

AA2015-2

**AIRCRAFT ACCIDENT  
INVESTIGATION REPORT**

**PRIVATELY OWNED  
J A 2 5 C H**

**February 26, 2015**

 **JTTSB** *Japan Transport Safety Board*

The objective of the investigation conducted by the Japan Transport Safety Board in accordance with the Act for Establishment of the Japan Transport Safety Board and with Annex 13 to the Convention on International Civil Aviation is to determine the causes of an accident and damage incidental to such an accident, thereby preventing future accidents and reducing damage. It is not the purpose of the investigation to apportion blame or liability.

Norihiro Goto  
Chairman,  
Japan Transport Safety Board

Note:

This report is a translation of the Japanese original investigation report. The text in Japanese shall prevail in the interpretation of the report.

# AIRCRAFT ACCIDENT INVESTIGATION REPORT

CONTACT WITH TOWLINE AND GLIDER  
PRIVATELY OWNED SCHEIBE SF25C FALKE  
(MOTOR GLIDER, TWO-SEATER), JA25CH  
KINUGAWA GLIDING FIELD,  
UTSUNOMIYA CITY, TOCHIGI PREFECTURE, JAPAN  
AROUND 13:03 JST, JUNE 14, 2014

February 13, 2015

Adopted by the Japan Transport Safety Board

Chairman Norihiro Goto  
Member Shinsuke Endoh  
Member Toshiyuki Ishikawa  
Member Sadao Tamura  
Member Yuki Shuto  
Member Keiji Tanaka

## 1. PROCESS AND PROGRESS OF THE INVESTIGATION

The Japan Transport Safety Board designated an investigator-in-charge and an investigator on June 14, 2014 to investigate this accident. Comments were invited from parties relevant to the cause of the accident and relevant State.

## 2. FACTUAL INFORMATION

2.1 History of the Flight	<p>According to the statements of the captain (hereinafter referred to as “the Captain”) of privately owned SCHEIBE SF25C FALKE, registered JA25CH (hereinafter referred to as “Glider A”) and the launch controller*<sup>1</sup> at Kinugawa Gliding Field (hereinafter referred to as “the Gliding Field”), the history of the flight up to the time of the accident is summarized below:</p> <p>The Gliding Field is managed and operated by the glider flying club of Utsunomiya University (hereinafter referred to as “the Club”) and only the members of the Club and its relevant persons are using it. On June 14, 2014, the Club members were practicing glider flying by winch towing.</p> <p>The Club requested the Captain for aircraft towing at the Gliding Field, and three gliders were planned to launch by Glider A towing. The Captain</p>
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used to be a flight instructor of the Club in the past.

Glider A took off towing a privately owned PZL-BIELSKO SZD-55-1, registered JA2555 (hereinafter referred to as “Glider B”) from runway 16 in the Gliding Field at around 12:45 as the second towing on that day. In order to check the function of VHF radio telephone equipment installed on Glider B, it was necessary to make a long-distance telecommunication, and it was towed to a higher altitude than usual glider flying practice.

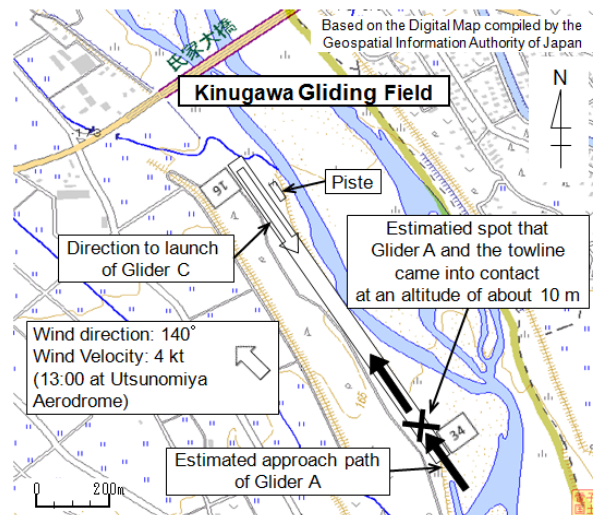
After Glider A released Glider B at an altitude of about 1,100 m above the Gliding Field at around 13:02, it descended rapidly. The captain chose landing to runway 34, so as to become the shortest distance for the surface movement of Glider A after landing when towing the third glider.


