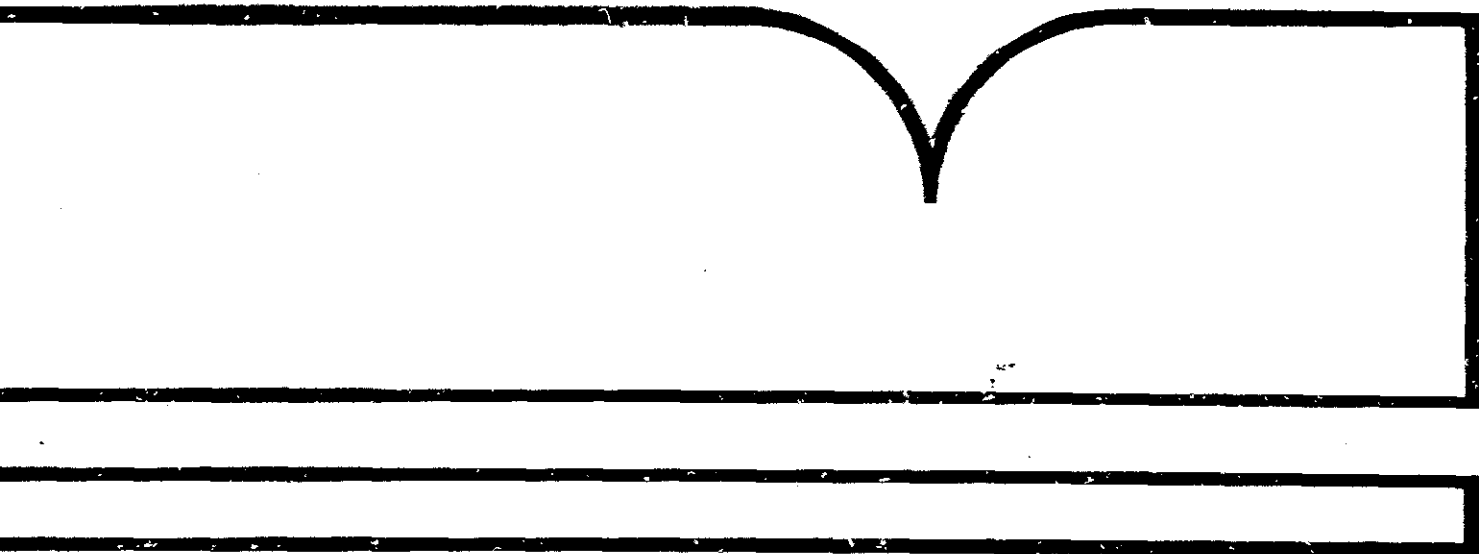


Special Investigation Report--Flight
Service Station Weather Briefing Inadequacies

(U.S.) National Transportation Safety Board
Washington, DC

25 Aug 81





NATIONAL TRANSPORTATION SAFETY BOARD

WASHINGTON, D.C. 20594

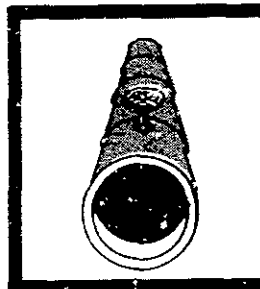
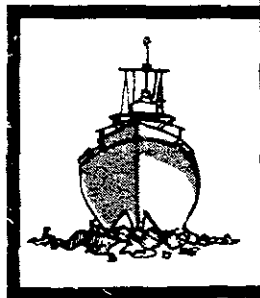
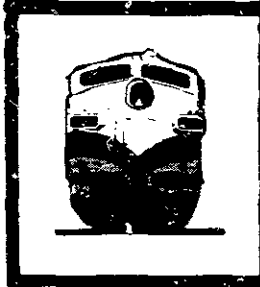
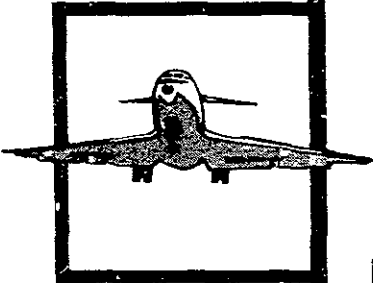
SPECIAL INVESTIGATION REPORT

FLIGHT SERVICE STATION WEATHER
BRIEFING INADEQUACIES

NTSB-SIR-81-3

UNITED STATES GOVERNMENT

REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U.S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA 22161



