

News story: Military Aviation Authority (MAA) transformation of the design and airworthiness requirements for service aircraft (Defence Standard 00-970)

Background

As the early pioneers of powered flight discovered, often to their peril, several fundamental aircraft design rules were key to a safe flight. These rules, derived from the successes and failures of different design philosophies, were crucial to improving both the safety and capability of subsequent designs, which was of particular importance during the period of the two World Wars. Whilst this evolving design knowledge was initially captured solely by the aircraft manufacturers, it was formalized for the first time in 1916 by the Royal Aircraft Factory's 'Design Requirements' 6-page pamphlet. Only two years later, aircraft design knowledge had developed sufficiently enough for the Ministry of Munition's Technical Department (Aircraft Production) to issue their 'Handbook of Strength Calculations' (Handbook 806), a set of aircraft design standards that formed the genesis of today's 'Design and Airworthiness Requirements for Service Aircraft' (Defence Standard 00-970 (DS970)) and spawned aircraft certification standards across Europe, North America and Australia. Today this evolution continues with the single largest update to the design and airworthiness requirements for Service aircraft since the inception of DS970 in 1983.

Royal Navy Fairy Swordfish. MOD Crown Copyright.

The need for change

The MAA maintains the position that DS970 is the benchmark design and airworthiness standard for UK military air systems and, through regulation, should be used as the primary certification code. DS970 has evolved via various standards over a period of 100 years and contains airworthiness and safety information developed from a range of sources, including accident investigations, research and development. As such, this important body of airworthiness and safety requirements should be considered during the certification of all UK military air systems. However, over time, the safety and airworthiness requirement elements of DS970 have become diluted by information and requirements that do not contribute directly to airworthiness. Additionally, while civilian certification standards continued to be updated to reflect evolving aviation technology, DS970 stagnated, resulting in the erosion of both its relevance and credibility.

The options

Several alternative mechanisms to support certification were reviewed and concluded that the UK MOD should continue to own an aircraft certification standard, but that it should be redeveloped and transformed into a specification more suited to certification. To achieve this, DS970 would refer to civil European certification specifications where these could be shown to be suitable in the military context. Thus, the transformed DS970 would solely contain those airworthiness and safety requirements which were necessary for military purposes.

Transformation process

The redevelopment of DS970 is being undertaken through a transformation project that will deliver a document that is focussed on airworthiness outcomes and better suited for use in certification; it refers to internationally recognised airworthiness codes which have additional 'military deltas' applied where necessary. Feedback from both the regulated community and industry highlighted the need to retain the existing DS970 3-column format, clearly identifying Requirements, Compliance, and Guidance, as this was preferred over the approach adopted by the European Aviation Safety Agency (EASA) in their Certification Specification (CS).

Those requirements of DS970 identified as certification-related will be reviewed against comparable requirements in the appropriate EASA CS. Any requirements not considered to be adequately addressed by appropriate civil specifications will be retained as military deltas and, where necessary, re-written to focus on airworthiness and safety outcomes. An important contribution to the success of this project is the application of suitably qualified and experienced resources, as well as a high level of stakeholder involvement in the review and endorsement of these requirements. In particular, due to the complexity of the requirements and the need for specific skills and knowledge, the use of Design Organisation subject matter expertise will be crucial to the development and endorsement of the transformed DS970.

Joint Service Lockheed-Martin F35B Lightning II. MOD Crown Copyright.

Outcomes

Despite commencing in 2017, the size and complexity of the DS970 redevelopment project means that it will take approximately 3 years to complete. The incremental approach being adopted generates one transformed DS970 Part per year. Accordingly, the transformation of DS970 Part 7 (Rotorcraft) was completed in June 2018 and has been quickly adopted by Defence Equipment & Support (DE&S) Delivery Teams (DT) for the certification of new helicopters in conjunction with EASA CS29. The transformed DS970 Part 1 (Fast Jet Air Systems) will follow later this year. This outcome will mark the completion of the major elements of the transformation activity. It should be noted that DS970 Part 5 (Large Type Aeroplanes) and Part 3 (Small and Medium Aeroplanes) were partially transformed and published in 2015 and 2016 respectively as a precursor element to the main project. However, these

same DS970 Parts will be given a further update, alongside Parts 9 (RPAS) and 13 (Common Military Equipment), as the final element of the project, following the completion of DS970 Part 1.

