

## EXERCISE STRIKE WARRIOR 24

### THE ENVIRONMENTAL AND SUSTAINABILITY IMPACT STATEMENT

#### EXERCISE STRIKE WARRIOR 24 – 14 – 27 October 2024

1. **Introduction.** Exercise Strike Warrior 24 (SW24) will take place in waters to the north and east of the the UK during the period 14-27 October 2024 and will include in excess of twenty ships and aircraft. This impact assessment is a live document and is designed to cover directed maritime activity for the duration of SW24 programmed serials and events. It is updated when required following a change in the programme.

2. This impact statement is written in compliance with:

Wildlife and Countryside Act 1981 (as amended)  
The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)  
Nature Conservation (Scotland) Act 2004  
Marine and Coastal Access Act 2009 (as amended)  
The Marine (Scotland) Act 2010  
Marine Act (Northern Ireland) 2013  
The Conservation of Habitats and Species Regulations 2017  
The Conservation of Offshore Marine Habitats and Species Regulations 2017

3. **Activity.** This major multi-ship exercise involves forces from a number of invited nations and covers all forms of the following:

- Air defence
- Gunnery (including shore bombardment)
- Anti-submarine warfare
- Surface warfare
- Fixed and rotary wing flying operations
- Replenishment at sea
- Strike warfare
- Uncrewed air and surface systems

#### Impact Assessment

4. Having reviewed all planned activity against the Military Activity Environmental Guidelines (attached) it has been assessed that following standard operational mitigation and the mitigation stated below there is no environmental impact greater than '**MINOR**' throughout the SW24 Exercise.

#### Strike Warrior 24 – Environmental Risk

5. The Environmental Risk section of the Exercise Plan Instructions and the Exercise Director's Environmental Command Guidance sets out individual and collective environmental responsibilities which will be adhered to throughout the exercise. Its content reflects and supports the environmental SOPs in Naval reference documents BRd 10, BRd 167, BRd 5063 and BRd 4985. The general principle being that, for the duration of this exercise, **environmental safety is to take priority over the completion of directed**

**training activities.** The specific intent is that all activities shall be governed by the need to adequately protect the environment in the open ocean and within designated Marine Protected Areas (MPA).

6. Cape Wrath Range will be the only area in which shore bombardment will be exercised during SW24 and environmental mitigation measures are contained in the Defence Infrastructure Organisation (DIO) Range Standing Orders for Cape Wrath.

## Mitigation

7. Where required, the mitigation to be imposed on SW24 activities is set out in detail in Tables 1 and 2 below. The main rules for each environmental theme are:

- a. **Air Operations.** Throughout the exercise Fixed Wing and Helicopter low flying will be in accordance with the MOD Low Flying Handbook. In addition, SW24 rotary wing activity will follow the mitigation set out in Table 1 below.
- b. **Inshore Operations**
  - i) Any high-speed manoeuvres by ships or small craft which take place in or within 0.5 miles of sea-bed marine protected area will do so in waters deep enough to avoid disturbance of the seabed.
  - ii) Participants operating close inshore will avoid activity which disturbs seals that are hauled out of the water.
  - iii) When operating where basking sharks have been sighted, operators should moderate speed and proceed in such a manner as to eliminate risk of collision and disturbance.
- c. **Gunnery**
  - i) Medium calibre gunnery will take place at Cape Wrath Range, all firings will be iaw DIO Range Standing Orders which include environmental mitigation measures.
  - ii) All other gunnery will take place outside of maritime protected areas with the exception of those areas designated for the protection of benthic seabed features entirely at depths greater than 20m.
  - iii) All targets will be either destroyed or recovered if still floating.
- d. **Sonar**
  - i) All sonar operations within the UK EEZ will comply with the RN command guidance in BRd 4985 Vol 5<sup>1</sup> and NATO guidance MC0547<sup>2</sup>.

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<sup>1</sup> UK units will conduct at S2117 Sonar Risk Assessment, foreign units will use their own national procedure to conduct a sonar risk assessment as they do not have access to S2117.

<sup>2</sup> MC0547 states that only the lowest power levels should be used to achieve the training aim.

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ii) To keep the risk to marine mammals as “low<sup>3</sup>” unit transmission are not to exceed the lowest of the following 3 limitations.

(1) 213dB 1µ Pa @ 1m for 1 second pulse length, maximum of 6 pulses per minute, transmissions of up to 8 hours in any 24-hour period.

OR

(2) A source level where PTS and TTS are within the Mitigation Action Zone which is within 2000yards of the source unit<sup>4</sup>. Transmissions are limited to a maximum of 6 pulses per minute and up to 8 hours in any 24-hour period.

OR

(3) In accordance with national guidelines

iii) UK units may alter sonar parameters provided a S2117 assessment has been undertaken. In all cases the risk level is to remain low.

iv) Outside maritime protected areas for marine mammals UK units MAY increase their sources level to “medium” with additional mitigation which the Exercise Director must approve prior to any increase<sup>5</sup>.

v) Marine Mammal Observers (MMO) will be employed on deck a minimum of 60 minutes prior to, during and 60 minutes after any transmission on active sonar (Reduced to 30 minutes if depth of water is less than 200m). MMOs are to visually search for marine mammals. As well as the visual monitoring all units are to use passive acoustic means by their sonar outfit to detect marine mammals.

vi) For maritime patrol aircraft - if the area is passively acoustically monitored by a field of sonar buoys which is large enough such that all sonar transmissions can be monitored within the field, then the area need only be monitored for 30 minutes.

vii) Ramp up procedures will be used at the start of any transmission by all sonar devices capable of doing so.

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<sup>3</sup> Permanent Threshold Shift (PTS) is irreversible physiological damage caused by rupture of the hair cells of the inner ear, resulting in a permanent loss of hearing sensitivity. The consequence of this is a permanent shift in the threshold of hearing of the receptor.

TTS is a temporary loss in the efficiency of the mechanical-chemical electrical transfer function in the inner ear, resulting in a temporary loss of hearing sensitivity. The consequence of this is a temporary shift in the threshold of hearing of the receptor.

Low risk level is when PTS and TTS are within 2000 yards.

<sup>4</sup> A MAZ is a fixed monitoring range of 2000 yards around the sound source unit which the surveillance effort can, under normal conditions, be reasonably expected to detect the presence of marine mammal activity and therefore initiate appropriate mitigation action.

