



DUTCH  
SAFETY BOARD

### Investigations

Within the Aviation sector, the Dutch Safety Board is required by law to investigate occurrences involving aircraft on or above Dutch territory. In addition, the Board has a statutory duty to investigate occurrences involving Dutch aircraft over open sea. Its investigations are conducted in accordance with the Safety Board Kingdom Act and Regulation (EU) no. 996/2010 of the European Parliament and of the Council of 20 October 2010 on the investigation and prevention of accidents and incidents in civil aviation. If a description of the events is sufficient to learn lessons, the Board does not conduct any further investigation.

The Board's activities are mainly aimed at preventing occurrences in the future or limiting their consequences. If any structural safety shortcomings are revealed, the Board may formulate recommendations to remove these. The Board's investigations explicitly exclude any culpability or liability aspects.

# Quarterly Aviation Report

April - June 2019



In the second quarter of 2019, the Dutch Safety Board initiated sixteen limited investigations into occurrences that took place in the aviation sector. With the exception of two, these all relate to occurrences in general aviation.

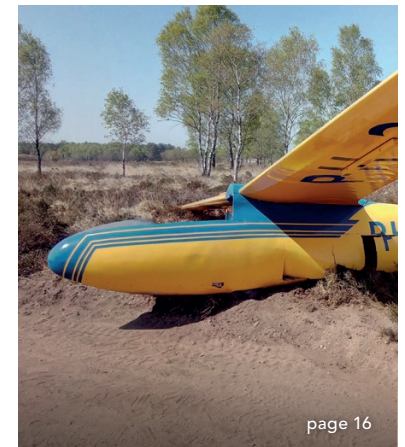
A micro light aircraft ended up in the trees at Hilversum airfield after the pilots encountered an engine problem whilst regaining altitude after a touch-and-go. Both crewmembers were unharmed. Two aircraft collided near Oudemolen whilst training formation flying. One aircraft lost control and crashed, killing pilot and passenger.

Since the Dutch Safety Board published the report 'Accidents in general aviation' in 2014, the number of occurrences involving general aviation aircraft has not decreased. This theme study was initiated following the growing number of serious incidents and accidents with general aviation aircraft in 2012. The goal of the investigation was to gain insight into safety in the general aviation sector. One important conclusion of the study was that general aviation as a sector is primarily responsible for safety within its own ranks. It is important that pilots of general aviation aircraft are aware of their own responsibility to maintain and update their piloting skills and knowledge. Pilots must be well acquainted with the risks and be able to recognise them in order to anticipate problems. The findings set forth in the 2014 report are still valid today.

Jeroen Dijsselbloem  
Chairman, Dutch Safety Board



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# Occurrences into which an investigation has been launched

## Runway excursion, Yak-52, Oostwold Airport, 3 April 2019

A formation of four Yak-52 aircraft returned from a training flight. The formation leader landed first. The aircraft did not come to a stop before the end of the runway and rode through a ditch. The Yak-52 came to a stop against the slope of the ditch. Both crewmembers were unharmed. The aircraft was damaged.

**Classification:** Accident  
**Reference:** 2019023



The Yak-52 after the runway excursion. (Source: Dutch Aviation Police)

## Hard landing, Lindstrand Balloons Ltd., LBL120A, near Twente Airport, 6 April 2019

The hot-air balloon, carrying the pilot and three passengers, made a hard landing. This resulted in one of the passengers suffering a double leg fracture.

**Classification:** Accident  
**Reference:** 2019024

## Stuck in tree after loss of engine power, TL Ultralight TL-3000 Sirius, Hilversum Airport, 8 April 2019

Whilst practising touch-and-gos at Hilversum Airport, the aircraft lost engine power at one point during climb-out in the turn to the crosswind leg. The aircraft ended up in a tree. Both pilots were unharmed. The aircraft was damaged.

**Classification:** Accident  
**Reference:** 2019025



The TL-3000 Sirius after it ended up in a tree.

### Right air brake malfunction, LAK 17 B FES, Biddinghuizen glider airfield, 19 April 2019

The right air brake of the glider did not extend on final approach. On touchdown the right air brake did extend, causing the right wing to drop, which was followed by a ground loop. The glider suffered some damage. The pilot remained unharmed.

**Classification:** *Serious incident*  
**Reference:** *2019032*

### Canopy opened during winch launch, Calif A-21S, Biddinghuizen glider airfield, 29 May 2019

The canopy of Calif A-21S opened during a winch launch. After the winch cable was released from the glider, the pilot and passenger were able to close the canopy again. The pilot returned to the glider airfield but was unable to reach the landing strip, so he opted for an off-field landing. In the course of landing, the glider made a ground loop and was damaged. Both occupants were unharmed. The glider club involved is conducting an investigation.

**Classification:** *Accident*  
**Reference:** *2019045*



*The Calif after the off-field landing. (Source: Dutch Aviation Police)*

### Near-collision, Rolladen-Schneider LS8-18 and Piper PA-28-181, south of Zwartsluis, 2 June 2019

The aircraft passed within short distance of the glider that was turning in a thermal. The glider pilot stated that the aircraft did not change its course.

**Classification:** *Serious incident*  
**Reference:** *2019065*

### Wheel collapsed during landing, Discus CS, Venlo glider airfield, 9 June 2019

In the course of landing, the wheel of the single-seat glider collapsed. The pilot then hit his head against the canopy, resulting in a crack in the canopy. The pilot remained unharmed. The glider club involved is conducting an investigation.

**Classification:** *Accident*  
**Reference:** *2019051*

# Occurrences into which an investigation has been launched

## Airprox, Airbus Helicopters EC175 B and F-16, North Sea, 27 June 2019

The helicopter with fifteen passengers obeyed instrument flight rules at an altitude of 3,000 feet over the North Sea when the pilot performed an evasive maneuver due to an F-16 coming in proximity of the helicopter. The helicopter crew proceeded the flight to Den Helder Airport without further incidents.

