



**Ministry  
of Defence**

**MARK LANCASTER TD VR MP**  
PARLIAMENTARY UNDER SECRETARY OF STATE AND  
MINISTER FOR DEFENCE VETERANS, RESERVES AND PERSONNEL

Telephone:

MSU/4/6/5/1/SM

9<sup>th</sup> March 2017

Thank you for your correspondence of 9 February requesting a copy of the Environmental and Sustainability Impact Assessment (EIA) for the Unmanned Warrior (UW16) MOD Exercise in November 2016 off the coast of Scotland. You will wish to be aware that your enquiry has been considered to be a request for information in accordance with Regulation 5(1) of the Environmental Information Regulations 2004.

A search has now been completed within the Ministry of Defence and I can confirm that the information you have requested is held.

I should explain that as UW16 was conducted within the second Joint Warrior 2016 (JW16/2) Exercise scenario, the assessment and mitigation for the UW16 parallel activity was included in one EIA. A copy of that EIA - (JW16/2) - is attached for your information.

You may also wish to be aware that these assessments are regularly published on the JW website prior to each Exercise. Accordingly, the EIA for the forthcoming JW Exercise commencing in March 2017 can be found via the following weblink:

<http://www.royalnavy.mod.uk/qhm/clyde/jw>

If you are not satisfied with this response or you wish to complain about any aspect of the handling of your request, then you are entitled to Representations and Reconsideration of your request under s11 of the EIR regulations. Representation should be made in writing to the MOD, no later than 40 working days after the date you consider the MOD has failed to comply with your request by contacting the Information Rights Compliance Team, Ground Floor, Zone D, MOD Main Building, Whitehall, SW1A 2HB (e-mail CIO-FOI-IR@mod.uk).

**MARK LANCASTER TD VR MP**

John Finnie MSP  
The Scottish Parliament  
Edinburgh  
EH99 1SP

**INTENTIONALLY  
BLANK**

## EXERCISE JOINT WARRIOR 162

### THE ENVIRONMENTAL AND SUSTAINABILITY IMPACT STATEMENT

#### EXERCISE/ACTIVITY TITLE AND DATE:

EXERCISE JOINT WARRIOR 16/2 AND UNMANNED WARRIOR – 17 Sep - 21 Oct 16

**INTRODUCTION:** Exercise Joint Warrior (JW) is the largest multi-ship, multi threat exercise conducted by the Royal Navy (RN) in UK Waters. Taking place bi-annually with activities generally concentrated in the waters West of Scotland or in the Northern North Sea, the waters off East Scotland and at times in the Irish Sea. In conjunction with Joint Warrior 16/2, the MOD will conduct a large scale demonstration of maritime autonomous systems called Unmanned Warrior (UmW). 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.

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  
The Offshore Marine Conservation (Natural Habitats) Regulations 2007  
Marine and Coastal Access Act 2009 (as amended)  
The Conservation of Habitats and Species Regulations 2010  
The Marine (Scotland) Act 2010  
Marine Act (Northern Ireland) 2013

**ACTIVITY/LOCATION:** This major multi-ship exercise involves forces from a number of invited nations and covers all forms of the following:

- Maritime warfare (including UmW)
- Air defence
- Gunnery (including shore bombardment)
- Anti-submarine warfare (including UmW)
- Surface warfare (including UmW)
- Fixed wing/helicopter flying operations (including UmW)
- Boarding/anti-piracy operations
- Replenishment at sea
- Mine countermeasures operations (including UmW)
- Hydrographic and Oceanographic operations (UmW)

The main Joint Warrior exercise will run from 9 – 20 Oct 2016. Areas encompass the waters West and East of Scotland Clyde Approaches, the Sea of Hebrides and Pentland Firth to the Moray Firth and Forth Approaches. Land operations will be concentrated on Cape Wrath, Tain, Otterburn, Spadeadam, Donna Nook, Campbeltown and Benbecula MOD estate and are likely to include live firings. It is proposed that areas next to the shore line around Loch Ewe and Loch Gairloch will be used as shore bases for waterborne mine counter measures training.

A GeoINT (Hydrographic and Oceanographic Geographic Intelligence) section of Unmanned Warrior will run from 17 Sep – 18 Oct 16 where Oceanographic data will be collected by Unmanned underwater and surface vehicles in offshore waters south of the Sea of Hebrides

The main Unmanned Warrior will be conducted from 02 – 20 Oct 2016 in the same locations as JW 162 as well as at the BUTEC range (West of Applecross) and Loch Alsh for Unmanned mine counter measure demonstrations. In addition, between 05 – 06 Oct 16 Unmanned fixed wing flying operations and Surface warfare will also be conducted in the Aberporth Range off Cardigan Bay in Wales.

### **IMPACT ASSESSMENT**

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 162 Exercise.

It is also assessed following consultation with QinetiQ (Aberporth range, Cardigan Bay), BEIS - Department for Business, Energy & Industrial Strategy (formerly known as DECC) and Marine Scotland, that JW162 will not generate any combined or cumulative impacts greater than 'MINOR'. This includes normal on going range activities at the Aberporth range with unmanned fixed wing aerial vehicles (on going all year) and two air to surface firings (Oct – Nov 16).

### **MITIGATION LIST FOR EACH ENVIRONMENTAL THEME**

#### **Joint Warrior 162 – ENVIRONMENTAL RISK:**

1. The Environmental Risk section of the JW Instruction Document 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 167, BRd 4985 and BRd 5063. 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 protect the environment in the open ocean and within designated Marine Protected Areas (MPA). MPA proposals under public consultation have also been considered in this assessment.

#### **SHORE BOMBARDMENT RANGES:**

2. The only shore bombardment range in use for JW 162 is Cape Wrath. The range will be subjected to sea and air launched bombardment and minor landing operations. All such activities will be governed by DTE Range Standing Orders for Cape Wrath which include environmental mitigation measures agreed with appropriate statutory bodies.

