



Aviation Investigation Final Report

Location:	Peach Springs, Arizona	Accident Number:	WPR14FA195
Date & Time:	May 18, 2014, 16:00 Local	Registration:	N840PA
Aircraft:	AMERICAN EUROCOPTER CORP AS350B3	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Positioning		

Analysis

The commercial pilot was repositioning the helicopter and advised ground personnel that he intended to land and perform a "fluid check." Company personnel reported that most pilots used this term when they intended to land away from the awaiting passengers and exit the helicopter to relieve themselves. The pilots would generally leave the engine running when outside the helicopter.

The helicopter was equipped with an on board video recording system. The recording revealed that the pilot landed the helicopter in a location that had a direct buffeting crosswind. The pilot tightened the friction on the cyclic, which then did not move. The twist grip light illuminated, and engine audio was consistent with the throttle being moved toward ground idle. About 6 seconds later, the twist grip light extinguished, engine audio was consistent with an increase in power to flight idle; engine data parameters indicate that the twist grip was moved to flight idle. On the video, the collective position continued to increase. About 15 seconds later, the pilot exited the helicopter. External audio indicated a sound similar to N1 increasing.

For the next 24 seconds, the video showed an increase in airframe buffeting. The helicopter then began to pitch nose down. One second later, the helicopter began to roll right; the roll increased, and the helicopter then began to yaw left. The sound of the door opening was heard, likely indicating that the pilot attempted to enter the helicopter. The helicopter continued to roll and yaw until noises consistent with the rotor blades impacting the ground were heard.

The operator had a policy that required a pilot to always be at the controls of a running helicopter. However, according to pilot interviews, this policy was not generally followed, and the pilots would not shut down the helicopter when they needed to relieve themselves. However, pilots who were interviewed stated that they would leave the helicopter operating at ground idle. It could not be determined why the pilot would leave the helicopter while it was operating at flight idle without the flight controls properly secured.

Probable Cause and Findings

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

The pilot's decision to exit the helicopter while it was running and his failure to properly secure the flight controls with the engine operating at flight idle before exiting the helicopter.

Findings

Personnel issues	Decision making/judgment - Pilot
Personnel issues	Incorrect action selection - Pilot
Personnel issues	Aircraft control - Pilot
Personnel issues	Use of policy/procedure - Pilot
Personnel issues	Use of equip/system - Pilot

Factual Information

History of Flight

Standing-engine(s) operating	Loss of control on ground (Defining event)
Standing-engine(s) operating	AC/prop/rotor contact w person

HISTORY OF FLIGHT

On May 18, 2014, about 1600 mountain standard time (MST), an American Eurocopter Corp, AS350B3E, N840PA, rolled over after landing at the Ramada landing site located at the bottom of the Grand Canyon near Grand Canyon West Airport (1G4), Peach Springs, Arizona. Papillon Airways Inc., DBA Grand Canyon Helicopters, was operating the helicopter under the provisions of 14 *Code of Federal Regulations* (CFR) Part 91. The commercial pilot with a flight instructor (FI) certificate was fatally injured; the helicopter sustained substantial damage. The local repositioning flight departed 1G4 about 1555. Visual meteorological conditions prevailed, and a company flight plan had been filed.

The accident site was 1.75 nm east of 1G4, located at the bottom of the Grand Canyon, approximately 380 feet west of the Colorado River (west shore). The wreckage was found resting on its right side located at the subject landing pad.

Witnesses reported that the pilot reported over the radio that he was inbound to land, and was planning on exiting the helicopter to perform a "fluid level check." After landing, the pilot exited the running helicopter; the helicopter was observed going airborne and then impacting the ground and rolling over.

The pilot was struck by one or more of the main rotor blades, and was fatally injured. The helicopter was examined on site by the investigation team. No abnormalities with the helicopter's airframe or engine systems were noted. The helicopter was recovered for further examination.

PERSONNEL INFORMATION

The operator reported that the 26-year old pilot held a commercial pilot certificate with ratings for rotorcraft and instrument rotorcraft. The pilot held a flight instructor certificate with ratings for rotorcraft and instrument rotorcraft.

The pilot held a first-class medical certificate issued on June 12, 2013. It had no limitations or waivers.

The operator reported that the pilot had a total flight time of 2,125.3 hours. He logged 195.3 hours in the last 90 days, and 79.6 in the last 30 days. He had an estimated 142.5 hours in this make and model. He completed a FAR 135 proficiency flight check on April 17, 2014.