Summary

The DS970 transformation project represents one of the largest single projects undertaken by the MAA. The project involves the MAA's Certification Division, DE&S Airworthiness Teams and industry partners, all collaborating to deliver a suite of transformed design and airworthiness requirements that will remain relevant and credible for future generations of UK military air systems.

Speech: Margot James speech at Radio Festival

Good afternoon everyone.

In this country we are all very blessed with one of the most diverse and vibrant radio sectors in the world.

And don't just take my word for it. Last year, two of the five Grand Awards from the New York International Radio Festivals went to the UK broadcasters.

So our radio industry is in great shape.

On average, UK listeners consume around a billion hours of radio each week.

And the average listener tunes into over twenty hours of live radio every week.

It is a time of great change and great opportunity for the UK radio sector. Recent months have seen exciting new stations, like Scala Radio, being created and more ways to listen to audio content than ever before.

But this vital industry cannot be complacent. The market is more competitive than ever, with competition from podcasts and music streaming services.

Six million people listen to podcasts each week in the UK – and many of them are younger people, who are increasingly seeing podcasts as their default way of getting audio content.

Alongside this change in consumption habits, digital advertising is become more prominent, which can create challenges around how to gain value from content.

This issue was set out clearly in the recent Cairncross Review into the

sustainability of high quality journalism.

So we need a concerted effort to keep this important radio industry thriving.

And I wanted to use my speech today to set out what Government and industry can do to make this mission a reality.

I firmly believe that there is a place for traditional radio.

Whatever technological changes may take place, people are still striving for high quality and relevant audio content, with very high production values.

Just as in the TV industry we are seeing a revival of hit show moments' Fleabag and the Bodyguard, the same applies to great radio content too.

Such as The thought provoking You, Me and the Big C

Or last week's live coverage of Liverpool beating Barcelona in the champion's league semi-final

Radio stations have always had a real role to play in creating some of the shared moments that help bind our communities together.

And last year's Mental Health Minute was an outstanding example of radio collaborating on a topic that matters to the whole UK but which needs a real and sustained effort from all of us to raise awareness.

I am so pleased that the BBC, Commercial Radio and Community Radio have all come together this year to build on last year's impact.

I'm looking forward to seeing the RAJAR results this week to see the impact of the new stations and new formats we have seen in recent months.

This is part of a golden period of innovation, with record investment in audio content.

And as a Government, we want to support this momentum.

We are providing three million pounds to support innovative radio content through the Audio Content Fund.

This landmark package of support is designed to unlock the potential of independent production companies to develop innovative and challenging content.

It is available for public service radio programming that is traditionally more difficult to support on a commercial basis, including documentaries, comedy, drama and entertainment.

This high quality content is what we need to treasure in our radio sector and this fund will help it to reach a wider audience.

This means commercial radio will be able to commission high quality programmes that they would want to have on their networks but can't afford to

do day-to-day.

And it means production companies can get new outlets for public service content, beyond the BBC.

This means more commissions, greater competition and a higher quality of content across the board.

I am delighted that former BBC Director of Radio Helen Boaden will be chairing an experienced panel, who can bring to bear their extensive knowledge from across the industry.

The first application round closed a few weeks ago and I am delighted that we received 50 bids covering a wide variety of genres.

There will be further application rounds in July and October and I hope that those of you who are eligible will be taking part.

This is part of a wider programme of support that includes Young Audiences Content Fund of up to 57 million pounds is available for new TV programme for young audiences.

But Government support should not only be financial. We also have a responsibility to create the best possible environment for radio broadcasting to thrive.

The commercial sector has performed relatively strongly in recent years and has seen growth in terms of both share of listening and revenue from advertising and sponsorship.