<sup>5</sup> Guidance in BRd4985 Vol 5 will be followed. Additional mitigation will take account of visibility, daylight and number of aircraft airborne.

viii) If marine mammals are observed within the mitigation action zone (MAZ) for a sonar prior to transmission, a delay of 60 minutes will be implemented before transmissions are allowed. Similarly, if sonar is shut down as a result of detecting a marine mammal during transmissions a period of 60 minutes will be allowed from last sighting before retransmitting. This is reduced to 30 minutes in waters of less than 200m.

ix) Sonar transmissions East of the Pentland Firth and south of 59 00N are only authorised for Maritime Patrol Helicopters, prior to any sonar transmissions their own S2117 Sonar Risk Assessment is to be completed.

x) The MoD considers waters from the coast to the 50M contour to be a Human Dive Zone (HDZ) in view of the increased likelihood of human diving activity. No anti-submarine warfare sonar activity is permitted within a HDZ. Furthermore, if operating outside a designated HDZ adjacent to the 50M contour, a buffer zone equal to the maximum stand-off range of the sonar in use is applied.

xi) Sonar activity near the Stanton Banks (within the 100m contour) will not take place.

### **Seabed and Sediments**

8. Throughout the exercise all units will comply with the rules set out in the attached SW24 Military Activity Environmental Guidelines for the protection of the seabed. No anchoring or disruptive vessel manoeuvres which could disturb the seabed or adjacent wildlife will take place within 0.5 miles of designated MPA. Throughout the exercise all units will comply with the rules set out in the attached SW24 Military Activity Environmental Guidelines for the protection of the seabed.

### **Biodiversity and Nature**

9. Throughout the exercise all units will comply with the rules set out in Tables 1 and 2 below.

10. No disruptive manoeuvres which could disturb the seabed or adjacent wildlife will take place within 0.5 miles of designated MPA.

11. Designated seal haul out sites are not identified within SW24 planning documents. Precautions to prevent harassment of seals will be employed throughout SW areas wherever seals are found ashore.

12. For mitigation of noise disruption see Para 7 above.

### **Historic Environment and Wrecks**

13. It is assessed that SW24 will have **NEGLIGIBLE** impact on the historic environment and wrecks. However, all units will avoid anchoring which has the potential to disrupt or damage known charted wreck sites.

### **Other Issues**

14. The impact on Oslo/Paris Convention for the Protection of the Marine Environment in the NE Atlantic 1992 (OSPAR) and The Ramsar Iran Convention for the Conservation of Wetlands 1976 (RAMSAR) sites is assessed as no greater than **MINOR**. Mitigation measures listed above apply equally to these sites which are included in the MPAs which have been identified as possibly being affected.

15. There are many Sites of Special Scientific Interest (SSSIs) along the coastal regions within the North West Scotland operating area. SSSIs are managed by local land owners or authorities who are responsible for having effective local site management plans in place or follow statutory processes. Where activity takes place on DIO managed MOD owned estate participants will abide by site specific range orders which take account of SSSIs. Overall, taking account of standard operating procedures and the additional mitigations covered here, the impact of SW activities on adjacent SSSIs is assessed as **NEGLIGIBLE**.

### **Actions by Planning Staff**

16. JTEPS will brief all group and individual unit commanders and direct them to implement the listed mitigation. The participants will also receive a copy of this assessment and the Exercise Director's Environmental Command Guidance outlining the key environmental mitigation in order to ensure they abide by the actions listed in this document.

17. This assessment forms part of the SW24 planning process and will be updated to reflect any pertinent changes from that detailed in this document in the exercise activity or location. Before assigning any mission or task to subordinate Commanders/Units, the lead planner will be advised on the environmental guidelines for the intended areas.

18. Nothing within this statement relieves the Commanding Officers of their obligations to comply with legislation and the RN Navy Command environmental guidelines for activities they undertake.

19. Review E&S efficacy post exercise.

20. Archive this assessment for review and inclusion in future SW exercise planning.

TABLE 1

MITIGATION OF MILITARY ACTIVITY BY ACTIVITY TYPE AND ASSOCIATED MPA

POST MITIGATION ENVIRONMENTAL IMPACT LEVELS:

1. **Negligible** = No likelihood of any measurable disturbance or harm.
2. **Minor** = Low likelihood of localised or temporary disturbance or harm.
3. **Significant** = Residual risk of significant disturbance or harm.

Activity	Lead JTEPS Planner	MPAs which may be affected requiring control measures	Mitigation Measures
ASW	SO2 UW	10421 Wester Ross NCMPA	<p>For active sonar transmissions in addition to Environmental Guidelines the following specific mitigation is to be applied:</p> <p>-To keep the risk to marine mammals as “low” individual unit transmission are not to exceed the lowest of the following 3 limitations as follows</p> <p>(1) 211dB 1µ Pa @ 1m for 1 second pulse length, maximum of 6 pulses per minute, transmissions of up to 8 hours in any 24-hour period.</p> <p>OR</p> <p>(2) A source level where PTS and TTS are within the Mitigation Action Zone which is within 2000yards of the source unit. Transmissions are limited to a maximum of 6 pulses per minute and up to 8 hours in any 24-hour period.</p> <p>OR</p> <p>(3) In accordance with national guidelines</p>
		10422 Small Isles NCMPA	
		10448 Geikie Slide and Hebridean Slope NCMPA	
		10456 The Barra Fan and Hebrides Terrance Seamount NCMPA	
		UK 0012594 Rum SAC	
		UK 0012705 Sound of Barra SCI	
		UK 0013695 St Kilda SAC	
		UK 0030359 Stanton Banks SAC	
		UK 0030364 East Mingulay SAC	
		UK 0030385 Pobie Bank Reef SAC	
		UK 0030393 Inner Hebrides and the Minches SAC	
		UK 9001021 Flannan Isles SPA	
		UK 9001031 St Kilda SPA	
		UK 9001041 Shiant Isles SPA	
UK 9001341 Rum SPA			