#### **MITIGATION:**

3. Where required, the mitigation to be imposed on JW and UmW activities is set out in detail in Tables 1 and 2 below. The main rules for each Environmental Theme are:

#### **NOISE:**

4. **Air Operations:** Throughout the exercise FW and HELO low flying is to be in accordance with the MOD Low Flying Handbook. In addition, JW 162 and UmW rotary wing activity is to follow the additional mitigation set out in Table 1 below.

#### **Inshore Operations:**

a. Any high speed manoeuvres by ships or small craft which take place in or within 0.5 miles

of marine protected areas will do so in waters deep enough to avoid disturbance of the seabed.

b. No large-scale amphibious landings are planned for this exercise, all inshore operations should avoid activity which disturbs seals that are hauled out of the water.

#### 6. Gunnery/Missile Firings:

a. Small calibre gunfire will be carried out off South Campbeltown. Fall of shot is not to land within designated MPAs.

b. No medium calibre gunfire within designated MPA. Fall of shot is not to land within designated MPA. All gunnery at Cape Wrath is to be in accordance with DTE Range Standing Orders.

c. Live missile firings within MOD ranges are to follow MOD Range Orders.

#### 7. Sonar:

a. **Area Impact:** All sonar operations are to comply with command guidance in BRd 4985 Vol 5 and are to undergo **S2117 Sonar Risk Assessments (SRA)**. Where units are unable to conduct SRAs, an SRA Guardship is to be nominated for the TG. Individual active sonar transmissions are to be limited to a maximum source level of 217 dB at medium pulse lengths when operating close to Rona, the Minches and the Sea of the Hebrides, close to the Stanton Banks, in or close to the North Channel, Malin and Malin shelf. MoD considers waters from the coast to the 50M contour to be a HDZ in view of the high likelihood of human diving activity. No ASW (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 must be applied.

b. **MPAs:** When operating in the vicinity of MPAs designated for the protection of marine mammals, sonar transmissions will be governed by the stand-off distances set in S2117. MPA still under consideration for designation within JW Exercise Areas benefit from the extensive existing mitigation measures employed by JW participants and the enhancements detailed in this document but are not specifically identified in the tables below, with the exception of the Inner Hebrides and the Minches proposed Special Area of Conservation, for which the following mitigation is in place within waters bounded by a line from the lights at Butt of Lewis, to Cape Wrath, Mull of Kintyre and Barra Head:

- i. Active transmissions from any source are limited to 217dB at medium pulse lengths.
- ii. Marine Mammal Observers (MMO) are to be employed on deck a minimum of 60 minutes prior to, during and 60 minutes after any transmission on active sonar.
- iii. Active ASW (Anti-Submarine Warfare) 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.
- iv. All capable sonar devices will utilise ramp up procedures at the start of any transmission.
- v. 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.

#### **8. Mine Countermeasures Operations:**

A maximum of four live explosives (max 1lbs) will be carried out during MCM activity throughout a two week period (9 – 21 Oct 16) in Loch Gairloch off Carn Dearg which is situated in the Inner Hebrides and the Minches proposed SAC. The live detonations will be in accordance with the Standard Operating Procedures set out in BR5063 and will follow the additional mitigation set out in Table 1 below.

#### **SEA BED AND SEDIMENTS:**

9. Throughout the exercise the RN will follow the instructions set out in the attached JW Military Activity Environmental Guidelines with the exception of MCM operations conducted within Wester Ross, Clyde Sea Sill and South Arran MPA. This activity is restricted to the locating and recovery of inert dummy mines. No explosives will be detonated on the seabed as part of MCM activity. No anchoring or disruptive vessel manoeuvres which could disturb the sea bed or adjacent wildlife are to take place within 0.5 miles of designated MPA.

10. As part of UmW, two seabed mounted tripods (1m diameter) will be placed at the BUTEC pier in Loch Alsh which will be conducted within the Lochs Duich, Long and Alsh Reefs MPA. The tripods will be weighted down on the seabed by divers via cylindrical shaped weights. With a maximum distance of 300m from the pier it is anticipated that the tripods will avoid the high density Flame Shell Beds within this MPA. Divers will assess the seabed prior to deployment of the tripods.

#### **BIODIVERSITY AND NATURE:**

11. Throughout the exercise the RN will comply with the rules set out in Tables 1 and 2 below.

12. No disruptive manoeuvres which could disturb the sea bed or adjacent wildlife are to take place within 0.5 miles of designated MPA.

13. Designated seal haul out sites are not identified within JW planning documents. Precautions to prevent harassment of seals are employed throughout JW areas wherever seals are found ashore.

14. For mitigation of noise disruption see Para 4 to 8 above.

#### **HISTORIC ENVIRONMENT AND WRECKS:**

15. It is assessed that JW will have **NEGLIGIBLE** impact on this risk area. However the RN will ensure that no activity including anchoring takes place which has the potential to disrupt or damage known charted wreck sites.

#### **OTHER ISSUES:**

16. 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 may be affected.

17. There are many Sites of Special Scientific Interest (**SSSIs**) along the coastal regions within the

JW 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. Following consultation by MOD with landowners and appropriate SNCBs the impact of JW activities on adjacent SSSIs is assessed as **NEGLIGIBLE**.

**ACTIONS BY PLANNING STAFF:**

18. At the Pre-Sail Conference JTEPS staff will ensure that all group and individual Unit commanders are briefed and directed to implement listed mitigation. They will receive the current Military Activity Environmental Guidelines in order to ensure they abide by the actions listed in this assessment.

**Nothing within this statement relieves the Commanding Officers of their obligations to comply with environmental guidelines for activities they undertake as duty holders.**

19. The RN will conduct reviews of this assessment. It is to be included in all JW and UmW planning meetings and updated to reflect any pertinent changes in the exercise activity or location. Before assigning any mission or task to subordinate Commanders/Units, the lead planner is to consult the environmental guidelines for the intended areas.

