

EXERCISE JOINT WARRIOR 222

THE ENVIRONMENTAL AND SUSTAINABILITY IMPACT STATEMENT

EXERCISE JOINT WARRIOR 222 – 1 – 13 October

1. **Introduction.** Exercise Joint Warrior (JW) will take place in waters round the UK during the period 1-13 October 2022 and will include in excess of fifty ships and aircraft. This impact assessment is a live document and is designed to cover directed maritime activity for the duration of JW 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/Location.** 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 wing/helicopter flying operations
- Replenishment at sea

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 JW Exercise.

Joint Warrior 222 – Environmental Risk

5. The Environmental Risk section of the JW Instruction Document 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 from both air and sea will be exercised during JW222 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 JW 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 FW and HELO low flying will be in accordance with the MOD Low Flying Handbook. In addition, JW222 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 and Lulworth Ranges, all firings will be in accordance with 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.

d. **Sonar**

i) **Area Impact:** All sonar operations will comply with RN command guidance in BRd 4985 Vol 5 and will undergo S2117 Sonar Risk Assessments (SRA). As not all units can conduct an SRA in accordance with the RN guidance a generic SRA has been prepared for participants in all JW areas by the Joint Operational Meteorology and Oceanography Centre. In order to keep the risk to marine mammals as "low" individual JW active sonars will be limited to a maximum source level of 211dB 1µ Pa @ 1m (assumed pulse length 1 second, maximum of 6 pulses per minute, transmissions of up to 8 hours in any 24-hour period) Also UK units MAY increase their source level if after conducting their own sonar risk assessment the risk is deemed to be "low".

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ii) 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.

iii) Sonar transmission parameters will be governed by the assessments generated in S2117.

iv) The following mitigation will be in place for all sonar operations during JW222:

1) Active transmissions from ASW sonars are limited to 211dB 1μ Pa @ 1m maximum source levels for 1 second pulse length, maximum of 6 pulses per minute, transmissions of up to 8 hours in any 24-hour period. The source level and pulse length maybe altered provided that the risk level remains low.

2) 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). 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. As well as MMOs units are to use all available means to detect marine mammals,

3) Active ASW JW sonar transmission will be avoided during hours of darkness east of the main 50m depth contour line running from Skye, west of Canna to west of Tiree.

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

5) 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 cetacean 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.

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

7) Hull mounted sonar transmissions in a quadrant west of 007° W and south of 52° N are not authorised unless a further S2117 sonar risk assessment is conducted by the unit wishing to transmit on HMS.

e. **Mine Countermeasures Operations.** Three days of activity by MCM vessels will take place in Lyme Bay which may include mine hunting and diving operations.

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Any shapes that are laid will be outside protected areas for the protection of benthic seabed features.

Seabed and Sediments

8. Throughout the exercise all units will comply with the rules set out in the attached JW 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 JW222 planning documents. Precautions to prevent harassment of seals will be employed throughout JW 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 JW222 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 JW activities on adjacent SSSIs is assessed as **NEGLIGIBLE**.

Actions by Planning Staff

16. JTEPS will remotely 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.

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17. This assessment forms part of the JW222 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 JW 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 ASW	10421 Wester Ross NCMPA	For active sonar transmissions in addition to Environmental Guidelines the following specific mitigation is to be applied: - Maximum transmission from any source to be limited to 211dB 1µ Pa @ 1m (assumed pulse length 1 second, maximum of 6 pulses per minute, transmissions of up to 8 hours in any 24-hour period). RN units may alter these parameters provided the risk level remains low. For a certain class of ships and a certain type of active sonar buoy this will be further reduced to 210dB 1µ Pa @ 1m when conducting sonar activity in specified areas - MMO are to be employed on deck 60 minutes prior to, during and 60 minutes after any transmission on active sonar. - All means available are to be used to detect marine mammals. - Active ASW sonar transmission is to be avoided during hours of darkness east of the main 50m depth contour line (running from Skye, west of Canna to west of Tiree) in the Inner Hebrides and the Minches SAC. - All capable sonar devices will utilise ramp up procedures at the start of any transmission.
		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 SAC	
		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	
UK 9001431 Canna and Sanday SPA			