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Activity	Lead JTEPS Planner	MPAs which may be affected requiring control measures	Mitigation Measures
		UK 9001431 Canna and Sanday SPA UK 9020011 Rathlin Island SPA UK 9020310 Coll and Tiree SPA UK 9020318 Sound of Gigha SPA UK 9020319 West Coast of the Outer Hebrides SPA 10474 Sea of the Hebrides NCMPA 10476 North-East Lewis NCMPA 10475 Shiant East Bank NCMPA 10571 West of Scotland NCMPA 10477 Southern Trench NCMPA UK0030399 North Channel SAC	- MMO are to be employed on deck 60 minutes prior to, during and 60 minutes after any transmission on active sonar. This maybe reduced to 30 minutes in waters of 200m or less.  - All means available are to be used to detect marine mammals.  - All capable sonar devices will utilise ramp up procedures at the start of any transmission.  - If marine mammals are observed within the MAZ for a sonar prior to transmission, a delay of 60 minutes will be implemented before transmissions are allowed. Similarly, if sonar is shut down as a result of detecting a marine mammal during transmissions, a period of 60 minutes will be allowed from last sighting before retransmitting. This time is reduced to 30 minutes if the area is passively acoustically monitored by sonar buoys or in waters of 200m or less.
AAW	SO2 AAW	10414 Clyde Sea Sill NCMPA 10421 Wester Ross NCMPA 10422 Small Isles NCMPA 10456 The Barra Fan and Hebrides Terrance Seamount NCMPA  UK 0012594 Rum SAC UK 0013695 St Kilda SAC UK 0030073 Achnahaird SAC UK 0030230 Ascrib, Isay and Dunvegan SAC UK 0030359 Stanton Banks SAC UK 0030364 East Mingulay SAC  UK 0030384 The Maidens SAC UK 0030385 Pobie Bank Reef SAC  UK 13008 Coll Ramsar Site UK 13023 Gruinart Flats, Islay Ramsar Site	Nil in addition to Environmental Guidelines.

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Activity	Lead JTEPS Planner	MPAs which may be affected requiring control measures	Mitigation Measures
		UK 13052 Rinns of Islay Ramsar Site	
		UK 13056 Tiree Wetlands and Coast Ramsar Site	
		UK0012696 North Rona SAC	
		UK 9001011 North Rona & Sula Sgeir SPA	
		UK 9001031 St Kilda SPA	
		UK 9001041 Shiant Isles SPA	
		UK 9001241 Handa SPA	
		UK 9001341 Rum SPA	
		UK 9001431 Canna and Sanday SPA	
		UK 9001781 Cuillins SPA	
		UK 9003032 Tiree Wetlands and Coast SPA	
		UK 9003033 Coll (Corncrake) SPA	
		UK 9003034 Tiree (Corncrake) SPA	
		UK 9003051 Gruinart Flats, Islay SPA	
		UK 9003053 Laggan Islay SPA	
		UK 9003057 Rinns of Islay SPA	
		UK 9003058 The Oa SPA	
		UK 9020011 Rathlin Island SPA	
		UK 9020299 Oronsay & South Colonsay SPA	
		UK 9020310 Coll and Tiree SPA	
		UK 9020318 Sound of Gigha SPA	
		UK 9020319 West Coast of the Outer hebrides SPA	
		10451 North West Orkney NCMPA	



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Activity	Lead JTEPS Planner	MPAs which may be affected requiring control measures	Mitigation Measures	
Rotary and fixed wing flying	ALL	10414 Clyde Sea Sill NCMPA	In addition to Environmental Guidelines rotary wing operators are to avoid hovering above or repeated low level (<1000') overflight of the 9 highlighted MPA. See Chart 1 below for location of the 9 affected sites. Aircrew should also remain vigilant for aggregations of marine mammals and seals hauled out throughout the Exercise areas and avoid hovering or repeated low-level overflight in their vicinity.	
		10418 Loch Sunart to the Sound of Jura NCMPA		
		10421 Wester Ross NCMPA		
		10422 Small Isles NCMPA		
		10423 South Arran NCMPA		
		10448 Geikie Slide and Hebridean Slope NCMPA		At all times disturbance must be avoided and seals must never be approached by personnel due to their potential aggressive behaviour.
		10456 The Barra Fan and Hebrides Terrance Seamount NCMPA		
		UK 0012594 Rum SAC	Aircraft are to adhere to the Low Flying System which includes designated areas which must be avoided.	
		UK 0012958 Ardmeanach SAC		
		UK 0012705 Sound of Barra SCI		
		UK 0012786 Durness SAC		
		UK 0013055 Oldshoremore and Sandwood SAC		
		UK 0013695 St Kilda SAC		
		UK 0014728 Coll Machair SAC		
		UK 0019802 Sound of Arisaig (Loch Ailort to Loch Ceann Traigh)		
		UK 0030041 Firth of Lorn SAC		
		UK 0030055 Rathlin Island SAC		
		UK 0030067 South East Islay Skerries SAC		
		UK 0030073 Achnahaird SAC		
		UK 0030108 Cape Wrath SAC		
		UK 0030191 Loch Fada SAC		
		UK 0030230 Ascrib, Isay and Dunvegan SAC		
		UK 0030289 Treshnish Isles SAC		
UK 0030341 Oronsay SAC				
UK 0030359 Stanton Banks SAC				

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Activity	Lead JTEPS Planner	MPAs which may be affected requiring control measures	Mitigation Measures
		UK 0030364 East Mingulay SAC	
		UK 0030385 Pobie Bank Reef SAC	
		UK 13023 Gruinart Flats, Islay Ramsar Site	
		UK 13052 Rinns of Islay Ramsar Site	
		UK 13056 Tiree Wetlands and Coast Ramsar Site	
		UK 9001011 North Rona & Sula Sgeir SPA	
		UK 9001021 Flannan Isles SPA	
		UK 9001041 Shiant Isles SPA	
		UK 9001231 Cape Wrath SPA	
		UK 9001341 Rum SPA	
		UK 9001431 Canna and Sanday SPA	
		UK 9001781 Cuillins SPA	
		UK 9002181 Sule Skerry and Sule Stack SPA	
		UK 9003032 Tiree Wetlands and Coast SPA	
		UK 9003033 Coll (Corncrake) SPA	
		UK 9003034 Tiree (Corncrake) SPA	
		UK 9003051 Gruinart Flats, Islay SPA	
		UK 9003053 Laggan Islay SPA	
		UK 9003057 Rinns of Islay SPA	
		UK 9003058 The Oa SPA	
		UK 9003091 Ailsa Craig SPA	
		UK 9003311 Cnuic agus Cladach Mhuile SPA	
		UK 9020011 Rathlin Island SPA	
		UK 9020299 Oronsay & South Colonsay SPA	
		UK 9020304 Jura, Scarba and the Garvellachs SPA	
		UK 9020310 Coll and Tiree SPA	
		UK 9020318 Sound of Gigha SPA	