20. The RN will review E&S efficacy post exercise.

21. This assessment will be archived for review and inclusion in future JW and UmW exercise planning.

**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.

**Table 1. MITIGATION OF MILITARY ACTIVITY BY ACTIVITY TYPE AND ASSOCIATED MPA**

Activity	Lead Planner	MPAs which may be affected requiring control measures	Mitigation Measures
ASW/MCM	SO2AS W	UK0030359 10422 10421 UK0012705 UK9001041 UK9001341 UK9001431 UK0012594 SMPA_16 SMPA_09 UK9001011 UK0012696 UK0030364 UK0030386 SMPA_22 UK9001121 SMPA_06 UK0013695 UK9001031	In addition to Environmental Guidelines individual active sonar transmissions are limited to a max source level of 217 dB at medium pulse lengths when operating close to Rona, the Minches and the Sea of the Hebrides, close to the Stanton Banks, in or close to the North Channel, Malin and Malin shelf.  Active Sonar Operations are <b>NOT</b> to take place within 30NM of the Moray Firth SAC or 10NM of the adjacent coast. Activity on the East coast is limited to single vessel transmissions with max power levels (217dB) Active transmissions in this area are limited to a max of 6 hrs in any 24 and contained within a 4 day period of active serials.  For active sonar transmissions in waters bounded by a line from the lights at Butt of Lewis, Cape Wrath, Mull of Kintyre and Barra Head the following specific mitigation is to be applied:

		<p>UK9001021  UK9002181  UK13008  UK9003033  UK0014728  UK9003031  UK13056  UK9003032  UK9003034  UK0014744  UK0030387  UK0030389  UK0030363</p> <p>Inner Hebrides and the Minches proposed Special Area of Conservation</p>	<ul style="list-style-type: none"> <li>- Maximum transmission from any source to be limited to 217dB.</li> <li>- Marine Mammal Observers (MMO's) are to be employed on deck 60 minutes prior to, during and 60 minutes after any transmission on active sonar.</li> <li>- Active ASW (Anti-Submarine Warfare) 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.</li> <li>- All capable sonar devices will utilise ramp up procedures at the start of any transmission.</li> <li>- 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.</li> </ul> <p>Unmanned Systems operating active sonar will follow BUTEC range orders and the above guidelines. Unmanned Systems will be closely monitored by nearby vessels/range vessels with Marine Mammal Observers in place. If the systems are not within eye sight of nearby vessels the unmanned systems will either be manned or will be closely monitored through onboard cameras.</p> <p>As part of UmW, an active sonar system will be deployed on seabed mounted tripods at the BUTEC pier in Loch Alsh. Mitigation as described above will be followed and BUTEC Range MMOs will be in place.</p>
AAW	SO2AA W	<p>UK0030384  10414  UK9020011  UK9003171  UK9020299  UK9003057  UK9003058  UK13052  UK9003053  UK9003051  UK13023  UK0030057  UK0030359  SMPA_22  UK9001041  UK0030364  UK9003033  UK9003032  UK9003034  UK13056  UK13008  UK9001341  UK0012594  UK9001431  10422  10421</p>	<p>Nil in addition to Environmental Guidelines.</p> <p>Live missile firing within MOD ranges are to follow MOD range orders.</p>



		UK0030073 UK0030230 UK9001031 UK0013695 UK9001011 UK9001241 UK0030192 UK0030385 UK9001781 Inner Hebrides and the Minches proposed Special Area of Conservation	
Rotary wing Flying	ALL	UK9003171 UK9020299 UK0030191 UK0030341 UK0012594 UK0030041 UK9003091 10423 10414 UK9003057 UK9020304 UK9033311 UK0030289 UK9001341 UK9001431 10422 UK9003058 UK13052 UK9003053 UK13023 UK9003051 UK0019802 UK0012598 UK9003033 UK13006 UK0014728 UK13056 UK9003032 UK9003034 UK9001041 10421 UK9001021 UK0030230 UK0012786 UK9001231 UK0030108 UK9001011 UK0030385 UK9002181 UK9001781 UK0013055 10418 UK0030055 UK0030067 Inner Hebrides and the Minches proposed Special Area of Conservation	<p>In addition to Environmental Guidelines, for the period 17 Sep – 21 Oct 16 rotary wing operators are to avoid hovering above or repeated low level (&lt;500') overflight of the 9 highlighted MPAs. See Chart 1 below for location of the 9 affected sites. Aircrew should also remain vigilant for aggregations of marine mammals throughout the Exercise areas and avoid hovering or repeated low level overflight in their vicinity. Similar precautions should be taken for seals which have been observed hauled out of the water.</p> <p>Unmanned Systems operating in these areas must follow the guidelines above and the operators will closely monitor the onboard cameras throughout the exercise.</p>