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Activity	Lead JTEPS Planner	MPAs which may be affected requiring control measures	Mitigation Measures
		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 SAV UKMCZ0050 Western Channel UKMCZ0025 South-West Deeps (West) UKMCZ0089 South West Deeps (East) UKMCZ0082 South of the Isles of Scilly UKMCZ0048 North-West of Jones Bank UKMCZ0047 Greater Haig Frs UKMCZ30353 Haig Frs	- 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 cetacean 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. - Sonar activity near the Stanton Banks (within the 100m contour) are not to take place. - Hull mounted sonar in a quadrant west of 007 degrees west and south of 52 degrees north are not authorised unless a further S2117 sonar risk assessment is conducted by the unit wishing to transmit on HMS.
AAW	SO2AAW	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	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 0030385 Pobie Bank Reef SAC	
		UK 13008 Coll Ramsar Site	
		UK 13023 Gruinart Flats, Islay Ramsar Site	
		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 NCMPS	
		UK 9001131 Pentland Firth	
		UK 9020317 Pentland Firth	

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Activity	Lead JTEPS Planner	MPAs which may be affected requiring control measures	Mitigation Measures
		UK 0030395 Southern North Sea UK0030358 North Norfolk Sandbanks	

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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	<p>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.</p> <p>At all times disturbance must be avoided and seals must never be approached by personnel due to their potential aggressive behaviour.</p> <p>Aircraft are to adhere to the Low Flying System which includes designated areas which must be avoided.</p>
		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	
		10456 The Barra Fan and Hebrides Terrance Seamount NCMPA	
		UK 0012594 Rum SAC	
		UK 0012958 Ardmeanach SAC	
		UK 0012705 Sound of Barra SAC	
		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 0030192 Loch Laxford SAC	
		UK 0030230 Ascrib Isay and Dunvegan SAC	
		UK 0030289 Treshnish Isles SAC	
		UK 0030341 Oronsay SAC	
		UK 0030359 Stanton Banks SAC	
		UK 0030364 East Mingulay SAC	
		UK 0030383 Skerries and Causeway SAC	

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Activity	Lead JTEPS Planner	MPAs which may be affected requiring control measures	Mitigation Measures
		UK 0030384 The Maidens SAC	
		UK 0030385 Pobie Bank Reef SAC	
		UK 0030393 Inner Hebrides and the Minches SAC	
		UK 13006 Lochmaben Ramsar Site	
		UK 13008 Coll Ramsar Site	
		UK 13023 Gruinart Flats, Islay Ramsar Site	
		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 9001021 Flannan Isles SPA	
		UK 9001031 St Kilda SPA	
		UK 9001041 Shiant Isles SPA	
		UK 9001121 Mingulay and Berneray SPA	
		UK 9001131 Pentland Firth Islands SPA	
		UK 9001231 Cape Wrath SPA	
		UK 9001241 Handa 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	

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Activity	Lead JTEPS Planner	MPAs which may be affected requiring control measures	Mitigation Measures
		UK 9003171 North Colonsay & Western Cliffs SPA	
		UK 9003311 Cnuic agus Cladach Mhuile SPA	
		UK 9020011 Rathlin Island SPA	
		UK 9020021 Sheep Island SPA	
		UK 9020299 Oronsay & 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	
		UK0012791 Hoy SAC	
		10451 North West Orkney NCMPA	
		UK 0030386 Solan Bank Reef SAC	
		10474 Sea of the Hebrides NCMPA	
		10476 North-East Lewis NCMPA	
		10475 Shiant East Bank NCMPA	
		10477 Southern Trench MPA	
		10571 West of Scotland NCMPA	
		10421	
		10477 Southern Trench NCMPA	
		UK0030399 North Channel SAV	
		UK 9001131 Pentland Firth	
		UK 9020317 Pentland Firth	
		UK 0030395 Southern North Sea	
		UK0030358 North Norfolk Sandbanks	
		UKMCZ0070 South Portland Conservation Zone	
		UKMCZ0022 South Dorset Marine Conservation Zone	