TECHNICAL REPORT DOCUMENTATION PAGE

1. Report No. NTSB-SIR-81-3		2. Government Accession No. PB81-249435		3. Recipient's Catalog No.	
4. Title and Subtitle Special Investigation Report-- Flight Service Station Weather Briefing Inadequacies.				5. Report Date August 25, 1981	
				6. Performing Organization	
7. Author(s)				8. Performing Organization Report No.	
9. Performing Organization Name and Address National Transportation Safety Board Bureau of Technology Washington, D.C. 20594				10. Work Unit No. 3328	
				11. Contract or Grant No.	
12. Sponsoring Agency Name and Address NATIONAL TRANSPORTATION SAFETY BOARD Washington, D. C. 20594				13. Type of Report and Period Covered Special Investigation Report 1980	
				14. Sponsoring Agency Code	
15. Supplementary Notes The subject report was distributed to NTSB mailing lists: 1A, 8A and 8B.					
16. Abstract During calendar year 1980 the Safety Board's meteorologists investigated 72 aviation accidents. In 6 of these accident investigations involving 12 fatalities, the Safety Board determined that pertinent meteorological information was not passed to the pilot during the weather briefing provided by Flight Service Station (FSS) personnel, in spite of the fact that this information was required by Flight Services Handbook 7110.10. The Safety Board determined that failure to pass the information was a factor in 5 of the 6 accidents. In the remaining accident the Safety Board determined that the deficiency in the weather briefing was serious enough to warrant discussion. The Board initiated this special investigation to explore the reasons why pertinent weather information was not made available to pilots during weather briefings and to recommend methods to correct this problem.					
17. Key Words AIRMET, Flight Service Station, Area Forecast, National Weather Service, Preflight Weather Briefings, Instrument Meteorological Conditions.				18. Distribution Statement This document is available to the public through the National Technical Information Service- Springfield, Virginia 22161 (Always refer to number listed- in item 2)	
19. Security Classification (of this report) UNCLASSIFIED		20. Security Classification (of this page) UNCLASSIFIED		21. No. of Pages	22. Price

CONTENTS

INTRODUCTION 1

INVESTIGATION 1

 Case Histories 1

 Training 3

 Availability of Meteorological Data 4

 Weather Briefing Procedures 4

OVERSIGHT OF WEATHER BRIEFINGS BY FAA 6

CONCLUSIONS 7

RECOMMENDATIONS 7

APPENDIX--Briefs of Accidents 8

**NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594**

SPECIAL INVESTIGATION REPORT

Adopted: August 25, 1981

**FLIGHT SERVICE STATION WEATHER
BRIEFING INADEQUACIES**

INTRODUCTION

During calendar year 1980, National Transportation Safety Board meteorologists investigated 72 aviation accidents. In 6 of these accident investigations involving 12 fatalities, the Safety Board determined that pertinent meteorological information was not passed to the pilot during the weather briefing provided by Flight Service Station (FSS) personnel in spite of the fact that this information was required by Flight Services Handbook 7110.10. The Safety Board determined that each of the accidents revealed deficiencies in the weather briefing.

Although the six instances of inadequate weather briefings represent only a small number of the total weather briefings provided by the Federal Aviation Administration (FAA) in 1980, even one instance where pertinent meteorological information is not made available to the pilot can have catastrophic consequences. Indeed, the fact that 6 of 72 accident investigations disclosed that pertinent weather information was not made available to the pilot is alarming. Since the safety of flight depends on the availability to the pilot of critical weather information, the Safety Board believes that steps must be taken to insure compliance with the weather briefing procedures set forth in Flight Services Handbook 7110.10.

INVESTIGATION

Case Histories

Case No. 1-- At 1630 c.s.t. on January 30, 1980, a Rockwell Aero Commander 690A, XB-AEA en route from Dallas, Texas, to Oklahoma City, Oklahoma, crashed near Newcastle, Oklahoma; there was one fatality. At 1338 c.s.t. the pilot had phoned the Fort Worth FSS and requested a weather briefing. During the weather briefing, the pilot was not advised of a forecast for significant icing in Oklahoma contained in the area forecast issued by the National Weather Service (NWS).

The Safety Board determined that airframe icing was a factor in the accident. The Safety Board also determined that the failure of the FSS specialist to advise the pilot of a forecast of icing during the briefing at 1338 c.s.t. was a factor in the accident.

