Chapter 3 Aircraft accident and serious incident investigations

1 Aircraft accidents and serious incidents to be investigated

<Aircraft accidents to be investigated>

◎Article 2, paragraph (1) of the Act for Establishment of the Japan Transport Safety Board

The term "aircraft accident" as used in this Act means the accident prescribed as follows:

(i) the accident prescribed in each of the items of Article 76, paragraph (1) of the Civil Aeronautics Act regarding aircraft.

(ii)the accident prescribed in each of the items of Article 132-90, paragraph (1) of the Civil Aeronautics Act, which are serious ones as may be specified in the Order of the Ministry of Land, Infrastructure, Transport and Tourism (Article 1 of Regulation for Enforcement of the Act for Establishment of the Japan Transport Safety Board), regarding small UA.

1. Accidents related to aircraft

○ **Article 76, paragraph (1) of the Civil Aeronautics Act**

(i)crash, collision, or fire of aircraft

(ii)injury or fatality of any person, or damage of any object caused by aircraft

(iii)fatality (except those specified in Order of the Ministry of Land, Infrastructure, Transport and Tourism) or missing of any person on board the aircraft

(iv)contact with other aircraft

(v)other accidents relating to aircraft specified in Article 165-3 of the Regulation for Enforcement of the Civil Aeronautics Act

▪ **Article 165-3 of the Regulation for Enforcement of the Civil Aeronautics Act**

Case where aircraft in flight is damaged[*1*2]

*1 excluding the sole damage of engine, engine cowling, engine accessories, propeller, wing tip, antenna, tire, brake or fairing

*2 case which refers to the case corresponding to "major repair." "Major repair" means a repair that has a significant effect on airworthiness.

2. Accidents related to small UA

○ **Article 132-90, paragraph (1) of the Civil Aeronautics Act**

(i) injury or fatality of any person, or damage of any object caused by small UA

(ii) collision or contact with an aircraft

(iii) other accidents relating to small UA which are serious ones as may be specified in Order of the Ministry of Land, Infrastructure, Transport and Tourism (*Currently, there is no order)

↓which are

serious ones as may be specified in Order of the Ministry of Land, Infrastructure, Transport and Tourism (Article 1 of Regulation for Enforcement of the Act for Establishment of the Japan Transport Safety Board)

・Article 1 of the Regulation for Enforcement of the Act for Establishment of the Japan Transport Safety Board

(i) injury or death of any person caused by small UA

(ii) damage of any object caused by an small UA prescribed below.

(a) damage of buildings for which a person is actually present or movable facilities such as vehicles, ships, etc.

(b) case where electricity supply facilities, telecommunications facilities, transportation facilities, educational facilities, medical facilities, government facilities, or other public facilities operations are disrupted.

(c) other cases which are recognized as particularly exceptional in addition to those listed in (a) and (b)

(iii) collision or contact with an aircraft

<Aircraft serious incidents to be investigated>

◎Article 2, paragraph (2), item (ii) of the Act for Establishment of the Japan Transport Safety Board (serious incidents involving aircraft and/or small UA)

Aircraft serious incident is a case recognized a risk of aircraft accident as may be specified in the Order of the Ministry of Land, Infrastructure, Transport and Tourism (Article 2 of the Regulation for Enforcement of the Act for Establishment of the Japan Transport Safety Board).

○ Article 2 of the Regulation for Enforcement of the Act for Establishment of the Japan Transport Safety Board

3. Serious incidents related to aircraft

(1) The following cases*. However, item (viii), (xi) and (xii) are limited to the cases occurred to an aircraft during flight.

(i) case where a pilot in command of an aircraft, during a flight, recognized a risk of collision or contact with any other aircraft

(ii) take-off from a closed runway, a runway being used by other aircraft, a runway which is different from the instructed one or a taxiway, or aborted take-off

(iii) landing on a closed runway, a runway being used by other aircraft, a runway which is different from the instructed one or a location where an aircraft is not normally supposed to land such as a taxiway or a road

(iv) case where engine cowling, wingtip or component other than landing gear is contact with ground surface during landing

(v) overrun, undershoot and deviation from a runway (limited to when an aircraft is unable to perform taxiing)

(vi) case where emergency evacuation was conducted by using the emergency evacuation slide

(vii) case where aircraft crew executed an emergency operation during flight in order to avoid crash into water or contact with the ground

(viii) damage to the engine (limited to a case where fragments penetrated the casing of the engine or a major damage occurred inside the engine)

(ix) the engine is stopped continuously or loss of power or thrust thereof (except when the engine(s) are stopped with an attempt of assuming the engine(s) of a motor glider) of engines (in the case of multiple engines, two or more engines) in flight

(x) case where any of aircraft propeller, rotary wing, landing gear, rudder, elevator, aileron or flap is damaged and thus flight of the aircraft may not be continued

(xi) multiple malfunctions in one or more systems installed on aircraft impeding the safe flight of aircraft

(xii) occurrence of fire or smoke inside an aircraft and occurrence of fire within an engine fire-prevention area

(xiii) abnormal decompression inside an aircraft

(xiv) shortage of fuel requiring urgent measures

(xv) case where aircraft operation is impeded by an encounter with air disturbance or other abnormal weather conditions, failure in aircraft equipment, or a flight at a speed exceeding the airspeed limit, limited payload factor limit operating altitude limit

(xvi) case where aircraft crew was unable to perform normal duties due to injury or disease

(xvii) case where an object which attached to the exterior of the aircraft, suspended, or towed dropped unintentionally or it dropped as an emergency operation

from the aircraft.

(xviii) case where parts fell from aircraft collided with persons

(xix) case equivalent to those listed in the preceding items

*Item (ii) through (xix) are the cases listed in Article 166-4 of the Regulation for Enforcement of the Civil Aeronautics Act, which are cited in Article 2 of the Regulation for Enforcement of the Act for Establishment of the Japan Transport Safety Board.

(2) The following cases, and an unusual case in particular:

(i) case listed in item (viii), (xi), and (xii) of 1 above occurring with an aircraft other than during flight

(ii) case where an aircraft other than during flight is damaged*1*2

*1 except the sole damage of engine, cowling, engine accessories, propeller, wing tip, antenna, tire, brake or fairing

*2 case which refers to the case corresponding to "major repair." "Major repair" means a repair that has a significant effect on airworthiness.

(iii) case where any of aircraft propeller, rotary wing, landing gear, rudder, elevator, aileron or flap is damaged and thus flight of the aircraft may not be started

(iv) case equivalent to those listed in the preceding items

4. Serious incidents related to small UA

(1) case where a pilot in command of an small UA, during a flight, recognized a risk of collision or contact with any other aircraft

(2) The following cases, and an unusual case in particular:

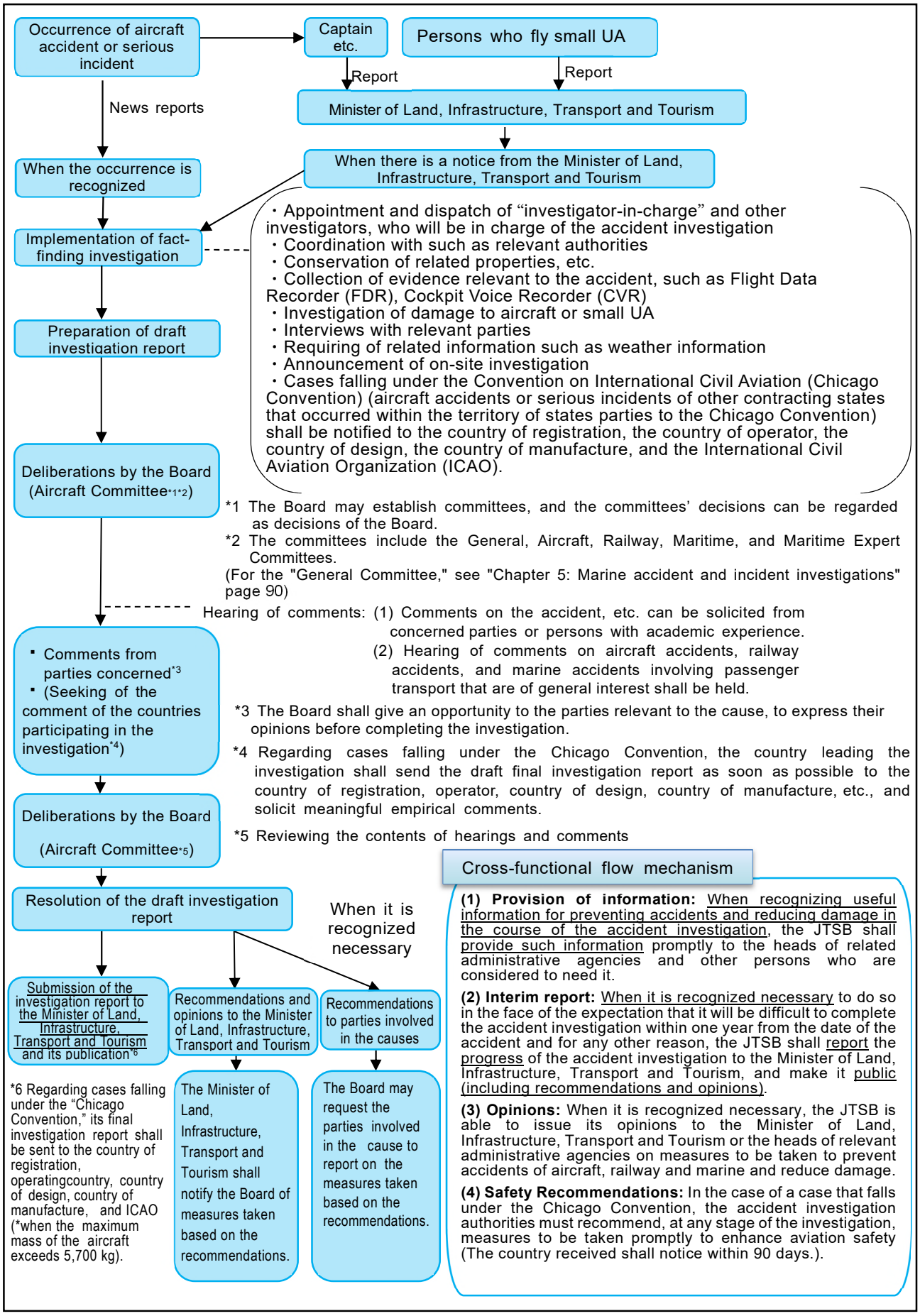
(*cases listed in each item of Article 236-86 of the Regulation for Enforcement of the Civil Aeronautics Act)

(i) injury to persons caused by an small UA (excluding serious injuries)

(ii) case in which an small UA becomes uncontrollable

(iii) case in which an small UA ignites (restricted to that occurred during flight)

2 Procedure of aircraft accident/serious incident Investigation



3 Statistics of investigations of aircraft accidents and serious incidents

The JTSB carried out investigations of aircraft accidents and serious incidents in 2024 as follows:

In 2024, 29 accident investigations were carried over from 2023 and 19 accident investigations were newly launched. Besides, 14 investigation reports were published, and thereby 34 accident investigations were carried over to 2025.