But this recovery has been against the backdrop of a severe reduction in revenue in the last recession and the slow recovery of commercial revenues.

If we are to help the sector adapt to the changing world, we need regulation that is fit for the digital age.

Commercial radio remains the most regulated UK media sector and subject to a system of regulation designed for AM and FM radio services in the late 1980s.

And this regulation is becoming increasingly out of date and burdensome as analogue radio audiences decline.

Digital radio now accounts for more than 52 per cent of all UK radio listening and we need a legislative structure that reflects this change, and gives us flexibility to deal with the change that lies ahead.

The rapid growth of digital technologies like digital and online radio, and on-demand audio services like TuneIn, Spotify and Apple Music provide a real challenge to all radio broadcasters but also an opportunity.

This has been a spur for the sector to find new ways of attracting and retaining listeners, especially younger audiences.

As I am sure you are aware, Ofcom made changes to its localness guidelines last Autumn following the first review since 2009.

The changes – which we welcome – will give commercial radio licences more flexibility in how and where they produce their programmes, while ensuring that listeners' expectations for high quality local news and other content continue to be met.

However, I appreciate the strong attachment many people have to local radio and we certainly do not want to see this valuable local content disappear.

This is why we have been supportive of new, local stations, whether they are commercial or community based. We have over 280 community stations launched since 2005.

We are also responding to a desire expressed by smaller stations and new entrants – to open up access to the terrestrial DAB radio platform -and offer communities a wider choice of radio services on digital.

We provided financial support for Ofcom's technical trials of small scale DAB technology in ten towns and cities, which have been extended until 2020.

They have seen around 160 small stations broadcasting on terrestrial DAB and DAB plus for the first time – including in my own area, with Black Country Radio.

We consulted industry on detailed proposals for new licensing arrangements for small scale multiplex services last year and received a wide range of considered responses. We published our response to the consultation last October.

We have been working hard since then and I am pleased to inform you that – subject to the wider Parliamentary timetable – we intend to bring forward the detailed secondary legislation next month,

Ofcom will be consulting on their proposed approach to licensing shortly after this. We have seen considerable interest in these proposals – with Ofcom receiving over 700 expressions of interest. We hope this will be translated into many more community and commercial stations broadcasting on digital, giving listeners an even greater choice of local content.

With this work taking place, combined with the BBC's very welcome commitment to investing in and reinventing its local stations, I am confident that we will have the right balance between national and local in the years ahead.

Reaching 50% share of all listening last year was an important milestone in the development of digital radio and for radio as a whole.

The package of measures announced by DCMS in December 2013 including improvements to digital radio coverage alongside the investment in content by broadcasters and support from car manufacturers and the supply chain have helped to drive the take up of digital radio by consumers.

We said that we would review the progress of digital radio and consider the next steps once the listening threshold had been reached.

I had preliminary discussions with representatives from the BBC and commercial radio and industry at a roundtable in March. We also supported an industry workshop in April.

It is clear that changes in technology and the competitive landscape in the past 5 years [since December 2013] mean that the debate about a future digital transition programme for radio has shifted.

Previously the radio industry's boundaries were clear: radio was delivered through a bespoke distribution system to a bespoke individual device. But this is no longer the case.

Increasingly audio consumption is through hybrid devices that also do a myriad of other useful things – such as smart speakers in home and dashboard info-tainment systems.

A consideration about the future of radio can no longer be seen as just a binary decision about a switch from an analogue to a digital broadcast platform.

A review must have a much broader focus to reflect the growing challenges arising from IP based audio content delivery and how this affects future decisions on radio distribution.

But there is also an opportunity here.

For broadcasters and other stakeholders to collectively develop a shared vision for a sustainable vibrant digital audio sector for the UK. And to come up with some tangible steps to achieve the vision.

So I can confirm that we will begin a review of digital radio. We will move forward on a programme of work that will begin in a few weeks and conclude by the middle of next year.

But in order to be successful it will have to be a collaborative effort.

