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UK CAA SKYWISE

NATS August 2023 system failure - final report
CAP 2993

The CAA has published the [final report](#) into the NATS Air Traffic Control failure on the 28 August 2023.

The report covers the causes of the failure and consequences for passengers and businesses, making 34 recommendations. It describes how the system identified a way-point with a three letter identifier as an exit point from UK airspace that was identical to a flight planned way-point in North America. This exception triggered the in-built protections that caused the primary and secondary automatic flight plan processing systems to shut down. The contingency plan failed when the engineer on call was unable to restart the system remotely resulting in a further one-and-a-half-hour delay while they travelled to the site.

The report was prepared by an Independent Review Panel chaired by Jeff Halliwell, with recommendations being made to several organisations, including NATS, the CAA, the UK Government and the wider aviation sector. This report and other relevant documents are available from the [Independent Review's webpage](#).



SW2024/313

📅 **26 November**
🕒 **1700 - 1830 GMT**
📍 **Zoom webinar**

GNSS spoofing in the civil aviation sector:
Impacts, lessons learned, and recommendations

with
Captain Bulent Atas
Dr Todd Humphreys
Dr Ramsey Faragher




ROYAL INSTITUTE OF NAVIGATION

Webinar: GNSS Spoofing in The Civil Aviation Sector: Impacts, Lessons Learned, And Recommendations

26 November 2024 1700-1830 GMT

"GNSS spoofing in the civil aviation sector: Impacts, lessons learned, and recommendations" with Captain Bulent Atas, Dr Todd Humphreys, and Dr Ramsey Faragher.

Global Navigation Satellite System (GNSS) spoofing poses serious challenges to commercial flight decks. By transmitting false GNSS signals, spoofing can lead to false terrain warnings, position, time and navigation shifts, and GNSS-dependent equipment failures. These disruptions may necessitate route changes, avoidance and diversions due to degradation or loss of required equipment, compromising flight safety. This webinar will explore the issue of GNSS spoofing in the civil aviation sector, and will be delivered in three sections, followed by a Q&A session.

Section 1: The problem and current mitigations with Captain Bulent Atas.

Section 2: GNSS Spoofing: Motives, Patterns, and Techniques with Dr Todd Humphreys.

Section 3: Lessons learned from the OpsGroup report with Dr Ramsey Faragher.

Webinar [details](#).

Register [here](#).

Flight Attendants Are There for Your Safety

The FAA produced a [video here](#), highlighting all the important safety roles of flight attendants.

It links to their [Dangerous Behavior Doesn't Fly](#) campaign.

3rd Annual UK PNT Leadership Seminar
20th November 2024

Royal institute of Navigation Seminar on Position, Navigation and Timing, that will include the impact of GNSS disruption on aviation and resilience to jamming and spoofing.

[More Information and Registration](#)

EASA Summary of Annual Safety Conference 2024

Summarizing the outcomes EASA clarify their approach to proposals from manufacturers that foresee one pilot. Read more at [this link](#) and watch all the videos from the Conference.



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SKYBRARY

The November 2024 edition of [SKYlight](#)

[Managing aircraft separation with speed control.](#)

This article describes the benefits of speed control and the considerations air traffic controllers when utilising speed control.

Such considerations include transition times, aircraft weight, turbulence speed, the effect of Mach number on IAS in climb and descent. The effect of wind, the need to preserve separation and the conflict of reducing speed and maintaining a high rate of descent.

A short animation focusing on Separation from Unknown Aircraft

[Separation from Unknown Aircraft \(SKYclip\)](#)

[Brown Willy Effect \(Peninsular Convergence\)](#)

The Brown Willy effect is a particular meteorological phenomenon known also as peninsular convergence, which sometimes occurs in the south-west of England. It leads to heavy showers developing over the high ground of Bodmin Moor in Cornwall, which then often travel a considerable distance downwind of their place of origin affecting flight operations at airports in their path.

The effect is named after the hill, Brown Willy, the highest point on Bodmin Moor and in Cornwall as a whole.

[Aircraft Fuel Systems \(Piston Engine\)](#)

An article describing the threats, effects and defences involved when managing piston engine fuel systems.