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Activity	Lead JTEPS Planner	MPAs which may be affected requiring control measures	Mitigation Measures
		UK 9020319 West Coast of the Outer hebrides SPA UK0012791 Hoy SAC 10451 North West Orkney NCMPSA	
Replenishment At Sea	SOUW		Replenishment At Sea within the Sea of the Hebrides and North Minches is to <b>be avoided</b> and only conducted with the permission of the EXDIR. Within the these areas the following corridors are to be used:  Minches RAS Corridor. 5750N 00611W - 5750N 00600W - 5818N 00530W - 5900N 00530W - 5900N 00546W - 5810N 00546W.  Sea of the Hebrides RAS Corridor. 5717N 00702W - 5717N 00650W - 5705N 00650W - 5625N 00730W - 5635N 00742W - 5652N 00715W - 5705N 00702W.
Gunnery	SO2 SAW	10456 The Barra Fan and Hebrides Terrance Seamount NCMPSA  UK 0012786 Durness SAC UK 0030108 Cape Wrath SAC UK 0030192 Loch Laxford SAC UK 9001231 Cape Wrath SPA UK 0030386 Solan Bank Reef SAC	Gunnery at Cape Wrath will be in accordance with Range Orders, which include environmental mitigation measures.

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Activity	Lead JTEPS Planner	MPAs which may be affected requiring control measures	Mitigation Measures
Fast Inshore Attack Craft	SO2 SAW	10414 Clyde Sea Sill NCMPA 10421 Wester Ross NCMPA 10422 Small Isles NCMPA UK 0019802 Sound of Arisaig (Loch Ailort to Loch Ceann Traigh) UK 9001041 Shiant Isles SPA UK 9001341 Rum SPA UK 9001431 Canna and Sanday SPA UK 9001781 Cuillins SPA	In addition to Environmental Guidelines when operating where basking sharks have been sighted, operators should moderate speed and proceed in such a manner as to eliminate risk of collision and disturbance.
Anchoring	ALL		Nil in addition to Environmental Guidelines.

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TABLE 2

MARITIME PROTECTED AREAS IN PROXIMITY TO MILITARY ACTIVITY AND ASSOCIATED ENVIRONMENTAL GUIDELINES

Group 1

Maritime Protected Areas designated primarily for the protection of birds including Specially Protected Area and RAMSAR sites (RAMSAR site refers to a wetland site of international importance)

MPA DETAILS	ENVIRONMENTAL ACTIVITY GUIDELINES
<p>UK 13008 Coll Ramsar Site</p> <p>UK 13023 Gruinart Flats, Islay Ramsar Site</p> <p>UK 13052 Rinns of Islay Ramsar Site</p> <p>UK 13056 Tiree Wetlands and Coast Ramsar Site</p> <p>UK 9001011 North Rona &amp; Sula Sgeir SPA</p> <p>UK 9001021 Flannan Isles SPA</p> <p>UK 9001031 St Kilda SPA</p> <p>UK 9001041 Shiant Isles SPA</p> <p>UK 9001121 Mingulay and Berneray SPA</p> <p>UK 9001131 Pentland Firth Islands SPA</p> <p>UK 9001231 Cape Wrath SPA</p> <p>UK 9001241 Handa SPA</p> <p>UK 9001341 Rum SPA</p> <p>UK 9001431 Canna and Sanday SPA</p> <p>UK 9001781 Cuillins SPA</p> <p>UK 9002181 Sule Skerry and Sule Stack SPA</p> <p>UK 9003032 Tiree Wetlands and Coast SPA</p> <p>UK 9003033 Coll (Corncrake) SPA</p> <p>UK 9003034 Tiree (Corncrake) SPA</p> <p>UK 9003051 Gruinart Flats, Islay SPA</p>	<p style="text-align: center;"><b>RESTRICTED ACTIVITIES</b></p> <p><b>AIR:</b></p> <p>1. No activity involving air launch of live or inert munitions should take place inside or within 500 yards of the MPAs unless such firings are programmed with an established MOD air weapons range when local range orders are to be observed.</p> <p><b>ANTI-AIR AND ANTI-SURFACE WARFARE:</b></p> <p>1. No activity involving the firing of live or inert munitions should take place inside or within 500 yards of the MPAs unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</p> <p><b>SUBMARINE AND ANTI-SUBMARINE WARFARE:</b></p> <p>1. No activities involving live or inert firings or exploded ordnance should take place inside or within 500 yards of the MPAs unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</p> <p><b>GENERAL AND INSHORE ACTIVITIES:</b></p> <p>1. No activities involving live firings, exploding ordnance, smoke or flares are to take place inside or within 500 yards of the MPAs unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</p> <p><b>MCM AND EOD:</b></p> <p>1. No activities involving exploding ordnance should take place inside or within 500 yards of the MPAs unless cleared as operationally essential (see Note 1) or unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</p>

