



**Statement of Intent between the UK SNCBs and Navy Command Headquarters regarding the use and maintenance of the Environmental Protection Guidelines (Maritime) (EPG(M)) and Maritime Environmental and Sustainability Assessment Tool (MESAT)**

The EPG(M) are an interactive set of generic guidance which are used to enhance Royal Navy and Royal Fleet Auxiliary ship, submarine and associated units' standard operating procedures when they operate in the vicinity of Marine Protected Areas. MESAT provides additional guidance to MOD personnel planning maritime activities for which EPG(M) are not appropriate or when EPG(M) are followed, remain significant enough to merit the completion of a specific environmental impact assessment.

**Roles and responsibilities**

Navy Command undertakes to maintain these tools so that they remain available and current for operational and training purposes.


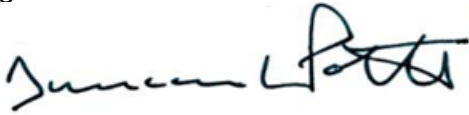
The JNCC (Joint Nature Conservation Committee), on behalf of the UK SNCBs (Statutory Nature Conservation Bodies), undertakes to support the maintenance of these tools with advice and guidance, and will review them at agreed intervals.

All parties will cooperate to maintain the functionality of the tools without compromising either the SNCBs' statutory regulatory roles or Navy Command's operational and strategic Defence roles.

**Dialogue**

Principle dialogue between parties regarding the EPG(M) and MESAT will be coordinated through the MOD/JNCC bi-lateral meeting held twice annually with separate specific meetings when required. Navy Command Headquarters will be represented in this dialogue by the Chief Environment and Safety Officer.

This should in no way discourage the entirely appropriate interaction of SNCB representatives and MOD personnel when dealing with local conservation issues nor affecting the overall functionality of the tools.

Signature 	Signature 
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Position <b>Marine Advice Director</b>	Position <b>Chief of Staff (Headquarters)</b>
Organisation JNCC	Organisation NCHQ
Date: <b>9<sup>th</sup> DECEMBER 2013</b>	Date: <b>9 DEC 13</b>

The UK's statutory nature conservation bodies include Natural England (NE), NatureScot, Natural Resources Wales (NRW), and Northern Ireland Department of Agriculture, Environment & Rural Affairs (DAERA).



## NAVY COMMAND– ENVIRONMENTAL ASSESSMENT OF MILITARY ACTIVITIES AT SEA - PROCESS STATEMENT OF INTENT ENDORSED BY THE UK STATUTORY NATURE CONSERVATION BODIES

### INTRODUCTION

1. Navy Command Headquarters (NCHQ) has developed processes for assessing the environmental impact of Naval activities at sea. They are set out in full in the Royal Navy (RN) Maritime Environmental and Sustainability Assessment Tool (MESAT) which incorporates the Environmental Protection Guidelines (Maritime) (EPG(M)) for RN maritime Units. They have been developed in consultation with:
- The Joint Nature Conservation Committee (JNCC)
  - Natural England (NE)
  - NatureScot<sup>1</sup>
  - Natural Resources Wales (NRW)<sup>2</sup>
  - Department of Agriculture, Environment & Rural Affairs (DAERA)<sup>3</sup>

These groups are collectively titled the Statutory Nature Conservation Bodies (SNCBs). A summary of the NCHQ/SNCB consultation and decision process is archived in the first iteration of supplementary information to this document, available upon request from JNCC. Annex B contains a record of the key SNCB advice from the original consultation. A list of MOD and JNCC points of contact are provided in.

2. This Statement of Intent (Sol) summarises the assessment of the environmental impact of Naval activities at sea. They complement but do not supersede the Standard Operating Procedures (SOPs) and processes set out in the documents listed in **Annex C**.

### EPG(M) - PURPOSE AND SCOPE

3. EPG(M) list restrictions and controls which, when applied to the conduct of military activities at sea, will effectively minimise the associated risks to the environment and thus avoid likely significant effect. They are designed to enable RN Units to meet their obligations for Environmental Protection (EP) in accordance with MOD Policy and legislation including:
- The Wildlife and Countryside Act 1981
  - The Conservation of Offshore Marine Habitats and Species Regulations 2017
  - The Marine and Coastal Access Act 2009
  - The Conservation of Habitats and Species Regulations 2017
  - The Marine (Scotland) Act 2010
  - The Wildlife and Natural Environment Act (Northern Ireland) 2011
  - The Marine (Northern Ireland) Act 2013.