Image by alexmogopro from Pixabay

ROYAL AERONAUTICAL SOCIETY

Driving Progress on Mental Health And Psychosocial Safety In Global Aviation

November 2024

[A Consensus Statement](#)

The Royal Aeronautical Society has published a paper calling on the industry to ‘aim, with a clear focus on safety, to create a culture in all stakeholder organisations where:

at the individual level: The individual is able, through the self-awareness and self-management of the physical, psychological, social and practical aspects of their life, to work positively and productively, coping with the stresses they face while achieving their personal goals and contributing in a meaningful way

at the organisational level: The organisation, through its culture, policies, procedures and resources mitigates the physical and psychosocial risks (eg high levels of stressors) to an individual, and the individual can work and develop in an atmosphere of respect, fairness, honesty and open communication without fear of sanction or discrimination.

Read more [here](#).

PILOTS WHO ASK WHY

The Aerodynamics of Autorotation Without the Headache

Autorotation is a flight condition that allows helicopters to keep their rotor disc turning at a constant RPM (revolutions per minute) without engine power. We can use this to safely land any helicopter after a critical power failure!

The aerodynamics of autorotation [explained here](#).

UK CAA SKYWISE

Mandatory Occurrence Report (MOR) – Best practice

The CAA has published a new [video](#) on best practice and guidance on how to submit an MOR to the UK Civil Aviation Authority so that it complies with the regulation, and in turn helps improve aviation safety for all.



Image by mcmurryjulie from Pixaba

SW2024/314



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SKYBRARY

Carefully Assess and Diagnose the Problem Before Moving to The Required Strict Checklist Compliance.



On 31 October 2021, a 'Fuel Imbalance' message occurred on a B787 soon after departing Bangkok at night but attempted fuel transfer was unsuccessful. A 'Fuel Disagree' message subsequently appeared, and use of available system checklists indicated that there was a fuel leak from the left engine or tank.

Left engine shutdown was therefore accomplished and a MAYDAY diversion to and overweight landing at Goa followed. The Investigation determined that the leak was actually from the right-side fuel tank and attributed crew misdiagnosis to "limited" fuel system malfunction checklists and gaps in crew guidance and training on fault diagnosis.

[LEARN MORE](#)

Related articles

[Fuel - In-Flight Management \(Abnormal Operations\)](#)

[Augmented Flight Crew](#)

[Aircraft Fuel Systems](#)

UK CAA SKYWISE

2025/26 CAA Schemes of Charges consultation

The CAA [consultation](#) on [proposed changes to our statutory charges for FY2025/26](#) has now been published. This consultation is an opportunity for the CAA to gather feedback from stakeholders and ensure that their proposals align with the needs and priorities of those they regulate. Stakeholder input is invaluable in helping them refine their approach and make informed decisions that benefit all parties involved.

They welcome feedback from all stakeholders and ask that this is provided using their [online submission form](#). This consultation will close on 6 January 2025, with their response and final changes to the Schemes of Charges due for publication mid-March 2025, ahead of coming into force on 1 April 2025.

SW2024/318



AIR ACCIDENTS INVESTIGATION BRANCH

AAIB Report: Boeing 737 Failed to Pressurise

17 October 2023 at 0615 hrs

The report synopsis states: A cabin altitude warning was activated as the aircraft passed FL130. Both engine bleed air systems had been inadvertently left off for the departure, so the aircraft failed to pressurise.

The crew selected both systems on and continued the climb. The aircraft then generated a pack caution, so the crew stopped the climb at FL200. After discussion with the operator's maintenance control the commander decided to return to the departure airfield. Recorded data indicated that the cabin altitude warning remained on for 43 minutes. The crew did not don oxygen masks.'

The report concludes: The aircraft departed with the engine bleed air system off because the switches had been incorrectly left off following maintenance activity and had not been turned on during pre-flight procedures. The after-takeoff checklist is designed to trap the latter omission, but the incorrect switch selection went undetected by the crew. The aircraft failed to pressurise, but the crew did not complete the prescribed QRH drills in response to a cabin altitude warning, which remained illuminated for 43 minutes.'

There are no recommendations.

[Download report.](#)



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AIR ACCIDENTS INVESTIGATION BRANCH

AAIB Report: Boeing 787 Pushback Collision 6 April 2024 at 1120 hrs

The Synopsis states: During a pushback operation to reposition G-VDIA, the aircraft’s left wingtip struck the right horizontal stabiliser of G-XWBC. Both aircraft were damaged but there were no injuries. The operator of G-VDIA found that the pushback tug turned too soon, so the pushback did not follow the correct angle. Contrary to their company airport operating manual, the pushback was conducted without wing walkers; a wing walker on the left side of the aircraft would probably have seen the impending collision and could have stopped the pushback operation. Safety actions were implemented by the aircraft and airport operators in response to this serious incident.’

