PAGE TWO

NORTH NORTHWEST OF HEISSON, WASHINGTON. THESE COMPUTATIONS WERE ARRIVED AT BASED ON THE ALTITUDE, DIRECTION AND SPEED OF THE AIRCRAFT WHICH WAS THEN FLYING VECTOR BETWEEN SEATTLE AND PORTLAND WHEN A PRESSURE BUMP AND OSCELATION OF THE AIRCRAFT WAS NOTED BY THE CREW. TO THOSE FAMILIAR WITH THE AIRCRAFT, IT WOULD INDICATE THE REAR DOOR WAS OPENED, CAUSING THE PRESSURE TO DROP AND WOULD BE A VERY LIKELY TIME FOR UNSUB'S DEPARTURE FROM THE AIRCRAFT.

HIS NOTES INDICATE THAT AT MINNEAPOLIS TIME TWENTY ONE FORTY ONE A STEWARDESS WAS ORDERED TO THE COCKPIT BY THE HIJACKER. AT TWENTY ONE FORTY TWO THE HIJACKER ADVISED BY INTER-PHONE THAT HE WAS HAVING DIFFICULTY GETTING STEPS DOWN. AT TWENTY TWO ZERO FIVE THE COCKPIT WAS IN COMMUNICATION WITH THE HIJACKER, AND AT TWENTY TWO TEN THE PRESSURE BUMP AND OSCELATION OCCURRED. NO FURTHER COMMUNICATION WAS HAD WITH THE UNSUB SUBSEQUENT TO THIS TIME.

END PAGE TWO

DB Cooper-1661

Section 6: Where the plane was at 8:11

Document: Seattle teletype, 11/27/71: plane 2-3 mi SW by W of Merwin Dam at 8:10

FBI Vault, D.B. Cooper Part 11 · PDF p. 93 · Bates DB Cooper-1996 · open in the Vault

FD-36 (Rev. 5-22-64)

F B I

Date:

Transmit the following in _____
(Type in plaintext or code)Via _____
(Priority)PAGE TWO

ANALYSIS OF FLIGHT PATH OF AIRPLANE, UPON LEAVING
SEATTLE, ^{and} FLIGHT LOGS PROVIDED BY NORTHWEST AIRLINES,
SEATTLE AND MINNEAPOLIS, WOULD SUGGEST THAT UNSUB IN AIRPLANE
AS LATE AS TIME PLANE PASSED OVER CAMP, WASHINGTON, AT EIGHT
ZERO FIVE PM. SUBSEQUENT ENTRIES REFLECT OSCILLATION
~~IN CASE~~ AT EIGHT TEN PM, AT WHICH TIME PLANE IN AREA
APPROXIMATELY TWO TO THREE MILES SOUTHWEST BY WEST
FROM LAKE MERWIN DAM, WASHINGTON. PARACHUTE EXPERTS ADVISE
THAT PARACHUTES LEAVING PLANE AT THAT POINT WOULD DRIFT
APPROXIMATELY TWO AND ONE HALF MILES EAST, THEREFORE SEARCH
IN THIS AREA BEING INTENSIFIED AM OF TWENTYSEVEN INSTANT
VIA HELICOPTERS AND GROUND SEARCH. HELICOPTER SEARCH
BEING MADE CONTINGENT UPON WEATHER PERMITTING. UPON
RECEIPT OF ARTIST'S CONCEPTION, INTEND TO GIVE WIDE
DISSEMINATION TO PRESS, CONTACTS WILL BE MADE WITH AIRPORTS,
FLIGHT SCHOOLS, PARACHUTE CLUBS IN BROAD GENERAL VICINITY.

Approved: _____
Special Agent in Charge

Sent _____ M Per _____

DB Cooper-1996

Section 9: Open questions and limits

Document: Parachute expert Q&A (time under canopy)

FBI Vault, D.B. Cooper Part 14 · PDF p. 67 · Bates DB Cooper-3376 · open in the Vault

OPTIONAL FORM NO. 10
MAY 1962 EDITION
GSA FPMR (41 CFR) 101-11.6

UNITED STATES GOVERNMENT

Memorandum

2

TO : SAC, SEATTLE (164-81) (P)

DATE: 12/3/71

FROM : SA ROBERT ROSS REYNOLDS and
SA DONALD J. STEELEb6
b7CSUBJECT: UNKNOWN SUBJECT, aka
Dan Cooper
NORTHWEST AIRLINES
FLIGHT #305,
PORTLAND TO SEATTLE,
11/24/71
CAA-HIJACKING;
EXTORTION
OO: SEATTLE*SUBD PARACHUTES*

On 12/3/71.

[redacted] telephone [redacted] advised

b6
b7C

as follows:

Q. [redacted] given the following set of circumstances, the Boeing 727 which you are generally familiar with, the rear stairway flying at 10,000 feet through clouds at about 178 knots soon IFR Flight, what would be the conditions that would exist as soon as the cabin was depressurized?

b6
b7C

A. As soon as the hatch was cracked, there would be depression matters of the aircraft. The lowering of the stairwell would create a [redacted] effect on the entire aircraft because the air flow is disrupted here which would naturally effect the aircraft.

Q. This would have no material effect on the jumper physiologically at this altitude?

A. No, not at 10,000 feet.

Q. This would be a very practical altitude in which to jump?

A. Certainly.

Q. Would this be an ideal type aircraft from which to make a daylight or night jump?

A. Yes.

RRR/DJS:md
(1)

DB Cooper-3376

164-81-743

SEARCHED	INDEXED
SERIALIZED	FILED
DEC 6 1971	
FBI - SEATTLE	

[Signature]



5010-108

Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

Section 9: Open questions and limits

Document: Parachute expert Q&A (time under canopy)

FBI Vault, D.B. Cooper Part 14 · PDF p. 68 · Bates DB Cooper-3377 · open in the Vault

SE 164-81

b6
b7C

Q.

[REDACTED]

b6
b7C

A.

[REDACTED]

Q.

[REDACTED]

b6
b7Cb6
b7C

A.

[REDACTED]

[REDACTED]

Q.

[REDACTED]

b6
b7Cb6
b7C

A.

[REDACTED]

[REDACTED]

Q. Given the consitions at night time with clouds below to about 7,000 feet and partial clouds and intermittent clouds taken to a ceiling about 4,000 feet, would this present any problems to a jumper?

A. There again we're dealing with variables. If a man knew what altitude at the time he was leaving the aircraft, there are two ways to determine his altitude on opening:

1. From the second hand on a wristwatch;
2. A wrist type altimeter.

Q. Making this jump, what would be practical for the man to do? To open the chute immediately or to wait until he had a view of the ground?

A. I would wait at least ten seconds before pulling. This way I am not only clear of the aircraft, but I am also out of visual sight of the aircraft or any aircraft in the area. Cloud covering is an advantage but not knowing where the ground is, is a problem because of the peaks in the area. The above procedure would be in effect if I was not in familiar territory. Another advantage of an early chute opening would be for the jumper to select the best drop zone possible.

In unfamiliar territory and wherein a light might be observed, would give the jumper not only an idea of his altitude but an opportunity for steering himself toward a suitable drop zone.

In chuting in familiar territory, this type of dropp would be rather "simple to an experienced jumper". This would allow the jumper to "free-fall" for the full

Section 9: Open questions and limits

Document: Parachute expert Q&A (time under canopy)

FBI Vault, D.B. Cooper Part 14 · PDF p. 69 · Bates DB Cooper-3378 · open in the Vault

SE 164-81

40 second delay time. This would put him at approximately 2,000 feet altitude when the chute opens which still gives him another three minutes to the ground.

Footwear for an experienced jumper is inconsequential.

Jumping into a heavily wooded area is also relatively simple.

Jumping into water is even more simple for an experienced jumper.

Q. If the wind velocity at 10,000 feet was 25 knots and the ground level five knots, roughly how far could he travel?

A. He would be in the saddle for ten minutes. On a clear and pull situation (immediate opening of the chute), he could go five miles on the wind line or wind direction; and a normal delayed opening maximum distance with a five knot wind would be two or three thousand feet. Even with a non-steerable chute, by taking hold of the risers and facing into the wind and making an almost direct descent which would also produce a very soft landing equivalent to stepping off a chair.

Q. Would the speed of the plane at 178 knots present any problem?

A. No, not for a jumper.

Q. Based on the information we have discussed, here, does this jump present any problem to an experienced jumper?

A. None whatsoever.

Q. Do you think this man made this type of jump before.

A. I would say he has made some high altitude jumps before. The mere fact that the jumper requested 15 degree flaps and gear down to increase drag would also indicate the jumper was an experienced high altitude parachutist.

Section 4: Did he know where he was? Criminal Mastermind or Dumb Luck

Document: SAC memo, 12/23/71: crew could see the lights of Portland

FBI Vault, D.B. Cooper Part 18 · PDF p. 143 · Bates DB Cooper-5476 · open in the Vault

OPTIONAL FORM NO. 10
MAY 1962 EDITION
GSA FPMR (41 CFR) 101-11.6

UNITED STATES GOVERNMENT

Memorandum

TO : FILE (164-81)

DATE: 12/23/71

FROM : SAC, SEATTLE

SUB- A A.
" F
E

SUBJECT: NORJAK

At 8:55 AM, 12/23/71, SAC HELD called from Minneapolis. He advised he had been talking to [redacted] and that arrangements were made for the same 727 to be available to make the simulated flight on 12/27/71.

b6
b7C

He suggested that agents actually ride on the plane. He advised that [redacted] had told them he did not want a man to actually make the parachute jump but that we could simulate the conditions by dropping a package of similar weight.

b6
b7C

Thereafter [redacted] Northwest Airlines, called and advised that he was going to come to Seattle on the evening of 12/26/71 and would be at the Sea-Tac Motor Inn at 8:00 AM on 12/27/71. I told him we would bring all of the maps and material that we had which has a bearing on this so that we can decide how the flight will take place.

b6
b7C

He advised that the airplane would be available for the flight around 4:30 PM. He asked that we make the arrangements for the dummy and the actual drop itself. He will make all the arrangements for the airplane.

[redacted] told me, contrary to our earlier belief, that the crew told him that they could see the lights of Portland and other distinctive lights in that area, so given knowledge of the specific area the hijacker could very easily have made a jump to a specific location.

b6
b7CJEM:eon
(3)

5010-108

Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

164-81-1708

SEARCHED	INDEXED
SERIALIZED	FILED
DEC 23 1971	
FBI-SEATTLE	

DB Cooper-5476

Section 2: When did he jump?

Document: January 1972 sled test

FBI Vault, D.B. Cooper Part 18 · PDF p. 317 · Bates DB Cooper-5650 · open in the Vault

FD-36 (Rev. 5-22-64)

F B I

Date: 1/6/72

Transmit the following in

(Type in plaintext or code)

Via TELETYPE

NITEL

(Priority)

TO : DIRECTOR, FBI (164-2111)

FROM: SAC, SEATTLE (164-81)

NORJAK.

DAILY SUMMARY

PARACHUTE FOUND AT PORTLAND WAS RECEIVED AT SEATTLE JANUARY SIX, NINETEEN SEVENTY-TWO AND EXAMINED BY EARL COSSEY, WHO PACKED ALL THE CHUTES GIVEN TO THE HIJACKER AND COSSEY DEFINITELY ELIMINATED THIS PARACHUTE AS ONE GIVEN TO THE HIJACKER.

EXPERIMENTAL FLIGHT WAS MADE TODAY USING THE SAME NORTHWEST AIRLINES AIRCRAFT AS HIJACKED, DURING WHICH TWO SLEDS, MADE TO SOMEWHAT APPROXIMATE THE SIZE OF A MAN AND WEIGHING APPROXIMATELY TWO HUNDRED ^{thirty five} LBS., WERE DROPPED OVER PACIFIC OCEAN. THE EFFECT OF THESE DUMMIES DEFINITELY RECORDED A CABIN PRESSURE CHANGE AND, ACCORDING TO

OF THE HIJACKED AIRCRAFT, THE REACTION TODAY WAS IDENTICAL TO THAT WHICH OCCURRED DURING THE HIJACKING.

CEF:kd1

(1) *pc*Approved: *Qm*

Special Agent in Charge

Sent

9:50 P M

Per

DCA

U. S. GOVERNMENT PRINTING OFFICE: 1971-215-1155

DB Cooper-5650

b6
b7c

Section 7: Every FBI drop-zone determination, 1971-1980

Document: Farrell memo, 1/11/72: priority arcs from Point A

FBI Vault, D.B. Cooper Part 18 · PDF p. 467 · Bates DB Cooper-5799 · open in the Vault

OPTIONAL FORM NO. 10
MAY 1962 EDITION
GSA FPMR (41 CFR) 101-11.6

UNITED STATES GOVERNMENT

Memorandum

TO : SAC, SEATTLE (164-81)

FROM : SA CHARLES E. FARRELL

SUBJECT: NORJAK

DATE: 1/11/72

Sub E.
F.Re: SEARCH AREA

On 1/10/72 after having received the new plotting of the search area, prepared by [redacted] the writer telephonically contacted [redacted] at Northwest Airlines, Minneapolis.

b6
b7C

[redacted] advised that his computations based on the results of the experimental flight on 1/6/72, coupled with updated information furnished by [redacted] of the U.S. Air Force at McChord AFB, he had prepared a revised plotting of the course of the aircraft as well as a probable jump area.

b6
b7C

A memo prepared by [redacted] as well as a map which he also had prepared, had been received and during the telephone conversation [redacted] advised that in his judgment, the best possible spot to search for the subject would be at Point A and proceeding from there to Point B on the map. [redacted] memo adequately explains the lines drawn on the map and are therefore not further being explained.

b6
b7C

[redacted] said he feels that the hijacker is more apt to be found south of line A & B than north of the line and more apt to be in the western part of the possible area than in the eastern part.

b6
b7C

As a result of talking with [redacted] the writer drew arc's emanating from Point A down to a point on line G thru K. The arc's were extended along the lines A-B and down to the same aforementioned line G-K. It was his feeling that this would be the most fruitful area.

b6
b7C

The next choice would be a continuation of the arc's to the north of line A-B also to line G thru K.

The arc's drawn on the southern portion from lines A-B are in solid felt marker pen and the ones [redacted] above are in a dotted arc.

CEF:klb
(4)



Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

DB Cooper-5799

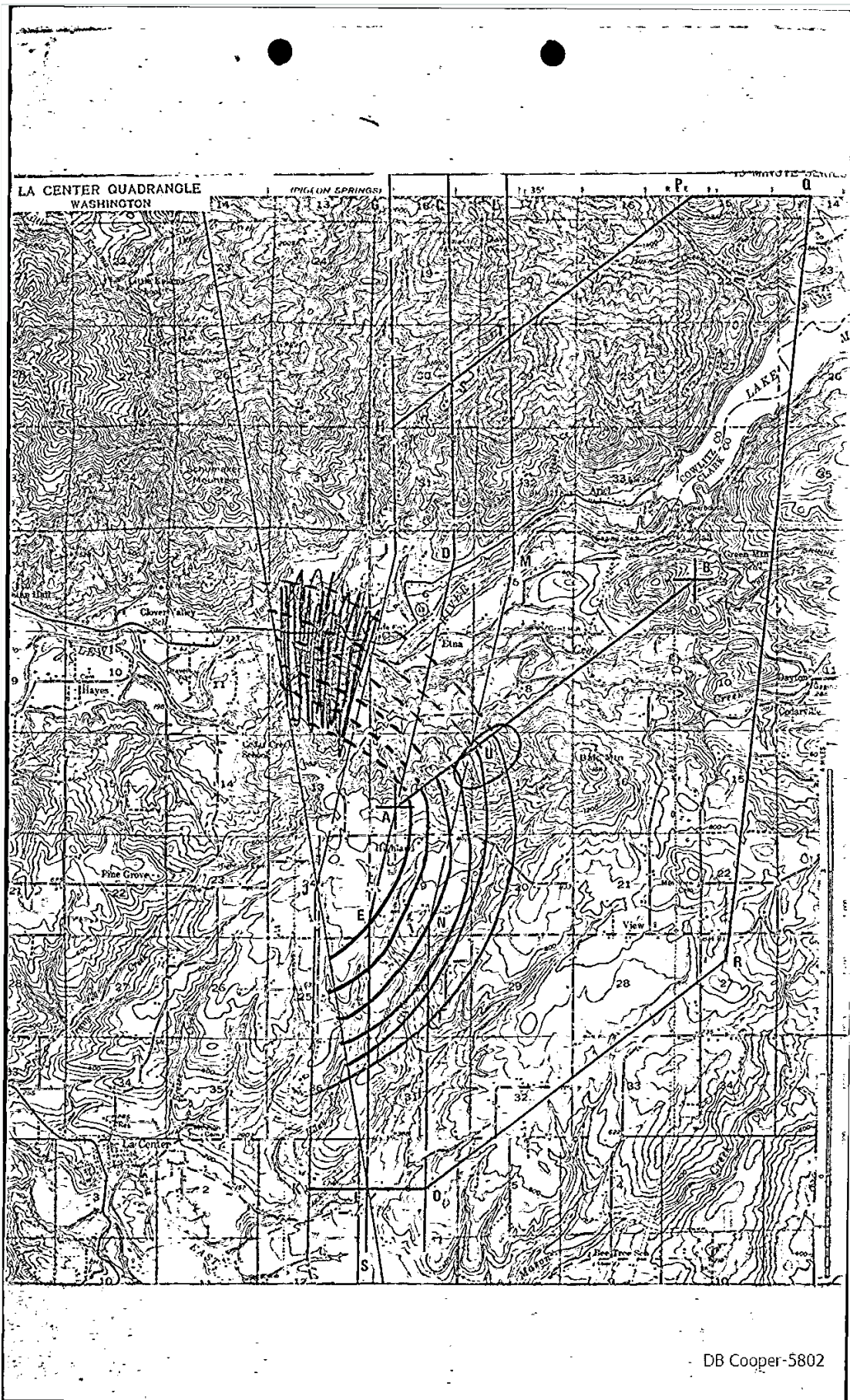
164-81-1879

SEARCHED	INDEXED
SERIALIZED	FILED
JAN 11 1972	
FBI - SEATTLE	

Section 7: Every FBI drop-zone determination, 1971-1980

Document: Farrell memo, 1/11/72: priority arcs from Point A

FBI Vault, D.B. Cooper Part 18 · PDF p. 468 · Bates DB Cooper-5802 · open in the Vault



Section 2: When did he jump?

Document: January 1972 sled test

FBI Vault, D.B. Cooper Part 19 · PDF p. 16 · Bates DB Cooper-5852 · open in the Vault

DIRECTOR, FBI (164-2111)

January 14, 1972

SAC, SEATTLE (164-81) (P)

NORJAK

For the Bureau's information, on January 6, 1972, [redacted] Northwest Airlines in Minneapolis, Minnesota, accompanied by [redacted] Northwest Airlines; [redacted] Northwest Airlines; and [redacted] with permission of [redacted] of Northwest Airlines, flew the same Boeing 727 aircraft that was hijacked from Minneapolis to Seattle so that an experiment could be held endeavoring to simulate the exact flight conditions in order that it could be determined if the airplane reacted in the same way and in that manner when the weight equivalent to the estimated weight of the hijacker was ejected from the airplane via the back stairs.

b6
b7C

Under [redacted] directions, the last three rows of seats were removed from the aircraft and special measuring devices were attached to the rear end of the cabin so that it could be determined exactly what happened in the aircraft when the weight was dislodged. Through the assistance of members of the U. S. Air Force, three sleds were made on which were placed sand bag weights, bringing the total weight to approximately 235 pounds, that being the estimated weight of the hijacker, the parachute, and the money.

b6
b7C

On the morning of January 6, 1972, the Air Force provided a tracking plane with sophisticated photographic equipment on it, which first swept the surface to insure that there were no surface crafts in the vicinity, and at that point the 727 ascended to approximately 7,000 feet over the Pacific Ocean west of Hoquiam, Washington.

2 - Bureau
② - Seattle
JEM/qjw
(4)

SEARCHED _____
Serialized _____
Indexed _____
Filed _____

DB Cooper-5852

164-81-1905

Section 2: When did he jump?

Document: January 1972 sled test

FBI Vault, D.B. Cooper Part 19 · PDF p. 17 · Bates DB Cooper-5853 · open in the Vault

SE 164-81

[redacted] put the aircraft in the same flight configuration as the hijacker had directed, at which time Air Force personnel allowed the weighted sled to fall from the end of the stairs. The reaction in the airplane was instantaneous and was described by [redacted] as being the same reaction that they had in the airplane when they believed the hijacker jumped.

b6
b7C

As a result, [redacted] has now taken this information, together with some refined data given to him by the Air Force, and has identified an area near Highland, Washington, where it is believed the hijacker jumped.

b6
b7C

The employees of Northwest not only spent considerable time on this project, but [redacted] had to arrange for the airplane to be taken from the flight line for a day and one-half so it could be accomplished. The representatives of Northwest, particularly [redacted] have been extremely helpful during this entire investigation and in view of this extended effort on their part, it is suggested that the Bureau may desire to address a letter to [redacted] Northwest Airlines, expressing the Bureau's appreciation.

b6
b7C

Section 8: Recalculated landing zones

Document: Rigger's associate: 26-ft and 28-ft rigs, descent rate

FBI Vault, D.B. Cooper Part 20 · PDF p. 71 · Bates DB Cooper-6028 · open in the Vault

OPTIONAL FORM NO. 10
MAY 1962 EDITION
GSA FPMR (41 CFR) 101-11.6

UNITED STATES GOVERNMENT

Memorandum

TO : SAC, SEATTLE (164-81)

FROM : SA CHARLES E. FARRELL

SUBJECT: NORJAK

DATE: 1/18/72

SUB - D
- L.