Moreover, 18 serious incident investigations were carried over from 2023, and 16 serious incident investigations were newly launched in 2024. Furthermore, 7 investigation reports were published, and thereby 27 serious incident investigations were carried over to 2025.

Among the 21 investigation reports published in 2024, none was issued with recommendations and none was issued with opinions.

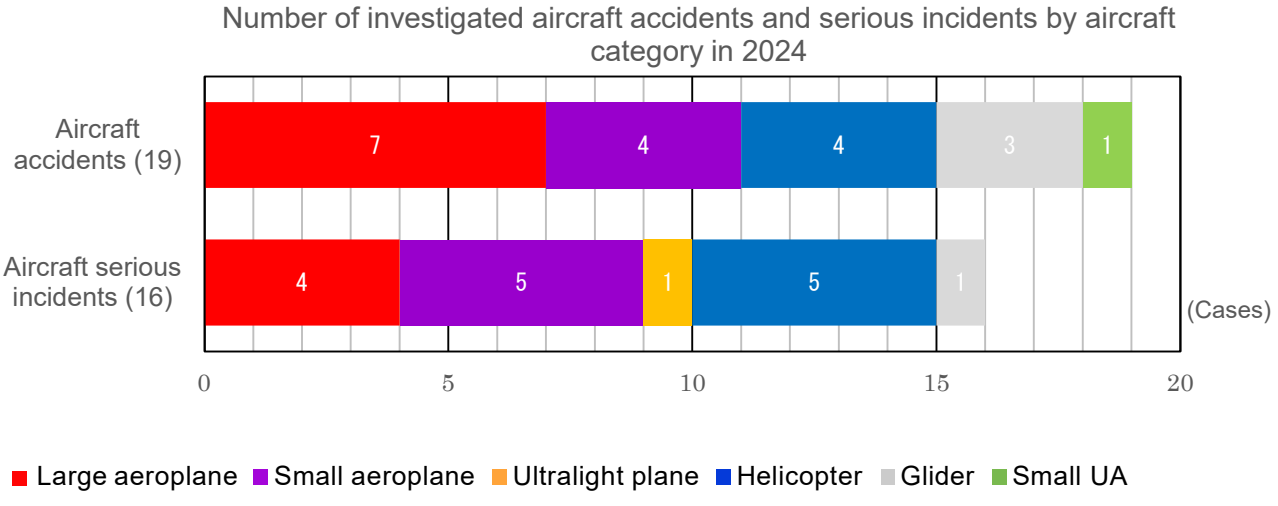
Investigations of aircraft accidents and serious incidents in 2024 (Cases)

Category	Carried over from 2023	Launched in 2024	Total	Published investigation reports	(Recommendations)	(Safety recommendations)	(Opinions)	Carried over to 2025	(Interim report)
Aircraft accident	29	19	48	14	(0)	(0)	(0)	34	(10)
Aircraft serious incident	18	16	34	7	(0)	(0)	(0)	27	(8)

4 Statistics of investigated aircraft accidents and serious incidents in 2024

The aircraft accidents and serious incidents that were newly investigated in 2024 consisted of 19 aircraft accidents, which increased by two from 17 for the previous year, and 16 aircraft serious incidents, which increased by two compared to 14 for the previous year.

By aircraft category, the aircraft accidents included seven cases involving large aeroplanes, four cases involving small aeroplanes, four cases involving helicopters, three cases involving gliders, and one case involving small UA. The aircraft serious incidents included four cases involving large aeroplanes, five cases involving small aeroplanes, one case involving ultralight plane, five cases involving helicopters, and one case involving glider.



* Large aeroplane refers to an aircraft of a maximum take-off mass of over 5,700 kg.

* Small aeroplane refers to an aircraft of a maximum take-off mass of under 5,700 kg except for ultralight plane and self-made aircraft.

* Ultralight planes include self-made aircraft in the form of ultralight planes.

*

The number of fatal injuries, missing and injuries were 22, including seven fatal injury and 15 injuries.

The number of fatalities, missing or injury (aircraft accident)

(Persons)

2024							
Aircraft category	Fatal Injuries		Missing		Serious/Minor Injuries		Total
	Crew	Passengers and others	Crew	Passengers and others	Crew	Passengers and others	
Large aeroplane	0	5	0	0	8	0	13
Small aeroplane	0	0	0	0	0	0	0
Helicopter	2	0	0	0	1	3	6
Ultralight plane	0	0	0	0	0	0	0
Glider	0	0	0	0	2	0	2
Small UA	0	0	0	0	1	0	1
Total	2	5	0	0	12	3	22
	7		0		15		

*The above statistics include incidents under investigation so may change depending on the status of the investigation and deliberation. In addition, for the number listed as “passengers” on the website in the number of injuries of an aircraft accident currently under investigation, the minimum number of pilots required to fly the aircraft are counted as “crew.”

5 Summaries of aircraft accidents and serious incidents which occurred in 2024

The aircraft accidents and serious incidents which occurred in 2024 are summarized as follows:

(Aircraft accidents)

1	Date and location	Operator	Aircraft registration number and aircraft type
	January 2, 2024 On Runway C at Tokyo International Airport	Japan Coast Guard (Aircraft A)	JA722A Bombardier DHC-8-315 (Large aeroplane)
		Japan Airlines Co., Ltd (Aircraft B)	JA13XJ Airbus A350-941 (Large aeroplane)
	Summary	At Tokyo International Airport (hereinafter referred to as “Haneda Airport”), Aircraft A, which had stopped on Runway 34R (Runway C), and Aircraft B, which had landed on the same runway, collided. There were six persons on board Aircraft A, consisting of the pilot in command (hereinafter referred to as “PIC A”) and five other flight crew members. Aircraft A burst into flames at the same time as it collided with Aircraft B. The PIC A sustained a serious injury and five other crew members sustained fatal injuries. Aircraft A was destroyed by fire. There was a total of 379 people on board Aircraft B, consisting of the Pilot in Command (hereinafter referred to as “PIC B”)), eleven other crew members and 367 passengers. A fire broke out under the fuselage of Aircraft B at the same time as the collision with Aircraft A, and then Aircraft B continued to taxi, went off the runway and came to a stop in a grassy area near the threshold of the runway. All crew and passengers evacuated from Aircraft B after it came to a stop, but one passenger sustained a serious injury, four passengers suffered minor injuries and twelve passengers were examined by a doctor for feeling unwell. Aircraft B was destroyed by fire.	

2	Date and location	Operator	Aircraft registration number and aircraft type
	February 1, 2024 Approximately 100 km south-southeast of Chubu Centrair International Airport, at an altitude of approximately 8,500 meters	All Nippon Airways Co., Ltd.	JA899A Boeing 787-9 (Large aeroplane)
	Summary	The aircraft took off from Tokyo International Airport, and while in flight, when it shook near the above location, one member of the cabin crew twisted her ankle, and another member came into contact with the cart and was injured. The aircraft continued flying and landed at Suvarnabhumi International Airport.	
3	Date and location	Operator	Aircraft registration number and aircraft type
	March 20, 2024 Approximately 77 km south of Narita International Airport, at an altitude of approximately 1,500 meters	All Nippon Airways Co., Ltd	JA891A Boeing 787-9 (Large aeroplane)
	Summary	The aircraft took off from Los Angeles International Airport, but was struck by lightning near the above location while descending. Subsequently, it continued the flight and landed at Narita International Airport.	
4	Date and location	Operator	Aircraft registration number and aircraft type
	April 1, 2024 Approximately 150 km southeast of Narita International Airport, at an altitude of approximately 5,200 meters	Japan Airlines Co., Ltd.	JA843J Boeing 787-8 (Large aeroplane)
	Summary	The aircraft took off from Melbourne International Airport, but four cabin crew members were injured in flight when the aircraft shook near the above location. The aircraft continued its flight and landed at Narita International Airport.	
5	Date and location	Operator	Aircraft registration number and aircraft type
	April 12, 2024 At a height of approximately 7 meters above Aoi Ward, Shizuoka City, Shizuoka Prefecture	Shin Nihon Helicopter Co., Ltd.	JA6686 Aerospatiale AS332L1 (Rotorcraft)
	Summary	The rotorcraft took off from a temporary airfield in Aoi Word, Shizuoka City, Shizuoka Prefecture. While goods were being transported near the above location, the formwork (steel, about 6.5 meters long and about 140 kg in weight) placed on the ground was blown by the aircraft's downwash and struck and injured one ground worker.	
6	Date and location	Operator	Aircraft registration number and aircraft type
	May 13, 2024 While approaching a temporary airfield in Aso city, Kumamoto Prefecture	Takumi Enterprise Co., Ltd.	JA718W ROBINSON R44 II (Rotorcraft)
	Summary	The rotorcraft took off from the helicopter landing facility in Aso city, Kumamoto Prefecture, and while approaching the same facility to land, generated an abnormal noise from its rear and the engine speed dropped, which caused a heavy impact when it landed in a vacant lot.	
7	Date and location	Operator	Aircraft registration number and aircraft type
	May 25, 2024 Near Ubuyama Village, Aso District, Kumamoto Prefecture	Privately owned	JA2189 Alexander Schleicher ASK13 (Glider)
	Summary	After the glider took off from a temporary airfield in Aso city, Kumamoto Prefecture, the tow line used to tow the aircraft loosened, making it impossible to continue the flight, and causing the aircraft to crash into a park in Ubuyama Village, Aso District, Kumamoto Prefecture.	
8	Date and location	Operator	Aircraft registration number