Safety Actions/Recommendations:

- The operator of G-VDIA issued a safety alert to highlight their requirement for wing walkers during aircraft pushbacks and towing operations.
- The airport operator issued an Aerodrome Safety Alert outlining factors that should be considered during aircraft pushback or towing operations.
- The airport operator advised they were reviewing non-standard pushback operations and the associated Operations Safety Instruction.

[Download report.](#)

UK CAA SKYWISE

Consultation on proposed amendments to the UK Performance-Based Navigation Regulation

The CAA are currently developing a revised UK Performance-based Navigation (PBN), implementing regulation that aims to support the development of a systemised, sustainable, and modernised airspace network.

They are seeking views on proposals to update PBN legislation in the UK by consolidating Assimilated UK Reg (EU) 2018/1048 (the UK PBN Regulation) and the PBN elements contained within Assimilated UK Reg (EU) 716/2014 (the UK PCP regulation) into a single, revised regulation. Your feedback will help us to better understand the potential issues, timelines and policy improvements required before we finalise the regulation.

They invite stakeholders to [give their views](#).

SW2024/315

UK CAA SKYWISE

UK Acceptance of FAA/EASA Maintenance Release: Transition Period Ends 31 December 2024

The UK CAA would like to remind the UK maintenance and repair organisations that dual EASA/FAA release forms issued after 31 December 2024, will no longer be accepted.

US Repair Stations supporting UK customers will need to apply for a UK Part 145 approval to continue supporting G registered aircraft.

It is recommended that UK organisations contact their US suppliers to check if they hold a UK Part 145 approval and encourage them to apply for one if they have not already. A UK Part 145 can be issued based on a FAR 145 approval through a [simplified procedure](#).

SW2024/307

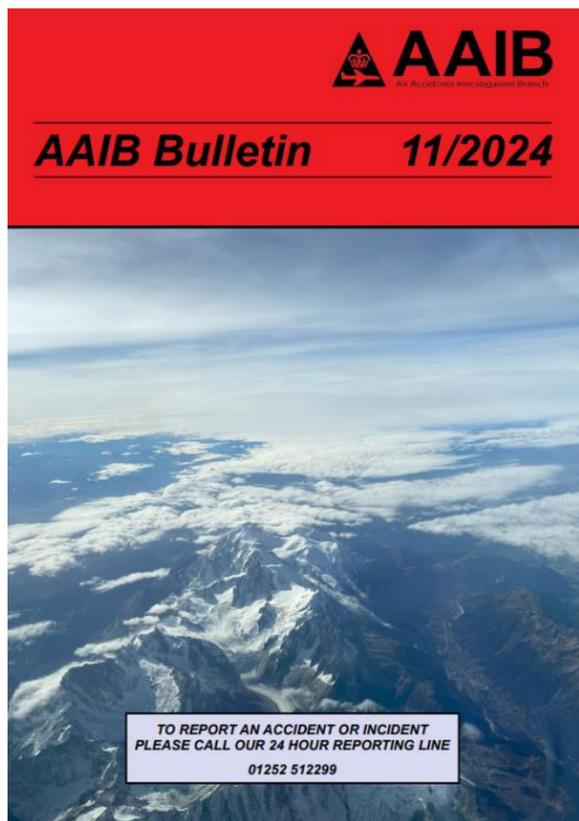
NASA Air Safety Reporting System October CALLBACK Focusses on CPDLC Issues

Controller Pilot Data Link Communications (CPDLC) is a means of communication between pilots and Controllers using data link to exchange short messages, most notably clearances. It is a relatively new capability in domestic aviation and has experienced rapid advancement and acceptance but has also exhibited some growing pains. Read [more here](#).



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AIR ACCIDENTS INVESTIGATION BRANCH AAIB November 2024 Bulletin



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Boeing 737-4K5 (G-JMCZ), Load Shift In-Flight, En-route to Edinburgh Airport, 26 April 2024

Synopsis: ‘At the start of the descent for Edinburgh Airport the cargo shifted in the main deck and came into contact with the forward bulkhead. The aircraft landed safely at Edinburgh without further incident. The crew were notified of the movement after the cargo had already been unloaded so it was not possible to ascertain whether the locks had not been engaged or had malfunctioned in some way. The operator took a number of safety actions to address the risks of unsecured cargo moving during flight.’

