TRAFICOM
Finnish Transport and Communications Agency

Finnish Aviation Safety Review 2025

Traficom publications

10e/2026
ISBN 987-952-425-014-6

Table of contents

1 Commercial air transport safety situation 2025

Operations in Finnish commercial air transport were once again safe in 2025. However, two occurrences classified as accidents took place during the year. These did not result in any personal injuries.

The number of serious incidents decreased from the previous year but remained above the long-term average.

The war in Ukraine continued and still affected the operations of Finnish airlines in the form of longer flight routes and jamming of satellite navigation systems. Interference also occurred within Finnish airspace, but it did not cause significant impacts on flight safety. A more detailed description of the situation is presented on the Traficom website under *Satellite navigation interferences in Finland*.

The traffic volume of Finnish commercial air transport (measured by the number of flights) was slightly lower in 2025 than in the previous year. Compared to pre-pandemic years, there were still approx. 10% fewer flights. Post-COVID traffic volumes have grown every year, but last year this growth halted.

At Finnish airports, however, the total volume of all commercial air transport (both Finnish and foreign) saw a growth of approx. 3 percent compared to the previous year. Compared to the pre-COVID year 2019, traffic volumes were still approx. 20% lower.

Regarding **Tier 2 indicators** (most typical accident causal factors), the largest category in 2025 was again airborne collisions and near misses. The number of such cases was slightly lower than the previous year but clearly above the average. Most occurred abroad, involving an **unmanned aircraft** (UAS) as the other party. Also ground collisions during taxi on taxiways and on apron occurred more often then in previous years.

Globally, in commercial air transport (aircraft certified to carry at least 14 passengers), the number of fatal accidents in 2025 was below the average of previous years. However, over 360 people perished in these accidents, which was higher than the average.

The year's most serious accident occurred on June 12, 2025, in India, when a Boeing 787 Dreamliner failed to take off and crashed. A total of 260 people on board and on the ground died in the accident.

The next most serious was an accident claiming over 60 lives, which occurred in January in Washington, when a Bombardier CRJ aircraft collided during approach with a U.S. Army Blackhawk helicopter flying below the approach path.

Source: **Aviation Safety Network.**

1.1 Accidents

In 2025, there were 2 accidents in Finnish commercial air transport, the same number as in the previous year. Both of last year’s accidents occurred in August.

In the first case, a seaplane in Lapland was departing for a taxi flight and taxiing for takeoff when, due to wind, the aircraft's floats submerged, causing the plane to capsize nose-over. The persons on board were able to exit the aircraft and survived to the shore without major injuries, but the aircraft sustained significant damage.

The second case occurred in Helsinki. A Finnish airliner started moving unexpectedly after start-up, and its rotating propellers struck a Ground Power Unit (GPU). The unit was destroyed, and the propellers suffered significant damage. The Safety Investigation Authority (SIAF) initiated investigation L2025-02 regarding the situation.

Accidents in Finnish commercial air transport, especially in scheduled operations, are extremely rare. All accidents in scheduled operations over the last 10 years have occurred while the aircraft was on the apron. There are four accident cases in total. In three of them, the issue involved some form of fall from the aircraft stairs. Moving into or out of the aircraft is perhaps the most risky part of the entire air journey.

In the previous year, 2024, two accidents occurred where passengers were disembarking via the integral stairs of an ATR 72 aircraft when the liftable part of the handrail failed unexpectedly. As a result, a passenger fell onto the apron and was injured. The investigation regarding the second accident, which happened in Helsinki (L2024-03), was completed in October 2025. The investigation report presented recommendations to the aircraft manufacturer and the airline, among others, to prevent similar situations in the future.

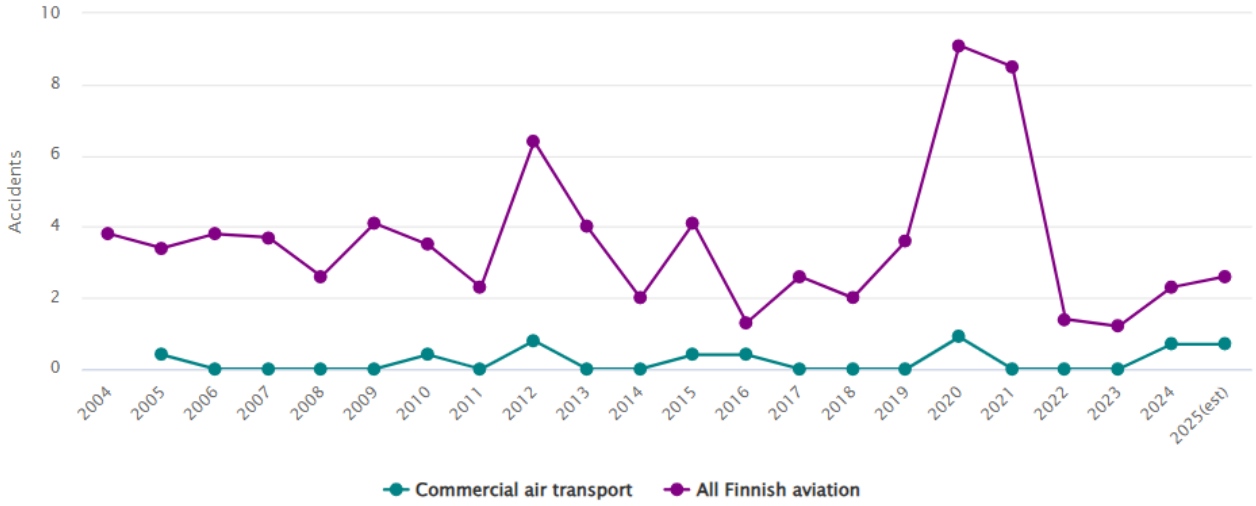
Although accidents have occurred in the previous two years, the numbers are so small that chance plays a significant role. Variation in causes and causal factors is normal. The event preceding these occurred in 2020, when a cabin crew member was stepping from the upper platform of a stair truck into the aircraft. However, the stair truck started moving during the transfer, causing her to lose balance and fall from a height of about 3.5 meters, resulting in serious injury. SIAF investigated this case (investigation L2020-01).

In Finnish scheduled passenger operations, the previous accident occurred in 2005 (Copterline accident), and in other commercial air transport, the latest case happened when the landing gear of a cargo aircraft failed in Oulu in October 2016.

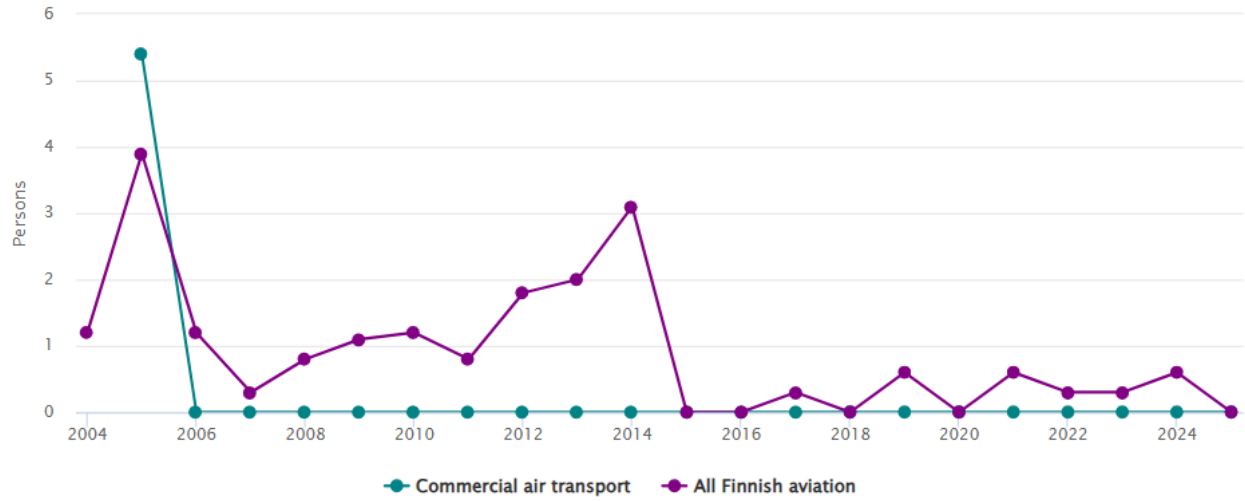
Accident statistics are examined by relating occurrences to aircraft flight hours. Flight hour statistics for 2025 will be collected during the spring of 2026, but according to current estimates, flight hour volumes will remain approximately at the 2024 level. This would mean approx. 286,000 flight hours. Based on this, the accident rate for 2025 would be at the same level as the previous year, i.e., approx. 0.7 accidents per 100,000 flight hours. The average for the years 2015–2024 was approx. 0.2 accidents per 100,000 flight hours.

In Finland, the target is that no accidents or fatal accidents occur in commercial air transport. Regarding accidents, the target was not achieved. However, none of the accidents resulted in death, so in this respect, the target was achieved.

Accidents in Commercial Air Transport per 100 000 flight hours



Fatalities in commercial air transport per 100 000 flight hours



You can view accident statistics from 2005 onwards in an interactive, updated report on the tieto.traficom website.

List of accidents in 2025 (incl. foreign aircraft in Finland)

1. August 2025: A seaplane departing for a taxi flight from a water area was taxiing for takeoff. There was a tailwind. During taxiing, the tips of the floats submerged and the tail rose, causing the wind to flip the aircraft nose-over. The pilot and passengers were able to exit the aircraft and made it to the shore without major injuries. The aircraft sustained significant damage.

2. August 2025: A Finnish airliner started moving unexpectedly after start-up, and its rotating propellers struck a Ground Power Unit (GPU). The unit was destroyed, and the propellers suffered significant damage. According to current information, the aircraft's parking brake was not engaged when starting the engines. The Safety Investigation Authority (SIAF) initiated investigation L2025-02 regarding the case.

1.2 Serious incidents

In 2025, 9 serious incidents occurred in Finnish commercial air transport. The number was slightly above the 2015–2024 average (7.8) but lower than in the previous year.

In previous years, near misses between aircraft caused a large portion of serious incidents, but in 2025, there were fewer near misses classified as this serious.

The cases classified as serious incidents last year were very different in nature. In few incidents smoke was detected in the aircraft during flight.
From a passenger's perspective, one could highlight a case in April where a lithium power source in carry-on luggage started smoking during the flight, but thanks to the quick reaction of the cabin crew, more serious consequences were avoided. Nowadays, people carry a large number of electronic devices typically powered by lithium batteries, and the number of such cases has been increasing. Therefore, it is important to follow airline instructions regarding the transport of such devices. More information can be found on the Traficom website.
In 2026 both Traficom as well as the European Aviation Safety Agency EASA will start a campaign on the safe transport of lithium batteries in aircraft.

In another case interesting from a regular passenger's perspective, an aircraft encountered unexpected turbulence lasting 5–10 seconds during the cruise phase, causing injury to a passenger. Situations caused by various weather phenomena, such as turbulence, have also increased in recent years. The simplest way to reduce the risk of injury caused by such a situation is to always keep the seatbelt fastened when seated, even if the seatbelt sign is not on.

Related to the issue of weather phenomena, on June 2025, the Safety Investigation Authority completed its investigation regarding a serious incident on a Norwegian flight from Rhodes to Helsinki on August 11, 2024. Two cabin crew members were injured when the aircraft encountered turbulent air. This case does not appear in the statistics of this safety review as it occurred outside Finnish territory and did not involve aviation organizations operating under a Finnish license. Three safety recommendations were issued to the airline in question in the investigation. As stated above, the number of deviations related to various weather phenomena has been clearly increasing in recent years. Read more in the *Loss of Control* section.

In addition to situations occurring in Finnish aviation, there were 4 serious incidents in Finland involving foreign commercial air transport during the year. This number was clearly higher than the average of previous years.

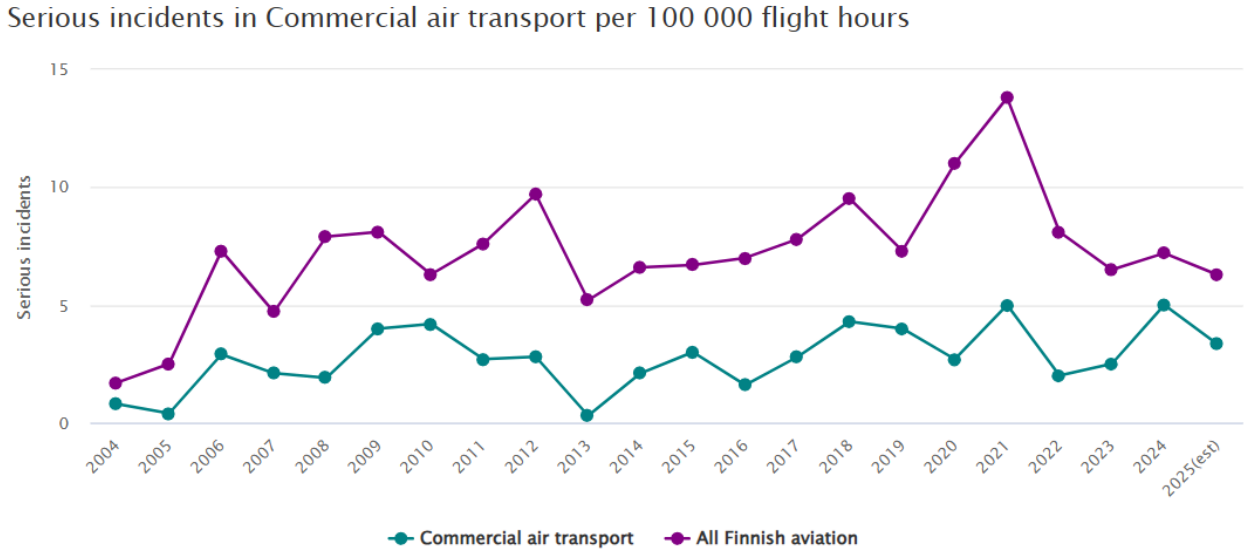
In one case, the wing of an aircraft taxiing to the stand struck a wrongly positioned stair truck. The Safety Investigation Authority (SIAF) initiated investigation L2025-03 regarding this. In the other case, an aircraft started taxiing before the tractor pushing it could get out of the way. A somewhat similar situation happened in 2024, but then the tractor driver managed to warn the pilots on the radio frequency to stop before the collision.

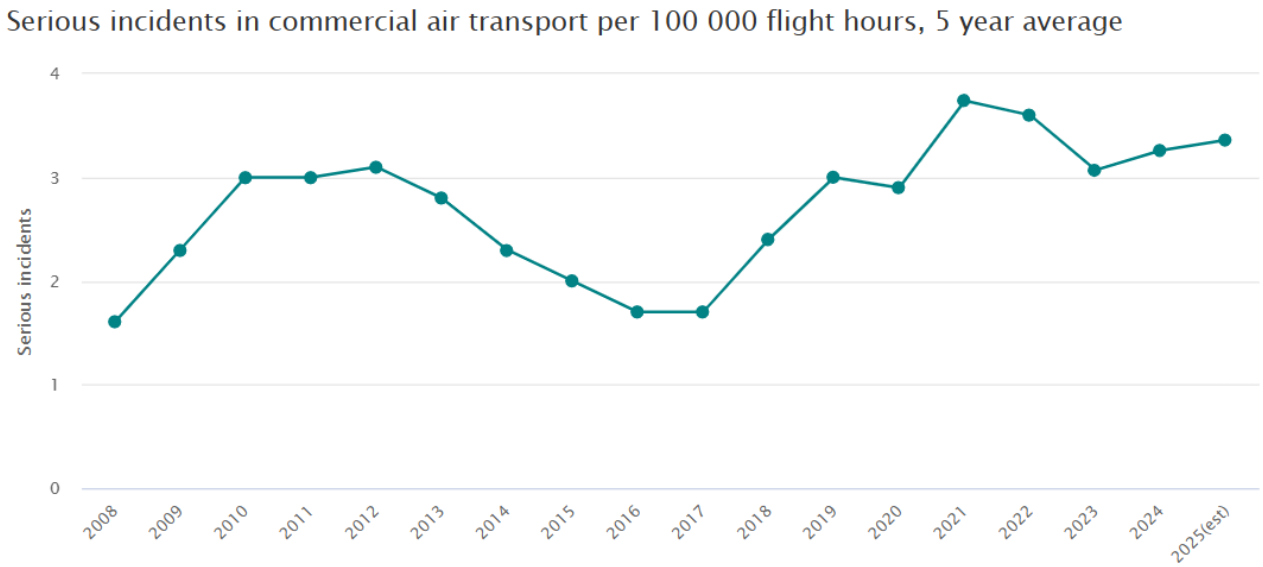
In December, weather conditions at Kittilä Airport were difficult due to Storm Hannes. The runway was in good condition, but on the slippery taxiway and apron, two foreign aircraft slid and spun. One got stuck in a snowbank.

Based on the current flight hour estimate for 2025, approximately 3.4 serious incidents occurred per 100,000 flight hours, while the average for 2015–2024 was 3.0. Thus, relative to traffic volumes, the number of serious incidents was approximately at the level of the long-term average.

In Finland, the target is that in commercial air transport, the number of serious incidents relative to traffic volume (100,000 flight hours), examined as a five-year average, should be decreasing. Last year, this target was not achieved. The target was last achieved in 2023.

You can view serious incidents since 2005 in an interactive, updated report on the tieto.traficom website.





List of serious incidents 2025 (incl. foreign aircraft in Finland)

1. January 2025: Smoke in the cockpit of a foreign airliner. The pilots reported they were diverting to Stockholm. The event has been reported to the authority of the airline's state of operation.

2. February 2025: During final approach at Rovaniemi, a foreign airliner descended significantly below the procedural approach altitude. The crew noticed the situation and performed a go-around.

3. February 2025: After landing in Helsinki, a heater was connected to a parked airliner before the necessary air vents were opened. Overpressure formed inside the aircraft, and when the cabin crew opened the door, it blew open with great force. A ground crew member was standing next to the door, so impact was avoided.

4. April 2025: During taxiing in Helsinki, smoke was observed coming from a passenger's bag in the cabin of a Finnish airliner. An overheated power bank was found in the bag, which was immediately placed in an appropriate containment container and covered with water.

5. June 2025: After a helicopter had landed, the crew decided to take off again to move the aircraft in front of another hangar. However, the crew did not notice a heating post near the aircraft. While the helicopter was being lowered to the ground, the crew detected the bottom of the aircraft hitting something and interrupted the landing.

6. June 2025: An airliner encountered unexpected turbulence during the cruise phase, lasting 5–10 seconds. The seatbelt sign was not on. One passenger fell and sustained minor injuries.

7. July 2025: A hot air balloon on a public flight bounced during landing, and the basket tipped over. As a result, one of the passengers was injured after getting caught between the rim of the basket and a person next to them.

8. July 2025: A near miss between a Finnish airliner and a foreign small aircraft near an uncontrolled foreign aerodrome.

9. August 2025: As a foreign airliner was taxiing to the stand, its wing struck a stationary stair truck located nearby. The wing and the stair truck sustained damage. SIAF has initiated investigation L2025-03.

10. October 2025: While an airliner was parked, its Auxiliary Power Unit (APU) was providing electricity for the aircraft's systems. Kerosene began to leak from the aircraft's systems onto the APU system, which started smoking heavily. The crew decided to evacuate the passengers.

11. November 2025: The flaps of an airliner did not extend, and the approach and landing had to be performed at a higher than normal speed.

12. December 2025: After landing, a foreign airliner slid on the taxiway and got stuck in a snowbank. At the same time, a smaller business jet taxiing to the apron spun 180 degrees and got stuck on another taxiway. Contributing factors included the slipperiness of the apron and taxiways combined with very strong wind. More significant damages were avoided. The airport was closed to traffic after the events until weather conditions improved.

13. December 2025: Smoke was detected onboard a Finnish airliner after takeoff. The smoke dissipated during cruise. After landing and after passengers had exited the aircraft, smoke was again detected. All remaining persons were

ordered to leave the aircraft. Eventually it was discovered that reason was a broken bearing in the ventilation system.

2 General and recreational aviation safety situation 2025

In 2025, 7 accidents occurred in Finnish general and recreational aviation. The number was approximately at the level of the average for the last ten years. No one perished in these accidents.

In addition, one mid-air collision involving foreign general aviation helicopters occurred in Finland, resulting in the loss of 5 lives.

There were 13 serious incidents, which was somewhat lower than the ten-year average and clearly lower than the previous year, when 22 situations were reported. As in previous years, many of the situations occurred during landing when the landing failed for one reason or another. Weather phenomena and technical failures also contributed to many cases.