			and aircraft type
	May 31, 2024 On the runway at Kobe Airport	Academic Corporte Body Hiratagakuen	JA212H Textron Aviation G58 (Small aeroplane)
	Summary	When the aircraft landed at Kobe Airport, the underside of the fuselage came into contact with the runway.	
9	Date and location	Operator	Aircraft registration number and aircraft type
	June 5, 2024 Near the runway at Yoron Airport	Privately owned	JA3712 Piper PA-28-151 (Small aeroplane)
	Summary	See “6 Publication of investigation reports” (No. 13 on page 56).	
10	Date and location	Operator	Aircraft registration number and aircraft type
	June 9, 2024 In mountains approximately 2 km southeast of Kagoshima Airport	New Japan Airlines Co., Ltd.	JA4061 Cessna 172P (Small aeroplane)
	Summary	While approaching Kagoshima Airport, the aircraft deviated from the entry route, collided with trees in the mountains southeast of the airport, and got stuck.	
11	Date and location	Operator	Aircraft registration number
	June 21, 2024 In Kashima Ward, Minamisoma City, Fukushima Prefecture	Operators	JU323659D902 UAV-E6150FA manufactured by Eames Robotics Co., Ltd. (Small UA)
	Summary	When an operator tried to land a UAV after flying it from a take-off location in Kashima Ward, Minamisoma City, Fukushima Prefecture, to spray pesticides, the aircraft became uncontrollable and came into contact with an assistant, who sustained injuries to both hands .	
12	Date and location	Operator	Aircraft registration number and aircraft type
	July 14, 2024 On the landing zone at a landing site of a temporary airfield in Kitami city, Hokkaido	Corporation	JA2469 Alexander Schleicher ASK12 (Glider)
	Summary	The glider took off from a temporary airfield in Kitami city, Hokkaido, and when it landed there, it landed roughly, and those on board suffered injuries.	
13	Date and location	Operator	Aircraft registration number
	July 20, 2024 On the runway at Tsushima Airport	Oriental Air Bridge Co., Ltd.	JA858A Bombardier DHC-8-402 (Large aeroplane)
	Summary	The aircraft landed at Tsushima Airport and collided with a bird during the landing roll. Post-arrival inspection revealed damage to the aircraft.	
14	Date and location	Operator	Aircraft registration number and aircraft type
	July 28, 2024 Fields in Yanagawa City, Fukuoka Prefecture	SGC Saga Aviation Co., Ltd.	JA779N Robinson R44 Ⅱ (Rotorcraft)
	Summary	The aircraft was discovered in a state where fire had occurred at the above location after take-off from a temporary airfield in Hita City, Oita Prefecture.	
15	Date and location	Operator	Aircraft registration number
	August 12, 2024 On Runway A at Narita International Airport	Atlas Air, Inc.	N404KZ Boeing 747-400F (Large aeroplane)
	Summary	The aircraft took off from Narita International Airport. Immediately afterwards, however, the instrument panel indicated a malfunction in the hydraulic system and that the air pressure inside the aircraft had dropped below normal during the flight, so the Pilot declared a state of emergency, and the aircraft landed and stopped on Runway A of the Airport. Post-arrival inspection revealed that the left main landing gear tire had burst and the aircraft had been damaged.	

16	Date and location	Operator	Aircraft registration number
	September 4, 2024 Approximately 200 km east of Seoul, at an altitude of 12,500 meters	Japan Airlines Co., Ltd.	JA863J Boeing 787-9 (Large aeroplane)
	Summary	The aircraft took off from Beijing, and while flying near the above location, one cabin crew member collided with the right flank of the passenger seat partition when the aircraft experienced turbulence. The aircraft continued flying and landed at Tokyo International Airport.	
17	Date and location	Operator	Aircraft registration number
	October 2, 2024 Thickets on the west side of the runway at Hateruma Airport, at an altitude of approximately 20 meters	Japan Coast Guard	JA974A Agusta AW139 (Rotorcraft)
	Summary	The aircraft took off from New Ishigaki Airport, and while approaching Hateruma Airport, the aircraft and its main rotor blades came into contact with trees, damaging the underside of the rear of the aircraft and the blade. The aircraft continued flying and landed at Hateruma Airport.	
18	Date and location	Operator	Aircraft registration number
	October 26, 2024 Cadastre: Chikuma River riverbed in Yoshinomachi, Wakahowatauchi, Nagano City, Nagano Prefecture	Corporation	JA21YP Alexander Schleicher ASK21 (Glider)
	Summary	The glider was launched by a winch from Nagano City Gliding Field, but landed at the same field because it could not ascend properly. While landing, it overran the runway and stopped on the grass in a riverbed near the gliding field.	
19	Date and location	Operator	Aircraft registration number
	October 27, 2024 Semine Temporary Airfield, Kurihara City, Miyagi Prefecture	Privately owned	JA4098 Cessna 172P (Small aeroplane)
	Summary	When the aircraft landed at a temporary airfield in Kurihara City, Miyagi Prefecture, it overran the runway, fell off a cliff, overturned and stopped on the grass near the same airfield.	

The above details are subject to change depending on the progress of the investigation, etc.

(Aircraft serious incidents)

1	Date and location	Operator	Aircraft registration number and aircraft type
	January 28, 2024 Near the runway at Oita Airport	Honda Airways Co., Ltd.	JA924H Honda Aircraft HA-420 (Small aeroplane)
	Summary	When the aircraft landed at Oita Airport, it deviated from the runway and stopped on the grass.	
2	Date and location	Operator	Aircraft registration number and aircraft type
	February 17, 2024 At an altitude of approximately 105 meters above Honda Airport	Honda Airways Co., Ltd.	JA03FD Agusta AW139 (Rotorcraft)
	Summary	The rotorcraft took off from a temporary airfield in Kawajima Town, Hiki District, Saitama Prefecture. An operational test of the outboard hoist device was carried out over the landing zone of Honda Airport, and the hoist cable and the weight attached to it (approximately 35 cm in diameter, 30 cm high and weighing approximately 135 kg) fell to the ground.	
3	Date and location	Operator	Date and location
	March 31, 2024 Temporary airfield in Tsu City, Mie Prefecture	Privately owned	JR0832 Zen Air STOL CH701 R532L (Ultralight plane)

	Summary	When the ultralight plane landed at a temporary airfield in Tsu City, Mie Prefecture, it overran the runway, hit a fence, and stopped.		
4	Date and location		Operator	Date and location
	April 7, 2024 While Approaching Miho Airport		ANA Wings Co., Ltd.	JA69AN Boeing 737-800 (Large aeroplane)
	Summary	The aircraft took off from Tokyo International Airport, and while approaching Miho Airport, the Ground Proximity Warning System's warning was activated, so it executed a go-around accordingly, and landed at the same airport.		
5	Date and location		Operator	Date and location
	May 5, 2024 On the landing zone at a landing site of a farm road airfield in Fukushima City (Fukushima Sky Park)		Privately owned	JA2416 Grob G109B (Glider)
	Summary	When the aircraft landed at Fukushima Sky Park, it was fanned by the wind, lost its balance, and the propeller came into contact with the runway and was damaged.		
6	Date and location		Operator	Date and location
	May 15, 2024 On the runway at Fukui Airport		Privately owned	JA4022 SOCATA TB-21 (Small aeroplane)
	Summary	During touch-and-go training at Fukui Airport, the underside of the aircraft fuselage came into contact with the runway and was damaged.		
7	Date and location		Operator	Date and location
	June 4, 2024 Shortly after take-off from Narita International Airport		Polar Air Cargo Worldwide, Inc.	N714SA Boeing 777F (Large aeroplane)
	Summary	The aircraft took off from Narita International Airport, but immediately afterwards a malfunction occurred in the second (right) engine. The engine was shut down, a state of emergency was declared, and the aircraft returned to the airport and landed. Post-arrival inspection revealed that an internal engine component had broken and penetrated the engine case.		
8	Date and location		Operator	Date and location
	June 10, 2024 At an altitude of approximately 1,400 meters above Aioi City, Hyogo Prefecture		Takumi Enterprise Co., Ltd.	JA400C Robinson R44 Ⅱ (Rotorcraft)
	Summary	The aircraft took off from Nagoya Airport, but engine output dropped unexpectedly near the above location while flying. After declaring a state of emergency, it landed at a school ground in Aioi City, Hyogo Prefecture.		
9	Date and location		Operator	Date and location
	June 22, 2024 At an altitude of approximately 7,600 meters above Minabe Town, Hidaka District, Wakayama Prefecture		ANA Wings Co., Ltd.	JA88AN Boeing 737-800 (Large aeroplane)
	Summary	The aircraft took off from Nagasaki Airport, and during its descent, a problem occurred in the pressurization system near the above location causing the in-flight air pressure to drop, so a state of emergency was declared, and it descended to an altitude of approximately 3,000 meters. Subsequently, since the air pressure inside the aircraft was within the normal range, the declaration was cancelled, and the aircraft landed at Chubu Centrair International Airport.		
10	Date and location		Operator	Date and location
	July 7, 2024 On the landing zone at a landing site of a farm road airfield in Fukushima City (Fukushima Sky Park)		Corporation	JA4101 Cessna 172P (Small aeroplane)

	Summary	When the aircraft landed at the Fukushima City Farmway Temporary Airfield (Fukushima Sky Park), where the rear lower part of the fuselage came in contact with the landing zone.		
11	Date and location		Operator	Date and location
	July 28, 2024 Park in Yachiyo Town, Yuki District, Ibaraki Prefecture		Privately owned	JA02KG Agusta A109E (Rotorcraft)
	Summary	During flight, the flight control system malfunctioned, causing problems in controlling the aircraft, so the aircraft declared a state of emergency and landed at the above location.		
12	Date and location		Operator	Date and location
	August 5, 2024 Near the runway at Ryugasaki Airfield		Skynet Academy Co., Ltd.	JA01DC Cessna 172S (Small aeroplane)
	Summary	When the aircraft landed at Ryugasaki Airfield, it deviated from the runway and stopped on the grass.		
13	Date and location		Operator	Date and location
	August 8, 2024 On the runway at Kobe Airport		Academic Corporte Body Hiratagakuen	JA824H Eurocopter EC135P2+ (Rotorcraft)
	Summary	When the rotorcraft landed at Kobe Airport, it was instructed to land at the take-off/landing field for helicopters (helipad) on the taxiway assigned by the air traffic controller, but it landed on the runway instead.		
14	Date and location		Operator	Date and location
	October 10, 2024 Yasuzuka Ward, Joetsu City, Niigata Prefecture, at an altitude of approximately 150 meters		Shin Nihon Helicopter Co., Ltd.	JA6412 Bell 412EP (Rotorcraft)
	Summary	The aircraft took off from the Yasuzuka Temporary Airfield in Joetsu City, Niigata Prefecture, and while flying with supplies hanging, part of the supplies (contents: ready-mixed concrete weighing approximately 820 kg) fell into the mountains of the same city.		
15	Date and location		Operator	Date and location
	October 22, 2024 Shortly after take-off from Konan Airport		Okayama Air Service Co., Ltd.	JA60AZ Textron Aviation G58 (Small aeroplane)
	Summary	The aircraft took off at Konan Airport, but immediately after, an abnormal noise was generated from the 2nd (right) engine, and since the instrument display indicated that the lubricating oil pressure of the engine had decreased, it landed at Konan Airport. Post-arrival inspection revealed damage to the internal engine parts and penetration of the crankcase.		
16	Date and location		Operator	Date and location
	November 28, 2024 Making a landing approach at New Chitose Airport		Spring Japan Co., Ltd.	JA82YA Airbus A321-231 (Large aeroplane)
	Summary	While the aircraft received permission to land and was approaching, a construction vehicle entered the same runway.		

The above details are subject to change depending on the progress of the investigation, etc.