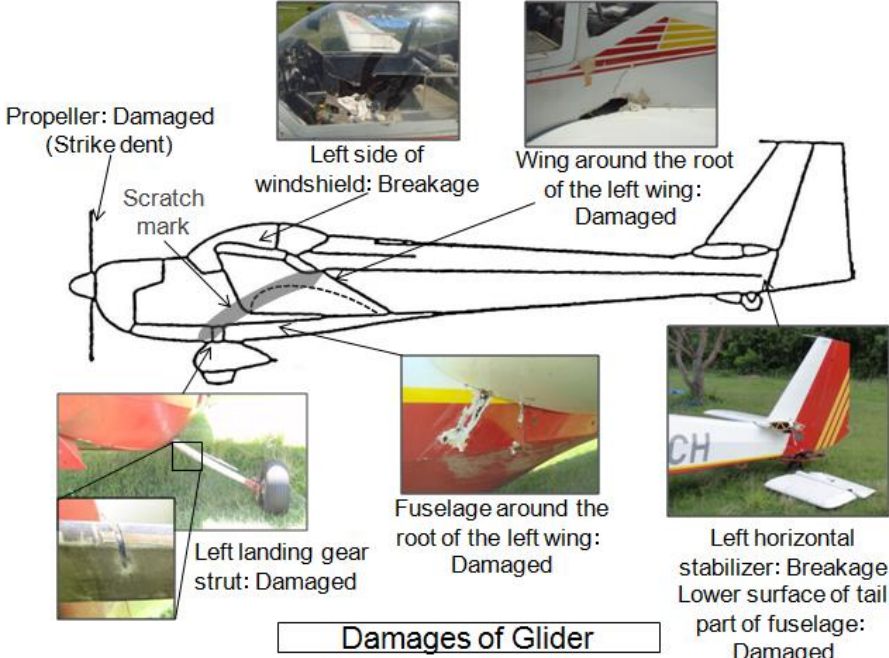
In the Club, the persons who have a certain experience among the Club members take the role of launch controller, and the launch controller on that day was a flight instructor. The launch controller considered that it would take some time for Glider A which towed Glider B to a higher altitude than the usual glider flying practice to return to the Gliding Field, and instructed to prepare the launch by winch towing of Utsunomiya University owned ALEXANDER SCHLIECHER ASK21, registered JA2721 (hereinafter referred to as “Glider C”) from runway 16 after taking off Glider A, and Glider C launched at around 13:03. The towline with a parachute that was released from launched Glider C dropped while being wound up by the winch.

Glider A came into contact with the falling towline released from Glider C at an altitude about 10 m above the runway while approaching to runway 34. The left horizontal stabilizer of Glider A was broken, but the control feeling was as usual and the glider attitude did not change. Glider A landed on the runway at around 13:03, moved on its own to the parking area and stopped.

Fragments of the left horizontal stabilizer and the fuselage of Glider A were scattered on the Gliding Field, at around 100 m inside from the threshold of runway 34.

The Captain’s physical condition was normal on the day of the accident. Glider A was normal until it came into contact with the towline.



2.2 Injuries to Persons	None
2.3 Damage	<p>Extent of damage of Glider A: Substantially damaged</p> <ul style="list-style-type: none"> <li>• Propeller: Damaged</li> <li>• Left side of windshield: Breakage</li> <li>• Left landing gear strut: Damaged</li> <li>• Wing and fuselage around the root of the left wing: Damaged</li> <li>• Left horizontal stabilizer: Breakage</li> <li>• Lower surface of tail part of fuselage: Damaged</li> </ul>   <p style="text-align: center;"><b>Damages of Glider</b></p>
2.4 Personnel Information	<p>Captain Male, Age 73</p> <p>Private pilot certificate (Glider) October 24, 1961</p> <p>Type rating for Motor Glider with Tow Hook July 25, 1973</p> <p>Class 2 Aviation Medical Certificate Validity: June 27, 2014</p> <p>Total flight time 11,428 hr 39 min</p>
2.5 Glider Information	<p>Type of Glider A: SCHEIBE SF25C FALKE</p> <p>Serial number 44661</p> <p>Date of manufacture July 31, 2000</p> <p>Certificate of airworthiness No. 2013-40-25</p> <p>Validity: November 18, 2014</p> <p>Category of airworthiness Motor Glider Utility U</p> <p>Total flight time 1,930 hr 46 min</p>