AIRCRAFT INFORMATION

The helicopter was an American Eurocopter AS350B3, serial number 7718. The helicopter's Hobbs meter indicated a total airframe time of 102.8 hours since new. The starting Hobbs for the day of the accident was 97.1 hours. The pilot had flown a total of 5.7 hours on the day of the accident. The helicopter was first registered as new by the operator in January 2014.

The helicopter was equipped with an Appareo Vision 1000 cockpit imaging and flight data monitoring device. The Appareo device was undamaged, and sent to the NTSB Vehicle Recorders Laboratory in Washington, DC for data extraction.

The helicopter was equipped with a 406-mhz Emergency Location Transmitter (ELT). The Armed Forces Rescue Coordination Center (AFRCC) received the ELT activation at 2300z (1600 hours MST.) The first activation did not have any latitude or longitude information. However, the second activation was received at 2329z, which was 29 minutes after the accident with lat/lon data that was 1,500 yards north of the accident site. The ELT did not assist in locating the accident site due to prior reporting by on scene witnesses.

COCKPIT IMAGE DATA RECORDER

The complete factual report of investigation for the onboard image recorder is attached to the docket for this accident.

The Appareo Vision 1000 device is a small self-contained image, audio, and data recorder. The unit is typically mounted in the overhead of an aircraft's cockpit, and records a cockpit image at a rate of four times per second. In addition to cockpit images, the device is also capable of recording two tracks of audio that are synchronized with the image data. The unit also contains a GPS receiver that receives GPS satellite based aircraft time, position, altitude, and speed. In addition to the GPS position, the Appareo unit also has a self-contained real-time inertial measuring unit that provides 3-axis accelerations as well as aircraft pitch, roll, and yaw data.

Track one of the Appareo Vision 1000 recorder is available to be connected to an external audio source such as the aircraft's intercom or radios. Track two records audio picked up by a microphone mounted internal to the Vision 1000 unit. In this installation, no external audio was connected to track one, and the track two microphone only picked up very loud engine/transmission sounds from the helicopter.

The Appareo unit records the image, audio, and parametric data on a removable SD memory card that is inserted into the unit. This removable memory retains approximately the last 2 hours of image and audio data, and about the last 100 hours of parametric data. In addition to the removable memory, the Vision 1000 is also equipped with a crash and fire resistant memory module that is mounted internal to the unit. This internal memory contains an exact duplicate of the data stored on the removable card.

The Appareo unit on this helicopter was connected to its battery through the master battery switch. Anytime the battery switch was turned on, the Appareo unit started to record audio, images, and data. The Vision 1000 unit created a new file for every electrical power application. Some of the recorded files were flights, and some of the files were just short power cycles of the helicopter's battery.

The accident recording captured the helicopter operating in a circular route between 1G4 and an alternate helipad operated by Papillon Airways. The rotorcraft flew a circular pattern between the two

landing zones either ferrying passengers or company employees between the two areas. The recording captured 16.5 complete laps of the circular pattern, and included 36 landings.

Additionally, an event similar to the accident portion of the flight was discovered on the audio/video recording, and was summarized in section 5.2 of the docket report. This event occurred around 14:26:28.76 MST, and began with the rotorcraft touching down at the alternate landing zone near the rafting facility.

The previous event that was captured by the Appareo Vision 1000 device that occurred approximately 1.5 hours prior to the accident event was reviewed by the video group. This event was captured in the same flight file that contained the accident. It was chosen that this portion of the flight be closely reviewed as it captured the only other time on the recording when the accident pilot exited the cockpit of the rotorcraft while the rotorcraft was running. This event began at 3:08:44.51 video elapsed time, and the instrument mounted analog clock read 14:30:20 MST when the pilot touched down at the LVH Pad in the same direction and orientation as the accident portion.

All engine operating parameters appeared normal and consistent with the rotorcraft operating in flight idle. No caution or warning lights appeared illuminated on the caution/warning panel. The air conditioning compressor operation status lights were illuminated indicating that the compressor was operating. The yaw yarn was noted moving on the windscreen in the same manner as during the accident portion of the recording.

The significant differences noted by the group between this particular event and the accident event were as follows:

- The rotorcraft remained at flight idle during the entire duration in which the rotorcraft was on the pad.
- The pilot did not reach for or manipulate the horn switch.
- No changes in Engine Generator Speed (N1) ambient audio or related helicopter instrumentation were noted during the time the rotorcraft was on the ground.
- Sounds were consistent with a forward door opening and remaining open during the time the pilot was outside the view of the camera. No significant buffeting or resonance while the rotorcraft was on the ground was noted.
- The pilot was not visible in the camera's field of view for approximately 44 seconds. In the accident portion, approximately 22 seconds elapsed from the time when the pilot departed the view of the camera until the upset of the rotorcraft.
- The pilot re-entered the cockpit, put on his headset and belted in.

