



National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: August 11, 1989

In reply refer to: A-89-91

Honorable James B. Busey
Administrator
Federal Aviation Administration
Washington, D.C. 20591

On October 4, 1988, about 0952 Pacific daylight time, a Beechcraft B-99A, N803BA, registered to the Beech Aircraft Corporation, Inc., and operated by San Juan Airlines, Inc., sustained substantial damage when the airplane struck trees during flight. The scheduled passenger flight, flight 204, was conducted under Title 14 Code of Federal Regulations (CFR) Part 135. A visual flight rules (VFR) flight plan was in effect, but instrument meteorological conditions prevailed. No injuries were sustained.^{1/}

The flight departed the airport at Bellingham, Washington, about 0945. The surface weather observation taken at 0950 was sky partially obscured (due to fog), ceiling 700 feet overcast, visibility 1 1/4 miles, temperature 56° F.; dew point 54° F.; winds from 090° at 3 knots, and altimeter 30.00 inches Hg. The ceiling was reported as ragged. Flight 204 departed the Bellingham control zone after requesting and receiving a special VFR clearance.^{2/} The flight was scheduled to land at Friday Harbor, Washington, but because of poor weather conditions there, the pilot decided to fly to East Sound Airport on Orcas Island, Washington. The weather at East Sound was reported as ceiling 600-800 feet broken, 1,000 feet overcast with 3 miles visibility. The airplane was south of the intended course to the airport and struck trees in flight. Both pilots stated that after striking the trees, the airplane rolled into a steep left bank, and pitched down, and control of the airplane was almost lost. The flight crew returned the airplane to Bellingham, where a safe landing was made.

The National Transportation Safety Board has investigated two other accidents of scheduled commuter air carriers that crashed while operating under VFR in marginal VFR weather conditions. On August 17, 1983, a Piper PA-31-350 operated by Las Vegas Airlines collided with mountainous terrain after departing

^{1/}For more detailed information, read Field Accident Brief No. 1572 (attached).

^{2/}A special VFR clearance allows a pilot to operate on VFR in a control zone if ground visibility is at least 1 statute mile and he/she keeps the airplane clear of clouds.

on a scheduled flight from Las Vegas, Nevada. The pilot became uncertain of his position while attempting to remain VFR. The pilot and nine passengers were killed.^{3/}

On December 17, 1984, a Piper PA-23-250 operated by Susquehanna Airlines, Inc., struck trees less than 1 mile from the airport at Bainbridge, New York. The flight was on a VFR flight plan from Binghamton, New York; however, heavy fog began to form before its arrival in Bainbridge. Both pilots and two passengers were killed.^{4/}

The VFR/IFR restrictions and weather limitations for all Part 135 air carriers are contained in 14 CFR Part 135, Subpart D. Section 135.205(a) states:

No person may operate an airplane under VFR in uncontrolled airspace when the ceiling is less than 1,000 feet unless flight visibility is at least 2 miles.

Section 135.203(a)(1) restricts Part 135 operators from altitudes below 500 feet above the surface, except when necessary for takeoff or landing. A flight is thus allowed to operate as low as 500 feet above the surface in uncontrolled airspace if the flight visibility is at least 2 miles. Operations in controlled airspace require at least 3 miles visibility, unless a special VFR clearance is requested and received.

The Safety Board is concerned about the safety of Part 135 passenger flights operating at the reduced VFR weather minimums permitted by 14 CFR 135.205(a). The regulation originated in 1964. Since then, the air carrier industry has changed considerably, particularly Part 135 operations. For example, many uncontrolled airports now have published instrument approach procedures, which preclude the need to conduct the flight under VFR during marginal weather. Also, the Part 135 air carrier fleet now includes larger, predominantly turbine-powered aircraft with navigational sophistication comparable to air carriers operating under 14 CFR Part 121. Therefore, the Safety Board believes that the operation of these faster, turbine-powered aircraft in less-than-basic VFR weather minimums in uncontrolled airspace should not be permitted unless an air carrier can provide sufficient justification for such operation.

The Safety Board is sensitive to the needs of Part 135 air taxi operators who, because of unique operating environments, may require the lower weather minimums provided by 14 CFR 135.205(a). However, the Safety Board believes that the majority of Part 135 passenger-carrying flights today should operate on instrument flight rules (IFR) flight plans when weather conditions approach basic VFR weather minimums and should not be permitted to operate under VFR when the weather conditions are less than the basic VFR minimums; therefore, we believe that the operations specifications of these operators should reflect this restriction. If a Part 135 air carrier (fixed-wing) has a unique operating

^{3/}For more detailed information, read Field Accident Brief No. 3308 (attached).