6 Publication of investigation reports

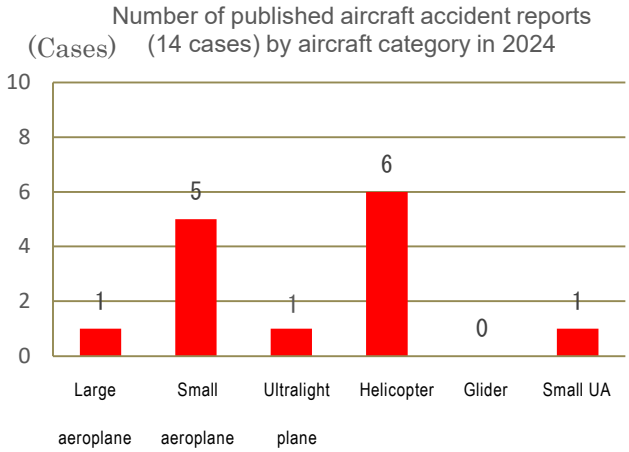
The number of investigation reports of aircraft accidents and serious incidents published in 2024 was 21, consisting of 14 aircraft accidents and 7 aircraft serious incidents.

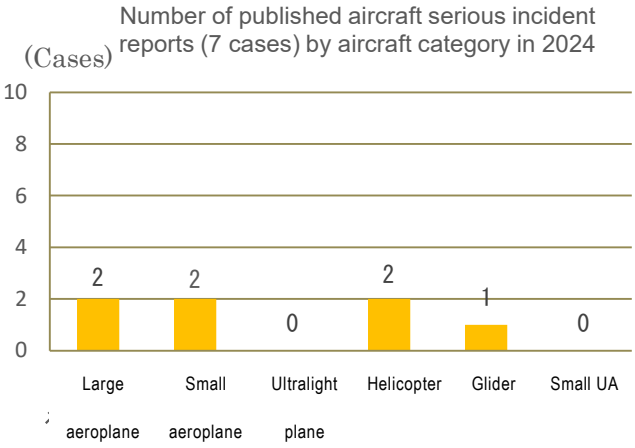
Breaking them down by aircraft category, the aircraft accidents involved one large aeroplane, five small aeroplane, one ultralight plane, six helicopters, and one small UA. The aircraft serious incidents involved two large aeroplanes, two small aeroplanes, two helicopters, and one glider.

Note: In aircraft accidents and serious incidents, two or more aircraft are sometimes involved in one case. See pages 47 to 61 for

details.

The total number of fatalities, missing persons, and injured persons is 22, with four fatalities and 18 injuries.





The aircraft accidents and serious incidents which occurred in 2024 are summarized as follows.

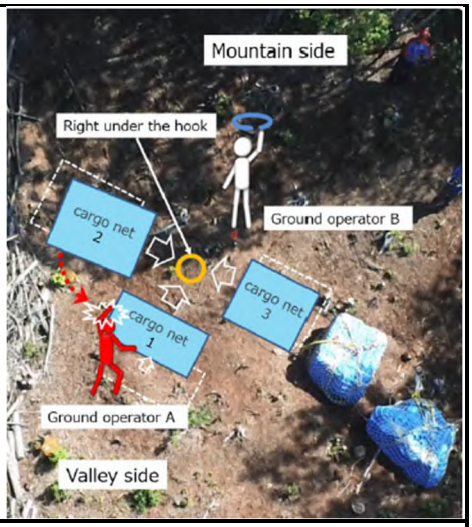
Aircraft accident investigation reports published in 2024

1	Date of publication	Date and location	Operator	Aircraft registration number and aircraft type
	January 25, 2024	Feburuay 1, 2020 Mihota town, Koriyama City Fukushima Prefecture	Fukushima Prefectural Police Aviation Unit	JA139F Agusta AW139, JA139F (Rotorcraft)
	Summary	The rotorcraft operated by the Fukushima Prefectural Police Aviation Unit, was flying from the Aizu Chuo Hospital Temporary Operation Site in Aizuwakamatsu City, Fukushima Prefecture toward Fukushima Airport in order to transport organs for transplantation, the main rotor blades severed the tail drive shaft and controlling the helicopter became difficult over Mihota Town in Koriyama City, Fukushima Prefecture. Therefore, the helicopter tried to make a forced landing in a paddy field in the town but made a hard landing and rolled over. On board the helicopter were seven persons in total, consisting of a captain, a co-pilot, two mechanics, and three passengers. Four of them were seriously injured, and the other three sustained minor injuries. The helicopter was destroyed, but there was no outbreak of fire.		
	Probable Causes	The JTSB concludes that the probable cause of this accident was that as the main rotor blades severed the tail drive shaft and controlling the helicopter became difficult while flying, the helicopter tried a forced landing, but made a hard landing, which resulted in injuries to persons on board and damage to the helicopter. The reason why the main rotor blades severed the tail drive shaft is most likely because when the helicopter encountered a strong downdraft while flying at a high speed over mountain regions in strong winds, it started a right rolling motion exceeding 360° after the rapid increase airspeed, and the main rotor blades were largely flapping[*1] toward the fuselage. In addition, regarding the fact that the helicopter became a right rolling motion, it was probably affected by the captain's large stick movement when encountering a downdraft. [*1]"Flapping" refers to the vertical movement of the rotor blades around the flapping hinge, which raises and lowers the rotor blades to balance the different lift forces on the forward and reverse sides of the blades.		
	Safety Actions	The following can be considered in order to prevent the recurrence of similar accidents in the same situation as this accident. (1) Important notes when flying over mountainous regions in strong winds Although it is difficult to accurately predict the location of strong vertical general winds[*2] as in this accident, especially when general wind orthogonal to mountainous areas blows, large		

		amplitude mountain waves are generated and rapid change in horizontal wind velocity is expected to occur. Therefore, it is necessary to constantly monitor the weather conditions outside the aircraft and changes in flight specifications, and to fully consider the flight control capability of the aircraft so as to be able to respond to sudden weather changes, and to select appropriate flight control mode during flight. When flying with a tailwind, if there is a large difference between airspeed and ground speed, it is necessary for pilots to decelerate in advance above the areas where mountain waves would occur and fly selecting the appropriate altitude and flight route. (2) Implementation of recurrent trainings using the FFS and others Pilots need to judge flight objectives and environmental conditions in order to select a proper flight control mode during the flight. In order to fully understand and properly use the flight control modes, it is necessary for them to read carefully the flight manuals and other related documents and learn the differences of flight control by using the FFS and others. - - 63 With normal flight training and ground training only, it is difficult to respond quickly and calmly between two pilots in the event of an emergency operation. Therefore, as much as possible, it is desirable to conduct trainings using the FFS and others that are corresponding to each boarding aircraft type and including the coordination of two pilots. *2 "General wind" means a wind that represents a wide area and is not affected by local factors such as topography.		
	Report	https://jtsb.mlit.go.jp/aircraft/rep-acci/AA2024-1-1-JA139F.pdf (Japanese) https://jtsb.mlit.go.jp/eng-air_report/JA139F.pdf (English)		
2	Date of publication	Date and location	Operator	Aircraft registration number and aircraft type
	April 25, 2024	November 20, 2022 Near the Bando Flying Club Temporary Airfield in Bando City, Ibaraki Prefecture	Privately owned	JR0628 Lands S-7 Courier-R582L (Ultralight plane with two seats)
	Summary	Immediately after take-off from the Bando Flying Club Temporary Airfield in Oyama, Bando City, Ibaraki Prefecture, the aircraft crashed into a field near the north-northwest of the same temporary airfield. The pilot and passenger on board the aircraft both died. The aircraft was destroyed, but no fire broke out. 		
	Probable Causes	It is possible that this accident occurred when the ultralight plane made a sharp turn while losing thrust due to engine failure during take-off and ascent, causing the flight speed to slow and the plane to stall due to the larger bank angle, leading to a crash. Regarding the engine failure, the ignition system may have been difficult to ignite, and the fuel system was unable to supply a sufficiently concentrated fuel mixture during ascent.		
	Safety Actions	Ultralight plane users must inspect the airframe and engine properly according to the procedures specified in the manufacturer's manual.		
	Report	https://jtsb.mlit.go.jp/aircraft/rep-acci/AA2024-2-1-JR0628.pdf (Japanese only)		
3	Date of publication	Date and location	Operator	Aircraft registration number and aircraft type
	May 30, 2024	September 20, 2021 Okuwa-mura, Kiso-gun, Nagano Prefecture	Akagi helicopter Co., Ltd.	JA6200 KAMAN K-1200 (Rotorcraft)

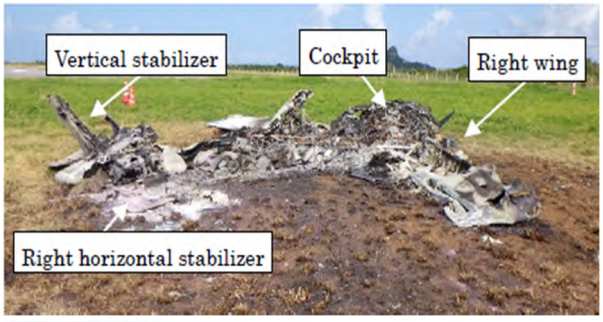
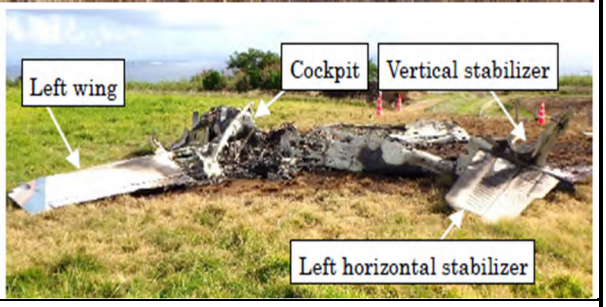
	Summary	While the rotorcraft was hovering for helicopter logging, its engine shut down and crashed. Only the captain was on board the helicopter and sustained a minor injury. The helicopter was destroyed but no fire broke out. 
	Probable Causes	The JTSB concludes that it is certain that the cause of this accident was that while the helicopter was hovering, the engine shut down because the Blade 44 of PT2 rotor was fractured, resulting in the crash. The Blade 44 was fractured because the inspection result of PT2 cumulative gap[*1] was determined to be within the allowable value during the 2nd O/H and the rotor blade and disks were not replaced, which most likely caused the subsequent excessive shroud gap and the flutter[*2] on the blade, leading to the HCF and the fracture. Regarding the judgment that the PT2 cumulative gap inspection result was within allowable value in the 2nd O/H, it is possible that the Inspection Procedure, which allowed for different interpretations, caused variations in shim[*3] tooling quality and shroud gap measurement techniques at the Maintenance Facility, resulting in inaccurate shroud gap measurements. [*1] The 1PT rotor blades are paired with two blades, and there is a gap between each pair called the shroud gap. The "cumulative gap" refers to the total of all shroud gaps between adjacent pairs of rotors. [*2] “Flutter” is a dynamic instability resulting from the interplay between the elastic resilience, inertia, and aerodynamic forces of the rotor blades, and a phenomenon which manifests oscillations centered at a fixed point (rotor blade mounts) persist in proportion to the distance and, if divergent, may lead to structural destruction. [*3] A “shim” is a thin plate used to fill gaps, and by sandwiching the shim between two parts, the gap can be filled, or the height can be adjusted.
	Safety Actions	It is required for the Design and Manufacturing Company (Company B) to consider, including following issues, preventive measures for a reoccurrence of similar accidents, in relation to the Inspection Procedure. (See “3. ANALYSIS” on the Investigation Report.) (1) Specify suitable for shroud gap measurements and calibrated equipment. (2) For the Inspection Procedure, establish specific and quantitative inspection procedure. (3) Be specifically indicate and manage about the contents of shroud gap inspection result records, and the record preservation procedure.
	Report	https://jtsb.mlit.go.jp/aircraft/rep-acci/AA2024-3-1-JA6200.pdf (Japanese) https://jtsb.mlit.go.jp/eng-air_report/JA6200.pdf (English)