**Classification:** Serious incident  
**Reference:** 2019056

## Parachute rescue system activation, TL Stream, Middenmeer airfield, 18 June 2019

During taxiing, the passenger sitting behind the pilot removed the safety pin from the parachute rescue system at the pilot's request. The passenger then accidentally activated the system, after which the parachute was ejected from its housing by the explosive charge and deployed. Neither of the occupants were injured but the aircraft was severely damaged.

**Classification:** Accident  
**Reference:** 2019050



The parachute of the rescue system. (Source: Pilot)

## Mid-air collision, Piper PA-18-125 Super Cub and Piper PA-18-95 Super Cub, Oudemolen, 21 June 2019

Whilst performing a formation flight, the two aircraft collided. As a result, the Piper PA-18-95 became uncontrollable and crashed. Both occupants were fatally injured. The other aircraft was damaged and managed to make an emergency landing. The pilot was lightly injured; the passenger remained unharmed.

**Classification:** Accident  
**Reference:** 2019052



The PA-18-125 after the emergency landing.

Occurrences  
abroad with Dutch  
involvement into  
which an  
investigation was  
launched by a  
foreign authority

### Collision with water, Yak-52, South Stradbroke Island (Australia), 5 June 2019

The Yak-52 with the Dutch pilot and one passenger on board was conducting a flight from Southport Airfield, Queensland in Australia. The aircraft crashed into the water, killing both occupants.

*The Australian Transport Safety Bureau (ATSB) launched an investigation into the occurrence. The Dutch Safety Board offered its assistance.*

**Classification:** Accident  
**Reference:** 2019047



The Yak-52. (Source: ATSB)

# Other occurrences outside the Netherlands with Dutch involvement

## Rudder detached during take-off, Rolladen-Schneider LS6-18W, PH-1365, Stendal-Borstel airfield (Germany), 17 July 2018

Tijdens de lierstart van een Nederlands geregistreerde Rolladen-Schneider LS-6-18W, geregistreerd in Nederland, van Stendal-Borstel vliegveld in Duitsland, getuigen zagen de roedel losraken van zijn scharnieren na de vliegtuig over een hump. Van de grond, de instructeur op de dienst (DDI) merkte op dat de roedel ineffectief bleef en radioerde de piloot, die dit bevestigde. De DDI adviseerde de piloot om terug te keren naar het vliegveld zonder manoeuvres die spanning op de vliegtuig kunnen veroorzaken. De piloot besloot om voort te gaan met slechts lichte bochten. Het landen verliep zonder verdere incidenten.

It was the pilot's first take-off in this particular glider. He possessed a valid Glider Pilot Licence with a winch rating. He had a total flight experience of 83 hours and 319 starts. It was his first flight in this particular glider model.

The gliding club conducted its own investigation and shared its findings with the Dutch Safety Board.

The bolt that is supposed to prevent vertical movement of the rudder had not been reinstalled after being removed during earlier maintenance. It is likely that this was due to inadequate communication between two mechanics. The rudder was disassembled and reassembled several times. The bolt is not visible from outside the glider. Furthermore, the rudder had not been inspected for vertical play prior to the flight in question. The club's report recommends to inspect the rudders for play in all directions in the course of the daily inspection. Furthermore, it recommends establishing maintenance responsibilities unequivocally and conducting a post-maintenance flight control check on the basis of a checklist, which is yet to be defined.

**Classification:** Serious incident  
**Reference:** 2018072



PH-1365 during the landing. (Source: Gliding club)

# Occurrences that have not been investigated extensively

## Runway incursion with bird control vehicle, Canadair Regional Jet CRJ-900, D-ACKB, Amsterdam Airport Schiphol, 31 May 2017

The Dutch Safety Board conducted a limited investigation into the runway incursion that occurred on the Polderbaan (Runway 36L) at Schiphol Airport on 31 May 2017. A bird control officer was conducting a runway inspection of Runway 36L with permission from air traffic control. At the same time, a CRJ-900 received permission from air traffic control for take-off on the same runway. The bird control officer immediately contacted air traffic control and reported that he was still on the runway. Shortly thereafter the take-off clearance for CRJ-900 was revoked.

The Dutch Safety Board decided not to publish a report on this incident. Amsterdam Airport Schiphol and Air Traffic Control the Netherlands have already conducted a joint investigation into the incident and measures that have been implemented, including the introduction of Electronic Flight Strips in the traffic control towers at Schiphol Airport to prevent similar incidents. Furthermore, the incident occurred some time ago, so the expected educational impact of publication is limited.

**Classification:** *Incident*  
**Reference:** *2017055*

## Runway incursion with grass mower, Diamond DA-40D, OO-CDC, Maastricht Aachen Airport, 26 June 2017

The Dutch Safety Board conducted a limited investigation into the runway incursion that occurred on Runway 21 at Maastricht Aachen Airport on 26 June 2017. An airport vehicle (a grass mower), which did not have clearance to cross the runway, started driving in the direction of the runway, intending to cross it. Moments before, air traffic control had given the Diamond DA-40 clearance for take-off. The air traffic controller immediately instructed the pilot to abort take-off, with which the DA-40 complied.

The Dutch Safety Board has decided not to investigate this incident further. Maastricht Aachen Airport and Air Traffic Control the Netherlands conducted a joint investigation and have implemented measures to prevent similar incidents. Furthermore, the incident occurred some time ago, so the expected educational impact of publication is limited.

**Classification:** *Incident*  
**Reference:** *2017088*

## Near-collision, ASK-21, PH-759 and Orlican Discus CS, PH-1268, near Terlet glider airfield, 26 May 2018

The ASK-21, a two-seat glider, was on a training flight from Terlet glider airfield. A licensed pilot with ample flight experience controlled the glider from the front seat. Due to his age, the age limitation policy required the pilot to conduct the flight in the presence of an instructor, who was in the back seat. The Discus, a single-seat glider, was piloted by a soloist<sup>1</sup> and was on a local flight, also from Terlet.