In connection with preparations for the test drop, efforts were made to contact EARL COSSEY at SUNset 3-0475. COSSEY was out, but [redacted]

[redacted] Seattle, [redacted] of EARL COSSEY, advised that he was presently working toward [redacted]

[redacted] He advised that one of the back packs was a 26 footer and the other a 38 footer, but both were rigged so they would have the same rate of descent.

He advised that the 26 foot chute, although it is smaller, also has a different design which would explain why the two chutes could have an almost identical rate of descent. According to a chart referred to by [redacted] the chutes would have the following rate of descent:

A 28 foot with a person between 180 and 200 lbs., would drop about 17 to 18 feet per second.

He advised that the chutes would normally deploy in 3 or 4 seconds. They both were like military chutes in that they did not have sleeves.

[redacted] advised that he works [redacted]

CEF:klb
(3)

klb

164-81-1993

SEARCHED	INDEXED
SERIALIZED	FILED
JAN 10 1972	
FBI - SEATTLE	

1/22



5010-108

Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

DB Cooper-6028

Section 8: Recalculated landing zones · Section 9: Open questions and limits

Document: Portland meteorologist's FD-302, 12/3/71: hourly reports and 8-9 PM winds aloft for Salem and Portland

FBI Vault, D.B. Cooper Part 20 · PDF p. 240 · Bates DB Cooper-6197 · open in the Vault

FD-302 (REV. 11-27-70)

FEDERAL BUREAU OF INVESTIGATION

Date of transcription 12/9/71

[redacted]
[redacted] Portland International Airport, Portland, Oregon, furnished sheets containing read out information and key to aviation weather reports for weather conditions between 7:00 and 9:00 p.m. on November 24, 1971. He interpreted the read outs as follows:

b6
b7CSurface observations: 7:00 p.m.

Eugene, Oregon: 2,500 feet scattered, 3,800 feet scattered, 11,000 overcast, visibility 15 miles, temperature 42, wind SSE 8 knots, breaks in overcast.

Portland, Oregon: 2,000 feet scattered, measured 3,400 feet broken, 5,000 feet overcast, 15 mile visibility, very light rain showers, temperature 46, wind SE 4 knots. Rain began at 6:35 p.m.

Toledo, Washington: 3,500 scattered, measured 4,700 feet overcast, visibility 12 miles, temperature 41, wind SSW 4 knots. Rain ended at 6:15 p.m.

8:00 p.m.

Eugene, Oregon: 1,600 feet scattered, 2,500 feet overcast, 10 miles visibility, light rain showers, temperature 42, wind SSW 12 knots, rain began at 7:34 p.m.

Salem, Oregon: 1,500 scattered, measured 2,600 overcast, 5 miles visibility, light rain showers, temperature 43, wind SSS 9 knots.

Portland, Oregon: 1,500 scattered, measured 2,700 broken, 5,000 feet overcast. 7 miles visibility, light rain showers, temperature 42, wind west 10 knots.

Toledo, Washington: Measured 3,000 feet overcast, 12 miles visibility, very light rain showers, temperature 42, wind south 5 knots. Rain began 7:35 p.m.

Interviewed on 12/3/71 at Portland, Oregon File # SE 164-81-2086

by SA [redacted] bfr Date dictated 12/3/71

b6
b7C

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DB Cooper-6197

Section 8: Recalculated landing zones · Section 9: Open questions and limits

Document: Portland meteorologist's FD-302, 12/3/71: hourly reports and 8-9 PM winds aloft for Salem and Portland

FBI Vault, D.B. Cooper Part 20 · PDF p. 241 · Bates DB Cooper-6198 · open in the Vault

SE 164-81

9:00 p.m.

Eugene, Oregon: 1,500 scattered measured, 2,500 broken, 7,500 feet overcast. Visibility 15 miles, temperature 42, wind south 8 knots.

Salem, Oregon: 1,500 scattered, 3,500 scattered, measured 10,000 broken. Visibility 15 miles, temperature 43, wind south 18 knots.

Portland, Oregon: Measured 3,100 feet, broken, 5,000 feet overcast, 10 miles visibility, light rain showers, temperature 44, wind south 11 knots. Few cumliofactue clouds at 1,500 feet.

Toledo, Washington: 3,000 scattered measured, 3,400 overcast, 12 miles visibility, temperature 42, wind south 6 knots. Rain ended at 8:05 p.m.

☐ also stated that to secure average of below listed information for Woodland, Washington, an average of the two sets of information would give a close estimate of conditions at Woodland. The information below is for the times between 8:00 p.m. and 9:00 p.m. on November 24, 1971:

b6
b7c

<u>Place</u>	<u>Wind Direction</u>	<u>Wind Speed</u>	<u>Height Above Sea Level</u>	<u>Temperature</u>
Salem	230 degrees	30 knots	7,000 feet	-4
	230 degrees	25 knots	5,000 feet	-1
	235 degrees	20 knots	2,000 feet	6
	235 degrees	15 knots	surface	10
Portland	225 degrees	20 knots	7,000 feet	-8
	230 degrees	25 knots	5,000 feet	-5
	235 degrees	20 knots	2,000 feet	2
	235 degrees	15 knots	surface	8

Section 3: The "later jump" theory

Document: FAA: copy reel of the Seattle Center tape, 12/3/71

FBI Vault, D.B. Cooper Part 24 · PDF p. 637 · Bates DB Cooper-3478 · open in the Vault

FD-302 (REV. 11-27-70)

FEDERAL BUREAU OF INVESTIGATION

Date of transcription 12/7/71

Mr. [] Special Agent in Charge. FAA b6 Per FAA
 Security Air Transportation, Security Field Office, Sea-Tac b7C Per FAA
 Airport, Seattle, Washington, was interviewed at the FAA
 Air Carrier Office. Mr. [] provided one reel of magnetic
 recording tape which contains a copy of a recorded transmission
 between Northwest Airlines Flight #305 and the FAA Traffic
 Control Center, Auburn, Washington, on November 24, 1971.
 These transmissions cover Flight #305's flight from approximately
 30 miles south of Sea-Tac Airport to Northern California.

According to Mr. [] this recorded tape was obtained
 by him from Mr. [] Area Officer B, FAA, Seattle
 Air Route Traffic Control Center, Auburn, Washington, on
 December 3, 1971. The original tape is maintained under the
 supervision of Mr. [] at FAA, Auburn, Washington.

b6 Per FAA
b7C Per FAA

Interviewed on 12/3/71 at Seattle, Washington File # SE 164-81-768

by SA [] /rse Date dictated 12/7/71

b6
b7C

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DB Cooper-3478

Section 4: Did he know where he was? Criminal Mastermind or Dumb Luck

Document: Stewardess's observations: McChord, "over Tacoma," the airstair

FBI Vault, D.B. Cooper Part 26 · PDF p. 473 · Bates DB Cooper-8883 · open in the Vault

Letter to SACs, Seattle, Portland
Re: NORJAK

name "Towncraft" and bore store #3 Penneys. The label in this tie showed it to be a "Snapper" patent type tie. Investigation at Las Vegas indicated that this type sold for about a dollar and a half, that it was about a year to a year and a half old, and it was a favorite item for individuals such as waiters, busboys, and bartenders. Stewardess [] has said that this tie was probably the unsub's and other witnesses have indicated that he wore a similar type tie.

b6
b7C

Located in the ashtray utilized by the unsub were eight cigarette butts, seven of which have been identified by the FBI Laboratory as Raleigh filter tip cigarettes, and the eighth cigarette is probably the same. These cigarettes are sold in a "soft pack."

During the period Stewardess [] was with the unsub and in her conversations with him she related what appeared to be keen observations concerning him, and which are as follows:

b6
b7C

1) He impressed her as being an executive because of his dress, special mannerisms, and consideration that he exhibited for her while on the aircraft.

2) In one of the conversations she had with him, she remarked that the parachutes were coming from McChord Air Force Base at which time he remarked that it was only about twenty minutes from McChord to the Seattle-Tacoma airport and which was apparently an accurate estimate.

3) While the aircraft was in a holding pattern and prior to its landing at Sea-Tac, the unsub looked out of the window and remarked, "We are over Tacoma now," although no mention of this had been made over the interphone of the aircraft.

4) He displayed an extensive and technical knowledge of this aircraft and seemed particularly well informed as to the refueling procedures and flying in general. He apparently was aware of where the oxygen bottles were and Stewardess [] felt this information was normally known only by the crew personnel. The only function of the aircraft that he did not appear to be fully aware of was the procedures involved in the opening of the rear door and the extending of the stairway. He likewise appeared to be completely familiar with the parachutes that had been furnished to him.

b6
b7C

Section 6: Where the plane was at 8:11 · Section 7: Every FBI drop-zone determination, 1971-1980

Document: 1973 radar re-plot ("new Point A") and second terrain search

FBI Vault, D.B. Cooper Part 30 · PDF p. 212 · Bates DB Cooper-10861 · open in the Vault

OPTIONAL FORM NO. 10
MAY 1962 EDITION
GSA FPMR (41 CFR) 101-11.6

UNITED STATES GOVERNMENT

Memorandum

TO : SAC, SEATTLE (164-81) (P)

DATE: 3/9/73

FROM : SA THOMAS J. MANNING

SUBJECT: NORJAK

SUM E
SUM F

Re search of new area at drop zone a conference was held 3/9/73 with agents to be involved in search.

Decision was made to commence search as early as practicable on 3/12/73 with prime drop zone at new Point A to be first area searched. Case agent has requested that shovels (entrenching tools) and machetes be secured to assist in search. SAs [redacted] will take SE 99 to Vancouver, Washington and will pick up below listed equipment at whatever location it can be secured:

b6
b7C

- 8 entrenching tools
- 11 ponchos
- 11 pair of rain pants (suspender type)
- 10 machetassor some type of brush cutting device

Headquarters for search will be SE 99 (mobile) and Quay Motel (fixed). Search in initial phase to commence 3/12/73 and end 3/16/73 at 4:00 PM. Agents from Seattle Hq will return to Seattle afternoon of 3/16/73.

SA [redacted] has telephonically advised that he has secured waiver of search forms from all individuals in prime 1 square mile area and for distance of 1/2 mile north and south of prime area.

b6
b7C

SA [redacted] will bring photographic equipment, evidence kit and other material which will be necessary in event remains or evidence are located. 4 portable radios will be secured from [redacted] with charger and will be transported by agents in SE 99.

b6
b7C

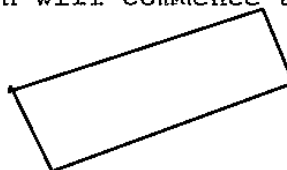
SA [redacted] will drive SE 90 with SAs [redacted] [redacted] will have vehicle (number unknown) which he will drive accompanied by SA [redacted]

b6
b7C

Agents from Seattle Division will leave at 7:30 AM, 3/12/73 and will meet with writer at Quay Motel, Vancouver for briefing and it is anticipated that search will commence afternoon of 3/12/73



(2) TJM/



SEARCHED	INDEXED
SERIALIZED	FILED
MAR 9 1973	
FBI - SEATTLE	

b6
b7C

Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

DB Cooper-10861

Appendix A: source list only

Document: Seattle Center ATC transcript (GMT)

FBI Vault, D.B. Cooper Part 36 · PDF p. 13 · Bates DB Cooper-6236 · open in the Vault

FD-302 (REV. 11-27-70)

FEDERAL BUREAU OF INVESTIGATION

b6 Per FAA
b7CDate of transcription 1/5/72

[redacted] Area Officer B, Federal Aviation Administration (FAA), Seattle Air Route Traffic Control Center, Auburn, Washington, provided a transcription prepared by his office of tape recordings of transmissions between the Auburn center and Northwest Airlines Flight #305, which was under hijack on November 24, 1971.

[redacted] advised that the original tapes are maintained in his custody.

b6 Per FAA
b7C

[redacted] advised that the Seattle Center worked Flight #305 on the way in to Seattle from Portland, but had no indication that a hijack had occurred and the aircraft did not squawk any signal as to a hijack situation. They were not aware of the hijack until they handed off the plane to the Seattle-Tacoma Tower.

[redacted] advised that after the plane took off from Sea-Tac on its way south toward Sacramento, California, the Auburn Center worked the flight from shortly after take-off until they handed the flight off to the Oakland Center, which occurred at the Oregon-California border.

b6 Per FAA
b7C

In view of the fact that the times listed in the log provided by [redacted] are in Greenwich Mean Time (GMT), an insertion has been made at least once in each page to convert the GMT to Pacific Standard Time.

b6 Per FAA
b7C

Interviewed on 12/30/71 at Seattle, Washington File # SE 164-81-2107
by SA CHARLES E. FARRELL/k1b Date dictated 12/30/71

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DB Cooper-6236

Appendix A: source list only

Document: Seattle Center ATC transcript (GMT)

FBI Vault, D.B. Cooper Part 36 · PDF p. 14 · Bates DB Cooper-6237 · open in the Vault

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATIONSEATTLE AIR ROUTE TRAFFIC CONTROL CENTER
3101 Auburn Way South
Auburn, Washington 98002

. 30 December 1971

Mr. Charles Farrell
Special Agent
Federal Bureau of Investigation
115 Second Avenue
Seattle, Washington 98104

Sub I
F} Cover letter only

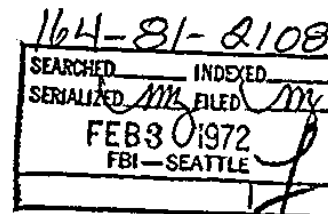
Dear Mr. Farrell:

As you requested, we have enclosed a transcription of our
recorded air-ground communications with Northwest Airlines
Flight 305 of 24 November 1971.

b6 Per FAA
b7C

[Redacted Box]
Chief, Seattle Center

Enclosure



DB Cooper-6237

Appendix A: source list only

Document: Seattle Center ATC transcript (GMT)

FBI Vault, D.B. Cooper Part 36 · PDF p. 15 · Bates DB Cooper-6238 · open in the Vault

Seattle Air Route Traffic Control Center

Name of Facility Preparing Transcription
Seattle Air Route Traffic Control Center

Subject of Transcription
Air-Ground Communications Pertaining to the Incident to
Northwest Airlines Flight 305

Date and Period of Time Covered by Transcription
0337:11 GMT to 0545:29 GMT 25 November 1971

Agencies Making Transmissions and Abbreviation of Each	
Northwest Airlines Flight 305	NW305
Seattle ARTCC Position R2	SEA R2
Seattle ARTCC Position R5	SEA R5
Seattle ARTCC Position R6	SEA R6
Seattle ARTCC Position R10	SEA R10

I HEREBY CERTIFY that the following is a true transcription of the
recorded conversation pertaining to the subject incident.

b6 Per FAA
b7C


Chief, Seattle ARTCC

I certify that this is a true copy of the
original 

b6 Per FAA
b7C

DB Cooper-6238

Section 1: The flight: Seattle to Red Bluff · Section 3: The "later jump" theory

Document: Seattle Center ATC transcript (GMT)

FBI Vault, D.B. Cooper Part 36 · PDF p. 16 · Bates DB Cooper-6239 · open in the Vault

0337:11 NW 305 Northwest three oh five we're ah
 (7:37 PM, PST)

0337:17 SEA R2 Northwest three zero five ident verify assigned
 one zero thousand

0337:23 NW 305 (Unintelligible) three zero five
 - - - - -

0339:43 SEA R2 Northwest three zero five say altitude now
 - - - - -

0340:02 SEA R2 Northwest one zero correction Northwest three
 zero five say altitude please

0340:06 NW 305 Three oh five through sixty five hundred ah trying
 to get the steps down down back there ah
 - - - - -

0340:37 NW 305 One oh five ah three oh five we're gonna level off
 here for a while at seven thousand he wants the
 steps down and ah we're gonna have er about down
 to a hundred and sixty knots

0340:48 SEA R2 Northwest three zero five roger
 - - - - -

0344:22 SEA R2 Northwest three zero five advise if you change
 altitudes ever

NW 305 Okay we'll hold at seven here we got the back steps
 down now and ah it looks like we aren't gonna be
 able to climb anymore ah we'll hold seven thousand

0344:34 SEA R2 Northwest three oh five roger
 (7:44 P.M., PST)

- - - - -

Section 1: The flight: Seattle to Red Bluff · Section 3: The "later jump" theory · Section 9: Open questions and limits

Document: Seattle Center ATC transcript (GMT)

FBI Vault, D.B. Cooper Part 36 · PDF p. 17 · Bates DB Cooper-6240 · open in the Vault

Page 2

0349:18 SEA R2
(7:49 PM, PST)

Northwest three zero five in event of lost communications contact Seattle Center one three three point nine

0350:05 SEA R2

Northwest three zero five Toledo altimeter two nine nine eight

0351:31 NW 305

Center Northwest three oh five ah we're gonna climb out climbing up ah to ten thousand and ah we're through nine now

0351:42 SEA R2

Northwest three zero five roger report level at one zero thousand

NW 305

Roger

0353:34 NW 305

Northwest three oh five we're leveling at ten thousand

SEA R2

Northwest three oh five roger

0353:40 NW 305

Airspeed in the vicinity of one seventy one eighty

SEA R2

Three oh five roger

0359:10 SEA R2

Northwest three zero five contact Seattle Center one three three point nine

0359:15 NW 305

Ah one thirty three point nine

(7:59 PM, PST)

Section 1: The flight: Seattle to Red Bluff · Section 3: The "later jump" theory · Section 9: Open questions and limits

Document: Seattle Center ATC transcript (GMT)

FBI Vault, D.B. Cooper Part 36 · PDF p. 18 · Bates DB Cooper-6241 · open in the Vault

Page 3

0413:14 NW 305
(8:13 PM, PST)

Center four oh five (unintelligible) twenty point
nine ten thousand

SEA R5 Northwest three zero five ident

- - - - -

0415:52 SEA R5

Northwest three zero five the Portland ah altimeter
three zero zero three

NW 305 Zero zero three

- - - - -

0433:36 SEA R5

Northwest three zero five contact Seattle Center
one two five point eight

0433:46 NW 305

Twenty five point eight so long

SEA R5 Good day sir

- - - - -

0433:51 NW 305

Seattle Center Northwest three zero five ten
thousand

0433:55 SEA R6

Northwest three zero five Seattle Center one zero
thousand ident

- - - - -

0445:45 SEA R6
(8:45 P.M.-PST)

Northwest three zero five Eugene altimeter three
zero zero six

NW 305 Ah one three zero point six

Appendix A: source list only

Document: Seattle Center ATC transcript (GMT)

FBI Vault, D.B. Cooper Part 36 · PDF p. 19 · Bates DB Cooper-6242 · open in the Vault

Page 4

SEA R6 Negative sir Eugene altimeter three zero zero six

NW 305 Okay switching

SEA R6 Negative sir remain on this frequency that's an
altimeter ah the current altimeter is three zero
one one0446:06 NW 305 Ah okay three zero one one
(8:46 PM, PST)

0454:47 SEA R6 Northwest three zero five Seattle radio check

NW 305 Three oh five land and clear

0454:53 SEA R6 Roger sir I lost your transponder

0503:36 SEA R6 Northwest three zero five contact Seattle Center
now on one two five point three0503:41 NW 305 Okay twenty five point three Northwest three oh
five

0503:57 NW 305 Seattle Center Northwest three zero five at ten
thousand0504:05 SEA R10 Northwest three zero five Seattle Center ident
(9:04 P.M. - PST)

Appendix A: source list only

Document: Seattle Center ATC transcript (GMT)

FBI Vault, D.B. Cooper Part 36 · PDF p. 20 · Bates DB Cooper-6243 · open in the Vault

Page 5

0513:10 SEA R10 Northwest three zero five Medford altimeter three
 (9:13 PM, PST) zero one three

0513:16 NW 305 Three zero one three

- - - - -

0528:01 SEA R10 Northwest three zero five request the outside air
 temperature at your altitude

NW 305 Ah three oh five you came on with somebody else
 say again

SEA R10 Northwest three zero five request the outside air
 temperature at your altitude

0528:28 NW 305 Ah (unintelligible) minus five

SEA R10 Understand minus five zero five

NW 305 (Unintelligible)

SEA R10 Northwest three zero five verify that temperature
 as centigrade

0529:04 NW 305 That's okay centigrade

SEA R10 Roger

- - - - -

0538:31 SEA R10 Northwest three zero five the Montague altimeter
 (9:38 P.M., PST) three zero one one

- - - - -

Section 1: The flight: Seattle to Red Bluff

Document: Seattle Center ATC transcript (GMT)

FBI Vault, D.B. Cooper Part 36 · PDF p. 21 · Bates DB Cooper-6244 · open in the Vault

Page 6

0541:48 SEA R10 Northwest three zero five the Montague altimeter
(9:41 PM, PST) three zero one one

0541:52 NW 305 Three zero one one roger three oh five

0543:26 NW 305 Ah Northwest three zero five

SEA R10 Northwest three zero five go ahead

0543:32 NW 305 Roger we'd like to start climb to eleven thousand
(unintelligible) okay with you

SEA R10 Northwest three zero five ah climb to one one
thousand under your conditions are approved
report reaching

0543:46 NW 305 Three oh five

0545:20 SEA R10 Northwest three zero five contact Oakland Center
on one two zero point four good luck sir

0545:29 NW 305 Okay one two zero point four thank you
(9:45 PM, PST)

Section 6: Where the plane was at 8:11 · Section 9: Open questions and limits

Document: Continental pilot interview, airtel 3/1/77

FBI Vault, D.B. Cooper Part 39 · PDF p. 227 · Bates DB Cooper-15412 · open in the Vault

FD-36 (Rev. 2-14-74)

F B I

Date: 3/1/77

Transmit the following in _____
(Type in plaintext or code)Via AIRTEL AIRMAIL -
(Precedence)

TO: SAC, SEATTLE (164-81)
 FROM: SAC, PORTLAND (164-41) (P)
 SUBJECT: NORJAK
 (OO: Seattle)

SWC
 SWC u

Re information from [redacted] Continental
 Airlines

b6
 b7C

On 2/22/77, [redacted] Continental Airlines, Seattle, Washington, was interviewed at Portland International Airport by SA [redacted] furnished the following information:

b6
 b7C

On the night of 11/24/71, during the hijacking in this matter, he, [redacted] a Continental Airlines flight between Seattle, Washington, and Portland, Oregon. He became aware of the hijacking by radio and followed the progress of the hijacking by monitoring the discrete radio frequencies in his own aircraft.

b6
 b7C

[redacted] advised that he departed Seattle-Tacoma Airport enroute for Portland shortly after Northwest Flight 305, which was being hijacked, and that he followed the same course flown by Northwest Flight 305 but was approximately four minutes behind the Northwest flight when it arrived at Portland.

b6
 b7C

[redacted] advised that in his twenty-four years flying airliners, he recalls that night of 11/24/71, as being the most rapid and severe weather change in his experience. He said that when he was approaching Portland, along Victor 23 airways flying a course of approximately 166 degrees, he was experiencing a wind directly from 166 degrees at 80 knots of speed at his altitude which was 14,000 feet. He said that the wind

b6
 b7C

(2) - Seattle
 2 - Portland

RPH:kd
 (4)

Approved: [signature]
 Special Agent in Charge

Sent

164-81-7398

SEARCHED	INDEXED
SERIALIZED	FILED
MAR 8 1977	
FBI - SEATTLE	
M	Per

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GPO : 1975 O - 590-992

DB Cooper-15412

Section 9: Open questions and limits

Document: Continental pilot interview, airtel 3/1/77

FBI Vault, D.B. Cooper Part 39 · PDF p. 228 · Bates DB Cooper-15413 · open in the Vault

PD 164-41

at 10,000 feet was approximately 65 knots and from a direction of from 160 to 170 degrees and that when he landed at Portland International Airport, he landed to the east on runway 10 and at that time experienced surface winds of 35 knots coming from 160 degrees. He remembered these figures because they were near the maximum cross-wind component allowable for his aircraft.