4	Date of publication	Date and location	Operator	Aircraft registration number and aircraft type
	May 30, 2024	June 15, 2023 Nantan City, Kyoto Prefecture	Aero Asahi Corporation	JA9678 Aerospatiale AS332L1 (Rotorcraft)

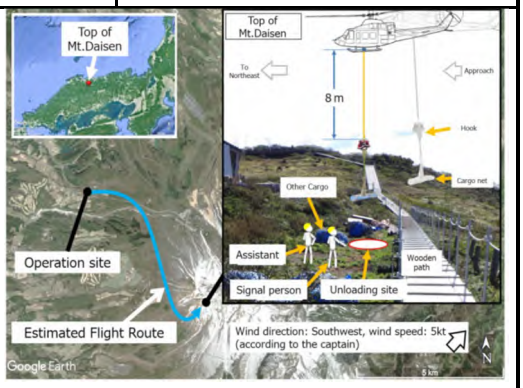
	Summary	When the helicopter lifted the Cargo covered in cargo net[*1] (hereinafter referred to as "Cargo net"), it came into contact with a ground operator in the mountains in Nantan City, Kyoto Prefecture, and the ground operator was seriously injured. [*1]"Cargo net" refers to a tool used to wrap and suspend loads by attaching suspension straps to the four corners of the rope woven nets. 
	Safety Actions	It is necessary for the external cargo sling operators to ensure thoroughly that the ground operators shall never approach cargoes without sending a sign to the onboard mechanic, and that when finding the ground operator has not moved to a safe position during the monitoring of ground work, the onboard mechanic shall secure the safety for the ground work in cooperation with the captain. (See "3. ANALYSIS" on the Investigation Report.)
	Report	https://jtsb.mlit.go.jp/aircraft/rep-acci/AA2024-3-2-JA9678.pdf (Japanese) https://jtsb.mlit.go.jp/eng-air_report/JA9678(3).pdf (English)

5	Date of publication	Date and location	Operator	Aircraft registration number and aircraft type
	June 27, 2024	March 23, 2021 Aoki-mura, Chiisagata-gun, Nagano Prefecture	Privately owned	JA6050 AÉROSPATIAL AS350B (Rotorcraft)
	Summary	The rotorcraft took off from Tokyo Heliport in Tokyo to transport personnel, and while the helicopter was flying toward Matsukawa Temporary Operation Site, Matsukawa-mura, Kitaazumi-gun, Nagano Prefecture, its engine power decreased over the vicinity of Aoki-mura, Chiisagata-gun, Nagano Prefecture. Therefore, the helicopter attempted to make a forced landing on a farm road in Ogami, Aoki-mura, resulting in a hard landing, which caused the captain and three passengers to sustain serious injuries, and two passengers to sustain minor injuries. The helicopter was destroyed but no fire broke out. 
	Probable Causes	The JTSB concludes that the probable cause of this accident was that as the helicopter's engine power most likely decreased during cruising flight, the helicopter attempted to make a forced landing on a farm road in autorotation[*1], and made a hard landing, resulting in injuries to the captain and passengers and the destruction of the helicopter. It is highly probable that the helicopter's engine power decreased during the flight because the power turbine shaft fractured due to the engine's power turbine front bearing seizure, however, it was not possible to determine the cause of the power turbine front bearing seizure. And the reason why it became a hard landing at the time of the forced landing was most likely because in autorotation landing, the altitude at flare[*2]-out became high, and the rate of descent before the touchdown was not sufficiently controlled. [*1] "Autorotation" refers to an autorotation flight, and flight condition in which the main rotor blades responsible for the lift are driven only by the aerodynamic force completely at the time of the rotorcraft in motion. (Airworthiness Inspection Manual) [*2] "Flare" refers to deceleration operation for landing, which allows the rate of descent to reduce by converting kinetic energy into potential energy.

	Safety Actions	(1)As private pilots who fly single-engine helicopters have limited opportunities to take the training of one of emergency procedures taken at the time of engine power loss, it is important for them to fly considering the height velocity-envelope[*3], weight, and wind direction / velocity, and it is important to conduct trainings by imaging the landing site, approach direction, and operations at touchdown in case of attempting a forced landing in autorotation in a daily basis. (2) In case of attempting a forced landing in autorotation, in accordance with the emergency operations procedures, it is necessary to maintain NR and airspeed before the start of flare maneuver. Making an autorotation landing on a narrow place requires such advanced skills of touchdown operations by flare, when is unable to bring the helicopter into the wind, or its weight is too heavy, in order to reduce the load at touchdown as much as possible, it is important for a pilot to select the widest possible site and try to land. (3) When the power turbine front bearing of the same type of engine was replaced, it is desirable for the design and manufacturer company collect the replaced parts, examine the deterioration status, and consider additional countermeasures. [*3] The "height-velocity-envelop, or H/V curve" is a graph charting the height and speed at which a helicopter can safely transition from normal flight to autorotation.
	Report	https://jtsb.mlit.go.jp/aircraft/rep-acci/AA2024-4-2-JA6050.pdf (Japanese) https://jtsb.mlit.go.jp/eng-air_report/JA6050.pdf (English)

6	Date of publication	Date and location	Operator	Aircraft registration number and aircraft type
	June 27,2024	March 12, 2022 Iejima Airport, Okinawa Prefecture	Non-Profit Organization (NPO) Mesh Support	JA4577 BEECHCRAFT A36 (Small aeroplane)
	Summary	When making an approach to Runway 04 at Iejima Airport for familiarization training, the aircraft 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.	 
	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, the only records available to verify the flight conditions were radar wake records, the persons onboard member were fatally injured, and the aircraft was severely damaged.	
	Safety Actions	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. (See "3. ANALYSIS" on the Investigation Report.)	

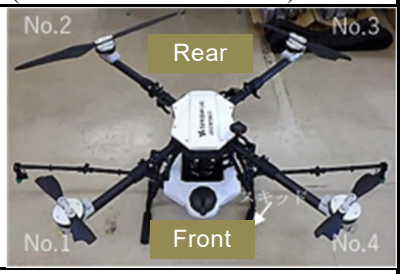
	Report	https://jtsb.mlit.go.jp/aircraft/rep-acci/AA2024-4-1-JA4577.pdf (Japanese) https://jtsb.mlit.go.jp/eng-air_report/JA4577.pdf (English)		
7	Date of publication	Date and location	Operator	Aircraft registration number and aircraft type
	July 25, 2024	September 29, 2023 Daisen Town, Saihaku District, Tottori Prefecture	Shikoku Air Service Co., Ltd.	JA6977 Bell 412EP (Rotorcraft)
	Summary	When the helicopter unloaded the Cargo covered by a cargo net*1 (hereinafter referred to as "Cargo net") at the top of Mt. Daisen in Daisen Town, Saihaku District, Tottori Prefecture, it came into contact with a ground operator and the ground operator was seriously injured. *1"Cargo net" refers to a tool used to wrap and suspend loads by attaching suspension straps to the four corners of the rope woven nets.		
	Probable Causes	The JTSB concludes that in this accident, it is certain that the signal person was injured because while the helicopter was unloading, the Cargo net swung and hit the left leg of the signal person who had moved to the side of the wooden path thinking that assistance work might be required. It is highly probable that the Cargo net hit the signal person because during unloading, the signal person was in the range where the Cargo net could swing and reach. Distracted by the assistant moving between the Cargo net and other cargo, the signal person took the eyes off from the Cargo net, which also more likely contributed to.		
	Safety Actions	The company needs to ensure that ground operators are fully aware of the ground work (unloading) precautions that the company has established. In addition, if assistance work such as adjusting position or direction of suspended cargo is expected, it is required that the work should be done in a way that allows assistance work to be conducted in the safe position even if the suspended cargo swings, for example by attaching a rope for assistance work.		
	Report	https://jtsb.mlit.go.jp/aircraft/rep-acci/AA2024-5-1-JA6977.pdf (Japanese) https://jtsb.mlit.go.jp/eng-air_report/JA6977.pdf (English)		
8	Date of publication	Date and location	Operator	Aircraft registration number and aircraft type
	August 29, 2024	November 28, 2022 Miyakonojo City, Miyazaki Prefecture	Shikoku Air Service Co., Ltd.	JA6977 Bell 412EP (Rotorcraft)
	Summary	The rotorcraft operated by Shikoku Air Service Co., Ltd., was lifting a cargo during cargo sling operation near the summit of Mt. Ohachi in the Kirishima Mountain Range, Miyakonojo City, Miyazaki Prefecture, the cargo away from the ground came close to a ground operator. Unable to avoid the approaching cargo, the ground operator grabbed it by his hands and his body was lifted along with the cargo. The ground operator left the hands from the cargo immediately after that but was injured when landing on the ground.		



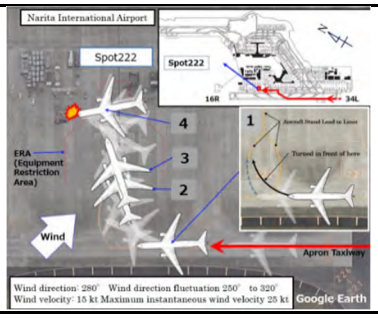
The position at which the Marshaller grabbed Mokko1

The position at which the Marshaller left his hands off Mokko1

	Probable Causes	The JTSB concludes that the probable cause of this accident was that a cargo (Mokko[*1]) lifted by the helicopter swung backward when being away from the ground and came closed to the Marshaller, then the Marshaller unable to avoid the Mokko grabbed it by his hands, but left the hands from the Mokko immediately after being lifted along with the Mokko, and fell, most likely resulting in sustaining injuries in landing on the ground. The Mokko swung backward was probably because the helicopter was subject to the wind blowing up from the crater (disturbance), thus its hovering attitude and position were not stable and the deviation between the positions of the Mokko and the helicopter was created, but despite of this situation, the helicopter started the sling cargo operation, which probably contributed to it. Besides, the Marshaller had fallen into the situation where the Marshaller was unable to avoid the approaching Mokko was likely because while the Marshaller was unable to secure enough safe space to move away in the surrounding area, the Mokko was lifted, furthermore likely because they did not properly perform hazard prediction and preliminary education for the work environment peculiar for the cargo sling operation by helicopter such as confirmation of the helicopter movement at the summit and the refuge area to move away around the Mokko. [*1] "Mokko" refers to a tool used to wrap and suspend loads by attaching suspension straps to the four corners of the rope woven nets.
	Safety Actions	(1) From a viewpoint of preventing accidents attributed to the peculiarities of the cargo transport by helicopter in which different companies from different industries work together, the Company needs to ensure to perform the items specified in the Manual, such as hazard prediction including confirmation of refuge area to move away, and preliminary education for the workers. (See "3. ANALYSIS" on the Investigation Report.) (2) It is desirable that the Company should assign personnel with expertise in aircraft operations, identify hazards and evaluate risks from an objective perspective, without being immersed in the work in case of expecting the work environment different from the usual one such as the Summit Cargo Sling Site. (See "3. ANALYSIS" on the Investigation Report.)
	Report	https://jtsb.mlit.go.jp/aircraft/rep-acci/AA2024-6-1-JA6977.pdf (Japanese) https://jtsb.mlit.go.jp/eng-air_report/JA6977-2.pdf (English)

