

Research and analysis: Continued development of standardised methods for describing environmental pressures and sensitivities

Requirement R104

Requirement detail

Human use of the marine environment exerts a range of pressures on marine species. Depending on the pressure type, pressure intensity, and sensitivity of the species to that pressure, significant negative impacts may occur.

To ensure robust, transparent and integrated decision making, the MMO seeks to identify and agree standardised methods applicable across scales that describe and define; the types of pressures generated by marine activities, pressure intensity and distribution in space and time, sensitivity of habitats and species to pressures in space and time and ranges and thresholds at which pressures impact species ultimately to support decision making.

News story: RAF Valley's future secure for next 25 years as restoration work is completed

The station is primarily used for advanced fast jet training for pilots and, whilst the previous infrastructure was strong enough for the Hawk aircraft, it has been restored to support pilots training in the likes of Tornados and Typhoons.

A £20 million contract was awarded to refurbish the ageing runway and its link taxiways. The work undertaken will also provide a new section of airside perimeter road, new visual aids, aeronautical lighting and signage for the air station.

The restoration work will extend the life of the runway by a further 25 years, demonstrating the UK's commitment to Defence in Wales.

Defence Secretary Sir Michael Fallon said:

This famous runway has been an integral part of the careers of generations of fast-jet pilots who have seen action across the world and are currently leading RAF strikes against Daesh.

I'm delighted that this investment will see the runway play that vital role for at least another 25 years, training new pilots in the skills they need to help keep us safe when flying the next generation of aircraft.

The fighter pilots who graduate go on to fly Typhoon and F35 Lightning II aircraft which secure the skies of the UK and overseas.

The station is also home to helicopter flying training where aircrew learn the skills required for mountains and maritime flying with the Royal Air Force and Royal Navy. The Mountain Rescue Service which saves lives across the UK is also based at RAF Valley.

The Defence Secretary met with personnel from RAF Valley this afternoon in North Wales.

All new UK fighter pilots pass through RAF Valley before they reach their frontline Squadron. In the last 3 months, 4 graduates have gone on to fly the world's most sophisticated fighter, the F-35 Lightning II, out in the United States.

The UK currently has 11 F-35B jets being flown in the US and 120 UK personnel being trained there. By the end of the year the UK will have 14 of the jets, with initial flight trials from the brand new Queen Elizabeth Aircraft Carrier's deck planned for next year.

As the US' only Tier 1 partner, UK industry will provide around 15% of every F-35 jet which is built, and later today, the Defence Secretary will also visit the Defence Electronics & Components Agency (DECA), based at MOD Sealand, in North East Wales.

The facility was chosen as the global repair hub providing maintenance, repair, overhaul and upgrade services for F-35 avionics and aircraft components. Over the lifetime of the programme, components for hundreds of European-based F-35 aircraft will be serviced and maintained at the site.

The work will generate hundreds of millions of pounds of revenue for the UK defence industry, with the potential to unlock more than £2bn of future F-35 support revenue over the lifetime of the programme, sustaining thousands of high tech jobs and skills.

A newly-refurbished hangar at RAF Valley will also house three brand-new Jupiter helicopters which will be used to train pilots from all three Services, delivered as part of the UK Military Flying Training System (UKMFTS).

These state-of-the-art Airbus helicopters, which closely recreate the cockpits and controls of front-line aircraft, are due to begin flying from RAF Valley later this year. The refurbishment of the hangar is part of an infrastructure improvement programme being delivered through the UKMFTS at both RAF Valley and RAF Shawbury worth a total of around £80 million.

Station Commander Royal Air Force Valley, Group Captain Nick Tucker-Lowe, said:

The visit of the Defence Secretary Sir Michael Fallon today has highlighted RAF Valley's vital contribution to UK defence as the home of fighter pilot training.

Our team of military personnel, Civil Servants and industry partners take great pride in their role of training the next generation of fighter pilots for the Royal Air Force and Royal Navy. With our refurbished main runway, we are well prepared for the future.

UK Government Minister for Wales Guto Bebb said:

This investment in the runway is a huge boost to RAF Valley. It further demonstrates the UK Government's commitment to defence in Wales and the North Wales economy.

It is great to see Wales playing such an important role in the advancement of our defence services and with an extra 25 years now on the lifespan of this site, the future of RAF Valley and the local economy remains strong.

[Research and analysis: Novel technologies to reduce risks to marine protected areas](#)

Requirement R109

Requirement detail

Management measures for marine protected areas preclude certain activities because of the environmental risk resulting from the likely impacts of those activities. Novel solutions that can reduce the impact of activities on

marine features, may potentially enable those activities to occur.

This work looks to identify current issues preventing access to marine protected areas for marine fishing and recreation activities to support development of novel technologies to address issues and inform adjustments to management measures.

This work would not require MMO itself to develop/test new technologies.

Research and analysis: Temporal variability of priority marine species and habitats

Requirement R110

Requirement detail

Species and habitats often have variable distribution and condition in space and time. Some are particularly dynamic such as those in transitional and intertidal waters that span the land and sea. Variability occurs over many different times scales from seasons to multi-year cycles and decades.

Temporal changes however, remain a challenge for management, particularly separating the different sources of natural variation including seasonal change or multi-year cycles like the North Atlantic Oscillation from human influences on natural variation including climate change impacts, or direct human induced variability. Similar challenges exist in defining the bounds of variability and accounting for the associated uncertainty in decision making.

This requirement is for mechanisms to describe temporal variability, differentiate sources and apply these to priority species/habitats. It will also examine how best to incorporate such temporal variability within marine management approaches.

Research and analysis: Co-location displacement in the marine area, the

Likelihood and impact on marine activities

Requirement R016

Requirement detail

Marine plans form a plan-led system for marine activities. Marine plans will ensure that different and competing activities are managed in such a way that they contribute to the achievement of sustainable development. A key issue in all marine plan areas is the optimisation of space through promoting compatibility and encouraging co-existence between different activities. As such co-existence or displacement of activities should be considered within marine licensing.

An evaluation approach providing integrated consideration of the environmental, social and economic impacts of co-location/displacement has been proposed in research project [MMO 1049](#) but further research and development is required to put this approach into working practice.

Plan level evaluation of the impacts and risks for multiple use areas is required to inform plan development. Using an improved approach when identifying the issues stemming from co-location and displacement of activities at a plan area scale would allow better consideration of such issues at the project level through marine licensing.

A process has been scoped out but would need further development and incorporation into licensing processes to enable balanced consideration of co-location/displacement impacts. This project should build on the outputs of [MMO 1049](#), which outlines a proposed framework of comparing co-existence versus no-coexistence and makes recommendations for next steps in terms of this piece of work.