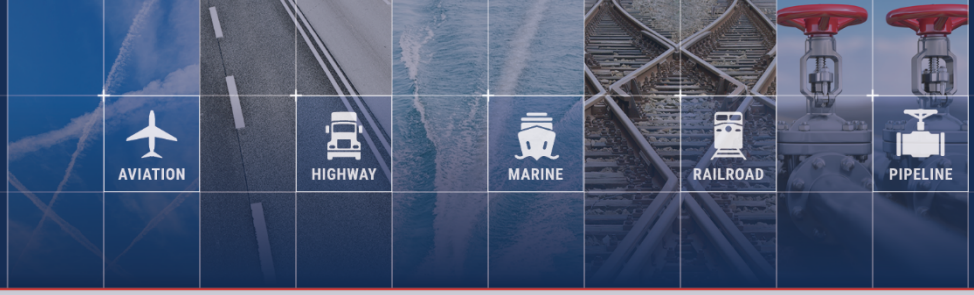

Aviation Investigation Final Report

Location:	Arundel, Maine	**Accident Number:**	ERA23FA006
Date & Time:	October 5, 2022, 13:56 Local	**Registration:**	N902AT
Aircraft:	Beech A36	**Aircraft Damage:**	Destroyed
Defining Event:	Controlled flight into terr/obj (CFIT)	**Injuries:**	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Business		

Analysis

The pilot and passenger departed on an instrument flight rules (IFR) cross-country flight to the pilot's home airport at the conclusion of a business trip. Weather radar imagery superimposed over the airplane's flight track indicated that the airplane was flying toward an area of light intensity echoes associated with light rain to drizzle and instrument meteorological conditions as it approached the area of the destination airport. An AIRMET advisory for these conditions, as well as low-level turbulence, was valid for the accident time.

The pilot confirmed to the controller that he had obtained the most recent weather information at the destination and requested the RNAV (GPS) instrument approach procedure. The nearest airport with recorded weather observations, about 11 nautical miles west of the destination airport, reported 2.5 miles visibility, a broken cloud ceiling at 700 ft above ground level (agl), and an overcast ceiling at 1,000 ft agl about the time of the accident.

When provided vectors to the final approach course, and when issued his approach clearance, the pilot's acknowledgements and read-backs of controller instructions were delayed by several seconds and incomplete. Automatic dependent surveillance – broadcast (ADS-B) track data indicated that the airplane flew through, then turned left toward, the final approach course. About 30 seconds after crossing the initial approach fix, about 200 ft below the minimum altitude, the controller issued the pilot a frequency change and provided a phone number through which to cancel his IFR clearance once on the ground. As the airplane proceeded parallel to and east of the final approach course, it continued to descend, and remained consistently hundreds of feet below the minimum published altitude for each respective segment of the approach. The airplane passed the final approach fix 750 ft below the minimum altitude at 58 knots groundspeed. The airplane continued to descend over the

next .75 miles at a ground speed about 60 kts before the data ended in the vicinity of the accident site.

Several witnesses below the airplane's flight path reported hearing the airplane, but stated that they could not see the airplane due to the low clouds, rain, and fog at the time of the accident. Their descriptions of the engine sound varied from "not normal" to "didn't sound healthy" to sounding "…usual, just lower and louder."

Examination of the accident site revealed severed tree trunks with clean, angular cuts, consistent with the engine producing power at the time of impact. Examination of the wreckage, as well as an engine test run, revealed no pre-impact mechanical anomalies that would have precluded normal operation.

About 8 months before the accident, the airplane was equipped with dual electronic flight instruments that functioned as the primary attitude indicator and directional gyro. These instruments were integrated with the airplane's existing autopilot system. Review of the pilot's logbook indicated that, after receiving about 2 hours of dual instruction, he had flown the airplane about 34 hours since the installation of the avionics, of which 7 hours was recorded as actual IFR.

The instrument meteorological conditions the pilot encountered during the approach to the destination airport would have resulted in a loss of outside visual references, requiring the pilot to rely on the flight instruments to maintain his intended course, altitude, and airspeed. The instrument conditions, likely turbulence, and increased workload imposed by beginning the approach phase of the flight presented a situation that was conducive to the development of spatial disorientation and a loss of situational awareness. Given that the pilot maintained a position east of the final approach course for most of the approach and far below the minimum published altitude throughout the approach, it is likely that he had lost situational awareness of the airplane's position. No information was available to determine the modes or settings of the avionics and/or autopilot during the approach. Whether the pilot's familiarity with the relatively new avionics and their interface with the autopilot contributed to the accident could not be determined based on the available information.