<sup>1</sup> Formally Scottish Natural Heritage (SNH)

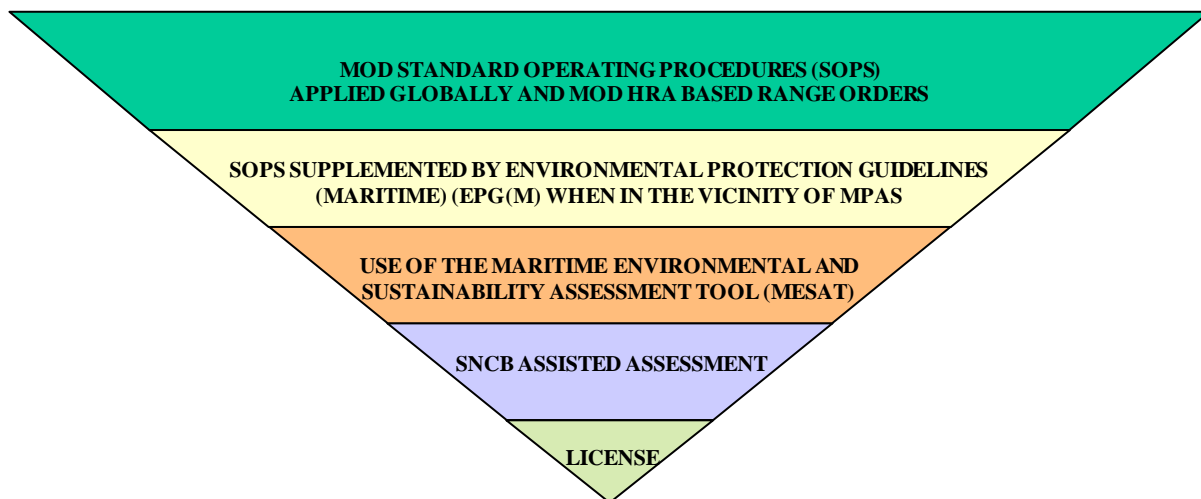
<sup>2</sup> Formally Countryside Council for Wales (CCW)

<sup>3</sup> Formally the Department of Environment Northern Ireland (DOENI)

4. The development and use of EPG(M) are set out in the MESAT documentation which is available by request to the Chief Environmental Safety Officer CESO(RN), Navy Command HQ. Together EPG(M) and MESAT;

- a. Enable the responsible conduct of exercises and operations at sea whilst maintaining the optimal freedom of operation for maritime commanders.
- b. Form key elements of the RN layered Environmental Protection regime for maritime units as illustrated below. A full description of the layered approach to Environmental Protection is set out in the MESAT documentation.

### **LAYERED MARITIME ENVIRONMENTAL PROTECTION**



### **EPG(M) STRUCTURE**

5. The EPG(M)<sup>4</sup>:

- a. Capture all military maritime activities on, under and above the seas, including operations across the intertidal regions.
- b. Facilitate the Environmental Assessment process by taking into account the many forms of legislated protected areas and species in UK waters and along the UK coastline, including:
  - Special Protection Areas (SPAs) - selected for rare, threatened or vulnerable bird species, for regularly occurring migratory birds listed in the Birds Directive, and their habitats.
  - Special Areas of Conservation (SACs) - selected for a number of particular habitats and species of fauna and flora which are listed in the Habitats Directive.
  - Ramsar Sites – designated for wetlands of international importance in terms of ecology, botany, zoology, limnology or hydrology.
  - Sites of Special Scientific Interest (SSSIs) / Areas of Special Scientific Interest (ASSIs) - coastal land areas selected by JNCC in collaboration with the national SNCBs which in their opinion are of special interest. They are managed under Government direction by landowners (including the MOD in some instances), occupiers and local planning authorities.
  - European Protected Species (EPS) – in UK and North Atlantic waters these consist of several species of cetaceans, turtles, otters and the Atlantic Sturgeon.
  - National MPAs – as identified through the Marine Conservation Zone (MCZ) Project, MCZ Project Wales, Nature Conservation Marine Protected Areas (NCMPA) project in Scotland and Northern Ireland MCZ Project.
- c. Provide guidance on the management of activities and controls / restrictions applicable to those activities in order to safeguard the environmental status of protected areas on a site by site basis.
- d. Reflect NCHQ’s opinion on suitably precautionary measures at each site so that, when followed in conjunction with MOD Standard Operating Procedures (SOPs) and MOD Habitat Regulations

<sup>4</sup> Full EPG(M) is laid out in Annex E.

Appraisal (HRA) based Range Orders, should obviate the necessity for any further Environmental Assessment by the operator for routine levels of naval activity.

6. A description of each type of military activity with possible durations and locations, together with correlation of the associated pressure categories, is to be found in Annex D, table 2. A description of the Pressure Categories is provided in **Annex D** table 3.