Case No. 2-- At 1905 e.s.t. on February 12, 1980, Beech Baron N1ZW crashed near Gabriels, New York, while en route from Teterboro, New Jersey, to Saranac Lake, New York; there were three fatalities. At 1531 e.s.t. the pilot had phoned the Teterboro FSS to request a weather briefing. The weather briefer failed to pass to the pilot a forecast for occasional moderate turbulence and light occasional moderate icing, which was contained in the area forecast issued by the NWS and pertinent to the route of flight of N1ZW.

The Safety Board determined that icing conditions and turbulence were factors in the accident. The Safety Board also determined that the failure of the weather briefer to pass to the pilot information on turbulence and icing during the briefing at 1531 e.s.t. was a factor in the accident.

Case No. 3--At 2225 c.s.t. on February 14, 1980, Beech Bonanza N621T crashed near Barksdale, Texas; there were two fatalities. The pilot had phoned the Fort Worth FSS at 1928 c.s.t. for a weather briefing for a proposed flight from Waco, to Laredo. During the briefing the FSS specialist failed to pass the pilot a forecast of embedded thunderstorms, which was contained in the area forecast issued by the NWS and pertinent to the route of flight of N621T. Also, the contents of in-flight weather advisory AIRMET 1/ Quebec 1 which called for low ceilings and visibilities along the aircraft's route of flight was not passed to the pilot.

The evidence developed during the investigation indicated that after receiving the weather briefing at 1928 c.s.t. the pilot of N621T departed for Del Rio, Texas, about 160 miles north of Laredo. The evidence also indicates the pilot did not obtain a weather briefing for a flight from Waco to Del Rio.

Since the weather briefing provided by the specialist at the Fort Worth FSS did not cover a proposed flight from Waco to Del Rio and the accident occurred at Barksdale, Texas, (about 60 miles northeast of Del Rio) the Safety Board did not cite the inadequacy of the weather briefing as a factor in the accident. Nonetheless, the Safety Board noted the serious deficiency in the weather briefing provided to the pilot of N621T by the FSS specialist at Fort Worth.

Case No. 4--About 1825 e.s.t. on May 10, 1980, Cessna C-172 N3912F crashed near Nepanee, Indiana, while en route from Dowagiac, Michigan, to Peru, Indiana; there was one fatality. The student pilot had received a weather briefing by telephone at 1712 e.s.t. from a specialist of the South Bend FSS, South Bend, Indiana. Thunderstorms were mentioned but played down because none had been observed in the vicinity of the planned route. However, the area forecast issued by the NWS forecast thunderstorm activity along the flightpath of N3912F.

It was determined by the Safety Board that thunderstorms were a factor in the accident. The Safety Board, therefore, concluded that the failure of the weather briefer to pass information on thunderstorm activity along the route of N3912F was a factor in the accident.

Case No. 5--At 0030 c.d.t. on October 16, 1980, Grumman American AA5B N28252 crashed near Madill, Oklahoma, while en route from Enid, Oklahoma, to Dallas, Texas; there were four fatalities. The weather briefing, which was provided to the noninstrument-rated pilot of N28252 about 2034 c.d.t. by a specialist at the Oklahoma City FSS, did not contain pertinent information from the area forecast issued by the NWS. The forecast indicated that instrument meteorological conditions would develop along N28252's route of flight after 2300 c.d.t. In addition, the terminal forecast for Dallas, Texas, indicating a chance of low ceilings and visibilities until 0100 c.d.t. was not passed to the pilot.

1/ In-flight weather advisories cover moderate icing, moderate turbulence, sustained winds of 30 knots or more at the surface, widespread areas of ceilings less than 1,000 feet and/or visibilities less than 3 miles, and extensive mountain obscuration. It concerns weather phenomena which are of operational interest to all aircraft and potentially hazardous to aircraft having limited capability because of lack of equipment, instrumentation, or pilot qualifications.

The Safety Board determined that the pilot experienced spatial disorientation in an area where instrument meteorological conditions existed. The Safety Board also determined that the failure of the FSS specialist to provide the pilot information during the briefing on instrument meteorological conditions along the route and low ceilings and visibilities at destination was a factor in the accident.

Case No. 6--About 0630 e.s.t. on October 29, 1980, Beech Baron N171W crashed near Canisteo, New York, while en route from Buffalo, New York, to Teterboro, New Jersey; there was one fatality. About 0615 e.s.t., the pilot of N171W radioed the Buffalo FSS and requested the latest weather information for Teterboro, New Jersey. At this time, although required by Flight Services Handbook 7110.10, the specialist did not pass to the pilot pertinent weather information from the current area forecast issued by the NWS concerning moderate turbulence and moderate icing.