The operator took the following safety actions:

- Issued a notice to crew aimed at crew awareness and mitigation of load shift during flight, specifically relating to void bay awareness and management.
- Issued guidance to move a single void bay in the B737-400 from Bay A to Bay B as it was assessed to be lower risk and gave the crew some opportunity to check the security of Bay A from the bulkhead door

- Convened a Safety Action Group to specifically look at the risk exposure and assess barrier strengths in cargo loading and security.
- Issued a new LIR which made the obligations of each party clear for load security and included a box requiring the signature of all parties for the locks in void bays should there be any on the flight.
- Engaged with the CAA safety forum, leading on the risks of void bays

The CAA also took action as a result of a number of cargo shift events in the industry:

- Established a medium-size-operator Flight Operations Liaison Group which captures the larger cargo operators to share events, risks and best practice.

[Download report.](#)

UK CAA SAFETY SENSE

The CAA Remind GA Pilots of Winter Flying Preparations

In a [Linkedin](#) post the UK CAA has reminded GA pilots that flying in the winter comes with a new set of challenges and the availability of a safety sense leaflet that explains weather systems, aircraft preparation, operations on contaminated surfaces and flight in icing conditions.

[Safety Sense Leaflet 03: Winter Flying](#)

UK CAA SKYWISE

New Safety Sense Leaflet on Mountain Flying

The CAA has released a new [Safety Sense Leaflet](#) Containing guidance on Mountain Flying Safety.

The leaflet covers topics such as training, high terrain, aircraft performance and meteorology.

This SSL follows on from webpage [guidance](#) published by the CAA earlier in the year.

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The Latest Accidents & Incidents from the Air Safety Network Wikibase

Date	Type	RECENT INCIDENTS	Link https://asn.flightsafety.org/
18-Nov	B737	Diverted to Santiago de Compostela Airport (SCQ), Spain, due to the presence of smoke in the cabin.	https://asn.flightsafety.org/wikibase/461366
18-Nov	S100	ATB due depressurization and emergency descent.	https://asn.flightsafety.org/wikibase/461317
18-Nov	MD500E	Crashed shortly after takeoff after a loss of directional control from roughly 60 feet at Enköping/Långtora Airfield (ESVL), Uppsala.	https://asn.flightsafety.org/wikibase/461289
17-Nov	A321	Bird strike damaged radome on take-off from Fort Lauderdale	https://asn.flightsafety.org/wikibase/461324
17-Nov	C650	Aborted takeoff from runway 19 due to left gear being on fire	https://asn.flightsafety.org/wikibase/461303
16-Nov	A321	Smoke in cabin	https://asn.flightsafety.org/wikibase/460897
16-Nov	EMB170	Brake Failure	https://asn.flightsafety.org/wikibase/460904
15-Nov	B737	Struck by bullet taxiing out at Dallas Love Field	https://asn.flightsafety.org/wikibase/460792
15-Nov	B737	Gate evacuation (Denver) due to cell phone fire. Forward via jetty and rear via slides.	https://asn.flightsafety.org/wikibase/460743
15-Nov	A330	ATB following bird strikes to both engines departing RW24 AMS	https://asn.flightsafety.org/wikibase/460687
15-Nov	DHC 6	Lateral runway excursion landing RW27L Boulder City, NV	https://asn.flightsafety.org/wikibase/461296
14-Nov	B737	Tyre blow-out on T/O from IAD, continued to LAX	https://asn.flightsafety.org/wikibase/460631
14-Nov	A330	En-route Stockholm to Miami. Diverted to Copenhagen following turbulence over Greenland.	https://asn.flightsafety.org/wikibase/460505
13-Nov	S76	Main gear collapse	https://asn.flightsafety.org/wikibase/460491
12-Nov	A321	Failed to follow departure procedure from HNL, ATC expedited climb due to terrain proximity	https://asn.flightsafety.org/wikibase/460911
12-Nov	A340	Aircraft ground damage in Cancun resulted in AOG	https://asn.flightsafety.org/wikibase/460841



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The Latest Accidents & Incidents from Air Safety Network Wikibase

