AIRCRAFT ACCIDENT INVESTIGATION REPORT

CRASH

NON-PROFIT ORGANIZATION (NPO)

MESH SUPPORT

BEECHCRAFT A36, JA4577

IEJIMA AIRPORT, OKINAWA PREFECTURE, JAPAN

AT ABOUT 12:46 JST, MARCH 12, 2022

May 24, 2024

Adopted by the Japan Transport Safety Board

Chairperson TAKEDA Nobuo
Member SHIMAMURA Atsushi
Member MARUI Yuichi
Member SODA Hisako
Member NAKANISHI Miwa
Member TSUDA Hiroka

1. PROCESS AND PROGRESS OF THE AIRCRAFT ACCIDENT INVESTIGATION

1.1 Summary of the Accident	On Saturday, March 12, 2022, when making an approach to Runway 04 at Iejima Airport for familiarization training, a Beechcraft A36, JA4577, operated by the NPO Mesh Support, collided with the fence and slopes short of the runway, and then the aircraft bounced, crashed into the grassy area short of the runway, and was destroyed and bursting into flames. On board the aircraft were the captain and one passenger, who suffered fatal injuries.
1.2 Outline of the Accident Investigation	On March 12, 2022, the Japan Transport Safety Board (JTSB) designated an investigator-in-charge and two other investigators to investigate this accident. An accredited representative of the United States of America, as the State of Design and Manufacture of the aircraft involved in the accident, participated in the investigation. Comments on the draft Final Report were invited from the parties relevant to the cause of the accident and the Relevant State.

2. FACTUAL INFORMATION

1 History of the Flight

According to the statements of the pilot of the NPO Mesh Support (hereinafter referred to as “Pilot A”) who was watching at the ground the aircraft’s flight from its take-off to the downwind leg, the NPO relevant personnel and a witness who was having lunch during the work in the vicinity of the accident site, as well as the radar track records, the history of the flight is summarized as below:

Figure 1: The Aircraft

On March 12, 2022, at about 08:20 Japan Standard Time (JST: UTC + 9hrs, unless otherwise stated all times are indicated in JST on a 24-hour clock), a Beechcraft A36, JA4577, operated by the NPO, took off from Naha Airport, being piloted by Pilot A, with a Pilot A, a captain who applied for the pilot recruitment of the NPO, a passenger in charge of supervision of the NPO’s airplane (hereinafter referred to as "Passenger B"), and one physician who was involved in medical activities by the NPO on board the aircraft. At about 08:42, the aircraft landed at Iejima Airport (hereinafter referred to as "the Airport"). During this flight, there was no anomality found in the aircraft.

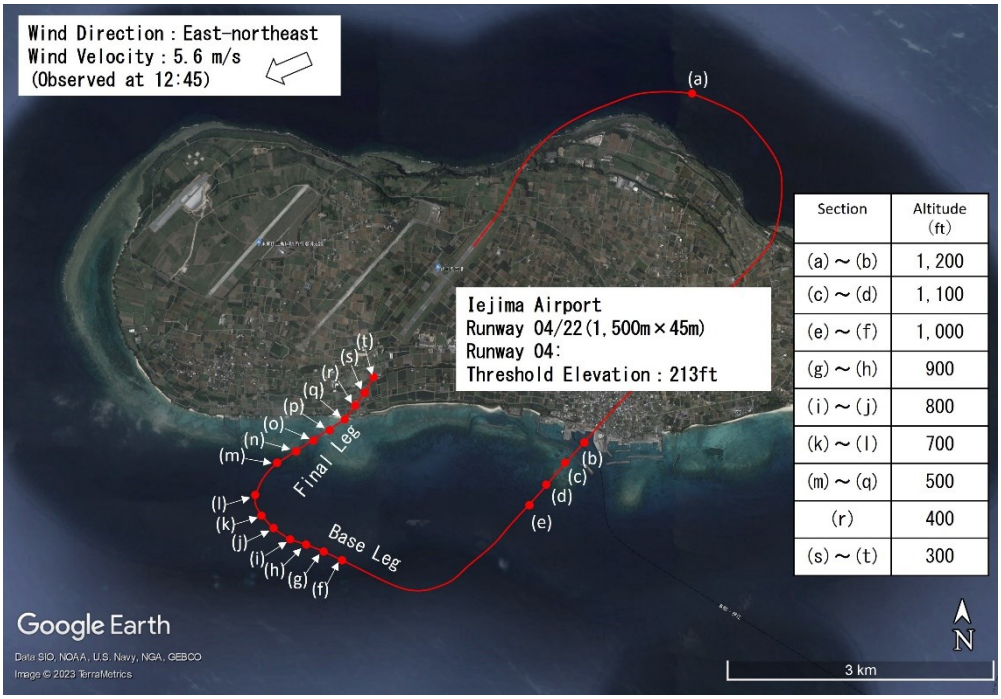
As seeing and considering whether to hire the captain, the NPO lent the aircraft to the captain free of charge as the captain had no flight experience with Beechcraft A36 airplane, and had Passenger B be on board with the captain for the familiarization flight based on the plan made by Passenger B.