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Activity	Lead JTEPS Planner	MPAs which may be affected requiring control measures	Mitigation Measures
		UKMCZ0077 East of Start Point UK0030373 Start Point to Plymouth UKMCZ0050 Western Channel UKMCZ0025 South-West Deeps (West) UKMCZ0089 South West Deeps (East) UKMCZ0082 South of the Isles of Scilly UKMCZ0048 North-West of Jones Bank UKMCZ0047 Greater Haig Fras UKMCZ30353 Haig Fras	
Replenishment At Sea	SOSM	10421 – Wester Ross NCMPA UK 0030393 - Inner Hebrides and the Minches SAC	In addition to Environmental Guidelines the regulations as stated in the Joint Warrior Instruction Document Chapter J3.3 are to be followed.
Gunnery	SO1SAW	SMPA 22 (Nature Scot site code 10456) - The Barra Fan and Hebrides Terrace Seamount NCMPA 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.
Diving/MCM	SO2ASW	UKMCZ0070 South Portland Conservation Zone UKMCZ0022 South Dorset Marine Conservation Zone UKMCZ0077 East of Start Point	Nil in addition to Environmental Guidelines

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Activity	Lead JTEPS Planner	MPAs which may be affected requiring control measures	Mitigation Measures
Fast Inshore Attack Craft	SO1SAW	10414 - Clyde Sea Sill NCMPA 10421 – Wester Ross NCMPA 10422 – Small Isles NCMPA UK 0019802 - Sound of Arisaig SAC UK 9001041 - Shiant Isles SPA UK 9001341 – Rum SPA UK 9001431 - Canna and Sanday SPA UK 9001781 – Cuillins SPA UKMCZ0070 South Portland Conservation Zone South Dorset Marine UKMCZ0022 Conservation Zone UKMCZ0077 East of Start Point	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 9001131 Pentland Firth UK 9020317 Pentland Firth UK 13006 Lochmaben Ramsar Site UK 13008 Coll Ramsar Site 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 9001031 St Kilda SPA UK 9001041 Shiant Isles SPA UK 9001121 Mingulay and Berneray SPA UK 9001131 Pentland Firth Islands SPA UK 9001231 Cape Wrath SPA UK 9001241 Handa 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</p>	<p style="text-align: center;">RESTRICTED ACTIVITIES</p> <p>AIR: 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>ANTI-AIR AND ANTI-SURFACE WARFARE: 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>SUBMARINE AND ANTI-SUBMARINE WARFARE: 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>GENERAL AND INSHORE ACTIVITIES: 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>MCM AND EOD: 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 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 9003171 North Colonsay & Western Cliffs SPA UK 9003311 Cnuic agus Cladach Mhuile SPA UK 9020011 Rathlin Island SPA UK 9020021 Sheep Island SPA UK 9020299 Oronsay & 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 UK 9001131 Pentland Firth UK 9020317 Pentland Firth</p>	<p style="text-align: center;">CONROL MEASURES REQUIRED</p> <p>AIR: 1. All flying operations are to be in accordance with the UK Military Low Flying System (UKLFS) (see Note 2).</p> <p>SUBMARINE AND ANTI-SUBMARINE: 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>GENERAL AND INSHORE ACTIVITIES: 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>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.</p> <p>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.</p> <p style="text-align: center;">NO ADDITIONAL CONTROL MEASURES REQUIRED</p> <p>SUBMARINE AND ANTI-SUBMARINE WARFARE: 1. All activities not involving weapon firings or exploding ordnance.</p> <p>ANTI-AIR AND ANTI-SURFACE WARFARE: 1. All Activities not involving weapons firings.</p> <p>GENERAL AND INSHORE ACTIVITIES: 1. Activities relating to seabed sampling and equipment attachment to the seabed. 2. Human diving.</p> <p>MCM AND EOD: 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.

Maritime Protected Areas for the protection of general coastal features

MPA DETAILS	ENVIRONMENTAL ACTIVITY GUIDELINES
<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;">RESTRICTED ACTIVITIES</p> <p>AIR: 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>ANTI-AIR AND ANTI-SURFACE WARFARE: 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>SUBMARINE AND ANTI-SUBMARINE WARFARE: 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>GENERAL AND INSHORE ACTIVITIES: 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>MCM AND EOD: 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>MISCELLANEOUS (See Note 2): 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;">CONTROL MEASURES REQUIRED</p> <p>AIR: 1. All flying activities are to be in accordance with the UK Military Low Flying System (UKLFS).</p>

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 sea bed 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

