AIRCRAFT SERIOUS INCIDENT INVESTIGATION REPORT

September 11, 2025
Adopted by the Japan Transport Safety Board
Chairperson RINOIE Kenichi
Member TAKANO Shigeru
Member MARUI Yuichi
Member SODA Hisako
Member TSUDA Hiroka
Member MATSUI Yuko

Company	Academic Corporate Body Hiratagakuen
Type, Registration Mark	Eurocopter EC135P2+ (Rotorcraft), JA824H
Incident Class	Case equivalent to "landing on an unassigned runway" Case equivalent to the item (ii), Article 166-4 of the Ordinance for Enforcement of the Civil Aeronautics Act of Japan (item (xviii) of same Article)
Date and Time of the Occurrence	At about 13:45 Japan Standard Time (JST: UTC+9 hours), August 8, 2024
Site of the Incident	On the runway at Kobe Airport

1. PROCESS AND PROGRESS OF THE SERIOUS INCIDENT INVESTIGATION

Summary of the Serious Incident	On Thursday, August 8, 2024, when landing at Kobe Airport, the helicopter landed on the runway instead of at the designated take-off/landing site for helicopters (helipad), which was located on a taxiway and had been assigned by the air traffic controller (hereinafter referred to as "the ATC").
Outline of the Serious Incident Investigation	On August 8, 2024, the Japan Transport Safety Board (JTSB) designated an investigator-in-charge and an investigator to investigate this serious incident. Comments on the draft Final Report were invited from the parties relevant to the cause of the serious incident and the Relevant State.

2. FACTUAL INFORMATION

Aircraft Information

Aircraft type: Eurocopter EC135P2+
Serial number: 0941 Date of manufacture: October 21, 2010
Airworthiness certificate: Nil (The special flight permission under the proviso of Article 11, Paragraph 1 of the Civil Aeronautics Act had been obtained to conduct in-house test flights prior to undergoing an airworthiness inspection.)

Personnel Information

Pilot: Age 68
Commercial pilot certificate (Rotorcraft) March 20, 1978
Ratings and Limitations: Class rating for Land Multi-Turbine February 4, 1998

Pilot competency assessment/confirmation

Expiration Date of Piloting Capable Period: May 17, 2026

Flight instructor rating (Rotorcraft) January 12, 1981

Commercial pilot certificate (Airplane) June 10, 1977

Class 1 aviation medical certificate Validity: April 27, 2025

Total flight time

11,749 hours 51 minutes (8,245 hours 31 minutes of which were on a helicopter)

Meteorological Information

At the time of the occurrence of the serious incident, the weather at Kobe airport was clear, a 10 kt wind was blowing from the southwest, and visibility was good.

Event Occurred and Relevant Information

(1) History of the Flight

At 13:28, the helicopter took off from Kobe Airport's W helipad with the pilot in the right pilot's seat and a mechanic in the left seat to inspect the radio equipment prior to the airworthiness