The Safety Board determined that airframe icing and turbulence were factors in the accident. The Safety Board, therefore, concluded that the failure of the FSS specialist to provide the pilot of N171W with information on turbulence and icing at 0615 e.s.t. was a factor in the accident.

The accident briefs for these six cases are appended to this report.

In order to determine why pertinent meteorological information was not made available to the pilots during the weather briefings, the Safety Board explored the following areas:

- 1) The training in weather briefings provided to FSS personnel who performed the briefings;
- 2) The availability of significant meteorological data to these FSS personnel; and
- 3) The adequacy both in content and clarity of the FAA procedures relative to weather briefings.

Training

The Safety Board was concerned that the lack of training in interpretation of NWS forecasts and advisories and in FAA weather briefing procedures in Flight Services Handbook 7110.10 provided to FSS personnel was a possible factor in the omission of pertinent meteorological information during the weather briefings. In this regard the Safety Board reviewed the training records of each FSS specialist involved in cases Nos. 1 through 6.

The Safety Board found that in cases Nos. 1 through 5 the specialists were fully qualified at the preflight position and in case No. 6 at the in-flight position. Personnel qualified at these positions are trained in the interpretation of NWS forecasts, including area forecasts, terminal forecasts, and in-flight advisories, in addition to FAA weather briefing procedures contained in Handbook 7110.10.

The Safety Board also discovered that each FSS specialist had completed training that led to certification as a pilot weather briefer. Pilot weather briefers are certified after demonstrating to the FAA and NWS, through written examination and actual weather briefing situations, a satisfactory knowledge of NWS products and FAA weather briefing procedures.

During the period 1977 to 1980, each specialist received refresher training in pilot weather briefings. Refresher training sessions cover topics necessary to insure adequate pilot weather briefing performance by FSS personnel.

The Safety Board concluded from its review that the FSS personnel involved in these cases were provided adequate training in the interpretation of NWS products and in weather briefing procedures in Flight Services Handbook 7110.10.

Availability Of Meteorological Data

The FSS's in cases Nos. 2, 4, 5, and 6 utilized a leased Service-A meteorological data system at the time of the accidents. The high-speed system allows access to such meteorological information as area forecasts, in-flight weather advisories, and terminal forecasts, which are displayed on a cathode ray tube (CRT) at the weather briefer's position. Since forecasts and advisories issued by the NWS are automatically distributed to the leased Service-A system data base, weather data are usually available to FSS personnel for use in weather briefings shortly after they are issued by the NWS.

In contrast, the FSS at Forth Worth involved in cases Nos. 1 and 3 did not have a leased Service-A high speed data system in operation at the time of the accidents. Personnel at the Forth Worth FSS had to manually tear weather data reports from teletype machines when they were received and file them. These data were continuously updated.

The Safety Board determined that in cases Nos. 2, 4, and 5 the meteorological information omitted in the pilots' weather briefings was available to FSS personnel before the briefings. In cases Nos. 2 and 5 copies of the pertinent meteorological information received at the FSS's with indications of times of receipt were available and used to make this determination. In case No. 4, the FSS specialist indicated in his statement that the area forecast issued by the NWS was available to him for use in the briefing. The Safety Board could make no such determination for cases Nos. 1, 3, and 6; however, except for AIRMET Quebec 1 in case No. 3, the meteorological information omitted during these weather briefings was available from scheduled forecasts. Therefore, since these forecasts were issued before the weather briefings, in most cases several hours before, and since there were no communications problems at the FSS's which would have prevented receipt of the information, the Safety Board concluded that the meteorological information was available to these FSS personnel before the pilot weather briefings. Similarly, since AIRMET Quebec 1 was issued about 4 hours before the pilot weather briefing provided by the specialist at the Fort Worth FSS and since there were no communications problems at the FSS, the Safety Board also concluded that AIRMET Quebec 1 was available to personnel of the Fort Worth FSS before the pilot weather briefing.

