

FY 1998 Accident Review

**Department of the
Interior**

PREVENTION

- **All Mishaps are Preventable
(352 DM 1.3 A.)**
- **Prevention Function of
Management**
- **Safety Culture**
- **Risk Management
Techniques (352 DM 1.9)**

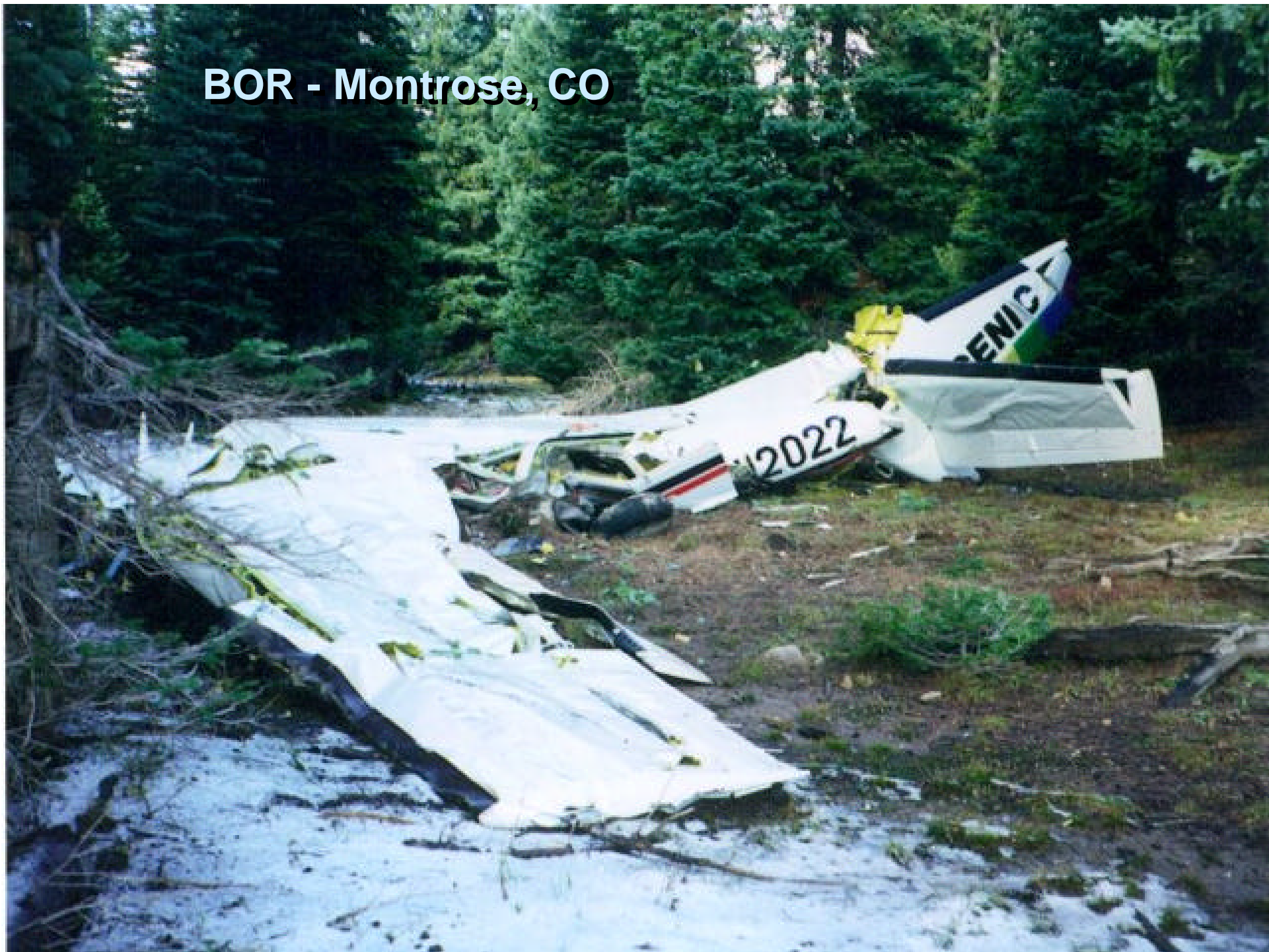
Montrose, CO

October 8, 1997

Cessna 208 B Caravan

- ***Mission:*** Passenger Transport
- ***Weather:*** 9,500' Overcast up to 16,000'
Visibility 10 Miles
- ***Damage:*** Destroyed
- ***Injuries:*** 9 Fatalities

BOR - Montrose, CO



Montrose, CO

- ***Narrative:*** Lost control during climb out and collided with terrain. Witnesses indicate the plateau at the accident site was obscured with clouds. Climbed to 15,400' and then disappeared. Search party located airplane wreckage about 48 hours later. All of the victims were located within the airplane fuselage.