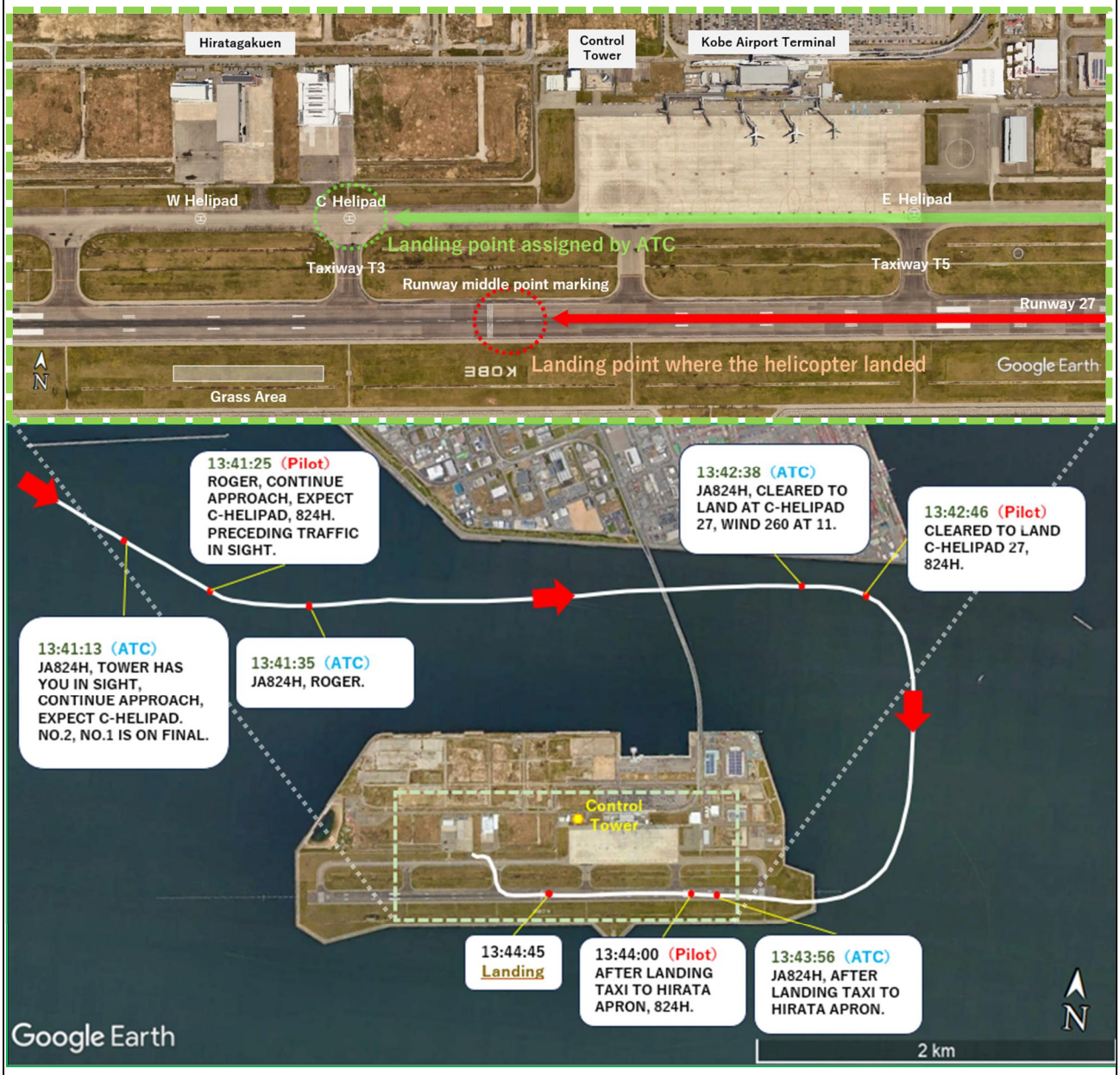


Figure 1: Flight Track, Landing Point, and ATC Communications

inspection. The helicopter carried out a transmission and reception test of the radio equipment at a point about 15 km (8 nm) northwest of the airport.