Even on the day of the accident, for the purpose of the captain’s familiarization with take-off and landing with the same type of aircraft, at about12:40, the aircraft took off from Runway 04 in order to conduct take-off and landing at the airport, with only two persons, the captain seated in the left pilot seat and Passenger B seated in the right pilot seat. This was the second flight with the same type of aircraft for the captain, and in the past first flight, the captain had experienced one take-off and landing at Naha Airport, respectively.

Pilot A felt nothing unusual about the physical and mental state of the captain and Passenger B. And at the airport terminal building, Pilot A watched until the aircraft flew on the right downwind leg after it took off but found no abnormality in the aircraft. After that, Pilot A was engaged in the other duties and thus did not watch how the aircraft was flying.

According to the radar records, the aircraft turned to the right after the take-off, flew the right downwind leg at an altitude of 1,200 ft, changed the altitude to 1,000 ft. The aircraft maintained the altitude of 1,000 ft until the half of the right base leg, then commenced descending. The captain broadcast by one-way transmission, saying “Final Approach”, which the

NPO relevant personnel heard in the airport terminal building.



Section	Altitude (ft)
(a) ～ (b)	1,200
(c) ～ (d)	1,100
(e) ～ (f)	1,000
(g) ～ (h)	900
(i) ～ (j)	800
(k) ～ (l)	700
(m) ～ (q)	500
(r)	400
(s) ～ (t)	300

Figure2: Estimated Flight Route Based on Radar Records (Note)

(Note) Although the position and altitude of the aircraft were out of radar coverage, which the two nearby radar sites (the air route surveillance radar (Mt. Yaedake) and the aerodrome surveillance radar (Naha Airport) partially captured, thus the position and altitude were estimated based on those records. (See 2.7 (9) for details.)

As hearing an engine sound, the witness looked back and found the aircraft flying lower than usual. After that, the aircraft collided with the fence installed in front of the runway with its nose slightly up, then further hit slopes short of the runway, bounced, and crashed into the grassy area short of Runway 04. Before long, a fire broke out and the witness heard a blast sound several times.

Upon hearing the transmission of Final Approach, Pilot A came out from the terminal building, looked toward the direction of the threshold of Runway 04, and found that there was black smoke trailing up. Together with one airport personnel and one NPO personnel, Pilot A headed to the site with fire extinguishers for firefighting. During the firefighting, a fire truck arrived at the scene and extinguished the fire about one hour later.

Both the captain and Passenger B found inside the aircraft suffered fatal injuries.

This accident occurred at about 12:46 on March 12, 2022, about 100 m southwest of the threshold of Runway 04 at Iejima Airport (26°43'00" N, 127°46'53" E).

2.2 Injuries to Persons	Two fatal injuries.
2.3 Damage	(1) Extent of damage: Destroyed (2) Other damage ・Fence: Collapsed (approximately 8 m wide) ・Fence posts: Collapsed and broken
2.4 Personnel Information	Captain Age 61 Commercial pilot certificate (Airplane) January 24, 1983 Type rating for single-engine (land) January 24, 1983 Pilot competency assessment/confirmation Expiration date of piloting capable period: March 4, 2024 Class 1 aviation medical certificate Validity: February 6, 2023 Total flight time 5,227 hours 10 minutes (According to the personal history submitted by the captain to the NPO) Flight time in the last 30 days (Note) About 1 hour 30 minutes Flight time on the same type of aircraft (Note) About 1 hour 30 minutes Flight time in the last 30 days (Note) About 1 hour 30 minutes (Note) Time estimated from the records of the NPO. The captain had not operated an aircraft for about seven years until March 2022 when the captain passed a pilot competence assessment /confirmation with a flight simulator.
2.5 Aircraft Information	(1) Aircraft type: Beechcraft A36 Serial number: E-2616 Date of Manufacture: April 8, 1991 Airworthiness certificate: No. Dai-2021-420 Validity: October 12,2022 Total flight time: About 2,173 hours Periodical check (100h Check): Conducted on February 24, 2022 (2) Onboard fuel The aircraft was fueled at Naha Airport the day before the accident, and Pilot A confirmed that the aircraft was loaded with approximately 64 gallons (US) (about 242 litters) of fuel before its departure from Naha Airport. (3) Weight and balance When the accident occurred, the weight and the position of the center of gravity of the aircraft were within the allowable range. (4) Flight Data Recorder and Others The aircraft was not required to be equipped with a flight data recorder or other device to record flight conditions and was not equipped with them.
2.6 Meteorological Information	(1) "Aviation Weather Overview and Outlook" in the Regional Aviation Weather Commentary (Okinawa Region) issued by the Naha Aviation Weather Station at 06:30 on March 12, 2022 were as follows: a. As of 06:00 on March 12, weather in the Okinawa region is mostly fine as within a high pressure. b. Scattered radar echoes around the Okinawa region are observed.