The rotorcraft lifted off the pad at a video elapsed time of approximately 3:10:49.26 (14:28:33.51 MST). The instrument panel clock read approximately 2:31:25.

The transcribed portion of the accident flight recording began at 15:51:46.26 MST when the rotorcraft touched down at (1G4), and ended shortly after the accident when the unit stopped recording at 15:13:48.76 MST.

The accident flight began with the helicopter landing at 1G4, and the passengers debarked with the assistance of external personnel. The helicopter departed from 1G4, and flew to the landing zone, which was located near the Ramada Dock on the Colorado River at the bottom of the Grand Canyon. The pilot was observed making his approach to the landing zone with no aircraft abnormalities noted. There were two wind socks near the landing zone, which indicated a steady wind of 15-20 knots blowing down river.

The pilot made his approach to the southernmost pad, which was the farthest pad from the North Ramada waiting area.

At 15:57:06.51, the rotorcraft touched down at the North Ramada/LVH Pad. The Vehicle Engine Management Display (VEMD) indications responded as expected for a normal touchdown. The altimeter indicated approximately 1,590 feet.

The pilot removed his right hand from the cyclic while the cyclic was free and unfriktioned, and held it with his left hand. The pilot reached down with his right hand while leaning forward in the seat, and made a ratcheting motion, which was consistent with tightening the friction on the cyclic stick.

The pilot then leaned back in the seat, and removed his right foot from the tail rotor pedal. His left foot was still on the left pedal. His hands were off the cyclic, and the cyclic did not appear to move.

The pilot's shoulder harness straps were visible over his shoulders. The pilot glanced downward, a reflection consistent with the pilot removing his shoulder harness was visible in the airspeed gauge.

At 15:57:12.26, the red colored "TWT GRIP" light (Twist Grip Light) illuminated on the annunciator panel. Engine audio was consistent with the reduction of N1 toward ground idle.

The pilot reached for the 30 Alpha Panel with his right hand, and switched the HORN switch "Off". The pilot moved his head out of the line of sight of the camera, and the amber colored "HORN" light was illuminated on the annunciator panel. Turbine Output Temperature (TOT) on the VEMD showed a drop along with the Rotor Speed (Nr) gauge consistent with a selection of ground idle.

At 15:57:13, the Engine Data Recorder for collective position showed a slight increase indicating the collective handle had become unlocked.

The red colored trim yarn was observed outside the windscreen center post at the 3 o'clock position and buffeting indicating a crosswind from the left. This was observed for the duration of the recording.

At 15:57:18.01, the red colored "TWT GRIP" light extinguished on the annunciator panel. Engine audio was consistent with an increase and acceleration of N1 toward flight idle. The TOT indication on the VEMD gauge began to trend up along with the free turbine speed N2/Nr gauge. Engine oil pressure began to climb slightly.

The pilot reached for the 30 Alpha Panel with his right hand, and switched the HORN switch "On". The annunciator panel came into view. No lights were illuminated on the panel.

The pilot reached for and removed his headset. The pilot placed foam earplugs in his ears. The pilot moved his head, and looked down and to the left while he moved his body slightly to the right. A sound similar to a door latch operating and an increase in ambient rotorcraft noise was heard.

At 15:57:33.76, the pilot began to exit the camera's field of view to the left of the rotorcraft.

The pilot was no longer visible in the camera's field of view.

Between 15:57:37.01 and 15:57:47.26, the rotorcraft's airframe was observed slightly buffeting in reference to the ground, which was visible outside the windscreen. Approximately a needle's width increase was observed on the TOT. The Torque (TRQ) was observed increasing about a needle's width. The N1 gauge remained at the bottom of the scale. External audio indicated a sound similar to N1 increasing.

At 15:57:38.26, a sound similar to a door latch operating and a decrease in ambient rotorcraft noise was heard.

Between 15:57:47.50 and 15:57:56.26, an increase in airframe buffeting was observed.

The rotorcraft began to pitch nose down. One second later, the pitch down continued, and the rotorcraft rolled slightly right. Then as it continued to pitch nose down, a roll increase to the right was observed, and a yaw motion to the left began.

At 15:57:58.26, a sound similar to a door latch operating was heard, and an increase in ambient engine noise was heard.