Weather Briefing Procedures

Procedures governing weather briefings by FSS personnel in effect at the time of the accidents, as well as current procedures, are contained in Flight Services Handbook 7110.10. Paragraph 168 states:

- a. The objective of a preflight briefing is to communicate to a pilot meteorological and aeronautical information necessary for the conduct of a safe and efficient flight. Do not brief by reading weather reports and forecasts verbatim unless specifically requested by the pilot. Obtain the following information prior to conducting a briefing when it is not already known:

- (1) Type of flight planned, e.g., VFR or IFR.
- (2) Aircraft number or pilot's name.
- (3) Aircraft type.
- (4) Departure Airport.
- (5) Route-of-flight
- (6) Destination.
- (7) Flight altitude(s).
- (8) ETD and ETE.

b. Using all available weather and aeronautical information, provide the following data in the following sequence when it is applicable to the proposed flight:

NOTE.--Specifically emphasize reports of temperature inversions, low level wind shear, thunderstorms, and/or frontal zones within 50 NM of the departure and arrival terminals.

(1) Adverse Conditions -- Significant meteorological and aeronautical information that might influence the pilot to alter the proposed flight; e.g., hazardous weather conditions, runway closures, NAVAID outages, etc.

(2) VFR Flight Not Recommended (VNR) -- When VFR flight is proposed and the actual or forecast conditions, surface based or aloft, are such as to make visual flight (VFR) doubtful, advise the pilot by describing the condition(s) followed by the phrase "V-F-R flight not recommended."

Phraseology:

(reason) V-F-R Flight Not Recommended

(3) For long distance and international flights, inform the pilot of the approximate time required to obtain the necessary meteorological and/or NOTAM information.

(4) Synopsis -- Provide a brief statement of the cause of weather which might affect the proposed flight.

(5) Current Weather -- When the proposed time of departure is within 2 hours, summarize the current reported weather for departure, en route, and destination.

(6) En Route Forecast -- Summarize en route forecast conditions for the proposed route in a logical order; i.e., departure-climb out, en route, and descent.

(7) Destination Forecast -- Provide the destination forecast for the planned ETA. Include any significant changes within 1 hour before and after the planned arrival.

(8) Winds Aloft -- Interpolate winds and temperatures between levels and stations as necessary.

Paragraph 55 of the Handbook states that for routine radio contacts:

Record information received from the pilot, and terminate the contact after supplying any aeronautical or weather information requested by the pilot. Transmit additional information under the following conditions:

- a. If an aircraft is flying below FL180 issue altimeter setting. Exception: If aircraft is using En Route Flight Advisory Service, arriving or departing a local airport served by a control tower, issue altimeter setting on request only.
- b. If the route, destination, or cruising altitude are known:
 - (1) Inform the pilot of any relevant weather.

The investigations of the accidents in cases Nos. 1 through 5 revealed that involved FSS personnel did not comply with paragraph 167 b(1), b(2), b(6) and b(7) of the Handbook. FSS personnel involved in Case No. 3 did not comply with paragraph 55b(1) of the Handbook. Upon review, the Safety Board believes that the applicable sections of the Flight Services Handbook clearly convey the meteorological information FSS personnel should have provided to pilots during weather briefings and that the applicable sections were adequate.

Since the published procedures regarding weather briefings were clear, the training provided to FSS personnel was adequate, and the meteorological data was available to FSS personnel in a timely manner, the Safety Board concluded that pertinent weather information was omitted during the weather briefings because the procedures were not followed.

OVERSIGHT OF WEATHER BRIEFINGS BY FAA

The responsibility for assuring that FSS weather briefings are performed in accordance with the procedures contained in Flight Services Handbook 7110.10 rests with the FAA. The FAA discharges this responsibility by monitoring FSS weather briefings for quality and content. Upon finding deficiencies in weather briefings performed by FSS personnel, personnel are retrained or similar remedial actions are taken by the FAA.

The FAA accomplishes the monitoring function in a number of ways. At the FSS, the Chief of the Facility, supervisors, and in some instances training officers monitor weather briefings. Additionally, monitoring is provided by FAA personnel at the Regional Offices and personnel of the NWS. A way of monitoring weather briefings is by review of weather briefings audio recorded on a continuous basis. In about 40 percent of the FSS's, weather briefings are recorded continuously for review. This means of monitoring, in the Safety Board's opinion, is the most useful and efficient because evaluations can be done after the fact and need not be at the time of the briefing. This would result in the evaluation of more briefers in a shorter time and a more extensive evaluation of briefings for quality and content. Additional performance inadequacies could be discovered in this manner and remedial actions then instituted to correct the deficiencies. In addition, acceptable weather briefing performance evaluations can often times be attributed to the presence of the evaluator. Eliminating this factor would result in a more representative sample of the weather briefer's performance and identification of areas of substandard performance that otherwise would not have been detected. Finally, recorded weather briefings could be used to augment remedial action taken in cases of inadequate weather briefings. In March 1968, the Safety Board issued a recommendation to the Environmental

Science Services Administration (ESSA) and the FAA advocating the audio-recording of pilot weather briefings. ESSA indicated that the possibilities would be explored with the FAA.