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<p>UK 9003053 Laggan Islay SPA UK 9003057 Rinns of Islay SPA UK 9003058 The Oa SPA UK 9003091 Ailsa Craig SPA UK 9003171 North Colonsay &amp; Western Cliffs SPA UK 9003311 Cnuic agus Cladach Mhuile SPA UK 9020011 Rathlin Island SPA UK 9020021 Sheep Island SPA UK 9020299 Oronsay &amp; South Colonsay SPA UK 9020304 Jura, Scarba and the Garvellachs SPA UK 9020310 Coll and Tiree SPA UK 9020317 Pentland Firth pSPA UK 9020318 Sound of Gigha SPA UK 9020319 West Coast of the Outer hebrides SPA</p>	<p style="text-align: center;"><b>CONROL MEASURES REQUIRED</b></p> <p><b>AIR:</b> 1. All flying operations are to be in accordance with the UK Military Low Flying System (UKLFS) (see Note 2).</p> <p><b>SUBMARINE AND ANTI-SUBMARINE:</b> 1. All activities involving the use of active sonar are to be in accordance with the Command Guidance in BRd 4985 Vol.5 and s2117 assessment tool.</p> <p><b>GENERAL AND INSHORE ACTIVITIES:</b> 1. Activities involving the use of fixed seabed arrays for acoustic trials, noise ranging and degaussing should be conducted within the established range limits and in accordance with range orders. 2. Use of sonar in surveying is to be in accordance with the Command Guidance in BRd 4985 and s2117 assessment tool. 3. Parachuting is only to take place with prior approval of the Unit's operational commander. Such approval must be informed by the Environmental Protection (EP) staff of Defence Training Estates (DTE). 4. Fast Inshore Attack Craft (FIAC) and Landing Craft Air Cushion (LCAC), When operating inside these MPAs where rafting aggregations of sea birds have been sighted, operators should moderate speed and proceed in such a manner as to eliminate risk of unnecessary disturbance. This control applies equally to high speed/power manoeuvres by any vessel.</p> <p><b>AMPHIBIOUS:</b> 1. Amphibious landings (including use of Landing Craft Air Cushion; LCAC) may take place across any shoreline within the area limits of the MPAs but must have the prior approval of the Unit's Operational Commander.</p> <p><b>MCM AND EOD:</b> 1. Use of sonar for MCM is to be in accordance with the Command Guidance in BRd 4985 and s2117 assessment tool.</p> <p style="text-align: center;"><b>NO ADDITIONAL CONTROL MEASURES REQUIRED</b></p> <p><b>SUBMARINE AND ANTI-SUBMARINE WARFARE:</b> 1. All activities not involving weapon firings or exploding ordnance.</p> <p><b>ANTI-AIR AND ANTI-SURFACE WARFARE:</b> 1. All Activities not involving weapons firings.</p> <p><b>GENERAL AND INSHORE ACTIVITIES:</b> 1. Activities relating to seabed sampling and equipment attachment to the seabed. 2. Human diving.</p> <p><b>MCM AND EOD:</b> 1. All activities not involving weapons firings and exploding ordnance.</p>
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**MISCELLANEOUS (see Note 3):**

1. No restrictions on RAS, boarding, anti-piracy or anchoring.

**GENERAL:**

1. Units should remain vigilant at all times and moderate activities in accordance with SOPs whenever random encounters with marine mammals or aggregations of seabirds occur.

**Note 1:** Operationally essential is defined as activities conducted during hostilities or activities or for which there is an overriding public interest – in which case, a MESAT assessment is recommended, to determine level of environmental risk.

**Note 2:** Seasonal avoidance of specific Schedule 1 nesting and breeding sites may be required and will be promulgated by UKLFS CAT Y NOTAM.

**Note 3:** Miscellaneous activities include e.g. RAS, boarding, anti-piracy, high speed / power manoeuvres, sea-boat drills and anchoring.

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**Group 2**

**Maritime Protected Areas for the protection of general coastal features**

<b>MPA DETAILS</b>	<b>ENVIRONMENTAL ACTIVITY GUIDELINES</b>
<p>UK 0012958 Ardmeanach SAC UK 0013055 Oldshoremore and Sandwood SAC UK 0014728 Coll Machair SAC UK 0030073 Achnahaird SAC UK 0030108 Cape Wrath SAC UK 0030341 Oronsay SAC UK0012791 Hoy SAC</p>	<p style="text-align: center;"><b>RESTRICTED ACTIVITIES</b></p> <p><b>AIR:</b> 1. No activity involving air launch of live or inert munitions with land or sea surface impact should take place inside or within 500 yards of the MPAs unless such firings are programmed within an established MOD air weapons range when local range orders are to be observed.</p> <p><b>ANTI-AIR AND ANTI-SURFACE WARFARE:</b> 1. No activity involving firing of live or inert munitions with land or sea surface impact should take place inside or within 500 yards of the MPAs unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</p> <p><b>SUBMARINE AND ANTI-SUBMARINE WARFARE:</b> 1. No activities involving live or inert firings or exploding ordnance should take place inside or within 500 yards of the MPAs unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</p> <p><b>GENERAL AND INSHORE ACTIVITIES:</b> 1. No live or inert weapon trials should take place inside or within 500 yards of the MPAs unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</p> <p><b>MCM AND EOD:</b> 1. No MCM or mine laying (including dummy mines) should take place within 0.5 nm of the MPAs. 2. No activities involving exploding ordnance should take place inside or within 500 yards of the MPAs unless cleared as operationally essential (see Note 1) or unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</p> <p><b>MISCELLANEOUS (See Note 2):</b> 1. Anchoring should not take place in or within 0.5 nm of the MPAs unless specifically cleared within harbour limits as part of port authorities' management plans.</p> <p style="text-align: center;"><b>CONTROL MEASURES REQUIRED</b></p> <p><b>AIR:</b> 1. All flying activities are to be in accordance with the UK Military Low Flying System (UKLFS).</p>



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**SUBMARINE AND ANTI-SUBMARINE WARFARE:**

1. All activities involving the use of active sonar are to be in accordance with the Command Guidance in BRd 4985 Vol.5 and s2117 assessment tool.

**GENERAL AND INSHORE ACTIVITIES:**

1. Activities involving the use of fixed seabed arrays for acoustic trials, noise ranging and degaussing are to be conducted within the established range limits and in accordance with range orders.  
2. Use of sonar in surveying is to be in accordance with the Command Guidance in BRd 4985 and s2117 assessment tool.

**AMPHIBIOUS:**

1. Amphibious landing operations (including use of Landing Craft Air Cushion; LCAC and parachuting of personnel and equipment) may take place across any shoreline within the area limits of the MPAs but must have the prior approval of the Unit's Operational Commander.

**MCM AND EOD:**

2. Use of sonar for MCM is to be in accordance with the Command Guidance in BRd 4985 and s2117 assessment tool.

**NO ADDITIONAL CONTROL MEASURES REQUIRED**

**AIR:**

1. Air to air weapons firings.

**ANTI-AIR AND ANTI-SURFACE WARFARE:**

1. Any activity not involving firings.

**SUBMARINE AND ANTI-SUBMARINE WARFARE:**

1. Any activities not involving firings.  
2. All activities involving the use of active sonar are to be in accordance with the Command Guidance in BRd 4985 Vol.5 and s2117 assessment tool.

**GENERAL AND INSHORE ACTIVITIES:**

1. Use of flares or smoke.  
2. Activities relating to seabed sampling, equipment attachment and human diving.  
3. Fast Inshore Attack Craft (FIAC).  
4. Use of sonar in surveying is to be in accordance with the Command Guidance in BRd 4985 and s2117 assessment tool.

**MCM AND EOD:**

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1. Use of ROV.