Probable Cause and Findings

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

The pilot's loss of situational awareness, which resulted in an unstabilized approach, descent below published minimum altitudes, and collision with terrain.

Findings

Environmental issues	Low ceiling - Contributed to outcome
Environmental issues	Tree(s) - Contributed to outcome
Personnel issues	Monitoring equip/instruments - Pilot
Personnel issues	Use of equip/system - Pilot
Aircraft	Altitude - Not attained/maintained

Factual Information

History of Flight

Approach-IFR final approach	Controlled flight into terr/obj (CFIT) (Defining event)

On October 5, 2022, about 1356 eastern daylight time, a Beech A36, N902AT, was destroyed when it was involved in an accident near Arundel, Maine. The private pilot and passenger were fatally injured. The airplane was operated as a *Title 14 Code of Federal Regulations Part 91* business flight.

According to a family member and officer of the pilot's construction company, the pilot and passenger were returning from a business trip to Presque Isle, Maine. Automatic dependent surveillance - broadcast (ADS-B) data revealed that the airplane departed Presque Isle International Airport (PQI) about 1220 for Biddeford Municipal Airport (B19), Biddeford, Maine, on an instrument flight rules (IFR) flight plan.

Weather radar imagery superimposed over the airplane's flight track indicated that the airplane was flying toward an area of light intensity echoes associated with light rain to drizzle and instrument meteorological conditions as it approached the area of the destination airport. An AIRMET for these conditions and low-level turbulence was valid for the accident time.

Air traffic control communication information revealed that, at 1340:03, the controller instructed the pilot to descend and maintain 3,000 ft. The pilot confirmed to the controller that he had obtained the most recent weather information and requested the RNAV (GPS) RWY 6 instrument approach procedure at B19.

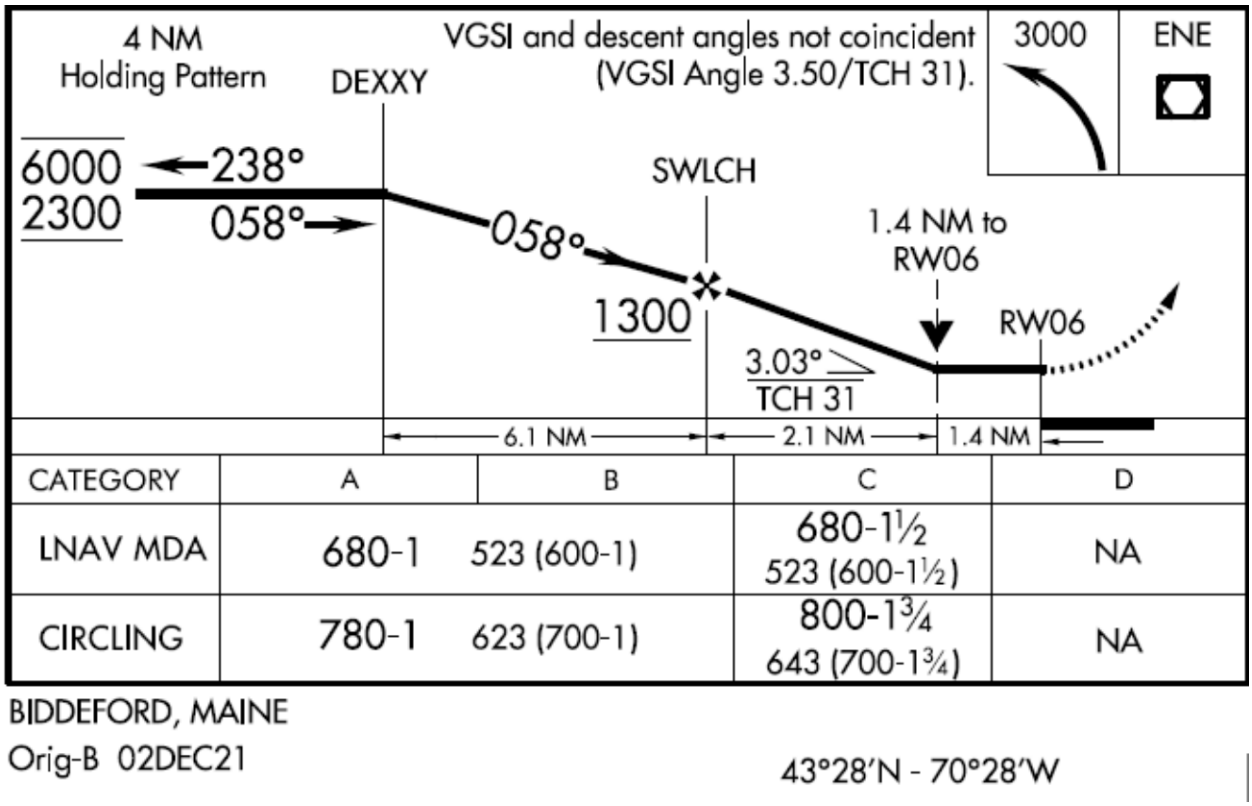

Figure 1 - Profile View of RNAV (GPS) Runway 6 Approach, Biddeford Muni (B19). (NOAA)