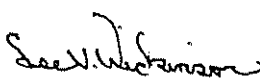
^{4/}For more detailed information, read Field Accident Brief No. 2645 (attached).

environment that requires the ability to operate under VFR in uncontrolled airspace in less-than-basic VFR weather conditions, the Federal Aviation Administration (FAA) should also provide for such authority in the operations specifications of that operator.

Therefore, the National Transportation Safety Board recommends that the Federal Aviation Administration:

Restrict 14 CFR Part 135 air carrier (fixed-wing) passenger flights from operating in uncontrolled airspace under visual flight rules (VFR) in less than the basic VFR weather minimums of a 1,000-foot ceiling and 3 miles visibility. (Class II, Priority Action)(A-89-91)

KOLSTAD, Acting Chairman, BURNETT and DICKINSON, Members, concurred in this recommendation. LAUBER, Member, did not participate. NALL, Member, did not concur.

For 
By: James L. Kolstad
Acting Chairman

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1572 10/04/88 EAST SOUND,WA A/C Res. No. N803BA Time (Lcl) - 0952 PDT

-----Basic Information-----

Type Operating Certificate-COMMUTER Aircraft Damage
Name of Carrier -SAN JUAN AIRLINES SUBSTANTIAL
Type of Operation -SCHEDULED,DOMESTIC,PASSENGER Fire
Flight Conducted Under -14 CFR 135 NONE
Accident Occurred During -MANEUVERING Crew Pass
Fatal Serious Minor Injuries
0 0 0 0
0 0 0 0
None 2 2

-----Aircraft Information-----

Make/Model - BEECH B-99A ELT Installed/Activated - YES/NO
Landing Gear - TRICYCLE-FIXED Stall Warning System - YES
Max Gross Wt - 10900
No. of Seats - 17 Engine Type - TURBOPROP
Rated Power - 680 HP

-----Environment/Operations Information-----

Weather Data
Wx Briefings - COMPANY
Method - TELEPHONE
Completeness - UNK/NR
Basic Weather - IMC
Wind Dir/Speed- 090/003 KTS
Visibility - 1.250 SM
Lowest Sky/Clouds - PART OBS
Lowest Ceiling - 700 FT OVERCAST
Obstructions to Vision- FOG
Precipitation - NONE
Condition of Light - DAYLIGHT

-----Personnel Information-----

Pilot-In-Command
Certificate(s)/Rating(s)
ATP,CFI
SE LAND,ME LAND
Age - 26
Biennial Flight Review
Current - YES
Months Since - 3
Aircraft Type - B-99
Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT
Flight Time (Hours)
Total - 4320
Make/Model- 500
Instrument- 520
Multi-Eng - 2670
Last 24 Hrs - 7
Last 30 Days- 85
Last 90 Days- 247

-----Instrument Rating(s) - AIRPLANE

-----Narrative-----

THE CREW ELECTED TO DEPART THE AIRPORT UNDER A SPECIAL VFR CLEARANCE. WX AT THE DEPARTURE AIRPORT WAS 700 FT OVC WITH VISIBILITY 1 AND 1/4 MILES. THE DESTINATION AIRPORT WAS WITHIN 25 NAUTICAL MILES OF THE DEPARTURE AIRPORT AND WAS REPORTING A BKN CEILING OF 6 TO 800 FT AND 3 MILES VISIBILITY. THE CREW WAS IN THE PROCESS OF OBTAINING AN IFR CLEARANCE WHEN THE PILOT ON THE CONTROLS OBSERVED TREES IN THE FLIGHT PATH. THE AIRCRAFT COLLIDED WITH TREES DURING A CLIMBING RIGHT TURN. THE CREW SUBSEQUENTLY OBTAINED AN IFR CLEARANCE AND RETURNED TO THE DEPARTURE AIRPORT UNEVENTFULLY.