Following the Safety Board's Special Study of Fatal Weather-Involved General Aviation Accidents, Recommendation A-74-73 was issued to FAA advocating the implementation of the audio-recording of preflight weather briefings, at least on an experimental basis at selected locations of high general aviation activity. The FAA responded that the capability to record preflight weather briefings would be extended to the 50 busiest FSS's by fiscal year 1976. The Safety Board believes that the continuous audio recording of weather briefings should be extended to all FSS's.

CONCLUSIONS

1. In six accidents investigated by the Safety Board in 1980, FSS personnel failed to pass on pertinent weather information to pilots.
2. Training provided to FSS personnel in the interpretation of NWS products and in FAA weather briefing procedures in Handbook 7110.10 was adequate.
3. Meteorological information was available to the FSS personnel in a timely manner.
4. Procedures published in Flight Services Handbook 7110.10 regarding weather briefings are adequate.
5. Pertinent weather information was omitted from the pilot's weather briefing because published procedures were not followed.
6. Audio recording of weather briefings at each FSS would enhance the monitoring of FSS weather briefings.

RECOMMENDATIONS

As a result of this special investigation, the National Transportation Safety Board has recommended that the Federal Aviation Administration:

Audio record all weather briefings provided by FSS personnel and retain such records for a reasonable period of time. (Class II, Priority Action) (A-81-94)

Take steps to insure that all FSS personnel who provide weather briefings comply with the weather briefing procedures published in Flight Services Handbook 7110.10. (Class II, Priority Action) (A-81-95)

BY THE NATIONAL TRANSPORTATION SAFETY BOARD

/s/ JAMES B. KING
Chairman

/s/ ELWOOD T. DRIVER
Vice Chairman

/s/ PATRICIA A. GOLDMAN
Member

/s/ G.H. PATRICK BURSLEY
Member

FRANCIS H. McADAMS, Member, did not participate.

August 26, 1981

APPENDIX

Briefs of Accidents

NATIONAL TRANSPORTATION SAFETY BOARD

WASHINGTON, D. C. 20594

BRIEFS OF ACCIDENTS INCLUDED IN

SPECIAL INVESTIGATION REPORT

FLIGHT SERVICE STATION WEATHER BRIEFING INADEQUACIES

1980

FILE	DATE	LOCATION	AIRCRAFT DATA	INJURIES F S M/N	FLIGHT PURPOSE	PILOT DATA
E-0004	1/30/80 TIME - 1603	NR, NEW CASTLE, OK	AFRO COMDR 690A XB-AFA DAMAGE--DESTROYED	CR- 2 0 0 PX- 0 0 0	NONCOMMERCIAL CORP/EXEC	AIRLINE TRANSPORT, AGE 50, 14700 TOTAL HOURS, 800 IN TYPE, INSTRUMENT RATED.
<p>DEPARTURE POINT DALLAS-FORT WORTH, TX</p> <p>INTENDED DESTINATION OKLAHOMA CITY, OK</p> <p>TYPE OF ACCIDENT STALL SPIN</p> <p>PHASE OF OPERATION LANDING INITIAL APPROACH</p> <p>PROBABLE CAUSE(S) PILOT IN COMMAND - FAILED TO OBTAIN/MAINTAIN FLYING SPEED</p> <p>FACTOR(S) PERSONNEL - WEATHER PERSONNEL INADEQUATE/INCORRECT WEATHER BRIEFING WEATHER - ICING CONDITIONS--INCLUDES SLEET+FREEZING RAIN, ETC. MISCELLANEOUS ACTS/CONDITIONS - AIRFRAME ICE WEATHER BRIEFING - BRIEFED BY FLIGHT SERVICE PERSONNEL, BY PHONE WEATHER FORECAST - FORECAST SUBSTANTIALLY CORRECT</p> <p>SKY CONDITION OVERCAST VISIBILITY AT ACCIDENT SITE 5 OR OVER (UNLIMITED)</p> <p>OBSTRUCTIONS TO VISION AT ACCIDENT SITE NONE</p> <p>WIND DIRECTION--DEGREES 360</p> <p>TYPE OF WEATHER CONDITIONS IFR</p> <p>FIRE AFTER IMPACT REMARKS- FORECAST OF ICING CONDS NOT PROVIDED TO PILOT.</p> <p>CEILING AT ACCIDENT SITE 900</p> <p>PRECIPITATION AT ACCIDENT SITE NONE</p> <p>TEMPERATURE-F 26</p> <p>WIND VELOCITY--KNOTS 15</p> <p>TYPE OF FLIGHT PLAN IFR</p>						