[redacted] advised that he has thought considerably about the hijacking in this matter and has concluded that it is not realistic to assume that the hijacker survived the jump. He said that in view of the very dense terrain in the drop zone area, he can understand why the hijacker's remains have not been found. He suggested that one way this might be facilitated would be to place identical equipment to that known to have been in possession of the hijacker, that is, two parachutes, an attache case, and the known clothing on a large open field on a day of warm sunshine. After exposure to the rays of sun for a period of time, the entire field should be photographed with infra-red film. The image on the infra-red film should be distinctive. Then, photographs of the drop zone area could be made with infra-red film after a similar exposure to warm sunshine and the films, when processed, could be examined for an image similar to that made by the "dummy." [redacted] pointed out that in view of the almost complete absence of man-made objects or metal objects in the rugged regions of the drop zone area, there should not be any materials there which would yield similar images.

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b7C

Information available to Portland indicates the wind believed to be in effect in the drop zone area at the time the hijacker parachuted was coming from the southwest. If that is the case and the Northwest engineers who computed the location of the drop zone and the prime line along which UNSUB presumably fell were using southwest wind information, then the calculations of the location of the drop zone may not be accurate. A shift of wind from the west to the south would push the east end of the prime line to the north in a counter-clockwise direction. It could cause previously unsearched territory to the west of the drop zone to be included in a new amended drop zone.

LEADSEATTLE

AT SEATTLE, WASHINGTON. Will consider causing a discussion of this matter with the Northwest Airlines engineers who computed the drop zone in this matter to determine whether the information from [redacted] is of any significance.

b6
b7CARMED AND DANGEROUS

Appendix A: source list only

Document: Follow-up memo, 4/8/77, and FBI disposition

FBI Vault, D.B. Cooper Part 39 · PDF p. 330 · Bates DB Cooper-15518 · open in the Vault

OPTIONAL FORM NO. 10
JULY 1973 EDITION
GSA FPMR (41 CFR) 101-11.6

UNITED STATES GOVERNMENT

Memorandum

TO : SAC, SEATTLE (164-81) (P)

DATE: 4/8/77

FROM :

SA [REDACTED]

b6
b7C

SUBJECT:

NORJAK
OO: SEATTLE
BUFILE 164-2111

RE: SEARCH AREA
SUB E
WIND AND WEATHER
SUB U

See G/L
E
U

Re memo of SA [REDACTED] dated 3/14/77.

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b7C

On March 29, 1977, [REDACTED]
[REDACTED] Washington, home telephone [REDACTED]
was contacted at his home and he provided the following
information:

[REDACTED] stated he was flying on Continental Flight
306 which originated in Burbank, California, with a stop
over in San Jose, California, and another stop in Portland,
Oregon, and then the final destination was Seattle, Washington.

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[REDACTED] stated he landed in Seattle at approximately 5:30 P.M.
on November 24, 1971. [REDACTED] advised that it was his recollection
that Northwest Orient Airlines Flight 305 landed at Seattle-
Tacoma International Airport at approximately 5:32 P.M. on
that same night. [REDACTED] advises estimated time of departure
was 6:10 P.M., but he actually left Seattle at about 7:09 P.M.
to fly back to Portland, Oregon.

[REDACTED] advised that when he landed at Portland the
wind was from 160 degrees at 35 knots and this was approxi-
mately 7:49 P.M. During the flight down to Portland, [REDACTED]
noticed that his cruising altitude of about 13,000 feet that
he was flying into a headwind of about 60 knots. [REDACTED]
explained that on the way to Seattle from Portland his
ground speed was 480 knots, but on the way back down to
Portland his ground speed was only 420 knots. According to
[REDACTED] the wind apparently was shifting from approximately 160
to approximately 200 degrees.

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b7C

(4) - Seattle
RNN:skh
(4)



5010-110

164-81-7449

SEARCHED	INDEXED
SERIALIZED	FILED
APR 8 1977	
FBI-SEATTLE	

Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

DB Cooper-15518

Section 9: Open questions and limits

Document: Follow-up memo, 4/8/77, and FBI disposition

FBI Vault, D.B. Cooper Part 39 · PDF p. 331 · Bates DB Cooper-15519 · open in the Vault

SE 164-81

[] stated that the weather was bad and that there was lots of moisture potential even at the altitude that he was flying at. [] stated that at lower altitudes it was raining and very cold. [] advised that in his opinion if a person were to parachute in such weather with such high winds he would not make a successful parachute jump.

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b7c

In view of the fact that the information provided by [] does not seem to conflict with previous weather information obtained from the National Weather Bureau, no further investigation concerning this aspect of the investigation will be conducted.

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b7c

ARMED AND DANGEROUS

Section 4: Did he know where he was? Criminal Mastermind or Dumb Luck

Document: Seattle summary: jump timing, time-signal tape and log excerpts (Bates 11398-400), searches, maps

FBI Vault, D.B. Cooper Part 41 · PDF p. 16 · Bates DB Cooper-11384 · open in the Vault

SE 164-81

The following information tends to indicate the Unsub was a gentleman:

1. He offered to tip the stewardesses on the NORJAK flight after he received his ransom money. He did not offer them ransom money as the tip, but used his own money.
2. During the entire hijacking he did not use profane language.
3. Throughout the hijacking he maintained a calm demeanor and spoke low and intelligently.

The following information tends to indicate Unsub lived in the northwest area at some time in his life:

1. Unsub knew the distance from McChord to Sea-Tac and recognized Tacoma, Washington from the air.
2. Unsub was dressed in a suit and lightweight overcoat which is commonly worn by many northwest area residents. b6
b7c
3. No accent or unusual speech mannerisms were detected by the Northwest Airlines stewardesses who had a chance to observe him.

SPORT PARACHUTIST

The hijacker is probably not a sports parachutist nor is he a member of a sport parachute club. The reasons for this are as follows:

1. The hijacker requested two back parachutes and two front parachutes. He gave no specific instructions as to the type of parachute that he desired. (i.e. a sports parachutist would probably have requested a steerable sport parachute.)

- I -
COVER PAGE

DB Cooper-11384

Section 4: Did he know where he was? Criminal Mastermind or Dumb Luck

Document: Seattle summary: jump timing, time-signal tape and log excerpts (Bates 11398-400), searches, maps

FBI Vault, D.B. Cooper Part 41 · PDF p. 26 · Bates DB Cooper-11394 · open in the Vault

SE 164-81

Stewardess [] then acted as a communications media between the Unsub and the captain of the aircraft until about five minutes after the aircraft departed the Seattle-Tacoma International Airport when she was instructed to go to the cockpit by the Unsub.

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b7c

The hijacker's instructions after receiving the money were vague. He probably wanted to jump from the aircraft as soon as possible after the takeoff. The hijacker put two of the parachutes, a back pack and a front pack, on prior to take off. He also wanted the air stairs lowered prior to takeoff, which subsequently proved to be impossible. Finally the hijacker jumped as soon as practical after the stairs were lowered in flight. The hijacker was delayed from jumping by the trouble he experienced in lowering the air stairs and by the fact he was not provided a knapsack but rather a small white canvas bag which he had to affix to her person utilizing parachute shroud lines from an unused parachute.

The plane departed Sea-Tac at 7:36 PM. Some four or five minutes after take-off, [] was sent to the cockpit by the hijacker. Some ten minutes after she entered the cockpit, one of the officers received a call on the interphone from the hijacker, advising he could not get the air stairs down. The pilot then leveled off the aircraft and reduced the air speed. Within a very short time, the officer's panel showed that the stairs had been lowered and approximately five minutes later, (8:05 PM), the officer contacted the hijacker who said everything was okay. That was the last communication with the hijacker.

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At 8:11 PM, while the plane was at 10,000 feet, the crew experienced a pressure bump or oscillation and the Cabin Pressure Rate of Change Gauge also reacted violently and it was thought, at that time, that the hijacker might have left the aircraft.

When the aircraft landed at Reno, Nevada, a chest pack chute and a back type chute were found on the plane. The missing chest pack chute, sometimes referred to as an emergency chute, is a training pack "dummied up" to look like a good one. The missing back pack chute is non-steerable and anyone utilizing this type chute would have no chance of slowing down or picking his spot on which to land.

Section 3: The "later jump" theory

Document: Seattle summary: jump timing, time-signal tape and log excerpts (Bates 11398-400), searches, maps

FBI Vault, D.B. Cooper Part 41 · PDF p. 30 · Bates DB Cooper-11398 · open in the Vault

SE 164-81

It is apparent from the following excerpts, taken from logs maintained by ground personnel on November 24, 1971, that the hijacker exited the airplane at 8:11 p.m. local time.

When the hijacker jumped, the air stairs were forced closed causing an increase in air pressure similar to shutting a car door with the windows up. As this pressure increase occurred the co-pilot turned to look at the cabin rate of climb meter and in doing so his communications ear plug was pulled from his ear.

The co-pilot's comments at this time were being recorded on a tape recorder which had previously been started on a time standard signal. Through careful play back and sequencing, the time of the pressure oscillation caused by the air stairs closing after Unsub departed was determined to be 8:11 p.m. local time.

Section 3: The "later jump" theory

Document: Seattle summary: jump timing, time-signal tape and log excerpts (Bates 11398-400), searches, maps

FBI Vault, D.B. Cooper Part 41 · PDF p. 31 · Bates DB Cooper-11399 · open in the Vault

1
SE 164-81

Teletype logs maintained by Ground Operations,
Seattle-Tacoma International Airport.

Time
8:12 p.m. PST "11/25
305 getting some oscilltns in
the cabin mus be doing something
with air stairs"

Handwritten logs maintained by [REDACTED]
at the Office of NWA Operations, Seattle-Tacoma International
Airport.

b6
b7C

8:11 p.m. "Reno looks good (weather).
305 at the present cabin is
fluctuating playing with air
stairs fwd cabin lites on."

Handwritten logs maintained by [REDACTED]
Flight Dispatcher NWA at Seattle-Tacoma International
Airport.

b6
b7C

8:11 p.m. "Cabin fluctuating ZA"

Log maintained at Flight Operations Office,
Minneapolis, by [REDACTED]

b6
b7C

[REDACTED]
8:10 p.m. "Crew reported oscillation
of cabin rate of climb indicator.
This probably due to HJ weight
now on stairs, stairs extended
further, resultant effect on
cabin pressure. May be best
estimate of when he exited air-
plane."

Section 1: The flight: Seattle to Red Bluff · Section 2: When did he jump? · Section 3: The "later jump" theory

Document: Seattle summary: jump timing, time-signal tape and log excerpts (Bates 11398-400), searches, maps

FBI Vault, D.B. Cooper Part 41 · PDF p. 32 · Bates DB Cooper-11400 · open in the Vault

2
SE 164-81

"(Airplane now at 10,000'
170K, gear down, flaps 15°,
FF 4000 #/hr/engine, TAT -7°C)".

Log reconstructed from tape recordings of the
conversations between Flight 305 and Ground Control.

8:11 p.m.

"O.K. fine uh, at the present
time [REDACTED] . . .
uh, uh! (co-pilot, who is
speaking, turned to look at
the cabin rate of climb meter
because of an increase in
cabin pressure and in doing
so his ear plug was pulled
from his ear). . . at the
present time we're getting
some uh, the uh, cabin uh rate
uh. . . uh, scuse me, my ear
plug came out and I uh, at the
present time we're getting some
oscillations in the cabin rate
of climb indicator and uh,
apparently he (unsub) must be
uh attempting to do something
with the uh, the airstairs
back there."

b6
b7c

(There is a time correlation
check on this tape and through
careful play back and sequencing
the time of oscillations caused
by the airstairs closing after
unsub departed was calculated
at 8:11 p.m.).

Section 2: When did he jump?

Document: Seattle summary: jump timing, time-signal tape and log excerpts (Bates 11398-400), searches, maps

FBI Vault, D.B. Cooper Part 41 · PDF p. 36 · Bates DB Cooper-11404 · open in the Vault

SE 164-81

On 1/6/72, the NWA 727 which was actually involved in the hijacking, was flown to Seattle, by [REDACTED] for the purpose of conducting a test to see if the "pressure bump" experienced during the hijacking, was caused by something leaving the aircraft.

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b7C

The conclusion from that test was that the cabin pressure change occurred when the stairs were forced upward by the air pressure after the weight had been removed, according to [REDACTED] who was a member of the hijacked crew, and also a member of the crew when the test was performed, the occurrence was identical with the incident on the night of the hijack. Also the instrument in the cabin which reacted so violently on the night of the hijacking, also reacted the same way when the test was performed.

b6
b7C

[REDACTED] based on the test flight above, then prepared a memo showing the steps by which he arrived at the best probable bail out point of the hijacker, and plotted this area on a map. This information is set forth as follows:

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b7C

Section 2: When did he jump? · Section 3: The "later jump" theory

Document: Seattle summary: jump timing, time-signal tape and log excerpts (Bates 11398-400), searches, maps

FBI Vault, D.B. Cooper Part 41 · PDF p. 37 · Bates DB Cooper-11405 · open in the Vault

The attached plot indicates the envelope of possible landing points of the high jumper (HJ). It is based on the following:

- Aircraft position from USAF radar data from McChord AFB furnished by [redacted] b6 b7C
- Probable jump time (0411 GMT) from an analysis of the recorded communication from the flight relative to the cabin pressure fluctuation. Flight tests conducted on January 6 confirmed that the pressure fluctuation almost certainly occurred at the time the HJ left the airplane.
- Wind information from 10,000' MSL to the ground as determined by [redacted] b6 b7C
NWA [redacted]
- Human body trajectories from data furnished by The Boeing Company (free-fall) and NWA [redacted] (parachute open condition) who is an expert parachutist. b6 b7C
- Time correlation from the above USAF radar information and from the NWA communications network tape recording.
- Airplane airspeed and altitude from the airplane's flight recorder.

The plot is explained as follows:

1. The heavy dashed line C-D-E-S defines the airplane's probable ground track.
2. Line G-I-J-K defines the westernmost, and Line L-M-N-O the easternmost probable airplane ground tracks based on the stated position tolerance of ± 1.5 nautical mile of the USAF radar plot.
3. Lines A-B, H-P, and O-R are the average wind vectors between 10,000' MSL and the ground, and are the lines parallel to which the HJ would drift after the parachute had opened.
4. Line H-S-T defines the northernmost (earliest) points over which the HJ probably left the airplane. Line K-F-O defines the southernmost (latest) points over which the HJ probably left the airplane. The north-south span of possible jump positions is a product of the radar position tolerance of ± 1.5 mile, and the possible communication time determination tolerance of ± 1 minute.
5. The area within the boundary defined by Points H-P-Q-R-O-K-J-I-H marks the extreme limits of probable landing points based on the above tolerances. That is, assuming the highest probable degree of inaccuracy in aircraft position, jump time, wind vector, etc., all probable HJ landing points would lie within the area defined by this line.
6. If it is assumed aircraft position, jump time, wind vector, and other inputs used are all accurate (without allowance for the above stated tolerances):
 - a. The HJ's landing point would be at Point A if his 'chute did not open, or if he opened it so soon that the high speed caused 'chute damage that resulted in the equivalent of a free-fall to the ground. (The horizontal body trajectory due to

Appendix A: source list only

Document: Seattle summary: jump timing, time-signal tape and log excerpts (Bates 11398-400), searches, maps

FBI Vault, D.B. Cooper Part 41 · PDF p. 38 · Bates DB Cooper-11406 · open in the Vault

it being at the same speed as the airplane at the moment of exit, has been ignored since it would be a maximum of 2000' along the airplane's track if the MJ free-fell all the way to the ground in the "least drag" (tucked) position.)

- b. If the chute was opened without damage immediately after the MJ left the airplane, he would drift with the wind along Line A-B and would land at Point B. The more expert he was, the longer he would probably free-fall (to limit his drift with the wind). The lowest probable altitude to which he would free-fall is 2500' MSL. If he free-fell to 2500' MSL, his landing would be at Point U.

Based on the above, the most favorable search areas, listed in their order of priority, would be as follows:

- At Point A.
- Along Line A-B, favoring the segment between U and B.
- South of Line A-B.
- North of Line A-B.

In addition to the above, the following are pertinent:

- The landing point is more likely to be south of Line A-B, and it is more likely to be in the northwest portion of area A-B-R-O-K-J-A than in the southeast portion thereof.
- It is substantially less likely that the landing point is north of Line A-B. If it is, the most probable point is south of the Lewis River, and in the southwest portion of the area defined by Points A-B-I-J-A.
- It seems highly unlikely-though possible-that the landing point is north of the Lewis River, but if it is, it is more likely to be in the southwest portion of the area defined by Points Q-M-V-I-H-P-Q.

If there are any questions relative to the above, they should be referred to the undersigned.

Northwest Airlines

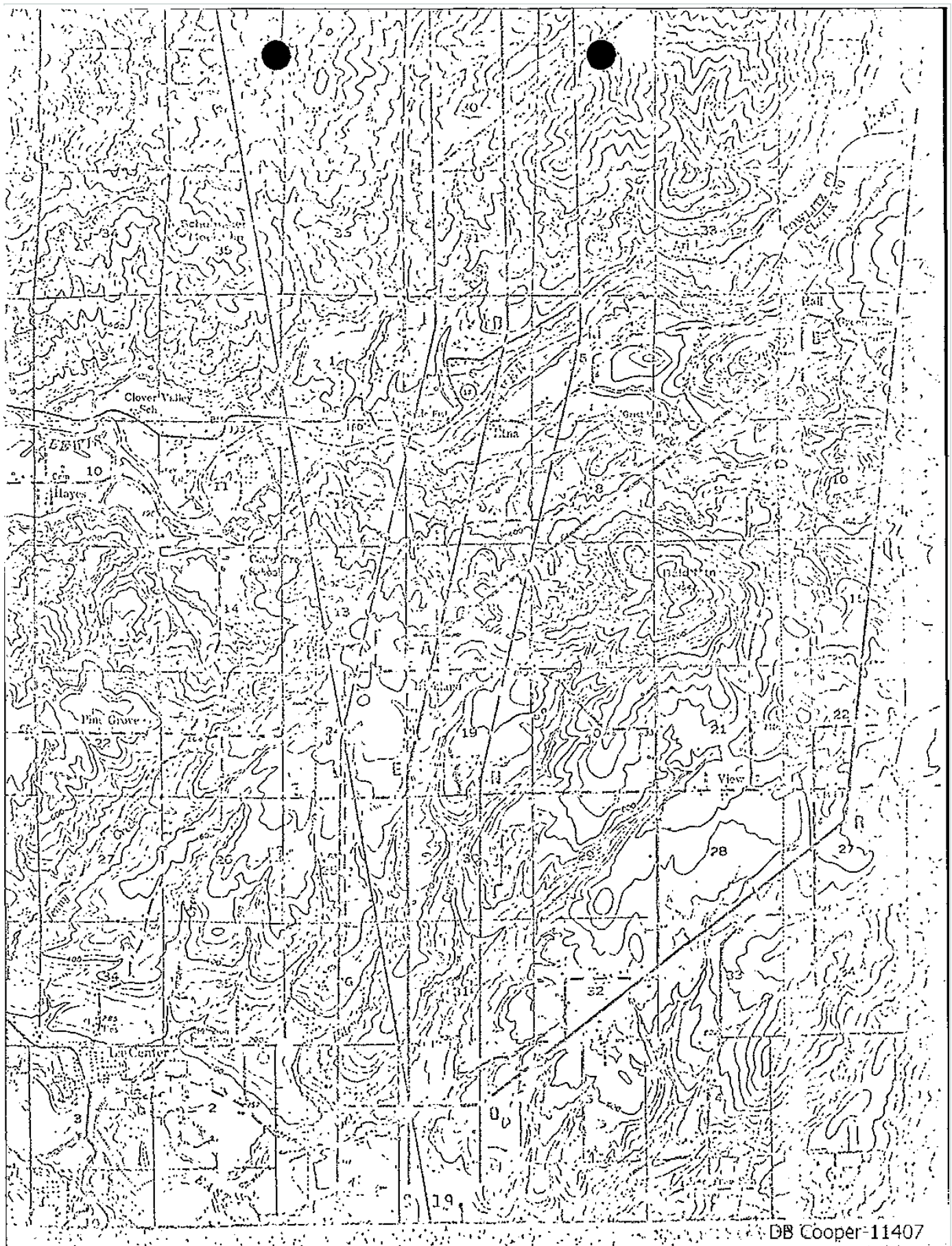
b6
b7c

January 9, 1972

Appendix A: source list only

Document: Seattle summary: jump timing, time-signal tape and log excerpts (Bates 11398-400), searches, maps

FBI Vault, D.B. Cooper Part 41 · PDF p. 39 · Bates DB Cooper-11407 · open in the Vault



Section 7: Every FBI drop-zone determination, 1971-1980

Document: Seattle summary: jump timing, time-signal tape and log excerpts (Bates 11398-400), searches, maps

FBI Vault, D.B. Cooper Part 41 · PDF p. 40 · Bates DB Cooper-11408 · open in the Vault

SE 164-81

On 11/24-25/71, based on information available from NWA, a search area was laid out in the southwest portion of the State of Washington, which was bounded by Woodland, Washington, on the west, Amboy, Washington, on the east, Kalama, Washington on the north and a point seven miles north of the Columbia River, on the south. The prime search area was in an area seven miles east and seven miles west of an eight mile long flight line of the hijacked aircraft, bounded by an area two miles north of Lake Merwin and the Lewis River on the north, Amboy on the east, Woodland, on the west and Battle Ground, Washington, on the south. The search area was divided into six sectors. Four helicopters and seven fixed-wing aircraft were utilized in an intensive, gridded air search of the prime area and a well executed search of the secondary search area on 11/26, 11/27 and 11/29/71.