## MANAGEMENT

7. EPG(M) will be managed and maintained as an element of the RN MESAT by the Chief Environmental Safety Officer (CESO) Staff within NCHQ. Revisions will occur as necessary should sites, activities or legislation change. There will be an annual opportunity for revision of the EPG(M) whilst high priority changes will be promulgated by Naval Temporary Memorandum. An effective revision process will be ensured by NCHQ engagement with the SNCBs and other appropriate environmental stakeholders through:

- The MOD/JNCC bilateral meetings.
- The Under Water Sound Forum (USF).
- Reviews as agreed between NCHQ and the SNCBs.

8. Revisions will be submitted to relevant SNCBs for their advice prior to release. If changes require implementation at short notice this will be done by NCHQ, normally through Notices to Mariners (NTM) or Notices to Airmen (NOTAM) without delay, informing SNCBs on completion.

9. Wherever possible, assessments of Naval maritime activities shall take account of the possible cumulative or combined effects of Naval and commercial activities in the same or adjacent sea areas, particularly in respect to noise generation. Pending the development of a coherent register of such commercial activities, NCHQ will use their best endeavors to ensure notice of commercial activities is promulgated through the Military NTM and NOTAM systems. For large exercises like the Joint Warrior exercises, a process is in place for considering other marine activities while determining the environmental impact of the planned exercise.

## UTILISATION

10. EPG(M) will be available to all departments and units fitted with the RN electronic charting systems and through the Defence internal information system networks for those not so fitted.

11. All planning and execution of RN maritime activities in UK waters will be informed and tempered by the package of supporting environmental documentation and procedures as set out in the layered maritime Environmental Protection process (Paragraph 4). This package will include:

- a. Environmental protection elements of MOD SOPs
- b. The MESAT and associated EPG(M).
- c. MOD Estate management processes, including Range orders and Management Plans for established MOD owned or operated coastal land sites.
- d. MOD processes for regulating activities on coastal land sites in private ownership.

12. Whenever RN planning authorities are unable to work within this package for both the planning and conduct of exercises or operations, further assessment will be conducted on the potential impacts and risks as set out in the Layered Environmental Protection Process (Paragraph 4). In such circumstances NCHQ will consult JNCC as early as possible in the assessment process prior to the activity taking place to ensure that SNCBs have the opportunity to comment and advise. Such consultation is subject to operational constraints and may not be possible in the event of urgent short notice operations. In these instances, NCHQ will inform JNCC as soon as reasonably possible after the operation has taken place.

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## Version Control

Version	Date	Author	Reason/Comments
1	09/12/2013	MOD, JNCC	Publication and agreement of SOI
1.1	14/07/2021	HR, RJ, KK, TKB	Updates: <ul style="list-style-type: none"> <li>• Updates to the pressure categories: from Natura 2000, to JNCC's PAD.</li> <li>• Updates to SNCB names</li> <li>• Deletion of Annexes that are no longer applicable to the Sol. A previous version of the Sol is available upon request from JNCC.</li> </ul>

## Annex A: Points of Contact in MOD and JNCC

Table 1: MOD and JNCC points of contact

Organisation	Contact	Telephone	E-mail	Notes
MOD	Harriet Rushton	030 0160 2935	<a href="mailto:Harriet.rushton103@mod.gov.uk">Harriet.rushton103@mod.gov.uk</a>	Maritime Environmental Protection Adviser
MOD	Rod Jones	030 0165 9224	<a href="mailto:Roderick.jones888@mod.gov.uk">Roderick.jones888@mod.gov.uk</a>	Senior Maritime Environmental Protection Advisor
JNCC	Marine Management Team	+441224 083550	<a href="mailto:oia@jncc.gov.uk">oia@jncc.gov.uk</a>	General team contact information

## **Annex B: Key advice from the SNCBs during the initial EPG(M) consultation process which began in 2011 and ended in agreement of the first SOI in 2013**

To ensure that this tool is meeting certain environmental standards, the MOD sought the advice of the SNCBs who, through a series of meetings and reviews of draft documents, have provided advice on the possible impacts of military activities on the marine environment and how those impacts can be mitigated in order to avoid any significant effects on the marine environment.

SNCB advice:

- Any significant increase in the frequency and duration of military activities in the marine environment (above that outlined in Annex B) will be discussed with the SNCBs in order to assess whether previous advice requires amending;
- The EPG(M) will be subject to constant review on the basis that the conditions of features and species may change and new scientific evidence may come to light. Furthermore, any new sites submitted to the MOD through the UK Marine Biodiversity Policy Steering Group (UKMBPSG) will be included within the MESAT and e-charting system as soon as practicably possible and appropriate mitigation will be discussed with the SNCBs through JNCC;
- The MOD should consult with the relevant licensing authority during the planning of exercises in order to consider possible cumulative impacts of their activities with other plans/projects. The SNCBs will provide advice on this wherever it is deemed necessary;

The SNCBs do not currently agree with the EPG (M) when the Military UK Low Flying System is mentioned because the SNCBs do not believe that in its current format, it is possible to conclude that there will not be a significant effect on an SPA or SAC with seals as a qualifying interest feature. The Military UK Low Flying System is under review (as of Q3, 2013) through a process initiated via the MOD/JNCC bi-lateral meeting. Progress of the review and its outcomes will be monitored, and SNCB involvement facilitated via this forum.