The FLARM collision warning system issued a warning when the ASK-21 was on a linear flight path at an altitude of over 600 metres and approached the Discus. The Discus was performing a left turn in a thermal at virtually the same altitude. The FLARM system also issued a warning on board the Discus. The Discus' pilot saw the ASK-21 approach at a short distance and banked steeply, increasing the distance between the two aircraft. Seen from the cockpit of the ASK-21, the Discus passed from left to right in front of the ASK-21. The pilot of the ASK-21 then banked left, further increasing the distance between the two gliders. These facts are confirmed by the data from the FLARM system.

It is concluded that the pilot in the front seat of the ASK-21 noticed the other glider at a late stage and then failed to assess the situation correctly. As a result, he approached a glider turning in a thermal straight on and failed to perform an evasive manoeuvre. A factor contributing to the incident is that the instructor took off without an adequate forward view from his position in the back of the cockpit due to the pilot's build and hat. The instructor trusted the pilot's perception. Another contributing factor is that the pilot of the Discus did not expect any approaching traffic whilst turning in the thermal and therefore did not look outside the glider sufficiently to anticipate this.

Continuous alertness to other air traffic and a proper scanning technique are vital in preventing collisions. One condition for this is unobstructed visibility from the cockpit.

**Classification:** *Serious incident*  
**Reference:** *2018047*

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<sup>1</sup> A soloist is an unlicensed pilot who flies under the responsibility of the instructor on duty.



# Occurrences that have not been investigated extensively

## Emergency landing, Beechcraft A36 Bonanza, D-EKLB, Vlagtwedde, 25 July 2018

The single-engine aeroplane registered in Germany with two people on board was en route from Norderney Airport, situated on a German island in the East Frisian Islands, to Nordhorn-Lingen Airport in Germany. According to the pilot's statement, while flying at an altitude of approximately 2,000 feet, the engine started to make a strange noise and lost all power shortly afterwards. Attempts to restart the engine by performing the emergency procedures corresponding with a power loss failed and the pilot decided to make an emergency landing. The pilot chose a potato field for this manoeuvre and performed the emergency landing with the landing gear and flaps retracted. According to the pilot, this procedure was intended to prevent the aircraft from flipping over. The aircraft came to a standstill on its belly and sustained minor damage. Both occupants remained unharmed.

The limited investigation performed by the Dutch Safety Board (DSB) focussed on the cause of the engine failure; the execution of the emergency procedure was not investigated.

The pilot was in the possession of a Light Aircraft Pilot License (LAPL) and a medical certificate. He had a total flying experience of 1,180 hours and 1,110 hours on type.

The engine is a Continental IO-550-B, fuel injected six-cylinder, horizontally opposed, air-cooled aircraft engine. At the time of the accident, the engine total time was approximately 1,890 hours. The last maintenance shop visit was a 100 hours inspection on 28 March 2018 with an engine total time of 1,864 hours. No anomalies were found and the engine was signed off for the next 100 hours or 12 months, whatever comes first.

After the accident the engine was shipped to an overhaul shop in Denmark and was disassembled and inspected. One of the push rods was heavily bent. Pistons numbers 1 and 2 were heavily damaged with broken piston rings and metal contamination. Besides this, piston number 1 suffered from the barrel that had separated from the cylinder head. A lot of bigger metal particles were found in the exhaust as well as in the intakes 1 and 2. Heavy damage was also found in the crankcase between cylinders 1 and 2. Cylinder number 1 was further disassembled and checked for a sticking valve resulting from carbon built up, but no evidence was found. Ten spark plugs were functionally tested and nine of them were rejected due to metal contamination build upon the plug's electrodes. Two heavily damaged spark plugs of cylinder number 1 could not be tested because of the damage.

The failure probably started with the separation of the cylinder head from the barrel of cylinder number 1. The remaining damage was consequential.

In 2013 all six cylinders were replaced by repaired ones. Cylinder number 1 was manufactured in 1988, three cylinders in 2003 and two in 2009. Installation of an old but airworthy cylinder is not forbidden but is not advisable. Back in time, separated cylinders were a well-known problem but nowadays it is rare to find one, as a result of metallurgical improvements. Old cylinders lack an individual serial number. The advantage of an individual serial number on parts is that the maintenance history of the parts can be logged and traced.

**Classification:** Accident  
**Reference:** 2018074



The Beechcraft A36 Bonanza after the emergency landing.

## Airprox, near Noordkop glider airfield, October 2018

ASW 24, PH-1451 and RV-12, PH-SEP, 5 October 2018

The ASW 24, a single-seat glider, was on a local flight from Noordkop glider airfield (formally 'Zweefvliegveld ZCDH') and was engaged in thermal turns. The RV-12, a two-seat motorised aircraft with a single pilot on board, was en route from Texel International Airport on a southbound course at an altitude of approximately 1,300 feet. At one point, the motorised aircraft passed underneath the glider at an estimated vertical separation of 30 metres. Both pilots stated that visibility was limited and they did not see each other until the very last moment. As a result, neither pilot was able to perform an evasive manoeuvre. There were cirrus clouds at great altitude.

Discus b, PH-1553 and Cessna 182RG, G-BNMO, 21 October 2018

The Discus, a single-seat glider, had taken off from Noordkop glider airfield and was engaged in thermal turns. The Cessna 182RG had taken off from Texel International Airport and was on a southbound course at an altitude of 1,000 feet. The motorised aircraft was flying just beneath the cloud base. Near the glider airfield, the motorised aircraft passed underneath the glider at an estimated vertical separation of 40 metres. The glider pilot saw the motorised aircraft pass underneath his aircraft. The pilot of the motorised aircraft did not see the glider. Both pilots stated that visibility was limited. There were open stratocumulus clouds with a basis at 1,300 feet.