When evaluated by Tier 2 indicators (most typical causal factors of accidents), none of the indicators rose above the long-term average last year. Instead, runway excursions, CFIT cases (Controlled Flight Into Terrain), and airborne near misses were reported clearly below the average.

At Finnish airports, the number of general and recreational aviation operations, including aerial work, continued to decline, now by approx. 8% compared to the previous year.

However, a large part of general and recreational aviation takes place at uncontrolled aerodromes. Data on this activity is collected from aircraft owners via the annual flight operations report. Data for 2025 will be collected during the spring of 2026. Previously in 2024, the volume of flight operations increased compared to the year 2023. Flight hour statistics are available on the Traficom website.

This review does not cover the situation regarding hang gliding, paragliding, or parachuting. Information related to these is available on the Finnish Aeronautical Association’s website.

2.1 Accidents

In 2025, there were 7 accidents in Finnish general and recreational aviation, which was slightly below the average for the years 2014–2025 (7.8). The number of accidents increased by one from the previous year. However, none of the accidents last year resulted in death. In the years 2021–2024, one fatal accident had occurred every year. One such case did occur in Finland last year, but it involved foreign helicopters; more on that below in the *Fatalities* section.

Of the accidents in Finnish aviation, 4 occurred in general aviation and 3 in recreational aviation. The distribution was similar to recent years. The situations were concentrated in the summer months, and as is often the case, the majority of accidents happened during landing. Locations varied, but 4 out of the 7 cases occurred in Hyvinkää and the vicinity of Jyväskylä.

The three accidents in **recreational aviation** (ultralight aircraft, gliding) were a lower number than the average (4.7) but higher than in the few preceding years.

Two cases involved Loss of Control (LOC-I) in flight. In the most serious of these, control of an ultralight seaplane was lost after takeoff, and it struck the water at a steep angle. The situation had the potential for a very serious outcome, but the pilot survived the crash and was able to exit the aircraft. Both the pilot and the aircraft suffered severe damage. In the other case, the engine of an ultralight failed, and control was momentarily lost during landing, resulting in a very hard landing on the runway.

In **general aviation**, four accidents occurred, which is slightly more than the average for the years 2015–2024 (3.1).

The first accident of the year happened in May in Forssa, when the engine of a general aviation aircraft failed after takeoff, and the pilot performed a forced landing in a nearby parking lot. The aircraft was badly damaged, but major injuries were avoided. SIAF did not conduct an actual investigation of the event but published a blog post describing the case in more detail.

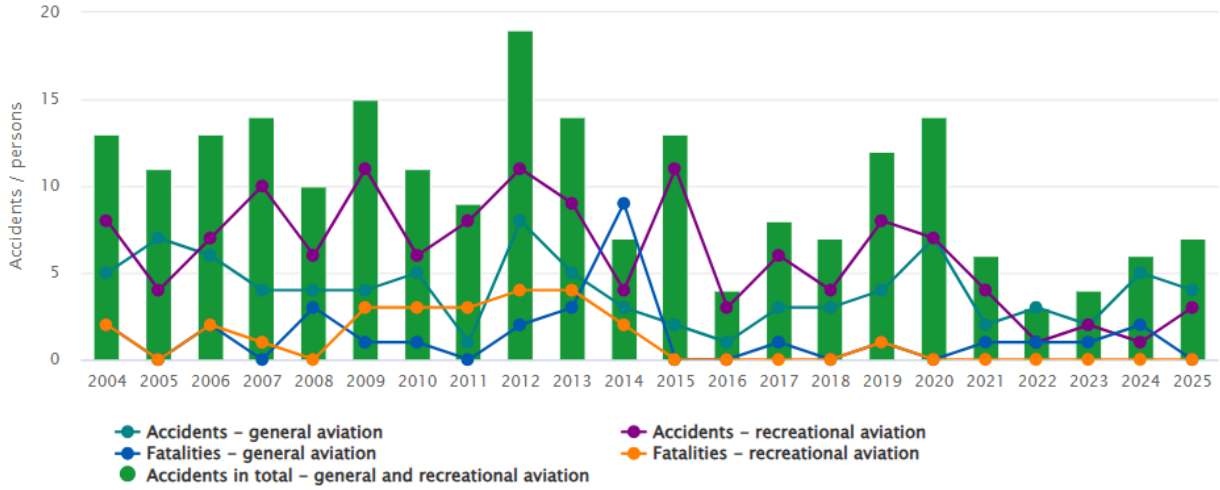
Two general aviation accidents involved loss of control. In one case, the engine of a parachute jump aircraft failed, and the pilot had to perform a forced landing in a lake. In the other, a student pilot lost control of a helicopter during takeoff.

In the fourth accident, a seaplane was coming in for a landing on a water area in gusty wind conditions. During the landing, the aircraft bounced on the water and ended up cartwheeling nose-over onto its back. Fortunately, all persons on board were able to exit the aircraft.

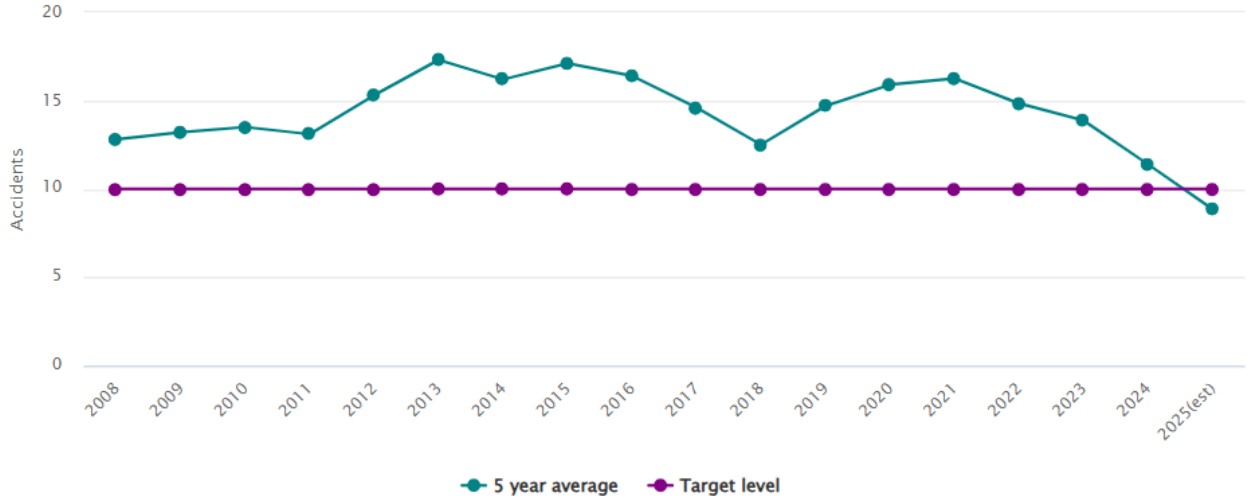
Accidents and serious incidents are related annually to flight hour data collected from Finnish aircraft owners. The collection of data for 2025 is in progress, but according to current estimates, volumes would remain approximately at the 2024 level. If the estimate holds true, approx. 8.5 accidents per 100,000 flight hours would have occurred in general aviation in 2025 (average 2015–2024: 8.2) and 16.7 in recreational aviation (average 21.3). Both sectors would thus be approximately at or below the average.

In Finland, a target value has been set that the number of accidents in general and recreational aviation per 100,000 flight hours, as a five-year average, should be below 10. If last year's flight hour estimate is reasonably accurate, this target value would have been reached last year for the first time in the monitoring history.

Accidents and fatalities



Accidents per 100 000 flight hours, 5 year average



2.2 Fatalities

In 2025, no fatal accidents occurred in Finnish aviation. Between 2021 and 2024, one fatal accident occurred each year, so last year went well in this regard.

Unfortunately, in foreign general and recreational aviation taking place in Finland, a fatal accident occurred in May at the Eura aerodrome. Estonian general aviation helicopters collided in mid-air, and all 5 persons in the helicopters perished.

The Safety Investigation Authority (SIAF) initiated investigation L2025-01 regarding the case.

Similar accidents involving foreign general or recreational aviators in Finland with such serious consequences have been rare. The previous fatal accident involving foreign general or recreational aviation occurred in 2018 in Kilpisjärvi, when a Norwegian gyroplane pilot died after the copter crashed. The Accident Investigation Board Norway conducted an investigation into the case.

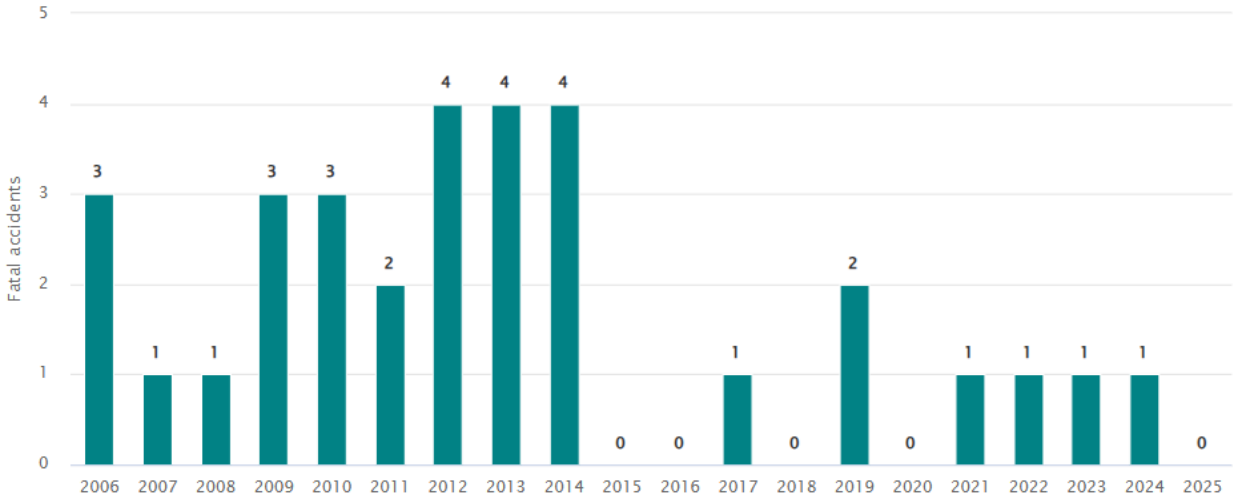
In 2024, an accident involving a historical aircraft occurred in Räyskälä, in which both German persons on board perished. Their intention was to buy the aircraft and transfer it to Germany and the German aircraft register, but at the time of the accident, the aircraft was still in the Finnish register. SIAF initiated investigation L2024-02 regarding the case, which is expected to be published soon.

Although individual fatal accidents have occurred in recent years, the safety situation has improved significantly compared to the years 2013–2014. In both years, four fatal accidents occurred, claiming a total of 18 lives.

In Finland, a target value of less than 0.6 fatal accidents per 100,000 flight hours, examined as a 5-year average, has been set. This target has not yet been achieved.

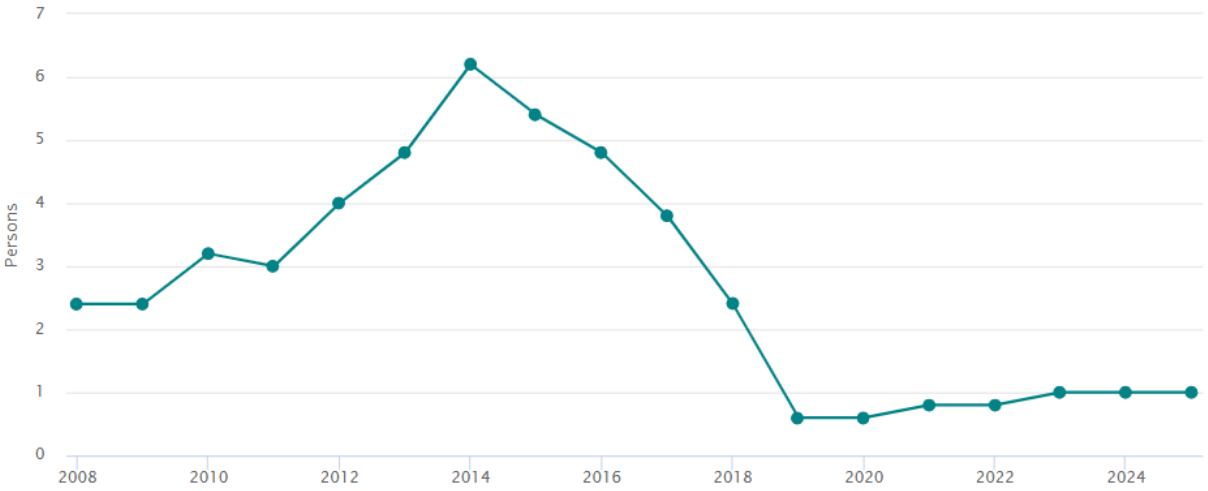
You can view accident statistics from 2005 onwards in an interactive, updated report **on the tieto.traficom website .**

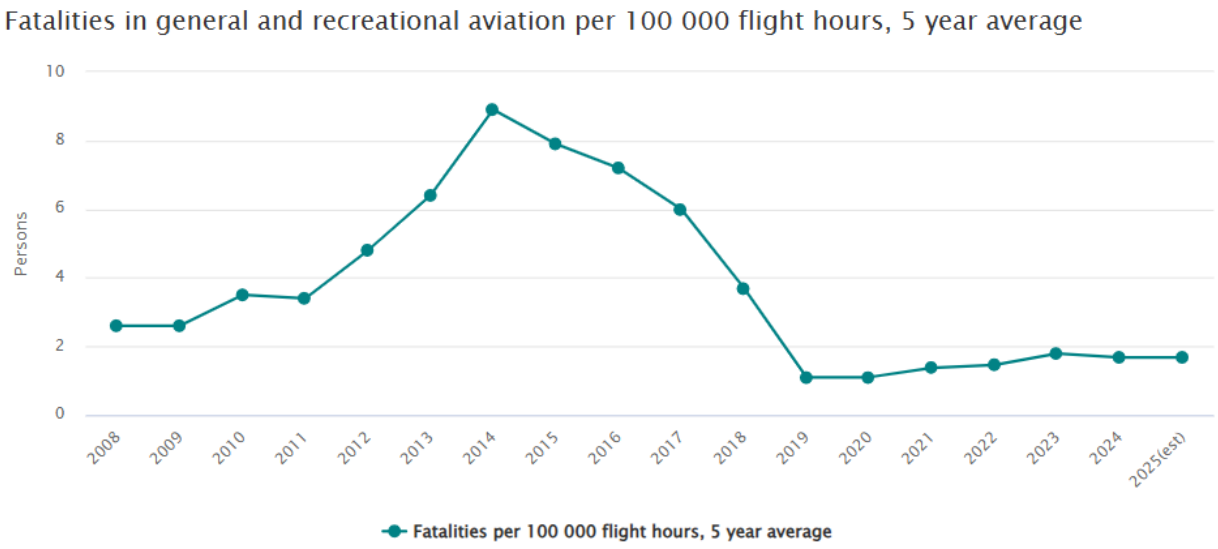
Fatal accidents in general and recreational aviation



Fatal accidents in general and recreational aviation per 100 000 flight hours, 5 year average

Fatalities in general and recreational aviation, 5 year average





List of accidents in 2025 (including foreign aircraft in Finland)

1. May 2025: The engine of a general aviation aircraft stopped during initial climb in Forssa. The pilot managed to bring the aircraft down for a landing in a nearby parking lot, where it hit a light pole and was badly damaged, but more serious injuries were avoided. SIAF made a short report on the case.

2. May 2025: Foreign general aviation helicopters collided in mid-air and crashed. All 5 persons on board the aircraft perished. SIAF investigation L2025-01.

3. June 2025: The engine of an aircraft returning from a parachute jump flight in Jyväskylä no longer produced power, and the pilot had to make a forced landing, which ended in a pond near the airfield. The pilot escaped the sinking aircraft without major injuries. The aircraft was badly damaged.

4. June 2025: An ultralight aircraft was on a test flight after maintenance in Hyvinkää when engine power was lost in the traffic circuit. The pilot returned for a landing on the runway, but the landing was hard, resulting in the pilot being injured upon hitting their head on the instrument panel, and damage to the aircraft's landing gear, nose, and propeller.

5. July 2025: A general aviation seaplane was landing on a water area in gusty wind conditions. While performing the landing, the aircraft bounced on the water, and on the last bounce, the aircraft swung, and the nose of the right float hit a wave. This caused a cartwheel where the aircraft spun around the left wing, turning nose towards the direction of arrival and flipping nose-over onto its back. The aircraft sank resting on its floats. The pilot helped the other person on board out of the aircraft. The aircraft was badly damaged.

6. August 2025: A motor glider made a hard landing, resulting in considerable damage to the landing gear, propeller, and fuselage, but the pilot survived

without major injuries. According to the pilot's assessment, the cause of the hard landing was a lack of airspeed. Contributing factors were pilot error and/or a sudden change in wind conditions. A re-evaluation of the principles of using airbrakes on theaircraft type in question is proposed.

7. October 2025: An ultralight seaplane entered a cloud after takeoff from a water area. The pilot reduced altitude to get out of the cloud. Upon exiting the cloud in a turn to final, the nose pitched down unexpectedly and steeply towards the water surface. The pilot could not recover the aircraft by pulling and adding power, and the ultralight struck the water surface at a steep angle. The pilot escaped unassisted but was injured, and the aircraft was badly damaged.

2.3 Serious incidents

In 2025, a total of 13 serious incidents occurred in Finnish general and recreational aviation, clearly fewer than the previous year (22) and also fewer than the average for 2015–2024 (17.0). 8 cases occurred in general aviation and 5 in recreational aviation. The ratio was similar to previous years.

The incidents were concentrated in the summer months. Most often, a serious incident occurred in connection with landing due to a failed landing. The cases occurred very variably across Finland at both uncontrolled and controlled aerodromes. Kokkola and Nummela both had 2 situations.

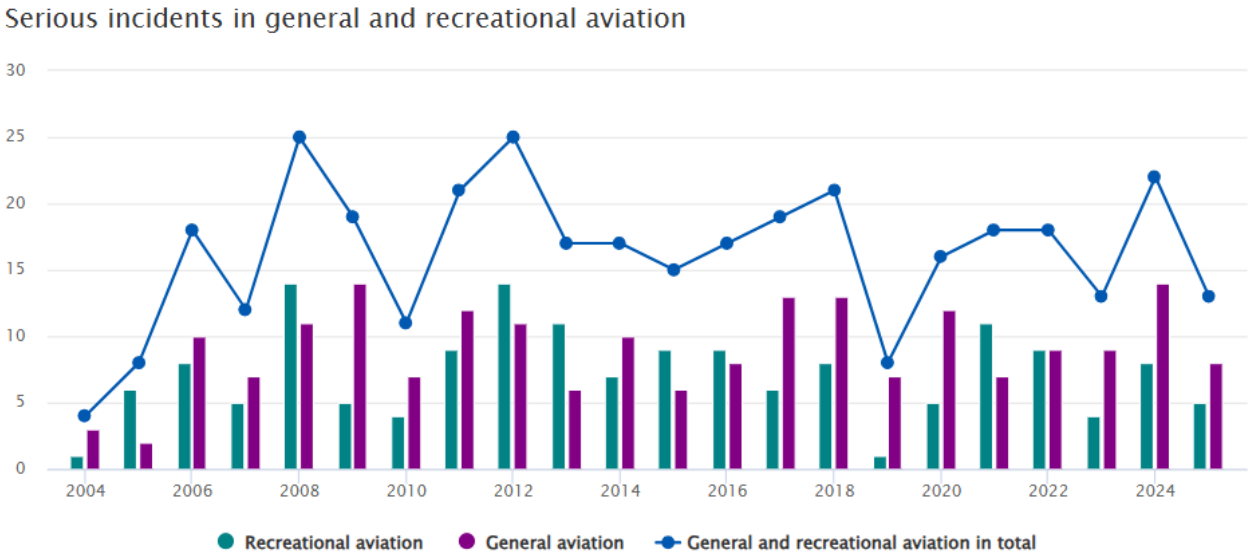
The number of serious incidents in **recreational aviation** (5) remained below the average of previous years. The majority involved a hard landing caused by either technical faults or wind conditions.

In **general aviation**, the number also remained lower than the average of previous years. In these cases, there was more variation regarding both the phase of flight and the type of event. In one case, a fire broke out in the engine compartment during start-up due to excessive priming, but more serious consequences were avoided thanks to quick extinguishing measures. Other situations involved departure from or landing on a runway without clearance (i.e., runway incursions) as well as hard or otherwise abnormal landings.