Ground units of local law enforcement personnel and Bureau Agents, made a house-to-house canvas of every dwelling and business establishment on every road in the prime search area from 11/25/71 through 12/3/71. Most of the roads in the full search area were also intensively covered in a door-to-door canvas, with negative results. All leads developed in this search which was coordinated with the air search, were checked with negative results. One item concerning a small aircraft flying in the vicinity of two private airfields west of Yacolt, Washington, was completely checked and it was found that the aircraft in question was a private plane flown by a known private pilot in the area and the flight took place the evening of 11/23/71.

All sightings from the air were checked by ground units with negative results. Lake Merwin was patrolled from the lake by two boats for its entire 42 mile length, of navigable water and also to the full extent of its 80 mile length, with negative results.

Section 7: Every FBI drop-zone determination, 1971-1980

Document: Seattle summary: jump timing, time-signal tape and log excerpts (Bates 11398-400), searches, maps

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1

SE 164-81

TJM:kdl

Based upon information received from the Seattle Division on November 25, 1971 preliminary steps were taken to alert all law enforcement agencies in Cowlitz, Lewis, Wahkiakum, and Clark Counties concerning the search which was to be instituted for the subject. A meeting was held with members of the Clark and Cowlitz County Sheriff's Offices and local agencies at the Woodland, Washington City Hall and Police Department which was designated as search headquarters in view of its proximity to the Woodland airport at which facilities were available for fixed wing aircraft and helicopters. Arrangements were made for helicopters and fixed wing aircraft to be available on November 26, 1971 and the search area was divided into seven sections, one of which was located in the Lewis River area of Cowlitz County and the others in the north-eastern section of Clark County.

On November 26, 1971 personnel of the Clark County Sheriff's Office, under the direction of Sheriff EUGENE COTTON, and [redacted] consisting of twelve cars and four aerial observers, seven cars of the Cowlitz County Sheriff's Office, and eleven deputies under Sheriff CHARLES E. GILL and [redacted]

In addition, three officers of the Woodland, Washington Police Department and six Agents were at the scene.

On November 26, 1971, after law enforcement officers were briefed on facts known to that point and what was being sought and having been familiarized with the prime search area of 150 square miles, the various ground units were dispatched to Cowlitz and Clark Counties with instructions to contact all available residents and businessmen on every road in the assigned section to secure information concerning the subject. The description, then available, was furnished to all personnel involved in the search. Further instructions were given to the officers to request individuals contacted to contact their neighbors and acquaintances to insure that all residents of the prime search area were cognizant of the hijacking and the description of the subject.

Appendix A: source list only

Document: Seattle summary: jump timing, time-signal tape and log excerpts (Bates 11398-400), searches, maps

FBI Vault, D.B. Cooper Part 41 · PDF p. 42 · Bates DB Cooper-11410 · open in the Vault

2

SE 159-81
TJH:kdl

On November 26, 1971 the banks of Lake Hootin, partly located in the prime search area, were completely patrolled by two boats of the Clallam County Sheriff's Office with all suspicious sightings personally checked. One sighting of a white object on the south side of the lake was unable to be checked on November 26, 1971 but on November 27, 1971 was checked by helicopter with negative results.

On November 26, 1971 two Army helicopters, one Bonnaville Police Administration helicopter, and one Raytheon-Hunter Company helicopter plus five fixed wing aircraft from Woodland and Vancouver, Washington were aloft over the search area for seven hours of total flying time. Several sightings of unidentified items were checked by ground contact with negative results.

On November 27, 1971 the search was continued with the same number of personnel, ground units, three helicopters and seven fixed wing planes. The search area on this day encompassed a 128 square mile area and was laid out based upon latest data furnished by Northwest Airlines re aircraft's position at the subject left the plane. An area averaging ten miles on the east and west sides of the airline flight path and extending from the vicinity of Kelowna, Washington to the suburbs of Vancouver, Washington was gridded and criss crossed by the aircraft mentioned with negative results. All sightings of suspicious items were checked with negative results.

The ground search on November 27, 1971 consisted of contacts by personnel in ground units with as many individuals as possible in the search area.

On November 27, 1971, in addition to contacting all individuals in the search area all airfields with any aircraft or parachuting schools or activity were contacted from Vancouver - Camas, Washougal area to Woodland. A number of individuals contacted at these locations gave information pertaining to skydivers, pilots, clubs involved in skydiving and other information, all of which has been checked with negative results.

Appendix A: source list only

Document: Seattle summary: jump timing, time-signal tape and log excerpts (Bates 11398-400), searches, maps

FBI Vault, D.B. Cooper Part 41 · PDF p. 43 · Bates DB Cooper-11411 · open in the Vault

3

SE 164-81
TJH:kd1

Airports and Flight Services:

Scholls, Orchard, Washington [redacted]
Vancouver, WashingtonEvergreen Airfield, [redacted]
Vancouver, WashingtonPearson Air Park, [redacted]
Vancouver, Washington
Skycraft, Inc. Pearson Air Park
Aircraft Specialties at Pearson Air Park -b6
b7c[redacted]
Northwest Flight Services, Inc. Pearson Air
Park - [redacted]Vancouver Flying Service, Pearson Air Park
[redacted] Camas, Washington,Kelso-Langview Airport, Kelso, Washington -
[redacted]Farm and Forest Helicopter Service, Napavine,
WashingtonHillsborough Aviation, Pearson Air Park, Vancouver,
Washington

Toledo Airport, Toledo, Washington

Chehalis - Centralia Airport, Chehalis, Washington

On November 28, 1971 the house to house canvass of business establishments and houses in the prime search area of 150 square miles was continued by Agents of the Seattle Division. All individuals contacted were queried concerning the subject and were shown composite drawings and given physical descriptive materials. The search area was gridded and close contact was kept with the control point until all streets, roads, highways, and passable byways were covered all with negative results.

Appendix A: source list only

Document: Seattle summary: jump timing, time-signal tape and log excerpts (Bates 11398-400), searches, maps

FBI Vault, D.B. Cooper Part 41 · PDF p. 44 · Bates DB Cooper-11412 · open in the Vault

SE 164-81

On November 28, 1971, reports of planes flying at night on November 23, 1971, in the vicinity of the airfields located at View, Washington, and in the vicinity of County Road 42 and Grantham Road in Clark County as well as other small airports in Clark and Cowlitz Counties were checked with all flights being explainable and normal.

On November 29, 1971, the area from Woodland, Washington, up the Lewis River Road to Cougar, Washington, and Yale Lake was covered on a house to house basis, all locations being in Cowlitz County. The business establishments and private homes contacted all had information concerning the subject and his physical description.

Further house to house coverage was afforded in an area near the midpoint of a circle specified by Northwest Airlines as the center of the suspected area in which the subject exited the airplane. Every house and business establishment in a 20 mile square area was contacted or recontacted and it was found all individuals contacted had information on the subject but no information of value other than that previously reported.

On November 30, 1971, all doctors, clinics, hospitals, and agencies which could render medical assistance to an individual who could have broken limbs or severe abrasions from being in a heavily wooded area were contacted and were also circularized with a composite photograph and description of the subject in Clark, Lewis, Cowlitz, Wahkiakum, and Skamania Counties.

A Bonneville Power Administration helicopter and one fixed wing aircraft upon a partial clearing of the weather continued an air search concentrating on the area which has a center point of a circle as furnished by Northwest Airlines. The search took in an area approximately 150 miles square and nothing of a positive nature was found.

Further house to house canvassing was conducted by Agents in the prime search area near the center of the circle as provided by Northwest Airlines. Nothing of significant value other than that already secured was found.

Appendix A: source list only

Document: Seattle summary: jump timing, time-signal tape and log excerpts (Bates 11398-400), searches, maps

FBI Vault, D.B. Cooper Part 41 · PDF p. 45 · Bates DB Cooper-11413 · open in the Vault

SE 164-81

On December 1, 1971, a fixed wing aircraft from Woodland, Washington, was aloft and covered an area during a slight period of clear weather which encompassed the area from Woodland, Washington, north to Silver Lake in Cowlitz County, a distance of 40 miles and a section 10 miles on either side of the flight path of the hijacked aircraft. While this was being conducted, Agents in ground units were conducting door to door canvass in the vicinity of the southerly end of Cowlitz County. Total area covered by air was 800 square miles with negative results.

On December 2, 1971, ten Agents walked in a defined search pattern the area in the immediate vicinity of the circle of search as set forth by Northwest Airlines. The terrain was found to be composed of fields which are being farmed and a number of impenetrable thickets which have fallen logs, hidden beaver ponds, and creeks and generally hazardous and most difficult terrain to search on foot. It was noted that in getting into the thicket and underbrush growth, it was so heavy that even if an item was five yards from the observer, it could easily be missed due to overgrowth problems. The area covered in this physical terrain search was 1 1/2 miles long and 2/3 of a mile wide and took approximately five hours. Negative results in the search.

Section 7: Every FBI drop-zone determination, 1971-1980

Document: Seattle summary: jump timing, time-signal tape and log excerpts (Bates 11398-400), searches, maps

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SE 164-81

FIRST TERRAIN SEARCH

The purpose of the first terrain search was to search for possible evidence left behind by Unsub and to find the remains of Unsub assuming he made an unsuccessful jump. The first terrain search commenced at 2:00 PM on March 21, 1972 with 218 Army troops including officers, 20 Special Agents of the Federal Bureau of Investigation and 9 helicopters. The area to be searched covered approximately 25 square miles.

Due to snowfall in search area on March 25, 1972, the search was temporarily held up. Army troops remained on location and the search resumed at 12:00 Noon on March 26, 1972. The search was temporarily discontinued at 12:00 Noon March 30, 1972 to allow search personnel to rest and enjoy the Easter Holiday. The Army search equipment was retained at search headquarters at Merwin Park.

The search recommenced 7:15 AM, April 8, 1972, with 265 Army personnel and 20 Agents. Snow, sleet and freezing rain hampered search on April 12, 1972. Remaining areas to be searched were reached only by helicopter insertion of search personnel and landing zones in most cases were under 6 to 12 inches of snow.

The search of the entire area was completed at 1:00 PM, April 17, 1972 with nothing found.

HUNTERS SEARCH

Prior to the 1972 hunting season, the following information was made available to Washington State Game Wardens who supervise the area into which the hijacker parachuted:

"On November 24, 1971, a man parachuted into the below-described area with \$200,000 in \$20 bills. If, while camping or hunting, you should discover any evidence concerning this skyjacking please contact the nearest FBI office.

Section 7: Every FBI drop-zone determination, 1971-1980

Document: Seattle summary: jump timing, time-signal tape and log excerpts (Bates 11398-400), searches, maps

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SE 164-81

AREA INVOLVED

"Bound on the west by US 5, bound on the south by the Columbia River, bound on the north by the Kalama River, and bound on the east by the Skamania-Clark County line.

WHAT TO LOOK FOR:

- "1) The remains of a man, possibly dead for one year.
- 2) The remnants of a parachute, harness or parachute shroud lines.
- 3) 10,000 \$20 bills wrapped in a parachute canopy, all serial numbers are known and can be identified.
- 4) Deteriorated raincoat or overcoat.
- 5) Small briefcase or attache case.

REWARD:

"\$25,000.00 total or 15% of any lesser portion of the ransom money that is returned has been offered by Northwest Orient Airlines.

"If any information concerning this matter is discovered, it should be reported to the FBI Office at Seattle, Washington, area code 206, telephone MA. 2-0460 collect, or to the nearest FBI Office, which can be found by checking in front of your telephone directory."

The above information in the form of letters was distributed to hunters by game wardens.

The remains of JAMES ANNIS were found by hunters near Cougar, Washington on November 5, 1972. ANNIS, 16 years old in 1971, was reported missing on November 13, 1971 while hunting. He was positively identified by dental examination.

Several leads were received as the result of the publicity afforded this case by the news media and the Washington State Department of Game Wardens. These leads

Section 6: Where the plane was at 8:11 · Section 7: Every FBI drop-zone determination, 1971-1980

Document: Seattle summary: jump timing, time-signal tape and log excerpts (Bates 11398-400), searches, maps

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SE 164-81

all received expeditious and thorough attention but all results were negative.

SECOND TERRAIN SEARCH

In attempt to determine the accuracy of the first search area, the following was learned:

The first search area was calculated using a system of plotting known as "GEOREF" (i.e. Geographical Reference) which has a plotting error of plus or minus one mile. A new plotting system using a computer generated latitude and longitude has a plotting error of plus or minus 1/2 mile. Using the new system, [redacted] Northwest Orient Airlines [redacted] plotted a new course for the NORJAK airplane and a new search area based on the new course. The new search area based on the new course. The new search area is partially outside the first area. (See maps.)

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It is felt that if Unsub's parachute opened, he is no longer in the southwest Washington area, but if his parachute did not open he would be in a corridor along the flight path. The time of jump is known, and an area approximately one mile by seven miles represents the area Unsub would have landed in if his parachute did not open.

Because some of the above corridor fell in the old or first terrain search area, only an area 2 miles by 1/2 mile was searched during the second terrain search.

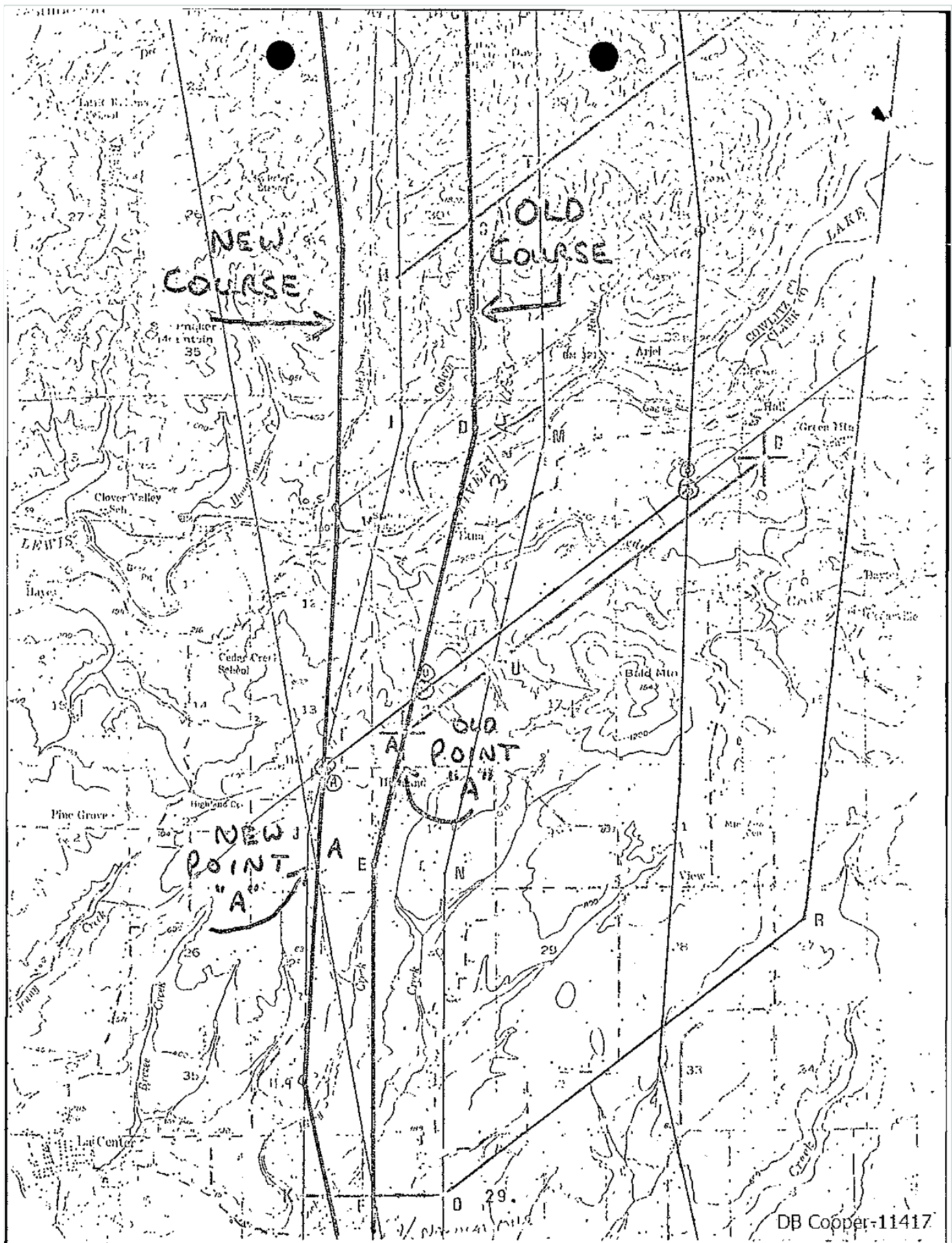
The second terrain search commenced March 12, 1973, and involved 10 Special Agents of the Seattle Office. It was temporarily interrupted on March 16 and resumed again March 26, 1973.

The second terrain search was completed March 29, 1973 with nothing found.