BRIEFS OF ACCIDENTS

FILE	DATE	LOCATION	AIRCRAFT DATA	INJURIES F S M/N	FLIGHT PURPOSE	PILOT DATA
3-3492	2/12/80	GARRIELS,NY	BECH 95-B55 N17W DAMAGE-DESTRUCTURED	CR- 2 0 0 PX- 1 0 0	NONCOMMERCIAL PLEASURE/PERSONAL TRANSP	COMMERCIAL, FL. INSTR., AGE 39, 1500 TOTAL HOURS, UNK/NR IN TYPE, INSTRUMENT RATED.
<p>NAME OF AIRPORT - ADIRONDACK DEPARTURE POINT TETERBORO,NJ INTENDED DESTINATION SARANAC LAKE,NY TYPE OF ACCIDENT COLLIDED WITH TREES PHASE OF OPERATION LANDING FINAL APPROACH</p>						
<p>PROBABLE CAUSE(S) PILOT IN COMMAND - IMPROPER IFR OPERATION FACTOR(S) PERSONNEL - WEATHER PERSONNEL INADEQUATE/INCORRECT WEATHER BRIEFING WEATHER - SNOW WEATHER - ICING CONDITIONS-INCLUDES SLEET,FREEZING RAIN,ETC. WEATHER - TURBULENCE, ASSOCIATED W/CLOUDS AND/OR THUNDERSTORMS WEATHER BRIEFING - BRIEFED BY FLIGHT SERVICE PERSONNEL, BY PHONE WEATHER FORECAST - FORECAST SUBSTANTIALLY CORRECT</p>						
<p>SKY CONDITION CLEAR VISIBILITY AT ACCIDENT SITE 5 OR OVER (UNLIMITED) OBSTRUCTIONS TO VISION AT ACCIDENT SITE NONE WIND DIRECTION-DEGREES 150 TYPE OF WEATHER CONDITIONS VFR FIRE AFTER IMPACT REMARKS- SLK WX,SNOW SHWS LIKELY IN AREA.FCST OF ENRT TURBC,LGT OGNL MCT ICG NOT PROVIDED,NO WING DETICING.</p>						
<p>CEILING AT ACCIDENT SITE UNLIMITED PRECIPITATION AT ACCIDENT SITE NONE TEMPERATURE-F 22 WIND VELOCITY-KNOTS 6 TYPE OF FLIGHT PLAN IFR</p>						

BRIEFS OF ACCIDENTS

FILE	DATE	LOCATION	AIRCRAFT DATA	INJURIES F S M/N	FLIGHT PURPOSE	PILOT DATA
3-1692	5/10/80 TIME - 1415	NAPPANEE, IN	CESSNA 172 N7912F DAMAGE-DESTRUCTED	CR- 1 0 0 PX- 0 0 0	NONCOMMERCIAL PRACTICE	STUDENT, AGE 55, 54 TOTAL HOURS, 44 IN TYPE, NOT INSTRUMENT RATED.
		NAME OF AIRPORT - NAPPANEE MUNT DEPARTURE POINT DOMAGIAC, MI TYPE OF ACCIDENT STALL SPIN	INTENDED DESTINATION PERU, IN			
						PHASE OF OPERATION LANDING GO-AROUND

PROBABLE CAUSE(S)
 PILOT IN COMMAND - ATTEMPTED OPERATION BEYOND EXPERIENCE/ABILITY LEVEL
 PILOT IN COMMAND - IMPROPER IN-FLIGHT DECISIONS OR PLANNING
 PILOT IN COMMAND - FAILED TO OBTAIN/MAINTAIN FLYING SPEED