RAS	SOSM		Nil in addition to Environmental Guidelines.
Gunnery	SO2SA W	UK9001231 UK0030359 SMPA_22 UK0030108 UK0012786 UK0030386 UK0030387 10414 10423 UK9003091	Fall of shot is not to land within designated MPAs.
MCM/EOD	SO2AS W	10421 UK9001261 UK0030073 UK9001341 UK9001431 UK9001781 UK9003091 10422 UK0019802 10414 10423 UK0012594 10416 UK0017077  Inner Hebrides and the Minches proposed Special Area of Conservation	<p>Contrary to Environmental Guidelines, MCM activity will be conducted within the Wester Ross, Clyde Sea Sill and South Arran MPA. This activity is however, restricted to the locating and recovery of inert dummy mines. No explosives will be detonated during MCM activity within the MPA and dummy mines will be lifted vertically from the seabed to limit disturbance caused by dragging of the mine during removal.</p> <p>Contrary to Environmental Guidelines, a maximum of four live explosives (max 1lbs) will be carried out during a two week period in Loch Gairloch off Carn Dearg which is situated in the Inner Hebrides and the Minches proposed SAC. The live detonations are to be in accordance with the Standard Operating Procedures set out in BR5063 together with the following mitigation measures:</p> <ol style="list-style-type: none"> <li>i. The set-up of an Environmental Management Plan prior to the operation commencing</li> <li>ii. Prior to any disposal a Maritime EOD environmental form will be completed by the dive supervisor</li> <li>iii. A mitigation zone of 1000 m will be adhered to in this area.</li> <li>iv. Marine Mammal Observers will observe the mitigation area for a minimum of 60 minutes prior to disposal. Due to the limited view past Longa Island it must be ensured that an Observation is carried out past Longa Island as well.</li> <li>v. Additional observation will be carried out by MMOs to the east of Carn Dearg (inside the loch) for 30 minutes prior to disposal, to ensure no marine mammals (including hauled out seals) are within the loch before detonation.</li> <li>vi. If marine mammals are detected the disposal will be halted until the mammals are clear of the mitigation zone. Disposal should not be undertaken within 60 minutes of a marine mammal being sighted in the mitigation zone.</li> <li>vii. Only detonate explosives during the hours of daylight and in good visibility</li> </ol>

			viii. A post-detonation search within the mitigation zone should be carried out for at least 5 minutes after the detonation.
FIAC	SO2SA W	<p>UK9001341 UK9001431 UK0012594 10422 UK0019802 UK9001781 UK9001041 10421 10414 UK0030364 Inner Hebrides and the Minches proposed Special Area of Conservation</p> <p><u>Cardigan bay:</u> UK9013121 UK9020282 UK14004 (pSPA) UK0030271 UK0013117 UK0012712 West Wales Marine HP pSAC</p>	<p>Unmanned Systems operating in these areas will be closely monitored by nearby vessels in order to adhere to the Environmental guidelines and eliminate unnecessary disturbance to aggregations of sea birds or marine mammals at sea. If the systems are not within eye sight of nearby vessels the unmanned systems will either be manned or will be closely monitored through onboard cameras.</p> <p>All activities within the Aberporth Range air, sea and land areas are to follow Aberporth Range Orders.</p>
Anchoring	ALL	<p>UK0017077 10416</p>	<p>Contrary to Environmental Guidelines, two seabed mounted tripods (1m diameter) will be placed at the BUTEC pier in Loch Alsh which will be conducted just within the Lochs Duich, Long and Alsh Reefs MPA. The tripods will be weighted down on the seabed by divers via cylindrical shaped weights. With a maximum distance of 150m from the pier it is anticipated that the tripods will avoid the high density Flame Shell Beds within this MPA. Divers will assess the seabed prior to deployment of the tripods.</p>

**Table 2. MPA IN PROXIMITY TO MILITARY ACTIVITY AND ASSOCIATED ENVIRONMENTAL GUIDELINES**

GROUP	MPA DETAILS	ENVIRONMENTAL ACTIVITY GUIDELINES
1 MPA (inc Ramsars - birds)	<p>SPA 9001341 – RUM SPA 9001431 – CANNA AND SANDAY SPA 9001041 – SHIANT ISLAND SPA 9001231 – CAPE WRATH SPA 9001011 – N RONA SPA 9003171 – N COLONSAY SPA 9003091 – AILSA CRAIG SPA 9020011 – RATHLIN SPA 9002181 – SULE SPA 9001241 – HANDA SPA 9020299 – S COLONSAY UK 9003057 – RHINS OF</p>	<p style="text-align: center;"><b><u>RESTRICTED ACTIVITIES</u></b></p> <p><b>AIR:</b> 1. No activity involving air launch of live or inert munitions is to 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 the firing of live or inert munitions is 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>SUBMARINE AND ANTI-SUBMARINE WARFARE:</b> 1. No activities involving live or inert firings or exploded ordnance 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>

ISLAY  
 UK 9003058 – THE OA  
 UK 13052 – RHINS OF ISLAY  
 UK 9003053 – LAGGAN  
 ISLAY  
 UK 9003051-GRULNART  
 FLATS, ISLAY  
 UK 13023-GRULNART  
 FLATS, ISLAY  
 UK 9003033 – COLL  
 (CORNCRAKE)  
 UK13008 – COLL  
 UK 9003032 – TIREE  
 WETLANDS AND COAST  
 UK 9003034 – TIREE  
 (CORNCRAKE)  
 UK 13056 – TIREE  
 WETLANDS AND COAST  
 UK 9020304 – JURA,  
 SCARBA AND THE  
 GARVELLACHS  
 UK 90033311 – CRUIC AGUS  
 CLADACH MHULE  
 UK 9001781 – CULLINS  
 UK 9001021 – FLANNAN  
 ISLES  
 UK 9001031 – ST KILDA  
 UK 9001121 – MINGULAY  
 AND BEMERAY  
 SPA 9001261 – PRIEST  
 ISLAND  
 UK9003031 - COLL  
 UK9003041 – TRESHNISH  
 ISLES  
 UK13001 – BRIDGEND  
 FLATS, ISLAY  
 UK9003052 – BRIDGEND  
 FLATS, ISLAY  
 UK9003054 – EILEAN NA  
 MUICE DUIBHE (DUICH  
 MOSS), ISLAY  
 UK13014 - EILEAN NA  
 MUICE DUIBHE (DUICH  
 MOSS), ISLAY  
 UK9001761 – EOLIGARRY,  
 BARRA  
 UK9001083 - KILPHEDER  
 AND SMERCLATE, SOUTH  
 UIST  
 UK9001082 - SOUTH UIST  
 MACHAIR AND LOCHS  
 UK13058 - SOUTH UIST  
 MACHAIR AND LOCHS  
 UK9001751 - AIRD & BORVE,  
 BENBECULA  
 UK13050 - NORTH UIST  
 MACHAIR AND ISLANDS  
 UK9001051 - NORTH UIST  
 MACHAIR AND ISLANDS  
 UK9001071 - MONACH  
 ISLES  
 10420 – MONCH ISLES  
 NATURE CONSERVATION  
 MPA