Accidents and serious incidents are related annually to flight hour data collected from Finnish aircraft owners. The collection of data for 2025 is in progress, but according to current estimates, volumes would remain approximately at the 2024 level. If the estimate holds true, approx. 17 serious incidents per 100,000 flight hours would have occurred in general aviation in 2025 (average 2015–2024: 26.3) and 27.9 in recreational aviation (average 33.6). Both sectors would thus be clearly below the long-term average.

The target set in Finland for serious incidents is a decreasing number relative to 100,000 flight hours, examined as a 5-year average. If the estimate of the number of flight hours holds reasonably true, this target was achieved last year.

You can view accident statistics from 2005 onwards in an interactive, updated report on the tieto.traficom website .



List of serious incidents 2025 (incl. foreign incidents in Finland)

1. January: A general aviation aircraft performed a takeoff at the same time as a sweeper vehicle was on the same runway maintaining it. However, a collision was avoided. The pilot had announced the takeoff on the radio frequency monitored by the vehicles, but they did not manage to move off the runway before the takeoff.

2. February: After start-up on the apron, a general aviation aircraft started moving unexpectedly despite the parking brake being on. The pilot pulled the handbrake and removed power, but the aircraft continued to advance on the snow-covered, icy, and downward-sloping apron, finally striking another aircraft with its wingtip, damaging it. The pilot estimated that the event was

influenced by the fact that the aircraft had been stored in a warm hangar, and when moved outside, the tires were also warm and more slippery on the snow than cold ones, causing the brakes not to be sufficiently effective.

3. March: The landing gear of a general aviation aircraft did not extend normally due to an electrical fault. The pilot performed emergency landing gear extension procedures, but the gear only extended partially. The electrical fault also affected the aircraft's radios, so air traffic control could not be informed of the landing gear situation. Upon landing, the gear collapsed, and the aircraft made a belly landing on the runway. Major damage was avoided.

4. May: An ultralight aircraft pilot had forgotten the throttle at full power when starting the engine. As a result, the aircraft immediately started moving and ended up crossing the taxiway into swampy terrain where it stopped after the nose wheel broke. The propeller was damaged, but otherwise, there were no significant damages or injuries.

5. June: An ultralight aircraft on a training flight made a hard landing, and the corrective action also caused the tail to strike the runway. A contributing factor was a tailwind gust. The aircraft was damaged, but more serious consequences were avoided.

6. July: A moment after takeoff, the pilot of a general aviation aircraft observed smoke coming from behind the instrument panel. The pilot managed to return for a landing at the departure site and found charred wires behind the instrument panel.

7. July: An ultralight aircraft pilot encountered strong wind gusts during landing, leading to a bounced landing on the runway, and finally, the aircraft spun off the runway. At the same time, the nose gear collapsed under the aircraft.

8. July: At the beginning of a training flight, a simulated engine failure on takeoff was performed. Recovery from the situation failed, and the landing was hard, resulting in damage to the landing gear and propeller.

9. July: A general aviation aircraft landed on a closed section of the runway. Due to construction work at the airport, the runway threshold had been displaced, and the area preceding it was closed. However, more serious consequences were avoided.

10. August: The engine of an ultralight aircraft began to run poorly during the flight, and the pilot decided to make a forced landing in a nearby field. The landing was otherwise successful, but the aircraft hit a traffic sign during the landing.

11. August: A glider tow plane made a hard landing, resulting in damage to the aircraft's propeller. Contributing factors were turbulent wind conditions.

12. October: An ultralight aircraft pilot noticed during a traffic circuit flight that the engine RPMs would not drop, so there was too much power to perform a landing. The pilot decided to shut down the engine and performed a successful landing with the engine off. The cause was found to be a broken return spring on the carburetor lever.

13. October: The engine of a general aviation aircraft caught fire during start-up. The pilot extinguished the fire with a handheld extinguisher. A contributing cause was excessive priming during start-up. It was later also discovered that there was a fault in the primer line connection, causing fuel to leak onto the lower engine cowl.

3 Safety situation in other areas of aviation in 2025

3.1 Air navigation services

In 2025, there were 32 **separation minimum infringements** caused by Finnish Air Traffic Control. The number was slightly below the 2015–2024 average and the number for the previous year.

About half occurred at Helsinki. In previous years, Helsinki, which also has the highest traffic volume, has also had the highest number of separation infringements. The ratio between Helsinki and other air navigation service units was quite similar to the long-term average. Last year, the second highest number of separation infringements occurred in Rovaniemi.

Of the cases, 21 were infringements of **radar separation minima** between aircraft, which is approximately at the level of the long-term average. There were four **wake turbulence separation** infringements, which is clearly below the average.

The remaining cases mainly involved infringements of separation between aircraft and airspace reservations. This number was at the level of the long-term average.

Last year, 5 **runway incursions** were recorded where the actions of Finnish Air Traffic Control were a contributing factor. The number was approximately at the level of the 2015–2024 average. The majority of cases occurred at Helsinki, as has most often been the case in previous years. The incidents did not pose a significant risk.

In addition, an accident involving a military aircraft occurred in Rovaniemi in May, where control of an F-18 Hornet aircraft was lost during practice for a display flight over the airport. The aircraft was destroyed upon impact with the ground, but the pilot ejected safely. In the crash, the aircraft struck the airport's VOR beacon, which was badly damaged. This also affected air navigation services, as approach procedures based on the Rovaniemi airport VOR beacon were taken out of service due to the accident.

3.2 Aerodrome operations

In 2025, 23 **runway incursions** caused by ground vehicles at airports were reported. The number was approximately on the same level as previous year but still above the 2015–2024 average. In the previous year, the most runway incursions occurred in Helsinki, but last year Rovaniemi took the top spot, with Helsinki being second. Especially in November–December, several incursions occurred in Rovaniemi in connection with winter maintenance of the runway.

Most runway incursions last year occurred during the winter months, as is typical. During this time, maintenance vehicles often need to access the runway for maintenance work. One runway incursion in January involving a ground vehicle was classified as a serious incident. The situation occurred in Kokkola when a

general aviation aircraft performed a takeoff before a sweeper had managed to exit the runway.

The topic was addressed in a safety bulletin published on April 30, 2025, which stated that maintenance always monitors the aerodrome frequency. When an aircraft announces, for example, that it is coming in for landing or departing, the operational instruction for maintenance is to vacate the area as quickly as possible. However, in some situations, immediate vacating is not possible, so it is essential that the pilot performs a visual check of the situation and ensures that the runway is clear before operating.

Last year, winter conditions arrived reasonably late, so there were hardly any reports of slippery taxiways or aprons, which have been typical in previous years. In December, Storm Hannes caused very difficult weather conditions for a couple of days, especially in Northern Finland, as the temperature was around zero, it was snowing and sleeting, and the wind was very strong. The runways were kept in good condition, but taxiways and aprons were slippery, which led to a couple of foreign aircraft spinning on taxiways in Kittilä.

Reports related to airport Rescue and Firefighting Services (RFFS) were made more frequently last year than in previous years. Most often, they related either to technical faults in a rescue vehicle or a shortage of personnel resources and the resulting downgrade in the rescue and firefighting category.

3.3 Ground handling

Regarding ground handling operations, 1 accident and 2 serious incidents occurred last year. The numbers were high compared to previous years.

The accident involved a situation at Helsinki Airport in August, where an airliner started moving unexpectedly after start-up, and its rotating propellers struck a Ground Power Unit (GPU). The unit was destroyed, and the propellers suffered significant damage. According to current information, ground handling did not play a contributing role in the case, but it highlights the risk of serious injury to ground handling personnel from aircraft engines or propellers. The Safety Investigation Authority initiated investigation L2025-02 regarding this case.

The first of the serious incidents occurred in February. After landing in Helsinki, a heater was connected to a parked airliner before the necessary air vents were opened. Overpressure formed inside the aircraft, and when the cabin crew opened the door, it blew open with great force. A ground crew member was standing next to the door, so impact was avoided.

In 2018, a fatal accident occurred in Kittilä due to a similar explosive opening of a door caused by pressure differential, when the door struck the pilot who opened it. SIAF conducted investigation L2018-01 on this at the time, recommending that the European Union Aviation Safety Agency (EASA) inform various aviation organizations of the safety threat that may be caused by aircraft pressurization on the ground and the subsequent explosive opening of the door. EASA did publish Safety Information Bulletin 2019-02 on the subject, which is still valid and contains useful information for mitigating this threat.

In a serious incident that occurred at Helsinki Airport in August, the wing of a foreign airliner struck a stair truck that was apparently positioned in the wrong place. The Safety Investigation Authority investigation L2025-03 is also underway regarding this case.

Ground handling operations involve handling heavy containers, cranes, and other heavy equipment in the vicinity of aircraft, which brings its own risks to the operation. Working conditions can be challenging, as noise, weather conditions, and schedule pressures affect the employees' daily work. To ensure safety in such conditions, it is of paramount importance to strictly follow regulations and operating instructions and to maintain good situational awareness.

Other cases related to ground handling were mainly reports of, for example, damage caused by ground handling equipment to aircraft, errors in weight calculations, or deviations related to loading. These cases are discussed in more detail in the LOC-I section .

3.4 Unmanned aviation

In 2025, 1 case classified as a serious incident occurred in unmanned aviation in Finland, as well as 1 accident abroad.

In the serious incident, an unmanned airship suffered a technical failure, causing it to fall somewhat uncontrollably into the water area below. The airship was damaged, but injuries were avoided. The accident involved a similar type of situation, but the unmanned aircraft was more severely damaged.

In previous years, serious incidents in unmanned aviation have largely been related to airborne near misses between manned aircraft and drones. However, such incidents have decreased significantly in Finland, and the last such situation classified as a serious incident occurred in 2022.

Near misses still occur in Finland, but their severity has not been very significant, and the numbers have been decreasing. Last year, there were a total of 5 such near misses in Finland, whereas in 2018 there were 18 cases. previously, clearly the majority were reported from the vicinity of Helsinki Airport, but last year Helsinki's share was smaller than in previous years.

Relatively few reports are received from pilots of unmanned aircraft. Often they concern Loss of Control of the aircraft or collision with an obstacle. The numbers of such cases last year were at the level of previous years.

Abroad, Finnish aircraft still end up in near misses with drones unnecessarily often. Last year, 16 such situations were reported, which is more than the previous year. However, the growth in the number of cases leveled off, as there were slightly fewer situations compared to 2023. Overall, the number of serious incidents was below the average. England, and especially the vicinity of London, continued to be a hot spot for near misses.

Foreign and Finnish drones caused slightly fewer airspace infringements in Finland than the previous year, but more than the average. The infringements were again mainly directed at the airspace of Helsinki Airport and airports in Northern Finland.

Airspace restrictions and the maximum allowed flying altitude can be easily checked on the Flyk app's drone map or the Fintraffic Sky app, which are recommended for use before flying.

More information on regulation and drone operations can be found on the droneinfo.fi website maintained by Traficom.

4 Traficom's work to improve safety in 2025

In 2025, the focus areas of aviation safety were preparedness, readiness, and risk management in today's operational and safety environment, which gives rise to even surprising situations. During the year, both the Finnish Aviation Safety Programme and the safety plan annexed to it were updated, taking these perspectives into account.

Interference of satellite navigation continued in Finland and near various conflict zones around the world. Traficom played an active role e.g. at the International Civil Aviation Organization (ICAO) Assembly in September–October, where a resolution condemning the interference with satellite navigation systems was adopted. Traficom's Satellite navigation service interferences in Finland webpage continued to provide updated information from the perspective of aviation, maritime, and other terrestrial radio interference.

Preparations for the implementation of EU regulation concerning aviation cybersecurity were made by, among other things, training Traficom personnel.

In the spring, Traficom, together with Finnish aviation organizations, started the "Aseta itsesi lentotilaan" (Set yourself to flight mode) campaign, aimed at addressing the growing numbers of disruptive behavior among air passengers.

National safety risk management work continued. Numerous joint risk workshops were organized with aviation organizations, where the organizations participated in the development of national safety risk management.

During the year, Traficom published 4 Safety Bulletins and several other newsletters and bulletins regarding e.g. drone operations, rules for helicopter operations, and operating in the vicinity of uncontrolled aerodromes.

In May, the annual Lentoon! seminar was held in cooperation with AOPA Finland, the Finnish Aeronautical Association, Fintraffic ANS, Finavia, and the Finnish Meteorological Institute. The Finnish Aeronautical Association was responsible for the arrangements last year. The event was organized at the Finnish Aviation Museum, and it was also possible to participate in the event remotely.

In November, Traficom once again organized the annual Aviation Safety Forum, where over a hundred aviation professionals discussed current issues. This year's event looked to the future and considered how to ensure a good level of aviation safety in the future as well, and how to conduct risk management at interfaces. The presentations are available on the event's website.

In addition, an airspace seminar increasing cities' awareness of airspace structures, airspace management, and related regulation was organized during the year, as well as the traditional aviation regulatory briefing.

More information on aviation safety, including links to Safety Bulletins published by Traficom and other sources of safety information, can be found on Traficom's Aviation safety information webpage.

5 Flight safety reporting 2025

Open reporting of observed occurrences and fair processing of reports is one of the most important pillars of safety in aviation. The more reports are made, the better we can identify areas for development and improve safety. A large number of reports can be regarded as a sign of a good safety culture. In Finland, the principles of a just safety culture (Just Culture) are followed in the processing of flight safety reports. This process is described in more detail in Chapter 2.5 of the Finnish Aviation Safety Program .

In 2025, Traficom received approx. 19,300 occurrence reports. The number was approximately at the same level as in 2024 (19,600 reports) and more than double compared to the 2015–2024 average (9,800).

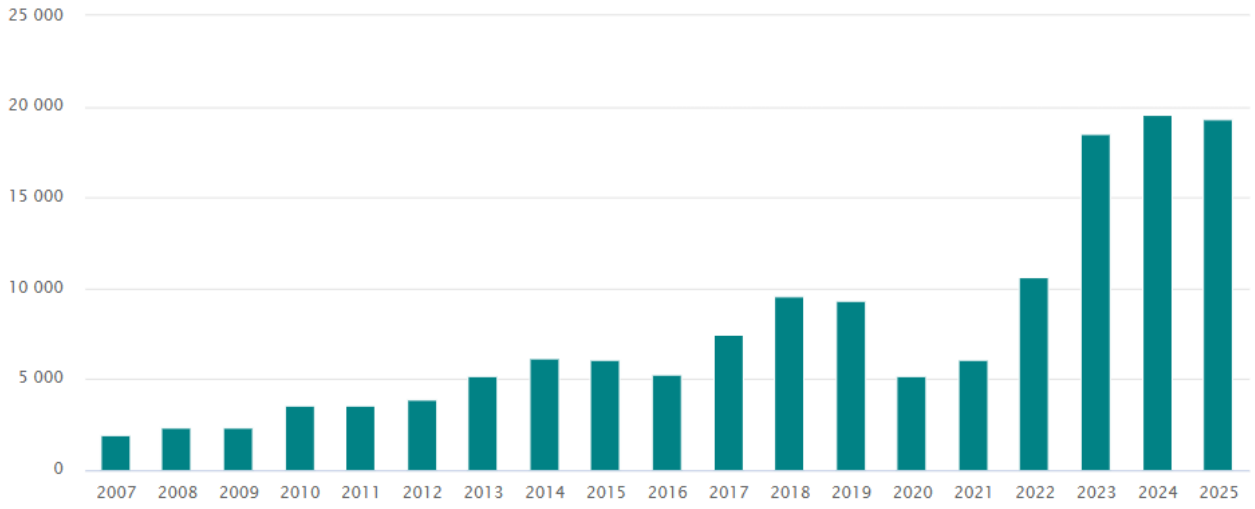
The slight decrease in the total number compared to the previous year is explained by changes in the reporting criteria for GNSS interference cases, which were made during 2024 and 2025. During the year, "reporting fatigue" regarding GNSS interference cases was also observable, as they have become common situations when flying in Finnish airspace as well.

From the perspective of assessing overall reporting activity, it is therefore essential to also examine the number of reports other than those related to GNSS interference. In 2025, approx. 14,000 such reports were submitted to Traficom. The number grew by approx. 13% from the previous year’s figure (12,400) and was clearly above the long-term average (8,200).

Reporting can be evaluated by relating the number of reports to the volume of aviation operations. Regarding last year, airport operation volumes and the flight hour and flight volumes of the largest flight organizations are available. If reports other than those related to GNSS interference are examined relative to airport operations, the figure last year was approx. 4,600 reports per 100,000 operations. In 2024, the corresponding figure was 4,300 and in 2023 approx. 4,000.

Overall, reporting activity developed in a positive direction again in 2025 in almost all areas.

Flight safety reports

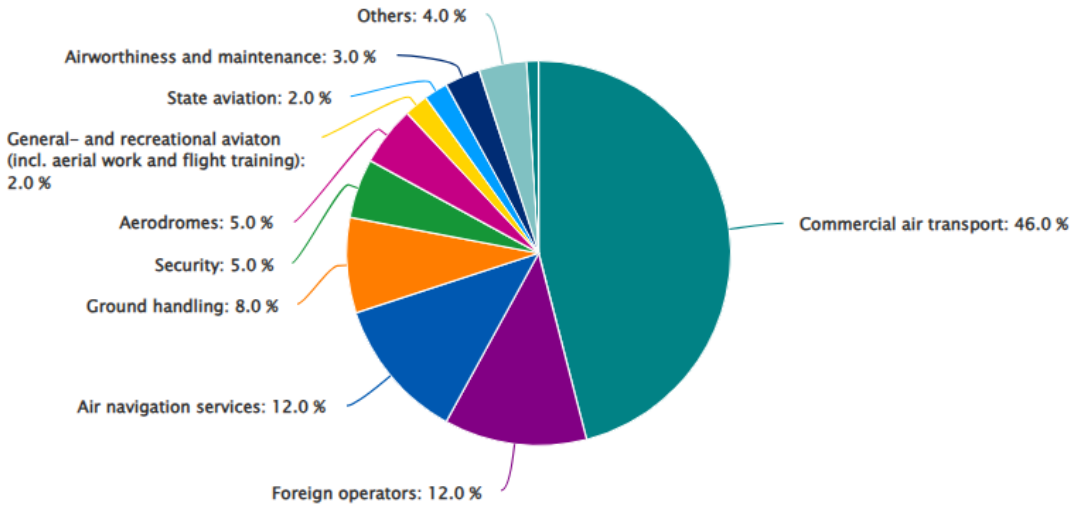


Number of reports per month since 2013

Reports are classified based on several variables.

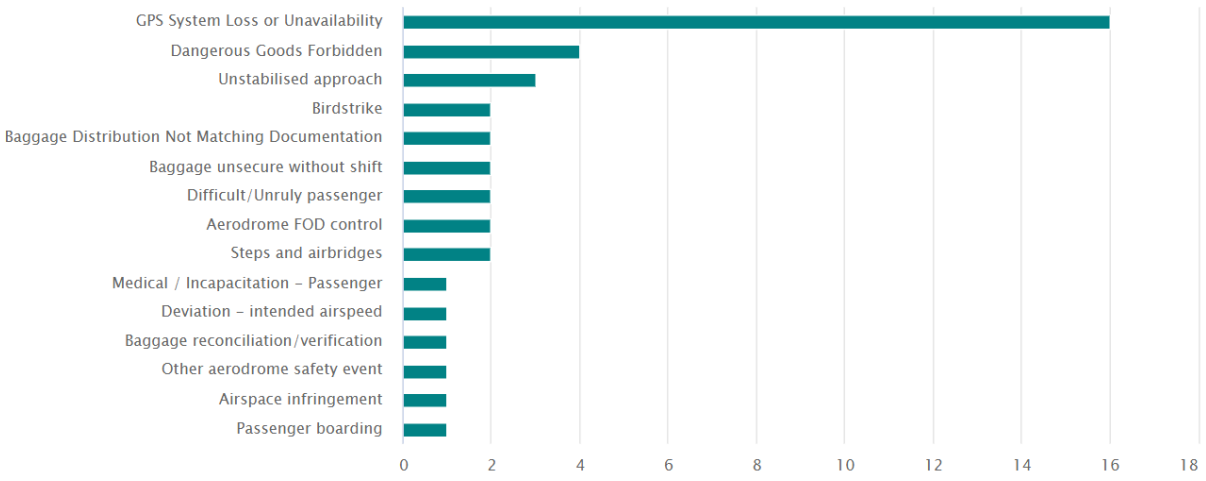
The graph below shows the distribution of incidents in 2025 based on the area of aviation the report covers. The majority of reports come from commercial operations, flight operations and various ground operations organizations.

Reports by aviation domain



The following graph shows the distribution of incidents in 2025 across the 15 largest event type categories. The distribution is presented as a percentage of the total. The event type categories are based on the pan-European ECCAIRS taxonomy. All event type categories and their descriptions according to the taxonomy can be found in the ECCAIRS2 taxonomy browser (folder path events/all attributes/event type/values).

