



National Transportation Safety Board Aviation Incident Final Report

Location:	CASPER, WY	Incident Number:	DEN87IA145B
Date & Time:	06/02/1987, 1012 MDT	Registration:	USAF
Aircraft:	Boeing EC-135	Aircraft Damage:	None
Defining Event:		Injuries:	12 None
Flight Conducted Under:	Armed Forces		

Analysis

BOEING 727 (NORTHWEST FLT 354) & USAF EC-135 (SLUM 51) WERE INVOLVED IN A NR COLLISION AT FL 330. THE MISHAP OCCURRED AS FLT 354 WAS ENE BND ON J-158 & SLUM 51 WAS FLYING ON A RADIAL-DISTANCE (R/D) FLT PLN, FLYING BTN R/D PTS SOUTH OF J-158. AS SLUM 51 APCHD ITS MOST WESTERN PT, THE CREW REQD A RGT TURN TO A R/D PT THAT WAS NOT THE NEXT LISTED PT ON THEIR FLT PLN. THE TRAINEE CTLR (T/C) DIDN'T REALIZE SLUM 51 WAS REQG A ROUTE CHG, BUT THOUGHT THE FLT WANTED TO TURN BACK EAST TO THE NEXT FILED R/D PT WITH A RGT TURN (INSTEAD OF A L TURN AS PREVIOUSLY DONE). THE T/C REPLIED, 'UNABLE RGT TURN, MAKE A LEFT TURN.' THE INSTRUCTOR HEARD THE REQ, BUT THOUGHT THE T/C'S REPLY WAS DISAPPROVAL OF A ROUTE CHG. AS THE CTLRS TURNED THEIR ATTN TO OTR (HVY/COMPLEX) TRAFFIC, SLUM 51 CONTD A 270 DEG L TURN (TO NORTH) & CONVERGED WITH FLT 354. THE 9020 (PRIMARY) COMPUTER WAS INOP; THE DARC (BACKUP) COMPUTER HAD NO CAPABILITY OF DISPLAYING PROJECTED ROUTES OR PROVIDING CONFLICT ALERT. NO FLOW CTL RESTRICTIONS WERE IN EFFECT TO RDC THE AMOUNT OF TRAFFIC.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be:

Findings

Occurrence #1: NEAR COLLISION BETWEEN AIRCRAFT
Phase of Operation: CRUISE - NORMAL

Findings

1. (F) RADAR, EN ROUTE - FAILURE, PARTIAL
2. ARTCC SERVICE
3. (F) EXCESSIVE WORKLOAD (TASK OVERLOAD) - ATC PERSONNEL (ARTCC)
4. (F) IMPROPER DECISION - FAA (OTHER/ORGANIZATION)
5. (C) RADIO COMMUNICATIONS - NOT UNDERSTOOD - ATC PERSONNEL (ARTCC)
6. (C) ATC CLEARANCE - INACCURATE - ATC PERSONNEL (ARTCC)
7. COMMUNICATIONS/INFORMATION/ATC - NOT UNDERSTOOD - PILOT IN COMMAND
8. (F) RADAR, CONFLICT ALERT - INOPERATIVE
9. (C) IFR SEPARATION STANDARDS - NOT MAINTAINED

Factual Information

Pilot Information

Certificate:	Commercial; Military	Age:	39, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Unknown Valid Medical--no waivers/lim.	Last FAA Medical Exam:	02/28/1987
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	6000 hours (Total, all aircraft), 3300 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Boeing	Registration:	USAF
Model/Series:	EC-135 EC-135	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:		Serial Number:	
Landing Gear Type:	Retractable - Tricycle	Seats:	
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	325000 lbs
Time Since Last Inspection:		Engines:	4 Turbo Jet
Airframe Total Time:		Engine Manufacturer:	P&W
ELT:	Not installed	Engine Model/Series:	J-57
Registered Owner:	UNITED STATES AIR FORCE	Rated Power:	13750 lbs
Operator:	UNITED STATES AIR FORCE	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	0 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:			
Departure Point:	RAPID CITY, SD (RCA)	Type of Flight Plan Filed:	IFR
Destination:		Type of Clearance:	IFR
Departure Time:	0705 MDT	Type of Airspace:	Class A

Wreckage and Impact Information

Crew Injuries:	4 None	Aircraft Damage:	None
Passenger Injuries:	8 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	12 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	ROBERT D JOHNSON	Report Date:	10/17/1988
Additional Participating Persons:			
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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