**MISCELLANEOUS (See Note 2):**

1. No restrictions on miscellaneous activities except for anchoring as stated above.

**Note 1:** Operationally essential is defined as activities conducted during hostilities or activities or for which there is an overriding public interest – in which case, a MESAT assessment is recommended, to determine level of environmental risk.

**Note 2:** Miscellaneous activities include e.g. RAS, boarding, anti-piracy, high speed / power manoeuvres, sea-boat drills and anchoring.

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**Group 3**

**Maritime Protected Areas designated primarily for the protection of benthic seabed features with some depths less than 20m**

<b>MPA DETAILS</b>	<b>ENVIRONMENTAL ACTIVITY GUIDELINES</b>
<p>10414 Clyde Sea Sill NCMPA 10418 Loch Sunart to the Sound of Jura NCMPA 10421 Wester Ross NCMPA 10422 Small Isles NCMPA 10423 South Arran NCMPA UK 0013695 St Kilda SAC UK 0019802 Sound of Arisaig (Loch Ailort to Loch Ceann Traigh) UK 0030041 Firth of Lorn SAC UK 0030055 Rathlin Island SAC UK 0030191 Loch Fada SAC UK 0030192 Loch Laxford SAC 10451 North West Orkney NCMPA</p>	<p style="text-align: center;"><b>RESTRICTED ACTIVITIES</b></p> <p><b>AIR:</b> 1. No air launched firings involving sea surface or water column impact or explosions should take place inside or within 500 yards of the MPAs unless such firings are programmed within an established MOD air weapons range when local range orders are to be observed.</p> <p><b>ANTI-AIR AND ANTI-SURFACE WARFARE:</b> 1. No activity involving sea surface or water column explosions should take place inside or within 500 yards of the MPAs unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</p> <p><b>SUBMARINE AND ANTI-SUBMARINE WARFARE:</b> 1. No activities involving exploding ordnance should take place inside or within 500 yards of the MPAs unless such firings are programmed within an established MOD weapons range when local range orders are to be observed. 2. No physical interaction with the seabed should occur within the MPAs.</p> <p><b>GENERAL AND INSHORE ACTIVITIES:</b> 1. No activities involving live firings or exploding ordnance should take place inside or within 500 yards of the MPAs unless such firings are programmed within an established MOD weapons range when local range orders are to be observed. 2. Anchoring should not take place within 0.5 nm of the MPAs unless specifically cleared within harbour limits as part of the port authorities' management plans. 3. No human diving incorporating interactions with the seabed should take place within the MPAs. 4. No seabed samples should be taken and no equipment should be attached to the seabed with the MPAs.</p> <p><b>MCM AND EOD:</b> 1. No MCM or minelaying activities (including dummy mines) should take place within 0.5 nm of the MPAs. 2. No activities involving exploding ordnance should take place inside or within 500 yards of the MPAs unless cleared as operationally essential (see Note 1) or unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</p> <p><b>AMPHIBIOUS:</b></p>

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1. Amphibious landings (including Landing Craft Air Cushion; LCAC) are prohibited across any shoreline within the area limits of the MPAs without the prior approval of the Unit's Operational Command, unless within an established MOD site when local orders are to be observed.

### **GENERAL AND INSHORE ACTIVITIES:**

1. Human diving activities including interaction with the seabed, should not take place within the MPAs.
2. No seabed samples should be taken within the MPA and survey equipment should not be attached to the seabed.

### **CONTROL MEASURES REQUIRED**

#### **AIR:**

1. All flying operations are to be in accordance with the UK Military Low Flying System (UKLFS).

#### **SUBMARINE AND ANTI-SUBMARINE WARFARE:**

1. All activities involving the use of active sonar are to be in accordance with the Command Guidance in BRd 4985 Vol.5 and s2117 assessment tool.

#### **GENERAL AND INSHORE ACTIVITIES:**

1. Activities involving the use of fixed seabed arrays for acoustic trials, noise ranging and degaussing are to be conducted within the established range limits and in accordance with range orders.
2. Use of sonar in surveying is to be in accordance with the Command Guidance in BRd 4985 and s2117 assessment tool.
3. Fast Inshore Attack Craft (FIAC) and Landing Craft Air Cushion (LCAC). When operating inside these MPAs and in shallow waters operators should moderate speed and proceed in such a manner as to avoid disturbance of the seabed.

#### **MCM AND EOD:**

1. Use of sonar for MCM is to be in accordance with the Command Guidance in BRd 4985 and s2117 assessment tool.

### **NO ADDITIONAL CONTROL MEASURES REQUIRED**

#### **AIR:**

1. Air-to-air and air-to-land surface firings.

#### **ANTI-AIR AND ANTI-SURFACE WARFARE:**

1. All activities not involving sea surface or water column explosions.

#### **SUBMARINE AND ANTI-SUBMARINE WARFARE:**

1. All activities not involving exploding ordnance.

#### **GENERAL AND INSHORE ACTIVITIES:**

1. Parachuting of personnel and stores or equipment.
2. Use of flares and smoke.

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**MCM AND EOD:**

1. Use of ROV.

**MISCELLANEOUS (see Note 2):**

1. No restrictions on miscellaneous activities except for anchoring as stated above.

**Note 1:** Operationally essential is defined as activities conducted during hostilities or activities or for which there is an overriding public interest – in which case, a full MESAT assessment is recommended, to determine level of environmental risk.

**Note 2:** Miscellaneous activities include e.g. RAS, boarding, anti-piracy, high speed / power manoeuvres, sea-boat drills and anchoring.

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Group 4

Maritime Protected Areas with marine mammal interests including whales, dolphins and seals