MPA DETAILS		ENVIRONMENTAL ACTIVITY GUIDELINES
10414	Clyde Sea Sill NCMPA	<p style="text-align: center;">RESTRICTED ACTIVITIES</p> <p>AIR: 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>ANTI-AIR AND ANTI-SURFACE WARFARE: 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>SUBMARINE AND ANTI-SUBMARINE WARFARE: 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>GENERAL AND INSHORE ACTIVITIES: 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>MCM AND EOD: 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>AMPHIBIOUS:</p>
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 Sound of Arisaig	
UK 0019802	(Loch Ailort to Loch Ceann Traigh	
UK 0030041	Firth of Lorn SAC Rathlin Island	
UK 0030055	SAC	
UK 0030191	Loch Fada SAC Loch Laxford	
UK 0030192	SAC North West	
10451	Orkney NCMPA North Norfolk	
UK0030358	Sandbanks	
UKMCZ0070	South Portland Conservation Zone	
UK0030373	Start Point to Plymouth	

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 sea bed 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 CONROL 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 SAC</p> <p>UK 0012786 Durness SAC South East Islay Skerries SAC</p> <p>UK 0030067 Ascrib Isay and Dunvegan SAC</p> <p>UK 0030230 Treshnish Isles SAC Skerries and Causeway SAC</p> <p>UK 0030383 The Maidens SAC Inner Hebrides and the Minches SAC</p> <p>UK 0030393 North Rona SAC</p> <p>UK0012696 Sea of the Hebrides NCMPA</p> <p>10474 North-East Lewis NCMPA</p> <p>10476 Shiant East Bank NCMPA</p> <p>10475 NCMPA</p> <p>10477 Southern Trench MPA West of Scotland NCMPA</p> <p>10571 Southern Trench NCMPA</p> <p>10477 NCMPA</p> <p>UK0030399 North Channel SAV</p> <p>UK 0030395 Southern North Sea</p> <p>UKMCZ0050 Western Channel</p>	<p style="text-align: center;">RESTRICTED ACTIVITIES</p> <p>AIR: 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>ANTI-AIR AND ANTI-SURFACE WARFARE: 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>SUBMARINE AND ANTI-SUBMARINE WARFARE: 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>GENERAL AND INSHORE ACTIVITIES: 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>MCM AND EOD: 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 style="text-align: center;">CONTROL MEASURES REQUIRED</p> <p>AIR: 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>SUBMARINE AND ANTI-SUBMARINE WARFARE:</p>

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 sea bed 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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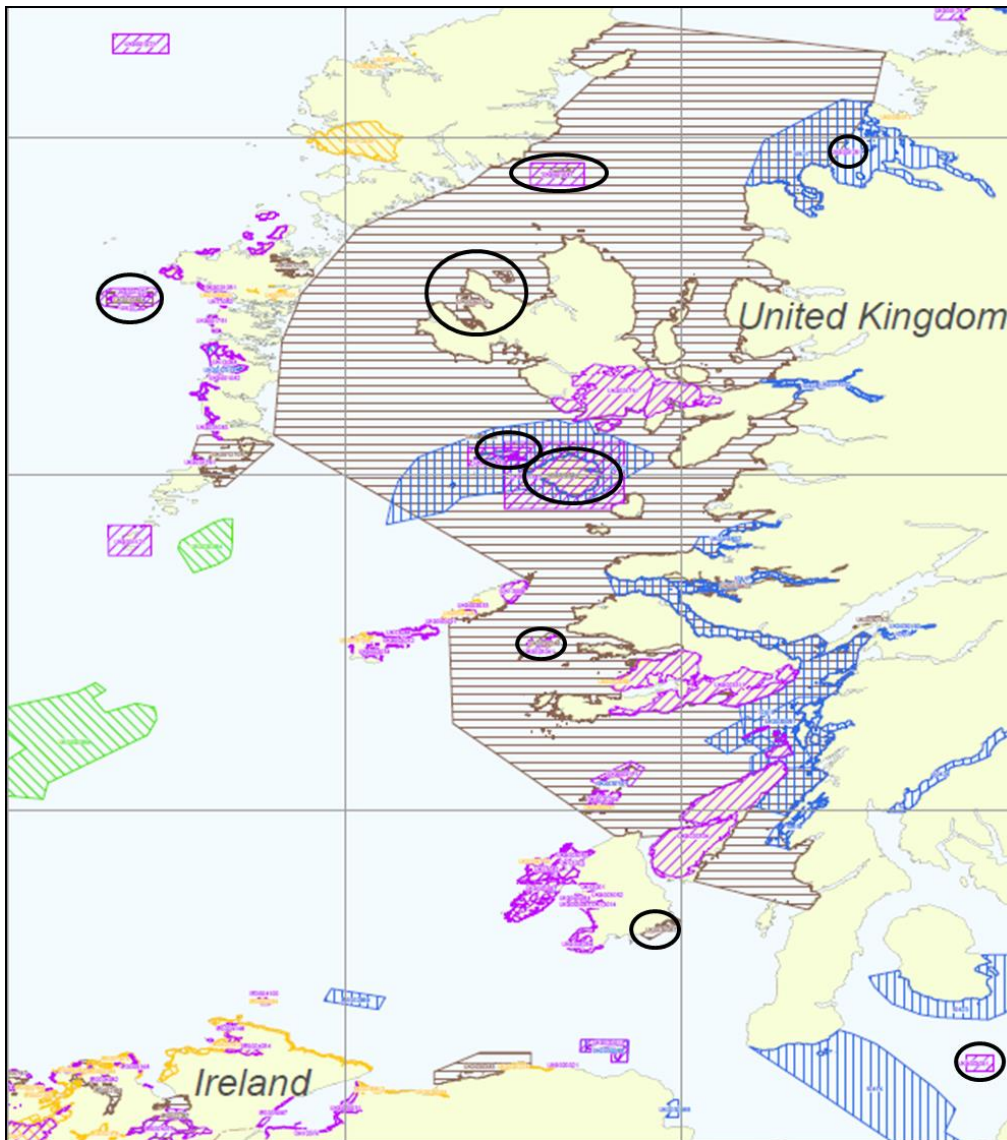
Group 5