I look forward to working closely with the BBC and commercial radio and with manufacturers, the car industry and others in the radio supply chain over the coming months.

Finally, I wanted to end on another subject that is very important to me. Diversity in the UK's media sectors.

Ofcom's first survey into diversity in the radio industry was published in June, and the findings were extremely striking.

It showed that women are under-represented at senior levels, where men make up 81% at Board level.

Whilst women are heavily represented in marketing and support roles, they are

under-represented in technical or programming roles.

Meanwhile, ethnic minorities make up only 6% of staff at the broadcasters that submitted data – compared to 14% of the UK population. This percentage is a lot higher in London and other big cities.

Disability was virtually invisible.

So there is some way to go to make sure the radio industry represents the variety and diversity that makes up modern Britain.

Proper representation is vital to maintaining the trust of different audiences – whether it is on the air or behind the scenes.

This isn't just the right thing to do. It makes good business sense.

To know how to evolve to meet the needs of younger, more diverse audiences as they get older; you need to employ them.

And provide genuine opportunities for those who have talent but may not yet be the finished product, or might not know the right people.

I know there is some excellent work taking place here.

Both Global and Bauer have invested in academies aimed at giving young people from diverse backgrounds and communities an opportunity to develop skills and training opening helping access into the media.

And in January, the BBC and RadioCentre held a masterclass with Creative Access aimed at young BAME (black, Asian, and minority ethnic) people looking to get into the radio industry.

But there is much more that needs to be done. Indeed I would argue that the future success of our radio industry partly depends on how well we tackle the lack of industry diversity.

And I will keep advocating for the industry, so we can give this important industry the support it needs.

Our vibrant radio sector is an integral part of our daily life and our national discourse.

Whatever technological changes lie ahead, we need to make sure we maintain the benefits provided by audio content, and enable the breadth of programming and formats that we currently enjoy.

This conference is an important forum to discuss how we can remain ahead of the challenges on the horizon.

And how we can work together to make this brilliant sector stronger and more sustainable in the digital age.

[Press release: £105 million economic package for the North West](#)

The Derry-Londonderry region will receive £105 million in major new investment, the UK Government announced today.

The package – £50 million for the Derry and Strabane City Deal and £55m for the new Inclusive Future Fund – aims to boost the economic potential of the City and support a more prosperous, united community and stronger society.

The Derry City and Strabane City Deal investment will help boost innovation and the digital potential of the city region and unlock local partner funding.

This will enable new projects such as a Centre for Industrial Digitisation, Robotics and Automation; and a programme of digital and smart cities interventions, subject to business case approval.

The City Deal will be bolstered by a £55m Inclusive Future Fund aimed at bringing greater prosperity and social benefits to the whole of the community.

The Secretary of State for Northern Ireland, the Rt Hon Karen Bradley, said:

This £105 million investment package is a major boost to the economic potential of the region and will help strengthen the foundations for greater prosperity and a stronger, more united society.

The new Inclusive Future Fund recognises the unique circumstances facing the region and will help create new opportunities for the whole of the community, especially for young people.

As Secretary of State, I am deeply committed to building a dynamic, prosperous, outward-looking Northern Ireland that works for everyone, irrespective of community background.

Today's announcement is a major milestone in my personal determination to unlock the huge potential that the whole of Northern Ireland has to offer.

Communities Secretary, Rt Hon James Brokenshire MP, said:

This major investment in the people and community of Derry-Londonderry and Strabane will bring enormous benefits for years to come.

It will create high-value jobs, put the area at the forefront of the UK's growing digital economy and complement the Belfast Regional City Deal.

Derry City & Strabane Region City Deal

The UK Government is committing £50m towards the Derry City & Strabane Region City Deal.

Subject to business cases, this will be directed towards enhancing the region's innovation and digital capabilities through:

a Centre for Industrial Digitisation, Robotics and Automation – developing a research and design facility in robotics, automation and internet of things technologies; and

a programme of digital and smart cities interventions – 'Digital Enabling Infrastructure', which will provide a future proof digital infrastructure by delivering next-generation connectivity. This will dovetail with 'Smart City' investment to support pre-market testing and validation of new smart technologies.