MPA DETAILS	ENVIRONMENTAL ACTIVITY GUIDELINES
<p>UK 0012594 Rum SAC</p> <p>UK 0012705 Sound of Barra SCI</p> <p>UK 0012786 Durness SAC</p> <p>UK 0030067 South East Islay Skerries SAC</p> <p>UK 0030230 Ascrib, Isay and Dunvegan SAC</p> <p>UK 0030289 Treshnish Isles SAC</p> <p>UK 0030383 Skerries and Causeway SAC</p> <p>UK 0030384 The Maidens SAC</p> <p>UK 0030393 Inner Hebrides and the Minches SAC</p> <p>UK0012696 North Rona SAC</p> <p>10474 Sea of the Hebrides NCMPA</p> <p>10476 North-East Lewis NCMPA</p> <p>10475 Shiant East Bank NCMPA</p> <p>10477 Southern Trench MPA</p> <p>10571 West of Scotland NCMPA</p> <p>10477 Southern Trench NCMPA</p> <p>UK0030399 North Channel SAC</p>	<p style="text-align: center;"><b>RESTRICTED ACTIVITIES</b></p> <p><b>AIR:</b></p> <p>1. No activity involving the air launch of live or inert munitions with land or sea surface impact should take place inside or within 500 yards of the MPAs unless such firings are programmed within an established MOD air weapons range when local range orders are to be observed.</p> <p><b>ANTI-AIR AND ANTI-SURFACE WARFARE:</b></p> <p>1. No activity involving firing of live or inert munitions should take place inside or within 500 yards of the MPAs unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</p> <p><b>SUBMARINE AND ANTI-SUBMARINE WARFARE:</b></p> <p>1. No activities involving live or inert firings or exploding ordnance should take place inside or within 500 yards of the MPAs unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</p> <p><b>GENERAL AND INSHORE ACTIVITIES:</b></p> <p>1. No activities involving live firings, exploding ordnance, smoke or flares should take place inside or within 500 yards of the MPAs unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</p> <p><b>MCM AND EOD:</b></p> <p>1. No MCM or minelaying activities (including dummy mines) should take place within 0.5 nm of the MPAs.</p> <p>2. No activities involving exploding ordnance should take place inside or within 500 yards of the MPAs unless cleared as operationally essential (see Note 1), or unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</p> <p style="text-align: center;"><b>CONTROL MEASURES REQUIRED</b></p> <p><b>AIR:</b></p> <p>1. All flying activities are to be in accordance with the UK Military Low Flying System (UKLFS) (Note 2). Caution should be exercised when flying over sighted aggregations of cetaceans, avoiding hovering or low level activities overhead.</p> <p><b>SUBMARINE AND ANTI-SUBMARINE WARFARE:</b></p>

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1. All activities involving the use of active sonar are to be in accordance with the Command Guidance in BRd 4985 Vol.5 and s2117 assessment tool, noting that within Group 4 MPAs, units should routinely operate at low risk.

### **GENERAL AND INSHORE ACTIVITIES:**

1. Activities involving the use of fixed seabed arrays for acoustic trials, noise ranging and degaussing are to be conducted within the established range limits and in accordance with range orders.
2. Surveying should not take place inside or within 500 yards of the MPAs unless prior agreement has been reached with appropriate authorities.
3. Use of sonar in surveying is to be in accordance with the Command Guidance in BRd 4985 Vol.5 and s2117 assessment tool.
4. Parachuting is only to take place with prior approval of the Unit's operational commander. Such approval must be informed by the Environmental Protection (EP) staff of Defence Training Estates (DTE).
5. Fast Inshore Attack Craft (FIAC) and Landing Craft Air Cushion (LCAC). When operating inside these MPAs where marine mammals and / or basking sharks have been sighted, operators should moderate speed and proceed in such a manner as to eliminate risk of collision and disturbance. This control applies equally to high speed/power manoeuvres by any vessel.

### **AMPHIBIOUS:**

1. Amphibious landings (including use of Landing Craft Air Cushion; LCAC) may take place across any shoreline within the area limits of the MPAs, but must have the prior approval of the Unit's Operational Commander.

### **MCM AND EOD:**

3. Use of sonar for MCM is to be in accordance with the Command Guidance in BRd 4985 and s2117 assessment tool.

## **NO ADDITIONAL CONTROL MEASURES REQUIRED**

### **ANTI-AIR AND ANTI-SURFACE WARFARE:**

1. All activities not involving weapon firings or explosions.

### **SUBMARINE AND ANTI-SUBMARINE WARFARE:**

1. All activities not involving weapon firings or explosions.

### **MCM AND EOD:**

1. Use of ROV.

### **GENERAL AND INSHORE ACTIVITIES:**

1. Activities relating to seabed sampling, seabed equipment attachment and human diving (see control measures for use of sonar). Such activities are to be moderated to take account of any marine mammals in the close vicinity.
2. Units are to remain vigilant at all times and moderate activities in accordance with SOPs whenever random encounters with marine mammals or rafting aggregates of seabirds occur.

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**MISCELLANEOUS (see Note 3):**

1. No restrictions on miscellaneous activities except for high speed/power manoeuvres as stated above.

**Note 1:** Operationally essential is defined as activities conducted during hostilities or activities or for which there is an overriding public interest – in which case, a full MESAT assessment is recommended, to determine level of environmental risk.

**Note 2:** Seasonal avoidance of specific Schedule 1 nesting and breeding sites may be required and will be promulgated by UKLFS CAT Y NOTAM.

**Note 3:** Miscellaneous activities include e.g. RAS, boarding, anti-piracy, high speed / power manoeuvres, sea-boat drills and anchoring.



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Group 5

Benthic seabed features entirely at depths greater than 20m

MPA DETAILS	ENVIRONMENTAL ACTIVITY GUIDELINES
<p>10448 Geikie Slide and Hebridean Slope NCMPA</p> <p>10456 The Barra Fan and Hebrides Terrace Seamount NCMPA</p> <p>UK 0030359 Stanton Banks SAC</p> <p>UK 0030364 East Mingulay SAC</p> <p>UK 0030385 Pobie Bank Reef SAC</p> <p>UK 0030386 Solan Bank Reef SAC</p>	<p style="text-align: center;"><b>RESTRICTED ACTIVITIES</b></p> <p><b>MCM AND EOD:</b></p> <ol style="list-style-type: none"><li>1. No MCM or minelaying activities (including dummy mines) should take place within 0.5nm of the MPA.</li><li>2. No activities involving exploding ordnance on the seabed should take place inside or within 500 yards of the MPAs unless cleared as operationally essential (see Note 1) or unless firings are programmed within an established MOD weapons range when local range orders are to be observed.</li></ol> <p><b>Note</b></p> <p><b>MISCELLANEOUS (see Note 2):</b></p> <ol style="list-style-type: none"><li>1. No anchoring should take place in or within 0.5 nm of the MPAs.</li></ol> <p><b>SUBMARINE AND ANTI-SUBMARINE WARFARE:</b></p> <ol style="list-style-type: none"><li>1. No physical interaction with the seabed should occur within the MPAs.</li></ol> <p><b>GENERAL AND INSHORE ACTIVITIES:</b></p> <ol style="list-style-type: none"><li>1. No human diving incorporating interactions with the seabed should take place within the MPAs.</li><li>2. No seabed samples should be taken and no equipment should be attached to the seabed with the MPAs.</li></ol> <p style="text-align: center;"><b>CONTROL MEASURES REQUIRED</b></p> <p><b>SUBMARINE AND ANTI-SUBMARINE WARFARE:</b></p> <ol style="list-style-type: none"><li>1. All activities involving the use of active sonar are to be in accordance with the Command Guidance in BRd 4985 Vol.5 and s2117 assessment tool.</li></ol> <p><b>GENERAL AND INSHORE ACTIVITIES:</b></p> <ol style="list-style-type: none"><li>1. Activities involving the use of fixed seabed arrays for acoustic trials, noise ranging and degaussing are to be conducted within the established range limits and in accordance with range orders.</li><li>2. Use of sonar in surveying is to be in accordance with the Command Guidance in BRd 4985 and s2117 assessment tool.</li></ol> <p><b>MCM AND EOD:</b></p> <ol style="list-style-type: none"><li>1. Use of sonar in MCM is to be in accordance with the Command Guidance in BRd 4985 and s2117 assessment tool.</li></ol>