Top 15 event types, as percentage of total



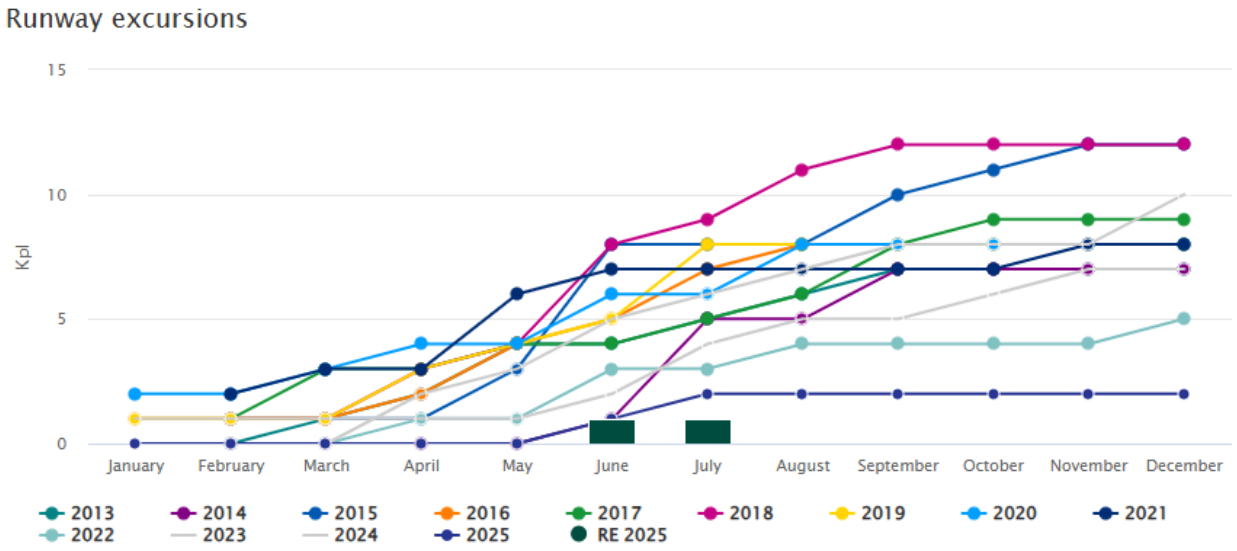
6 Runway excursions (RE) 2025

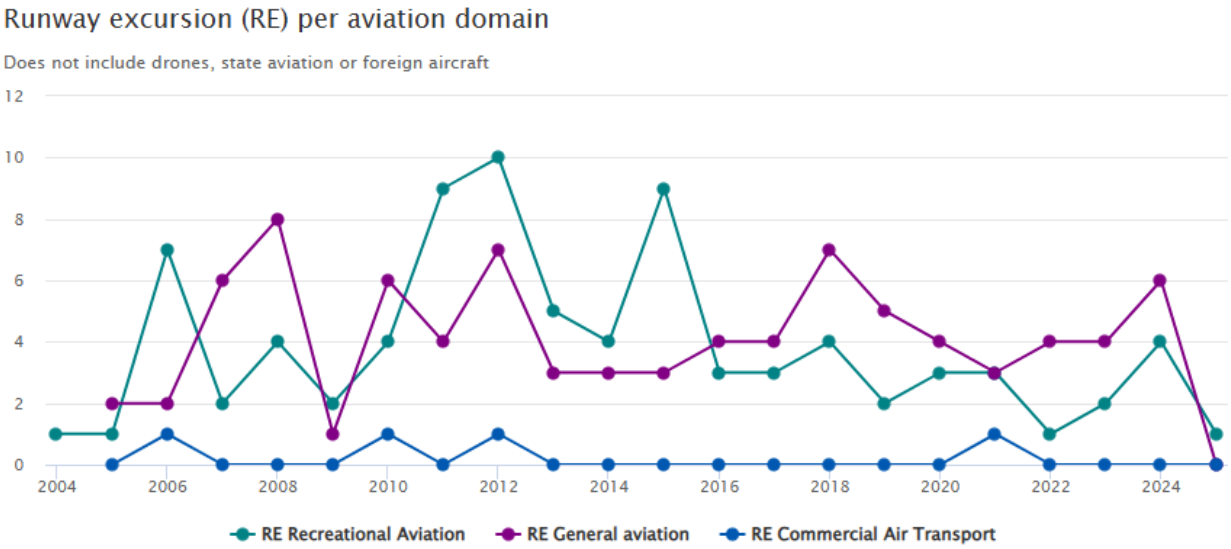
In 2025, 2 runway excursions were reported in Finland or involving Finnish aircraft. The number was clearly below the 2015–2024 average of 8.5. One case occurred in recreational aviation involving an ultralight and the other in foreign general aviation in Finland.

The ultralight case was classified as a serious incident. In it, the aircraft encountered strong wind gusts during landing, leading to a bounced landing on the runway, and finally, the aircraft spun off the runway. At the same time, the nose gear collapsed under the aircraft.

Thus, significantly fewer runway excursions occurred in general and recreational aviation last year than in previous years. On the other hand, for example, hard or abnormal landings, which often anticipate a runway excursion, were reported in approximately the same numbers as in previous years. Thanks to either skill or good luck, these incidents did not lead to the aircraft veering off the runway. In itself, a hard landing can cause equally bad or worse consequences, even if it does not lead to a runway excursion. Last year, hard landings resulted in a total of 2 accidents and seven serious incidents. Regarding accidents, the number was at the same level as in previous years, and there were slightly more cases classified as serious incidents than the average.

Runway excursions have hardly ever caused accidents so serious that lives would be lost. On the other hand, equipment damage can be very significant.





6.1 Types of incidents contributing to runway excursions

Types of incidents that may contribute to runway excursions include, for example, unstable approaches, landing gear and thrust reverser faults, rejected takeoffs from high speed, hard landings or otherwise abnormal contacts with the runway, and cases where reporting of runway condition has been inadequate or incorrect.

Below are a few highlights based on this monitoring.

Unstable approaches were in 2025 approximately at the level of the long-term average, but compared to the previous year, there were fewer of them.

An unstable approach means that the aircraft does not adhere to defined values during the approach, for example regarding speed, altitude, or descent angle. For example, a landing performed at too high a speed can lead to a hard landing and subsequently a runway excursion. Most often, unstable approaches were minor deviations.

Last year, however, one unstable approach led to a serious incident. In the case in question, a foreign airliner descended significantly below the procedural approach altitude during final approach in Rovaniemi. The crew noticed the situation and performed a go-around. The case has been classified as a near-CFIT type, because in this situation the most probable consequence was collision with terrain or an obstacle rather than a runway excursion.

Faults related to landing gear were reported slightly more than in the previous year. As in the previous year, one of the cases led to a serious incident when the landing gear of a general aviation aircraft did not lock properly and the aircraft made a belly landing on the runway. In previous years as well, landing gear faults have on average caused one serious incident.

Abnormal contacts with the runway, such as hard landings, were reported in numbers approximately equal to the average (18). 2 cases led to an accident and 5 to a serious incident. These numbers were at the level of previous years.

Although the majority of abnormal contacts occurred in commercial air transport, mostly no serious consequences followed. In passenger aircraft, landing gears are

built so strongly that they generally withstand hard landings without serious consequences. However, after a hard landing, a technical inspection must be performed on the landing gear to ensure its condition. In commercial air transport, one hard landing occurred to a hot air balloon on a public flight, where a passenger was injured. This was classified as a serious incident.

The other most serious situations occurred in general or recreational aviation. In the first accident situation, the engine of an ultralight aircraft failed, and the landing was very hard. The pilot was injured and the aircraft was damaged. In the second accident, a glider was significantly damaged as a result of a hard landing.

Serious incidents involved similar types of situations, but more severe damage or injuries were avoided.

Cases where r**unway condition was reported inadequately or incorrectly** occurred slightly more than the average (17), but nevertheless fewer than in the couple of previous years. As in previous years, these typically involved situations where the crew's assessment or values provided by aircraft systems indicated the runway was more slippery than officially reported. In these cases, airport maintenance personnel went to check the runway conditions and performed new measurements if necessary. If needed, reported values were changed or measures were taken to improve runway condition.

The majority were reported from airports in Northern Finland in January–February and November–December. Evaluated by total numbers, the situation developed in a better direction compared to previous years.

Traficom regularly publishes winter operations bulletins for both airlines flying to Finland and general and recreational aviators. Last year's bulletins were updated at the beginning of October and can be found on the Traficom website.

Also worth reading is
the European Action Plan for the Prevention of Runway Excursions (EAPPRE) document published by Eurocontrol in 2013 , which contains a wealth of recommendations for preventing runway excursions. In addition,
GAPPRE (Global Action Plan for the Prevention Runway Excursions) has been published , which aims to influence the prevention of runway excursions worldwide.

7 Runway incursions (RI-VAP) 2025

In 2025, 57 runway incursions, i.e., cases where an aircraft, vehicle, or person was incorrectly on a runway or its protected area, were reported in Finland.

The number was exactly at the level of the 2015–2024 average (57.7).

Two runway incursions were classified as serious incidents. Also over the past ten years, runway incursions have resulted in an average of 1–2 serious incidents annually. No accidents have resulted from them in Finland.

In the first serious incident of last year, a general aviation aircraft performed a takeoff from a runway at the same time as a sweeper vehicle was on the runway maintaining it. However, a collision was avoided. Often in previous years, serious incidents have occurred at uncontrolled aerodromes. This case occurred at an airport, but at the time of the event, air traffic control was closed, meaning the airport was practically an uncontrolled aerodrome. However, maintenance may need to access the runway area during these times as well.

Operations outside air traffic control opening hours were addressed in a safety bulletin published on April 30, 2025, which stated that maintenance always monitors the aerodrome frequency. When an aircraft announces, for example, that it is coming in for landing or departing, the operational instruction for maintenance is to vacate the area as quickly as possible. However, in some situations, immediate vacating is not possible, so it is important that the pilot performs a check based on visual observation of the situation and ensures that the runway is clear before takeoff or landing.

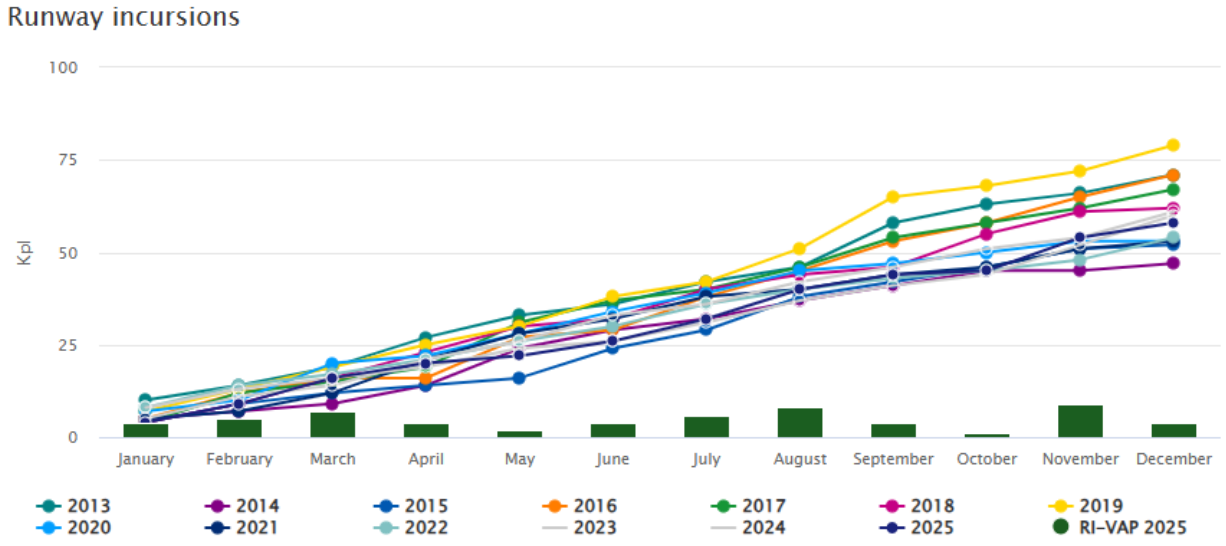
In the second serious incident, a general aviation aircraft landed on a closed section of the runway. Due to construction work at the airport, the runway threshold had been displaced, and the area preceding it was closed. More serious consequences were avoided.

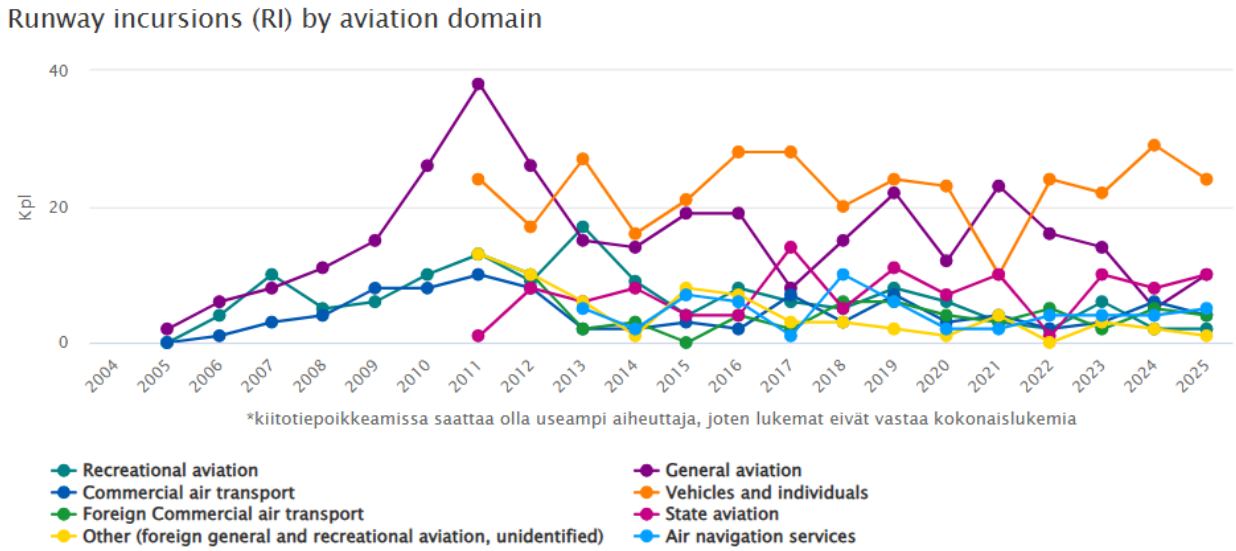
According to the definition, a runway incursion is a situation where an aircraft, vehicle, or person enters a runway or its protected area without permission or otherwise incorrectly. At uncontrolled aerodromes (or airports outside air traffic control opening hours), there is no air traffic control to give clearances for the runway. Even there, situations occurring on the runway can be classified as runway incursions if it is assessed that another aircraft, vehicle, or person has entered the runway in a significantly incorrect manner.

One of the runway incursions was classified as a serious incident. Over the past ten years, runway incursions have resulted in an average of just under two serious incidents per year. The 2024 serious incident occurred at an uncontrolled aerodrome, as has been typical in previous years. In the incident, a glider was forced to abort its landing and go around when a van appeared on the runway.

Runway incursions have not caused any accidents in Finland in the last ten years.

A runway incursion is defined as a situation in which an aircraft, vehicle or person enters a runway or its protected area without permission or otherwise in error. At uncontrolled aerodromes where there is no air traffic control to issue runway clearances, incursions are classified as runway incursions if it is assessed that another aircraft, vehicle or person has entered the runway in a significant error.





7.1 Aircraft

Last year, 29 runway incursions caused by aircraft were reported in Finland. The number was below the 2015–2024 average but slightly higher than the previous year.

In previous years, runway incursions have typically occurred in general aviation and military aviation, and this was also the case last year. In general aviation, the number of cases remained below the average, but in military aviation, they were slightly above it. On the other hand, general aviation runway incursions caused 2 serious incidents, which is slightly more than the average.

Military aviation cases were located at airports where military activity is common, i.e., Jyväskylä, Rovaniemi, Kuopio, and Utti. In general aviation, situations occurred fairly evenly across Finland. Plenty of general aviation training activity takes place in Pori, and that is also where the most runway incursions occurred.

In commercial air transport, runway incursions were above the average in the previous year, but last year the numbers returned to the average level.

Last year, runway incursions occurred equally often in connection with landing and takeoff. Typically, for one reason or another, the pilot does not remember to wait for the air traffic control's takeoff or landing clearance before commencing the takeoff run or performing the landing.

Globally, no serious accidents occurred due to runway incursions. Possibly the most serious case occurred in Nice, France, in September. In that incident, a landing passenger aircraft flew very close over another aircraft waiting for takeoff clearance on the runway. The airport has two parallel runways, and based on preliminary investigation information, the landing aircraft had mistaken the landing runway.

7.2 Vehicles

Vehicles caused 23 runway incursions at Finnish airports in 2025. The number was still above the average, as it has been for a few previous years as well. In the only runway incursion classified as a serious incident in the early part of the year, a ground vehicle was involved as the other party, but the aircraft was considered the actual cause of the runway incursion. This case has been described in more detail above in the runway incursion situation overview.

The majority of runway incursions caused by vehicles occurred again during the winter months, when maintenance needs to access the runway to clear it of snow. Again, a typical case was a situation where the driver, for one reason or another, forgot to request the necessary permission before driving onto the runway.

The majority of last year's cases occurred in Rovaniemi, followed by Helsinki and then Kittilä, Ivalo, and Kuusamo. The locations emphasize airports in Northern Finland. The number of runway incursions occurring in Helsinki dropped by half compared to the previous year.

Thus, the number of runway incursions caused by vehicles remained above the average last year despite several measures that airport operators have taken to reduce their number.

7.3 Persons

Last year, 11 runway incursions caused by persons were reported. The number was slightly below the average, although clearly higher than in a few previous years. Typically, runway incursions caused by persons have occurred at uncontrolled aerodromes, but last year the majority of situations occurred at airports.

In the situations occurring at airports, quite many involved a person from the Defence Forces or a person performing maintenance work for them, for example. In addition, several runway incursions were caused when parachutists ended up or moved onto the runway area without permission after or during their jump.

Regarding situations occurring at uncontrolled aerodromes, Nummela has been in the top spot for several years. Last year too, 2 cases were reported from Nummela where an outsider was on the runway area at the same time as an aircraft was coming in for landing. The pilots performed a go-around.

Persons ending up on the runway without permission can be due to many reasons, such as poor knowledge of the area or the aerodrome's operating procedures. Operators of uncontrolled aerodromes have several means at their disposal to prevent such situations. These include, for example, placing warning signs in critical locations, informing in local newspapers, and if necessary, physical protections such as gates or fences, if their installation is possible. In last year's cases, there were signs at the aerodrome warning of movement restrictions, but for one reason or another, they were not obeyed. At airports, on the other hand, persons moving in the movement area or its vicinity must be trained or instructed precisely on operational procedures.

7.4 Air traffic control

Air traffic control contributed to the occurrence of a total of 5 runway incursions in 2025. The number was approximately at the level of the long-term average.

Most of the cases occurred at Helsinki Airport, as often in previous years as well. The cases did not cause significant dangerous situations.

The number of runway incursions contributed to by air traffic control has remained quite small for several years, and no significant change was observable in this situation.

7.5 Traficom's actions to reduce the number of runway incursions

Traficom has published several safety bulletins regarding runway incursions over the years. In 2013, **a bulletin (pdf) was sent to all aviation license holders** and in November 2018 , **a safety bulletin was published, which, among other things, reminded of typical runway incursions. The safety bulletin** published in October 2019 reviewed the events of summer 2019, including runway incursions. **A safety bulletin was also published in June 2020** , where one of the topics was runway safety. The bulletins still contain useful tips for avoiding runway incursions.

At the end of 2017, the European aviation organizations updated the **European Plan for Prevention of Runway Incursions (EAPPRI**). EAPPRI contains numerous recommendations, and all parties should review the document and strive to implement the recommendations to the extent possible. In September 2018, Traficom submitted a survey to aviation organizations to determine the implementation status of the recommendations in Finland. Based on the responses received, approximately 80% of the EAPPRI recommendations had either been implemented or will be implemented.

Near misses and collisions in the air (MAC/Airprox) 2025

In 2025, a total of 59 airborne near misses between aircraft were reported in Finland or involving Finnish aircraft abroad. The number was at the level of the 2015–2024 average (59.9) and lower than the previous year.