## Annex C: List of Key MOD Documents

### KEY MOD DOCUMENTS

1. All listed MOD documents are held on the RN Intranet. The MESAT has been delivered electronically to all SNCBs and future updates to this document will be delivered in the same way. Relevant extracts of all other documents may be obtained from NCHQ through JNCC.
2. Environmental elements of all listed documents have been developed under the Habitats Regulation Approval (HRA) umbrella. They all have lead sponsors in Navy Command who are responsible for their continual review and maintenance. In general, updated versions are loaded to the RN Web annually. These documents together provide the SOPs which apply globally and form the basis of the conduct of RN vessels and Commands in discharging their responsibilities for environmental protection.

### LIST OF KEY MOD DOCUMENTS

- A. **The RN Maritime Environmental and Sustainability Assessment Tool (RN MESAT).** The MESAT has been developed by NCHQ in consultation with other government departments. It incorporates an overview of the environmental SOPs contained in the documents listed below, together with wide ranging advice on the conduct of vessels at sea and the process of environmental assessments. It provides a standard format for RN EAs and is the recommended tool for EA production. The MESAT incorporates the EPG(M) and explains their development and use.
- B. **Book of Reference BRd 167 – The Safety, Health and Environment Manual – October 2016.** The Safety Health and Environment Manual (SHE Manual) is issued for the guidance of Fleet units. It provides a focal point for Safety, Health and Environment information and instructions. It is developed under the auspices of the Safety Health and Environment Committee (SHEC) whose members are required to read the Manual on joining and every 6 months thereafter; Ship and establishment Heads of Department are required to read the Manual on joining and annually thereafter. This is a live document and recommendations for changes to the SHE Manual are submitted to CESO(RN)) (for the attention of Fleet Safety, Health & Environment Officer (FSHEO) (AFLOAT).
- C. **BRd 4985 – Underwater Environment Handbook – Volume 5 - Managing the Impact of RN Acoustic operations on the marine environment - January 2017.** The Tactical Exploitation of the Environment (underwater Battlespace) (TEE(UWB)) unit maintains BRd 4985 Volume 5; the TEE(UWB) meets six-monthly under the Chairmanship of FLEET-CAP HMEE SO2. The TEE(UWB) aims to ensure BR 4985 Volume 5 is modified as necessary to maintain its value as the key single source reference for managing the impact of RN acoustic operations on the marine environment. This publication is designed to hold information relating to the policy, guidance and implementation of measures to manage the impact of RN acoustic operations upon the Marine Environment and provide direction and guidance to Commanding Officers and those responsible for the operation of active sonars.
- D. **BRd 5063 – Clearance Diving Operations – Ch.3 Section 9 – Protection of Marine Mammals and the Environment when using explosives – February 2019.** The purpose of this manual, which is sponsored by the Commander-in-Chief Fleet, is to provide instructions for the administration and general conduct of Royal Navy Clearance Diving Groups, Units and Elements. It contains specific regulations and standard operating procedures (SOPs) for Clearance Diving and Explosive Ordnance Disposal (EOD) in the maritime environment. It also includes historical and background information, which remains relevant to current practice. Clearance Diving in its strictest sense is a part of Explosive Ordnance Disposal and refers to the clearance of mines by divers in situations where mine hunting or minesweeping is impracticable or uneconomic. Clearance Diving Operations, however, cover all those activities for which Divers are responsible, that is the whole field of Diving and Explosive Ordnance Disposal in the Royal Navy. The protocols for managing EOD activity at sea conform to those set out in the JNCC Underwater Explosions Guidelines.



E. **Allied Technical Publication (ATP) 16(F) – Replenishment at Sea.** This is a NATO publication which sets out the standard operating procedures for the safe transfer of fuel, equipment and personnel between vessels whilst under way. The regulations and procedures have been developed over many years in consultation with all NATO Navies and they incorporate best practice for the safe conduct of such operations. ATP 16(F) is subject to constant review through the NATO Committee processes and is updated annually.

F. **BRd 9424 - Fleet Operating Orders (FLOOS) VOL 1 – 0218.** The two volumes of Fleet Operating Orders cover operational instructions to the Fleet which are not detailed elsewhere in specialist Fleet Publications. Commanding Officers, Officers and Ratings of the Fleet are required to be aware, as appropriate, of the orders contained in FLOOS which is updated every 6 months. Article 0218 gives general advice to Naval planning authorities on the requirements for environmental protection and the use of the MESAT. FLOOS also contains a complete list of established MOD ranges with a maritime component, together with details of range use and controlling authorities.