Both incidents occurred under similar conditions. The motorised aircraft were on a flight under visual flight rules and had flown on a southbound course across the Wadden Sea via the corridor between Texel and Den Oever. Due to the position of this corridor, a lot of motorised air traffic passes on the eastern side of Noordkop glider airfield. The incident occurred in uncontrolled airspace, where pilots themselves are responsible for maintaining an adequate distance from other aircraft in order to prevent collisions. Continuous alertness to other air traffic and a proper scanning technique are vital in preventing collisions. Visibility complied with the minimum values for VFR traffic in uncontrolled airspace.

Both pilots of the motorised aircraft were unaware that there was a glider airfield nearby and that they should therefore be alert to the presence of gliders. The Noordkop glider airfield has been in use since 22 September 2018 after relocating from a different location. Prior to the implementation of the *Luchthavenregeling* (Airfield Decree) of the ZCDH glider airfield of the Province of North Holland, the minister of Infrastructure and Water Management issued a *Verklaring veilig gebruik luchtruim* (VVGL, Statement of Safe Airspace Use) on 1 August 2018. In this decree, the minister states that from the moment it takes effect, safe use by air traffic is guaranteed and assessed based on technical and operational safety criteria derived from national and international aviation laws and regulations. Neither the Airfield Decree nor the VVGL show that the position of the glider airfield vis à vis the corridor between Texel and Den Helder has been taken into consideration.

Since the position of the glider airfield was not printed on the flight map applying at the time, a Notice to Airmen (NOTAM) was published on 22 September 2018 to warn pilots of glider activity at and around this new glider airfield. The new glider airfield was specified in the *Aeronautical Information Publication* on 11 October 2018.

The incidents underline the importance of diligent flight preparation, with the pilot being responsible for consulting all available and applicable information to ensure a safe flight.

Following the airproxes, Noordkop glider airfield has applied reflective and contrasting stickers to its gliders and implemented FLARM. In addition, most motorised aircraft clubs and schools in the Netherlands received an information letter about the new glider airfield and it has been agreed with Texel International Airport that departing traffic is informed by the airport operations manager of flight activities from Noordkop.

**Classification:** Serious incident  
**Reference:** 2018109/2018118

## Occurrences that have not been investigated extensively

### Runway incursion, Diamond HK-36 TC, PH-1263 and Rans S-6S Coyote II, PH-3N1, Lelystad Airport, 24 February 2019

The pilot of PH-1263, a touring motor glider of the Diamond HK-36 TC type, was the only person aboard a local flight. After a touch-and-go on Runway 23, he turned onto the downwind leg of the circuit, reporting his manoeuvre via the radio. He then observed an aircraft flying on the downwind leg in front of him. He stated that he had not seen any other aircraft in the circuit. When the first aircraft was on the base leg, the Diamond's pilot extended the downwind leg so as to achieve greater separation from the other aircraft. He did not report this via the radio. As he turned into the final approach leg (equally extended), the pilot radioed the message '1263 turning final full stop'. At that point, the Diamond was at an altitude of 700 feet. The pilot saw that the aircraft in front of him had landed and taken off again. He did not see any other aircraft ahead and stated that we was making a normal landing.

The PH-3N1, a Rans S-6S Coyote II light sports aircraft also crewed by a single pilot, was returning from a local flight. The pilot radioed that he was passing reporting points Bravo and Sierra and then joined the circuit for Runway 23. Prior to joining the circuit, the pilot watched the downwind leg but did not see any other aircraft on that leg. Because radio traffic was intense, he did not report his positions in the circuit. The pilot stated that he saw two aircraft on the final approach leg. He did not see any other aircraft in the circuit area ahead. He stated that he reported on the radio once again with the call 'turning final'. This was at the point he turned into the final approach leg (not extended). The first aircraft had exited the runway and the second aircraft was in the course of landing. Briefly after the pilot had radioed his 'turning final', he heard another aircraft report a 'final'. He did not pay attention as he was approaching the runway. Immediately after the Rans had landed, the pilot noticed another aircraft pass above him, approaching on a steep dive and landing on the runway approximately 150 to 200 metres ahead of the Rans. This was the Diamond.

Neither pilot had noticed the other in the circuit area. The pilot of an aircraft behind the two aircraft in the circuit stated that the Rans turned into the base leg before the Diamond. Since the Diamond was still at the standard circuit altitude of 700 feet at the beginning of his (extended) final approach, it must have been at a higher altitude on the base leg than the Rans, which was descending. The fact that the Diamond is a low-wing plane and the Rans a high-wing plane, may have contributed to the fact that neither pilot saw the other while on their respective base legs on a parallel course. The Diamond's pilot also did not see the Rans, which was ahead of him at a lower altitude, on the final approach leg. This can be explained by the fact that the Diamond was at a higher altitude and the pilot's diagonal downward view was obstructed by the nose of his aircraft.

When in the circuit, pilots report their position at fixed moments to enable other pilots to become aware of the number and position of other aircraft in the circuit. For flying in the Lelystad Airport circuit with good visibility, pilots only need to report their 'final' status and intentions (full stop or touch-and-go). Radio traffic that was recorded at the Lelystad Radio frequency shows that the Diamond's pilot reported his position as he turned into the downwind leg. At 13.34:14, the pilot of one aircraft radioed '... turning final 23'. Since this report coincided with a report from another pilot, it is difficult to understand and unclear which aircraft made the report. However, it is likely that it was the Rans. Two seconds later, the Diamond's pilot radioed the message '1263 turning final full stop'. This message, too, is difficult to understand due to other radio traffic.

The incident was caused by the fact that the pilot of the Rans, while on the downwind leg, did not see the Diamond flying in the circuit ahead of him and inadvertently passed him. The pilot of the Diamond, in turn, whilst on the final approach leg, did not see the Rans that was ahead of him at this point. Because the position reports were difficult to understand, the pilots were not alerted to each others' presence and position. >

There is no air traffic control at Lelystad Airport. Position reports on an information frequency are useful, but pilots must be aware of their limitations. Correctly following circuit procedures in combination with the see-and-avoid principle should guarantee safe VFR flights.