9	Date of publication	Date and location	Operator	Aircraft registration number and aircraft type
	August 29, 2024	July 14, 2023 Kokonoe Town, Kusu District, Oita Prefecture	Privately owned	JU32367E6C22 Sami Sami Lab's SAMI SAMI AGV2 (Small UA and multirotor)
	Summary	The small UA crashed after colliding with a road sign pillar while flying in Kokonoe Town, Kusu District, Oita Prefecture, to practice pesticide spraying. At that time, the operator came into contact with the rotating propeller of the small UA and was seriously injured.		
	Probable Causes	In this accident, it is highly probable that the operator was seriously injured because the operator who was approaching the aircraft came into contact with the rotating propeller after the aircraft collided with a road sign pillar, changed direction toward the operator, and crashed during pesticide spraying training flight. The reason the operator was approaching the aircraft is more likely to be that the operator was flying the aircraft without being aware of the safe separation distance from the aircraft. Additionally, the reason the aircraft collided with the pillar is more likely to be that the operator was flying the aircraft without being aware of the boundaries of the spray area and the safe separation distance from obstacles, and that the operator made an error when interrupting the automatic flight, which made the stopping distance longer than usual.		

	Safety Actions	To prevent the recurrence of similar accidents, operators using small UA for aerial spraying must consider the shape of the spraying area and the position of nearby obstacles, arrange assistants at positions according to the flight path, and ensure a safe distance between the aircraft and the boundaries of the spraying area, obstacles, and between the operator and third parties during flight. Moreover, it is important for the operator to always maintain a safe distance to avoid obstacles in preparation for unexpected situations and to be proficient in avoidance maneuvers.		
	Report	https://jtsb.mlit.go.jp/aircraft/rep-acci/AA2024-6-2-JU32367E6C22.pdf (Japanese only)		
10	Date of publication	Date and location	Operator	Aircraft registration number and aircraft type
	September 26, 2024	August 1, 2021 Sendai Airport	Privately Owned	JA4077 Piper PA-46-350P (Small aeroplane)
	Summary	The aircraft sustained substantial damage when landing at Sendai Airport during the landing roll because it tilted forward with the nose down, the propellers and the lower forward fuselage contacting with the runway surface. A total of two persons on board the aircraft, including a captain and a passenger, and there were no injuries. 		
	Probable Causes	The JTSB concludes that the probable cause of this accident was certainly that during the landing roll, fractured was the right foot of the left and right actuator attachment feet fixing the actuator that retained the NLG in the down-locked position, therefore, loads from the NLG concentrated on the left attachment foot, which deformed the engine mount that could no longer support the actuator, leading to the collapse of the aircraft's NLG in the retracted direction. It is certain that because the NLG collapsed in the retracted direction, the aircraft tilted forward, the propellers and the lower forward fuselage contacting with the runway surface to be damaged as well as the actuator in the extended position hit the firewall, deforming it. The right actuator attachment foot fractured was probably because cracks originating from the inner surface of the right actuator attachment foot had occurred in the past due to impacts at the time of landings and others and progressed over the repeated flights. Regarding the occurrence of the cracks that originated from the inner surface of the right actuator attachment foot, the corrosion that occurred on the inner surface possibly contributed to it.		
	Safety Actions	It is probably effective for same model airplanes as the aircraft, equipped with the original engine mount to appropriately conduct the fluorescent penetrant inspection instructed by the Service Bulletin and/or replace the original engine mount with the redesigned one in order to prevent recurrence of similar accidents. (See “3. ANALYSIS” on the Investigation Report.)		
	Report	https://jtsb.mlit.go.jp/aircraft/rep-acci/AA2024-7-1-JA4077.pdf (Japanese) https://jtsb.mlit.go.jp/eng-air_report/JA4077.pdf (English)		
11	Date of publication	Date and location	Operator	Aircraft registration number and aircraft type
	September 26, 2024	January 25, 2023 Narita International Airport	All Nippon Airways Co., Ltd.	JA603A Boeing 767-300 (Large aeroplane)

	Summary	The aircraft operated by All Nippon Airways Co., Ltd., landed at Runway 34L at Narita International Airport, and turned toward its Spot during taxing within the apron, however, slid on the icy surface of the Spot and collided with a ground service equipment parking in the vicinity, resulting in damage to the airframe. 
	Probable Causes	The JTSB concludes that it is certain that the probable cause of this accident was that while turning toward the Spot, the aircraft slid on the icy surface on the Spot and the PIC became unable to control the taxiing of the aircraft, thus the aircraft collided with a ground service equipment parking around the Spot, resulting in damage to the airframe. The aircraft slid on the icy surface probably because the surface conditions on the Spot had not been fully improved for the taxing of the aircraft, and its taxiing speed was not the one to cope with the surface conditions on the Spot. The surface conditions on the Spot had not been fully improved because the spray range and amount of the anti-icing agents were inappropriate, which probably contributed to it. In addition, the aircraft's taxiing speed was not the one to cope with the surface conditions on the Spot probably because the information that would affect the taxiing of aircraft was not provided to the flight crewmembers of the aircraft from the ground.
	Safety Actions	It is important for the company to stipulate the specific spray procedures for the anti-icing agents to ensure the spot surface conditions are suitable for aircraft to taxi safely. In addition, it is important for those who support aircraft operations by the Operation Assistant and others from the ground to ensure to provide timely the flight crewmembers with the information not limiting to the surface conditions of spots but could affect aircraft taxiing control. (See "3. ANALYSIS" on the Investigation Report.)
	Report	https://jtsb.mlit.go.jp/aircraft/rep-acci/AA2024-7-2-JA603A.pdf (Japanese) https://jtsb.mlit.go.jp/eng-air_report/JA603A.pdf (English)

12	Date of publication	Date and location	Operator	Aircraft registration number and aircraft type
	September 26, 2024	June 28, 2023 Near Shimojishima Airport, Okinawa Prefecture	PD Aerospace, LTD.	JX0163 PD Aerospace PDAS-X06 (Self-made and pilotless aircraft)
	Summary	The self-made and pilotless aircraft lost radio communication with the control system immediately after take-off from Runway 17 at Shimojishima Airport for a test flight and subsequently landed on the sea north of Shimojishima Airport, resulting in a total loss. 
	Probable Causes	The probable cause of this accident was that the self-made and pilotless aircraft was about to deviate from the pre-set test flight airspace during the test flight, triggering the FTS mode (a function to prevent deviation from the test flight area), which automatically controlled the aircraft to land on the sea surface, resulting in a total loss due to the impact at landing. It is probable that the self-made and pilotless aircraft was about to deviate from the pre-set test flight airspace due to the following factors: ・The loss of communication with the pilot led to a switch to autopilot. ・An unintended altitude drop occurred while flying on autopilot, causing the aircraft to switch to RTH Climb mode, with priority given to regaining altitude.
	Report	https://jtsb.mlit.go.jp/aircraft/rep-acci/AA2024-7-4-JX0163.pdf (Japanese only)

13	Date of	Date and location	Operator	Aircraft registration number

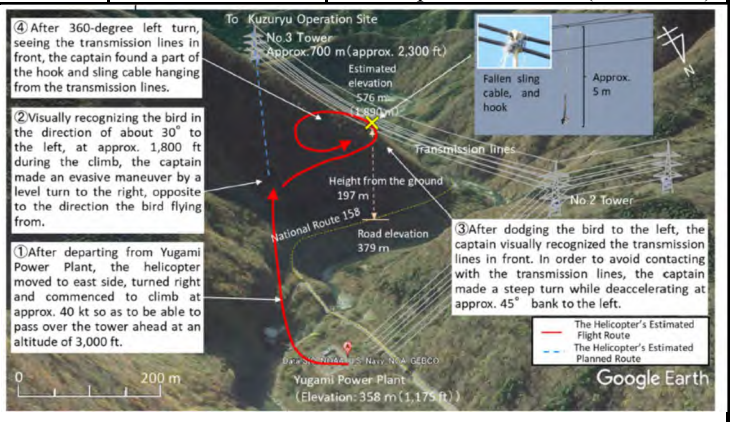
	publication			and aircraft type
	September 26, 2024	June 5, 2024 Yoron Airport, Kagoshima prefecture	Privately owned	JA3712 Piper PA-28-151 (Small aeroplane)
	Summary	While the aircraft was landing at Yoron Airport, it deviated from the runway and collided with the airport's perimeter fence, resulting in damage the leading edges of both wings, and so on.  (Provided by the Civil Aviation Bureau)		
	Probable Causes	The JTSB concludes that the probable cause of this accident was that when the aircraft was on its landing roll and the rudder was used to correct its direction before it had sufficiently slowed down, and the left brake pedal was most likely pressed in the process, which activated the left brake, causing the aircraft to veer to the left, deviate from the runway, enter the grass field, and collide with the perimeter fence, damaging the aircraft.		
	Safety Actions	In the initial training, it is desirable to instruct student pilots to correct heading during the ground run after landing by using the appropriate amount of rudder depending on the speed and to master the appropriate foot position when using the rudder. (See “3. ANALYSIS” on the Investigation Report.)		
	Report	https://jtsb.mlit.go.jp/aircraft/rep-acci/AA2024-7-3-JA3712.pdf (Japanese) https://jtsb.mlit.go.jp/eng-air_report/JA3712.pdf (English)		
14	Date of publication	Date and location	Operator	Aircraft registration number and aircraft type
	October 31, 2024	June 16, 2023 Naha Airport	Privately owned	JA5309 Cessna T303 (Small aeroplane)
	Summary	While the aircraft was on the apron at Naha Airport undergoing an engine function check in preparation for departure, white smoke was seen coming from around No. 1 engine (left) and a warning light indicating a possible engine fire came on, thus the captain shut down both engines. Only the captain was on board the aircraft, no injuries. There was evidence of a fire in the engine cowl housing No.1 engine (left) of the aircraft.		
	Probable Causes	The JTSB concludes that the probable cause of this accident was that the fire on the aircraft was most likely caused by damage to the coupling that connects the turbine part in the left engine cowling to the exhaust tailpipe, which caused the exhaust tailpipe to detach, allowing the hot exhaust gases to be ejected, resulting in a fire from the burning of the heat shield installed at the vicinity of the connections, and hoses and part of the engine cowling. It is possible that the use of the coupling, which was a non-specified part, was likely to have contributed to the cause of the coupling damage.		
	Safety Actions	It is essential that aircraft users should properly inspect and maintain the aircraft in accordance with the latest version of the manufacturer's manual. In addition, it is important to take appropriate actions such as carrying out a detailed inspection when some changes and others that are different from the usual are found during the daily inspection. Besides, it is important that aircraft users should use the specified parts that are certified to meet airworthiness standards. Furthermore, in order to prevent the recurrence of similar accidents, it is essential to carry out regular replacement and others of the coupling in accordance with the Technical Circular Directive (TCD-10180-2023) issued by the Civil Aviation Bureau, Ministry of Land, Infrastructure, Transport and Tourism on September 4, 2023. (See “3. ANALYSIS” on the Investigation Report.)		
	Report	https://jtsb.mlit.go.jp/aircraft/rep-acci/AA2024-8-1-JA5309.pdf (Japanese) https://jtsb.mlit.go.jp/eng-air_report/JA5309.pdf (English)		