G. **MOD UK Low Flying Handbook.** The UK Military Low Flying System (incorporating the Low Flying Handbook) is web based, accessed via a user password. This contains the rules for low flying and shows areas hazardous to flight owing to concentrations of wildlife.

## Annex D: Description of Military Activities and Correlation with Pressures categories

The potential impacts of naval activities are considered insignificant when SOP are employed. However, potential impacts are considered further, and mitigation measures included in the EPG(M) in order to best support the aims and conservation objectives of MPAs and most effectively reduce risk of harming or damaging marine species and habitats during naval exercises.

As was anticipated in 2013 upon publication of the original Statement of Intent, government spending reductions have meant increases in military activities have not occurred. Whilst the whole force has decreased in size overall, two aircraft carriers came into service in 2019. It is considered that the operation of these carriers will not cause additional environmental impact atop those detailed in Table 1 below.

JNCC have updated their marine activities and pressures evidence since the first Statement of Intent was compiled and have developed a Pressures-Activities Database (PAD). Therefore, the activities and potential impacts listed in the table below have been assessed against the updated PAD. However, this has not significantly changed the assessed potential impacts of each activity and ensures that EPG(M)-based advice is based upon the most up-to-date information. The original conglomerated Natura 2000 pressure categories and associated background information is available upon request from JNCC, in the previous version of this Sol (2013).

**Table 2: Description of military activities and correlation with pressure categories**

<b>MESAT – DESCRIPTION OF MARITIME ACTIVITIES</b>					
<b>GROUPING</b>	<b>ACTIVITIES</b>	<b>DESCRIPTION</b>	<b>IMPACT ZONE</b>	<b>IMPACT POTENTIAL</b>	<b>PRESSURE CATEGORY – IMPACT</b>
<b>AIR &amp; SURFACE</b>	Aerial towed target or target towing aircraft (TT)	Towing or deployment of towed aerial target. These are streamed behind a towing aircraft as a target for ships' anti-aircraft guns.	Aerial activity	Air - Noise and visual disturbance associated with any aircraft. The towing of a target does not materially change the impact potential. The extent of disturbance at or near ground level will depend on aircraft height.	17, 20
<b>AIR &amp; SURFACE</b>	Air general (AIR)	Flying activity not including the release of weapons. This encompasses general flying activity by RN aircraft with no specific military component.	Aerial activity	Air - Noise and visual disturbance associated with any aircraft. The extent of disturbance at or near ground level will depend on aircraft height. All air operations will conform to the MOD Low Flying Handbook which is based on the UK Low Flying System.	17, 20

AIR & SURFACE	Air to air firing (AAF)	Aircraft firing at an air target	Aerial activity	Air - Noise, visual and physical disturbance. The actual weapon firing will generate a temporary increase in noise and flash. Very minor debris deposition.	5, 15, 17, 20
AIR & SURFACE	Air to sea or ground firing (inert) (ASPF)	Any aircraft firing at a sea surface or land-based target using practice weapons (not exploding).	Air & surface activity	Air, surface & water column - Noise, visual and physical disturbance. The actual weapon firing will generate a temporary increase in noise and flash. The ground or sea impact will generate temporary local disturbance but no explosion. Very minor debris deposition. This form of firing by RN aircraft will only rarely take place outside of designated and established MOD ranges.	5, 15, 17, 20
AIR & SURFACE	Air to sea or ground firing (exploding) (ASLF)	Aircraft firing at a sea surface or land-based target using explosive weapons.	Air & surface activity	Air, surface & water column - Noise, visual and physical disturbance. The missile firing will cause a temporary increase in noise and flash. The ground or sea impact area will be subject to temporary noise and flash from the explosive impact. This form of firing will only take place within designated and established MOD ranges.	5, 6, 15, 17, 20

AIR & SURFACE	Missile Firing (inert) (MFI)	Launch of missiles from ship launching platforms - inert missiles (not exploding).	Air / surface activity.	Air, surface & water column - Noise, visual and physical disturbance. The aircraft will cause normal air noise and disturbance. The missile firing will cause a temporary increase in noise and flash. The ground or sea impact area will be subject to temporary noise and disturbance from the impact but no explosion. Minor debris deposition. On land, firings will only take place in designated and established MOD ranges.	5, 15, 17, 20
AIR & SURFACE	Missile firing (exploding) (MFE)	Launch of missiles from ship launching platforms - live missiles (exploding).	Air & surface activity	Air, surface & water column - Noise, visual and physical disturbance. The missile firing will cause a temporary increase in noise and flash. The ground or sea impact area will be subject to temporary noise and flash from the explosive impact. This form of firing is rare and will only take place within designated and established MOD ranges. There will be minor debris deposition on the seabed at impact point.	5, 6, 13, 15, 17, 20
AIR & SURFACE	Pilot-less target aircraft (PTA)	A pilot-less target aircraft is a small remotely controlled air target normally used in anti-aircraft firing exercises by ships. The presence of the PTA itself will generate very minor environmental impact.	Aerial activity	Air - very minor noise and visual disturbance depending on PTA operating height.	17, 20