**Classification:** Serious incident  
**Reference:** 2019016



Diamond HK-36 TC. (Source: Texel Airport)



Rans S-6S Coyote II. (Source: Texel Airport)

## Airprox, Robin DR 400/140B, PH-SVT, Beech F33A Bonanza, PH-MOP, Rotterdam The Hague Airport, 19 March 2019

PH-SVT, a Robin DR 400/140B, received clearance from air traffic control to take off from Runway 24 at Rotterdam The Hague Airport and then leave the control zone (CTR) on a northeasterly course via the Mike departure procedure. With an instructor and student on board, the aircraft took off at 11.20 hours under visual meteorological conditions. Visibility on the ground exceeded 10 kilometres. PH-MOP, a Beech F33A Bonanza with one pilot and one passenger on board, received a similar clearance and took off one minute after the Robin. The air traffic controller notified the pilot of the Beech Bonanza that the preceding traffic was following the same departure procedure.

As he was near point Mike, the instructor on board the Robin reported on the tower frequency that there was an aircraft just ahead of him. He estimated the minimum vertical separation between both aircraft at approximately 50 feet and the lateral distance at circa 50 metres. The air traffic controller replied that the aircraft in question had just passed him and that the pilot was aware of the Robin's position. The air traffic controller contacted the Beech Bonanza. Its pilot reported that he was passing point Mike at that exact moment, leaving the CTR. The air traffic controller notified him that his aircraft had come near the Robin. The pilot of the Beech Bonanza replied that he had not seen the Robin. Both aircraft continued on their course. No further specifics were reported.

After the flight, the pilot of the Beech Bonanza reported that he had executed a left turn after taking off and had seen an aircraft fly in the direction of Waalhaven, assuming that this aircraft would leave the CTR on a southwesterly course. The pilot then executed another left turn to fly towards point Mike, south of the A20 motorway and the adjacent railway. He had asked his passenger to keep an eye on the other aircraft so he could concentrate on oncoming traffic. According to the passenger, the other observed aircraft was at a safe distance.

The pilot of the Beech Bonanza had a private pilot licence and a valid medical certificate. He had a total flight experience of over 1,300 hours. The pilot in command of the Robin had a commercial pilot licence and a valid medical certificate. He had a total flight experience of ca. 9,700 hours.

Both flights occurred under visual flight rules (VFR) in class C airspace, where air traffic control monitors the separation between VFR traffic and so-called IFR (instrument flight rules) traffic. However, VFR traffic itself is responsible for monitoring the separation between VFR flights. Air traffic control does issue VFR traffic information and, upon request, advice to avoid traffic.

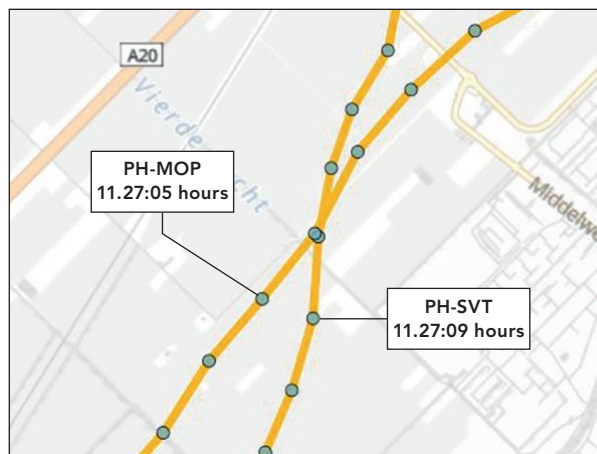
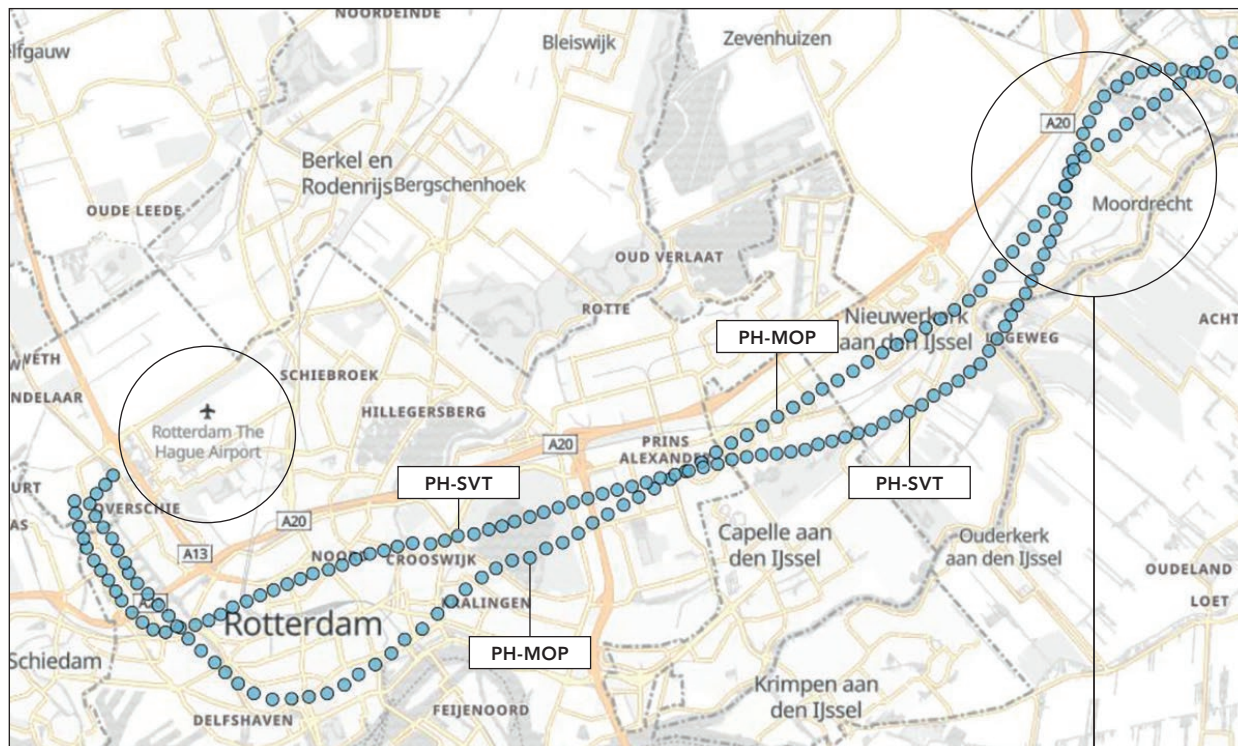
The air traffic controller knew that a Beech Bonanza such as the PH-MOP would have a higher speed than a Robin, such as the PH-SVT. For this reason, he provided traffic information about the Robin that had departed ahead of the Beech Bonanza to the latter's pilot as he took off. He did not provide traffic information to the pilot of the Robin. The pilot of the Robin was not aware of the position of the Beech Bonanza on the same departure route and felt that the separation between the two aircraft was not safe enough. >