Inclusive Future Fund

- The new Inclusive Future Fund will enable investment in projects that could:
- Support local young people by providing jobs and skills opportunities;
- Tackle the causes and consequences of long-term social deprivation
- Build on the economic potential of the local university and making the local area more accessible and attractive to live, visit, study and invest.

The new funding package aims to build on the work of the previous Executive, which invested in the economic, cultural and social regeneration of the area.

As with the previous announcement of a Belfast Regional City Deal, to ensure

a successfully integrated programme of investment for the North West, one that will deliver a step change in inclusive economic growth and productivity to the benefit all communities in Northern Ireland, requires a fully-functioning devolved government in place. The Government is starting a fresh round of political talks today to try and achieve that.

[News story: Leading UK aerospace designs: funding for projects](#)

The UK's aerospace sector is among the best in the world, with a [turnover of £35 billion and hosting 123,000 direct employees in 2017](#). To remain at its peak, the UK needs to explore emerging opportunities and markets.

Organisations are invited to express an interest in a competition worth £150 million a year with their innovative ideas for future aerospace design and manufacture. The best projects will then be invited to apply for grant funding.

The investment is part of the £3.9 billion [UK Aerospace Research and Technology \(UKART\) programme](#), a partnership between government and industry, managed by Innovate UK, the [Aerospace Technology Institute \(ATI\)](#) and the [Department for Business, Energy and Industrial Strategy](#).

Moving up

This competition provides funding for industrial research or capital investment projects that align with the [UK Aerospace Technology Strategy](#).

Priority areas include whole aircraft design and integration, aerostructures, advanced systems and propulsion technologies.

Project themes are detailed in the UK Aerospace Technology Strategy, and include:

- improving UK whole-aircraft design and system integration
- future-proofing advanced systems technologies in the UK – specifically, smart, connected and more electric aircrafts
- securing the UK's world-leading position in large, complex aviation structures, particularly wings
- developing more efficient propulsion technologies, including large turbofans

Competition information

- the competition will open on 3 June 2019, and the closing date is 19

June 2019

- UK-based business, research and technology groups and academic organisations can be the project lead, depending on the project type
- businesses could get up to 70% of their costs for industry-led research projects, or up to 50% of their costs for capital investment projects
- organisations must sign up to the [ATI framework agreement](#)
- an online briefing event will be held on 10 June 2019 where organisations can find out more about the competition and applying

[News story: Using AI in NHS diagnosis: apply for funding](#)

X-rays of arms and legs are among the most frequent diagnosis processes used by NHS Scotland, with around 5,000 procedures annually.

Although injuries in these areas are often categorised as minor, misdiagnosis and mismanagement can hamper recovery and lead to financial cost. However, the use of artificial intelligence (AI) and machine learning could help create systems that prevent misdiagnosis.

£240,000 is available through an Innovate UK Small Business Research Initiative (SBRI) competition, with funding from [Opportunity North East](#) and [NHS Scotland](#), to investigate the use of AI and machine learning in the NHS.

AI marks the spot

The competition will explore how AI and machine learning can be used to support limb radiographs in the diagnosis of fractures. Possible improvements include diagnosis accuracy and treatment and increased productivity in radiology departments.

Projects must use a dataset of peripheral limb X-rays and reports from the University of Aberdeen to develop AI algorithms that:

- interpret the current text-based report to correctly categorise fractures
- use radiograph images to identify the presence of fractures
- ensure the AI product can function at real-world accuracy

Successful applicants will be able to receive input from NHS Grampian, NHS Greater Glasgow and Clyde, the University of Aberdeen and Canon Medical Research Europe.

A 2-phase competition

The competition will comprise 2 phases. In phase 1, applicants will conduct technical feasibility studies on their proposed solution. Up to £100,000 including VAT is available in phase 1, and as many as 5 projects are expected to be funded.

Phase 2 will include prototype development and evaluation. Up to £140,000 including VAT is available at this stage.

Competition information