<p>2.6 Meteorological Information</p>	<p>Aerodrome routine meteorological reports at 13:00 of Utsunomiya Aerodrome located about 20 km south south-west of the Gliding Field were as follows:</p> <p>Wind direction 140°, Wind velocity 4 kt, Visibility more than 10 km</p> <p>Clouds: Amount 1/8, Type Cumulus, Cloud base 3,000 ft Amount 3/8, Type Altocumulus, Cloud base 10,000 ft</p> <p>Temperature 28°C, Dew point 13°C, Altimeter setting (QNH) 29.65 inHg</p>
<p>2.7 Additional Information</p>	<p>(1) Information on the preflight briefing</p> <p>The Captain was requested to tow three gliders on the day of the accident from the launch controller, but the Captain was not notified about the timing of launching Glider C by winch towing.</p> <p>(2) Information on radio communication</p> <p>Glider A had on board VHF radio telephone equipment, but there was no on board HF radio telephone equipment used during gliding practice at the Gliding Field. HF radio station and VHF transceiver were installed at the piste*2 of the Gliding field, but transmitting function of the VHF transceiver was defective and the Captain could not hear radio contact from the launch controller.</p> <p>For this reason, the launch controller signaled the timing of the takeoff to the Captain with gestures, and the Captain followed it to take off with towing Glider B.</p> <p>The Captain did not report the positions and other information of his glider when approaching runway 34 of the Gliding Field.</p> <p>(3) Information on visual contact of the Captain and the launch controller</p> <p>The Captain made a visual contact of glider which was ready to launch from the runway of the Gliding Field, while towing Glider B and climbing up. He confirmed that no gliders were left on the runway while flying down toward runway 34 after releasing Glider B, he continued to approach runway 34 even though he felt doubt about it. The Captain was not aware of the launched Glider C and the falling towline.</p> <p>The launch controller alerted using VHF transceiver that the towline is falling down as he made a visual contact on Glider A approaching to runway 34 of the Gliding Field when he watched the towline falling at the piste, but the Captain could not hear because of the defective transmitting function of the VHF transceiver.</p> <p>(4) Information on the towline</p> <p>The towline was falling down while being wound up by the winch after being released from Glider C. The left horizontal stabilizer of Glider A and the parachute of the towline including the wire on the glider side from the parachute fell down on the Gliding Field, at around 100 m from the threshold of runway 34. The parachute and the wire on the winch side were separated from its connecting part. In addition, the same red paint as the bottom part of the fuselage adhered to a part of the parachute.</p>

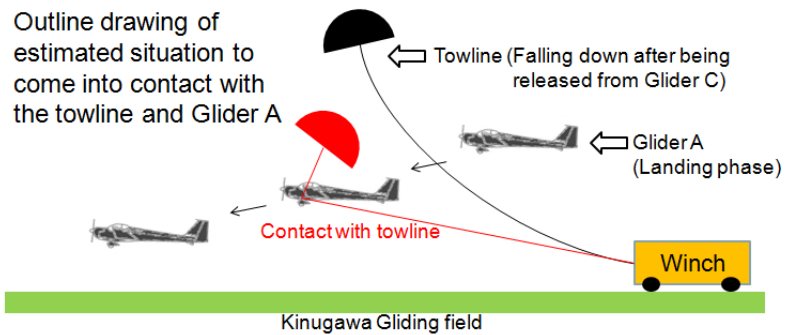
	<p>Towline condition</p>
	<p>(5) Utsunomiya University nominated the responsible person on site who manages the facility and equipment for the aircraft not to disturb the flight based on “Management bylaws of Kinugawa Gliding Field of Utsunomiya University” (hereinafter referred to as “the Management Bylaws”, but as it had not been informed sufficiently, the flight instructor of the Club thought that no responsible person on site was assigned.</p> <p>In addition, “Operation rules at Kinugawa Gliding Field of Utsunomiya University (hereinafter referred to as “the Operation Rules”) are defined for the operation of the Gliding Field, but it contained no provisions concerning communication method with aircraft which use the Gliding Field, and no provisions to launch the glider by aircraft towing and winch towing at the same runway.</p>

\*1 “launch controller” is a person responsible for maintaining the safety and order by controlling the glider launching and landing process using the radio communication as the principal measure.