At around 13:38, the pilot asked the ATC at the airport for landing instructions, and the pilot was instructed by the ATC to report on the right downwind leg of Runway 27. At around 13:41, as the helicopter was entering the right downwind leg, the ATC instructed the helicopter to continue its approach to C helipad and provided the traffic information of another helicopter (hereinafter referred to as the "preceding helicopter") that was flying on the final leg. The pilot read back the instructions and informed the ATC that the preceding helicopter was in sight. The pilot felt relieved that the preceding helicopter had been visually recognized, and thought it became possible to concentrate on the pilot's own approach. While flying the downwind leg, the pilot remembered that the heading for the downwind leg specified in the course implementation guidelines established by Hiratagakuen Aviation School (hereinafter referred to as "the school") had been slightly off during the previous day's flight, and decided to fly along the route to confirm the correct heading. After confirming that the preceding helicopter had left C helipad, the ATC cleared the helicopter to land at C helipad, stating, "CLEARED TO LAND AT C-HELIPAD 27" (the ATC terminology for landing clearance will be explained in (4) below). The pilot read back the landing clearance, "CLEARED TO LAND C-HELIPAD 27," and turned to the base leg. As flying along the traffic pattern and checking the leg headings, the pilot began to think that this would be a good opportunity to brush up the pilot's own skills, and decided to fly faithfully to the specifications of the course implementation guidelines. The helicopter made the final turn toward Runway 27 without aligning with the parallel taxiway where C helipad was located. According to the pilot, landing accurately in accordance with the procedure specified in the course implementation guidelines was something the pilot often did when conducting touch-and-go training on a runway. The mechanic had been listening to radio communications while completing the check sheet and had believed that the helicopter had been cleared to land at C helipad, so felt something was off when the mechanic found the helicopter heading for Runway 27. However, the mechanic was not confident in the knowledge of ATC communications and thought that the mechanic might have misheard, so did not point this out to the pilot. The ATC visually confirmed the helicopter when issuing landing clearance to the helicopter, when it was making its final turn, and when it was flying over the area near Taxiway T5, but it did not appear to the ATC that the helicopter was attempting to land on Runway 27.

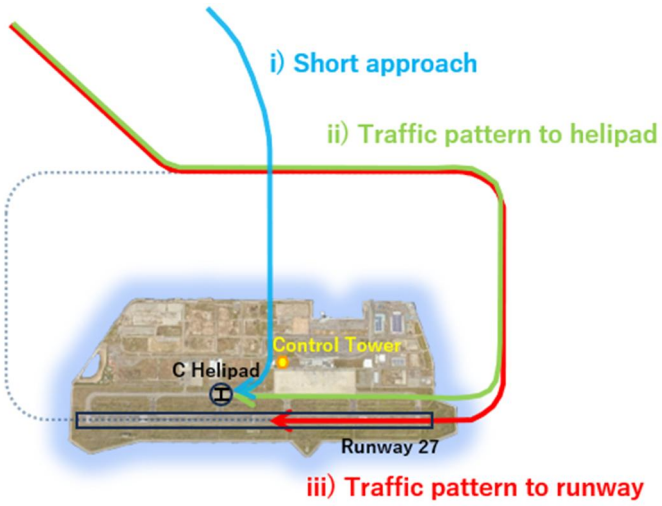
At around 13:45, the helicopter landed at the point on Runway 27, which was a little short of the runway middle point marking. After checking the situation in the vicinity of C helipad where the helicopter had been given a clearance to land, the ATC confirmed the helicopter's position and found that it was about to land on Runway 27. The pilot did not realize that the helicopter had landed at an unassigned landing point until the pilot was pointed out by a telephone call from the Civil Aviation Bureau after returning to the workplace.

(2) Landing Procedures of Helicopters at the Airport

In addition to the runway, the places where helicopters can take off and land within the airport's restricted area are the W helipad, C helipad, E helipad, and the Grass area. The use of each helipad and Grass area is limited to the period from sunrise to sunset, and only when the airport is in visual meteorological conditions. They are also distinguished as follows: E helipad is mainly used by transient helicopters; the Grass area is used for training such as hovering; touch-and-go and hovering are prohibited at each helipad, etc. For this reason, the school's helicopters

mainly use the runway for training flights to obtain certification, and the helipads for conducting test flights of the helicopter, when they take off or land.

At the airport, the main landing route for helicopters coming from the north side of the airport when Runway 27 is in use is as shown in Figure 2. According to the ATC at the airport, non-training helicopters are often landed at the helipad using a short approach for time and fuel efficiency reasons, but if there are obstacles to the use of the helipad on the taxiway due to the departure and arrival of scheduled passenger flights and so on, they will instruct such helicopters to land on the runway. The pilot had initially anticipated a short approach return flight as shown in i) in Figure 2, but as the helicopter ended up following a preceding helicopter, the pilot expected a landing at the helipad via the traffic pattern shown in ii) in Figure 2.