At 1340:56, the controller advised the pilot to fly heading, "two five zero… vectors to final" which the pilot acknowledged. The airplane's ground track approximated a left downwind leg for the runway 6 traffic pattern at B19. The pilot was subsequently vectored through a 90° left turn, and at 1349:29, the controller advised the pilot, "Two miles from DEXXY [the initial approach fix], turn left to 090°, maintain 2,300 (ft) until established on the final approach course, cleared RNAV 6 approach Biddeford." The airplane's ground speed was about 125 knots (kts) at that time.

Eleven seconds later, the pilot replied, "Turn… um… repeat that please." The controller repeated the instructions and the approach clearance, and the pilot replied, "Cleared for the approach, left 090, and, um, I guess that's it."

The airplane flew on an approximate 90° ground track through the final approach course, then turned left, and continued about parallel to the final approach course. The airplane passed abeam the initial approach fix at 109 kts ground speed at an altitude of about 2,100 ft, 200 ft below the minimum descent altitude for that segment of the approach.

At 1351:32, the controller issued a radio frequency change and offered options for the pilot to cancel his IFR flight plan in the air or on the ground. The pilot accepted a telephone number to call after landing and advised the controller that he was changing to the B19 common traffic

advisory frequency at 1352:01. At that time, the airplane was about 2,100 ft at 110 kts groundspeed.

The airplane passed the final approach fix at 550 ft, which was 750 ft below the minimum descent altitude for that segment of the approach and had slowed to 58 kts ground speed. The airplane continued to descend over the next .75 miles at a ground speed about 60 kts before the data ended in the vicinity of the accident site.

Figure 2 - View of Approach Track of Accident Flight with Altitudes at IAF and FAF (NTSB)

Several witnesses below the airplane's flight path reported hearing the airplane but stated that they could not see the airplane due to the low clouds, rain, and fog at the time of the accident. One witness about .5 miles from the accident site said that he was drawn to the airplane's sound and saw it briefly before it disappeared behind trees. He said that he did not hear the airplane contact trees or terrain, but "felt the ground shake." He said that the sound of the engine was "not the normal rhythm of a piston engine… it would sputter and die out." Another witness said that he was, "inside my shop when I heard it coming very low. It didn't sound good. It wasn't sputtering, but it didn't sound good. It was steady, but it didn't sound healthy to me."

A third witness located below the airplane's flight path described the sound of the engine as "low, loud, and steady. It sounded [as] usual, just lower and louder." He said he ran to look out his bay window in the direction of travel but could not see the airplane because "the clouds were too low. Visibility was not good."

Pilot Information

Certificate:	Commercial	**Age:**	81,Male
Airplane Rating(s):	Single-engine land; Single-engine sea	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	
Medical Certification:	Class 3	**Last FAA Medical Exam:**	November 12, 2021
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	2514.3 hours (Total, all aircraft), 976.5 hours (Total, this make and model), 4 hours (Last 90 days, all aircraft), 0 hours (Last 30 days, all aircraft)		

Passenger Information

Certificate:		**Age:**	55,Male
Airplane Rating(s):		**Seat Occupied:**	Right
Other Aircraft Rating(s):		**Restraint Used:**	
Instrument Rating(s):		**Second Pilot Present:**	No
Instructor Rating(s):		**Toxicology Performed:**	
Medical Certification:		**Last FAA Medical Exam:**	
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:			

The pilot held a commercial pilot certificate with ratings for airplane single-engine land and instrument airplane. His Federal Aviation Administration (FAA) third-class medical certificate was issued August 2, 2021. Examination of the pilot's most recent logbook revealed that he had accrued 2,514 total hours of flight experience, of which 977 hours were in the accident airplane make and model.

The pilot completed a flight review on February 22, 2021.