Incidents occurring in Finland were reported 31 times, which is clearly fewer than the ten-year average (42). The number of incidents reported from abroad (28) was higher than the average (18.3) but at the same level as in the few previous years.

Typically, MAC/AIRPROX cases involved situations where the distances between aircraft were less than the separation minima or the distance was otherwise smaller than normal, but actual collisions were avoided.

However, in May, an accident occurred in Finland where two Estonian helicopters collided with each other at the Eura aerodrome, and all 5 persons in the helicopters perished. More on the case below in the general and recreational aviation section.

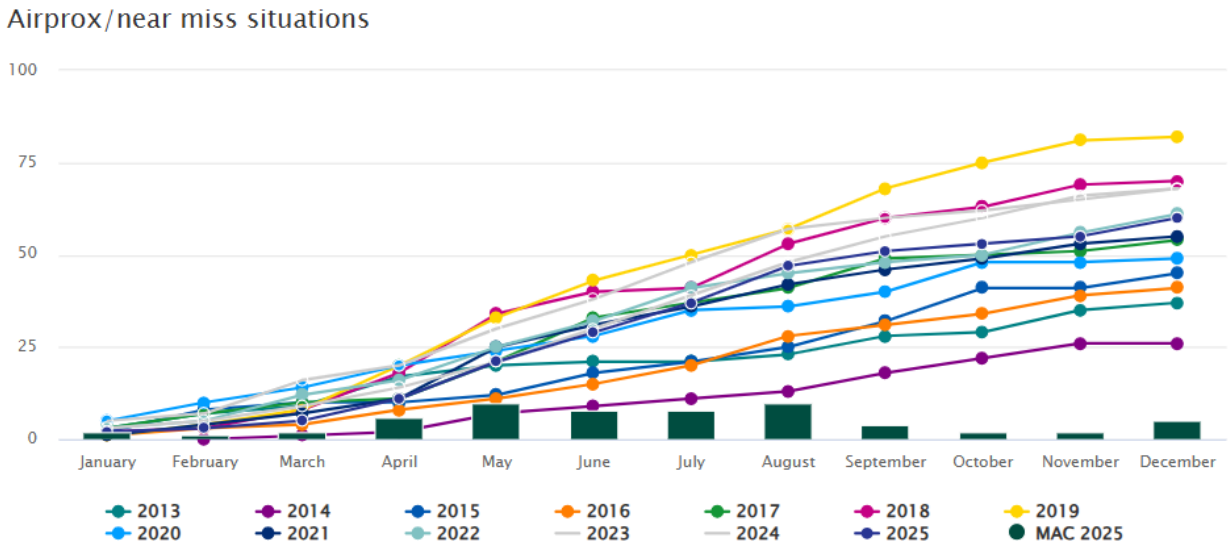
The previous MAC/AIRPROX type situation leading to an accident in Finland occurred in 2011, when two gliders collided during a gliding competition. As a result, the pilot of one aircraft perished. A collision between gliders also occurred in 2006, but that time the impact was survived without fatalities.

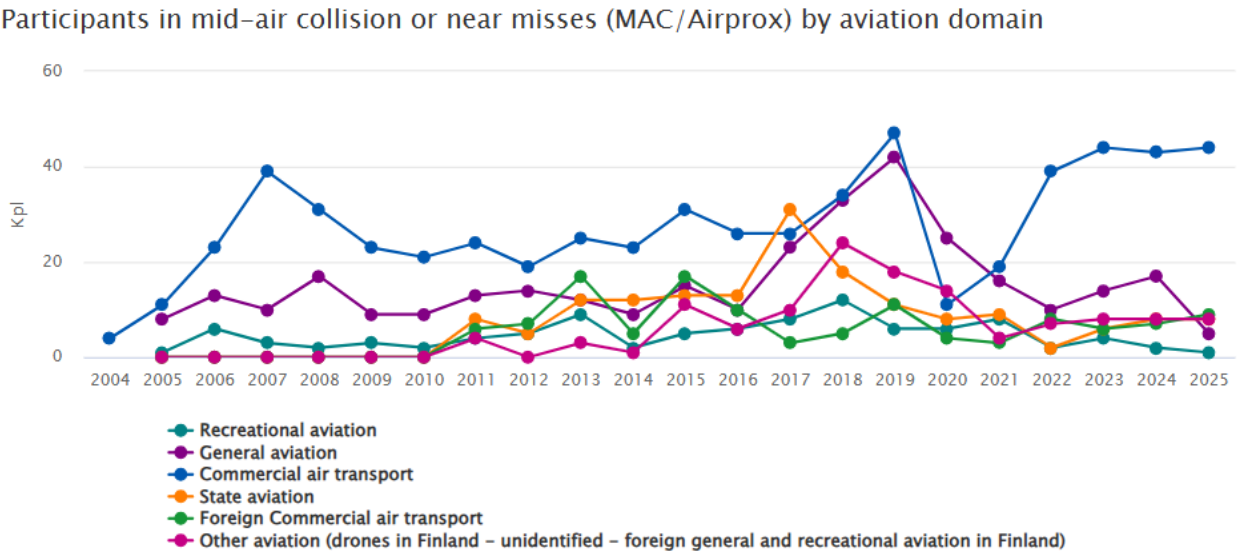
Overall, however, the number of serious incidents remained clearly lower than in previous years.

Drones were involved in 5 near misses in Finland. The number was smaller than the average. Abroad, on the other hand, a Finnish aircraft was involved in 16 near misses with a drone, and this number was clearly higher than the average.
In one incident abroad a Finnish airliner was approaching Tallinn airport, when an object, which was suspected to be a drone, hit the aircraft. Confirmation could not be obtained even after ground searches. Despite the impact, the approach and landing were completed safely.

Regarding drones, the situation in Finland overall has developed in a good direction in recent years, whereas abroad they have increasingly caused near misses.

Last year, a serious collision-type accident also occurred abroad, when an American airliner approaching Washington Ronald Reagan Airport collided with a U.S. Army helicopter flying below it. A total of 67 people perished.





7.6 Commercial air transport

Finnish commercial air transport was involved in 43 near misses in 2025. The number was clearly above the ten-year average.

16 cases occurred in Finland and 27 abroad. These figures were also above the average.

In Finland, the location for 75% of the cases was Helsinki Airport, as has been typical in previous years as well. Mostly, the background was a separation infringement with another manned aircraft, but the infringements were not very significant. Near misses between drones and commercial air transport aircraft in Finland have been quite rare in recent years, and last year 2 such cases were reported, which is slightly fewer than in previous years. Both occurred at Helsinki Airport.

Abroad, the most common location for near misses was again London, where there have been plenty of situations caused especially by drones in recent years.

Most often, near misses in commercial air transport involved a separation infringement. The numbers of cases were above the average, but no significant growing trend is visible. In many situations occurring abroad, a resolution advisory given by the TCAS system was involved, which reduces the risk of a possible collision. More on the TCAS topic below.

7.7 General and recreational aviation

Finnish general and recreational aviation was reported to have been involved in 5 near misses in 2025. The number was considerably below the 2015–2024 average (18.9).

The cases occurred in both controlled airspace and at uncontrolled aerodromes, and they did not cause more serious consequences. In previous years, near misses have caused an average of 3 serious incidents. The total numbers were thus clearly lower than in previous years, so the situation would seem to have developed clearly in a good direction in recent years, even if some cases may have gone unreported.

1 of the cases occurred in Estonia to a Finnish aircraft and the rest in Finland. The numbers were small, but Pori had the most occurrences. Also in previous years, a fairly large proportion of general and recreational aviation cases have occurred in Pori. Pori has busy general aviation training activity.

Although the situation developed well for Finns, a fatal collision accident involving foreign general and recreational aviation occurred in Finland between two Estonian helicopters in May at the Eura aerodrome. All 5 persons in the helicopters perished in the accident. The Safety Investigation Authority initiated investigation L2025-01 regarding the case. An interim report on the case was published in July, but a clear reason for the collision was not yet visible.

The previous time a fatal collision accident occurred in general and recreational aviation in Finland was in 2011. At that time, two gliders collided in mid-air and the pilot of one glider perished. A collision accident between gliders also occurred in 2006, but it was survived without fatalities.

Even viewed internationally, collision accidents between helicopters are quite rare. Individual collisions between helicopters occur annually.

Safety bulletins have also identified the most typical causes of near misses and considered ways to prevent them. One of the key safety factors is maintaining situational awareness. According to the safety bulletin:

"The building blocks of situational awareness include, among other things, trust that others also operate according to common rules, monitoring the aerodrome radio frequency and speaking on it, and active observation of the airspace."

7.8 Unmanned aviation

In 2025, 6 near misses between a drone and a manned aircraft were reported in Finland. The number was smaller than the 2015–2024 average (8.4) and at the level of the few previous years. The cases did not cause more serious incidents.

Last year, clearly intentional large-scale drone activity in the vicinity of airports was reported at several European airports. The activities caused significant impacts on airport operations. In Finland, however, the situation remained at a reasonably good level last year. Still, in a couple of Finnish cases too, a drone had clearly been flown too close to the airport, meaning the activity was intentional.

The number of airspace infringements caused by drone activity was lower than in previous years in the early part of the year, but for the whole year, the numbers nevertheless rose slightly above the average (15.3). Compared to the previous year, the figure decreased slightly. The majority were again in the airspace of Helsinki Airport. You can read more about the situation of airspace infringements in their own section.

Abroad, drones again caused several (16) near misses where a Finnish aircraft was the other party. The numbers were above the average. As in previous years, London was a "hot spot" in these cases. Over half of the cases abroad were reported from London.

7.9 Air traffic control

In 2025, there were 21 radar separation minimum infringements between aircraft caused by Finnish air traffic control (excluding wake turbulence separation infringements or separation minimum infringements between aircraft and airspaces). The number was roughly at same level as the 2015–2024 average, and previous year. The separation infringements were reasonably minor.

Most of the separation infringements occurred at Helsinki Airport, as is typical in previous years as well. The next highest numbers of separation infringements occurred in Jyväskylä and Rovaniemi. The numbers were approximately at the level of the average, although a small increase compared to previous years was visible in the figures for Helsinki.

Typically, the separation infringement occurred during approach. However, the infringements were mostly minor, and no significant dangerous situations resulted from them.

7.10 Types of incidents contributing to near misses

Airspace infringements are described in more detail in their own section In addition, other events to be monitored that may contribute to near misses include, for example, level busts, lateral deviations from the route, transponder failures, and incorrect responses to TCAS resolution adviseries.

Below is a highlight of a few monitored event categories.

In 2025, the number of **level busts** occurring in Finland was slightly higher than the 2015–2024 average (44.1) but approximately at the level of the few previous years.

In previous years, military aviation has been an area where busts have typically occurred, but last year most occurred in commercial air transport. The main contributing factors were various misunderstandings regarding cleared levels, and they most often occurred during the cruise phase or approach. The cases did not cause more serious consequences.

In military aviation, the number of cases was at the level of the average. In almost all cases, a contributing factor was pilot error in complying with the clearance.

Lateral deviations from route were reported in Finland and for Finnish aircraft clearly more than the 2015–2024 average. The number of situations occurring both in Finland and elsewhere in the world was increasing. The majority have occurred in commercial air transport. Behind the cases are misunderstandings of clearance, incorrect waypoint or heading settings in the cockpit, as well as incorrect compliance with approach routes.

The largest category consisted of cases where the aircraft encountered GPS interference during the flight, and it affected the heading in some way either immediately or later during the approach. However, the cases did not cause more significant safety effects, as typically the flight crew detected the deviation and intervened quickly.

GPS interference typically affects the aircraft's navigation capability, in which case it must use backup navigation systems or request navigational assistance from air traffic control. Traficom has published more detailed information on the subject on the Satellite navigation service interferences in Finland website.

The number of **radio communication faults** in 2025 decreased compared to the two previous years but was still above the average. Especially cases reported in general and recreational aviation decreased clearly. Typical situations were again interference noises on radio frequencies, problems reaching air traffic control, or incorrectly selected radio frequency.

In the spring of 2025, the use of the general frequency 119.700 MHz ended in Finland. It was used for a long time as a so-called general frequency for air navigation service units. Based on international policies, Fintraffic ANS stated that there is no longer a need to keep it in general use, and it will be gradually removed from the Aeronautical Information Publication regarding ATS unit data and from aeronautical charts. In the future, only the so-called main frequencies of each unit and the emergency frequency 121.500 MHz will be in use and monitored at airports, which clarifies the situation.

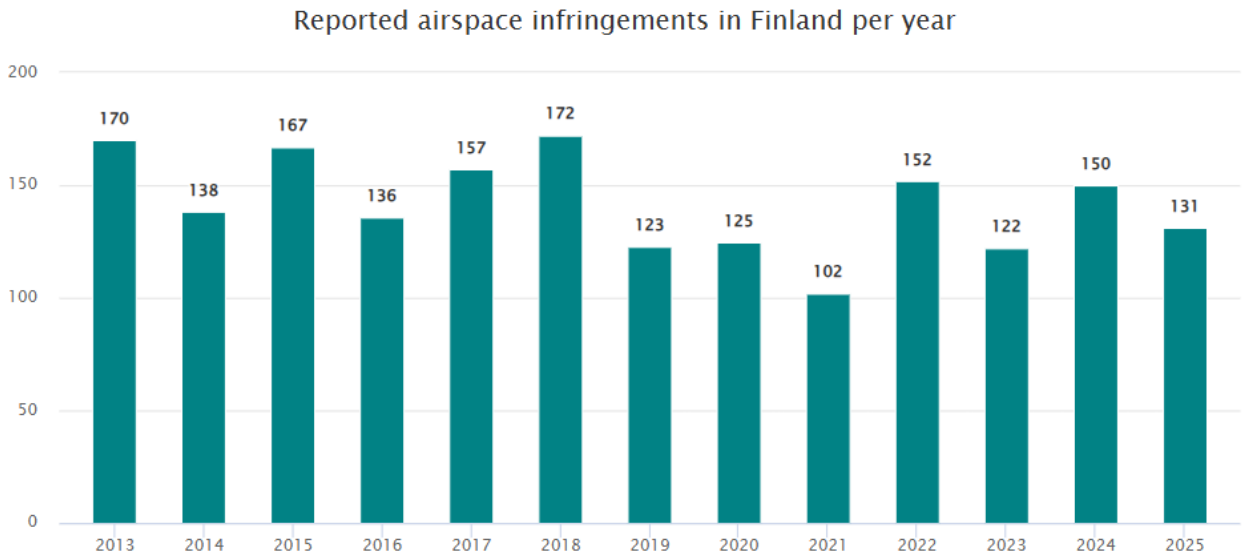
26 reports were received regarding **resolution advisories given by the TCAS system.** This number was slightly above the long-term average. The majority again occurred abroad. In Finland, the number was at the level of the average. Typically, the resolution advisory came in a situation where the aircraft's high rate of climb or descent activated the other aircraft's TCAS system, but the required separation minimum was maintained.

One case of **incorrect reaction to a TCAS system resolution advisory** was reported. In the situation in question, the aircraft was performing an approach when the TCAS system gave a resolution advisory, the probable cause of which was a

helicopter flying in the vicinity of the airport. Air traffic control had also warned the pilots about the helicopter, and they had visual contact with it, on the basis of which they decided not to follow the advisory and continued to a successful landing. However, according to instructions concerning TCAS system advisories, they should be followed in all situations.

7.11 Airspace infringements

In 2025, 131 airspace infringements were reported in Finland. The number was slightly below the 10-year average (143) and also lower than the previous year. The number decreased in all sectors, but especially clearly in recreational aviation.



7.11.1 Controlled airspace

108 airspace infringements affecting controlled airspace were reported, which was at the level of previous years. The cases did not result in serious incidents. The majority were again directed at the airspace of Helsinki Airport. The number was slightly smaller than in previous years. Next most were flown into the airspace of Jyväskylä, Rovaniemi, Pirkkala, and the Area Control Centre. The numbers were mainly approximately at the level of the average of previous years, although a decrease was visible in Helsinki and an increase in Rovaniemi compared to the previous year.

General aviation caused the majority of infringements, as typically in previous years. Situations caused by recreational aviation were on the decline.

Reasons for airspace infringements were manifold, but the most frequently mentioned was inadvertence or forgetting. In a couple of cases, an incorrect air pressure value had also been set in the altimeter, and as a result, the aircraft climbed too high.

An interactive report presenting the airspace infringement situation more broadly can be seen on the Tieto.traficom website. From the beginning of 2025, it has also presented an estimate of the cause, if it is apparent from the report text.

In the spring of 2025, Fintraffic ANS published the Fintraffic Sky website, which presents airspaces and restrictions concerning them in a similar way as in the Flyk application. For example, drone pilots can easily check in these applications whether the device can be flown in the location in question. In both, a flight notification can also be made, and in Fintraffic Sky also a flight request to local air

traffic control, if operations take place in the vicinity of an airport. In addition, the flight must be agreed upon by phone at the time of flying.

7.11.2 Prohibited areas

Airspace infringements can target prohibited areas established around nuclear power plants, for example.

In 2025, only one unauthorized flight into prohibited areas was reported. Indeed, the numbers have been in a pleasing decline in recent years. Also in 2024, only one flight into a prohibited area occurred. Both cases in the last two years affected area P10, i.e., the area around the Loviisa nuclear power plant.

7.11.3 Restricted areas

Airspace infringements may target restricted areas established to protect aviation from dangerous activities, such as shootings or detonations.

The number of airspace infringements affecting restricted areas was at the level of the average. 14 infringements were reported, whereas the number had been 21 in the previous year. Locations were fairly evenly distributed among restricted areas across Finland.

7.11.4 Different airspaces and where to find more information about them

Airspace infringements to controlled airspace, i.e. airspace where air traffic control services are provided, increase the risk of collision between aircraft.

Flying without permission into a Restricted area (R), where shooting, detonations or other activities dangerous to aviation are taking place, poses an obvious danger to an individual aircraft. The purpose of Prohibited areas (P), on the other hand, is to protect objects of national importance, such as government buildings and nuclear power plants.

In addition to restricted and prohibited areas, danger areas (D) may be published in situations where, for example, there is active aviation activity in the area, unmanned aviation beyond visual line of sight or other activities that are dangerous to other aviation. However, flights into danger areas may be permitted at the discretion of the aircraft commander without separate permission, so they do not restrict the use of airspace in the same way as restricted or prohibited areas. In these cases, it is also recommended to find out the nature of the activity in the area before flying and to contact the party that reserved the area, if possible.

Prohibited areas are always active, while other airspaces, such as controlled airspace and restricted areas, are activated as needed. For example, controlled airspace is active when there is flight activity at an airport, and a restricted area is activated when an activity hazardous to aviation begins. Restricted and prohibited areas can be either temporary or permanent.

In addition, some airspaces have been designated as UAS airspace zones. These can be either prohibiting or restricting the operation of unmanned aircraft, or allowing, where operations carried out with unmanned aircraft are exempted from some of the requirements relating to them. These are specified in aviation regulation OPS M1-29 and its annexes.

In addition to the above areas, certain airspace areas have been designated as Radio Mandatory Zones (RMZ), where aircraft must be equipped with radio equipment and its use is mandatory. These areas are regulated in Aviation Regulation OPS M1-17.

Some areas are designated as Transponder Mandatory Zones (TMZ), where aircraft must be equipped with a pressure altitude transponder and its use is mandatory. These are regulated in Aviation Regulation OPS M1-31.

You can find all aviation regulations on Traficom's website .

Permanent restricted, prohibited and danger areas are published in Part ENR 5 of the Finnish Aviation Manual (AIP). Temporary areas, such as those established to protect police or rescue operations, may be published at short notice. Information on temporary areas can be found in NOTAM bulletins, which are available at https://www.ais.fi/bulletins/ .

In addition to the long-established Flyk application, Fintraffic ANS published the Fintraffic Sky application in the spring of 2025. Both present airspaces notified as active and information on activities dangerous to aviation from the AIP, AIP Supplements, NOTAMs, and AUP/UUP plans (Airspace Use Plan). In addition, various prohibitive and restrictive UAS airspace zones are presented. However, the user must note that both are only informative tools and do not exempt the user from the responsibility to familiarize themselves with the necessary NOTAM and AUP/UUP information.

The Fintraffic Sky application is also nowadays the primary place for filing a flight plan. It also presents, among other things, various weather information.

The European Action Plan for Airspace Infringement Risk Reduction (EAPAIRR) contains a comprehensive list of recommendations to reduce airspace infringements. The recommendations are targeted by groups to those parties that have an impact on airspace infringements (e.g. airspace users, air navigation service providers and aeronautical information and meteorological services). The plan was last updated in March 2022. Traficom encourages aviators and aviation organisations to familiarise themselves with the recommendations and good practices of the EAPAIRR and to implement them in their own operations to the extent practical. The plan can be found on the Eurocontrol website.