\*2 “piste” refers to a facility that communicates with gliders and other aircraft flying to exchange information concerning the gliding field, and air traffic in the surrounding area, in order to ensure safe and smooth operation of the gliding field. The Club places the Launch Controller and Record Keeper at the piste in order to control the launching and landing process of the gliders.

### 3. ANALYSIS

3.1 Involvement of Weather	No
3.2 Involvement of Pilot	Yes
3.3 Involvement of Glider	No
3.4 Analysis of Findings	<p>(1) Situation to come into contact with the towline and Glider A</p> <p>As described in 2.1, it is highly probable that the spot where the towline and Glider A come into contact was on the Gliding Field, at around 100 m inside from the threshold of runway 34 and an altitude of about 10 m. It is probable that the parachute and wire of the winch side were torn off at the connecting part after the left wing of Glider A came into contact with the wire of the winch side of towline, and the left horizontal stabilizer of Glider A came into contact with the parachute and was broken.</p>



#### (2) Involvement of the pilot

It is probable that the Captain misunderstood Glider C, which was being prepared to be launched on the runway of the Gliding Field, as the third glider to be towed by Glider A while towing Glider B and climbing up, and hastened to land to runway 34. It is probable that the fact that the Captain was not informed of the timing of the launch of Glider C by winch towing contributed that misunderstood Glider C as the third glider to be towed by Glider A.

It is probable that the reasons why the Captain approached the Gliding Field without reporting the positions and other information of his glider because he recognized that the VHF transceiver at the piste was defective. The Captain should have confirmed the method to communicate with the launch controller about the necessary information during the flight prior to the take off.

#### (3) Operation of gliding field

As described in 2.7 (2), it is probable that the Captain and the relevant persons took off Glider A even though they recognized that the transmitting function of VHF transceiver was defective. Accordingly, it is probable that the system to ensure the communication method with aircraft and the site was not sufficient. The Club which operated gliding field needs to ensure the methods for communicating necessary information with aircrafts taking off or landing at the Gliding Field, including alternative methods in case a failure or other situations occurs in addition to normal methods.

In regards to the operation of launching the glider by aircraft towing and winch towing at the same time on the same runway, taking the safety measures for aircraft towing is considered difficult as it is necessary to extend the towline above the runway to prepare for winch towing. The operator of gliding field should take sufficient safety measures such as assignment of the time slot for aircraft towing and winch towing separately and having preflight briefing among the relevant persons in charge.

#### (4) Handling of the related regulations

As described in 2.7 (5), it is probable that the persons in the Club were not fully conscious of the compliance of the Management Bylaw and inadequacy of the Operation Rules. The relevant persons in the Club need to comply with the related rules and review the contents according to the



	situation in view of ensuring safety.
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#### 4. PROBABLE CAUSES

It is probable that this accident occurred because Glider A approaching to runway 34 at the Gliding Field came into contact with the falling towline released from Glider C which was launched by winch towing from runway 16, and subsequently sustained damage.

It is probable that the fact that the preflight briefing between the Captain and the launch controller was not sufficient, the launch controller could not communicate with Glider A during its flight, and the time slots of launching of the gliders by aircraft towing and winch towing at the same runway were not separated contributed to Glider A coming into contact with the towline. It is probable that the relevant persons in the Club were not fully conscious of ensuring safety as the background of these multiple factors.

#### 5. REFERENCE

In response to this accident, the Club established the safety measures as “Safety operation rule for the glider club of Utsunomiya university ” such as reconfirming the related rules, confirming the methods to communicate the necessary information with aircraft taking off or landing at the Gliding Field, including alternative method in case that failures or other situations occurs in addition to normal methods, having preflight briefing among the relevant persons in charge by separating the time slot for aircraft towing and winch towing.