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 Terrance 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>UKMCZ0022 South Dorset Marine Conservation Zone</p> <p>UKMCZ0025 South-West Deeps (West)</p> <p>UKMCZ0089 South West Deeps (East)</p> <p>UKMCZ0082 South of the Isles of Scilly</p> <p>UKMCZ0048 North-West of Jones Bank</p> <p>UKMCZ0047 Greater Haig Fras</p> <p>UKMCZ30353 Haig Fras</p>	<p style="text-align: center;">RESTRICTED ACTIVITIES</p> <p>MCM AND EOD:</p> <p>1. No MCM or minelaying activities (including dummy mines) should take place within 0.5nm of the MPA.</p> <p>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.</p> <p>Note</p> <p>MISCELLANEOUS (see Note 2):</p> <p>1. No anchoring should take place in or within 0.5 nm of the MPAs.</p> <p>SUBMARINE AND ANTI-SUBMARINE WARFARE:</p> <p>1. No physical interaction with the seabed should occur within the MPAs.</p> <p>GENERAL AND INSHORE ACTIVITIES:</p> <p>1. No human diving incorporating interactions with the seabed should take place within the MPAs.</p> <p>2. No seabed samples should be taken and no equipment should be attached to the seabed with the MPAs.</p> <p style="text-align: center;">CONTROL MEASURES REQUIRED</p> <p>SUBMARINE AND ANTI-SUBMARINE WARFARE:</p> <p>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>GENERAL AND INSHORE ACTIVITIES:</p> <p>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.</p> <p>2. Use of sonar in surveying is to be in accordance with the Command Guidance in BRd 4985 and s2117 assessment tool.</p> <p>MCM AND EOD:</p> <p>1. Use of sonar in MCM is to be in accordance with the Command Guidance in BRd 4985 and s2117 assessment tool.</p>

	<p style="text-align: center;">NO ADDITIONAL CONTROL MEASURES REQUIRED</p> <p>AIR: 1. Firings, both live and inert, are to be managed in accordance with established MOD clear range procedures.</p> <p>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.</p> <p>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.</p> <p>GENERAL AND INSHORE ACTIVITIES: 1. Use of flares or smoke. 2. Parachuting of personnel and stores or equipment. 3. Fast Inshore Attach Craft (FIAC) and Landing Craft Air Cushion (LCAC).</p> <p>MCM AND EOD: 1. Use of ROV.</p> <p>MISCELLANEOUS (see Note 2): 1. No restrictions apart from anchoring.</p> <p>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.</p> <p>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.</p>
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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.