# Occurrences that have not been investigated extensively

The incident occurred because the Beech Bonanza received clearance for take-off just behind the Robin and was instructed to follow the same departure procedure. As the Beech Bonanza approached the Robin, the pilot of the Beech Bonanza did not see the other aircraft. It has not been established whether the aircraft seen by the passenger was indeed the Robin.

Providing traffic information increases the alertness of aircraft crew. In a CTR in which VFR traffic follows fixed VFR routes with small altitude differences, this contributes to an important extent to situational awareness. Pilots must realise that VFR traffic is itself responsible for monitoring separation between VFR flights in a CTR.

**Classification:** Serious incident  
**Reference:** 2019028



Flight tracks. (Source: ATC the Netherlands)

## Accident during winch launch, Discus b, PH-806, Lemelerveld glider airfield, 12 April 2019

The pilot of the single-seat glider was ready for a winch launch from the westerly take-off point on the West-East strip. It was just after 14.00 hours. It was his second flight of the year. On the same day, he had conducted a training flight with the instructor on duty in a two-seat glider. This flight had gone well. The instructor notified the pilot that he was reapproved for solo flights.

There was a northeasterly wind of about 10 knots. After the pilot performed the cockpit check and the winch cable had been attached to the glider, he notified the wing runner that he was ready for take-off. The pilot stated that his right hand was on the stick and his left hand on the release. After the light signal was activated from the start position, the winch operator applied power and the glider started moving. The wing runner, after having accompanied the glider for several metres, let go of the left tip. The wing runner stated that the glider's right wing dropped after about 5 to 10 metres and started dragging on the grass. Another witness stated that the right wing tip fell to the grass almost immediately after the wing runner let go of the left wing tip. The tip remained in contact with the grass until the moment the glider started to rotate. The left wing came up, the glider rotated and left the ground. A witness stated that the cable remained attached to the glider and the glider rotated right by nearly 90 degrees. When the glider's right wing was still on the ground and the glider was upright, the cable detached. The glider then cartwheeled to the right and hit the ground upside down, with the wings in horizontal position, on the other side of the winch path, under an angle of ca. 20 degrees and then came to a full stop. The longitudinal axis of the glider was parallel to the winch patch with the nose turned towards the winch. The pilot suffered minor injuries. The glider was damaged; the canopy was shattered.

The pilot had a valid LAPL(S) (Light Aircraft Pilot Licence Sailplane) and a valid medical certificate. He had a total glider flight experience of 1,182 hours (2,475 starts), 125 hours (75 starts) of which in the glider model in question. In 2018, he had done 17 flights with a total duration of approximately 11 hours.

The instructor on duty stated that there was an approximately 20 degree angle crosswind during the launch, and that the glider was positioned parallel to the winch track. The grass was circa 10 centimetres high. The pilot remembers little of the accident. He does not know whether or not he released the winch cable. The winch operator stated that he immediately dropped all power to the winch when he saw the left wing come up and the glider cartwheel over the right wing. The light signal from the take-off point was also turned off at the same time.

A wing may drop due to a yaw motion in the early stage of a winch launch. It is important to keep a hand near the release at the start of a winch launch. If a wing threatens to touch the ground while the glider is rolling, the winch cable must be released immediately before the wing hits the ground.

**Classification:** Accident  
**Reference:** 2019026



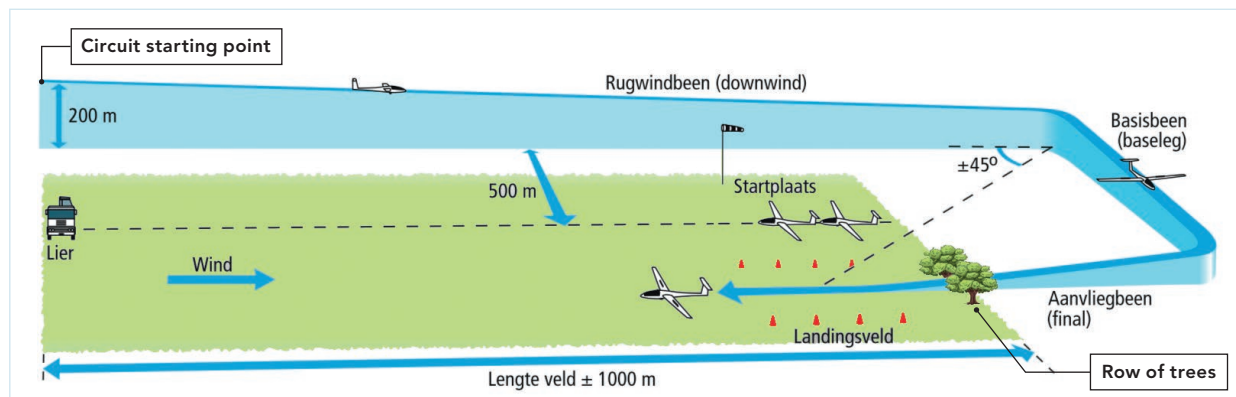
The glider after the accident. (Source: Gliding club)