c. The meteorological conditions at each airport in the Okinawa region are in visual meteorological conditions.

d. The Okinawa region is expected to continue to be within a high pressure and it will be mostly fine through 09:00 on March 13.

(2) According to observations at the airport, wind direction, wind velocity and precipitation during the time when the accident occurred were as follow:

Table 1: Wind Direction, Wind Velocity and Precipitation during the Time Period when the Accident Occurred

Time of Observation	Wind Direction	Wind Velocity (m/s)	Precipitation (mm)
12:40	East-northeast	5.4	0.0
12:45	East-northeast	5.6	0.0
12:50	East-northeast	5.8	0.0

2.7 Additional Information

(1) Iejima Airport

The runway installed at the airport is Runway 04/22 with 1,500 m long, 45 m wide and runway direction (true bearing) of 038.87°/ 218.87°. The elevation of the Airport is 238 ft, and the elevation of the threshold of Runway 04 is 213 ft. Furthermore, Runway 04 has an uphill gradient of 1 % to a point of 900m, and 0.2 % from a point of 900m to its end from its threshold toward its end.

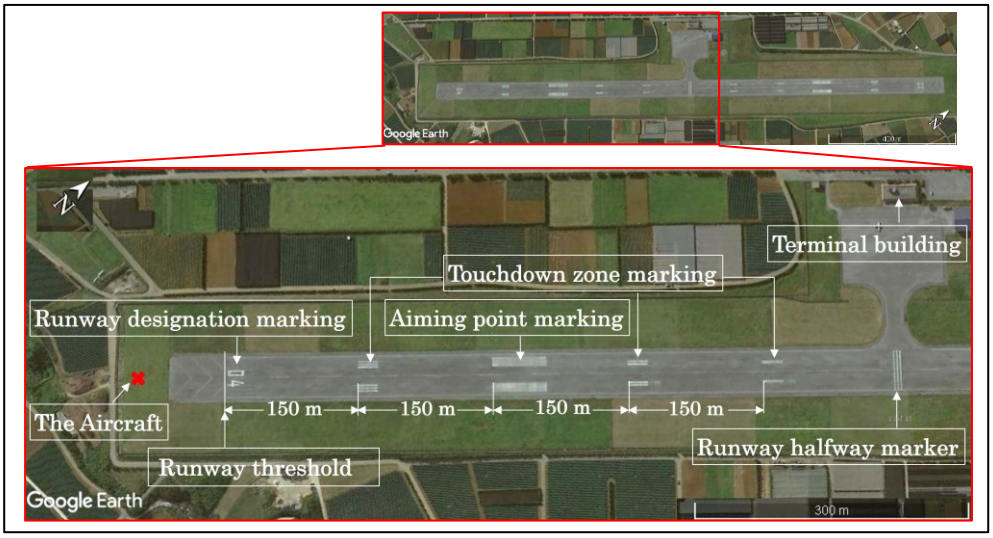


Figure 3: Iejima Airport

On the runway, a runway designation marking*1, a runway centerline marking, an aiming point marking*2, touchdown zone markings*3, a runway halfway marker, and a runway side stripe marking are provided, but no

*1 "Runway designation marking" refers to the whole number nearest the one-tenth of the magnetic North (round off to one decimal place) when viewed from the direction of approach and the runway number that shall be located near the threshold of a runway.

*2 "Aiming point marking" refers to a marking to indicate a landing aiming point for all runways equipped with instrument approaches and a runway at or longer than 1,200 m in length without an instrument approach.

*3 "Touchdown zone marking" refers to a marking to indicate a touchdown area for a runway with 1,200 m length or more, a runway for instrument approaches with a length at or more than 900 m and less than 1,200 m, and a land heliport.

aerodrome lights including precision approach path indicators.

Passenger B used to instruct the NPO's pilots to set the approach target to the runway designation marking instead of the aiming point marking and land on the approach path with a descent angle of 3°.