The rotorcraft continued to pitch forward and yaw to the left. Roll increased to the right. The pilot's left leg and brown shorts were visible in the left chin bubble. The pilot appeared to be facing toward the back of the rotorcraft. At this point, the Horizontal Situation Indicator (HSI) indicated that the rotorcraft had yawed approximately 20 - 25° left. The attitude deviation indicator showed approximately 20° nose down and about a 20° angle of bank to the right.

The report described the continuing movements of the helicopter until noises consistent with rotor blades impact with the ground were heard.

ENGINE DATA RECORDER

The Engine Data Recorder (EDR) is an electronic component of the Turbomeca Arriel 2D engine that stores critical flight and engine operation data. The EDR is driven by the Electronic Engine

Control Unit (EECU) which records data into the EDR. The EECU also provides the engine data values stored in the EDR to the avionics.

A copy of the EDR report is attached to the accident docket.

A portion of the report data shows the following:

The rotorcraft lifted off around 15:52:45. Recorded engine values for this portion of flight responded normally and as expected.

By 15:57:07, the collective was once again shown in a lowered position consistent with the rotorcraft performing a landing. The value for Twist Grip Mode transitioned from a value of "Flight" to "Idle" shortly thereafter. During this time, recorded collective position began to increase slightly. In the same region of the plot, Twist Grip Mode transitioned from "Idle" to "Acceleration" and then to "Flight" by 15:57:23. Recorded values for Collective Position began to rise more abruptly. Around 15:58:01, recorded values for Rotor RPM decline sharply. At this time, recorded collective position was changing rapidly. Around 15:58:06, values for Rotor RPM declined abruptly for a second time. Values for Rotor RPM then dropped to zero for the remainder of the recording.

WRECKAGE AND IMPACT INFORMATION

Investigators examined the wreckage at the accident scene.

The main wreckage was located at 35 59.717N, 113 46.914W, at an elevation of 1,288 msl as recorded by a handheld GPS.

The wreckage was observed at the bottom of the Grand Canyon, approximately 380 feet west of the Colorado River (west shore). The wreckage was found resting on its right side located at the subject landing pad (hard ground, dirt pad outlined by stones). The helicopter came to rest on a heading of 200 degrees.

The main rotor assembly exhibited a high power setting type of damage; all damage observed was a consequence similar to that of the ground contact.

Both main cabin doors were found open. The hydraulic 'Isolation' switch on the collective was in its normal position (not activated). The 'Accumulator Test' switch was in its normal position (not activated). The 'EBCAU Test' switch was still safetied and in its normal position (not activated). All circuit breakers were in their correct operating positions.

The helicopter had departed 1G4 with approximately 480 pounds of Jet-A fuel. The fuel tank of the helicopter was not compromised during the accident.

No pre-mishap anomalies were noted with the airframe, the power plant, or the flight control systems. The cabin volume and the majority of the helicopter's structure were relatively intact. All the helicopter's parts and components were accounted for and located in the immediate vicinity of the main wreckage (within approximately two main rotor blade diameters).

MEDICAL AND PATHOLOGICAL INFORMATION

The Mohave County Medical Examiner completed an autopsy on May 20, 2014, with a cause of death due to multiple injuries as a result of the accident. The FAA Civil Aerospace Medical Institute (CAMI), Oklahoma City, Oklahoma, performed toxicological testing on specimens of the pilot.

Analysis of the specimens contained no findings for carbon monoxide, volatiles, and tested drugs. They did not perform tests for cyanide.

TESTS AND RESEARCH

The company had a requirement of landing and shutting down the engine to check the fluid levels of the helicopter every few hours. A review of witness statements and interviews with Papillon personnel revealed a pilot culture in which the line pilots used "fluid checks" as a code for the pilots going to relieve themselves.

The line pilot culture was to tell the loaders on the radio that they were going to do a "fluid check," but cryptically it was known that they would not be shutting down. They would leave the helicopter running while they relieved themselves.

The "fluid check" procedure being used by most of the pilots was to land away from passengers, leave the helicopter running, exit the helicopter, relieve themselves, return to the helicopter, and reposition the helicopter to pick up the passengers.

All of the pilots who admitted to doing a "fluid check" did so with the helicopter at ground idle only. It was undetermined how long this procedure had been used by the line pilots.

The investigation was unable to determine why the accident pilot kept the helicopter at flight idle while he performed the "fluid check."

A review of the company policies and procedures in effect at the time of the accident that referenced idling the engine were a result of the engine manufacturer's warning operators not to idle the engine longer than 30 seconds prior to shutting down the engine.