Key Issues

- Flight Plan
- Flight Following

- Pilot Qualifications

Discussion

- ✓ Search for overdue aircraft delayed.
- ✓ **Pilot failed to confirm departure time.**
- ✓ FAA had no record of flight plan.

- ✓ **Total Time**
12,900 hours.
- ✓ **Actual Inst. Time**
19.7 hours.

Key Issues

• Pilot Performance

• Pilot Training

Discussion

- ✓ Received 3 notices of Disapproval of Application for an ATP rating.
- ✓ **Proficiency Check 4-22-97.**
- ✓ No instrument time since 1994.
- ✓ **No current IFR qualification.**

Key Issues

Discussion

- **Pilot Training**

- ✓ **Instrument Competency Demonstrated (174 days Prior).**
- ✓ **Typical check-ride 180-degree turn-around maneuver in simulated IMC.**

- **Aircraft Equipment**

- ✓ **O2 not used.**

Key Issues

Discussion

• Aircraft Equipment

- ✓ Part 91.211(a)(2)
- ✓ **Part 135.89(a)(2)**
- ✓ One O2 mask recovered (not in use).

• Operating Limitations

- ✓ **124.5 lbs.. over certificated takeoff weight.**
- ✓ Wt. may have had adverse affect on climb performance.

Key Issues

- **Malfunctioning Equipment**
- **Weather Briefing**

Discussion

- ✓ **ELT did not activate.**
- ✓ **No pre-existing failures or conditions prevented normal engine operation.**
- ✓ **Source of pilot's weather briefing could not be determined.**

Key Issues

- Familiarization with Montrose, Colorado

Discussion

- ✓ No evidence of prior knowledge of the Montrose, area, specifically the Uncompahgre Plateau.

Cold Bay, AK

June 22, 1998

PA-18 Supercub

- ***Mission:*** Passenger Transport
- ***Weather:*** 500' Broken, Visibility 15 Miles
Wind 14 Knots, VFR
- ***Damage:*** Substantial
- ***Injuries:*** None



FWS - Cold Bay, AK

Cold Bay, AK

- ***Narrative:*** During takeoff, the airplane lifted off and drifted to the right, toward the shore. The aircraft was substantially damaged as a result of the ground loop to the right. Aircraft completed a turn of approx.. 160-degrees from the original departure path.

Key Issues

Discussion

- **Pilot Training**

- ✓ **No beach takeoff & landings since initial training.**

- **Failure to Maintain Directional Control**

- ✓ **On takeoff roll, aircraft veered to the right.**

Ely, NV

July 28, 1998

Aero Commander 690

- Mission:*** Fire - Air Attack Coordination
- Weather:*** VFR
- Damage:*** Substantial
- Injuries:*** None



BLM - Ely, NV

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Ely, NV

- ***Narrative:*** According to the pilot and observer's statements, they were taxiing out for departure when the left wheel came off it's axle. As the strut grounded on the taxiway, the wing damage occurred. Left wing and fuselage crown skin was wrinkled, several wing ribs were damaged. Air pressure in right tire was 125 psi.

Key Issues

Discussion

- **Thorough Preflight**

- ✓ **Right tire was inflated to 125 psi.**
Normally 80 psi.

- **Previous Maintenance**

- ✓ **Conducted week prior.**
- ✓ **Pilot requested mechanic to inflate tires, “both looked low”.**

Key Issues

Discussion

- **Substantial Damage**

- ✓ **Damage to left wing spar indicative of hard landing.**

- **Unaccounted for Lug Nuts**

- ✓ **Lugs from left wheel half could not be found after extensive search.**

Burns, OR

July 29, 1998

Cessna 206 "Skywagon"

- ***Mission:*** Reconnaissance (Fire)
- ***Weather:*** VFR
- ***Damage:*** Substantial
- ***Injuries:*** 1 Minor Injury



BLM - Burns, OR

Burns, OR

- ***Narrative:*** Pilot reported to dispatcher that the engine had experienced a loss of power. Initiated a forced landing to a country road. During the landing roll, the airplane collided with a barb wire fence.