Section 6: Where the plane was at 8:11 · Section 7: Every FBI drop-zone determination, 1971-1980

Document: Seattle summary: jump timing, time-signal tape and log excerpts (Bates 11398-400), searches, maps

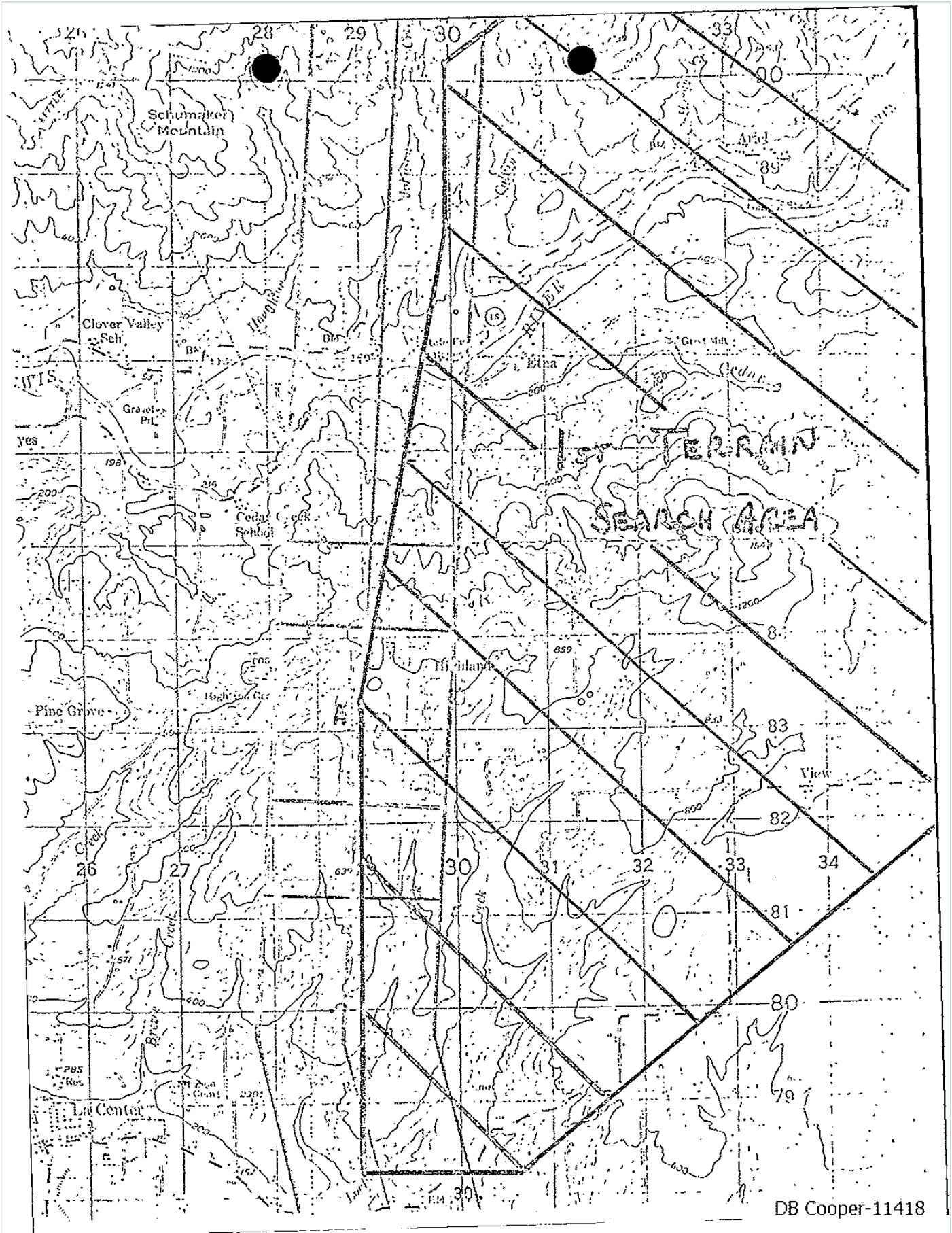
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Section 7: Every FBI drop-zone determination, 1971-1980

Document: Seattle summary: jump timing, time-signal tape and log excerpts (Bates 11398-400), searches, maps

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Section 3: The "later jump" theory · Section 7: Every FBI drop-zone determination, 1971-1980
 · Section 9: Open questions and limits

Document: 1980 drop zone and Tena Bar

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SE 164-81

PD 164-41

SLH:LBN

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Sub LJM

The following investigation was conducted by
 SA [REDACTED]

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b7CAT PORTLAND, OREGON

On February 20, 1980, [REDACTED]
 [REDACTED] U. S. Army Corps of Engineers, Portland District,
 telephone [REDACTED] was contacted regarding the possibility that
 bait money found near the [REDACTED] on February 10,
 1980, could have been brought to that area by a river feeding
 the Columbia River from the north.

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The area believed to be the drop zone of the subject in
 1971, is described as that area in the State of Washington
 bounded on the north by the Lewis River, the east by the
 Clark County-Skamania County line, and the Columbia River.

[REDACTED] advised the only likely river feeding the Columbia
 River within the above described drop zone that would be
 capable of moving several bundles of money or a package
 about 16x16x4 inches to the Columbia River would be the
 Washougal River. A logical time, if the money came down the
 Washougal, would have been during the December 2, 1977
 Washougal flood when parts of the river were approximately
 ten feet over the normal winter flood stage.

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There are several other streams that feed the
 Columbia River upstream from the [REDACTED]
 however, due to size, or the degree of slope of the
 streams, it is unlikely that a small package would have
 made it to the Columbia. It is also unlikely that a
 small package would have passed through Lacamas Lake downstream
 to the Columbia.

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[REDACTED] stated that based on the three feet per second
 speed of the Columbia River, if a small package entered the Columbia
 River at Washougal, Washington, and floated in the main stream
 of the river to the [REDACTED] a distance approximately
 thirty miles, it would take 14.7 hours. This is assuming that
 the package did not tumble along the bottom of the river or
 get caught on any snags.

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MAR 11 1980	

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DB Cooper-17613

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Section 4: Did he know where he was? Criminal Mastermind or Dumb Luck · Section 5: V-23 or bust

Document: Press clipping: route chosen "without consulting the hijacker" (press clipping)

FBI Vault, D.B. Cooper Part 54 · PDF p. 75 · Bates DB Cooper-23001 · open in the Vault

Northwest official Walt Helmer quoted Pilot William Scott as saying no crewman had the slightest idea of where the hijacker might have left the plane.

Scott told Helmer he fully expected the hijacker to be in the tourist section of the aircraft when it landed in Reno, Nev., Wednesday night for refueling en route to the hijacker's announced goal of Mexico City.

Additionally, Scott told Helmer he chose the Victor 23 route from Seattle and down Oregon's Willamette Valley without consulting the hijacker.

Federal Aviation Authority officials in Portland said the route taken was "99 per cent likely" since it was the shortest low altitude route to Reno. Other routes were available, however, officials said.

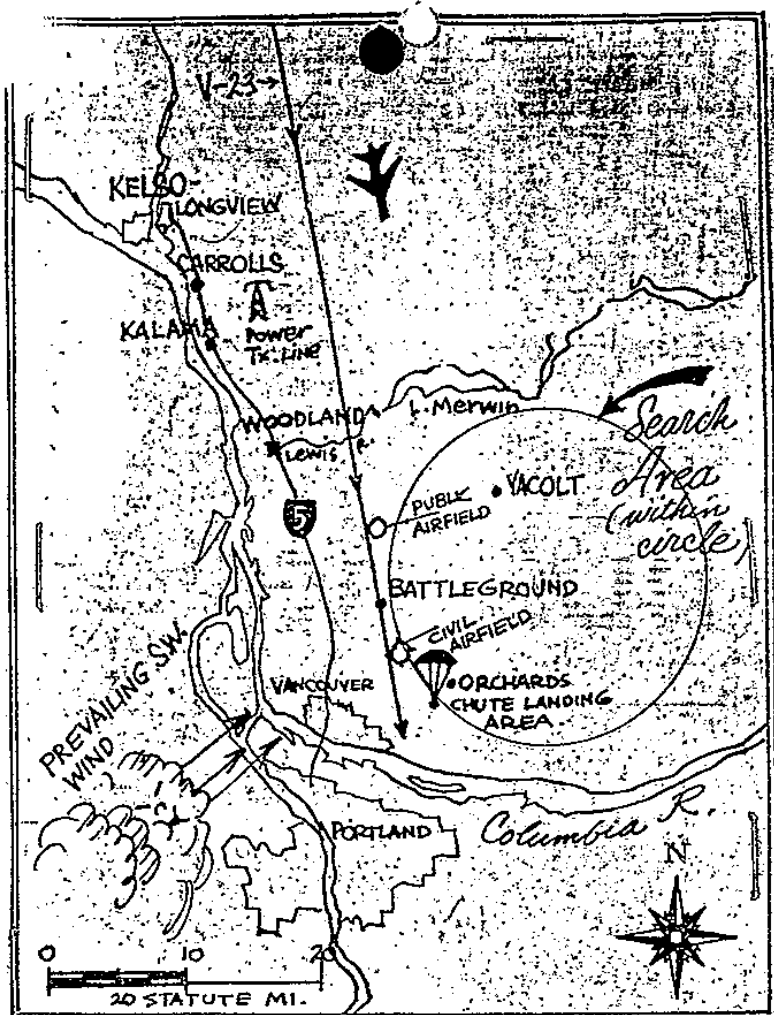
The low altitude route apparently was dictated by the hijacker's demand the aircraft fly with its landing gear down, its flaps down 15 degrees, its rear door open and step down and at an altitude no higher than 10,000 feet. The calm, well-spoken, middle-aged, sky pirate apparently boarded the plane in Portland took control en route to Seattle by passing a note to Stewardess Florence Schafner, 23, of Minneapolis Minn.

"I thought he was trying to bustle me," she said in St. Paul, Minn., Friday, but the note proved to be a threat to detonate a bomb if he was not obeyed.

At Seattle, the passengers and two stewardesses were freed in exchange for \$200,000 cash and two parachute rigs, each having a main and emergency chute.

The cash in \$20 bills weighing 21 pounds, 4 ounces, was delivered to the aircraft in a white canvas bag, officials said.

In Las Vegas, Nev., the FBI said one parachute rig was found in the plane when it landed in Reno. The drogue from the reserve chute had been slashed off, officials said, apparently for use as a container in which to carry the money.



HIJACK ROUTE — Map shows route of Northwest Airlines Boeing 727 jetliner after being hijacked by a middle-aged, Latin-looking passenger. Public airfield, civil airfield and parachute drop zone show possible spots where hijacker may have jumped. Officials speculate he may have gotten bearings from beacon on a power pole near Carrolls, Wash. Winds Wednesday night were from southwest at 25-45 miles per hour.

At Woodland search headquarters, officials still said the assumed drop zone was still speculative and that a computer at Ft. Lewis, Wash., had projected a likely search area.

Clark County Sheriff Gene Cotton said there had been several unconfirmed sightings of a man matching the description of the fugitive — mid-40s in a dark suit and raincoat.

Officials also speculated the hijacker might have pinpointed his drop zone by a red beacon light just north of the search area.

An aeronautical chart of the area revealed a public-use airdrome close to the search area and a civil airdrome farther south.

Also, skydivers apparently have used a large open area near Lake Merwin's Ariel Dam as a jump site. And farther south, there is a designated parachute jump site near Orchards.

All of the possible jump sites, as well

as a number of farms, were along the jetliner's flight path.

Officials at Woodland reported that poor air visibility had prompted the Army to pull back its helicopters to Ft. Lewis, Wash. The FBI, reports said, would continue searching with donated or rented aircraft.

The parachute used by the hijacker was a new, previously untested model made specially for a Renton, Wash., stunt flier. The reserve chute missing from the aircraft was a ground training model with its canopy sewed shut.

In Seattle, persons familiar with the chutes said the reserve chest chute could not have been attached to the main chute's harness.

The commandered plane took it down the Willamette valley, Red Bluff, where it turned east and landed at 11:30 in a series of sparks caused by a shorted emergency ladder.

DB Cooper-23001

Section 4: Did he know where he was? Criminal Mastermind or Dumb Luck

Document: Hijacker's demand to take off with the aft stairs down

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LV 164-60

5

then again left the aircraft and this time brought back the two smaller parachute packs (chest packs) and gave these to the hijacker. She made a last trip from the aircraft then to obtain another of the large parachute packs (another back pack). All of the parachutes were given to the hijacker and he was observed by [redacted] to be looking them over as she left them with him. She also recalled that at this time all hostesses and male crew members were still aboard the aircraft.

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At this point [redacted] recalls discussing with the hijacker what the instructions were regarding future destination of the flight. Up to this point he had refused to tell her where he would order the flight to go. At this time, however, he told her not to worry, the flight was not going to Havana but it would go to a "pleasant place".

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[redacted] said that she obtained one of her pay sheets and by this time did have a pencil and took down the following instructions from the hijacker:

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"Going to Mexico City -- or anyplace in Mexico -- nonstop -- gear down -- flaps down -- don't go over 10,000 feet altitude -- all cabin lights out -- do not again land in the States for fuel or any other reason -- no one behind the first class section".

[redacted] forwarded this information to the cockpit and the hijacker also indicated that he wanted takeoff made with the rear door open and the stairs extended for takeoff. He had also indicated that in addition to the passengers, all of the hostesses would be allowed to exit the aircraft prior to their departure.

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The crew, through [redacted], informed the hijacker that takeoff in that aircraft with the door open and stairs extended would be an impossibility, and it was finally agreed that takeoff would be made with the door closed, stairs retracted, and [redacted] would remain on board to lower the door and stairs after the aircraft was airborne.

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DB Cooper-26967

Section 7: Every FBI drop-zone determination, 1971-1980

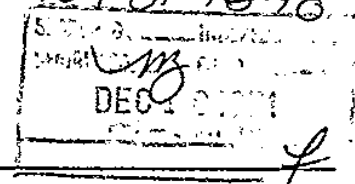
Document: NWA plot of 12/4/71 and NWA Minneapolis flight-ops log (route, range and fuel)

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FEDERAL BUREAU OF INVESTIGATION

Date December 15, 1971

[redacted] Northwest Airlines, Inc., advised that after reviewing his notes and technical records concerning the operation of Northwest Airlines Flight 305 on November 24, 1971, he had drawn the following conclusions concerning the possible vicinity where the hijacker bailed out of the aircraft and the possible area in which he landed. [redacted] furnished a map with an overlay of the hijacker's landing area.

b6
b7COn 12/4/71 at Minneapolis, Minnesota File # MP 164-73by SA [redacted] :bab Date dictated 12/9/71b6
b7C

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DB Cooper-27164

Section 2: When did he jump? · Section 6: Where the plane was at 8:11 · Section 7: Every FBI drop-zone determination, 1971-1980

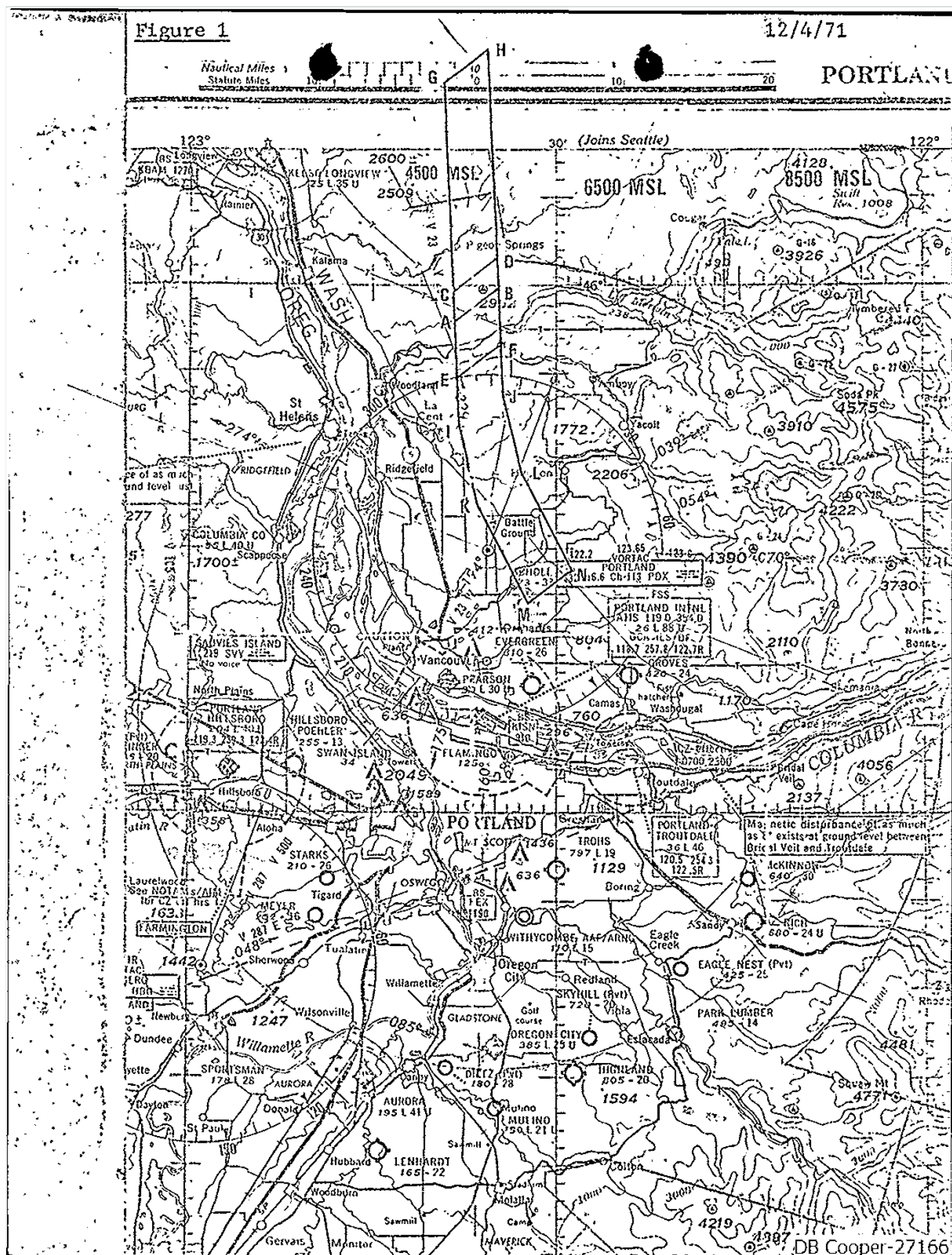
Document: NWA plot of 12/4/71 and NWA Minneapolis flight-ops log (route, range and fuel)

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1. Line G-I-K-M represents the airplane's flight path as it approached the Portland (PDX) VOR.
2. The cabin pressure "bump" occurred at 0410 GMT, the time being recorded by the NWA Flight Operations Office (NWAFO) in Minneapolis. It is a virtual certainty that the pressure "bump" marks the time that the high-jacker (HJ) left the airplane. The airplane was at Point A at that time, thus the HJ's body would land at Point A if his 'chutes did not open (unlikely).
3. If it is assumed that the HJ was a highly expert parachutist, and would thus free-fall as far as practicable to insure the best accuracy of his touchdown point, he would land slightly to the NE of Point A due to his drifting with the wind from the point of 'chute opening.
4. If the HJ opened his 'chute as soon as he left the airplane, he would drift along the line A-B and would touch down at B. All lines parallel to A-B are lines along which the HJ would drift if he opened his 'chute relatively early.
5. The parallelogram indicated by C-D-F-E represents the boundaries of the probable touchdown area adjusted for possible time errors and for the above described wind drift. It is probably the most fruitful search area.
6. The earliest the HJ could have jumped is 0406, and this point is represented by Point G.
7. The crew believes the pressure "bump" occurred at 0410, but in any even are certain it occurred before 0415. If the HJ jumped at 0406 (unlikely) he would land on or near line G-H. If he jumped at 0415 he would land on or near line MN.
8. Based on the above explanation of Figure 1, and on all the assumptions based in its preparation, the following are pertinent:
 - a. The most likely landing point for the HJ is at, or slightly NE of Point A.
 - b. His landing point is more likely to be in area C-D-F-E than any other.
 - c. It is possible his landing point could be anywhere within the area shown (G-H-N-M), but the probability goes down as the ends of this area are approached.

DB Cooper-27165

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Appendix A: source list only

Document: NWA plot of 12/4/71 and NWA Minneapolis flight-ops log (route, range and fuel)

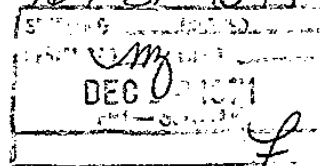
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FD-302 (REV. 3-17-69)

FEDERAL BUREAU OF INVESTIGATION

Date December 3, 1971

[redacted]
[redacted], Northwest Airlines, Inc., furnished the following
information:

b6
b7COn 11/25/71 at Minneapolis, Minnesota File # MP 164-73by SA [redacted] :hab Date dictated 11/30/71b6
b7C

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DB Cooper-27167

Appendix A: source list only

Document: NWA plot of 12/4/71 and NWA Minneapolis flight-ops log (route, range and fuel)

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The attached information was taken primarily from manually recorded notes during communications connected with the high-jacking of Northwest Airlines Flight 305, November 24/25, 1971.

The primary method of communication with the flight was direct between MSPFO (Flight Operations) and SEADD (Flight Dispatch), the flight, SEA and SFO ARINC, RNO Tower.

Due to the inability to copy everything exactly--and as rapidly--as it occurred, there may be some errors in the following. It is not believed that they are likely to be large or significant.

The following also includes additional information that developed during the incident that appeared relevant.

11/25/71

DB Cooper-27168

Section 3: The "later jump" theory

Document: NWA plot of 12/4/71 and NWA Minneapolis flight-ops log (route, range and fuel)

FBI Vault, D.B. Cooper Part 64 · PDF p. 303 · Bates DB Cooper-27169 · open in the Vault

HIGH-JACKING, NWA FLIGHT 305, NOVEMBER 24/25, 1971

-1-

The following information from various sources, primarily the radio and 'phone-patch communications between the MSP Flight Operations Office "Eagle" line and the flight crew.

Time (CST)*

-1658 Flight OFF PDX. High-jacker (HJ) apparently made his demands known shortly after this time.

Preliminary information received from MSP Planning Office (MSPPO):

HJ demanding \$200,000 (denomination not restricted), 2 chest-pack parachutes, 2 back-pack parachutes. All to be available and ready at airplane parking site before landing will be permitted at SEA.

Apparently has a bomb in briefcase. Passenger apparently boarded at PDX.

1720* Crew advised they would hold over Lofall intersection until all material available. No info yet on destination HJ desired after SEA T.O. HJ had said there was to be no "funny stuff" at any time or he would detonate the bomb. Specified that only the fuel truck, air-stair truck, and automobile with the money and 'chutes approach the airplane. That airplane be parked in an "isolated" position. Gave a deadline of 1900 CST for all demands to be met. HJ remained in tourist cabin with one stewardess sitting next to him and aware of what appeared to be a bomb (dynamite sticks, wire, battery). Passengers not advised that high-jacking in progress, but that reason for the holding was "minor mechanical problem".

Crew described passenger as white, 6' 1", black hair, 175#, approximately 50, black suit, black rain coat, black brief case. (All information between cockpit and HJ being relayed by "captive" stewardess [redacted] by cabin/cockpit interphone.)

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HJ specified that no vehicles with beacons or flashing red lights or any other were to approach airplane. MSPFO agreed that captain was in full command and all his requests and wishes would be honored. Crew taking pains likewise to gain HJ's confidence by giving him full information and cooperation.

HJ also specified that, after SEA landing and parking:

- Fueling to start as soon as engines shut down.
- Stewardess [redacted] would leave airplane (and only her) and pick up money, then return for 'chutes. He must see knapsack with money before any other steps taken.
- Passengers will be allowed off after money and 'chutes are in his possession and fueling under way.