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	**Registration:**	N902AT
Model/Series:	A36	**Aircraft Category:**	Airplane
Year of Manufacture:	1991	**Amateur Built:**	
Airworthiness Certificate:	Utility	**Serial Number:**	E2623
Landing Gear Type:	Retractable - Tricycle	**Seats:**	6
Date/Type of Last Inspection:	November 1, 2021 Annual	**Certified Max Gross Wt.:**	
Time Since Last Inspection:	33.1 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	3953.2 Hrs as of last inspection	**Engine Manufacturer:**	CONT MOTOR
ELT:	Installed	**Engine Model/Series:**	IO-550 SERIES
Registered Owner:	ABET	**Rated Power:**	300 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

According to FAA and maintenance records, the airplane was manufactured in 1991 and was powered by a Continental IO-550-B, 300-horsepower engine. The airplane's most recent annual inspection was completed November 1, 2021, at 3,953.2 total aircraft hours.

Airworthiness documentation indicated that dual Garmin GI 275 electronic flight instruments (Attitude/Attitude Direction Indicator) were installed in the airplane on February 4, 2022. (See figure 3.) The FAA Form 337 filed for the installation stated, "Installed Dual Garmin GI275 with internal ADAHARS as Directional Gyro and GI275 with Autopilot interface as Attitude Indicator, and GI275 as Copilot ADI…per STC SA02658SE." According to a flight instructor who flew with the pilot following installation of the GI275s, the system installed in the accident airplane integrated with the airplane's S-TEC 55X autopilot.

The pilot logged 33.8 hours of experience in the accident airplane between the installation of the Garmin GI 275 displays and the accident flight, of which 7.2 hours was in actual instrument meteorological conditions. He logged 2 hours of dual flight instruction received on February 28, 2022. In the notes section, he annotated "familiarization" with the new avionics, two RNAV approaches flown, and a "go around" performed. There were no further dual-instruction-received entries annotated.

Figure 3 – Garmin GI 275 Attitude Indicator [AI/ADI] (Garmin.com)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KSFM,244 ft msl	**Distance from Accident Site:**	8 Nautical Miles
Observation Time:	13:56 Local	**Direction from Accident Site:**	259°
Lowest Cloud Condition:		**Visibility**	2.5 miles
Lowest Ceiling:	Broken / 700 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	10°	**Turbulence Severity Forecast/Actual:**	Moderate /
Altimeter Setting:	29.97 inches Hg	**Temperature/Dew Point:**	13°C / 12°C
Precipitation and Obscuration:	Moderate - None - Mist		
Departure Point:	Presque Isle, ME (KPQI)	**Type of Flight Plan Filed:**	IFR
Destination:	Arundel, ME	**Type of Clearance:**	IFR
Departure Time:	12:19 Local	**Type of Airspace:**	Class G

At 1356, the weather reported at Sanford Seacoast Regional Airport (SFM), 11 miles west of B19, included wind from 010° at 7 knots, 2 1/2 miles visibility in light rain and mist, ceiling broken at 700 ft above ground level (agl), overcast at 1,000 ft agl, temperature 13°C, dew point temperature 12°C, and an altimeter setting of 29.97 inches of mercury (inHg).

The next closest weather reporting location was Portland International Jetport (PWM), Portland, Maine, located 13 miles northwest of B19 at an elevation of 76 ft and directly along the airplane's route of flight. At the time of the accident, the reported conditions included wind from 030° at 8 knots, 10 miles or more visibility, overcast ceiling at 1,400 ft agl, temperature 13°C, dew point temperature 12°C, and an altimeter setting of 29.97 inHg.

The pilot obtained an online weather briefing that contained both text and graphic depictions of AIRMETs for IFR, mountain obscuration, icing, and turbulence in the area of his route of flight and that of the destination airport.

The terminal area forecast (TAF) available prior to the airplane's departure from KPQI was issued at 0720 and expected marginal visual flight rules conditions to prevail during the period with winds from 030 at 6 knots, visibility 6 miles or more in light rain, with a broken ceiling at 1,500 ft agl. The next scheduled TAF was issued at 1339, or 17 minutes before the accident and forecasted IFR conditions with visibility 2 miles in light rain and mist, with a ceiling overcast at 1,200 ft agl.