Aircraft serious incident investigation reports published in 2024

<table>
<tr><td rowspan="4">1</td><td>Date of publication</td><td>Date and location</td><td>Operator</td><td>Aircraft registration number and aircraft type</td></tr>
<tr><td>January 25, 2024</td><td>Janurary 21, 2023
Naganoshi glider site, Nagano City, Nagano Prefecture</td><td>Nagano Gliding Association</td><td>JA2524
PZL-Bielsko Model SZD-51-1 Junior (Glider, Single-Seater)</td></tr>
<tr><td>Summary</td><td colspan="3">When the glider landed at Naganoshi glider site in Nagano City, Nagano Prefecture, its lower surface of the fuselage forward section touched the runway, resulting in damage to the glider. On board the glider was a captain only, who was not injured.</td></tr>
<tr><td>Probable Causes</td><td colspan="3">The JTSB concludes that the probable cause of this serious incident was that the lower surface of the fuselage forward section more likely contacted with the runway surface because the nose of the glider went down immediately before the touchdown and glider sank with the nose-down attitude. It is probable that the nose of the glider went down because after the glider floated as its nose was excessively up during the approach, the flare maneuvers[*1] were initiated before the glider started sinking again, and the captain, who felt the glider shaken, thought about the possibility of stall, and quickly pushed forward the control stick in order to make nose down operations.

[*1] “Flare maneuver” refers to a series of nose-up control inputs in order to help minimize landing impact for a smooth landing.</td></tr>
<tr><td></td><td>Safety Actions</td><td colspan="3">It is desirable for glider pilots to image the countermeasures in advance in order to response to even the circumstances different from those originally envisaged, such as deviating from the planned route during the approach for landing, before making flight. In addition, even when the glider floats as its nose is excessively up before the touchdown, it is necessary to ensure thoroughly basic procedures such as making flare maneuvers and airbrakes[*2] control according to the sink without rapid nose-down control inputs to attempt to land. (See “3. ANALYSIS” on the Investigation Report.)

[*2] “The airbrakes” refer to the resistance boards mounted on the upper surfaces of the main wings and are extended to modify the lift. When the airbrakes are extended, the lift is reduced, and glider pilots adjust the path angle by operating the lever during the approach for landing. They are also called “dive brakes”.</td></tr>
<tr><td></td><td>Report</td><td colspan="3">https://jtsb.mlit.go.jp/aircraft/rep-inci/AI2024-1-1-JA2524.pdf (Japanese)
https://jtsb.mlit.go.jp/eng-air_report/JA2524.pdf (English)</td></tr>
<tr><td rowspan="3">2</td><td>Date of publication</td><td>Date and location</td><td>Operator</td><td>Aircraft registration number and aircraft type</td></tr>
<tr><td>February 29, 2024</td><td>October 24, 2022
Ono City, Fukui Prefecture</td><td>Nakanihon Air Co., Ltd.</td><td>JA02AH
Eurocopter AS 350 B3(Rotorcraft)</td></tr>
<tr><td>Summary</td><td colspan="3">After completing the cargo transportation in the vicinity of Yugami Power Plant, the aircraft was flying toward Kuzuryu Ski Resort Temporary Operation Site in Ono City, Fukui Prefecture from the loading site in Yugami Power Plant in Ono City, Fukui Prefecture. During this flight, the underslung sling cable was broken as contacting with transmission lines and a part of the hook and sling cable dropped. The sling cable was broken and damaged, in addition, the transmission lines were damaged and required some repair or replacement. There was neither damage to the</td></tr>
</table>

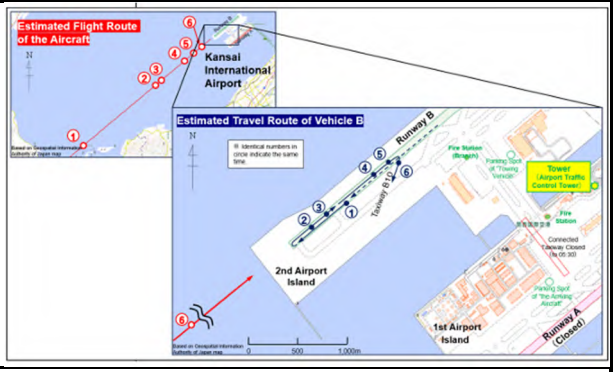
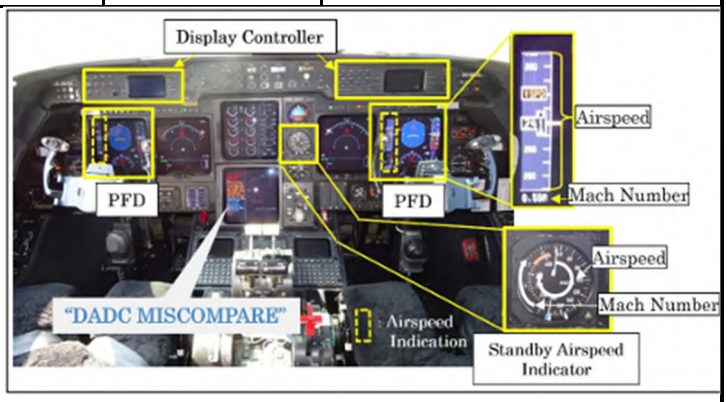


		helicopter nor to the personnel inside and outside the helicopter.
	Probable Causes	The JTSB concludes that the probable cause of this serious incident was that it is highly probable that while the helicopter was making an evasive from transmission lines maneuver by a steep turn, the underslung sling cable contacted with the two transmission lines, and the contact areas on the sling cable were burnt out and severed, then a part of the sling cable and the hook fell onto the transmission line. The reason why the sling cable contacted with the transmission lines was because when the helicopter made a steep turn to avoid a bird strike after a big bird was spotted during the climb, the attention to the transmission lines was diminished, and a level turn was made at the same altitude as the transmission lines, which most likely brought the sling cable to an altitude in which the sling cable would come into contact with the transmission lines and did not allow sufficient clearance.
	Safety Actions	A helicopter's cargo transportation in a mountain region is carried out in narrow areas, it is expected not to have sufficient clearance from obstacles. Therefore, even in the event of encountering hazard such as birds, it is necessary to select in advance such a flight route as enabling to ensure sufficient clearance not to be close to linear obstacles linear obstacles such as transmission lines or overhead wires and fly a helicopter while doing in-flight communication so as not to diminish the attention to linear obstacles.
	Report	https://jtsb.mlit.go.jp/aircraft/rep-inci/AI2024-2-1-JA02AH.pdf (Japanese) https://jtsb.mlit.go.jp/eng-air_report/JA02AH.pdf (English)

3	Date of publication	Date and location	Operator	Aircraft registration number and aircraft type
	June 27, 2024	July 20, 2023 Yao Airport, Yao City, Osaka Prefecture	Asahi Airlines Co.,Ltd.	JA58GC TEXTRON AVIATION G58 (Small aeroplane)

	Summary	When approaching and touching down on Runway 27 at Yao Airport as being operated by the trainee for touch-and-go training, the aircraft repeated bouncing[*1], then executed a go-around controlled by the captain who was the instructor. The post-flight check made by the mechanics found each blade tip of left propeller was damaged, and then confirmed scratch marks on the runway. On board the aircraft were three persons in total with an instructor, a trainee, and a passenger, but no one was injured.  [*1] A "bouncing" is a phenomenon where an aircraft bounces back into the air after the aircraft touched down during landing.
	Probable Causes	The JTSB concludes that the probable cause of this serious incident was that during the continuous touch-and-go training, the aircraft bounced at the time of the first touchdown and made a hard touchdown on the nose landing gear while being tilted to the left at the time of the second touchdown, which more likely caused each blade tip of left side propeller to come to contact with the runway. It is probable that the aircraft made a hard touchdown on the nose landing gear was because the maneuvering operation failed to properly control the aircraft's attitude and power to set the speed required when the aircraft passed the runway approach end, in addition, despite such a condition that the aircraft would bounce at touchdown, they continued landing without executing a go-around.
	Safety Actions	The company should manage that the company's pilots thorough to comply with the go around policy and to conduct in ensuring exterior inspections during pre- and post-flight checks.
	Report	https://jtsb.mlit.go.jp/aircraft/rep-inci/AI2024-3-2-JA58GC.pdf (Japanese) https://jtsb.mlit.go.jp/eng-air_report/JA58GC.pdf (English)

4	Date of publication	Date and location	Operator	Aircraft registration number and aircraft type
	June 27, 2024	July 20, 2023 Kansai International Airport	China Postal Airlines LLC	B-5156 Boeing 737-800

				(Large aeroplane)
	Summary	At Kansai International Airport, after receiving a landing clearance from an air traffic controller, the aircraft attempted to land on Runway 06L being used by a vehicle for runway inspection.		
	Probable Causes	The JTSB concludes that the probable cause of this serious incident was certainly that when Vehicle B was conducting a scheduled inspection on Runway B with the entry permission, the Tower cleared the aircraft to land on the runway, therefore, the aircraft attempted to land. The reason why the Tower cleared the aircraft to land on Runway B despite the existence of Vehicle B on the runway was most likely because as the Tower received the incorrect information that the runway was clear from the Ground who was in charge of radio communications with Vehicle A and Vehicle B, and the Tower did not visually recognize Vehicle B on the runway, therefore, judged that Vehicle B had vacated the runway, thus there would be no obstacles and others on the runway. It is highly probable that the Ground informed the Tower of incorrect information that the runway was clear was because the Ground mistook the report of vacating the runway from Vehicle A for that from Vehicle B.		
	Safety Actions	When air traffic controllers engaged in ground control position's services receives a report from one of several vehicles especially permitted for entering that it has vacated the runway, it is important that they should read it back to the vehicle concerned with the information on the specific runway designator and the current position. Besides, it is important to prevent misidentification of communication parties by thoroughly ensuring the basic actions of communication including conveying the specific information to the related control positions and mutually confirming it. Furthermore, it is important that air traffic controllers engaged in the tower control position's services ensure that the basic actions should be taken to confirm there would be no vehicle on the runway when issuing the take-off and landing clearance. (See "3. ANALYSIS" on the Investigation Report.)		
	Report	https://jtsb.mlit.go.jp/aircraft/rep-inci/AI2024-3-1-B-5156.pdf (Japanese) https://jtsb.mlit.go.jp/eng-air_report/B-5156.pdf (English)		
5	Date of publication	Date and location	Operator	Aircraft registration number and aircraft type
	August 29, 2024	May 22, 2020 At an altitude of about 13,200m, about 300km southwest of Tokyo International Airport	Prime Jet, LLC	N146BG GULFSTREAM AEROSPACE G-IV (Large aeroplane)
	Summary	The aircraft operated as a positioning flight by Prime Jet, LLC became the airspeed indications unreliable on both primary flight displays [*1] (PFDs) receiving the air-data from a remaining Digital Air Data Computer [*2] (DADC) when commencing the descent for landing while the flight crew members had deactivated one of the two DADCs, which the flight crew members decided that it had failure during the cruise for the		