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DB Cooper-27169

1930* Airplane landed SEA after crew and HJ assured that money and
'chutes were available and in position.

Crew requested car park at 10 to 11 o'clock position to air-
plane so they could see it properly.

Notes indicate HJ indicated at one time that airplane was open
to "any number of vehicles as long as no 'funny stuff' pulled."

Direct communications between crew and MSPFO maintained at
all times. Coordination between Tower, vehicles, and air-
plane on ground at SEA were on Ground Control frequency 121.7.

First fuel truck apparently ran out of fuel. Crew requested
second truck, with third one to be standing by. Considerable
delay in getting full load of fuel and HJ was getting "nervous",
saying that you must "get the show on the road".

HJ specified that he wanted to go to Mexico City non-stop,
that the aircraft configuration must be gear DOWN, flaps at
15°, that the aft entry door must be open at all times, and
that the aft stairs be extended after take-off. Later speci-
fied that stairs must be fully extended before take-off.
MSPFO advised crew (1) that non-stop SEA-MEX impossible with
gear DOWN, flaps 15°, (2) that take-off with air-stairs full
down impossible due to inability to rotate airplane. When
HJ advised of this he asked that air-stairs be partially ex-
tended prior to take-off. MSPFO advised this also impossible
since stairs could not be held in any intermediate position.

HJ had previously stated that no landing within continental
U.S. would be permitted "for fuel or anything else". When
advised of range limitation in his specified configuration,
he agreed to something short of the border. Asked about PHX.
Advised by MSPFO that this might be within range but that
RNO would be better as far as range was concerned. Agreed
to this without much, if any, objection.

2136 Airplane OFF at SEA.

2140 14 DME S SEA VOR at 7000'. Gear DOWN, flaps extending to
30°.

2141* Stewardess [] allowed to go to cockpit.

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2142* HJ advised (by inter-phone) that he was having difficulty get-
ting steps down.

2143 Aft air-stair warning light ON (stairs apparently now partially
extended.) Crew had been furnished Boeing procedure for exten-
ding stairs in flight. Airplane now 19 DME S SEA VOR on V23,
with gear DOWN, flaps at 30°, and at APPROACH speed.

DB Cooper-27170

Section 1: The flight: Seattle to Red Bluff · Section 2: When did he jump? · Section 3: The "later jump" theory · Section 9: Open questions and limits

Document: NWA plot of 12/4/71 and NWA Minneapolis flight-ops log (route, range and fuel)

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-3-

NWA Chief Performance Engineer had been called to field to help calculate range, etc. Boeing Company had been contacted for assistance in range problem, flight characteristics with air-stairs extended, whether opening (stairs extend about 20° in flight, possibly more with man's weight on them) would be large enough for a man to exit. Boeing assured us there would be no controllability problem, that they would get experts working on range problem also, that they had dropped 2-300# boxes out air-stair opening in flight and that man could probably get out.

NWA Communications people also had arrived at field to assist in required 'phone-patching, other communications problems.

[REDACTED] four supervisory pilots, 1 performance engineer, many others on the scene (MSPFO) for assistance.

b6
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2145* Flight at 7000', 160KIAS, fuel flow (FF) 4500#/engine, flaps 30° gear DOWN. MSPFO advised they would have even more severely limited range in the flaps 30° position. Crew given preliminary information on optimum range IAS (170K), weather, airports available between SLA and RNO, minimum obstruction clearance altitudes, etc.

2155 MSPFO asked for stewardess best recollection of exact content of HJ briefcase. She got on radio and gave following basic information:

- Eight red sticks, about 6" x 1" in left corner of brief case, "look like big firecrackers." Two rows of sticks, four on top of four.
- Wire attached to dynamite with red insulation.
- Battery "like flashlight battery, but about 6" high and as big around as my arm".
- Red sticks are about the color "of my uniform".

2205* Crew called HJ and asked him if everything was O.K. and he replied that it was. This was apparently the last communication the crew had with the HJ.

2210* Crew reported oscillation of cabin rate of climb indicator. This probably due to HJ weight now on stairs, stairs extending further, resultant effect on cabin pressure. May be best estimate of when he exited airplane.

MSPFO advised crew that range to RNO now looked good (airplane now at 10,000', 170K, gear DOWN, flaps 15°, FF 4000#/hour/engine, TAT -7°C. MSPFO calculated TAS and range from this data.

DB Cooper-27171

Section 1: The flight: Seattle to Red Bluff · Section 3: The "later jump" theory · Section 4: Did he know where he was? Criminal Mastermind or Dumb Luck · Section 5: V-23 or bust

Document: NWA plot of 12/4/71 and NWA Minneapolis flight-ops log (route, range and fuel)

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Cabin lights ON in forward cabin, OFF in aft cabin. Curtain between first class and tourist section was closed; crew could not see whether HJ was still aboard.

2222* Lost communications on NWA communications frequency (131.9); 'phone-patch with SEA ARINC established. Flight now 23 DME S PDX at 10,000', 40,000# fuel aboard, 165KIAS, FF and configuration remained the same. Crew had previously been advised to switch to ARINC on 131.8 when NWA communications lost. MSPFO and MSPFD communicated with flight and SEA ARINC thereafter on this 'phone-patch arrangement. SEADD had been monitoring all communications with flight and assisting in all other matters.

[redacted] had also been very actively participating throughout the high-jacking. He had taken money and 'chutes to airplane at SEA, coordinated with crew, fuel trucks, etc.

b6
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[redacted] later called UAL at RNO and briefed them on all of the HJ's demands, procedures to be followed at RNO, etc.

b6
b7c

2252 Flight over EUC VOR, 10,000', 170KIAS, fuel aboard 33,500#, FF and configuration remained the same. Advised that they had had no communications with the HJ for "about the last 55 minutes" despite several attempts on cockpit-to-cabin inter-phone and PA system. Crew was assured that fuel was more than adequate to get to RNO, that RNO weather was good, etc. SEADD had also been actively following, and participating in these events.

2328 Over MFR, 10,000', TAT -5°, 170KIAS, fuel aboard 27,500#, FF and configuration the same. Some airframe icing being experienced. Engine anti-icing ON for appreciable length of time, wing AI on "intermittently". Crew seemed slightly concerned about this, but were assured that it was no problem.

2330* [redacted] asked that we suggest that flight crew slowly lower cabin temperature as much as practicable (to slow HJ's reflexes).

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2335* MSPFO suggested a slow climb to 11,000' at Captain's discretion, to induce as much hypoxia in HJ as possible (flight had previously been suggested to consider climb to as high as practicable--but that they would probably be performance limited to not much above 17,000'--but not above 12,500'. Latter upper limit to prevent a cabin oxygen mask drop from exciting HJ. 11,000' also needed for adequate terrain clearance RBL-RNO.

DB Cooper-27172*

Section 1: The flight: Seattle to Red Bluff · Section 3: The "later jump" theory · Section 5: V-23 or bust

Document: NWA plot of 12/4/71 and NWA Minneapolis flight-ops log (route, range and fuel)

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2342 When flight was in RBL area, direct communications between MSPFO and the flight were interrupted. UAL 4331 and WAL 328 relayed messages to and from the flight for us.

2347. Flight now at 11,000', TAT -1°, all other factor essentially the same.

0005 58 DME N RBL VOR, 11,000', fuel aboard 22,000#. Only evidence from cabin was aft entry door and air-stair warning lights still ON.

0030 Flight switched to SFO ARINC on 130.6. MSPFO put on 'phone-patch this frequency at same time.

0017 Fuel aboard 17,300#.

0039* Descent from 11,000 to 9,000' started.

0049 Flight advised they were holding at RNO OM until they had everything "in order".

0100 Flight 1 mile out on final approach. (At this time, we-- MSPFO--were on telephone conference call. Other parties apparently on the same line were RNO Tower, FAA SEA, FAA Washington, FBI Washington. Not known whether anyone else might have also been tuned in.)

0101 Tower "talked us through" his touchdown; subsequent taxiing. Door did not appear to go to full down position until relatively low speed on roll-out. Flaps appeared to be "UP". Parked at NE (?) corner of terminal ramp.

0116 Tower reported crew had exited airplane; with FBI at this time.

Unknown After parking, crew had advised on SFO ARINC that one of them had gone back in cabin and found no sign of HJ. They had apparently last tried to contact him via interphone/PA at about 0046CST with no response. At that time they were going to advise him that the air-stair would have to be retracted for landing or that damage during landing roll-out would probably prevent subsequent take-off.

Two "little" 'chutes gone, one "big" one cut up, apparently to tie the money with shroud lines to HJ. One "big" 'chute apparently still on the airplane.

Guard requested around airplane, FBI apparently searching airplane.

0128 Was advised (all on conference call) at this time that matter was now under the jurisdiction of FBI in Washington.

DB Cooper-27173

Section 3: The "later jump" theory · Section 5: V-23 or bust

Document: NWA plot of 12/4/71 and NWA Minneapolis flight-ops log (route, range and fuel)

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-6-

At some point during the conference call, learned (it is not known from who) that a [redacted] operated a parachute jumping school at [redacted], and that he had previously been [redacted]

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0133 NWAFO advised conference call participants that NWA would hang up if they were no longer needed on that line. Was asked to standby by either FAA or FBI Washington. Did so.

0135 FAA/FBI advised NWAFO that no further conference call info was required of NWA at that time. Hung up. (Prior to our hanging up, [redacted] advised FAA Washington on same line that he also was "signing off".)

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Throughout the flight from the time it was known that the HJ's desired destination was MEX, preparations were made for a landing at YUM, and Mazatlan, Mexico, as would have been necessary due to the limited range in the HJ's specified configuration. Prior to the RNO landing NWAFO suggested that crew negotiate with HJ to pull gear and flaps UP after RNO take-off, that a non-stop flight to MEX would then be possible. This, of course, proved unnecessary.

DB Cooper-27174

Section 5: V-23 or bust

Document: Crew interview: "Victor 23" clearance at 10,000 ft

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LV 164-60

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The hijacker was questioned concerning his intentions with regard to the bomb package and he responded through [redacted] that he would either take it with him or disarm it at the time of his departure. Upon their departure from Seattle, they followed a course known as "Victor 23" which is a standard low altitude routing to Portland, and received clearance from Sacramento tower for Victor 23 at 10,000 feet.

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[redacted] recalled that initially after receiving descriptive data from hostess [redacted], they radioed the company for any likely suspects or modus operandi and the company furnished the name of [redacted] who had previously been [redacted] and was suspected as a possibility of being the hijacker.

b6
b7C

[redacted] stated that departure from Seattle was made at 7:36 p.m. and at approximately 8:05 p.m. he called the hijacker on the intercom, inquired whether he could hear and whether there was anything they could do for him. The hijacker responded in the negative and the crew then decided that the hijacker was on board for the duration and they decided against any more tests or contacts with him until after they arrived at Reno, Nevada. Upon approaching Reno Airport, they tried to contact the hijacker with no response and they notified their company of same.

b6
b7C

[redacted] stated that approximately 5 to 10 minutes after the last contact with subject at 8:05 p.m., they heard and felt an oscillation of the aircraft and commented at the time that the hijacker could have departed, causing the unusual vibration since there had been no change in flight altitude, speed or any other external force which would account for this sudden oscillation. They telephoned the company [redacted], in Minneapolis shortly thereafter, and stated that the oscillation, which could have been the hijacker's departure, would have occurred between 8:05 p.m. and their call to [redacted] 5 or 10 minutes later, the exact time which would be recorded in the company log.

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[redacted] stated that they had not yet reached Portland proper but were definitely in the suburbs or immediate vicinity thereof.

b6
b7C

DB Cooper-27188

Appendix A: source list only

Document: Hourly aviation weather sequences, 0300-0500 GMT 11/25/71

FBI Vault, D.B. Cooper Part 83 · PDF p. 3 · Bates DB Cooper-35324 · open in the Vault

KEY TO AVIATION WEATHER REPORTS.....

LOCATION IDENTIFIER AND TYPE OF REPORT*	SKY AND CEILING	VISIBILITY WEATHER AND OBSTRUCTION TO VISION	SEA-LEVEL PRESSURE	TEMPERATURE AND DEW POINT	WIND	ALTIMETER SETTING	RUNWAY VISUAL RANGE	CODED PIREPS
MKC	150M250	1R-K	132	/58/56	/1807	/993/	R04LVR20V40	/055
SKY Sky cover symbols are in ascending order. Figures preceding symbols are heights in hundreds of feet above station. Sky cover symbols are: ○ Clears less than 0.1 sky cover ⦿ Scattered: 0.1 to less than 0.6 sky cover ⊖ Broken: 0.6 to 0.9 sky cover ⊕ Overcast: More than 0.9 cover — Thin (When prefixed to the above symbols) -X Partly obscured: 0.1 to less than 1.0 sky hidden by precipitation or obstruction to vision (bases at surface) X Obscured: 1.0 sky hidden by precipitation or obstruction to vision (bases at surface)			VISIBILITY Reported in Statute Miles and Fractions. (V-Variable) WEATHER AND OBSTRUCTION TO VISION SYMBOLS A Hail IC Ice Crystals RW Rain Showers BD Blowing Dust IF Ice Fog S Snow BN Blowing Sand IP Ice Pellets SG Snow Grains BS Blowing Snow IPW Ice Pellet SW Snow Showers D Dust Showers T Thunderstorm F Fog K Smoke T+ Severe Thunderstorm GF Ground fog L Drizzle ZL Freezing Drizzle H Haze R Rain ZR Freezing Rain Precipitation intensities are indicated thus: -- Very Light; -Light; (no sign) Moderate; + Heavy WIND Direction in tens of degrees from true north, speed in knots, 0000 indicates calm, G indicates gusty. Peak speed follows G or Q when gusts or squalls are reported. The contraction WSHFT followed by local time group in remarks indicates windshift and its time of occurrence. (Knots X 1.15=statute mi/hr.) EXAMPLES: 3627 360 Degrees, 27 Knots; 3627Q40 360 Degrees, 27 Knots. Peak speed in gust 40 knots.			RUNWAY VISUAL RANGE (RVR) RVR is reported from some stations. Extreme values for 10 minutes prior to observation are given in hundreds of feet. Runway identification precedes RVR report. CODED PIREPS Pilot reports of clouds not visible from ground are coded with MSL height data preceding and/or following sky cover symbol to indicate cloud bases and/or tops, respectively. DECODED REPORT Kansas City: Record observation, 1500 feet scattered, measured ceiling 2500 feet overcast, visibility 1 mile, light rain, smoke, sea level pressure 1013.2 millibars, temperature 58°F, dewpoint 56°F, wind 180°, 7 knots, altimeter setting 29.93 inches, runway 04 left, visual range 2000 ft. variable to 4000. Pilot reports top of overcast 5500 feet (MSL).		
CEILING Letter preceding height of layer identifies ceiling layer and indicates how ceiling height was obtained. Thus A Aircraft R Radar B Balloon (ceiling, pilot or roob) W Indefinite E Estimated "V" Immediately following numerical value indicates a variable ceiling height M Measured			ALTIMETER SETTING The first figure of the actual altimeter setting is always omitted from the report.			DB Cooper-35324 *TYPE OF REPORT The omission of type-of-report data identifies a scheduled record observation for the hour specified in the sequence heading; the time of an out-of-sequence, special observation is given as "S" followed by a time group (24-hour clock GMT) e.g., P11 S 0715 -XM10... A special indicates a significant change in one or more elements. Local reports are identified by "LCL" and a time group. Locals are transmitted on local teletypewriter circuits only.		

DB Cooper-35324

U.S. DEPARTMENT OF COMMERCE • ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION • WEATHER BUREAU • Washington, D.C. • Revised MAY 1970

Appendix A: source list only

Document: Hourly aviation weather sequences, 0300-0500 GMT 11/25/71

FBI Vault, D.B. Cooper Part 83 · PDF p. 4 · Bates DB Cooper-35325 · open in the Vault

KEY TO AVIATION WEATHER FORECASTS.....

TERMINAL FORECASTS contain information for specific airports on ceiling, cloud heights, cloud amounts, visibility, weather condition and surface wind. They are written in a form similar to the AVIATION WEATHER REPORT.

CEILING: Identified by the letter "C"

CLOUD HEIGHTS: In hundreds of feet above the station (ground)

CLOUD LAYERS: Stated in ascending order of height

VISIBILITY: In statute miles, but omitted if over 8 miles

SURFACE WIND: In tenths of degrees and knots; omitted when less than 10

EXAMPLE OF TERMINAL FORECASTS

C1500	Ceiling 1500', broken clouds	011/2GF	Clear, visibility one and one-half miles, ground fog
CSX1/4S+	Sky obscured, vertical visibility 500 ft. visibility one-fourth mile, heavy snow	200C7000K 3230G	Scattered clouds at 2000', ceiling 7000' overcast, visibility 6 miles, smoke, surface wind 320 degrees 30 knots, gusty

AREA FORECASTS are 12-hour forecasts plus 12-hour **OUTLOOKS** (18-hour outlook in FA valid at 1300Z) of cloud, weather and frontal conditions for an area the size of several states. Heights of cloud tops, icing, and turbulence are **ABOVE SEA LEVEL (ASL)**; ceiling heights, **ABOVE GROUND LEVEL (AGL)**; bases of cloud layers are ASL unless indicated. Area Forecasts are amended by SIGMETs or AIRMETs.

SIGMET or AIRMET warns airmen in flight of potentially hazardous weather such as squall lines, thunderstorms, fog, icing, and turbulence. SIGMET concerns severe and extreme conditions of importance to all aircraft. AIRMET concerns less severe conditions which may be hazardous to some aircraft or to relatively inexperienced pilots. Both are broadcast by FAA on NAVAIID voice channels.

WINDS AND TEMPERATURES ALOFT (FD) FORECASTS are computer prepared forecasts of wind direction (nearest 10° true N) and speed (knots) for selected flight levels. Temperatures are forecast for all levels shown except that no forecasts are issued for the 3000 ft. level or other levels within 2500 feet of a station's elevation.

EXAMPLES OF WINDS AND TEMPERATURES ALOFT (FD) FORECASTS:

FD WBC 121745

BASED ON 121200Z DATA

VALID 130000Z FOR USE 1800-0300Z. TEMPS NEG ABV 24000'

FT 3800' 6000' 9000' 12000' 18000' 24000' 30000' 34000' 39000'

BOS 3127 3425-07 3420-11 3421-16 3510-27 3512-38 311449 292451 283451

JFK 3926 3327-08 3324-12 3322-16 3120-27 2923-38 284248 285150 285749

At 6000' feet ASL over JFK wind from 330° at 27 knots and temperature minus 8° C.