Airport Information

Airport:	BIDDEFORD MUNI B19	**Runway Surface Type:**	Asphalt
Airport Elevation:	157 ft msl	**Runway Surface Condition:**	Wet
Runway Used:	6	**IFR Approach:**	RNAV
Runway Length/Width:	3000 ft / 75 ft	**VFR Approach/Landing:**	None

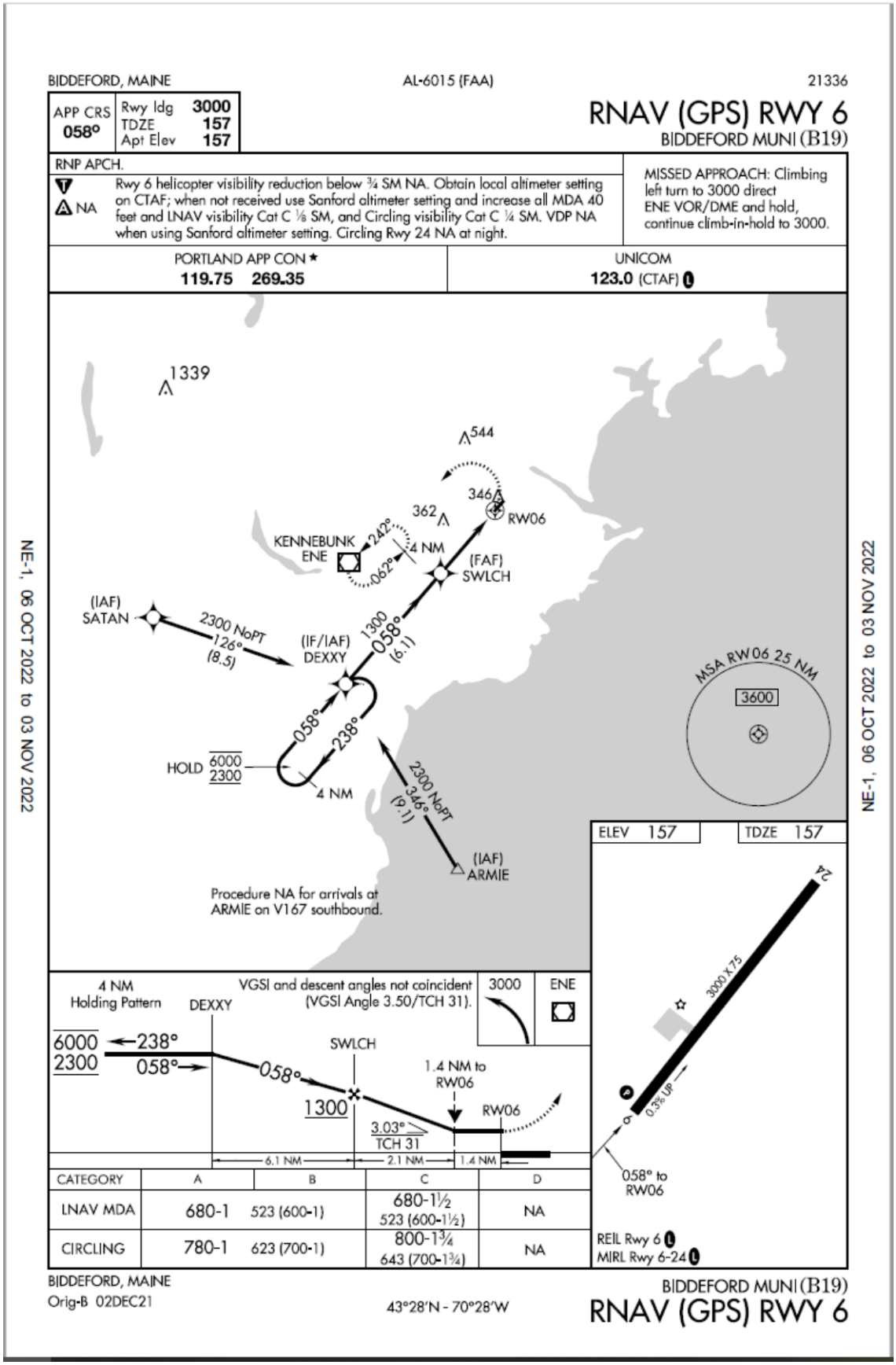
BIDDEFORD, MAINE
AL-6015 (FAA)
21336
APP CRS 058°
Rwy ldg 3000
TDZE 157
Apt Elev 157
RNAV (GPS) RWY 6
BIDDEFORD MUNI (B19)
RNP APCH.
NA
Rwy 6 helicopter visibility reduction below ¾ SM NA. Obtain local altimeter setting on CTAF; when not received use Sanford altimeter setting and increase all MDA 40 feet and LNAV visibility Cat C ⅛ SM, and Circling visibility Cat C ¼ SM. VDP NA when using Sanford altimeter setting. Circling Rwy 24 NA at night.
MISSED APPROACH: Climbing left turn to 3000 direct ENE VOR/DME and hold, continue climb-in-hold to 3000.
PORTLAND APP CON ★
119.75 269.35
UNICOM
123.0 (CTAF)
1339
544
346
362
RW06
KENNEBUNK ENE
242°
062°
4 NM
(FAF) SWLCH
(IAF) SATAN
2300 NoPT
126°
(8.5)
(IF/IAF) DEXXY
1300
058°
(6.1)
MSA RW 06 25 NM
3600
058°
238°
HOLD
6000
2300
4 NM
2300 NoPT
346°
(9.1)
(IAF) ARMIE
Procedure NA for arrivals at ARMIE on V167 southbound.
ELEV 157
TDZE 157
24
3000 X 75
0.3% UP
058° to RW06
REIL Rwy 6
MIRL Rwy 6-24
4 NM Holding Pattern
DEXXY
VGSI and descent angles not coincident (VGSI Angle 3.50/TCH 31).
3000
ENE
6000
2300
238°
058°
SWLCH
058°
1300
1.4 NM to RW06
RW06
3.03°
TCH 31
6.1 NM
2.1 NM
1.4 NM
CATEGORY | A | B | C | D
LNAV MDA | 680-1 | 523 (600-1) | 680-1½ 523 (600-1½) | NA
CIRCLING | 780-1 | 623 (700-1) | 800-1¾ 643 (700-1¾) | NA
BIDDEFORD, MAINE
Orig-B 02DEC21
43°28'N - 70°28'W
BIDDEFORD MUNI (B19)
RNAV (GPS) RWY 6
NE-1, 06 OCT 2022 to 03 NOV 2022
NE-1, 06 OCT 2022 to 03 NOV 2022

