

AAIB Report: Boeing 737-800 (G-JZHL), Insufficient thrust during takeoff

News story

During takeoff at Kuusamo Airport in Finland, a Boeing 737-800 (G-JZHL) climbed slowly due to insufficient thrust, 1 December 2021.



During takeoff, the flight crew inadvertently left the thrust set at the 70% engine run-up setting rather than the 89% required for takeoff. This caused the aircraft to become airborne with only 400 m of runway remaining and climb slowly. At 250ft agl, the flight crew realised they had insufficient thrust and applied the correct power. The flight continued with no further incident and no injuries to the crew.

This incident was caused by the thrust not being set correctly, due to the Takeoff Go-around (TOGA) button not being pressed. This happened because the co-pilot was startled by the aircraft starting to move as he commenced the run-up against the brakes, and this occurred because the co-pilot applied insufficient brake pressure. The commander was distracted by a radio call and did not check to see if the thrust was correctly set.

The AAIB has investigated several takeoff performance incidents across the industry, and this incident is further evidence that the current barriers designed to prevent events like these are not fully effective. Therefore, two Safety Recommendations have been made to develop technical specifications and certification standards for a technical solution, and to improve the detection of takeoffs with compromised performance.

[Read the report.](#)

Media enquiries call: 01932 440015 or 07814 812293

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Poor infrastructure hampering Armed Forces initial training

Ten Armed Forces establishments have been graded good for their initial training offering. However, persistent weaknesses in resources, infrastructure and accommodation are affecting the quality of recruits' experiences.

Ofsted has published its 14th annual report on the effectiveness of care and welfare arrangements for recruits, trainees and officer cadets. The annual report draws on evidence from 13 inspections, including a single ungraded inspection of 5 University Royal Naval Units (URNUs) and their headquarters.

Recruits and trainees generally benefit from high-quality training, care and welfare arrangements. But too often, Ofsted found senior officers and their staff spending time dealing with the legacy of a lack of investment in infrastructure, or handling poor maintenance contracts. The RAF Officer Training Academy (RAFOTA) at RAF Cranwell, for example, had classrooms with leaking roofs and accommodation blocks that frequently lacked hot water and heating.

Inspectors also found that the needs of female recruits or trainees were not being considered fully. Women are often accommodated away from their male peers to ensure privacy. But this has led to some being isolated, especially in establishments where there are very few female recruits. In other instances, staff did not always ensure that female recruits were issued with uniforms or equipment that fitted them properly, increasing the risk of injury.

This was the second year that Ofsted has used the [revised inspection handbook](#) to inspect care and welfare in Armed Forces initial training establishments.

Inspectors graded the key judgement areas of:

- training and support
- personal and professional development
- quality of facilities
- infrastructure and resources
- effectiveness of leadership and management

They also provided an overall effectiveness grade for each establishment.

Ten of the Regular and Reserve establishments were graded good for overall effectiveness and most of the key judgements. ITC Catterick was judged outstanding in 2 of the key judgement areas: quality of training and support, and leadership and management. Two establishments were judged to require improvement: RAFOTA at RAF Cranwell, and the Defence Medical Academy (DMA).

Ofsted's report recommends that all Regular and Reserve training establishments:

- urgently deal with the continuing and repeated failures in infrastructure. Provide commanding officers and their teams with clear guidance and funding to improve accommodation and infrastructure so that recruits, trainees and staff can live, learn and work in good-quality, well-maintained settings
- ensure that female recruits and trainees are given suitable kit and uniforms, and accommodation that provides adequate security, privacy and facilities

His Majesty's Chief Inspector, Amanda Spielman, said:

I would like to congratulate the commanding officers, and their teams, at the good establishments this year. Their success is indicative of the very good work that so many military and civilian staff do to train and care for recruits and trainees.

However, more remains to be done to address weaknesses in resources, infrastructure and accommodation, which affect the quality of training and recruits' and trainees' experiences. I strongly urge colleagues in the Ministry of Defence to deal with the recommendations from this report to ensure future generations of Armed Forces personnel get the high-quality training, care and welfare they deserve.