**PROPOSED pSPAs:**  
 WEST COAST OF THE  
 OUTER HEBRIDES pSPA  
 RUM PSPA  
 COLLE AND TIREE pSPA  
 SOUND OF GIGHA pSPA

**CARDIGAN BAY:**  
 UK9013121 - ABERDARON

**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.

**MCM and EOD:**

1. No activities involving exploding ordnance are to 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.

**CONTROL MEASURES REQUIRED**

**AIR:**

1. All flying operations to be in accordance with the UK Military Low Flying System (UKLFS) (Note 2).

**GENERAL AND INSHORE ACTIVITIES:**

1. Activities involving the use of fixed sea bed arrays for acoustic trails, noise ranging and degaussing are to be conducted within the established range limits and in accordance with range orders.
2. 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).
3. Fast Inshore Attack Craft (FIAC). When operating inside these MPAs where rafting aggregations of sea birds have been sighted operators are to 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.

**AMPHIBIOUS:**

1. Landing operations 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. Such approval must be informed by the Environmental Protection (EP) staff of Defence Training Estates (DTE) (See Note 3).

**PERMITTED**

**SUBMARINE AND ANTI-SUBMARINE WARFARE:**

1. All activities not involving weapon firings or exploding ordnance.

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

1. All activities not involving weapon firings.

**GENERAL/INSHORE ACTIVITIES:**

1. Survey operations.
2. Sea bed sampling and human diving operations.

**MCM and EOD:**

1. All activities not involving weapon firings or exploding ordnance.

**MISCELLANEOUS:** (E.G. RAS; Boarding; Anti-piracy; High speed/power manoeuvres; Sea-boat drills; Anchoring).

**Notes:**

1. Operationally essential is defined as activities conducted during hostilities or activities for which there is an overriding public interest – in which case a full MESAT assessment is required.
2. Seasonal avoidance of specific Schedule 1 nesting and breeding sites may be required and will be promulgated within the UK LFS Handbook or NOTAM.
3. For all amphibious activities outside established MOD Ranges, planners are to check the status of the area and the presence of any SSSIs through NCHQ CESO EP. NCHQ will consult the MOD Training Over Private Land (TOPL) Cell in formulating the response.

COAST AND BARDSEY ISLAND UK9020282 - MYNYDD CILAN, TRWYN Y WYLFA AC YNYSOEDD SANT TUDWAL NORTHERN CARDIGAN BAY pSPA
--

GROUP	MPA DETAILS	ENVIRONMENTAL ACTIVITY GUIDELINES
2  MPA for the protection of general coastal features	<p>UK 0030073 – ACHNAHAIRD UK 0030341 – ORONSAY UK 0014728 – COLL MACHAIR UK 0012958 – ARDMEANACH UK 0030108 – CAPE WRATH UK 0013055 – OLDSHOREMORE AND SANDWOOD</p> <p>UK0017074 – LOCH ROAG LAGOONS UK0030340 – TRAIGH NA BERIE UK0012935 – NORTH HARRIS UK0017101 – OBAIN LOCH EUPHOIRT UK0019804 – NORTH UIST MACHAIR UK0014744 – TIREE MACHAIR UK0019775 – GLAC NA CRICHE</p> <p><b>CARDIGAN BAY:</b> UK0030271 – Seacliffs of Lleyn</p>	<p style="text-align: center;"><b><u>RESTRICTED ACTIVITIES</u></b></p> <p><b>AIR:</b> 1. No activity involving air launch of live or inert munitions with land or sea surface impact is to 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 is to take place inside or within 500 yards of the MPAs <u>unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</u></p> <p><b>SUBMARINE AND ANTI-SUBMARINE WARFARE:</b> 1. No activities involving live or inert firings or exploding ordnance 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>GENERAL AND INSHORE ACTIVITIES:</b> 1. No live or inert weapon trials are to take place inside or within 500 yards of the MPAs <u>unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</u></p> <p><b>MCM and EOD:</b> 1. No MCM or minelaying operations are to take place within 0.5 nm of the MPAs. 2. No activities involving exploding ordnance are to take place inside or within 500 yards of the MPAs unless cleared as operationally essential (see Note 1) <u>or unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</u></p> <p><b>MISCELLANEOUS:</b> (E.G. RAS; Boarding; Anti-piracy; High speed/power manoeuvres; Sea-boat drills; anchoring). 1. Anchoring is never to take place in or within 0.5 nm of the MPAs <u>unless specifically cleared within harbour limits as part of port authorities' management plans.</u></p> <p style="text-align: center;"><b><u>CONTROL MEASURES REQUIRED</u></b></p> <p><b>AIR:</b> 1. All flying operations to be in accordance with the UK Military Low Flying System (UKLFS) (Note 2).</p> <p><b>GENERAL AND INSHORE ACTIVITIES:</b> 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 command guidance in BRd 4985 Vol.5 and s2117 assessment tool.</p> <p><b>AMPHIBIOUS:</b> 1. Landing operations 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. Such approval must be informed by the Environmental Protection (EP) staff of Defence Training Estates (DTE). <u>(see Note 3).</u></p> <p style="text-align: center;"><b><u>PERMITTED</u></b></p> <p><b>AIR:</b> 1. Air to air weapon firings.</p> <p><b>ANTI-AIR AND ANTI-SURFACE WARFARE:</b> 1. Any activity not involving firings.</p> <p><b>SUBMARINE AND ANTI-SUBMARINE:</b> 1. Any activity not involving firings.</p> <p><b>GENERAL/INSHORE ACTIVITIES:</b> 1. Use of flares or smoke. 2. Parachuting of personnel and stores or equipment. 3. Surveying operations (see control measures for use of sonar). 4. Sea bed sampling and human diving operations. 5. Fast Inshore Attack Craft (FIAC).</p>