AIR & SURFACE	Air-dropped torpedo (explosive) (ADTE)	Torpedoes are carried by fixed wing maritime patrol aircraft and by naval helicopters. Practice drops may be carried out using live torpedoes with explosive warheads.	Air and surface for weapon drop. Sub- surface or surface explosion.	Air, surface & water column - Noise, visual and physical disturbance. The aircraft will cause normal air noise and disturbance. The torpedo drop will cause very minor air and surface temporary disturbance. The impact area will be subject to temporary noise and flash from the explosion. Very minor debris deposition. This form of firing is very rare and will only take place within designated and established MOD ranges with established environmental protection practices.	15, 5, 6, 17, 20
AIR & SURFACE	Air-dropped torpedo (inert) (ADTI)	Torpedoes are carried by fixed wing maritime patrol aircraft and by naval helicopters.	Air/surface/sub-surface activity	Air, surface & water column - Noise, visual and physical disturbance. The aircraft will cause normal air noise and disturbance. The torpedo drop will cause very minor air and surface temporary disturbance. The torpedo is inert and its run will cause only very minor surface and upper water column disturbance. The weapon will be recovered after the drop.	5, 15, 17, 20
AIR & SURFACE	Star shell (SS)	Firing of star shell or similar within sea areas. Star shell is fired from medium calibre guns. It produces a flare which is used to illuminate potential targets during practice engagements between surface ships.	Medium calibre-Flares/Smoke	Air - noise, visual and physical disturbance. As with all gunnery firings, there is local temporary noise and flash as the gun fires. The flare produced will illuminate an area of sea and silhouette a potential target. It will last for a few minutes.	5, 6, 15, 17, 20

<b>AIR &amp; SURFACE</b>	Anti-Aircraft firings - small or medium calibre (AA)	Gunnery practice for protection against aircraft or missile attack. All calibres of weapons can be used from medium calibre single shot guns to closer range small calibre weapons with very high rates of fire.	AA weapons-all calibres	Air/water surface - Noise, visual & physical disturbance. During actual firings there will be temporary noise and flash from the gunfire. There will also be expended munitions falling into the sea at the end of the projectiles' path, causing very minor seabed deposition.	5, 6, 13, 15, 17, 20
<b>AIR &amp; SURFACE</b>	Anti-Air Warfare (AAW)	Anti-Air Warfare Training - no firings. This normally involves fixed wing aircraft flying towards the ship adjusting height and speed to simulate the flight path of an anti-ship missile. The aircraft will therefore be flying at low altitude during the later parts of its attacking runs.	Air & surface	Air/water surface - Noise, visual & physical disturbance. The aircraft will cause normal visual and noise disturbance along its flight path, increasing as its height reduces. MOD low flying rules will be followed in all such exercises. There are no weapon firings in this form of exercise.	17, 20
<b>AIR &amp; SURFACE</b>	Machine gun firing (MG)	Machine gun/small arms firings. These are normally against small temporary targets launched from the ship and recovered on completion.	Small calibre weapons firing	Air/water surface - Noise & physical disturbance. As with all gunfire, there is temporary noise and minor flash disturbance at the instant of firing. There will also be minor seabed deposition from spent munitions. There is no explosive element to such firings.	5, 6, 13, 15, 17, 20
<b>AIR &amp; SURFACE</b>	Surface target towing (STT)	This involves the use of a small vessel (often a tug) to tow a target which is then fired at by other ships.	Surface activity	Water surface - very minor noise & vibration as with the movement of any vessel.	17, 20

AIR & SURFACE	Surface to surface gun or missile firings (inert) (SUI)	Surface firing at a surface target using inert shells or missiles. This normally involves the firing of medium calibre weapons or a surface to surface missile against a towed target.	Surface activity	Air/water surface - Noise, visual & physical disturbance. During actual firings there will be temporary noise and flash from the gunfire or missile launch. There will also be expended munitions falling into the sea at the end of the projectiles' path.	5,13, 15, 17, 20
AIR & SURFACE	Surface explosions (SX)	Explosion occurring at or immediately above the water surface.	Surface explosions	Air & water surface - Noise, physical & visual disturbance. This will be a very rare occurrence which will take place under tightly controlled conditions within designated and established MOD ranges and in accordance with BRd 5063 and JNCC protocols. The explosion will generate temporary noise, raised water column and shock waves. The duration and intensity will depend on the size of the explosion.	5, 6, 15, 17, 20
AIR & SURFACE	Surface to surface gun or missile firing (exploding) (SUE)	Surface firing at a surface target using shells or missiles armed with explosives	Surface explosions	Air/water surface - Noise, visual & physical disturbance. During actual firings there will be temporary noise and flash. This will be a very rare occurrence which will take place under tightly controlled conditions within designated and established MOD ranges and in accordance with JNCC protocols. The explosion will generate temporary noise, raised water column and shock waves. The duration and intensity will depend on the size of the explosion.	5, 6, 15, 17, 20