(2) Accident Site

The aircraft had been burned out with its nose pointed in the direction of about 120° near 100 m southwest of the threshold of Runway 04 (see Figure 4 (a)). The grassy area and slopes on the southwest side of the aircraft scorched black.

Besides, on the slope starting from about 110 m southwest of the threshold of Runway 04, the impact marks of the aircraft, part of the nose landing gear detached from the aircraft, and others were found (see Figure 4 (d)).

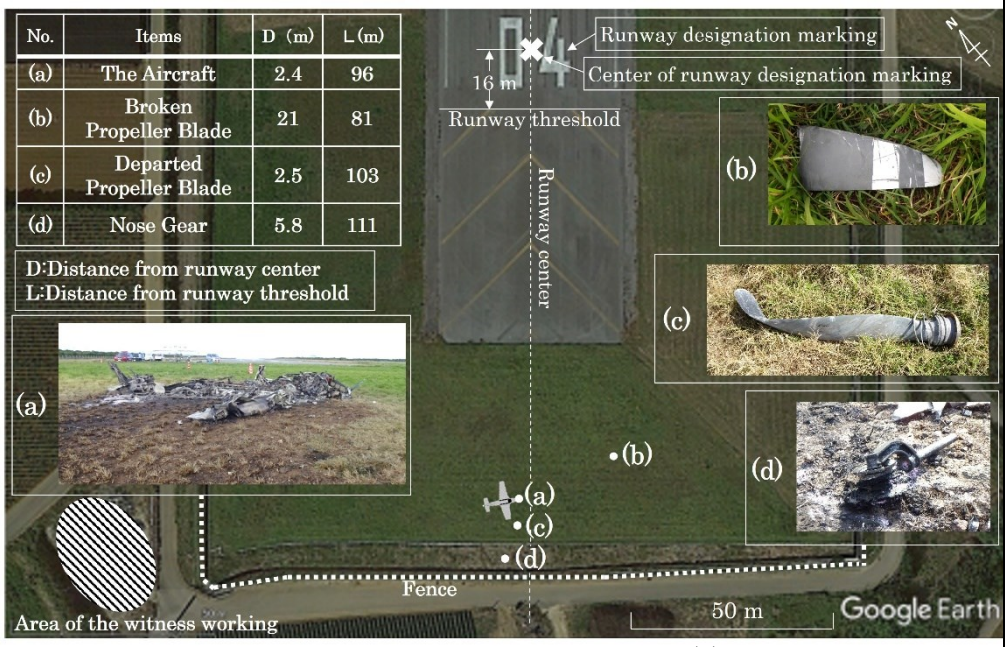


Figure 4: The Accident Site (1)

Furthermore, the fence, which had been located about 118 m southwest of the threshold of Runway 04 to indicate the airport boundary, collapsed about 8 m wide including four posts. On the outer two of the four broken posts, the same paint color marks as the paint color of the aircraft's wings were found at about 1.8 m from the base of the 2.2 m high posts.

Figure 5: The Accident Site (2)

(3) Summary of Damage

The cockpit, right wing, right horizontal stabilizer and vertical stabilizer of the aircraft were too significantly burned out to recognize their original forms. Each instrument also burned out, and except that the altimeter was reading approximately 200 ft, it was unable to read the indicated values of other instruments.

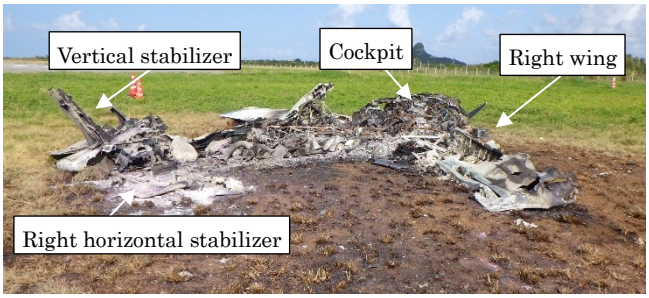


Figure 6: The Aircraft (from the right rear)

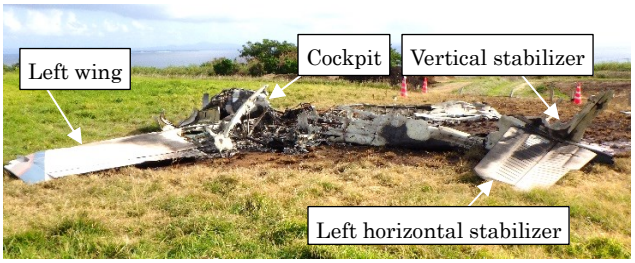


Figure 7: The Aircraft (from the left rear)

The left wing of the aircraft was burned out except for the wing tip from its center, and it was unable to check the aileron movement because the wing tip section was deformed due to the impact. Besides, impact marks with the same width as the fence posts were found on the leading edges of both wings. Furthermore, the impact marks on both wings indicated that the aircraft had collided with the fence posts from the lower wings. The flap actuator was in the state where the flap was deployed.