Brief of Accident (Continued)

File No. - 1572 10/04/88 EAST SOUND, WA A/C Reg. No. N803BA Time (Lcl) - 0952 PDT

Occurrence #1 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation MANEUVERING - TURN TO REVERSE DIRECTION

Findings(s)

1. WEATHER CONDITION - LOW CEILING
2. WEATHER CONDITION - FOG
3. FLIGHT INTO KNOWN ADVERSE WEATHER - ATTEMPTED - PILOT IN COMMAND
4. LACK OF FAMILIARITY WITH GEOGRAPHIC AREA - PILOT IN COMMAND
5. VISUAL LOOKOUT - NOT POSSIBLE -
6. LACK OF FAMILIARITY WITH GEOGRAPHIC AREA - COPILOT/SECOND PILOT

-----Probable Cause-----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 3

Factor(s) relating to this accident is/are finding(s) 1,2,4,5,6

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 3308 8/17/83 PEACH SPRINGS,AZ A/C Reg. No. N88LV Time (Lcl) - 1227 MST

-----Basic Information-----

Type Operating Certificate--COMMUTER Aircraft Damage
Name of Carrier --LAS VEGAS AIRLINES DESTROYED
Type of Operation --SCHEDULED,DOMESTIC,PASSENGER Fire
Flight Conducted Under --14 CFR 135 ON GROUND
Accident Occurred During --CLIMB

-----Aircraft Information-----

Make/Model -- PIPER PA-31-350 End Make/Model - LYCOMING L/T110-540-J ELI Installed/Activated - YES/NO
Landing Gear -- TRICYCLE--RETRACTABLE Number Engines - 2 Stall Warning System - YES
Max Gross Wt - 7000 Engine Type -- RECIP-FUEL INJECTED
No. of Seats - 10 Rated Power - 350 HP

-----Environment/Operations Information-----

Weather Data
Wx Briefing - UNK/NR Itinerary
Method - UNK/NR Last Departure Point
Completeness - UNK/NR LAS VEGAS,NV
Basic Weather - IMC Destination
Wind Dir/Speed - UNK/NR GRAND CANYON,AZ
Visibility - 20.0 SM ATC/Airspace
Lowest Sky/Clouds - UNK/NR Type of Flight Plan - COMPANY (VFR)
Lowest Ceiling - UNK/NR Type of Clearance - NONE
Obstructions to Vision- UNK/NR Type ApcH/Lnds - NONE
Precipitation - RAIN SHOWERS
Condition of Light - DAYLIGHT

-----Personnel Information-----

Pilot-In-Command Age - 48 Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT
Certificate(s)/Rating(s) Biennial Flight Review Current - YES Flight Time (Hours) Total - 8099 Last 24 Hrs - 6
ATP Months Since - 2 Aircraft Type - PA-31 Instrument- UNK/NR Multi-Eng - UNK/NR Last 30 Days- UNK/NR
SE LAND,ME LAND Rotorcraft - UNK/NR Last 90 Days- 160

Instrument Rating(s) - AIRPLANE

-----Narrative-----

THE ACFT DEPARTED LAS VEGAS, NV AS THE 2ND OF 5 ACFT ON A SCHEDULED GRAND CANYON SIGHT-SEEING FLT. THE 1ST PORTION OF THE FLT WAS OVER THE LAS VEGAS STRIP AREA & LAKE MEAD & WAS UNEVENTFUL. HOWEVER, WX CONDITIONS PRECLUDED THE FLT FROM CONTINUING OVER THE SHIVWITS PLATEAU. RADIO CONVERSATIONS BETWEEN THE PLT & OTHER COMPANY AIRCREWS INDICATED THAT THE PLT OF N88LV HAD ENCOUNTERED DETERIORATING WX CONDITIONS IN THE CANYON & THAT HE HAD DECIDED TO ABORT THE FLT & CLIMB OUT. LATER ATTEMPTS TO CONTACT THE ACFT WERE UNSUCCESSFUL. THE WRECKAGE WAS FOUND ON 8/18/83 WHERE THE ACFT HAD COLLIDED ON THE WEST WALL OF A MESA INSIDE THE CANYON. A HELICOPTER PLT FLYING ABOUT 14 MI NORTH OF THE CRASH SITE REPORTED CLOUDS AT GROUND LEVEL (4500 FT MSL). THE ELEVATION OF THE ACCIDENT SITE WAS 6320 FT. SHORTLY BEFORE HIS LAST TRANSHITION, THE PLT STATED HE WAS "JUST SHORT OF TWIN PEAKS." THE PLT HAD TRANSMITTED HIS POSITION FROM PEACH VOR, INDICATING HE WAS IN THE AREA OF THE CRASH SITE. TWIN PEAKS WAS NORTHEAST & HAD SIMILAR TERRAIN.