		<p>MCM and EOD: 1. Use of ROV.</p> <p><b>MISCELLANEOUS:</b> <u>1. No restrictions on miscellaneous activities except for anchoring as stated above.</u></p> <p>Notes:</p> <p>1. Operationally essential is defined as activities conducted during hostilities or activities for which there is an overriding public interest – in which case a full MESAT assessment is required</p> <p>2. Seasonal avoidance of specific Schedule 1 nesting and breeding sites may be required and will be promulgated within the UK LFS Handbook or NOTAM.</p> <p><u>3. For all amphibious activities outside established MOD Ranges, planners are to check the status of the area and the presence of any SSSIs through NCHQ CESO EP. NCHQ will consult the MOD Training Over Private Land (TOPL) Cell in formulating the response.</u></p>
--	--	--

GROUP	MPA DETAILS	ENVIRONMENTAL ACTIVITY GUIDELINES
3  Benthic seabed features with some depths less than 20m	<p>SCA 0030192 – LOCH LAXFORD SCA 0030055 – RATHLIN IS SCA 0030041 – FIRTH OF LORN 10421 - WESTER ROSS 10423 - SOUTH ARRAN 10414 - CLYDE SEA STILL 10422 – SMALL ISLES 10451 SMPA_09 – NORTH-WEST ORKNEY UK 0019802 – SOUND OF ARLSALG (LOCH ALLORT TO LOCH CEANN TRAIGH) UK 0013695 – ST KILDA UK 0030191 – LOCH FADA 10418 – LOCH SUNART TO THE SOUND OF JURA UK0012713 – SOUTH UIST MACHAIR UK0017077 – LOCHS DUICH, LONG AND ALSH REEFS 10416 – NATURE CONSERVATION MPA LOCHS DUICH, LONG AND ALSH 10417 – NATURE CONSERVATION MPA LOCH SUNART 10419 – NATURE CONSERVATION MPA LOCH SWEEN IE0002999 – HEMPTON'S TURBOT BANK</p> <p><u>Cardigan Bay:</u> /</p>	<p style="text-align: center;"><b><u>RESTRICTED ACTIVITIES</u></b></p> <p><b>AIR:</b> 1. No air launched firings involving sea surface or water column impact or explosions are to 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 are to take place inside or within 500 yards of the MPAs <u>unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</u></p> <p><b>SUBMARINE AND ANTI-SUBMARINE WARFARE:</b> 1. No activities involving exploding ordnance are to take place inside or within 500 yards of the MPAs <u>unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</u></p> <p><b>GENERAL AND INSHORE ACTIVITIES:</b> 1. No activities involving live firings or exploding ordnance are to take place inside or within 500 yards of the MPAs <u>unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</u> 2. Anchoring is never to take place within 0.5 nm of the MPAs <u>unless specifically cleared within harbour limits as part of port authorities' management plans.</u> 3. Activities relating to seabed sampling or human diver activities on the seabed are not permitted.</p> <p><b>MCM and EOD:</b> 1. No MCM or minelaying activities are to take place within 0.5 nm of the MPA. 2. No activities involving exploding ordnance are to take place inside or within 500 yards of the MPAs unless cleared as operationally essential (see Note 1) <u>or unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</u></p> <p><b>AMPHIBIOUS:</b> 1. Landing operations are prohibited across any shoreline within the area limits of the MPAs without the prior approval of the Unit's Operational Command in consultation with DTE EP, unless within an established MOD site when local orders are to be observed (<u>See Note 2</u>).</p> <p style="text-align: center;"><b><u>CONTROL MEASURES REQUIRED</u></b></p> <p><b>AIR:</b> 1. All flying operations to be in accordance with the UK Military Low Flying System (UKLFS).</p> <p><b>SUBMARINE AND ANTI-SUBMARINE WARFARE:</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 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 Vol.5 and s2117 assessment tool.</p>

		<p>3. Fast Inshore Attack Craft (FIAC). When operating inside these MPAs <u>and</u> in shallow waters operators are to moderate speed and proceed in such a manner as to avoid disturbance of the seabed.</p> <p style="text-align: center;"><b><u>PERMITTED</u></b></p> <p><b>AIR:</b></p> <p>1. Air to air and air to land surface firings.</p> <p><b>ANTI-AIR AND ANTI-SURFACE WARFARE:</b></p> <p>1. All activities not involving sea surface or water column explosions.</p> <p><b>SUBMARINE AND ANTI-SUBMARINE:</b></p> <p>1. All activities not involving exploding ordnance.</p> <p><b>GENERAL/INSHORE:</b></p> <p>1. Parachuting of personnel and stores or equipment. 2. Use of flares and smoke. 3. Surveying operations (see control measures for use of sonar).</p> <p><b>MCM/EOD:</b></p> <p>1. Use of ROV.</p> <p><b>MISCELLANEOUS:</b></p> <p>1. <u>No restrictions on miscellaneous activities except for anchoring as stated above.</u></p> <p><b>Notes:</b></p> <p>1. Operationally essential is defined as activities conducted during hostilities or activities for which there is an overriding public interest – in which case a full MESAT assessment is required.</p> <p>2. <u>For all amphibious activities outside established MOD Ranges, planners are to check the status of the area and the presence of any SSSIs through NCHQ CESO EP. NCHQ will consult the MOD Training Over Private Land (TOPL) Cell in formulating the response.</u></p>
--	--	--