# Occurrences that have not been investigated extensively

## Heath landing in circuit area, Ka 6 CR, PH-327, Terlet glider airfield, 20 April 2019

The pilot of the single-seat glider took off from Runway 04C with a winch launch. The aim was an cross-country flight. After the pilot released the winch cable, he held a straight course expecting thermals. There was a moderate easterly wind. The pilot only experienced a steep descent, however, deciding at an altitude of 300 metres to return to the circuit starting point.<sup>2</sup> He still experienced a lot of descent and arrived at the circuit starting point at an altitude of circa 150 metres. The pilot stated that he usually enters the downwind leg at a minimum altitude of 250 metres. Midway through the downwind leg he considered landing on the field near the winch, but starting to ascend at that specific moment he believed he had sufficient altitude to land on Runway 04R after all. The pilot then flew a standard circuit. As he turned into the base leg, he realised that the row of trees perpendicular to the final in front of the field appeared very high in his canopy. At that point, the glider's altitude was too low to pass over the row of trees on the final leg.

<sup>2</sup> The circuit starting point is about 500 metres from the winch.



Standard circuit. (Source: Zweefvliegen Elementaire Vliegopleiding, D. Corporaal)

The pilot therefore decided to land in the heath field beneath the base leg. During the landing, the glider hit the raised edge of a sand path, making a 100 degree ground loop.

The glider sustained irreversible damage; the pilot remained unharmed.

The pilot stated that his altitude was much too low when he entered the circuit, and in the end he decided not to land near the winch and flew too far on the downwind leg. He believed that the low entry into the circuit in particular resulted from his great wish to do a cross-country flight while his experience was as yet insufficient in this gliding season.

The pilot had a valid Glider Pilot Licence and a valid medical certificate. He had a total glider flight experience of 96 hours (428 starts), 34 hours (84 starts) of which in the glider model in question. In the 3 months prior to the accident, he had flown over 1 hour (5 starts) on glider models other than the model in question.

A good landing starts with a good circuit. The standard circuit, which can be seen as a 'flexible aid', must be flown when conditions are normal. If circumstances warrant it, pilots must deviate from the standard circuit. For instance, one must fly closer to the field and turn into the base leg earlier in the event of strong headwinds or extra descent in the circuit.

**Classification:** Accident  
**Reference:** 2019031



The glider after the landing in the heath field in the circuit area. (Source: Pilot)

## Ditch edge hit during landing, ASK-21, PH-1382, Biddinghuizen glider airfield, 20 April 2019

The ASK-21 performed an instruction flight with the instructor and aspiring member on board. It was the aspiring member's second flight. It was the instructor's ninth flight of the day. He stated that the wind speed varied at different altitudes on the day. The wind speed had dropped slightly at the end of the day, but it was still fluctuating. On the circuit's base leg, the instructor noted that the glider's altitude was a little high, but he decided not to use the airbrakes at this time. He opened the airbrakes completely at the start of the final leg in order to descend. Halfway through the final leg, the instructor closed the airbrakes by about 50%. The glider's speed at that time was 90 km/h. When he felt that the glider would land too far ahead in the field, he decided to close the airbrakes further, eventually closing them completely. The instructor stated that the speed dropped to 80 km/h at an altitude of approximately 10 metres and the glider dropped, after which the base of the hull between the nose and main wheel hit the edge of a ditch in front of the landing field. The glider came to a full stop about 75 metres further, sustaining considerable damage. Both crewmembers were unharmed. They had heard the glider hit the ground but barely felt it. Later on, an impression of the glider's main wheel was found on a bare piece of land on the edge of a crop field that, viewed towards the direction of flight, is in front of the landing field. The two fields are separated by the ditch. A trail of several metres was also visible in the crop field.

The instructor believes he estimated the wind incorrectly, resulting in an approach that was too low for the runway.

The instructor had an LAPL(S) (Light Aircraft Pilot Licence Sailplane) and valid medical certificate. He had a total glider flight experience of 1,237 hours (5220 starts). He had flown 185 hours (941 starts) in the glider model in question.

**Classification:** *Accident*  
**Reference:** *2019033*



## Occurrences that have not been investigated extensively

### Airprox, Rolladen-Schneider LS-8, PH-1623 and Jonker Sailplanes JS-1, ZS-GBX, Terlet glider airfield, 3 May 2019

The winch was set up on Runway 30. The PH-1623, an LS-8, took off at 12.03 hours and, after several turns in slightly rising air above the winch track, departed on a northerly course. The ZS-GBX, a JS-1, went through a winch launch at 12.11 hours. At that moment, the LS-8 was returning on a southerly course, crossing the winch track in front of the departing JS-1 at an altitude of about 350 metres. The lateral distance was approximately 260 metres and the altitude difference between the two gliders approximately 36 metres. When the gliders were at the same altitude shortly thereafter (413 metres GPS elevation), the lateral distance was 200 metres. By then, the LS-8 was flying to the south of the winch track at an 11 o'clock position vis à vis the JS-1. The pilot of the JS-1 saw the LS-8 in a right-hand turn below him to the left. The separation had increased by then. A FLARM warning was generated on board the LS-8; the pilot of the LS-8 did not see the other glider.

The gliding club conducted its own investigation and shared its findings with the Dutch Safety Board.

It is important that any pilot at a low altitude is aware of his position vis à vis the active winch patch at all times, avoiding the winch and the area around it.