Date	Type	RECENT INCIDENTS	Link https://asn.flightsafety.org/
12-Nov	B737	ATB due engine issue	https://asn.flightsafety.org/wikibase/460358
12-Nov	B747	Passengers & crew injured during turbulence in ITCZ	https://asn.flightsafety.org/wikibase/460176
12-Nov	Bell205	Fire-fighting H/C tail rotor hit power line and crashed.	https://asn.flightsafety.org/wikibase/460239
11-Nov	B787	Ground collision in Casablanca	https://asn.flightsafety.org/wikibase/460603
11-Nov	B737	Struck by gun fire approach to RW28 Port au Prince	https://asn.flightsafety.org/wikibase/460379
11-Nov	A330	Unidentified odour in cabin. Malfunctioning equipment shut down.	https://asn.flightsafety.org/wikibase/460372
11-Nov	B737	Winglet struck by catering truck. AOG for 6 hours.	https://asn.flightsafety.org/wikibase/460267
11-Nov	A320	Partially imploded radome	https://asn.flightsafety.org/wikibase/460225
11-Nov	A320	Struck by a bullet taking off from Port-au-Prince	https://asn.flightsafety.org/wikibase/460029
11-Nov	A320	Struck by gun fire approach to Port-au-Prince RW28	https://asn.flightsafety.org/wikibase/460008
11-Nov	An24B	ATB due standby A/H failure	https://asn.flightsafety.org/wikibase/459882
10-Nov	B737	Winglet struck by bus. AOG 7 hours.	https://asn.flightsafety.org/wikibase/460001
10-Nov	B727	Struck localiser array 300m past the end of the runway in BOG. ATB completed.	https://asn.flightsafety.org/wikibase/459812
10-Nov	B787	Bird strike on T/O. No. 2 engine surges, ATB.	https://asn.flightsafety.org/wikibase/459770
9-Nov	B737	Freighter. In-flight fire. Diversion to GRU, Brazil. A/c destroyed.	https://asn.flightsafety.org/wikibase/459686



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Safety Conference Calendar

Year	Month	Day(s)	Org	Event	Location	Notes
2024	Nov	20 th	RIN	3rd Annual UK PNT Leadership Seminar	The Royal Society, London	GNSS Spoofing – RH to attend and report to SIE
2024	Dec	3 rd – 4 th	ERA	Joint Safety & Operations Group meeting	EASA HQ, Cologne	
2024	Dec	4 th	UKFSC	469 th SIE	Aviation House, Gatwick	
2025	Mar	12 th	UKFSC	470 th SIE	TBC	
2025	Mar	TBC	Airbus	Airbus Safety Conference	TBC	
2025	Mar	19 th – 20 th	RAeS	RAeS Flight Operations Conference 2025: Single Pilot Operations - Logical Progression or a Step Too Far?	Hamilton Place, London	
2025	Mar	24 th – 28 th	CANSO	Global Safety Conference	Christchurch, New Zealand	
2025	Mar Apr	31 st – 1 st	IATA	34 th Safety Issue Review Meeting	Montreal, Canada	
2025	Mar Apr	31 st – 2 nd	UKFSC	FSO Course	Gatwick	
2025	Apr	2 nd – 3 rd	ERA	Safety Group	TBC	
2025	Apr	28 th - 30 th	UKFSC	FSO Course	Gatwick	
2025	May	6 th – 7 th	FSF	70th Business Aviation Safety Summit	Charlotte, North Carolina	
2025	Jun	5 th – 6 th	FSF	Safety Forum 2025 Theme: People in the Centre of Aviation Safety	Eurocontrol, Brussels	
2025	Jun	24 th	UKFSC	471 st SIE	TBC	
2025	Aug	18 th – 20 th	UKFSC	FSO Course	Gatwick	
2025	Sep	10 th	UKFSC	472 nd SIE	TBC	
2025	Sep	15 th – 17 th	UKFSC	FSO Course	Gatwick	
2025	Oct	6 th – 7 th	SAE	Defence Aviation Safety Conference	London	
2025	Nov	4 th – 6 th	FSF	78th annual International Aviation Safety Summit	Lisbon, Portugal	
2025	Nov	10 th – 12 th	UKFSC	FSO Course	Gatwick	
2025	Dec	2 nd	UKFSC	473 rd SIE	TBC	