GROUP	MPA DETAILS	ENVIRONMENTAL ACTIVITY GUIDELINES
4 MPA - with Marine Mammal interests	<p>SAC 0012594 – RUM SAC 0030230 – ASCRIB, ISAY AND DUNVEGAN SAC 0030289 TRENISH UK 0030384 – THE MAIDENS UK 0012786 – DURNESS UK 0030067 – SOUTH-EAST ISLAY SKERRIES</p> <p>Inner Hebrides and the Minches HP pSAC</p> <p>UK0012696 – NORTH RONA UK0012694 – MONACH ISLANDS UK0017070 – LOCH NAM MADADH UK0012705 – SOUND OF BARRA UK0019803 - SUNART UK0030182 – EILEANAN AGUS SGEIRAN LIOS MOR</p> <p><u>CARDIGAN BAY:</u> UK0013117 - Lleyn Peninsula and the Sarnau UK0012712 – Cardigan Bay</p> <p>West Wales Marine HP pSAC</p>	<p style="text-align: center;"><b><u>RESTRICTED ACTIVITIES</u></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 is to 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 is to take place inside or within 500 yards of the MPAs <u>unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</u></p> <p><b>SUBMARINE AND ANTI-SUBMARINE WARFARE:</b></p> <p>1. No activities involving live or inert firings or exploding ordnance is to take place inside or within 500 yards of the MPAs <u>unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</u></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 <u>unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</u></p> <p><b>MCM and EOD:</b></p> <p>1. No MCM or minelaying operations are to take place within 0.5 nm of the MPAs. 2. No activities involving exploding ordnance are to take place inside or within 500 yards of the MPAs unless cleared as operationally essential (see Note 1) <u>or unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.</u></p> <p style="text-align: center;"><b><u>CONTROL MEASURES REQUIRED</u></b></p> <p><b>AIR:</b></p> <p>1. All flying operations to be in accordance with the UK Military Low Flying System (UKLFS) (Note 2). Caution is to be exercised when flying over sighted aggregations of marine mammals, avoiding hovering or low level operations overhead</p> <p><b>SUBMARINE AND ANTI SUBMARINE WARFARE:</b></p> <p>1. All activities involving the use of active sonar are to in accordance with the</p>

		<p>Command Guidance in BRd 4985 Vol.5 and s2117 assessment tool.</p> <p><b>GENERAL AND INSHORE ACTIVITIES:</b></p> <ol style="list-style-type: none"> <li>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</li> <li>2. Surveying operations are not to take place inside or within 500 yards of the MPAs unless prior agreement has been reached with appropriate authorities. Use of sonar in surveying is to be in accordance with the Command Guidance in BRd 4985 Vol.5 and s2117 assessment tool.</li> <li>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).</li> <li>4. Fast Inshore Attack Craft (FIAC). When operating inside these MPAs where aggregations of marine mammals have been sighted operators are to moderate speed and proceed in such a manner as to eliminate risk of collision. This control applies equally to high speed/power manoeuvres by any vessel.</li> </ol> <p><b>AMPHIBIOUS:</b></p> <ol style="list-style-type: none"> <li>1. Landing operations 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. Such approval must be informed by the Environmental Protection (EP) staff of Defence Training Estates (DTE) (See Note 3)</li> </ol> <p style="text-align: center;"><b><u>PERMITTED</u></b></p> <p><b>ANTI-AIR AND ANTI-SURFACE WARFARE:</b></p> <ol style="list-style-type: none"> <li>1. All activities not involving weapon firings or explosions.</li> </ol> <p><b>SUBMARINE AND ANTI-SUBMARINE:</b></p> <ol style="list-style-type: none"> <li>1. All activities not involving weapon firings, and explosions .</li> </ol> <p><b>MCM AND EOD:</b></p> <ol style="list-style-type: none"> <li>1. Use of ROV.</li> </ol> <p><b>GENERAL AND INSHORE ACTIVITIES</b></p> <ol style="list-style-type: none"> <li>1. Activities relating to sea bed sampling or human diver activities on the seabed are permitted. Such activities are to be moderated to take account of any marine mammals in the close vicinity.</li> <li>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.</li> </ol> <p><b><u>MISCELLANEOUS: (E.G. RAS; Boarding; Anti-piracy; Sea-boat drills; anchoring).</u></b></p> <ol style="list-style-type: none"> <li>1. <u>No restrictions on miscellaneous activities except for anchoring as stated above.</u></li> </ol> <p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>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 required.</li> <li>2. Seasonal avoidance of specific Schedule 1 nesting and breeding sites may be required and will be promulgated within the UK LFS Handbook or NOTAM</li> <li>3. For all amphibious activities outside established MOD Ranges, planners are to check the status of the area and the presence of any SSSIs through NCHQ CESO EP. NCHQ will consult the MOD Training Over Private Land (TOPL) Cell in formulating the response.</li> </ol>
--	--	---

GROUP	MPA DETAILS	ENVIRONMENTAL ACTIVITY GUIDELINES
<p>5</p> <p>Benthic seabed features entirely at depths greater than 20m</p>	<p>SCI 0030359 – STANTON BANKS</p> <p>SCA 0030364 – E MINGULAY SMPA_16 – WEST SHETLAND SHELF</p> <p>SMPA_22 – THE BARRA FAN AND HEBRIDES TERRACE SEAMOUNT</p> <p>SMPA_06 – GELKIE SLIDE AND HEBRIDEAN SLOPE</p> <p>UK0030386 – Solan Bank Reef</p>	<p style="text-align: center;"><b><u>RESTRICTED ACTIVITIES</u></b></p> <p><b>MCM and EOD:</b></p> <ol style="list-style-type: none"> <li>1. No MCM or minelaying activities are to take place within 0.5nm of the MPA.</li> <li>2. No activities involving exploding ordnance on the seabed are to take place inside or within 500 yards of the MPAs unless cleared as operationally essential (See Note 1) <u>or unless firings are programmed within an established MOD weapons range when local range orders are to be observed.</u></li> </ol> <p><b>MISCELLANEOUS:</b></p> <ol style="list-style-type: none"> <li>1. Anchoring is not to take place in or within 0.5 nm of the MPAs.</li> </ol> <p><b>GENERAL ACTIVITIES:</b></p> <ol style="list-style-type: none"> <li>1. Activities relating to seabed sampling or human diver activities on the seabed are not permitted.</li> </ol>