**Classification:** *Serious incident*  
**Reference:** *2019042*

### Ground loop during winch start, LS-4, PH-1219, Leeuwarden Air Base, 2 June 2019

The pilot of a single-seat glider, type LS-4, was ready for a winch launch from Runway 20 for a local flight at around 15.45 hours. The glider had already made two flights that day. Since the pilot did not yet have a licence, he had been briefed for the flight by the instructor on duty. The instructor had told him that the wind speed had increased slightly. The wind came slightly from the left at a speed of approximately 12 knots, looking in the starting direction, but was almost in the same direction of the runway. It was a warm afternoon. According to the pilot, the nose of the glider was turned slightly towards the winch path.

After the winch cable was tightened, the glider started rolling on the ground. The pilot had his left hand on his leg near the release. He stated that everything seemed normal; the rolling took awhile but as soon as the glider left the ground, it started turning to the right. The pilot grabbed for the release handle immediately but had to bend forward to pull the handle and release the cable. According to him, the glider had already turned nearly 180 degrees at that point, after which it dropped from the air and its nose hit the ground first. The nose tore open and the canopy was shattered completely. The tail then dropped and the glider rolled backwards for some distance. The pilot remained unharmed.

Witnesses stated that the wing runner let go of the left tip after the glider started to accelerate; the right wing dropped immediately and hit the ground. The right wing tip hooked into the ground, after which the glider, which by then had left the ground, made a right-hand turn of nearly 180 degrees. Two points of impact were visible in the ground. The instructor on duty stated that the grass was a little under 15 centimetres high. >

The pilot had a valid medical certificate; he did not yet have a licence. He had a total glider flight experience of 60 hours (194 starts), 43 hours (107 starts) of which in the glider model in question. In the 3 months prior to the accident, he had 12 flight hours and 30 starts.

The gliding club conducted its own investigation and shared its findings with the Dutch Safety Board.

It is important to keep a hand near the release at the start of a winch launch. If a wing threatens to touch the ground while the glider is rolling, the winch cable must be released immediately before the wing hits the ground.

It is also important that the pilot arranges the back of the seat in such a way that he can reach the release handle easily and quickly. This must be verified as part of the cockpit check. While accelerating at the start of the winch launch, the pilot may be pushed back into the seat.

**Classification:** Accident  
**Reference:** 2019046



*The glider after the accident. (Source: Gliding club)*

## Occurrences that have not been investigated extensively

### Emergency landing after engine failure, Cosmos BI Phase II, PH-3E6, near Stadskanaal Airfield, 23 June 2019

During a local instruction flight of 45 minutes, a touch and go was made on runway 06 of Stadskanaal Airfield. Passing the end of the runway and overhead a grass strip, the engine stopped at an altitude of less than 100 metres. The instructor pilot was forced to make an emergency landing in a potato field in the extension of the runway. About sixteen meters after touching the ground, the nose wheel broke off and the airplane flipped over and came to rest on its side. Both occupants (instructor and student pilot) left the aeroplane without injuries. The airplane was heavily damaged.

The Dutch Safety Board did not conduct a detailed investigation. This summary is based on the statements of the instructor pilot and an aircraft mechanic.

The instructor was in the possession of a RPL(A) (Recreational Pilot License (Aircraft)) and a valid medical certificate. He had a total flying experience of 1,157 hours, of which 1,074 hours on type.

The engine is a Rotax 582 UL DCDI two-stroke, two-cylinder, rotary intake valve, oil-in-fuel, liquid-cooled, gear reduction-drive aircraft engine. The fuel/oil mixture is supplied to the two cylinders by two carburettors.

After removing the float chambers of both carburettors, debris including plastic particles was found inside. Further investigation by the aeroplane owner revealed that an Alert Service Bulletin published in 2016 (ASB-2ST-003) had been overlooked and was not implemented. The reason for issuing the ASB was that *"Due to a deviation in the manufacturing process of the floats a partial separation of the outer skin because of resonance vibrations during engine operation may occur.*

*These separated particles might lead to a restriction of the jets in the carburettor. As a consequence the fuel supply to the affected cylinder bank may be reduced or blocked. Possible effects are a rough engine running behaviour with reduced fuel flow, up to a major power loss or engine shut down with blocked fuel flow on the affected carburettor."*

Most likely the engine had stopped as a result of a blocked fuel supply resulting from particles in the float chambers.

**Classification:** Accident  
**Reference:** 2019053



PH-3E6 after the emergency landing. (Source: G.W. Dijk)

# The Dutch Safety Board in three questions

1

## What does the Dutch Safety Board do?

Living safely, working safely, safety. It seems obvious, but safety cannot be guaranteed. Despite all knowledge and technology, serious accidents happen and disasters sometimes occur. By carrying out investigations and drawing lessons from them, safety can be improved.

In the Netherlands the Dutch Safety Board investigates incidents, safety issues and unsafe situations which develop gradually. The objective of these investigations is to improve safety, to learn and to issue recommendations to parties involved.

2

## What is the Dutch Safety Board?

The Dutch Safety Board is independent of the Dutch government and other parties and decides for itself which occurrences and topics will be investigated.

The Dutch Safety Board is entitled to carry out investigations in virtually all areas. In addition to incidents in aviation, on the railways, in shipping and in the (petro-)chemical industry, the Board also investigates occurrences in the construction sector and healthcare, for example, as well as military incidents involving the armed forces.

3

## Who works at the Dutch Safety Board?

The Board consists of three permanent board members under the chairmanship of Mr Tjibbe Joustra. The board members are the public face of the Dutch Safety Board. They have extensive knowledge of safety issues. They also have extensive administrative and social experience in various roles. The Safety Board's bureau has around 70 staff, two-thirds of whom are investigators.

Visit the website for more information [www.safetyboard.nl](http://www.safetyboard.nl).



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## Colofon

This is a publication of the Dutch Safety Board. This report is published in the Dutch and English languages. If there is a difference in interpretation between the Dutch and English versions, the Dutch text will prevail.

Augustus 2019

### Photos

Photos in this edition, not provided with a source, are owned by the Dutch Safety Board.

Source photo frontpage:  
Photo 2: Pilot in command  
Photo 3: Gliding club