Inspections of 8 Regular training establishments and 4 Reserve units contributed to the annual report as well as the single ungraded inspection of 5 URNUs and their headquarters. Ofsted used a new inspection model for University Service Units (USUs) and now intends to carry out graded inspections of other USUs using the same model.

All inspections were carried out between October 2021 and May 2022.

[Project update on National Underground Asset Register published](#)

News story

The Geospatial Commission publishes a project update on the National Underground Asset Register (NUAR) and invites participation from all asset owners in Northern Ireland and England.



[The Geospatial Commission today published an update on the status of the National Underground Asset Register \(NUAR\)](#) and invited all asset owners from Northern Ireland and England to start participating.

This publication marks the first anniversary of the build phase and provides a summary of progress over the past year, as well as the economic case and a timeline for the next two years.

In line with the government's growth priorities, NUAR will use modern technologies and ways of working to revolutionise the way buried infrastructure is installed, maintained, operated and repaired across England, Wales and Northern Ireland.

The NUAR platform has developed well over the first 12 months of the build phase, and a large number of asset owners from across all sectors have already provided their data and signed agreements to allow it to be shared with others.

In the next 12 months the Geospatial Commission will continue to seek user feedback, develop the service and engage with stakeholders on the future operational model of NUAR.

National engagement

Following the progress made to date with development of the service and levels of engagement seen across North East England, Wales and London, the Geospatial Commission are now at the stage to invite asset owners from Northern Ireland and the rest of England to start to engage with NUAR.

If you have not already been contacted by the Geospatial Commission team about sharing underground asset data then please email nuaronboarding@cabinetoffice.gov.uk.

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West Burton selected as home of STEP fusion plant

- West Burton, North Nottinghamshire, selected as the home of the ambitious STEP fusion energy programme, underpinning an industry expected to be worth billions to the UK economy
- Fusion promises to be a safe, low carbon and sustainable part of the world's energy supply with potential to help sustain net zero in the future

The UK Government has confirmed the West Burton power station site in North Nottinghamshire will be home to the ground-breaking STEP prototype fusion energy plant.

The Spherical Tokamak for Energy Production (STEP) plant will be designed and constructed to demonstrate the ability to put net electricity on the grid. It will also pave the way to enable future commercial fusion energy plants to be commissioned and constructed.

Fusion energy has great potential to deliver safe, sustainable, low carbon energy for generations to come. It is based on the same processes that power the sun and stars.

The Government-backed STEP programme will create thousands of highly skilled jobs during construction and operations, and attract other high-tech industries to the region, furthering the development of science and technology capabilities nationally.

The ambitious programme will also commit immediately to the development of apprenticeship training centres in Nottinghamshire, building on the success of the UK Atomic Energy Authority's (UKAEA) Oxfordshire Advanced Skills centre in Culham, which develops around 180 apprentices from 25 employers every year.

Business & Energy Secretary Jacob Rees-Mogg said:

"Fusion offers unparalleled potential for clean power production, promising a future of inexhaustible energy that could unshackle us from fossil fuels and make us truly self-sufficient and secure.

"Over the decades we have established ourselves as pioneers in fusion science and I am delighted to announce an important step in that mission, replacing the West Burton coal-fired power station with a beacon of bountiful green energy. The plant will be the first of its kind, proving the commercial viability of fusion energy to the world.

"It could be an industry worth billions of pounds to the UK economy, positioning the UK to design, manufacture and export the first fleet of fusion plants, and putting us at the vanguard of a future market."

Professor Ian Chapman, UKAEA Chief Executive, said:

“Selecting the location of the STEP prototype plant is a huge, visible moment in the challenging and long-term endeavour of bringing fusion energy to the grid. West Burton is a natural fit for the STEP programme with a rich industrial heritage now being developed and repurposed for a low carbon future. It really is ‘from fossil fuels to fusion’.