UK0030387 – Anton Dohrn  
Seamount  
UK0030389 – East Rockall  
Bank  
UK0030363 – North West  
Rockall Bank  
  
UK0030355 – Wyville  
Thomson Ridge  
UK0030317 – Darwin Mounds

### CONTROL MEASURES REQUIRED

#### **GENERAL/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.

#### **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.

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

1. Use of sonar in MCM is to be in accordance with the command guidance in BRd 4985 Vol.5 and s2117 assessment tool.

### PERMITTED

#### **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/INSHORE ACTIVITIES:**

1. Use of flares or smoke.
2. Parachuting of personnel and stores or equipment.
3. Surveying operations (see Restricted Activities above for use of sonar).
4. Fast Inshore Attack Craft (FIAC).

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

1. Use of ROV.

#### **MISCELLANEOUS(eg RAS, Boarding, anti-piracy, high speed/power manoeuvres, seat boat drills):**

1. No restrictions apart from anchoring (see 'GENERAL' below).

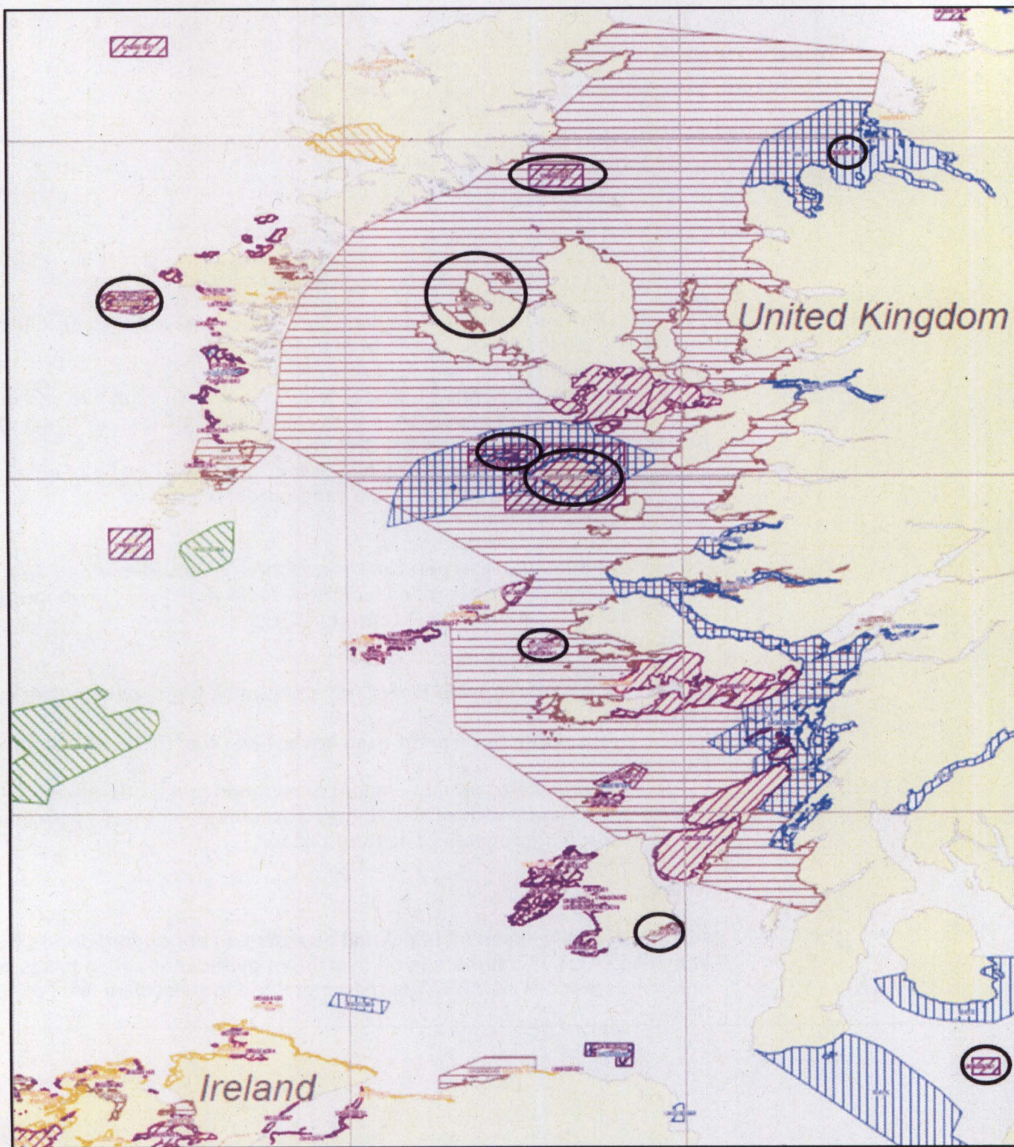
#### **GENERAL:**

1. 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.

#### **Notes:**

1. Operationally essential is defined as activities conducted during hostilities or activities or for which there is an overriding public interest. In cases of overriding public interest use of MESAT is recommended to determine level of environmental risk.

**Chart 1. JW 162 – MPA WITH ADDITIONAL ROTARY WING MITIGATION**



Note - Restrictions apply within the coloured polygons and not the outlined ovals. Ovals are provided for ease of identification only. Further detail of all MPA is available via EPG(M) within WECDIS and hung on the JTEPS NSWAN Site.