Figure 4 - RNAV (GPS) RWY 6 Instrument Approach Chart Biddeford Muni (B19) (NOAA)

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	1 Fatal	**Aircraft Fire:**	On-ground
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 Fatal	**Latitude, Longitude:**	43.423172,-70.520445(est)

Local emergency services personnel located the airplane's fuselage in hilly, wooded terrain about 1 hour after the accident, and the wreckage was examined at the accident site the following day. The initial impact point was in a tree about 40 ft above the ground. The wreckage path was oriented 050° and was about 150 ft in length; all major components of the airplane were accounted for at the scene. The fuselage came to rest upright with the engine and propeller still attached. The propeller blades displayed similar twisting, bending, and chordwise scratching.

The cockpit, cabin area, and nearly all the empennage, were consumed by a post-crash fire. The avionics were destroyed, and no information was available to determine the modes or settings of the avionics and/or autopilot during the approach. The tail section remained largely intact. The wings displayed impact damage consistent with collision with trees and terrain. Flight control cable continuity was confirmed from the cockpit to the flight control surfaces through several breaks consistent with impact and thermal damage.

The engine was separated from the airframe. The propeller was rotated by hand and continuity was established through the powertrain to the valvetrain and the accessory section. Compression was attained using the thumb method. The magnetos were secure in their mounts and produced spark at all terminal leads when the crankshaft was rotated.

The engine was examined, and a test run was performed at the manufacturer's facility.

The throttle body was not shipped with the engine from the recovery facility, so an exemplar throttle body was attached to the engine for the engine run. The engine-driven fuel pump remained attached to the engine and exhibited thermal damage. The fuel pump was removed, and bench tested for functionality. The pump operated on the test bench and was reinstalled on the engine before the test run was conducted. The damaged propeller was removed, and a club prop was installed for use in the test cell.

The following items were removed from the engine to facilitate an engine run:

• The alternator was impact damaged, removed, and a plate installed where the alternator attached to the engine.

• The engine baffling was removed.

• The starter exhibited thermal damage and was removed and replaced by an exemplar unit.

• The ignition harness exhibited damage and was replaced with an exemplar unit.

• All the air intakes on the engine were impact damaged, these were removed and replaced with exemplar intakes.

• The oil filter exhibited thermal damage and was replaced with an exemplar filter.

• The exhaust was impact damaged and replaced with straight pipe exhaust.

• The propeller governor was removed and replaced with a test cell plate.

• The tachometer drive was removed, and the opening covered with a plate.

• The vacuum pump was not shipped with the engine and the position on the crankcase was plated over.

• The pushrod and pushrod housing for the No. 5 cylinder exhaust valve were impact damaged and replaced with exemplar units.

The oil cooler leaked at engine start due to impact damage and was replaced with an exemplar unit.