Brief of Accident (Continued)

File No. - 3308 8/17/83 PEACH SPRINGS, AZ A/C Reg. No. N8BLV Time (Lcl) - 1227 MST

Occurrence #1 IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation CRUISE - NORMAL

Findings(s)

1. WEATHER CONDITION - CLOUDS
2. TERRAIN CONDITION - MOUNTAINOUS/HILLY
3. WEATHER CONDITION - LOW CEILING
4. WEATHER CONDITION - RAIN
5. VFR FLIGHT INTO IMC - CONTINUED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation CLIMB

-----Probable Cause-----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 5

Factor(s) relating to this accident is/are finding(s) 1,2,3,4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2645 12/17/84 BAINBRIDGE,NY A/C Reg. No. N6099Y Time (Lcl) - 2300 EST

---Basic Information---

Type Operating Certificate--COMMUTER
Name of Carrier -SUSQUEHANNA AIRLINES, INC Aircraft Damaged DESTROYED
Type of Operation -SCHEDULED,DOMESTIC,PASSENGER Fire NONE
Flight Conducted Under -14 CFR 135 Crew 2
Accident Occurred During -APPROACH Pass 2

Injuries Fatal Serious Minor None
0 0 0 0 0

---Aircraft Information---

Make/Model - PIPER PA-23-250 End Make/Model - LYCOMING IO-540-CABS ELT Installed/Activated - YES/YES
Landing Gear - TRICYCLE-RETRACTABLE Number Engines - 2 Stall Warning System - YES
Max Gross Wt - 5200 Engine Type - RECIP-FUEL INJECTED
No. of Seats - 6 Rated Power - 250 HP

---Environment/Operations Information---

Weather Data
Wx Briefing - COMPANY Itinerary Airport Proximity
Method - UNK/NR Last Departure Point OFF AIRPORT/STRIP
Completeness - UNK/NR Destination BINGHAMTON,NY
Basic Weather - IMC Same AS ACC/INC Airport Data SIDNEY
Wind Dir/Speed- CALM ATC/Airspace Runway Ident - 07
Visibility - UNK/NR Type of Flight Plan - NONE Runway Lth/Wid - 4220/ 75
Lowest Sky/Clouds - Type of Clearance - NONE Runway Surface - ASPHALT
Lowest Ceiling - UNK/NR Type Apch/Lndg - VALLEY/TERRAIN FOLLOWING Runway Status - DRY
Obstructions to Vision- FOG Precipitation - NONE
Condition of Light - NIGHT(DARK)

---Personnel Information---

Pilot-In-Command Age - 28 Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT
Certificate(s)/Rating(s) Biennial Flight Review Current - YES Flight Time (Hours) 4450
COMMERCIAL,CFI Months Since - 2 Aircraft Type - GLFSTRM Make/Model- 675 Last 24 Hrs - 2
SE LAND,ME LAND Aircraft Type - GLFSTRM Instrument- 850 Last 30 Days- UNK/NR
Multi-Eng - 3950 Last 90 Days- 280

Instrument Rating(s) - AIRPLANE

---Narrative---

CONDITIONS PREVAILED WHEN THE FLT DEPARTED BINGHANTON, NY, THE DESTINATION WAS REPORTED AS CLEAR UNTIL JUST PRIOR TO THE ESTIMATED TIME OF ARRIVAL, THEN FOG BEGAN TO FORM. WITNESSES WHO HEARD THE ACFT, JUST PRIOR TO THE ACCIDENT, REPORTED HEAVY FOG. AFTER MAKING AN APCH TO RWY 7, THE ACFT TURNED TO A HEADING OF ABOUT 220 DEG, THEN COLLIDED WITH TREES ON A WOODED HILL, .85 MI NORTH OF THE ARPT. NO PREIMPACT PART FAILURE OR MALFUNCTION WAS FOUND. THE ELEVATION OF THE MAIN WRECKAGE WAS 1395 FT; THE ARPT ELEVATION WAS 1027 FT.

Brief of Accident (Continued)

File No. - 2645 12/17/84 BAINBRIDGE, NY A/C Reg. No, N6099Y Time (Lcl) - 2300 EST

Occurrence #1 IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation APPROACH

Findings(s)

1. LIGHT CONDITION - DARK NIGHT
2. WEATHER CONDITION - FOG
3. GO-AROUND - PERFORMED - PILOT IN COMMAND
4. VFR FLIGHT INTO IMC - CONTINUED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation MANEUVERING

Findings(s)

5. TERRAIN CONDITION - HIGH TERRAIN
6. TERRAIN CONDITION - MOUNTAINOUS/HILLY
7. OBJECT - TREE(S)
8. PROPER ALTITUDE - NOT MAINTAINED - PILOT IN COMMAND

-----Probable Cause-----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 4,8

Factor(s) relating to this accident is/are finding(s) 1,2,5,6,7