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**NO ADDITIONAL CONTROL MEASURES REQUIRED**

**AIR:**

1. Firings, both live and inert, are to be managed in accordance with established MOD clear range procedures.

**ANTI-AIR AND ANTI-SURFACE WARFARE:**

1. All forms of anti-air and anti-surface firings, both live and inert, are to be conducted in accordance with established MOD clear range procedures.

**SUBMARINE AND ANTI-SUBMARINE WARFARE:**

1. All activities involving live or inert firings are to be conducted in accordance with established MOD clear range procedures.

**GENERAL AND INSHORE ACTIVITIES:**

1. Use of flares or smoke.
2. Parachuting of personnel and stores or equipment.
3. Fast Inshore Attack Craft (FIAC) and Landing Craft Air Cushion (LCAC).

**MCM AND EOD:**

1. Use of ROV.

**MISCELLANEOUS (see Note 2):**

1. No restrictions apart from anchoring.

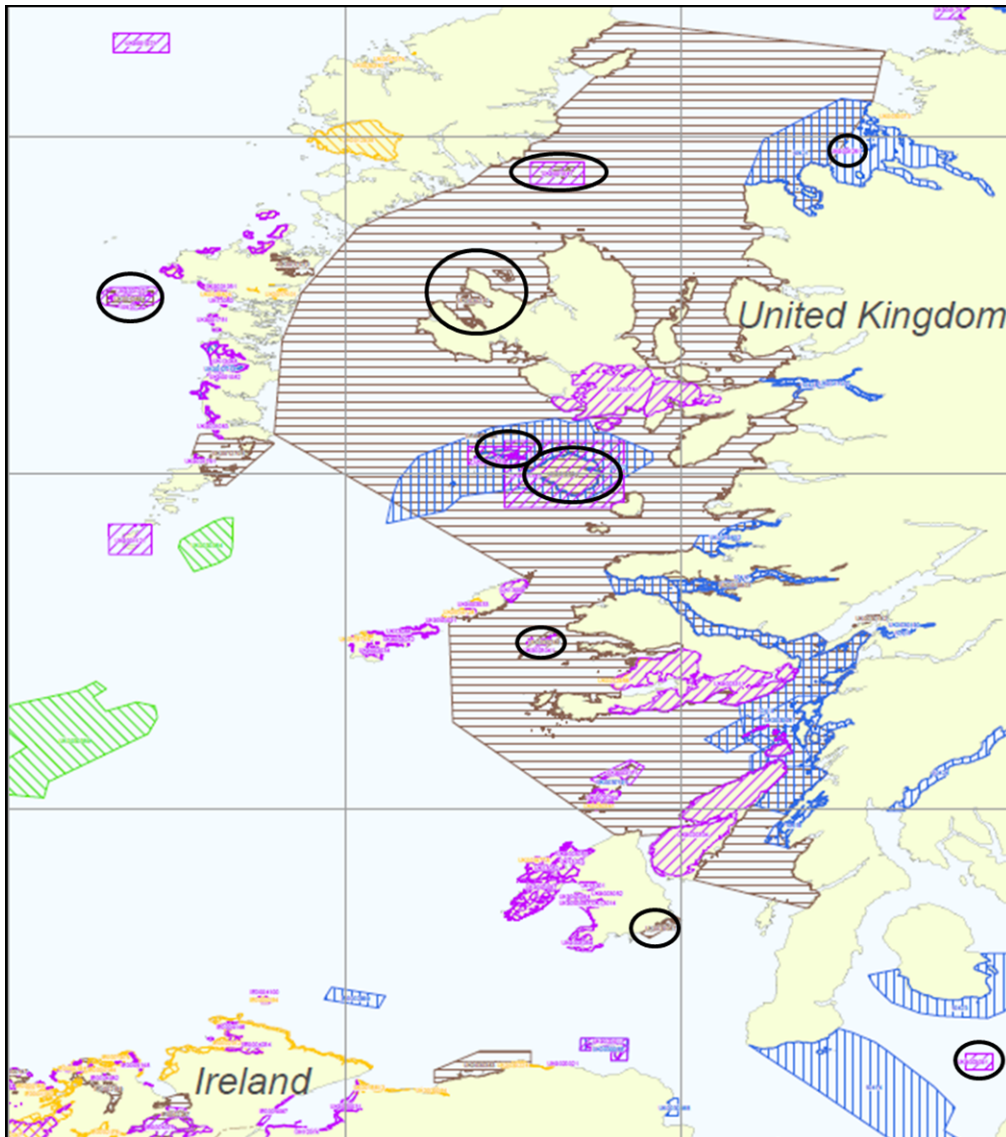
**GENERAL:**

1. Units should remain vigilant at all times and moderate activities in accordance with SOPs whenever random encounters with marine mammals or aggregations of seabirds occur.

**Note 1:** Operationally essential is defined as activities conducted during hostilities or activities or for which there is an overriding public interest – in which case, a full MESAT assessment is recommended, to determine level of environmental risk.

**Note 2:** Miscellaneous activities include e.g. RAS, boarding, anti-piracy, high speed / power manoeuvres, sea-boat drills and anchoring.

Chart 1 – Additional Rotary Wing Mitigation – NW Scotland



Note - Restrictions apply within the coloured polygons and not the outlined ovals. Ovals are provided for ease of identification only.