A portion of the Papillon Company SOP as of Jan 2014 reports the following:

Page 11- Heliport Procedures-

Aircraft Idling: The twist-grip, or fuel control lever, will remain in the "Flight" position at all times. *Idling the aircraft during hot loading, hot fueling or waiting on the ramp is not permitted.*

Page 13- Heliport Procedures-

Control Holds: The PIC will remain at the controls until the rotors come to a complete stop. The only exceptions to this rule are "Pilot Swaps" and "Control Holds". In either case, the PIC will not leave the controls until all passengers are clear of the rotor disc. When giving a control hold,

do not adjust any of the volume or selector switches in the aircraft. Control holds are permitted, but it is at the discretion of the PIC based on conditions.

As of May 04, 2015, a modification to the cooling down procedures was published by the operator.

A portion of the Papillon Additional Policies and Procedures as of May 2015 reports the following:

Page 32

Cooldown Times: Pilots are required to comply with the following cooldown times: 3 minutes for B206L's, and 30 seconds for EC130/AS350. If an EC130/AS350 has been at idle for more than 15 minutes, the pilot will advance the twist grip to flight for one minute and then return back to idle for normal shutdown.

ADDITIONAL INFORMATION

As a result of this accident, Airbus reissued a Safety Information Notice SIN No. 2727-S-00 to all models of Airbus helicopters. The SIN states in part:

Helicopter certification regulations do not address the situation where an operating helicopter is left unattended on the ground i.e., without a qualified pilot at the controls. This situation is governed rather by rules which can vary greatly depending upon policies and procedures deemed acceptable by the appropriate airworthiness authority.

Because it is not the responsibility of Airbus Helicopters to define such policies or procedures, Airbus Helicopters will remove the following wording from all applicable aircraft Flight Manuals: "Unless otherwise specified in applicable operational rules, one pilot should be at the controls as soon as the rotors turn until flight ends and the rotors are fully stopped."

Although this wording will be removed from the applicable aircraft Flight Manuals, Airbus Helicopters continues to believe that leaving a helicopter operating on the ground without a qualified pilot at the controls can be dangerous.

This situation can result in damage to the helicopter and/or to other property, serious bodily injury, or death.

Consequently, Airbus Helicopters maintains that safety is greatly enhanced if there is always a qualified pilot at the controls of a helicopter whenever it is operating and the rotors are turning.

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	26
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	None
Instrument Rating(s):	Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Helicopter; Instrument helicopter	Toxicology Performed:	Yes
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	June 12, 2013
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	April 17, 2014
Flight Time:	2125 hours (Total, all aircraft), 43 hours (Total, this make and model), 2058 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	AMERICAN EUROCOPTER CORP	Registration:	N840PA
Model/Series:	AS350B3 B2	Aircraft Category:	Helicopter
Year of Manufacture:	2013	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	7718
Landing Gear Type:	Skid	Seats:	
Date/Type of Last Inspection:	May 17, 2014 AAIP	Certified Max Gross Wt.:	
Time Since Last Inspection:	6 Hrs	Engines:	Turbo shaft
Airframe Total Time:	103 Hrs at time of accident	Engine Manufacturer:	Turbomeca
ELT:	C126 installed, activated, did not aid in locating accident	Engine Model/Series:	Arriel 2B1
Registered Owner:	AMERICAN HELICOPTERS LLC	Rated Power:	
Operator:	PAPILLON AIRWAYS INC	Operating Certificate(s) Held:	On-demand air taxi (135)
Operator Does Business As:	Grand Canyon Helicopters	Operator Designator Code:	PG9A

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KIGM,3446 ft msl	Distance from Accident Site:	45 Nautical Miles
Observation Time:	22:51 Local	Direction from Accident Site:	190°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	19 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	210°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.79 inches Hg	Temperature/Dew Point:	31°C / -12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	PEACH SPRINGS, AZ (1G4)	Type of Flight Plan Filed:	None
Destination:	Peach Springs, AZ (1G4)	Type of Clearance:	None
Departure Time:	15:55 Local	Type of Airspace:	Class G

Airport Information

Airport:	GRAND CANYON WEST 1G4	Runway Surface Type:	Dirt
Airport Elevation:	4813 ft msl	Runway Surface Condition:	Dry
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Full stop

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	35.9925,-113.781112

Administrative Information

Investigator In Charge (IIC):	Jones, Patrick
Additional Participating Persons:	John C Waugh; Federal Aviation Administration; Las Vegas, NV John Becker; Papillon Airways Inc.; Boulder City, NV Luis Garcia; Papillon Airways Inc.; Boulder City, NV Burl Boyd; Papillon Airways Inc.; Boulder City, NV
Original Publish Date:	September 22, 2016
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=89223

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).