Figure 8: Impact Marks on Right Wing

The left horizontal stabilizer remained in its original shape, making it possible to check the operation of elevator trim, but not to check the elevator movement as its cables were severed.

Figure 9: Impact Marks on Left Wing

Regarding the engines, there was no significant damage by crash and fire except that the engine mount was broken, and the engine oil pan at the bottom and the propeller driving system were damaged.

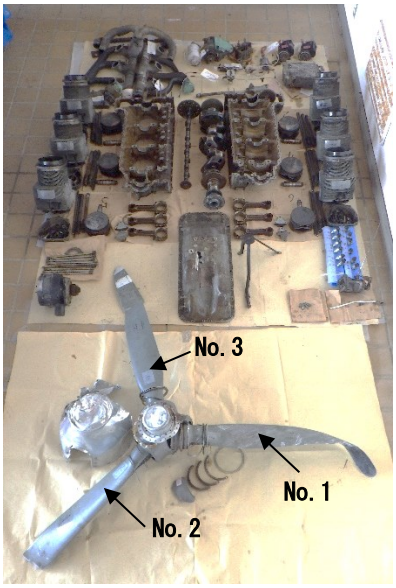


Figure 10: Engine and Propeller

The No.1 propeller blade of the three propeller blades of the aircraft had been detached from the propeller hub and found approximately 7 m southwest of the aircraft with its tip bent backward (see Figure 4 (c)). The No.2 and No.3 propeller blades were fixed to the propeller hub, and the tips were broken off. The No.2 propeller blade tip was not found, but the No.3 propeller blade tip was found about 23 m east of the aircraft (see Figure 4 (b)). In addition, there were scratches in the same direction as the propeller rotation on all propeller blades.

The nose landing gear was found on the slope where the aircraft collided with the state that the strut was still attached to the tire. In addition, the fuel supply port of the right wing was found near the broken fence.

(4) Detailed Inspection of the Engine

As a result of the exterior inspection of the engine and fuel system, the function check of the ignition system, and the inspection of the propeller driving system, any failures that would lead to the engine shutdown were not found. Besides, any failures that would lead to the engine shutdown were not also found in the disassembly inspection of the engine.

On the other hand, the operating state related to the engine control system, such as the throttle lever, propeller lever, and mixture lever, could not be verified due to the severe damage to the aircraft.

(5) Medical Information

According to the autopsy report, the cause of death for the captain and Passenger B was traumatic injuries due to an impact.

In addition, the captain and Passenger B tested negative for both alcohol and drugs, and there was no information indicating the flight crew incapacitation in flight.

(6) Firefighting Information

A total of three people, one airport personnel and two NPO personnel, performed an initial firefighting activity with fire extinguishers.

Upon receiving a report of the fire outbreak at 12:46, the Ie-son Volunteer Fire Company dispatched a fire pump car loaded with a water tank at 12:48, which arrived at the scene at 12:59 to start the firefighting operations. At 13:42, they confirmed that the fire had been extinguished.

(7) Illusion upon Landing

Pilot's Handbook of Aeronautical Knowledge (FAA-H-8083-25C) issued by FAA*4 states that a narrower-than-usual runway and an upsloping runway, upsloping terrain, or both can create optical illusions for pilots when landing to feel that the aircraft is at a higher altitude than it actually is and lists them as examples of factors leading to striking objects along the approach path or landing short of a runway.

(8) Information on the NPO

The NPO is a specified non-profit corporation that aims to transport emergency patients by aircraft around the northern part of Okinawa Prefecture and to transport patients who need to be transported between the remote islands and the main island of Okinawa.

In order to improve medical issues on remote islands, the NPO uses one rotorcraft as a medical helicopter, and uses one airplane, which is operated for transporting patients whose condition is expected to change suddenly and who cannot be transported by public helicopters, patients who are unable to return the islands by public transportation due to physical challenges, and doctors who are in urgent need and are unable to travel by public transportation. The NPO outsources the operation and maintenance of their aircraft.

When the accident occurred, the training for the pilots of the NPO's aircraft used to be conducted by Passenger B who had been engaged in the flight operation as a pilot of the NPO aircraft in the past, and Passenger B made training plans and provided instructions as an on-board supervisor at the time of training. The accident flight was also planned by Passenger B. However, no documented training plan or training records were created.