An engine test run was then performed, and the engine accelerated smoothly from idle to a maximum of about 2,550 rpm (maximum-rated output was 2,700 rpm) with the throttle fully open. During the engine test run, the engine idled at about 500 rpm. The engine was then accelerated to 1,800 rpm and ran smoothly at that power setting for about 3 minutes. It was then advanced to about 2,100 rpm, which would be consistent with a power setting used for an instrument approach procedure. The engine ran smoothly at that power setting for about 4 minutes. The engine ran at maximum rpm for about 3 minutes. A magneto check was performed at 2,100 rpm; when switched to only the left magneto, a loss of 124 rpm was observed. When switched to only the right magneto, a loss of 135 rpm was observed.

During the test run, the No. 6 cylinder exhaust gas temperature (EGT) was "low," possibly due to an inoperative test cell EGT probe. The cylinder head temperature was on the "low side" of the normal operating range.

The fuel flow rate was low at full throttle, which was consistent with the lower rpm achieved at that power setting. The altitude-compensating engine-driven fuel pump was disassembled; the aneroid bellows were punctured by impact damage and therefore fully expanded, which was consistent with the low fuel flow.

Medical and Pathological Information

The Maine State Medical Examiner, Augusta, Maine, performed an autopsy of the pilot and determined the cause of death as "blunt force injuries."

The FAA Forensic Sciences Laboratory performed toxicological testing on the pilot. Test results were negative for the presence of illegal drugs, contraindicated drugs, and alcohol.

Additional Information

According to the pilot’s son-in-law and business associate, the pilot went out to “practice instrument approaches” on the day before the accident flight, which was his custom. The pilot did not record the flight in his logbook.

ADS-B and weather data revealed that the airplane departed B19 the day before the accident in visual flight rules conditions and flew a series of left and right turns in the area southwest of B19 before maneuvering toward the initial approach fix for the RNAV (GPS) Runway 6 approach at B19. An ADS-B ground track depiction of the flight revealed only one track at the end of the flight that approximated the instrument approach procedure.

Once the airplane had reversed course and aligned with the inbound course of the approach, the data depicted an unstabilized approach with significant divergences in both airspeed and altitude, which was inconsistent with the use of the autopilot in a rate/descent mode.

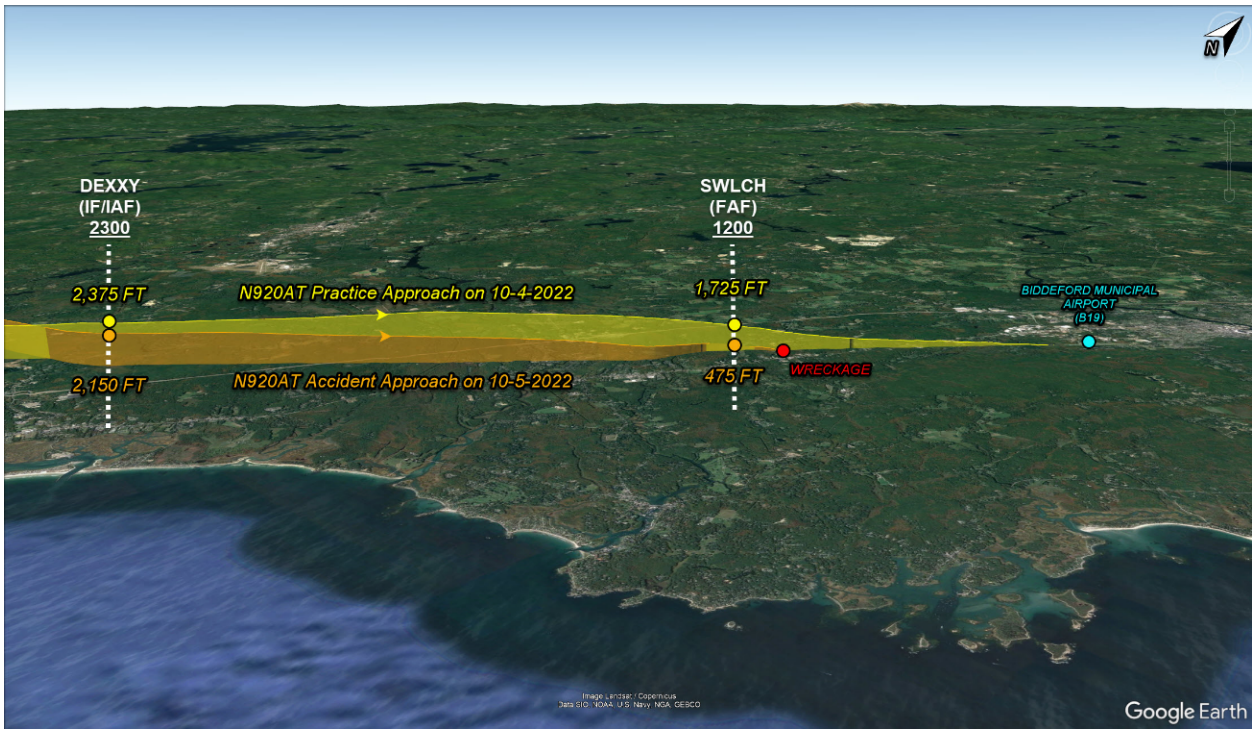

Figure 5 – Profile View of Practice and Accident Approaches at B19 (NTSB)