PILOTS ... report in-flight weather to nearest FSS

DB Cooper-35325

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GPO : 1970 O - 404-111

For Sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402 Price 5 cents; \$2.50 per 100

Appendix A: source list only

Document: Hourly aviation weather sequences, 0300-0500 GMT 11/25/71

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034 SA250300
 OAK 130-012 228/52/50/2904/ 107 1030- OAK-11/34 11/35
 SJC E10007 55/49/3507/E019/ H S-W
 SFO M508 227/52/51/2809/020/105 16//
 HQM SP M14025010R- 135/44/40/2105/993/ 107
 NOW 300E40015 125/44/41/0000/990/205 1400
 AST 160M3407 146/45/41/2006/996 RE45 010 18//
 PKV
 UIL SP M2607RW- 116/42/39/ 1504/987/ 105 15//
 OTH 310M4509005RW-F 193/50/46/2112G20/010/ RB48 114
 CEC 50E7007 224/52/51/1508/019/BINOVU HIR CLDS VSBL PATCHY GF ALQDS/ 210
 ACV SP -X1060M220180011/2FH 227/50/50/1804/019/F6 BINOVU /303
 UKI 35015 234/47/43/0000/021/0V0 217
 BLI M27050010 127/44/40/1810/989/RE32/ 217-3LI-10/1
 SEA 300E50015+RW-- 142/42/37/1710/994/ 103 15//
 BFI 350E80015 44/38/1511/994-BFI-10/7
 PAE 12E500180015+ 43/38/16 12/992-PAE-11/3
 OLM 80M2405RW- 144/41/40/1806/995/RE20B40 108 18//
 TDO 350M47012 155/41/39/1604/998/RE15 210
 PDX 200M34050015RW-- 162/46/42/1304/001/RB35 108 18//→PDX-11/39
 11/48
 TTD M 40 @ 10 RW-- / 45/ 42/1703/001/000/R07VV5.0/
 SLE
 EUG 250380E110015 180/42/40/1608/006/BINOVU 103/157/
 SXT AMOS / 35/ 33/2122/007/002/
 MFR 500E7 5015+ 203/43/37/1305/011/ 207 1800
 SIY 40010+ 201/37/33/0000/009-SIY-11/4
 MHS / 39/ 40/1502/012/000/
 RBK -X 26FHK 217/45/42/3105/017/ FHK4 105
 MYV 120280E15006HK 215/49/47/0000/016/ 303
 SMP 040 147/28/25/0000/987/ 105
 EAT SP 150E45010007 155/33/32/2504/994/ 103
 EPH M703F 156/38/36/2305/996/ 303
 MWH SP M5010 37/34/0000/996
 SFF 150M29010 41/35/2105/991/THIN SPOTS INOVU
 GEG M15022010 141/38/35/1806/990/002 15//
 LWS M75010 158/39/39/0000/997/VSBY W21/2/ 302 1070
 ALW 520E100020 160/41/39/1904/998/ 400-ALW-10/7
 PD T 500M90015 163/40/38/3306/998/ 210 1570 →PDT-11/3
 MEH AMOS / 32/ 31/1003/995/001/
 BKE M14010 170/35/35/0000/996/ 400
 YKM 300M5507 163/34/31/2806/998/ 115 15//
 DLS E25040015 163/42/41/3105/001/ 007
 RDM SP M23070015 159/36/29/1105/996/MOON DMLY VSBL 007
 LMT 250E40010 198/36/30/2607/005/ 107 1500
 SAC 120010 214/54/49/0000/016-SAC-11/22
 SYF E25005H 49/46/1603/014
 BLU /36/ 36/1902/017/018/
 RNO 250-012 193/44/30/3614G23/007/ 110 1007
 SLIDE MTN 22/14/3333
 PKV
 SLE 150M30060010RW- 176/45/39/1909/005/ 314 15//

DB Cooper-35326

Section 4: Did he know where he was? Criminal Mastermind or Dumb Luck

Document: Hourly aviation weather sequences, 0300-0500 GMT 11/25/71

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034 SA250400
 OAK 10012 227/52/51/2706-OAK>11/34 11/35
 SJC 20013007 54/49/3505/E019/HK SE-W
 SFO M5010 227/51/50/2711/020
 HQM 110M18010RW- 135/44/39/1908/993
 NOW E38015 125/43/41/0000/990
 AST 160270E7007 149/46/41/2108/997 RB07 OCNL RW-
 PKV
 UIL M1307RW- 123/41/39/1306/989/ CONT RW- OCNLY RW
 OTH 450M7507 200/48/43/2311/012/ INTMT RW-
 CEC 50E7007 230/51/50/1803/021/PATCHY GF ALQDS
 ACV SP -XM22018003/4F 234/50/49/1705/021/F8
 UKI 33015 23 7/48/44/0105/022/0V0
 BLI M27050010 129/44/39/1708/990/OCNL R--> BLI>10/1
 SEA SP 70E2507RW- 144/42/38/1610/995/RW- OCNLY RW
 BFI 330E80010RW-- 44/39/1511/994-BFI>10/7
 PAE E500180015+ 42/37/1412/993-PAE>11/3
 OLM 110M2403805008RW- 146/41/40/1806 /996/RE25B50
 TDO M30012RW-- 151/42/40/1905/997/RB35
 PDX 150M2705007RW- 169/42/38/2710/003-PDX>11/39 11/48
 TTD M 40 0 10 RW-- / 46/ 41/2207/003/001/ R07VV7.0/
 SLE 150M2605RW- 179/43/40/2009/006
 EUG SP 160M25010RW- 197/42/39/2112/011/RB34
 SXT AMOS / 34/ 3-/2017/008/002/
 MFR 500E80015+ 202/42/37/2106/011/BINOV
 SIY 40010+ 205/37/33/1404/010-SIY11/4
 MHS / 38/ 39/1602/013/000/
 RBK -X20-D2GFHK 217/44/42/3104/017/ F4
 MYV 220E15005HK 215/48/46/0000/016
 SMP
 EAT 450E10007 155/33/30/2704/994/FOG BNK ALG RVR
 EPH SP M1003F 157/38/36/0000/997/CIG RGD
 MWH M5010 38/35/0000/995
 SFF 100M22010 41/36/2007/991
 GEG M15022010 145/38/34/2007/991
 LWS
 ALW 550E80020 161/40/38/0000/998-ALW>10/7
 PDT SP 170M2503507RW- 159/42/39/2715/002/RB30 -PDT>11/3
 MEH AMOS / 32/ 32/1302/995/002/
 BKE M15010 170/35/35/0000/995
 YKM 500E8007 157/31/29/2204/995
 DLS SP 40050015 169/41/41/2007/003
 RDM SP M23070015SW-- 169/37/30/2110/999/0350
 LMT DLAD
 SAC 200-010 214/50/48/0000/016->SAC>11/22
 SYF 07 50/47/3306/014
 BLU /35/ 34/1001/016/018/
 RNO 250-012 194/43/28/3113018/008
 SLIDE MTN 21/M/2724
 PKV
 SMP
 LWS

DB Cooper-35327

Appendix A: source list only

Document: Hourly aviation weather sequences, 0300-0500 GMT 11/25/71

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034 S A250500
 OAK M7010 231/51/50/0000/THIN SOPTS-OAK>11/34 11/35
 SJC 80A1107 53/48/0000/E019/SE-W
 SF 0 5010 230/51/49/3011/021
 HQM 120M19010 142/45/41/2008/995/OCNL RW-
 NOW E40015 125/44/44/0000/990
 AST 200M3207 153/46/41/2511/998 RE15
 PKV
 UIL SP 150M3807RW-- 123/40/38/0000/989/ RW-- OCNL RW-
 OTH M4006507 210/46/42/1507/015
 CEC -X50E7005F 230/51/51/1706/021/F2
 ACV SP -X40M702201F 237/50/50/1906/022/F6
 UKI 35015 241/46/43/3605/023
 BLI M29050010 129/44/38/1707/990-BLI>10/1
 SEA E26015RW- 144/41/37/1508/995/FEW STFRA 7HND
 BFI 180M360707RW-- 45/39/1510/995-BFI>10/7
 PAE E500120015+ 40/36/1410/992-PAE>11/3
 OLM SP 120240M35012 146/41/40/1805/996/BINOV C RE3>
 TDO 300M34012 155/42/42/1906/998/RE05
 PDX M31050010RW- 168/44/40/1911/003/FEW CUFRA 15HND-PDX>11/39 11/48
 TTD M 22 0 40 010 RW-- / 42/ 41/2201/004/003/R07VV5.0/
 SLE SP 150350M100015+ 179/43/40/1815/ 006/RE32
 EUG 150M25075015 197/42/39/1809/011/OCNL RW-
 SXT AMOS / 33/ 3-/2812/009/003/
 MFR E50080015RW- 208/42/38/2404/015/R040
 SIY M50010+ 209/36/33/0000/011-SIY>11/4
 MHS / 35/ 36/2601/014/000/
 RBK -X 20FHK 222/43/40/3105/018/ F4
 MYV 22015005HK 218/45/44/0000/017
 SMP
 EAT 450100010 154/33/30/3504/994
 EPH SP W7X2F 156/37/36/0000/996
 MWH SP M305F 38/34/0000/996
 SFF 100M26010 40/36/2005/992
 GEG 70M15026010 147/38/35/1808/992
 LWS
 ALW 240M3007R- 173/41/42/2606/002/R017-ALW>10/7
 PDT 250M50015 173/41/37/2610/001/RE35 -> PDT>11/3
 MEH AMOS / 31/ 32/-002/997/006/
 BKE SP 150E55010 171/33/3 3/0000/996
 YKM 4008007 164/31/29/2406/998
 DLS J50E60015 172/39/39/3106/004/R004 RE16
 RDM 55015+ 175/31/28/2104/001/0E25
 LMT E40E10 201/37/36/2506/007
 SAC 012 215/47/45/0000/017- SAC>11/22
 GEF 04R 47/45/3105/015 /33/ 32/1301/013/015/
 BLU
 RNO 012 194/36/28/1005 /009
 SLIDE MTN 22/M/2543
 PKV
 SMP
 LWS

DB Cooper-35328

Section 4: Did he know where he was? Criminal Mastermind or Dumb Luck

Document: Seattle summary of the stewardess's account (cord around his waist, stairs)

FBI Vault, D.B. Cooper Part 110 · PDF p. 18 · Bates DB Cooper-308 · open in the Vault

SE 164-81

"Never mind. They can do that over the radio once they get up. Let's get the show on the road."

[redacted] said that just before the engines were started, she opened the aft door and locked it open and as the plane was taxiing toward the runway, she told the hijacker that they had oxygen and he said,

b6
b7c

"Yes, I know where it is and if I need it, I will get it."

She asked him to cut some of the parachute cord to use as a safety line when she opened the air stairs but the hijacker said,

"Never mind," that he would do it. She showed him where the controls for the air stairs were and how to operate them and thought later, that this was the only function of the aircraft which he did not seem to be fully aware of. As a matter of fact, she noted that his conduct during the flight indicated to her that he had an extensive technical knowledge of that particular type aircraft and perhaps aircraft and flying in general.

[redacted] then returned to seat 18-C; the hijacker to 18-E; the money being on 18-D and the bomb on 18-F.

b6
b7c

Approximately four minutes after take-off, the hijacker stood up and told her to go to the cockpit; to close the First Class Curtains and have no one come out from behind the curtains. The lights were out in the rear compartment. She went forward into the First Class Section and as she pulled the curtains, she turned and saw the hijacker for the last time and noticed that he had a nylon cord tied around his waist and standing in the aisle. As

Section 4: Did he know where he was? Criminal Mastermind or Dumb Luck

Document: Seattle summary of the stewardess's account (cord around his waist, stairs)

FBI Vault, D.B. Cooper Part 110 · PDF p. 19 · Bates DB Cooper-309 · open in the Vault

SE 164-81

she faced him, she pleaded with him to take the bomb with him and he said he would take it with him or disarm it before he left.

While waiting on the ground at Sea-Tac for the parachutes, the hijacker became annoyed and [redacted] told him the parachutes were coming from McChord. The hijacker then said, "McChord is only 20 minutes from Tacoma; it doesn't take that long." [redacted] also noted that while they were in the holding pattern over Sea-Tac, the hijacker looked out the window and observed:

b6
b7c

"We're over Tacoma now!"

[redacted] said there had been no announcement by anyone as to where they were.

b6
b7c

The plane departed Sea-Tac at 7:36 PM. Some four or five minutes after take-off, [redacted] was sent to the cockpit by the hijacker. Some 10 minutes after she entered the cockpit, one of the officers received a call on the interphone from the hijacker, advising he could not get the air stairs down. The pilot then leveled off the aircraft and reduced the air speed. Within a very short time, the officer's panel showed that the stairs had been lowered and approximately five minutes later, (8:05 PM), the officer contacted the hijacker who said everything was okay. That was the last communication with the hijacker.

b6
b7c

At 8:11 PM, while the plane was at 10,000 feet, the crew experienced a pressure bump or oscillation and the Cabin Pressure Rate of Change Gauge also reacted violently and it was thought, at that time, that the hijacker might have left the aircraft.

When the plane landed at Reno, at 11:01 PM, PST, it was parked away from the terminal. After receiving no answer through their attempts to communicate with the hijacker, they went into the cabin, flipped on the lights but saw no one.

Section 4: Did he know where he was? Criminal Mastermind or Dumb Luck · **Section 5: V-23 or bust**

Document: Stewardess's FD-302: money bag wrapped in cord; sent forward about 4 minutes after takeoff

FBI Vault, D.B. Cooper Part 110 · PDF p. 54 · Bates DB Cooper-344 · open in the Vault

PH 164-133
5

he wouldn't rather have one of the cockpit crew get the chutes and he told her that they weren't that heavy and she wouldn't have any trouble.

When she returned to the plane with the last chute, she saw he had one chute cut open and nylon cords out and he was cutting them with his pocket knife. He took the nylon cord and wrapped it around the neck of the money bag numerous times and then he wrapped it a few times from top to bottom, and with the same piece made a loop like a handle at the top. This nylon cord was pinkish in color. He appeared irritated because they didn't give him a knapsack for the money which he had initially requested, and after trying to put the money in an unfolded parachute, he decided to leave it in the canvas bag.

She told him that they had crew meals and maps, and requested permission to go get them. He said, "yes," and she did, returning the items and taking a seat next to him.

He said, "We're going to Mexico City, gear down, flaps down, you can trim the flaps to 15, you can stop anywhere in Mexico to refuel, but not here in the United States. The aft door must be open and the stairs to be down. The altitude under 10,000 feet, they know they can't go over that. Cabin lights out and everyone is to be forward of the first class curtain." [] related these instructions to the pilot. [] came back to where the hijacker was seated and asked if she could get her purse and he said that she should come on back, he wouldn't bite her. Then she asked if the stewardesses could get off and he said, "yes."

b6
b7c

About one hour had passed since landing, and [] was taking information for the hijacker from the pilot and she told the other stewardesses to go ahead and she would be with them in a second and they went forward to the cockpit. She told the hijacker that the plane couldn't take off with the ladder down and he said in a low tone, "Yes they can, but the cockpit can put it down after they get airborne. She told him that the stairs had to be let down from the rear and at this point he appeared disturbed because of the duration of time of refueling and he told her to stay."

b6
b7c

Just prior to take off, he became very excited because they had been on the ground over an hour and she related this to the cockpit and they answered that they had only 1500 pounds of fuel to be put on and this was about one quarter of their capacity. She explained this to him and he calmed down.

Document: Stewardess's FD-302: money bag wrapped in cord; sent forward about 4 minutes after takeoff

FBI Vault, D.B. Cooper Part 110 · PDF p. 55 · Bates DB Cooper-345 · open in the Vault

PH.164-133

6

She then told him it would be a few minutes longer while they filed a flight plan and he said, "Never mind, they can do that over the radio once we get up. Let's get the show on the road."

The cockpit called and told her to use the escape rope to secure herself when they found out that she was going to lower the ladder once the aircraft is airborne. She related this to the hijacker and he said, "no," he didn't want her to go up front or them to come back. She asked if the second officer could shut the front door and he said yes. She opened the aft door and locked it open and the pilot started the engines and taxied towards the runway. During the taxi, she said, "You know we have oxygen," and he said, "Yes. I know where it is, if I need it I will get it." She asked him to cut some nylon cord from the parachute for her to use as a safety line, when she opened the rear ladder and the hijacker said, "Never mind," that he would do it. She showed him where the panel was and the controls and how to do it, and reminded him to be sure to put the ladder up before they land or the aircraft would be so damaged in landing that it could not take off again. She returned to seat 18 C, he to 18 E, the money was in 18 D, and the bomb in 18 F. The plane took off and she held her ears because the noise was so loud from the engines. Approximately four minutes after take off, he stood up, told her to go to the cockpit and close the first class curtains, and for no one to come out from behind the curtains. The lights were out in the rear compartment and she went forward, faced the curtain, and the last time she saw him he had a nylon cord tied around his waist and was standing in the aisle. Before she finished securing the curtain, she pleaded with him to take the bomb with him and he said he would take it with him or disarm it before he leaves.

After securing the curtain, she entered the cockpit and approximately ten minutes after that, one of the officers received an interphone call from the hijacker advising that he could not get the rear stairs down. The pilot informed him that he would level the craft off and reduce the air speed. She recalls that a short time after that, she observed the red indicator light go on the second officer's panel indicating that the stairs had been lowered and approximately five minutes after the first call, one of the officers received another call from the hijacker which was the last communication that anyone in the plane had with the hijacker.

Before descending at Reno, Nev., she called repeatedly over the intercom system to the hijacker to cooperate, that the aircraft must land. The last message was, "Sir, we are going to land now, please put up the stairs. We are going to land anyway, but the aircraft may be structurally damaged and

DB Cooper-345

Section 6: Where the plane was at 8:11

Document: Crew interview (FD-302, Las Vegas)

FBI Vault, D.B. Cooper Part 110 · PDF p. 65 · Bates DB Cooper-355 · open in the Vault

LV 164-60

or if they could not reach Mexico City, anywhere in Mexico; (2) they would fly with landing gear down and flaps down; (3) they would not fly above 10,000 feet; (4) they would fly with the lights out in the cabin; (5) they were not to land in the U. S. for fuel or for any other reason; (6) there was to be no one aft of the first class curtain; (7) he indicated that after taking off, hostess [redacted] would be allowed to visit the cockpit; (8) he wanted the rear door open and the stairs extended for taking off.

b6
b7c

[redacted] noted that at this point they informed him that it would be impossible to make a take-off with that aircraft in that position and the hijacker subsequently agreed to having the door closed with the stipulation that hostess [redacted] could lower the stairs after the plane was airborne. [redacted] noted that all of the above instructions were given on the ground at Seattle orally by the hijacker through TINA during the period she was carrying on the parachutes.

After the release of the passengers, and during the period of re-fueling, the hijacker became considerably annoyed at the delay in re-fueling and at the point where 96 per cent of the fuel was on board, he implied that the procedure was being deliberately delayed. The hijacker displayed a specific knowledge of flying and aircraft in general and that one in particular and they were finally able to convince him that the time being utilized was entirely necessary.

They subsequently informed the hijacker that under the operating conditions that he had stipulated, it would be impossible for them to reach Mexico City and he thereafter countered with the possible destination of Phoenix. Each point that he mentioned would be considered and rejected with the cities of Yuma, Sacramento and Reno being mentioned and a final agreement reached whereby the plane would fly to Reno, Nevada, as its initial destination.

[redacted] stated that after take-off they flew at an indicated air speed of 170 knots which would have provided an estimated ground speed of 205 miles per hour.

b6
b7c

DB Cooper-355

Section 1: The flight: Seattle to Red Bluff · Section 2: When did he jump? · Section 3: The "later jump" theory

Document: Crew interview (FD-302, Las Vegas)

FBI Vault, D.B. Cooper Part 110 · PDF p. 66 · Bates DB Cooper-356 · open in the Vault

LV 164-60

The hijacker was questioned concerning his intentions with regard to the bomb package and he responded through [redacted] that he would either take it with him or disarm it at the time of his departure. Upon their departure from Seattle, they followed a course known as "Victor 23" which is a standard low altitude routing to Portland, and received clearance from Sacramento tower for Victor 23 at 10,000 feet.

b6
b7c

[redacted] recalled that initially after receiving descriptive data from hostess [redacted] they radioed the company for any likely suspects or modus operandi and the company furnished the name of [redacted] who had previously been arrested for being intoxicated and was suspected as a possibility of being the hijacker.

[redacted] stated that departure from Seattle was made at 7:36 p.m. and at approximately 8:05 p.m. he called the hijacker on the intercom, inquired whether he could hear and whether there was anything they could do for him. The hijacker responded in the negative and the crew then decided that the hijacker was on board for the duration and they decided against any more tests or contacts with him until after they arrived at Reno, Nevada. Upon approaching Reno Airport, they tried to contact the hijacker with no response and they notified their company of same.

[redacted] stated that approximately 5 to 10 minutes after the last contact with subject at 8:05 p.m., they heard and felt an oscillation of the aircraft and commented at the time that the hijacker could have departed, causing the unusual vibration since there had been no change in flight altitude, speed or any other external force which would account for this sudden oscillation. They telephoned the company [redacted] in Minneapolis shortly thereafter, and stated that the oscillation, which could have been the hijacker's departure, would have occurred between 8:05 p.m. and their call to [redacted] 5 or 10 minutes later, the exact time which would be recorded in the company log.

b6
b7c

[redacted] stated that they had not yet reached Portland proper but were definitely in the suburbs or immediate vicinity thereof.

DB Cooper-356

Appendix A: source list only

Document: Crew interview (FD-302, Las Vegas)

FBI Vault, D.B. Cooper Part 110 · PDF p. 67 · Bates DB Cooper-357 · open in the Vault

LV 164-60

[redacted] added that the stipulations made for the reception of the aircraft at Reno, Nevada, were based on the same instructions that the hijacker had previously furnished prior to the landing at Seattle and no member of the crew departed from the cockpit to check on the presence of the hijacker following the arrival in the compartment of hostess [redacted] who had locked the door behind her.

b6
b7c

[redacted] added that it had not occurred to them at the time, but they could have pinpointed their exact location at the time the oscillation was felt and admitted that the crew had emergency exits from the pilot's compartment via the windshields and a rope ladder. Conceivably, following the departure of the passengers and during one of the periods that hostess [redacted] was off the plane obtaining the parachutes, the remainder of the crew could have vacated the aircraft leaving the hijacker on board alone.

DB Cooper-357

Section 3: The "later jump" theory

Document: NWA Sea-Tac ground teletype roll handed to the FBI

FBI Vault, D.B. Cooper Part 110 · PDF p. 90 · Bates DB Cooper-382 · open in the Vault

FD-302 (REV. 11-27-70)

FEDERAL BUREAU OF INVESTIGATION

Date of transcription 11/30/71

[redacted]
[redacted] Northwest Airlines, Seattle-Tacoma International Airport, made available on the night of 11/24/71, a portion of the Ground Radio Teletype Log which had been recorded during the hijacking of Northwest Airlines Flight #305.

b6
b7C

[redacted] obtained the tape from [redacted]
[redacted] of Northwest Airlines, who removed the tape from a teletype machine at Northwest Airlines Ground Operations Concourse C, Seattle-Tacoma International Airport.

This log is maintained as part of a roll printed on a teletype machine and the particular portion relating to the hijacking has been xeroxed in sheet form and is set forth as pages of this document.

The original log has been edited to exclude all traffic of Northwest Airlines, except that pertaining to the hijacked Flight 305. Further, since the log is maintained in Greenwich Time, it has been converted to Pacific Standard Time (PST) (Seattle time), to facilitate reading the various logs involved in this matter.