You can learn more about airspace violation data in an interactive report, which you can find **on the tieto.traficom.fi website** .

8 Loss of Control in Flight (LOC-I) 2025

In 2025, 14 cases were reported in Finnish civil aviation where control of the aircraft was lost in flight. The number remained below the 2015–2024 average (approx. 18). The majority of cases occurred in drone operations and a smaller part in general and recreational aviation.

In addition to these, one loss of control occurred in military aviation, which also affected civil aviation (loss of control of an F-18 fighter in Rovaniemi).

In **manned civil aviation**, 5 loss of control cases were reported, which was below the 10-year average (6).

3 situations occurred in general aviation and 2 in recreational aviation. In both general and recreational aviation, the numbers were at or below the average.

4 cases led to an accident and 1 to a serious incident. Indeed, it is very typical that loss of control situations lead to serious consequences. However, the accidents were survived without fatalities.

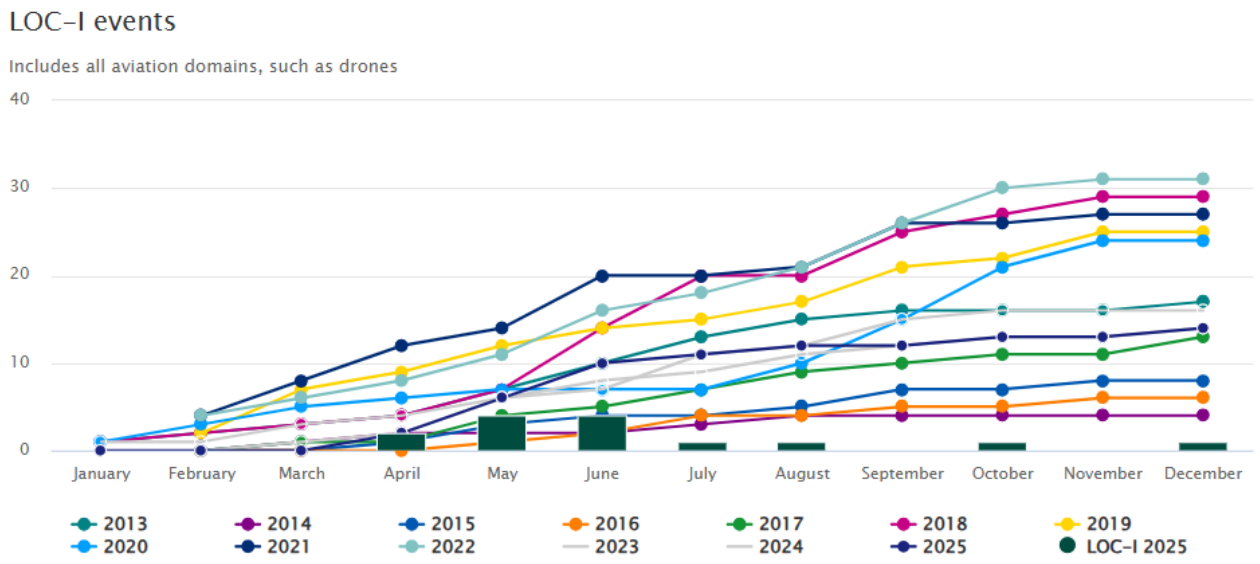
In the most serious case, control of an ultralight seaplane was lost after takeoff, and it struck the water at a steep angle. The situation had the potential for a very serious outcome, but the pilot survived the crash and was able to exit the aircraft. Both the pilot and the aircraft suffered severe damage.

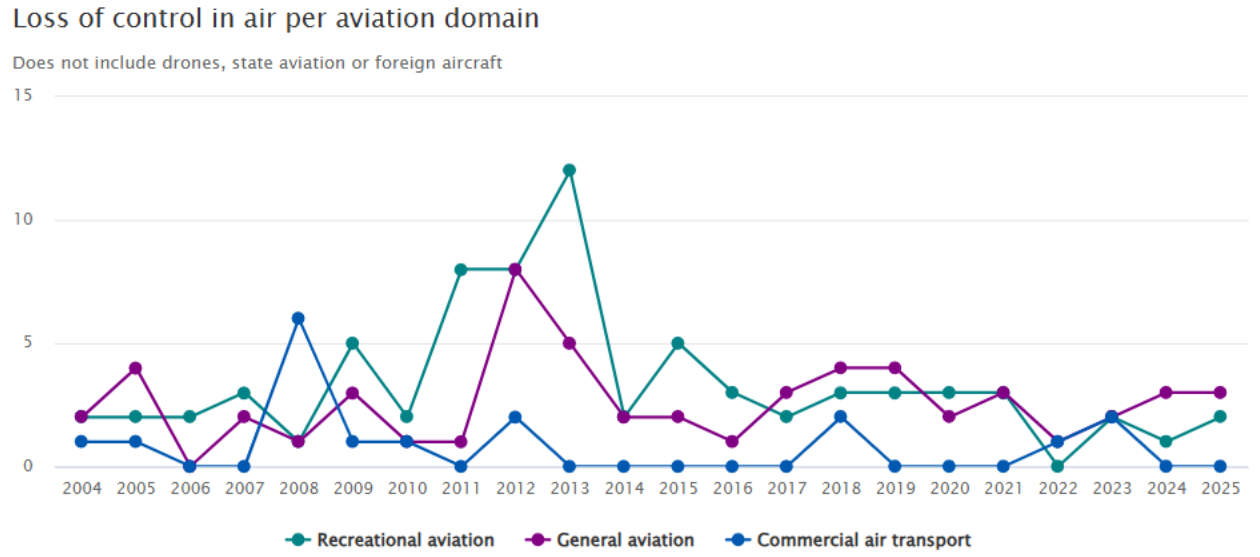
In general and recreational aviation, the numbers of loss of control cases have remained at a positively low level for a long time.

In addition to civil aviation cases, one loss of control situation occurred in military aviation, which also had an impact on civil aviation. Control of an F-18 fighter performing a display flight practice was lost in Rovaniemi, and it crashed, simultaneously destroying the airport's VOR antenna, the signal of which is also utilized in civil operations approach procedures. The pilot ejected safely.

In **unmanned drone operations**, 9 loss of control cases were reported, i.e., fewer than the average. The most typical causes for the cases were various technical faults, collision with a bird, and in one case flying the drone in the vicinity of flowing water, which caused an error in the drone's altitude sensors, and as a result of corrective movements, the drone collided with bridge structures.

Reporting practices in drone operations still vary, and clarifications to reporting criteria are awaited from the European Union Aviation Safety Agency. Awareness of reporting requirements is currently variable among pilots, which partly affects the number of reported cases.





8.1 Types of incidents contributing to LOC-I situations

In addition to laser interference, bird strikes, and fire & smoke cases described in more detail below, other monitored event types possibly contributing to loss of control in-flight include, e.g., aircraft speed limit undershoots or overshoots, dangerous situations caused by wake turbulence, deficiencies in de-icing and anti-icing, flight control system faults, and various deviations related to aircraft loading, such as positioning the load contrary to loading instructions or errors in securing the load or in weight calculations.

Below are a few highlights based on this monitoring.

The number of reported cases of **flight control system faults** continued to grow and was again above the average. Growth has been visible for several years now. Such faults include, for example, malfunctions of flaps and ailerons as well as speed or attitude data sensor faults. Cases are reported most in commercial air transport, and the most typical case concerns failure of the flap system, as most

often in previous years as well. Another common case type concerns technical disturbances and faults in flight automation.

2 cases of this type were classified as serious incidents. One occurred in drone operations when a control surface of an unmanned airship detached during flight and the aircraft fell into the water area below. In the other case, the flaps of an airliner failed, and it had to perform a landing without flaps. In previous years, cases of this type have not caused serious incidents.

Deficiencies in de-icing and anti-icing were reported at an average rate. Ice accumulating on aircraft surfaces can significantly impair the aircraft's flight characteristics and at worst lead to loss of control. Last year, reports mainly related to deficiently implemented de-icing on commercial air transport aircraft, but the numbers were smaller than the previous year. These did not result in significant dangerous situations.

In 2025, Traficom again updated the winter operations bulletins, which comprehensively cover icing prevention. The bulletins are available on the Traficom website in versions aimed at both airlines and general and recreational aviators.

Various **incidents related to loading** were reported somewhat more than the average. Often these involved cases where the load was placed in the hold differently than defined in the loading instructions, or cargo was not secured properly, for example, a cargo container was not properly locked, or nets holding cargo in place were not properly fastened. These cases were observed especially at Helsinki Airport when flights arrived in Finland. The actual error had therefore occurred abroad when the aircraft departing for Finland was being loaded.

Loading errors did not cause significant dangerous situations, but they can increase the risk of loss of control if cargo shifts or the weight distribution changes.

Various **aircraft speed limit undershoots or overshoots** were reported more than the average. Exceeding speed limits can cause stress to the aircraft's structures and affect, for example, the performance of an approach. Correspondingly, too low a speed can lead to the aircraft stalling. Underspeed is most often a more dangerous state than overspeed. As is typical, almost all cases concerned various overspeed situations. Most often, the case involved an aircraft engaged in commercial air transport. The cases did not cause more serious consequences. Typically, defined speeds were exceeded either in the cruise phase (often contributed to by a weather phenomenon) or in the approach phase (weather phenomena as contributing factors, but also, for example, extending flaps too early).

The number of **cases where weather phenomena were contributing factors** was above the average in 2025. From the beginning of 2024, cases where considerable turbulence had been observed during the flight began to be monitored separately. The number of such cases was increasing compared to the previous year.

Weather phenomena contributed to three accidents and 7 serious incidents in 2025. The numbers have been in small growth in recent years. In commercial air transport, in-flight turbulence caused a more serious injury to a passenger, and a storm day at the end of December caused a foreign passenger aircraft to spin on a taxiway in Kuusamo. These cases were classified as serious incidents.

In the spring of 2025, SIAF completed its investigation regarding a serious incident on a Norwegian flight from Rhodes to Helsinki on August 11, 2024, in which two cabin crew members were injured after the aircraft flew into turbulent air.

Turbulence usually causes problems during the cruise phase, when seatbelts are not necessarily used in the cabin. It is not always possible to detect turbulence in advance (for example CAT, i.e., Clear Air Turbulence), so it is sensible to always keep the seatbelt fastened when seated in the cabin.

EASA has also published guidelines on the issue, available at EASA website.

Accidents where weather phenomena were a contributing factor occurred in general and recreational aviation. In one case, an ultralight seaplane encountered poor weather conditions (cloud) after takeoff, resulting in loss of control and crashing into water. Other cases also related to seaplane operations. In one, the wind flipped the aircraft over during water taxiing, and in the other, a wind gust rocked the aircraft during landing.

Technical faults in an aircraft can lead to many kinds of consequences; loss of control is one of them. One monitored indicator is the number of technical faults leading to flight interruption or cancellation. The number of such cases has been in a small decline since 2019. In 2025, however, the figure was higher than the previous year but approximately at the level of the 2015–2024 average (approx. 125).

Especially in commercial air transport, there are strict criteria for the condition of aircraft systems. If these are not met, the flight must be cancelled or interrupted. In commercial air transport, the number of such faults leading to flight interruption was slightly above the average. 2 cases were classified as serious incidents, and they involved smoke observations caused by failure of the aircraft's technical system, leading to the evacuation of passengers.

In general and recreational aviation, the figures were at the level of the average. Of them, 3 led to an accident and 3 to a serious incident. These figures were approximately at the level of long-term averages.

In drone operations, one technical failure leading to an accident occurred.

8.2 Laser interference

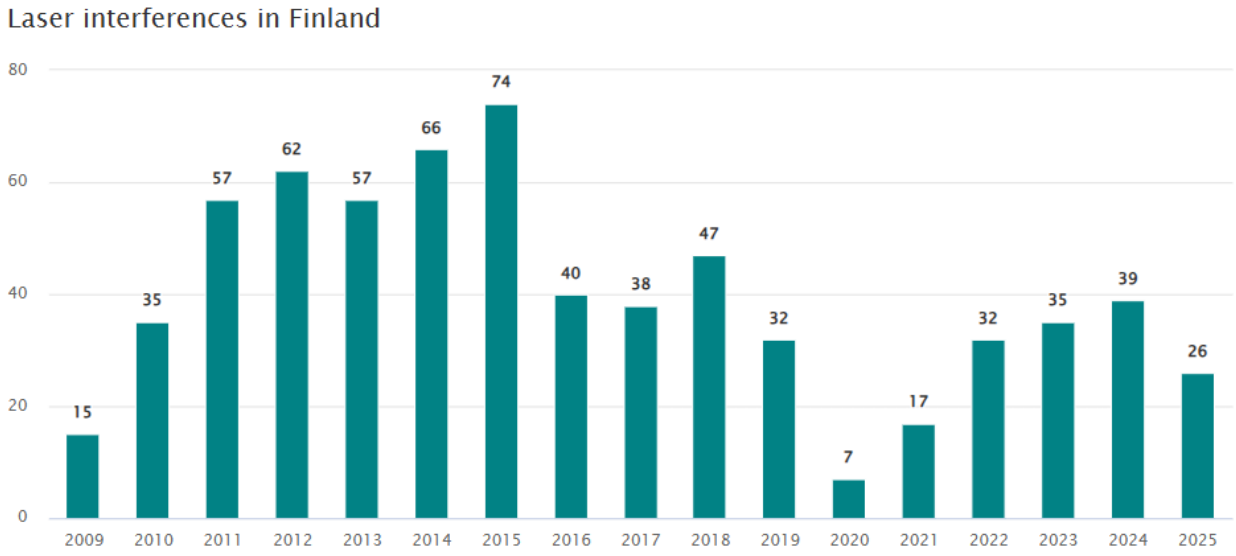
In 2025, a total of 54 laser interferences in Finland or targeting Finnish aircraft abroad were reported. The number was smaller than in the couple of previous years but slightly above the 2015–2024 average (45.5).

In Finland, 26 laser interferences were reported, i.e., clearly fewer than in previous years and approximately the amount of the long-term average. Abroad, interferences directed at Finnish aircraft were reported 28 times, which was above the average and higher than the previous year.

In Finland, the number of laser interferences thus developed in a good direction. Last year, almost all situations occurred in Helsinki, whereas in previous years Helsinki's proportion has been approx. 75%. The number of situations reported from elsewhere in Finland was thus at a record low. Also numerically, the figures in Helsinki were above the average, although slightly smaller than the previous year. On the other hand, in a few reports it was stated that several flights had been interfered with, so the actual numbers of interfered flights were higher than the number of reports.

Abroad, the most laser interferences were reported from Latvia and Greece. During the last ten years, the most interferences have been reported from the United Kingdom, Spain, and Estonia.

The most typical month for interference was again September, as most often in previous years as well. Interferences occurred most often during approach. Laser interferences did not cause more serious consequences, but in individual cases, however, visual disturbances to the other pilot.



Laser interference is a crime. Directing a laser beam at an aircraft crew is punishable in itself, even if no concrete danger or damage to the aircraft, its crew, or passengers follows. Airlines principally file a police report on interference cases, and Traficom can also make a request for investigation to the police.

In November 2024, a verdict was given regarding laser interference directed at a general aviation aircraft flying near Hyvinkää in September 2022. The man who pointed the laser was sentenced for two counts of aggravated endangerment of

traffic safety to imprisonment, which was sentenced as conditional. In addition, he had to pay 50 day-fines.

This was the second verdict given in Finland regarding laser interference. The first was given in 2018. At that time, the Lapland District Court sentenced a man to a personal fine for interfering with a medical helicopter with a high-power laser. The court considered that the act fulfilled the essential elements of aggravated endangerment of traffic safety and caused significant danger to flight safety.

FinnHEMS, the Finnish Defence Forces, the Border Guard, the Finnish Pilots' Association, the Radiation and Nuclear Safety Authority STUK and Traficom launched **the "Laser is not a toy" campaign in March 2021** , drawing attention to the serious consequences of laser interference for air traffic.

In September 2019, Traficom published **a safety bulletin on laser interference**, which reminded pilots of the dangers of laser interference and also provided instructions for pilots in the event of a laser interference situation. The bulletin also reported on the first court ruling on laser interference.

Pointing with a laser is punishable by law

Handheld laser pointers are cheap and easily available, which means that many people see them as toys. In Finland, the maximum permitted output of an individual laser pointer is one milliwatt. Audiovisual equipment may have a laser pointer with five milliwatts of power at maximum. If such a pointer has a green beam, it may interfere with pilots at a distance of up to three kilometres. If the laser has 125 mW of power, the interference may reach up to 18 kilometres. Eyes are clearly more sensitive to green light than red or blue light.

Pointing the beam of a laser pointer at the flight crew of an aircraft is punishable in itself, even if it did not cause any actual damage or real danger to the aircraft, its crew or the passengers.

If e.g. the beam actually hits the eyes of the flight crew during a critical stage of the flight, i.e. takeoff or landing so that the pilot is blinded or even loses their eyesight partially, the dangerous situation is real and serious. This may constitute an offence called “causing danger” or, in certain situations, “criminal traffic mischief” or “negligent endangerment.”

If the use of a laser pointer causes real damage, the situation will naturally be assessed in a completely different manner. In that case, all the provisions of the Criminal Code that safeguard the life and health of people apply, such as the provisions on negligent bodily injury and homicide. Naturally, the party causing the damage would also be liable for the considerable financial damage.

From the Tieto.traficom website You can find more information about legislation related to laser interference.

8.3 Bird strikes

A bird strike is a collision between an aircraft and a flying animal, most often a bird, but sometimes also a bat. Although most bird strikes do not affect the flight

or cause a dangerous situation, in the worst case, a collision can lead to loss of control of the aircraft.

Bird strikes are estimated to cost approximately one billion euros annually around the world, including aircraft damage, repair costs and operational delays. Climate change has seen new bird species move further north, which may increase the risk of bird strikes in the future. In addition, as aircraft become quieter and faster, the ability to detect and avoid birds may be reduced. Bird strike reporting has also improved in recent years, which may contribute to the number of cases detected.

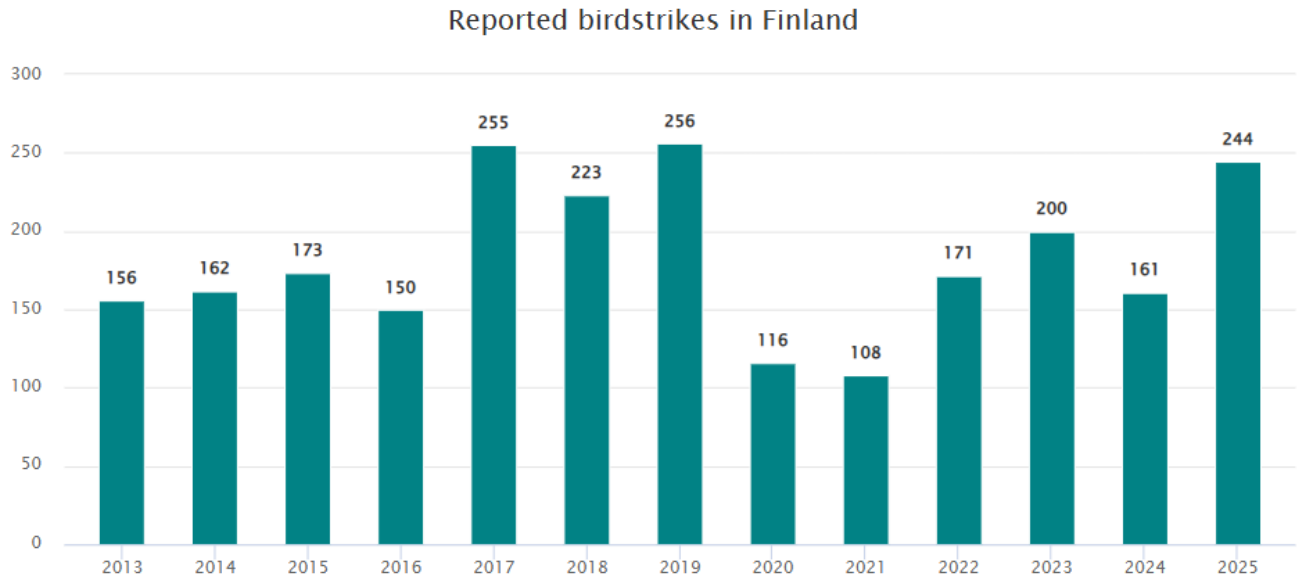
In 2025, a total of 324 bird strikes were reported in Finland or involving Finnish aircraft. In Finland, 244 cases were reported, which was clearly above the average of the last 10 years and higher than the previous year. From abroad, 80 cases were reported, which was at the level of the long-term average but fewer than in the couple of previous years.