The Instrument Flying Handbook (FAA-H-8083-15B), in a section titled, “Airplane Attitude Instrument Flying using an Electronic Flight Display,” states:

Fixation, or staring at one instrument, is a common error observed in pilots first learning to utilize trend indicators. The pilot may initially fixate on the trend indicator and make adjustments with reference to that alone. Trend indicators are not the only tools to aid the pilot in maintaining the desired power or attitude; they should be used in conjunction with the primary and supporting instruments in order to better manage the flight. With the introduction of airspeed tapes, the pilot can monitor airspeed to within one knot. Fixation can lead to attempting to keep the airspeed to an unnecessarily tight tolerance.

The Pilot Handbook of Aeronautical Knowledge (FAA-H-8083-23B), states that, “Single-Pilot Resource Management (SRM) is about how to gather information, analyze it, and make decisions.” One practical application of SRM is the 5 P model, in which a pilot will regularly evaluate the Plan, Plane, Pilot, Passengers, and Programing. This evaluation should be accomplished before, during, and after a flight has been completed. An article produced by FAA Safety Briefing states:

The programming can refer to both panel-mounted and hand-held equipment. Today’s electronic instrument displays, moving map navigators, and autopilots can reduce pilot workload and increase pilot situational awareness. However, the task of programming or operating both installed and handheld equipment (e.g., tablets) can create a serious distraction from other flight duties. This part of the 5P approach reminds the pilot to mitigate this risk by having a thorough

understanding of the equipment long before takeoff, and by planning in advance when and where the programming for approaches, route changes, and airport information gathering should be accomplished, as well as times it should not be attempted.

Preventing Similar Accidents

Reduced Visual References Require Vigilance (SA-020)

The Problem

About two-thirds of general aviation accidents that occur in reduced visibility weather conditions are fatal. The accidents can involve pilot spatial disorientation or controlled flight into terrain. Even in visual weather conditions, flights at night over areas with limited ground lighting (which provides few visual ground references) can be challenging.

What can you do?

- Obtain an official preflight weather briefing, and use all appropriate sources of weather information to make timely in-flight decisions. Other weather sources and in-cockpit weather equipment can supplement official information.
- Refuse to allow external pressures, such as the desire to save time or money or the fear of disappointing passengers, to influence you to attempt or continue a flight in conditions in which you are not comfortable.
- Be honest with yourself about your skill limitations. Plan ahead with cancellation or diversion alternatives. Brief passengers about the alternatives before the flight.
- Seek training to ensure that you are proficient and fully understand the features and limitations of the equipment in your aircraft, particularly how to use all features of the avionics, autopilot systems, and weather information resources.
- Don’t allow a situation to become dangerous before deciding to act. Be honest with air traffic controllers about your situation, and explain it to them if you need help.
- Remember that, when flying at night, even visual weather conditions can be challenging. Remote areas with limited ground lighting provide limited visual references cues for pilots, which can be disorienting or render rising terrain visually imperceptible. When planning a night VFR flight, use topographic references to familiarize yourself with surrounding terrain. Consider following instrument procedures if you are instrument rated or avoiding areas with limited ground lighting (such as remote or mountainous areas) if you are not.

- Manage distractions: Many accidents result when a pilot is distracted momentarily from the primary task of flying.

See https://www.ntsb.gov/Advocacy/safety-alerts/Documents/SA-020.pdf for additional resources.

The NTSB presents this information to prevent recurrence of similar accidents. Note that this should not be considered guidance from the regulator, nor does this supersede existing FAA Regulations (FARs).

Administrative Information

Investigator In Charge (IIC):	Rayner, Brian
Additional Participating Persons:	Mathew Hall; FAA/FSDO; Portland, ME Casey Love; Textron Aviation; Wichita, KS Phillip Grice; Continental Aerospace; Mobile, AL
Original Publish Date:	June 12, 2024
Last Revision Date:	
Investigation Class:	Class 3
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=106070