(9) Flight Route Estimated According to Radar Record

The position of the aircraft was captured by the air route surveillance radar at Mt. Yaedake and the aerodrome surveillance radar in Naha Airport. As the low-altitude airspace in the vicinity of the Iejima Island is out of the coverage of these radars, there is missing information. However, in this case, there is no other information enable to objectively estimate the aircraft's flight route other than the records on these radars, thus, based on which the aircraft's flight route was estimated.

These radars are Secondary Surveillance Radars (SSR) where aircraft responds to the interrogation signal from radars, the position information of

*4 "FAA" stands for the Federal Aviation Administration.

	aircraft is estimated based on the response time and direction of signals from aircraft received by the radar. In addition, the speed is estimated by the aerodrome surveillance radar based on changes in position information. On the other hand, the altitude information of aircraft is generated in 100 ft increments by employing the QNE from the altimeter of aircraft, is transmitted to the radar, and is calibrated by the aerodrome surveillance radar by employing the altimeter setting (QNH) of Naha Airport. Therefore, the altitude estimates are indicated in 100 ft increments. The surveillance interval is 10 seconds for air route surveillance radar, and 4 seconds for aerodrome surveillance radar. In consideration of these matters, the flight route of the aircraft was estimated as follows: a. Compared the time, position information, and altitude information of the two radar records, and integrated the information of the entire flight route as a whole by regarding the parts where both records matched as reliable information. b. Corrected the entire flight route by aligning the take-off roll part on the flight route with the runway centerline at Iejima Airport because the aircraft had taken off from the airport. c. Decided that the altitude estimates calibrated by employing the QNH value of Naha Airport shall be indicated in 100 ft increments considering that the altitude information was generated in 100 ft increments on the aircraft side. As a result, the entire flight route estimated is shown in Figure 2, and the time, position, altitude, and speed on the final approach course are shown in Figure 11.

3. ANALYSIS

(1) Maintenance History of the Aircraft

The JTSB concludes that it is highly probable that the aircraft had a valid airworthiness certificate and had been properly maintained.

(2) Weather Conditions at the Time of the Accident

The JTSB concludes that it is probable that there were no such weather conditions that would impede the flight because there were no rainfall phenomena at the airport around the time of the accident, the wind direction was generally east-northeast, and there was no remarkable change in the wind velocity.

(3) Operating State of the Aircraft's Engine

The JTSB concludes that the aircraft's engine was more likely operating at the time of the accident because the detailed inspection of the engine did not reveal any failure that could lead to the engine shutdown, in addition, from that fact that a witness heard the engine sound and there were scratch marks left on the propellers. However, as the aircraft was not equipped with a flight data recorder and others, the information such as speed and others were unable to be obtained and the operating state related to the engine control system, such as throttle lever, propeller lever, and mixture lever at the time of the accident were unable to be verified due to the severe damage

to the aircraft. Therefore, the operating state of the aircraft's engine at the time of the accident was unable to be determined.

(4) Flight Control System of the Aircraft

The JTSB concludes as follows:

The aircraft had been severely damaged by the fire after the crash, it was not possible to verify the operating state of the flight control system other than the flaps being extended and the elevator trim being operated, in addition, the aircraft was not equipped with a flight data recorder and others, therefore, it was not able to determine the state of the flight control system of the aircraft at the time of the accident.

However, based on the fact that the aircraft had collided with the fence indicating the site boundary of the airport in the vicinity of the extended line of runway centerline, the maneuvers to the left and the right were probably possible.

(5) Mental and Physical Condition of Persons on Board

The JTSB concludes as follows:

The captain held a valid aviation medical certificate. Besides, Pilot A did not find any abnormality in the mental and physical condition of the captain and Passenger B. Furthermore, in the autopsy, they tested negative for both alcohol and drugs, as well as no findings indicating they fell into mental or physical loss during the flight, therefore, their mental and physical condition probably posed no hazard to the flight.

(6) Flight Situation on Final Leg

The JTSB concludes as follows:

As Passenger B used to instruct the NPO's pilots to land on the approach path with a descent angle of 3°, setting the aiming touchdown point to the runway designation marking, the aircraft also probably made the same approach as instructed. Figure 11 shows the approach paths with a descent angle of 3° drawn each from the center of the runway designation marking (at a point 16 m ahead of the runway threshold, (see Figure 4)) and from the aiming point marking (at a point 300 m from the runway threshold), and the aircraft's position and altitude recorded on the radars.

The captain broadcast by one-way transmission, saying "Final Approach", and did not transmit any message conveying other abnormality, therefore, the aircraft was probably in normal flight condition by the time it was about to complete its turn toward the final leg. In addition, the aircraft had collided with the fence indicating the boundary of the airport property in the vicinity of the extended line of runway centerline, therefore it is probable that the maneuvers to the left and the right were possible and the control to fly on a proper flight path was conducted even on the final leg.