The cases did not cause significant dangerous situations.

In Finland, the majority of strikes were reported from Helsinki-Vantaa, as in previous years. The next most, but clearly fewer than Helsinki-Vantaa, were reported strikes from Kuopio and Tampere-Pirkkala. Also in previous years, these three airports have been at the top of the statistics. Most often, the impacts occurred during approach or landing.

Abroad, the number of bird strikes was approximately at the level of the average of previous years. Strikes occurred fairly evenly around the world; Germany, Estonia, and Turkey were at the top. In the years 2015–2024, strikes have been most reported from Germany, Italy, and Greece. Among airports, Rome, Malaga, Copenhagen, and Gazipasa-Alanya in Turkey were at the top. Last year, Gazipasa, Zurich, and Tallinn were at the top.

According to statistics, in the years 2016–2025, bird strikes occurred in Finland mostly in July–August (abroad in June–July), especially in the morning between 7–8 am. Over half of the strikes occurred during approach or landing, and most often a small-sized bird hit the aircraft. The exact bird species is usually not reported, but most often it has been a swallow or a gull.



You can explore bird strike data in more detail with an interactive report, which you can find **on the tieto.traficom.fi website.**

8.4 Fires and smoke observations on aircraft

One of the indicators of loss of control of aircraft monitored by Traficom is fires and smoke observations on aircraft. A fire on an aircraft is a serious situation that, if it occurs in the air, can quickly lead to loss of control of the aircraft and, in the worst case, its destruction.

In 2025, a total of 20 smoke observations or fires in aircraft were reported. The number was clearly above the 2015–2024 average and also higher than the previous year. 6 cases were classified as serious incidents. In the previous year, 5 cases were classified as serious incidents and 2 as accidents. Typically, smoke observations and fires have led to approx. 3 serious incidents annually. Accident cases have been rarer.

Of last year's serious incidents, 3 occurred in commercial air transport, 2 in general aviation, and 1 in foreign commercial air transport in Finland.

In the most notable commercial air transport situation, a power bank in a passenger's bag in the cabin of a Finnish airliner overheated and caused strong smoke. In the situation, the aircraft was still on the apron. The cabin crew acted according to instructions and placed the power source in a container intended for the purpose and covered it with water, after which it was removed from the aircraft.

Such smoke and fires in the cabin caused by overheated lithium batteries have increased in recent years, at the same time as the number of different devices using lithium batteries as their power source has grown.

It is therefore essentially important that passengers follow airlines' instructions regarding the transport of devices containing batteries. Information on the subject can also be found on the Traficom website. A safety campaign on the issue is planned for 2026.

In one general aviation case, the aircraft was being started when it caught fire, apparently due to excessive priming. However, the pilot managed to extinguish the fire before it caused more serious consequences. A few fires of this type igniting in connection with start-up have occurred in recent years. A safety bulletin published in the spring of 2025 described this topic and correct procedures in more detail.

8.5 Unruly passengers

The International Civil Aviation Organisation ICAO defines an unruly passenger as *"A passenger who fails to respect the rules of conduct at an airport or on board an aircraft or to follow the instructions of the airport staff or crew members and thereby disturbs the good order and discipline at an airport or on board the aircraft."*

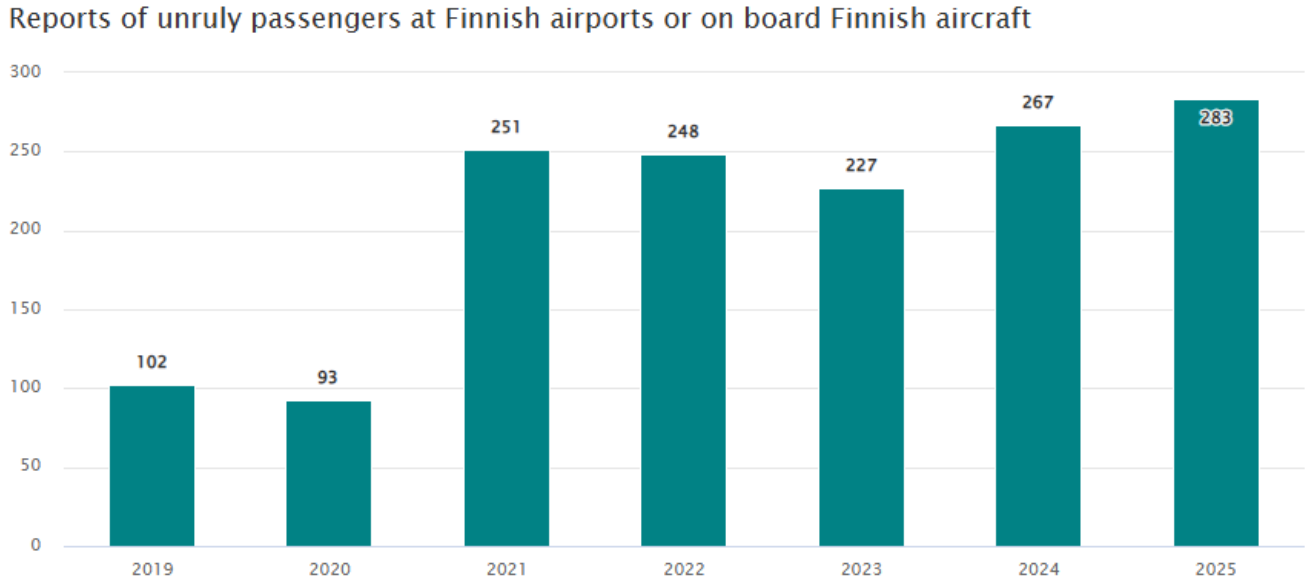
In this review, as regards to airports, unruly passengers refer to persons who are arriving or departing at the airport as passengers, not, for example, persons who have come to the airport to escort a passenger or who are otherwise randomly present at the airport.

In 2025, 283 cases were reported where a passenger behaved disruptively at a Finnish airport or on a Finnish aircraft. The number was higher than the previous year and clearly above the long-term average.

On May 14, 2025, Traficom launched a joint campaign "Aseta itsesi lentotilaan" (Set yourself to flight mode) in cooperation with other aviation industry operators, aiming to influence the reduction of disruptive behavior.

The majority of last year's disruptive behavior cases occurred again during the en-route phase of the flight. Also in previous years, this was the most typical phase. In these situations, the passenger had, for example, behaved threateningly or disruptively or was significantly intoxicated. Intoxication combined with failure to comply with crew instructions is a safety risk to the person concerned as well as to others on the aircraft.

Of the situations occurring at Finnish airports, the overwhelming majority took place at Helsinki Airport, as it is also clearly the busiest airport in terms of passenger numbers. In Helsinki, the figures were approximately at the level of the previous year.



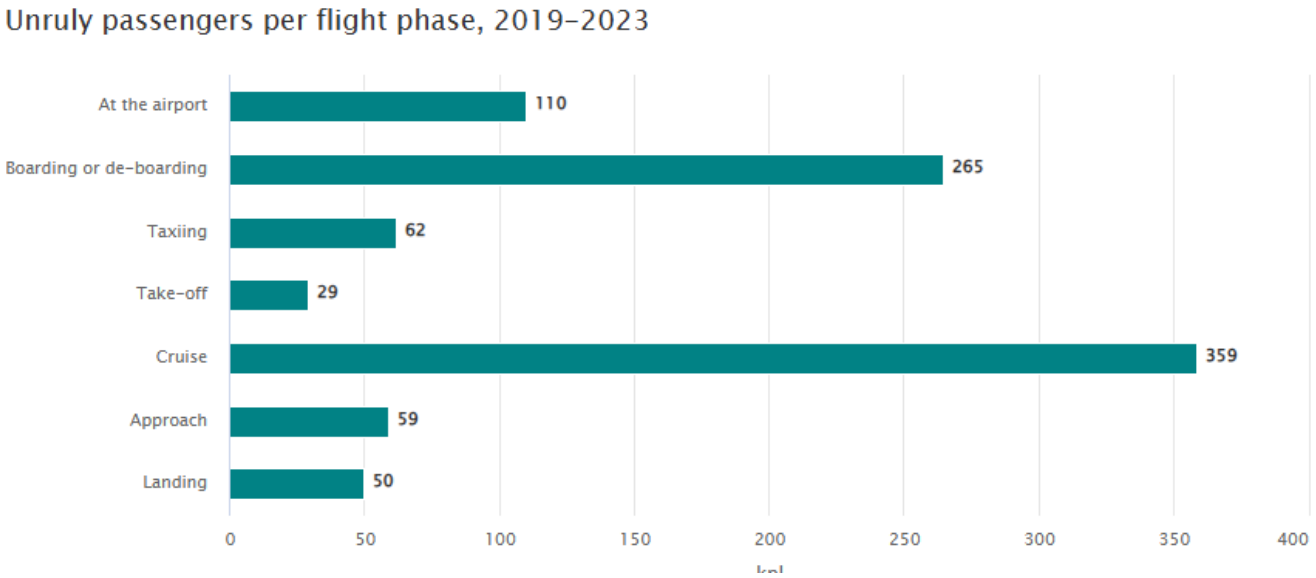
Event types

Disruptive behavior occurring during flight can be divided into three typical forms:

1. The largest group consists of disruptive behavior (verbal harassment, excessive intoxication, smoking). In 2025, a total of 174 cases of this type were reported. In the previous year, the number was 150.

2. Another significant case type is failure to comply with crew instructions (ignoring the seatbelt sign, failure to comply with given safety instructions and commands, tampering with safety equipment), of which a total of 102 cases were reported in 2025. In 2024, the number was 107.

3. The most serious form is physical violence. A total of 7 such cases were reported in 2025. In the previous year, the number was 10.



Smoking in aircraft toilets is also a risk factor for a fire on board the aircraft, the consequences of which can be very serious and, in the worst case, lead to loss of control of the aircraft. The development of these cases has been discussed in more detail in the section on fires and smoke observations.

At airports, a typical situation was related to intoxication or verbal harassment. For example, jokes about bombs are always taken seriously in aviation and the situation is always treated as a real threat. The result of such speech is most often denial of boarding and the police being called (removal from the airport and possibly a fine).

Passengers should remember that at the airport and on the plane, they are the only ones responsible for their own behavior and its possible consequences. Disruptive behavior cannot and will not be tolerated.

9 Controlled flight into terrain and near-miss situations (CFIT/near-CFIT) 2025

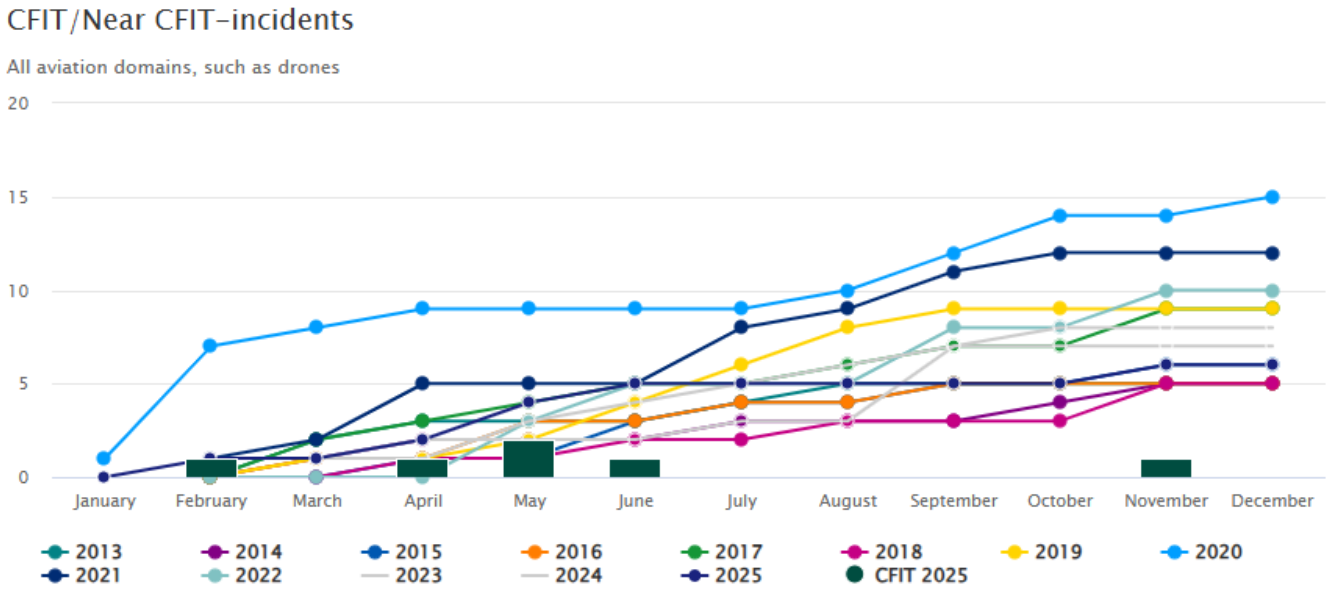
In 2025, 6 CFIT (Controlled Flight Into Terrain) or "near-CFIT" cases were reported, where an aircraft under pilot control collided with terrain or an obstacle or a near miss occurred. The number was below the 2015–2024 average (8).
3 cases occurred in drone operations and the rest in manned aviation.

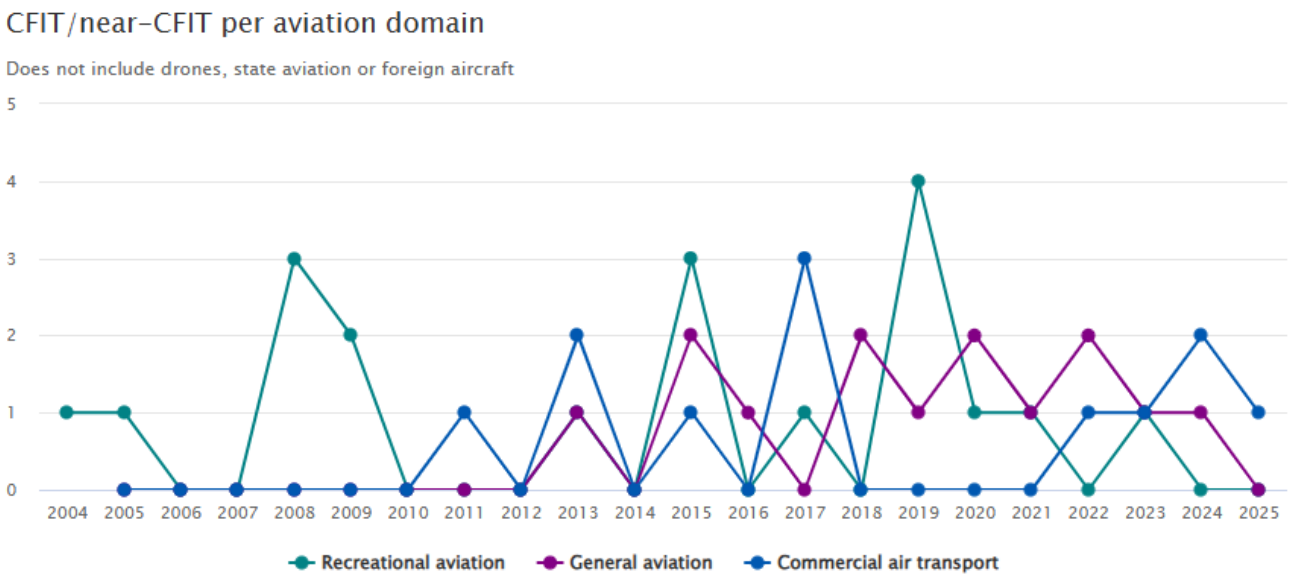
The number of cases in manned aviation was below the long-term average. Indeed, in the last few years, case numbers have remained quite small. The most serious case occurred in foreign commercial air transport in Finland. It was also classified as the year's only serious incident. In previous years, CFIT situations have caused an average of 1 accident and 1 serious incident annually.

In last year's serious incident, an aircraft arriving in Rovaniemi descended below the minimum flight altitudes defined in the approach procedure during the approach. The crew performed a go-around. The case was also reported to the competent authority of the airline in question, but more detailed information on contributing factors was not obtained.

In other manned aviation cases, a helicopter hit tree branches during landing, and in the other, the separation between the aircraft and obstacles required by air traffic control was infringed.

In unmanned aviation, the number of CFIT cases was approximately at the level of the average of previous years. The cases were typical impacts with trees or other obstacles during operations.





9.1 Types of incidents contributing to CFIT situations

Factors contributing to CFIT situations are closely monitored, and these include incorrect altimeter pressure settings, incomplete obstacle information, and errors and ambiguities in aeronautical charts. Additionally, warnings from aircraft ground warning systems (GPWS) are an indicator to monitor.

Here are a few highlights based on this monitoring:

The number of reports regarding **deficiencies in flight obstacle data** decreased slightly from the couple of previous years but was still slightly above the 10-year average (28.2). Typical cases were again flight obstacles without required obstacle lights and cranes erected without permission in the vicinity of airports.

On October 1, 2023, the maintenance of the flight obstacle register and the processing of statements related to flight obstacles transferred to Traficom's responsibility. At the end of 2023 and in 2024, several reports related to this process were received, which kept the total number above the average. Also in 2025, reports related to the topic were still received. You can find plenty of additional information on flight obstacles on the Traficom website.

The number of reports regarding **incorrect altimeter pressure settings** was clearly above the average (12.1). The European Union Aviation Safety Agency (EASA) has identified the topic as a growing risk, and a bulletin published on March 9, 2023, highlighted the risks caused by incorrect pressure settings and gave recommendations for reducing them. An incorrect pressure setting can lead to level busts (overshoots or undershoots of cleared altitude), which can increase the risk of airborne near misses. In the approach phase, an incorrect pressure setting can lead to the approach being performed either too high or too low, which can cause a CFIT situation.

In last year's cases, a quite typical reason for the wrong pressure setting was forgetting. In many cases, it was mentioned that this was influenced by a message arriving at the same time from, for example, air traffic control, the cabin, or another party, which caused attention to be focused on another matter.

Last year, reports of **warnings given by the aircraft's Ground Proximity Warning System (GPWS)** were multiple times higher than the average, but in practically all cases, it was a false warning. The most typical reason for a false warning was GPS interference experienced during the flight, which affected the location data of the aircraft's systems. If disturbances occurred in vertical data, it could cause an unnecessary GPWS warning.

Last year, the number of reports regarding **deficiencies in aeronautical chart data** decreased from the previous year. Many of these were the aeronautical chart data provider's own reports of observed quality deviations.

Observed errors concerned many kinds of aspects, such as lateral or vertical limits of certain areas, incorrect locations of areas, inaccuracies in radio frequencies marked on charts, and chart readability problems. Reports were not limited only to Finnish charts, but were also made regarding aeronautical charts of other countries. The cases did not cause more serious consequences.

10 Collisions while taxiing to or from the runway (GCOL) 2025

Last year, 6 GCOL cases were reported, i.e., situations where a collision occurred while the aircraft was taxiing or air-taxiing. The number was double compared to the 2015–2024 average (3). In the previous year, there were no GCOL-type cases.

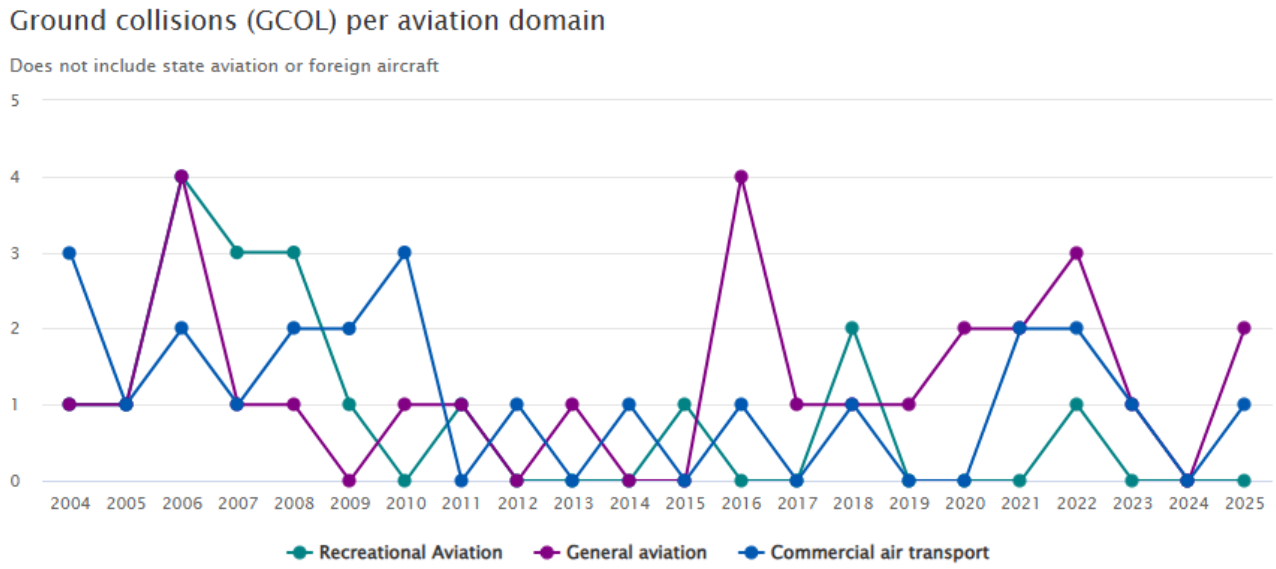
3 cases were classified as serious incidents and 1 as an accident.