<p style="text-align: center;"><b>AIR &amp; SURFACE</b></p>	<p>Naval gunfire support (inert) (NGSI)</p>	<p>Firing of naval guns above 75mm (3") using inert shells against shore targets. This exercises ships in attacking shore targets up to 5 miles inland in support of land forces. The ship is supported by a shore based 'spotter' who corrects fall of shot to bring it onto the target. Such firings typically last only a few minutes spread in bursts across perhaps 1 or 2 hours.</p>	<p>Land targets - medium calibre</p>	<p>Surface, air &amp; land-noise and physical disturbance. The shore target is designated by a shore based 'spotter'. Such firings take place only on established MOD ranges. There is the usual element of temporary noise and flash with each firing, and the disturbance caused by the impact of the munitions. Minor debris deposition around land targets. Note: For purely exercise purposes, some NGS ranges consist of specially laid target buoys. In these circumstances the ship is firing into the sea. There will be minor disturbance and seabed deposition of expended munitions in the vicinity of the buoys. NGS buoys are only laid in designated MOD range sites.</p>	<p>5, 13, 15, 17, 20</p>
<p style="text-align: center;"><b>AIR &amp; SURFACE</b></p>	<p>Naval gunfire support (exploding) (NGSE)</p>	<p>Firing of naval guns above 75mm (3") using shells armed with explosives. This exercise is the same as for inert NGS above except, there is an explosion at the end of each firing.</p>	<p>Land targets - medium calibre</p>	<p>Surface, air &amp; land-noise and physical disturbance. The shore target is designated by a shore based 'spotter'. Such firings take place only on established MOD ranges. There is the usual element of temporary noise and flash with each firing, and the disturbance caused by the explosion on impact with minor debris deposition in the explosion area.</p>	<p>5, 6, 13, 15, 17, 20</p>



SUBMARINE & ANTI-SUBMARINE	Anti-submarine warfare exercises (active) (ASWA)	Surface or air ASW training using sonar. These exercises normally last between 2 and 4 hours and involve surface ships, submarines, helicopters and, occasionally, maritime patrol aircraft. The ships and some helicopters will transmit intermittently on sonar. No explosive devices are used. Ships may operate at high speed and helicopters will fly at low altitudes (around 200 feet) and hover at 50 to 100 feet.	Sonar	Air & water column - Noise, visual and physical disturbance. There will be minor surface and sub-surface disturbance from ship and submarine movement. There will be some noise and disturbance from aircraft flying in the locality, but low flying rules will always be observed. There will be noise disturbance in the water column from sonar transmissions. Use of sonar will always be governed by BRd 4985 and s2117.	15, 17, 20
SUBMARINE & ANTI-SUBMARINE	Sonobuoy dropping (active sonar) (SD)	Surface or air deployed sonar buoys. Sonobuoys are small but can be a notable acoustic presence in the water for a limited time.	Sonar	Air & water column - Very minor visual and physical disturbance. Acoustic impact may come from use of more than one sonar buoy operating in formation. Use will be subject to BRd 4985 and s2117 assessments.	5,15, 17, 20
SUBMARINE & ANTI-SUBMARINE	Submarine exercises (active) (SMA)	General s/m training using sonar ( <b>no ships or aircraft</b> ). Submarines will conduct a variety of underwater activities independent of other forces which will have no environmental impact. Submarines rely on stealth and if they transmit on sonar they will be detected. Therefore, submarine sonar transmissions will be very rare.	Sonar	Water column - Very minor disturbance except on very rare occasions when very short duration sonar transmissions are made. In this case BRd 4985 and s2117 will be used.	17
SUBMARINE & ANTI-SUBMARINE	Anti-submarine warfare exercises (passive) (ASWP)	Surface or air ASW training (not using sonar). This could involve surface, sub-surface and air units but with no use of active sonar any environmental disturbance will be minimal and temporary.	Air/surface/sub activity	Air & water column - Very minor physical disturbance.	17, 20