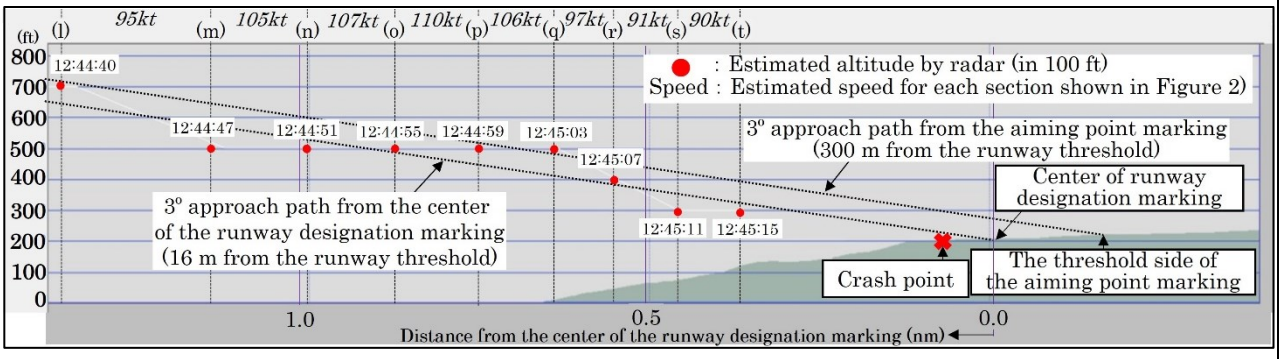


Figure 11: Altitude Change on Final Leg

On the other hand, the aircraft's altitude estimates on the final leg based on the radar records are information in 100 ft increments as shown in 2.7 (9), and although there is a defect of information between (l) and (m), they are as shown in Figure 11. It is possible that the aircraft did not fly maintaining a stable descent rate on the final leg, but it probably continued its approach.

Although the aircraft's estimated speed based on the radar records was higher than the approach speed of 79 kt described in the flight manual, from (m) to (q) in Figure 11, they generally remained between 105 and 110 kt. And the aircraft likely reduced the speed due to approaching the runway even after (q), therefore, the speed control and vertical control for the aircraft were likely possible up to about (t).

From the statement of the witness, it is probable that after that, the aircraft made an approach on the path lower than usual, and collided with the fence at the point equivalent to an elevation of about 63.7 m (about 209 ft), where the aircraft could have passed above the fence at the altitude of about 72.1 m (about 237 ft) if it had made an approach on the path with a descent angle of 3°. In addition, based on the statement of the witness and the impact marks between the aircraft's both wings and the fence posts, the aircraft probably collided with the fence with its nose raised. And despite of trying to correct the approach path or execute a go-around, it collided with the fence. Then, the aircraft hit the slopes in the airport, bounced, and crashed into the grassy area short of the runway, and it was destroyed and bursting into flames. During this time, the two persons on board were probably fatally injured as a result of trauma due to the strong impact.

The following are possible regarding the reason the aircraft's approach path was lowered, and the aircraft failed to correct it.

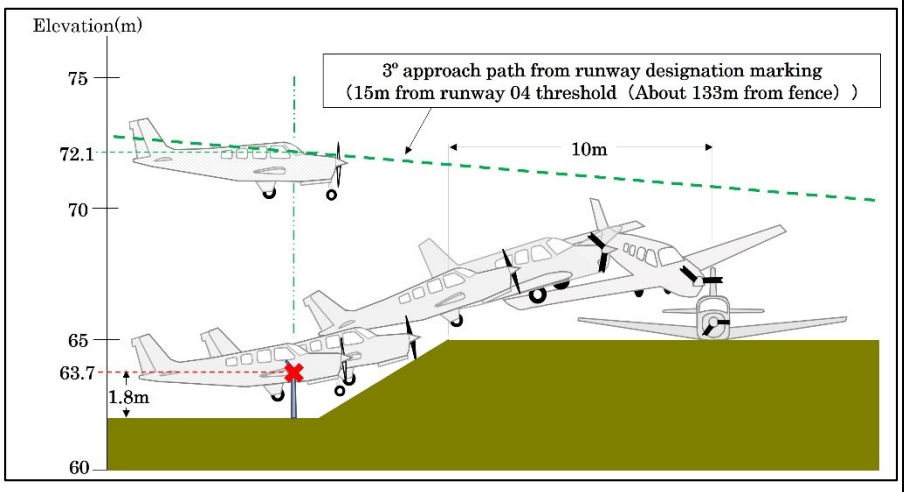


Figure 12: Diagram of the Aircraft Crash

・As it was the first landing at the airport for the captain, the captain was unable to correctly grasp its own altitude above the runway due to optical illusion caused by Runway 04 upsloping from its threshold to its end.