“We look forward to working with people in the region to develop our ambitious plans and realising broader social and economic benefits.”

The West Burton site, which is home to a coal-fired power station owned by EDF, was selected following a rigorous assessment process over almost two years. Fifteen locations were long-listed following an open call for sites in December 2020 and this was reduced to five after assessments in October 2021. The second round of assessments concluded in the spring with UKAEA making its final recommendations to the Secretary of State in May 2022.

Fusion has the potential to provide a near-limitless future source of low carbon energy, complementing other sustainable sources like wind and solar. When a mix of two forms of hydrogen are heated to extreme temperatures – 10 times hotter than the core of the sun – they fuse together to create helium and release huge amounts of energy.

The energy created from fusion can be used to generate electricity in the same way as existing power stations. Fusion is many million times more efficient, per kilogram, than burning coal, oil or gas. The raw materials needed to provide the fuel for fusion are readily available in nature. However, there remains a number of significant technical hurdles to overcome to realise fusion, and the STEP programme aims to address these.

STEP is expected to pave the way to the commercialisation of fusion and the potential development of a fleet of future plants around the world. UKAEA, which carries out fusion energy research on behalf of the UK Government, is targeting first operations in the early 2040s.

The other sites shortlisted to host STEP were Ardeer, North Ayrshire; Moorside, Cumbria; Goole, East Yorkshire; and Severn Edge, Gloucestershire.

Prime Minister urges Europe to ‘stand firm’ against Russian aggression ahead of regional summit

- Prime Minister to attend European leaders’ meeting in Prague to galvanise the response to Putin’s invasion of Ukraine

- Liz Truss will hold talks on securing UK energy supply and tackling migration, and will encourage allies to end energy dependence on Russia
- UK will play a leading role in the summit to drive international action on national priorities

The Prime Minister will urge leaders to stand united in the face of Russian aggression as Europe faces “its biggest crisis since the Second World War”, when she addresses a regional summit in the Czech Republic today [6th October].

Liz Truss will attend the meeting of leaders from across Europe to shore up support for Ukraine and galvanise collective action on energy security and migration, delivering on UK priorities.

In a series of bilateral meetings and plenary sessions in Prague, the Prime Minister will encourage countries to go further and faster to end Europe’s reliance on Russian hydrocarbons and “usher in a new era of resilience and independence.”

She will call on leaders to commit at the summit to keeping gas and electricity interconnectors open this winter and is expected to hold talks on joint projects to develop new nuclear and offshore wind capacity.

The Prime Minister will also meet key countries on the migration route, including the leaders of France and the Netherlands, to drive progress on joint operations to disrupt criminal gangs profiting from illegal migration.

Prime Minister Liz Truss will tell the opening plenary session in Prague:

Europe is facing its biggest crisis since the Second World War. And we have faced it together with unity and resolve.

We must continue to stand firm – to ensure that Ukraine wins this war, but also to deal with the strategic challenges that it has exposed.

The Prime Minister is expected to set out that the UK has continued to play a leading role in Europe outside the European Union, demonstrated by the response to the invasion of Ukraine.

The UK has forged new defensive alliances through the Joint Expeditionary Force and bolstered regional security as the largest European contributor to NATO. This week, the UK deployed Royal Navy frigate HMS Enterprise to the North Sea to work with Norway on protecting critical national energy infrastructure, following the shocking sabotage on the Nordstream 1 & 2 pipelines.

Speaking at the opening of the summit, the Prime Minister will say we need to:

...learn the lessons of the war. The threat was left to fester for far too long. Now, at last, we are tackling Putin's aggression head on.

And we should take the same approach with other challenges before us – including longstanding regional issues like energy and migration.

Instead of the old approach which merely dealt with the symptoms, it's time to address the fundamental causes.

The European Political Community meeting in Prague is an opportunity for leaders from across the continent, including EU and non-EU states, to work together to address urgent shared challenges.

The Prime Minister is expected address the opening plenary session and attend a working group on energy security, as well as holding a series of bilateral talks and informal meetings with leaders.