FACTOR(S)
 PERSONNEL - WEATHER PERSONNEL INADVERTENT/INCORRECT WEATHER BRIEFING
 PILOT IN COMMAND - SELECTED WRONG RUNWAY RELATIVE TO EXISTING WIND
 MISCELLANEOUS ACTS/CONDITIONS - DOWNWIND
 WEATHER - UNFAVORABLE WIND CONDITIONS
 WEATHER - THUNDERSTORM ACTIVITY
 WEATHER BRIEFING - BRIEFED BY FLIGHT SERVICE PERSONNEL, BY PHONE
 WEATHER FORECAST - FORECAST SUBSTANTIALLY CORRECT
 EMERGENCY CIRCUMSTANCES - ADVERSE/UNFAVORABLE WEATHER

SKY CONDITION
 UNKNOWN/NOT REPORTED
 VISIBILITY AT ACCIDENT SITE
 5 OR OVER (UNLIMITED)
 OBSTRUCTIONS TO VISION AT ACCIDENT SITE
 NONE

TEMPERATURE-F
 61
 WIND VELOCITY-KNOTS
 25
 TYPE OF FLIGHT PLAN
 NONE

REMARKS- WIND GUSTING TO 40KTS.FSS WX BRIEFING.X-COUNTRY ENDORSEMENT SIGNED 11/4/79.

CEILING AT ACCIDENT SITE
 5000
 PRECIPITATION AT ACCIDENT SITE
 NONE
 RELATIVE BEARING OF WIND
 RIGHT QUARTERING TAIL WIND 203-247 DEGREES
 WIND DIRECTION-DEGREES
 200
 TYPE OF WEATHER CONDITIONS
 VFR

BRIEFS OF ACCIDENTS

FILE	DATE	LOCATION	AIRCRAFT DATA	INJURIES F S M/N	FLIGHT PURPOSE	PILOT DATA
3-3723	10/29/80	CANISTEO, NY	BECH 95-C55 N71W DAMAGE-DESTROYED	CR- 1 0 0 PX- 0 0 0	COMMERCIAL AIR TAXI-CARGO	AIR FLIGHT INSTR., AGF 30, 3493 TOTAL HOURS, UNK/HR IN TYPE, INSTRUI- MENT RATED.

DEPARTURE POINT RUFFALO, NY TYPE OF ACCIDENT AIRFRAME FAILURE IN FLIGHT	INTENDED DESTINATION LETTERDRO, NJ PHASE OF OPERATION IN FLIGHT UNCONTROLLED DESCENT	PROBABLE CAUSE(S) PILOT IN COMMAND - INADEQUATE PREFLIGHT PREPARATION AND/OR PLANNING PILOT IN COMMAND - IMPROPER IN-FLIGHT DECISIONS OR PLANNING FACTOR(S) PERSONNEL - OPERATIONAL SUPERVISORY PERSONNEL DEFICIENCY, COMPANY MAINTAINED EOPMT, SERVICES, REGULATION WEATHER - ICING CONDITIONS-INCLUDES SLEET, FREEZING RAIN, ETC. WEATHER - TURBULENCE, ASSOCIATED W/CLOUDS AND/OR THUNDERSTORMS MISCELLANEOUS ACTS, CONDITIONS - AIRFRAME ICE MISCELLANEOUS ACTS, CONDITIONS - OVERLOAD FAILURE MISCELLANEOUS ACTS, CONDITIONS - SEPARATION IN FLIGHT PERSONNEL - TRAFFIC CONTROL PERSONNEL OTHER WEATHER BRIEFING - NO RECORD OF BRIEFING RECEIVED WEATHER FORECAST - FORECAST SUBSTANTIALLY CORRECT
--	---	--

SKY CONDITION OVERCAST VISIBILITY AT ACCIDENT SITE 5 OR OVER (UNLIMITED) OBSTRUCTIONS TO VISION AT ACCIDENT SITE NONE WIND DIRECTION-DEGREES 270 TYPE OF WEATHER CONDITIONS VFR	CEILING AT ACCIDENT SITE 3700 PRECIPITATION AT ACCIDENT SITE NONE TEMPERATURE-F 39 WIND VELOCITY-KNOTS 27 TYPE OF FLIGHT PLAN IFR (VFR CONDITIONS (IN TOP)) IFR (VFR ENRT RADIO CONTACT, GENL DISINTGRATN.	REMARKS- WING DRICERS INDP, NO ACFT MIN EOPT LIST, PLT NOT PRVDD FA DRG ENRT RADIO CONTACT, GENL DISINTGRATN.
--	--	---

END

DATE

FILMED

11-10-81

NTIS