		Tokyo International Airport after the take-off to position the Aircraft from Phnom Penh International Airport. After that, the Aircraft landed at Tokyo International Airport. There were three people on board, including two crew members other than the captain in the Aircraft, no one was injured, and the aircraft had no damage. *1 "Primary Flight Display" is an integrated instrument that displays information necessary for flight, such as attitude, altitude, and speed. *2 "Digital Air Data Computer" is a device that processes outside air information and digitally outputs such as altitude, speed, temperature, and others.
	Probable Causes	The JTSB concludes that the probable cause of this serious incident is certainly to be determined as falling under the category of multiple malfunctions in one or more systems installed on aircraft impeding the safe flight of aircraft because both airspeed indications became unreliable when the aircraft began the descent in the situation where the flight crew members deactivated No. 2 DADC determined to be faulty as the action for the DADC MISCOMPARE message and the PFDs for both seats use the data from No. 1 DADC. It is possible that the reason that the airspeed indications on the PFDs for both seats, which had been using the data from No. 1 DADC became unreliable was because the aircraft was flying through airspace where ice crystals existed and the No. 1 pitot line was blocked. Regarding the operating status of No. 2 DADC determined to be faulty by the flight crew members, it could not be determined with almost no records on the DFDR except the one during the descent and few objective factual information.
	Safety Actions	The design and manufacturing company probably needs to reorganize the descriptions in the QRHs*3 related to DADC MISCOMPARE message. (See "3. ANALYSIS" on the Investigation Report.) *3 "QRH" stands for Quick Reference Handbook, which describes the contents of the Airplane Flight Manual regarding emergency operations and performance for quick retrieval and viewing in actual flight operations.
	Report	https://jtsb.mlit.go.jp/aircraft/rep-inci/AI2024-4-2-N146BG.pdf (Japanese) https://jtsb.mlit.go.jp/eng-air_report/N146BG.pdf (English)

6	Date of publication	Date and location	Operator	Aircraft registration number and aircraft type
	August 29, 2024	June 2, 2022 Kagoshima Airport	Independent Administrative Institution Civil Aviation College	JA74MD Cirrus SR22 (Small aeroplane)
			Kagoshima International Aviation Co., Ltd.	JA02KG Agusta A109E (Rotorcraft),

	Summary	At Kagoshima Airport, while a Cirrus SR22, JA74MD, operated by Independent Administrative Institution Civil Aviation College, stopped on Taxiway T2 in preparation for take-off following the instruction from an air traffic officer, an Agusta A109E, JA02KG, operated by Kagoshima International Aviation Co., Ltd., attempted to approach and land to the take-off and landing position for helicopters (Helipad) established on the taxiway in order to perform a stop-and-go*1 being cleared by another air traffic controller. *1 The "stop and go" means that an aircraft stops once on the runway (on the helipad set on the taxiway in this serious incident) and takes off from that position.  Aircraft B
	Probable	The JTSB concludes that the probable cause of this serious incident was certainly that the

	Causes	Tower issued a clearance to perform a stop-and-go at the Helipad to Aircraft B, despite the presence of Aircraft A, which was stopped on the taxiway set with the Helipad. It is highly probable that the reason why the Tower cleared Aircraft B to perform a stop-andgo at the helipad was because the Tower had not sufficiently visually confirmed that there were no aircraft and others there that could obstruct a stop-and-go by Aircraft B, and had not recognized the presence of Aircraft A. The failure of the Tower to recognize the presence of Aircraft A was probably due to the fact that the Tower missed the opportunity to recognize the presence of Aircraft A because the Tower did not request prior approval from the Ground responsible for managing the Helipad and because the Ground did not transfer the radio communication for Aircraft A to the Tower. It is possible that a background factor in these incidents was the heavy workload on the Tower due to a temporary increase in traffic.		
	Safety Actions	When the air traffic controller in charge of the tower control position issues a clearance for landing or stop-and-go and others, it is the basic actions to ensure sufficient visual confirmation that there would be aircraft and other obstructions in the vicinity. In addition, it is necessary for the control tower to ensure the safety of helicopters landing or performing stop-and-go on the Helipad and aircraft on the taxiway by establishing the specific procedures for approval and permission with regard to the method of operation and use of the Helipad and taxiway set with the Helipad as countermeasures to reduce risk. (See “3. ANALYSIS” on the Investigation Report.)		
	Report	https://jtsb.mlit.go.jp/aircraft/rep-inci/AI2024-4-3-JA74MD_JA02KG.pdf (Japanese) https://jtsb.mlit.go.jp/eng-air_report/JA74MD_JA02KG.pdf (English)		
7	Date of publication	Date and location	Operator	Aircraft registration number and aircraft type
	August 29, 2024	July 14, 2023 Near Kohnan Airfield, Okayama City, Okayama Prefecture	Okayama Air Service Co., Ltd.	JA10AZ CESSNA 172R (Small aeroplane)
	Summary	The aircraft operated by Okayama Air Service Co., Ltd., was approaching Runway 09 at Kohnan Airfield when its engine was stopped. The aircraft continued to approach and stopped on the taxiway after landing on the runway. There were three persons on board the aircraft, consisting of the captain, a trainee, and a passenger, but no one was injured.		
	Probable Causes	The JTSB concludes that the probable cause of this serious incident was most likely that when the aircraft was flying, the fuel supply flow to the engine was interrupted, resulting in the engine shutdown. Regarding the interruption of fuel supply flow to the engine, it is possible that with the low remaining fuel flow in the fuel tanks, its fuel tank outlets were uncovered due to the change in flight attitude and the fuel flow to the engine decreased, which allowed air entered in the fuel line to interrupt the fuel flow to the engine.		
	Safety Actions	It is important to load the sufficient fuel before flight according to the purpose and duration of the flight, and it is necessary to ensure that an aircraft does not prolong uncoordinated flight with low remaining fuel in the fuel tanks. (See “3. ANALYSIS” on the Investigation Report.)		
	Report	https://jtsb.mlit.go.jp/aircraft/rep-inci/AI2024-4-1-JA10AZ.pdf (Japanese) https://jtsb.mlit.go.jp/eng-air_report/JA10AZ.pdf (English)		

7 Provision of factual information in 2024 (aircraft accidents and serious incidents)

The information (on aircraft serious incident) provided in 2024 was 1 case, the details thereof are as follows:

The information provided on the serious aircraft incident on August 15, 2022

(Information provided on March 29, 2024)

(Summary of the Aircraft Serious Incident)

On August 15, 2022, around 12:32 PM, a privately owned Christen Industries A-1 JA4083 (hereinafter referred to as "Aircraft A") was flying after take-off from Runway 14 at the Menuma Gliding Field in Kumagaya City, Saitama Prefecture, while towing an Alexander Schleicher ASK21 (glider) JA2520 (hereinafter referred to as "Aircraft B"), operated by RIKKYO UNIVERSITY. During this time, Aircraft B overtook Aircraft A from above, causing the tow line to break. While Aircraft B performed a towline detachment operation at an altitude of 500 meters, part of the tow line that had broken and remained on Aircraft B (made of polyester with a diameter of approximately 7 mm, approximately 60 m long, and weighing approximately 1.5 kg, including two metal connecting rings 4 cm in diameter (hereafter referred to as "ring pair")) fell.

Subsequently, Aircraft A landed normally at Runway 14 of the same gliding field at 12:39 PM, and Aircraft B landed at 12:44 PM. The fallen towline has not been discovered to date, and there have been no reports of damage to people or property on the ground.

(Provision of Information)

The investigation to date has revealed the following facts:

- Aircraft A is equipped with a retractable glider towing device approved by the Federal Aviation Administration of the Federal Republic of Germany (Luftfahrt-Bundesamt), which is designed to break the breaking point[*1] attached to the tip of the towline inside the stabilizer[*2] when a load exceeding the design load is applied, allowing the remaining towline on Aircraft A to be retracted by the device. However, the tip of the Japanese-made towline 1 used by Aircraft A did not have a braking point attached, and towline 1 had broken at a knot inside the stop egg[*3].
- Therefore, tow lines 1 and 2 as recommended by the designer and manufacturer of the device, and the breaking point (hereinafter referred to as the "Breaking Point (white)") of the type described in the working instructions (hereinafter referred to as the "Work Instructions") approved by the Federal Aviation Administration of the Federal Republic of Germany (Luftfahrt-Bundesamt), the country in which the device was designed and manufactured, were tested. When a tensile strength test was conducted (nominal tensile strength 500 ± 50 daN), the results were as shown in Attached Tables 1 and 2.
- The test results indicate that the tensile strength of the towline under operational conditions, where a single knot is made inside the stop egg, is weaker than the measured tensile strength of the breaking point (white). Therefore, even when the breaking point (white) is correctly attached and towline 2 as recommended by the designer and manufacturer of the device is used, it has been

found that there is a possibility that the towline will break at the knot made inside the stop egg before the breaking point (white) breaks.

*1 The "breaking point" refers to a metal plate that breaks when excessive load is applied to the towline, disconnecting the towline from the glider, and is also referred to as a "fuse," "breaking piece," "weak link," or "towline safety device."

*2 The "stabilizer" is also referred to as the "end piece" and is a fitting attached to the tip of the towline on the glider side (the towed aircraft side), connecting to the glider via the ring pair. The towline is threaded through the stabilizer, and an eight-shaped knot is made at the tip, which is then housed inside the stabilizer.

*3 The "stop egg" is an egg-shaped device attached to the end of the towline to prevent the towline from being pulled out further from the rear end of the towing aircraft, allowing the towline to stop with a stopper installed at the rear end of the towline. By making a knot in the towline inside the stop egg, it ensures that the position of the stop egg does not shift. This prevents the pulling force on the towline from being transmitted directly to the winding device under the towing glider.

*The details of the information provided is included on the website of the JTSB.
https://jtsb.mlit.go.jp/iken-teikyo/JA4083_JA252020240329.pdf (Japanese only)