Last year, the early part of the year went quite well, but in the latter part of the year, a few hits occurred that also received media attention. These raised the total number to a relatively high level.

The case classified as an accident occurred in Helsinki in August, where an ATR-type aircraft started moving unexpectedly after start-up, and its rotating propellers struck a Ground Power Unit (GPU). The unit was destroyed, and the propellers suffered significant damage. According to current information, the aircraft's parking brake was not engaged when starting the engines. The Safety Investigation Authority initiated investigation L2025-02 regarding the case.

Serious incidents occurred mainly in commercial air transport, with Helsinki and Kittilä as locations. In August in Helsinki, the wing of a foreign airliner struck a stair truck parked in the wrong place. The Safety Investigation Authority also initiated an investigation (L2025-03) regarding this.

The last case of the year occurred in Kittilä, when in difficult weather conditions a foreign airliner spun on the taxiway after landing and hit a snowbank next to the taxiway.



10.1 Types of incidents contributing to GCOL situations

Factors contributing to GCOL situations are closely monitored and include, among others, interference with aircraft pushback or taxi, inadequate apron control, damage during ground handling, and FOD (Foreign Object Debris) in the traffic area and apron. In addition, reports related to the condition of the apron and taxiways are monitored.

Here are a few highlights based on this monitoring:

Cases related to **inadequate apron supervision** involved, for example, situations where passengers were able to move outside designated areas or without required supervision. This can cause a safety risk, such as injury to a passenger.

Last year, the numbers were above the average. The majority occurred at Helsinki Airport, as before. The number of reports related to the topic received from airports in Northern Finland was also elevated last year. Last year, the number of various tourist flights to Lapland was record-high, which also caused great pressure on airports and passenger management both in the terminal and on the apron.

The number of **reports related to the condition of the apron and taxiways** was approximately at the average. The reports mainly concerned the slipperiness of airport aprons and taxiways, so outside the winter season, case numbers remained low.

The majority were made from Helsinki Airport, but numerically the number of reports concerning Helsinki decreased compared to the previous year. Plenty of reports concerning the topic were made in Helsinki in 2022, and following the measures taken since then, the situation has improved. The next most reports were made from Rovaniemi.

In January, there were extremely slippery conditions in Oulu on one day, and a foreign airliner slid partially off the taxiway. The aircraft was towed back onto the taxiway without major damage. At the same time, an aircraft coming in for landing on the runway also reported a runway that was more slippery than expected but managed to land successfully. The situation regarding cases where runway condition has been reported deficiently has been discussed in the Runway Excursions section.

Towards the end of the year, conditions especially at airports in Northern Finland were difficult due to severe frost and, on the other hand, strong winds prevailing on individual days. Although runways were mainly kept in good condition, not all taxiways and aprons were. This was visible, for example, as the Kittilä GCOL case on December 27, 2025, when an aircraft could not stay on the slippery taxiway in the strong wind but spun off it. At the same time, another slightly smaller aircraft also spun on the slippery surface on the apron in the wind.

In severe frost, surfaces are often not particularly slippery; rather, friction is good. When the temperature hovers near zero, conditions are the most difficult from a maintenance perspective. In Finland, aprons or taxiways are not sanded, as sand can cause damage to aircraft engines and other structures.

Regarding **interference with aircraft pushback and taxiing**, the number of cases was clearly above the average and also higher than the previous year. Numbers were elevated both in Finland and abroad. In Finland, especially the number of cases reported in Helsinki grew clearly.

Approx. 90% occurred at Helsinki Airport and the rest at airports in Northern Finland, mainly in Rovaniemi. In typical situations, a ground vehicle drove either in front of a taxiing aircraft or behind an aircraft being pushed back, leading to the interruption of taxiing or pushback. To ensure flight safety, there is a basic rule at airports that ground vehicles must always give way to an aircraft when its anti-collision lights are on.

The number of **damages occurring during ground handling** was above the long-term average. These typically involved cases where a ground handling vehicle or other equipment strikes the aircraft. The aircraft may be stationary, under tow, or in pushback. In Finland, the situations have mainly occurred at Helsinki Airport, but this number is not significantly above the average.

In contrast, the number of damages occurring abroad was on the rise. Often the dents were detected at the stage when a ground handling person performed an arrival inspection on an aircraft arriving in Helsinki. Departure airports were on a very wide scale around the world.

Reports related to **FOD (Foreign Object Debris/Damage)** were made clearly more last year than in previous years and the average. This indicator monitors cases where an object or material in the wrong place in the movement area or apron causes or could cause damage or danger to the aircraft, environment, or persons. The cases did not cause significant damage last year.

Most often, the location was Helsinki, as in previous years. The increase in the number of cases may also be influenced by improved reporting activity, when even small extraneous objects are reported.

11 Aviation safety situation monitoring 2025

ON MONITORING THE AVIATION SAFETY SITUATION

In addition to high-level (level 1; accidents, serious incidents and fatalities) indicators, the safety situation is monitored using various lower level (level 2 and 3) indicators that monitor the development of operational risk factors.

Level 2 indicators include the most significant causal factors of accidents (for example runway excursions, near misses and loss of aircraft control in the air), and level 3 measures the causal or contributing factors of these or other incidents that pose a threat of accident or incident.

The indicators and targets used to monitor the state of aviation safety are based on the indicators and targets defined in the Finnish Aviation Safety Programme (FASP). A more detailed description of them can be found **in Annex 2 of the Finnish Aviation Safety Programme** .

The safety situation is monitored in particular from the perspective of commercial air transport, general and recreational aviation, air navigation and aerodromes. This publication does not cover hang gliding, paragliding or parachuting.

Definitions of abbreviations and concepts used in the publication can be found in the last section of the review.

Aviation safety situation monitoring table - operational level 1 (top level) indicators **Indicator**	**Target**	**Situation assessment**	**Situation assessment based on historical and current situation**
Commercial air transport: SPI 1.1: Number of accidents SPI 1.2.: Number of fatal accidents SPI 1.3.: Number of fatalities SPI 1.4: Number of serious incidents	**Commercial air transport:** SPI 1.1: no accidents SPI 1.2: no fatal accidents SPI 1.3: no fatalities SPI 1.4: decreasing number of serious incidents in relation to traffic volume (five-year average)	GREEN	SPI 1.1. 2025: 2 accidents in Finnish commercial air transport. The target (no accidents in commercial air transport) was not achieved. SPI 1.2 & SPI 1.3 2025: No fatal accidents, so the targets (no fatal accidents and no deaths in aviation accidents) were achieved. SPI 1.4 2025: Number of serious incidents (9) slightly above average. Based on the preliminary assessment, the target (decreasing number of serious incidents relative to traffic volume, 5-

Aviation safety situation monitoring table - operational level 1 (top level) indicators Indicator	Target	Situation assessment	Situation assessment based on historical and current situation
			year average) will not be achieved. The target was achieved in 2022 and 2023. The situation assessment is considered green despite two accidents, which were quite exceptional in terms of type of incident. The development trend is considered negative due to, among other things, the risks posed by drone operations and the conflict in Ukraine.
General and recreational aviation: SPI 1.1: Number of accidents SPI 1.2.: Number of fatal accidents SPI 1.3.: Number of fatalities SPI 1.4: Number of serious incidents	**General and recreational aviation:** **General and recreational aviation:** SPI 1.1: ≤ 10 accidents/100,000 flight hours (five-year average) SPI 1.2: ≤ 0.6 fatal accidents/100,000 flight hours (five-year average) SPI 1.3 Decreasing trend in the number of fatalities in accidents / 100,000 hours flown (five-year average) SPI 1.4: decreasing number of serious incidents in relation to traffic volume (five-year average)	YELLOW	SPI 1.1 2025: 7 accidents in Finnish general and recreational aviation. On the same level as previous years' average. Based on the preliminary assessment of 2025 flight hour numbers, the target (less than 10 accidents/100,000 flight hours, 5-year average) will be achieved. SPI 1.2 2025: No fatal accidents. The number is below the average of previous years. Based on a preliminary assessment, the target (less than 0.6 fatal accidents / 100,000 flight hours, 5-year average) will not be achieved. The target has not been achieved so far.

Aviation safety situation monitoring table - operational level 1 (top level) indicators Indicator	Target	Situation assessment	Situation assessment based on historical and current situation
			SPI 1.3 2025: No fatal accidents. Below the long-term average. Based on the preliminary assessment, the target (decreasing trend per 100,000 flight hours, as a five-year average) will not be achieved. SPI 1.4 2025: There were 13 serious incidents, fewer than the previous, longer-term average . Based on the preliminary assessment, the target (decreasing number of incidents in proportion to traffic volume, 5-year average) will not be achieved. The target was achieved in 2023. The situation assessment is considered yellow. The development trend is considered positive. Despite the fatal accident in 2024, the situation in general and recreational aviation is showing a good development trend in terms of safety. If the situation continues to develop similarly in 2026 the assessment may be changed to green.

Aviation safety monitoring table - operational level 2 (most typical causal factors of accidents) indicators Indicator	Target	Situation assessment	Situation assessment of the historical and current situation by.
SPI 2.1: Number of runway excursions (RE)	**Commercial air transport:** SPI 2.1: no numerical target. The situation assessment is based on the development of the absolute and proportional number of incidents.	GREEN	2025: no runway excursions in Finnish commercial air transport. The situation assessment is considered green. The development direction is considered neutral.
SPI 2.1: Number of runway excursions (RE)	**General and recreational aviation:** SPI 2.1: no numerical target. The situation assessment is based on the development of the absolute and proportional number of incidents.	GREEN	2025: 1 runway excursion in general and recreational aviation. Number below the longer-term average. The situation assessment is kept green. The trend is neutral.
SPI 2.2: Number of runway incursions (RI-VAP)	**Commercial air transport:** SPI 2.2: no numerical target. The situation assessment is based on the development of the absolute and proportional number of incidents.	GREEN	2025: 4 runway incursions (All in Finland) in Finnish commercial air transport, a number below the longer-term average. The situation assessment is considered green. The development direction is considered neutral.
SPI 2.2: Number of runway incursions (RI-VAP)	**General and recreational aviation:** SPI 2.2: no numerical target. The situation assessment is based on the development of the absolute and proportional number of incidents.	GREEN	2025: 12 runway deviations in general and recreational aviation, a number on par with previous years. The situation assessment green. The development

Aviation safety monitoring table - operational level 2 (most typical causal factors of accidents) indicators Indicator	Target	Situation assessment	Situation assessment of the historical and current situation by.
			direction is kept neutral.
SPI 2.2: Number of runway incursions (RI-VAP)	**Land vehicles and persons:** SPI 2.2: no numerical target. The situation assessment is based on the development of the absolute and proportional number of incidents.	YELLOW	2025: 24 vehicle-caused runway deviations. Average number of vehicle-caused runway incursions at airports, over the average. The situation assessment is maintained at yellow. The trend is neutral.
SPI 2.3: Number of collisions and near misses (MAC/AIRPROX)	**Commercial air transport:** SPI 2.3: no numerical target. The situation assessment is based on the development of the absolute and proportional number of incidents .	YELLOW	2025: Finnish commercial air transport was involved in 44 near misses. The number was still well above average. The situation assessment is considered yellow. The development direction is considered negative. The conflict in Ukraine is considered to increase the risk of a collision or near-miss.
SPI 2.3: Number of collisions and near misses (MAC/AIRPROX)	**General and recreational aviation:** SPI 2.3: no numerical target. The situation assessment is based on the development of the absolute and proportional number of incidents.	GREEN	2025: general and recreational aviation involved in 6 cases (18 in Finland). The number was below average. The situation assessment is kept green. The

Aviation safety monitoring table - operational level 2 (most typical causal factors of accidents) indicators Indicator	Target	Situation assessment	Situation assessment of the historical and current situation by.
			development direction neutral.
SPI 2.3: Number of collisions and near misses (MAC/AIRPROX)	**Air navigation services:** SPI 2.3: no numerical target. The situation assessment is based on the development of the absolute and proportional number of incidents.	YELLOW	2025: 19 aircraft separation violations caused by air traffic control. The number was below average. for 2014-2023. The situation assessment is kept yellow. The development direction is positive.
SPI 2.4: Number of controlled flight into terrain and near misses (CFIT)	**Commercial air transport:** SPI 2.4: no numerical target. The situation assessment is based on the development of the absolute and proportional number of incidents.	GREEN	2025: 1 CFIT situations in Finnish commercial air transport. Situation assessment is considered green. Development direction is considered neutral.
SPI 2.4: Number of controlled flight into terrain and near misses (CFIT)	**General and recreational aviation:** SPI 2.4: no numerical target. The situation assessment is based on the development of the absolute and proportional number of incidents.	GREEN	2025: 0 CFIT/near CFIT situations in general and recreational aviation. Number below the longer-term average. Situation assessment is considered green. Development direction is considered neutral.
SPI 2.5: Number of aircraft loss of control incidents (LOC-I)	**Commercial air transport:** SPI 2.5: no numerical target. The assessment is based on the development of the absolute and proportional number of incidents.	GREEN	2025: no loss of control situations in Finnish commercial air transport. Number below average. Situation

Aviation safety monitoring table - operational level 2 (most typical causal factors of accidents) indicators Indicator	Target	Situation assessment	Situation assessment of the historical and current situation by.
			assessment is considered green. Development direction is considered neutral
SPI 2.5: Number of aircraft loss of control incidents (LOC-I)	**General and recreational aviation:** SPI 2.5: no numerical target. The situation assessment is based on the development of the absolute and proportional number of incidents.	GREEN	2025: 5 loss of control situations in general and recreational aviation. Number below the average of previous years. Situation assessment is considered green. Development direction is considered neutral.
SPI 2.6: Number of collisions while taxiing to or from the runway (GCOL)	**Commercial air transport:** SPI 2.6: no numerical target. The assessment is based on the development of the absolute and proportional number of incidents.	YELLOW	2025: 1 GCOL case in commercial air transport. Number below average. Situation assessment is changed from green to yellow. The development direction has been negative, and several incidents involving foreign commercial air transport in the latter part of the year indicate that the risk is also elevated for Finnish aviation. kept green. Development direction changed to neutral.
SPI 2.6: Number of collisions while	**General and recreational aviation:** SPI 2.6: no numerical	GREEN	2025: 2 GCOL cases in general and recreational

Aviation safety monitoring table - operational level 2 (most typical causal factors of accidents) indicators Indicator	Target	Situation assessment	Situation assessment of the historical and current situation by.
taxiing to or from the runway (GCOL)	target. The situation assessment is based on the development of the absolute and proportional number of incidents.		aviation. Number on par with the longer-term average. The situation assessment is kept green. The development direction is kept neutral.

12 Glossaries and definitions

ACAS (Airborne Collision Avoidance System) is an airborne collision warning system that meets the requirements of ACAS II (Revision 7) in Annex 10, Volume IV, Chapter 4 to the Convention on International Civil Aviation. The system is based on the exchange of information between aircraft transponders, which, if necessary, provides pilots with warnings and alerts about other aircraft flying nearby. A system that meets the requirements of ACAS II is known as TCAS (Traffic Collision Avoidance System). The system issues either warnings (TA – Traffic Advisory) or action instructions (RA – Resolution Advisory).

Accident means an occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have dis-embarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down, in which:

a) a person is fatally or seriously injured as a result of:

• being in the aircraft, or,

• direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or,

• direct exposure to jet blast,

except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or

b) the aircraft sustains damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft, and would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to a single engine, (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tyres, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes) or minor damage to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike, (including holes in the radome);

or

c) the aircraft is missing or is completely inaccessible

Serious injury means an injury which is sustained by a person in an accident and which involves one of the following:

a) hospitalisation for more than 48 hours, commencing within seven days from the date the injury was received;

b) a fracture of any bone (except simple fractures of fingers, toes or nose);

c) lacerations which cause severe haemorrhage, nerve, muscle or tendon damage;

d) injury to any internal organ;

e) second or third degree burns, or any burns affecting more than five per cent of the body surface;

f) verified exposure to infectious substances or harmful radiation.

Airspace infringement (AI) refers to a situation where an aircraft flies into controlled or restricted (prohibited (P) or restricted (R)) airspace or an ADIZ (Air Defence Identification Zone) without the required permission or clearance. Flying into the airspace of an AFIS unit without the required radio contact is also classified as an airspace infringement.

Aviation Safety Indicators (Safety Performance Indicator, SPI) All safety indicators used in aviation (level 1, level 2 and level 3) with their abbreviations and definitions can be found in Appendix 2 of the Finnish Aviation Safety Program.

CFIT/near CFIT (Controlled flight into or towards terrain, CFIT) refers to a situation in which an airworthy aircraft under the control of a pilot unintentionally collides with the ground, water or an obstacle, or a similar near miss occurs.

Collision while taxiing to/from a runway (Ground collision, GCOL) refers to a situation in which an aircraft collides with another aircraft, vehicle, person, animal, structure, building or other obstacle while moving under its own power (excluding powerpushback) on a part of the airfield other than the runway in use.

Commercial air transport refers to the use of an aircraft to transport passengers, cargo or mail for payment or other compensation.

EASA (European Aviation Safety Agency) The European Aviation Safety Agency is responsible for ensuring the safety and environmental protection of European air transport.

Foreign commercial air transport refers to the transport of passengers, cargo or mail carried out on a non-Finnish aircraft or on the basis of an air operator's certificate issued elsewhere than in Finland, for payment or other compensation.

General aviation refers to all aviation other than commercial air transport and aerial work.
Note: in this publication, general aviation and aerial work are treated as one single category. In addition, recreational aviation is treated as a separate category.

Ground handling refers to the ground handling services provided to airport users at an airport, including passenger handling, baggage handling, cargo and mail handling, apron services, aircraft cleaning and other services, fuel and oil handling, aircraft technical maintenance, flight operations and crew assistance, ground transportation, catering services and ground handling management and supervision (source: Ground Handling Directive 96/67/EC, annex).

ICAO International Civil Aviation Organisation is an international civil aviation organisation under the UN.

Loss of control in flight (LOC-I) refers to a situation in which an aircraft in flight loses control and significantly deviates from its intended flight path. The loss of control may be momentary or total. The cause may be, for example, human error, mechanical failure or external factors.

Mid-air collision (MAC) and near miss (AIRPROX) refer to a situation in which aircraft in the air collide with each other or in which the distance between aircraft in the air and their relative positions and speeds have been such that the safety of the aircraft may have been compromised.

Recreational aviation refers to gliding, motor gliding, ultralight, autogyro, hot air ballooning, hang gliding, paragliding and parachuting.
Note: If a hot air balloon flight carries passengers for a fee, it is considered commercial air transport.
Note 2. This publication does not cover hang gliding, paragliding or parachuting.

Runway excursion (RE) refers to a situation in which an aircraft uncontrollably exits from the runway it is using during take-off or landing. The deviation may be unintentional or intentional, e.g. as a result of an evasive maneuver.

Runway incursion (RI-VAP) refers to a situation where an aircraft, vehicle or person is on a runway or its protected area without permission or otherwise in error. Such situations also include low approaches that have been carried out without permission or otherwise in error.

Serious incident means an incident involving circumstances indicating that there was a high probability of an accident and is associated with the operation of an aircraft, which in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down. A list of examples of serious incidents has been published in an Annex to the **EU Regulation 996/2010**.

State aviation refers to aviation in military, customs or police operations, search and rescue services, firefighting, border control, coast guard or comparable activities or services performed by an actor authorized by a public authority or on its behalf in the public interest under the supervision and responsibility of the authority.

Unmanned aerial vehicles (RPAS, drone operations) refers to operations with unmanned aircraft or drones.

Liikenne- ja viestintävirasto Traficom
PL 320, 00059 TRAFICOM
p. 029 534 5000

traficom.fi

ISBN 987-952-425-014-6
ISSN 2669-8757 (verkkojulkaisu)

TRAFICOM
Liikenne- ja viestintävirasto