・As the accident flight was the second flight with Beechcraft A36 airplane for the captain, the captain had not been familiar with its maneuver, and the control of engine power was unstable.

・Despite of the attempt to execute a go-around, its timing was too late or the control inputs (engine power, nose-up input) were not sufficient.

・A malfunction occurred in the flight control system or engine control system that the operating state could not be verified during the investigation.

However, it was not possible to determine why the aircraft's approach path was lowered and the aircraft failed to correct it because the aircraft was not equipped with a flight data recorder and others, the radar track record was the only record to verify the flight state, the persons on board were fatally injured, and the aircraft was severely damaged.

(7) The NPO's Training System

The JTSB concludes as follows:

Although the accident flight was conducted by the captain who had rent the aircraft from the NPO free of charge as he had no experience with Beechcraft A36 airplane, it was more likely under the supervision of the NPO, because Passenger B of the NPO made the flight plan and was on board the aircraft with the captain and supposed to consider whether to hire the captain. In addition, for the trainings related to the NPO's aircraft, Passenger B used to make a flight plan, but no documented training contents or training records of the pilots had been created, therefore, it is most likely that the NPO was unable to have grasped the situation of the training for their pilots.

Considering that the captain had not operated an airplane for about seven years and had no experience with Beechcraft A36 airplane, the NPO should have probably made and managed the plan as an organization with reference to the "Guideline for education and training when intending to maneuver an aircraft type, whose category and class are same as those on the competence certification, but there is no maneuvering experience", (KOKU-KU-KO No. 1055, June 29, 2020).

In addition, the NPO is a specified non-profit corporation that engages in highly public activities such as transporting doctors and patients; therefore, it is desirable that they should consider the necessity to enhance the system that would allow them to sufficiently manage not only training but also daily operation and maintenance in order to maintain the safe operation as a precondition for their activities.

(8) Flight Data Recorder and Others

The JTSB concludes as follows:

The causes of this accident were unable to be determined because the persons on board were fatally injured, the aircraft was severely damaged, and the aircraft was such an airplane that is not required to be equipped with a flight data recorder under the Civil Aeronautics Act, therefore there was too few objective information to determine the causes.

In order to investigate the causes of accidents and others, prevent recurrence of accidents and others, reduce damage caused by accidents, in addition, improve pilot skills through review, and manage risk in daily operation efficiently, it is desirable to promote the installation of the flight data monitoring device (FDM) *5 that can record information such as the aircraft's position and altitude, as well as audio and video in the cockpit on aircraft not required to be equipped with a flight data recorder under the Civil Aeronautics Act.

4. PROBABLE CAUSES

The JTSB concludes that the probable cause of this accident was likely that the aircraft collided with the fence and its posts, and slopes in the airport because it failed to correct its lowered approach path when approaching Runway 04 at Iejima Airport. After that, it is more likely that the aircraft bounced, crashed into the grassy area short of the runway, and the aircraft was destroyed and went up in flames.

Regarding the reason the aircraft failed to correct its lowered approach path, it was not possible to determine because the aircraft was not equipped with a flight data recorder and others,

*5 For information on flight recorders for small aircraft, please refer to the following materials.
JTSB Digest No. 42 (Issued in August 2023), Digests of aircraft accident analysis, "For Prevention of Accidents of Small Aircraft ~ Do you know flight data monitoring device (FDM)? ~"
(https://www.mlit.go.jp/jtsb/bunseki-kankoubutu/jtsbdigests_e/jtsbdigests_No42/No42_pdf/jtsbdi-42_all.pdf)

the only records available to verify the flight conditions were radar wake records, the persons onboard member were fatally injured dead, and the aircraft was severely damaged.

5. SAFETY ACTIONS

5.1 Safety Actions Required	As described in ANALYSIS, it is desirable that the NPO should consider the necessity to enhance the system that would allow them to sufficiently manage not only training but also daily operation and maintenance in order to maintain safe operations, which is a prerequisite for their activities.
5.2 Safety Actions Taken after the Accident	The NPO decided that the training system and its management for aircraft pilots shall be as follows: a. The initial training shall be conducted in consideration of the pilot's experience and others by entrusting a person who has the flight experience with the type of aircraft used by the NPO. In addition, it was decided that after completing the initial training, pilots shall receive the recurrent training once a year, and participate in safety seminars. b. The plan and implement of trainings shall be entrusted to a person who has the flight experience with the type of aircraft used by the NPO. c. The records regarding the training shall be managed by the flight operation staff designated by the NPO president.