Key Issues

Discussion

- **Engine Failure**

- ✓ **Engine crankshaft failed due to failure of #2 bearing. Engine was within 10 hours of TBO.**

- **Aircraft Equipment Shoulder Harness**

- ✓ **Pilot sustained minor facial injuries hitting instrument panel.**

Key Issues

Discussion

- **Emergency Egress Problems**
 - ✓ **Pilot unable to easily open right rear door due to flap setting.**
- **Aircraft ELT**
 - ✓ **ELT activated. Pilot subsequently turned it off, hampering rescue.**

Juntura, OR

August 8, 1998

Bell 212

- *Mission:* Fire Suppression (H2O Drop)
- *Weather:* VFR
- *Damage:* Minor
- *Injuries:* None

BLM - Juntura, OR



Juntura, OR

- ***Narrative:*** Pilot began to transition into a climb, perceived a loss of lift followed by a “low RPM” audio warning. Began maneuver towards nearby beach and attempted to release the bucket. Initial release unsuccessful. Second attempt detached cable from hook.

Key Issues

- **Engine Failure**

- **Aircraft Component Damage**

Discussion

- ✓ **Pilot perception of engine failure while dipping water.**

- ✓ **Engine flight-idle stop sheared as a result of the cargo hook contacting fuselage and/or throttle linkage.**

Key Issues

• Post Accident Engine Checks

Discussion

- ✓ No apparent problems, except to throttle linkage.
- ✓ No problems with fuel filters or fuel control.
- ✓ Cargo hook found operational.

Key Issues

Discussion

- **Preflight**

- ✓ **Recommend aircrew check bottom of A/C during preflight.**

- **Water Sources**

- ✓ **Angle of longline may become acute if bucket is dragged or snagged beneath surface.**

- **Pilot Fatigue**

- ✓ **Pilot's last flight of the day.**

Fairbanks, AK

August 21, 1998

Piper Pa-18 "Supercub"

- | | |
|---------------------------|-------------------------|
| • <i>Mission:</i> | Law Enforcement |
| • <i>Weather:</i> | VFR, Gusty Winds |
| • <i>Damage:</i> | Substantial |
| • <i>Injuries:</i> | None |



FWS - Fairbanks, AK

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Fairbanks, AK

- ***Narrative:*** Pilot began takeoff. About halfway down the airstrip, he lowered the flaps. The airplane momentarily became airborne, but did not climb. Pilot then raised the flaps, and applied heavy braking. The airplane nosed over at the end of the strip.

Key Issues

Discussion

. Policy Violations

- ✓ Insufficient flight plan. OPM 98-2 stated that pilots shall file and operate "...c) IAW a bureau-approved flight plan program..."

- ✓ **Flight plan not activated.**

. Procedures

- ✓ Aircraft did not climb fast enough to clear obstacles.

Porterville, CA

August 27, 1998

Aerospatiale SA 316B
(Allouette III)

- *Mission:* Fire Suppression (H2O Drop)
- *Weather:* VFR
- *Damage:* Destroyed
- *Injuries:* 1 Minor



BIA Porterville, CA

Porterville, CA

- ***Narrative:*** Witnesses saw the helicopter fly down the side of a ridge with the water bucket on a 100' longline. The bucket became entangled in some trees and the line snapped and wrapped around the tail rotor. The tail rotor gearbox separated and the helicopter spun to the ground and rolled down the slope.

Key Issues

Discussion

- **Human Factors**
 - ✓ Pilot stated, “he rushed” due to initial attack.
 - ✓ **Family member on ground crew.**
- **Procedure**
 - ✓ Pilot failed to ensure longline and bucket clear of obstacles prior to departure for next load of water.

Homer, AK

September 27, 1998

Hughes 396D

- ***Mission:*** Passenger Transport
(Land Survey)
- ***Weather:*** VFR
- ***Damage:*** Minor
- ***Injuries:*** 1 Serious



BLM - Homer, AK (Blade Strike to Passenger)

Homer, AK

- ***Narrative:*** After completing a toe-in landing, the pilot signaled that passengers could exit the helicopter. The first passenger exited off the front of the skid, and walked uphill into the turning rotor blades. The helicopter immediately began to vibrate violently. The pilot relocated to a landing site and shut down the engine.

Key Issues

Discussion

- Pilot Briefing
Control of Passengers

- ✓ Pilot briefed passengers on aircraft exiting from toe-in landing.
- ✓ **Pilot's attention divided.**

- PPE

- ✓ Passenger struck by 2 main rotor blades. Not wearing helmet.
- ✓ **Sustained serious injury and survived.**