(Other than above, landing can be made at the Grass-Area)

Figure 2: Helicopter Landing Route from the north of the airport

(3) The Pilot's Flight Status for the Past Week

At the school, the pilot had conducted flights related to helicopter airworthiness inspections, ferry flights, and training flights for obtaining pilot certificate or captain qualification, but had hardly flown at all for approximately two months up until one week before the serious incident occurred. After resuming flights, the pilot made twenty-seven landings in total until the day before the serious incident occurred, but only one of these was the landing on the runway under the pilot's own control. According to the pilot, during this landing on the runway, the landing approach was made with a slightly smaller turn than usual, and the traffic pattern was not flown in accordance with the specifications in the course implementation guidelines.

(4) Air Traffic Control Terminology for Landing Clearance at the Airport

When this serious incident occurred, the ATC issued landing clearance using the term, "CLEARED TO LAND AT C-HELIPAD 27." At Kobe Airport, when issuing landing clearance at a helipad, the runway direction, "09" or "27," is usually added after the name of the helipad being cleared to land, in order to clearly indicate the direction of the landing approach. According to the pilot's statement, the pilot had never misunderstood this terminology as the landing clearance on Runway 27, and understood at this point that the landing clearance at C helipad had been received.

(5) Pre-landing Checks

When this serious incident occurred, the pilot did not personally reconfirm the landing point after receiving landing clearance from the ATC. In addition, neither the mechanic nor the ATC reconfirmed the landing point with the pilot. According to the pilot, when flying an airplane, the pilot would call out the landing runway along with checking the flap setting and landing gear extension, but when flying the school's helicopter, there was no need to check the landing gear extension, so the pilot did not make a callout on final approach.

(6) Continuous Visual Contact with Aircraft and others by the Airport Traffic Control Tower

The following provision is prescribed in Air Navigation Services Handbook Chapter 5: Air

Traffic Control Service Procedures III (III) 1 (1) b.

The Airport Traffic Control Tower shall make efforts of continuous visual contact with aircraft and others as much as possible, (omitted)

Besides, PANS-ATM, which specifies the procedures for supplementing Annex 11 (Air Traffic Services) of the Chicago Convention, prescribes the following provision.

7.1.1.2 Aerodrome controllers shall maintain a continuous watch on all flight operations on and in the vicinity of an aerodrome as well as vehicles and personnel on the manoeuvring area. (omitted)

(7) Past Cases where Pilots Deviated from Air Traffic Control Instructions Despite Correctly Read Back the Instructions.

According to publicly available JTSB's aircraft accident/incident investigation reports, there have been at least 14 cases in the past 18 years where pilots deviated from instructions or clearances from the ATC, even though they correctly read back those instructions or clearances. These were all incidents that occurred at the Airport Traffic Control Tower, with nine cases*1 involving departing aircraft and five cases*2 involving arriving aircraft.

3. ANALYSIS

The JTSB concludes that the pilot was certainly instructed to land via the traffic pattern when returning from the test flight. It is most likely that the pilot, who had a chance to make a landing on the runway under the pilot's own control only once in over two months, viewed the flight as a good opportunity to maintain the pilot's own skills while flying the traffic pattern, and focused on flying accurately based on the specifications in the school's course implementation guidelines. Because precise flight on a traffic pattern based on the specifications in the school's course implementation guidelines is often performed during touch-and-go training, it is highly probable that the pilot felt as if aiming for the runway when approaching, just in the same way as touch-and-go training, and the pilot's awareness shifted from landing on the helipad to landing on the runway, which resulted in the pilot's landing on the runway.

The airport has the runway, the Grass area, and three helipads for landing helicopters, which are used depending on the purpose of the flight, weather conditions, traffic conditions and others. Pilots need to make sure that the point they are about to land is not different from the ATC instructions.