Interviewed on 11/24/71 at Seattle, Washington File # 164-81

by SA CHARLES E. FARRELL/klb Date dictated 11/26/71

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DB Cooper-382

Section 3: The "later jump" theory

Document: Company teletype log, 7:22-8:24 PM (no entries 8:12-8:20)

FBI Vault, D.B. Cooper Part 110 · PDF p. 104 · Bates DB Cooper-396 · open in the Vault

11/25 01

305 ADVZD HIE RANGE LIMITNS RCPTS SACCPTG
SEA RENO AS FIRS STOP FOR FUEL
ALMOST TOPPEED OFF WITH UEL ABT 5HND
LBS REMAING TO BE PUMPED
MST R SEA RENO IS ABT 5HND MILES WILL ND
OTHER STOPS OF ABOUT THAT LEG OF 5 TO 6HND
MILES

305 R WIL PLAN RENO FIRST STOP
MSP R A SECOND STOP YUMA ARIZONA ITS
87 MILES ON 076 RDL OF SAN DIEGO THE SECOND
VOR ON THE NR2 SIDE OF SAN DIEGO AND THE
DISTANCE 120 MILES INSTED OF 87 .8^3
MILES

305 R FUEL TRUCK LEFT STAIRS REMOVED
WILHV ☐ LEAVE AREA AND FWD DOOR HAS BEEN
CLOSED HE HAS AGREED TO LET US TKOFF
WITH STAIRS IN FULL URXXX UPRITE POSN AND
HE HAS JUST CALLED AND SAID GOXXX TO GET THE
PLANE ON THE ROAD

MSP R WIL ADV U MORE

305 R

7:22 PM, PST KC0322CK

11/25 01

305 GRND CNTRL ADV MOCA TO RENO IS 15THSD

MSP R

7:25 PM, PST KD0325CK

305 WIL BE UNPRESSRZD HE XXX AND HE HAS
SAD WE MUST STAY ELOWXXX BELOW WUL GO
XXX WUD SUSGEST GO VIA COAST THEN BAK ON
ROUTE

MSP R

7:27 PM, PST 305 WIL POSITION FOR TKOFF
KC0327CK

11/25 01

MSP TAIL RAMP WILHV TO BE RETRACTD FOR LANDING

305 R

MSP IT WOULD PREVENT ANY SUBSEQUENT TKOFF
IF U LANDD WITH DOOR DOWN

305 R

7:33 PM, PST KC0333CK

11/25 01

22 ONEILL 32/370 ETA MSP 0420

-60 WINDS 305 SLASH 85

7:34 PM PST KD 0334KN

b6
b7c

DB Cooper-396

Section 3: The "later jump" theory

Document: Company teletype log, 7:22-8:24 PM (no entries 8:12-8:20)

FBI Vault, D.B. Cooper Part 110 · PDF p. 105 · Bates DB Cooper-397 · open in the Vault

11/2501
 MSP FLT OPS
 305 OUT SEA 14 MILES ON V23 OUT SEA
 HE IS TRYING TO GET THE DOOR W DOWN
 STEW IS WITH US HE CANNOT GET THE STAIRS
 DOWN WE NOW HAVE AN AFT STAIR LITE ON
 MSP FLT OPS R
 KC0342CK

7:42 PM, PST

11/25 01

305 STILL AT 7THSD FT 19 DME S V23
 DUNNO NO COMMS WITH HIM BUT HAVE
 AN AFT STAIR LITE
 MSP FLT OPNS AFTR WHILE SOMEONE WIL HAVE
 TO TAKE A LOOK BACK TO SEE IF HE IS OUT OF
 ACFT
 305 R
 MSP IF HAVE CONT ANY DISTANCE IN THAT
 CONFIG 170 IS UR INDCTD OPTIMUM SPEED
 305 R

7:45 PM, PST

KC0345CK

11/25 01
 MSP FLT OPNS HAVE PDX REDFBLUFF AND MEFXXX
 MEDFORD AS ALTNIS
 305 R
 SEADD R HAVE THE WEA HERE
 MSP FLT OPNS IS IT GENRLLY GOOD
 SEADD ITS FOG AND HAZE
 MSP FLT OPNS WIL GET IT HERE
 KC0346CK

7:46 PM, PST

11/25 01
 305 HLDG 160 INDCTD WHICH IS APPROX 5 KTS
 ABV THE BUG HLDG 7THSD FT INDCTD 160
 FUEL FLO IS 4TXXX RTXXX RTHNDXXXX 45HND
 MSP FLT OPNS OK U WILL NOT BE ABLE TO GET
 TO RENO IN THAT CONFIG UNLESS HE IS GONE
 305 R
 MSP R 170 KTS INDCTD AND HIER THE CABIN IS
 THE BETTER IF U GUYS HAVE MAKES ON
 305 R
 KC0348CK

7:48 PM, PST

DB Cooper-397

Section 3: The "later jump" theory

Document: Company teletype log, 7:22-8:24 PM (no entries 8:12-8:20)

FBI Vault, D.B. Cooper Part 110 · PDF p. 106 · Bates DB Cooper-398 · open in the Vault

11/25 01
305 GG TO 15DEG AND BEGINNING OUR CLIMB
MSP R
KC0348CK

7:48 PM, PST

11/25 01
MSP FLT OPS AS SOON AS REASONBLY SURE TH E MAN
HAS LEFT THE QUICKER U CAN LAND
305 R [REDACTED] SAID HE APPARENTLY
HAS THE KNAPSACK AROUND HIM AND THINKS HE
WILL ATTEMPT A JUMP
MSP FLT OPS R AFTR LVG THIS FREQ GO TO
131.8 WE HAVE DIRECT PHONE PATCH THERE
305 R

7:54 PM, PST

KC0354CK
11/25 01
MSP FLT OPS HAVE STEW DESCRIBE TO U
THE BRIEF CASE CONTENTS UNDERSTAND
RED DYNAMITE STICKS WIRE AND BATTERY
305 STEW IN BRF CASE LEFT CONRNER HAD 8
STICKES OF KXXX DYNAMITE ABT 6 INCHES LONG
AND 1 INCH IN DIAMTR TWO ROWS OF THEM
THEN A WIRE OUT OF THERE THEN A BATT LITE
A FLASHLITE BATT ONLY AS STHIK AS MY ARM
AND 8 INCHES LONG
MSP R
KC0357CK

7:57 PM, PST

11/25 01
MSP FLT OPS WHT IS ALTDE
305 NOW AT 15THSD INDCTD 160 FUEL FLOW
4000 15 DEG FLAP GEAR DOWN CQN WILL STAY
AT IXX TEN THSD TIL HE HAS LEFT
MSP FLT OPS R
KC0401CK

8:01 PM, PST

11/25 01
MSP FLT OPNS NO TERRAIN XCEES 8THSD ON THAT
RTE THEN HAVE TO GO TO TEN FIVE OR ELEVEN BTWN
RED BLUFF AND RENO IF U HAVE TO GO THAT FAR
305 R
KC0402CK

8:02 PM, PST

b6
b7c

DB Cooper-398

Section 3: The "later jump" theory

Document: Company teletype log, 7:22-8:24 PM (no entries 8:12-8:20)

FBI Vault, D.B. Cooper Part 110 · PDF p. 107 · Bates DB Cooper-399 · open in the Vault

8:03 PM, PST

11/25 01
 305 TTL AIR TEMP MINUS 7 DEG MACH METER
 NO INDCTN
 MSP FLT OPNS OK THE MACH METER WOND INDIE TIL
 U GET HIER
 305 R
 KC0403CK

8:05 PM, PST

11/25 01
 305 HAVE ATTEMPTD 2 OCCNS TO MAKE CTC
 WITH INDVDL HE DID NOT APXXX EPLY
 DID NOT REPLY THEN P A SYSTEM AND HE
 SAID EVRYTHING IS OK
 MSP FLT OPS OK
 KC0405CK

PORTLAND

8:06 PM, PST

11/25 01
 MSP FLT OPNS MEDFORD IS BEST CHOICE SHORT
 OF RENO AND RENO MAY ECOME A IT TITE
 305 R
 KC0406CK

8:09 PM, PST

11/25 01
 305 CHK MANUALS DONT HAVE MEDFORD APRCHP
 PLATES
 MSP R WILHV IT FOR U IF WE HAVE A COMM
 PROBLEM THE TWR WILL GUIDE IT THRU IT
 305 R
 KC0409CK

DB Cooper-399

Section 1: The flight: Seattle to Red Bluff · Section 2: When did he jump? · Section 3: The "later jump" theory

Document: Company teletype log, 7:22-8:24 PM (no entries 8:12-8:20)

FBI Vault, D.B. Cooper Part 110 · PDF p. 108 · Bates DB Cooper-400 · open in the Vault

SEADD EXXX WE GAVE HIME PLATES FOR ALL OF IT
305 R FOUND IT

11/25 01
MSP FLT OPS RENO LOLKS BETTER AS TIME
GOES BY HAS 25T OVC 12 MILES N WIND .15
GUSTY
305 R
8:10 PM, PST KC0410CK

11/25 01
305 GETTING SOME OSCLLTNS IN THE CABIN
MUS BE DOING SOMETHING WITH AIR STAIRS
MSP FLT OPS R
8:12 PM, PST KC0412CK

11/25 01
305 CALLED
MSP FLT OPNS GO TO 131.8
SEADD HE IS ALREADY ON THAT FREQ
MSP R WE ON HE PHONE WND WILL BE TALING
TO HIM SHORTLY
SEADD R
8:20 PM, PST KC0420CK

11/25 01
57 BY BIL 0413/350 OAT -58 C-S
DSR GEG 0530 SHIP 377 NO MNTNC
MSP GAVE 0400Z OBS
8:24 PM, PST KDO424 KN

DB Cooper-400

Appendix A: source list only

Document: Company teletype log, 7:22-8:24 PM (no entries 8:12-8:20)

FBI Vault, D.B. Cooper Part 110 · PDF p. 119 · Bates DB Cooper-411 · open in the Vault

0358 ^{PM} PST) ~~Attempts~~ ^{Partly} red red plastic covered wire
He kept holding onto the wire. he ~~had~~ held
wire near the things that stick up on
the padding.

0400 10 000 level. 170 IAS FF 4000 is
15° Flaps, gear down.

0402 No Mach. TAT -7°C

0404 above 12 500 height get mask drip.

0405 attempted 2 times to contact, just responded
he said everything ok

0408
0411

Reno looks good (weather). 305 at the present.
Cabin is functioning playing with air stream
ford cabin later on.

0422 23 DME S. of POX 10,000 F.O.B 40,000 # FF 4000
165 IAS

0425 Reno looks good (WR)

0430 (8:30 ^{PM} PST) have slow communication with man.

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DB Cooper-411

Section 3: The "later jump" theory

Document: FAA: five reels of Sea-Tac Approach/Tower tapes

FBI Vault, D.B. Cooper Part 110 · PDF p. 145 · Bates DB Cooper-437 · open in the Vault

FD-302 (REV. 11-27-70)

FEDERAL BUREAU OF INVESTIGATION

12/7/71

Date of transcription

b6 per FAA
b7C per FAA

[redacted]
[redacted] provided five reels of magnetic recording tape which contained a copy of the recorded transmissions between Northwest Airlines Flight #305 and the Sea-Tac Approach Tower on November 24, 1971. These tapes covered all transmissions between Flight #305 and the Tower while the airplane was in a 30 mile radius of Sea-Tac.

According to [redacted] these recorded tapes were obtained by him from [redacted] on December 3, 1971. The original tapes are maintained under the supervision of [redacted]

The transcriptions of the various tape recordings do not show a time for each transmission; however, each tape does show the time at which the tape began and at which time it ended. The times were maintained in Greenwich Mean Time and for convenience in reading these logs, an insertion is made in these logs to Pacific Standard Time.

12/6/71 Seattle, Washington File # SE 164-81

by SA [redacted] rse Date dictated 12/7/71 b6 per FBI
b7C per FBI

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DB Cooper-437

Section 1: The flight: Seattle to Red Bluff

Document: Seattle Center transcript copy: 8:13 check-in at 10,000 ft

FBI Vault, D.B. Cooper Part 110 · PDF p. 199 · Bates DB Cooper-491 · open in the Vault

Page 3

0413:14 NW 305
(8:13 PM, PST)Center four oh five (unintelligible) twenty point
nine ten thousand

SEA R5

Northwest three zero five ident

- - - - -

0415:52

SEA R5

Northwest three zero five the Portland ah altimeter
three zero zero three

NW 305

Zero zero three

- - - - -

0433:36

SEA R5

Northwest three zero five contact Seattle Center
one two five point eight

0433:46

NW 305

Twenty five point eight so long

SEA R5

Good day sir

- - - - -

0433:51

NW 305

Seattle Center Northwest three zero five ten
thousand

0433:55

SEA R6

Northwest three zero five Seattle Center one zero
thousand ident

- - - - -

0445:45

SEA R6

(8:45 PM - PST)

Northwest three zero five Eugene altimeter three
zero zero six

NW 305

Ah one three zero point six

DB Cooper-491

Appendix A: source list only

Document: Weather Bureau observations

FBI Vault, D.B. Cooper Part 110 · PDF p. 246 · Bates DB Cooper-538 · open in the Vault

FD-302 (REV. 11-27-70)

1

FEDERAL BUREAU OF INVESTIGATION

Date of transcription 12/9/71

CHRIS HILL, Meteorologist, United States Weather Bureau, Portland International Airport, Portland, Oregon, furnished sheets containing read out information and key to aviation weather reports for weather conditions between 7:00 and 9:00 p.m. on November 24, 1971. He interpreted the read outs as follows:

Surface observations: 7:00 p.m.

Eugene, Oregon: 2,500 feet scattered, 3,800 feet scattered, 11,000 overcast, visibility 15 miles, temperature 42, wind SSE 8 knots, breaks in overcast.

Portland, Oregon: 2,000 feet scattered, measured 3,400 feet broken, 5,000 feet overcast, 15 mile visibility, very light rain showers, temperature 46, wind SE 4 knots. Rain began at 6:35 p.m.

Toledo, Washington: 3,500 scattered, measured 4,700 feet overcast, visibility 12 miles, temperature 41, wind SSW 4 knots. Rain ended at 6:15 p.m.

8:00 p.m.

Eugene, Oregon: 1,600 feet scattered, 2,500 feet overcast, 10 miles visibility, light rain showers, temperature 42, wind SSW 12 knots, rain began at 7:34 p.m.

Salem, Oregon: 1,500 scattered, measured 2,600 overcast, 5 miles visibility, light rain showers, temperature 43, wind SSS 9 knots.

Portland, Oregon: 1,500 scattered, measured 2,700 broken, 5,000 feet overcast. 7 miles visibility, light rain showers, temperature 42, wind west 10 knots.

Toledo, Washington: Measured 3,000 feet overcast, 12 miles visibility, very light rain showers, temperature 42, wind south 5 knots. Rain began 7:35 p.m.

Interviewed on 12/3/71 at Portland, Oregon File # SE 164-81

by SA [redacted] bfr Date dictated 12/3/71

b6 per FBI
b7C per FBI

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DB Cooper-538

Appendix A: source list only

Document: Weather Bureau observations

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SE 164-81

9:00 p.m.

Eugene, Oregon: 1,500 scattered measured, 2,500 broken, 7,500 feet overcast. Visibility 15 miles, temperature 42, wind south 8 knots.

Salem, Oregon: 1,500 scattered, 3,500 scattered, measured 10,000 broken. Visibility 15 miles, temperature 43, wind south 18 knots.

Portland, Oregon: Measured 3,100 feet, broken, 5,000 feet overcast, 10 miles visibility, light rain showers, temperature 44, wind south 11 knots. Few cumuloform clouds at 1,500 feet.

Toledo, Washington: 3,000 scattered measured, 3,400 overcast, 12 miles visibility, temperature 42, wind south 6 knots. Rain ended at 8:05 p.m.

HILL also stated that to secure average of below listed information for Woodland, Washington, an average of the two sets of information would give a close estimate of conditions at Woodland. The information below is for the times between 8:00 p.m. and 9:00 p.m. on November 24, 1971:

<u>Place</u>	<u>Wind Direction</u>	<u>Wind Speed</u>	<u>Height Above Sea Level</u>	<u>Temperature</u>
Salem	230 degrees	30 knots	7,000 feet	-4
	230 degrees	25 knots	5,000 feet	-1
	235 degrees	20 knots	2,000 feet	6
	235 degrees	15 knots	surface	10
Portland	225 degrees	20 knots	7,000 feet	-8
	230 degrees	25 knots	5,000 feet	-5
	235 degrees	20 knots	2,000 feet	2
	235 degrees	15 knots	surface	8

Section 4: Did he know where he was? Criminal Mastermind or Dumb Luck

Document: Weather Bureau observations

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SE 164-81
TJM:bfr

On November 27, 1971, a check of the Federal Aviation Administration Flight Service at Portland International Airport, reflected that on November 24, 1971, between 8:00 PM and 9:00 PM, there was a ceiling of 5,000 feet, 3,500 feet broken clouds and at 1,500 feet scattered and broken clouds at times with a wind of 12-14 knots. The weather was overcast all the way from Woodland, Washington, to Eugene, Oregon.

DB Cooper-540

SE 164-81

Northwest Airlines (NWA) Flight #305, departed Seattle-Tacoma International Airport (Sea-Tac), under hijack 11/24/71, at 7:36 PM. At the orders of the hijacker, the landing gear and flaps were down. After the plane was airborne, the hijacker and Stewardess [redacted] discussed the opening of the rear door and the lowering of the air stairs. In less than five minutes after take-off, the hijacker instructed Stewardess [redacted] to go forward into the First Class Section and close the curtain behind her and not to return to the rear compartment again.

b6
b7c

At 7:42 PM, the crew advised that the stair light was on, indicating that the hijacker was doing something with the air stairs. The plane, at that time, was flying at 7,000 feet.

The log contained an entry at 8:05 PM, indicating the crew had on two occasions, attempted to make contact with the hijacker but he did not reply. However, he then spoke over the PA system and said "everything is okay."

An analysis on 11/24 and 25/71, of the flight path of the aircraft, after it left Seattle, and the logs provided by NWA, suggested that the hijacker was still in the airplane as of 8:05 PM. At that time the plane, according to radar tracking by the U.S. Air Force, was located at a point north of the Pidgeon Springs, Washington area and east of Ostrander, Washington. This would have been the northern most point when he was known to be on the aircraft.

At 8:11 PM, according to a log maintained by NWA, the crew reported that they were "getting some oscillations in the cabin, must be doing something with air stairs." An analysis as to the cause of this oscillation, also referred to as a "pressure bump" or "change in the cabin pressure" pointed to the probability that it was caused by the hijacker leaving the aircraft.

However, at that time it was conjectured that he might have sat on the end of the air stairs and left the plane at some later time, as a result of which theory, the entire route of the aircraft was searched.

DB Cooper-551

The attached plot indicates the envelope of possible landing points of the high jacker (HJ). It is based on the following:

- Aircraft position from USAF radar data from McChord AFB furnished by
- Probable jump time (0411 GMT) from an analysis of the recorded communication from the flight relative to the cabin pressure fluctuation. Flight tests conducted on January 6 confirmed that the pressure fluctuation almost certainly occurred at the time the HJ left the airplane.
- Wind information from 10,000' MSL to the ground as determined by
- Human body trajectories from data furnished by The Boeing Company (free-fall) and who is an expert parachutist.
- Time correlation from the above USAF radar information and from the NWA communications network tape recording.
- Airplane airspeed and altitude from the airplane's flight recorder.

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The plot is explained as follows:

1. The heavy dashed line C-D-E-S defines the airplane's probable ground track.
2. Line G-I-J-K defines the westernmost, and Line L-M-N-O the easternmost probable airplane ground tracks based on the stated position tolerance of ± 1.5 nautical mile of the USAF radar plot.
3. Lines A-B, H-P, and O-R are the average wind vectors between 10,000' MSL and the ground, and are the lines parallel to which the HJ would drift after the parachute had opened.
4. Line H-S-T defines the northernmost (earliest) points over which the HJ probably left the airplane. Line K-F-O defines the southernmost (latest) points over which the HJ probably left the airplane. The north-south span of possible jump positions is a product of the radar position tolerance of ± 1.5 mile, and the possible communication time determination tolerance of ± 1 minute.
5. The area within the boundary defined by Points H-P-Q-R-O-K-J-I-H marks the extreme limits of probable landing points based on the above tolerances. That is, assuming the highest probable degree of inaccuracy in aircraft position, jump time, wind vector, etc., all probable HJ landing points would lie within the area defined by this line.
6. If it is assumed aircraft position, jump time, wind vector, and other inputs used are all accurate (without allowance for the above stated tolerances):
 - a. The HJ's landing point would be at Point A if his 'chute did not open, or if he opened it so soon that the high speed caused 'chute damage that resulted in the equivalent of a free-fall to the ground. (The horizontal body trajectory due to

Section 6: Where the plane was at 8:11 · Section 7: Every FBI drop-zone determination, 1971-1980 · Section 8: Recalculated landing zones

Document: NWA landing-point envelope, 1/9/72

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it being at the same speed as the airplane at the moment of exit, has been ignored since it would be a maximum of 2600' along the airplane's track if the HJ free-fell all the way to the ground in the "least drag" (tucked) position.)

- b. If the 'chute was opened without damage immediately after the HJ left the airplane, he would drift with the wind along Line A-B and would land at Point B. The more expert he was, the longer he would probably free-fall (to limit his drift with the wind). The lowest probable altitude to which he would free-fall is 2500' MSL. If he free-fell to 2500' MSL, his landing would be at Point U.

Based on the above, the most favorable search areas, listed in their order of priority, would be as follows:

- At Point A.
- Along Line A-B, favoring the segment between U and B.
- South of Line A-B.
- North of Line A-B.

In addition to the above, the following are pertinent:

- The landing point is more likely to be south of Line A-B, and it is more likely to be in the northwest portion of area A-B-R-O-K-J-A than in the southeast portion thereof.
- It is substantially less likely that the landing point is north of Line A-B. If it is, the most probable point is south of the Lewis River, and in the south west portion of the area defined by Points A-B-I-J-A.
- It seems highly unlikely-though possible-that the landing point is north of the Lewis River, but if it is, it is more likely to be in the southwest portion of the area defined by Points Q-M-V-I-H-P-Q.

If there are any questions relative to the above, they should be referred to the undersigned.

Northwest Airlines

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b7C

January 9, 1972

Section 6: Where the plane was at 8:11 · Section 7: Every FBI drop-zone determination, 1971-1980

Document: NWA landing-point envelope, 1/9/72

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