After the ATC confirmed that the pilot had correctly read back the clearance to land at C helipad, the ATC visually confirmed the helicopter when it was making its final turn and when it was flying over the area near Taxiway T5, but did not notice that the helicopter was attempting to land on the runway. It is probable that the ATC was unable to issue any corrective instructions to the helicopter because it was only just before landing that the ATC was able to confirm that the helicopter was moving differently from the instructions. In the past aircraft accident/incident investigations, there have been cases reported in which pilots correctly read back ATC instructions or clearances from the Airport Traffic Control Tower, but then deviated from those instructions or clearances. It is important for the ATC to make efforts to maintain continuous visual contact, given the current situation in which aircraft may be moving differently from instructions even

*1 The JTSB's report numbers are AI2023-5-1, AI2022-3-2, AI2021-1-1, AI2019-5-1, AI2018-8-1, AI2018-2-1, AI2015-6-1, AI2010-1-2 and AI2009-3-1.

*2 The JTSB's report numbers are AI2021-3-2, AI2018-1-1, AI2016-1-1, AI2011-6-1 and AI2010-4-1.

when the correct instructions have been read back.

In this serious incident, in order for the pilot to correct the mistaken landing point, it is highly probable that the pilot would have needed to realize the error while the helicopter was making the final turn and descending toward the landing point. The pilot's callout, an assertion from the mechanic, the ATC's instruction for course correction and others could have prompted the pilot to correct the error, but these were absent, and it is probable that the helicopter did not end up correcting its landing at a point different from the ATC instruction.

4. PROBABLE CAUSES

The JTSB concludes that the probable cause of this serious incident was that it is most likely that the pilot was concentrating on flying in accordance with the specifications in the school's course implementation guidelines when the helicopter landed at the airport, and the pilot felt as if aiming for the runway when approaching, just in the same way as touch-and-go training, and the pilot's awareness shifted from landing at the helipad to landing on the runway, which resulted in the pilot landing on the runway.

5. SAFETY ACTIONS

(1) Safety Actions Required

As shown in the analysis, when an airport has multiple landing points, the aircraft must ensure that the landing point is not different from the ATC's instructions. Besides, it is important for the ATC to make efforts to maintain continuous visual contact, given that, not just in this case, it has been observed in the past that an aircraft moved differently from the instructions even when it has read back the instructions correctly.

(2) Safety Actions Taken after This Serious Incident

a. Safety Actions taken by the school

- The rules have been revised to helicopter pilots to check that the point they are attempting to land is consistent with ATC instructions, which are including the landing point, before beginning their final descent, and the helicopter pilots must not continue the approach if they are unable to accurately grasp this.
- The third-party institution's education and supplementary education to improve TEM*3 and CRM*4 skills were provided to all pilots, and going forward, the regular TEM and CRM training is decided to be provide to them. Similarly, the training to improve TEM and CRM skills was conducted for the onboard mechanics, and going forward, it is planned to be conducted for them taking every opportunity.
- The rules have been established so that the PIC must conduct mutual confirmation of "HOLD SHORT OF RUNWAY," "CLEARED FOR TAKEOFF," and "CLEARED TO LAND

*3 "TEM" stands for Threat and Error Management, and is a concept that ensures safety margins by having crew members predict, recognize, and recover from unsafe factors while operating in a complex operating environment in order to minimize risk. There are three types of unsafe factors: "Threat," "Error," and "UAS (Undesired Aircraft State)," and countermeasures for each are to be taken using "Procedures" and "Resources," etc.

*4 "CRM" stands for Crew Resource Management, and refers to the effective use of all human resources (aircraft crew, dispatchers, mechanics, air traffic controllers, and others), hardware, and information to achieve safe and efficient operations.

(landing point)" on the occasion of take-off and landing at Kobe Airport, if a person capable of communicating with the PIC[*5] is on board the co-pilot seat.

・The Civil Aviation Bureau's notices regarding runway incursions were reconfirmed.

b. Safety Actions taken by Kobe Airport Traffic Control Tower

・The ATC has decided to make efforts to monitor the helicopter's movements until the final stages of landing, and to reconfirm instructions with the pilot if there is any doubt about its movement.

*5 After this serious incident occurred, the school decided that those who hold pilot certification or mechanics who have received TEM training would be considered "persons capable of communicating with the PIC" and would conduct mutual confirmations with the PIC.