<b>SUBMARINE &amp; ANTI-SUBMARINE</b>	Ship launched mortar firing (inert) (MOI)	Firing of inert mortars into the sea. Mortars fire anti-submarine depth charges which are inert and will land on the seabed. If used on established mortar firing ranges the munitions will be recovered. No RN ships have mortars now but some NATO ships may use them under controlled circumstances in UK waters, though this will be very rare.	Air/surface/sub activity	Air & water column - Noise, visual and physical disturbance. The disturbance from an inert mortar firing is very temporary and minor. This is not a capability currently in service.	5, 12, 15, 17, 20
<b>SUBMARINE &amp; ANTI-SUBMARINE</b>	Depth charge dropping/firing (inert) (DCI)	Surface or air deployed inert depth charge. Criteria as above. No RN ships are fitted with depth charges, but they may on very rare occasions be dropped by aircraft.	Air/surface & sub-surface activity	Air & water column - Noise, visual and physical disturbance. The disturbance from a mortar firing is very temporary and minor.	5, 12, 15, 17, 20
<b>SUBMARINE &amp; ANTI-SUBMARINE</b>	Submarine exercises (passive) (SMP)	General s/m training without using sonar. Submarines will conduct a variety of underwater activities independent of other forces which will have no environmental impact. No use of sonar so minimal environmental disturbance.	Sub-surface activity	Water column - Very minor and temporary physical disturbance as the submarine maneuvers.	
<b>SUBMARINE &amp; ANTI-SUBMARINE</b>	Surface or sub-surface launched torpedo (inert) (STI)	Torpedo firings may be exercised by surface ships and submarines. The firings do not involve explosions and the torpedoes are recovered on completion.	Surface & sub-surface activity	Water column - Very minor disturbance as the torpedo tracks up to 20,000 yards before floating for recovery.	5, 15, 17, 20
<b>SUBMARINE &amp; ANTI-SUBMARINE</b>	Towed Array (Active) (TAD)	Operation of active towed array equipment (including surveying). Towed arrays may be deployed by surface ships or submarines. This involves letting out and towing a cable which contains sensors designed to detect the noise made by other vessels. Towed array is rarely used as an active sensor.	Sub-surface activity and sonar	Surface and water column - Very minor noise & physical disturbance during streaming and recovery of the cable. If transmitting, units will use BRd 4985 and s2117.	17, 20

<b>SUBMARINE &amp; ANTI-SUBMARINE</b>	Towed Array (passive) (TAP)	Streaming of passive towed arrays. As above but with no transmissions.	Sub-surface activity	Water column - Very minor physical disturbance during the streaming and recovery of the cable.	17, 20
<b>SUBMARINE &amp; ANTI-SUBMARINE</b>	Mortar firing (exploding) (MOE)	Ship firing of mortars armed with explosives. As noted for inert mortar firings above, no RN ships have this weapon. However, it is possible that a NATO ship may be cleared for such a firing under close control in an area suitably cleared or established as a MOD range.	Surface/sub surface activity.	Air & water column - Major but very temporary disturbance as the mortar explodes, depending on depth settings. Such firings will be managed under local range orders should testing be resumed in the future or where NATO ships are cleared for such firing.	5, 12, 15, 17, 20
<b>SUBMARINE &amp; ANTI-SUBMARINE</b>	Depth charge dropping/firing (incl. mortar fired DC) (DACE)	Surface or air-deployed depth charge armed with explosives.	Surface/sub-surface activity.	As above.	5, 6, 12, 15, 17, 20
<b>SUBMARINE &amp; ANTI-SUBMARINE</b>	Surface/sub-surface launched torpedo (exploding) (STE)	Torpedo firings may be exercised by surface ships and submarines. If the firings involve explosions, they will be carried out in a suitable established and controlled MOD range.	Sub-surface explosions	The torpedo will cause temporary minor surface disturbance. The impact area will be subject to temporary noise and flash from the explosion. Very minor debris deposition. This form of firing is very rare and will only take place within designated and established MOD ranges with established environmental protection practices.	5, 6, 12, 15, 17, 20

GENERAL & INSHORE	Acoustic trials (AT)	Acoustic trials are carried out to determine the amount of underwater noise created by a ship's propulsion systems at various speeds. The trials are carried out over fixed seabed ranges where the operation will be conducted in accordance with local range orders.	Fixed location trials	Seabed - Fixed equipment. Environmental disturbance will be limited to temporary impacts from the noise of ships' movements. The ranges are fixed and permanent, so the area of activity is static and firmly controlled.	5, 17, 20
GENERAL & INSHORE	Degaussing (DG)	Degaussing is carried out by ships to detect and compensate for the magnetic field generated by the ships' structure. It is carried out by passing over fixed seabed measuring devices which measure the ships' magnetic signature and enable calculation of compensating measures. The degaussing ranges are permanent features and their use is governed by local range orders.	Fixed location trials	Seabed - Fixed equipment. Environmental disturbance will be limited to temporary impacts from the noise of ships' movements. The ranges are fixed and permanent, so the area of activity is static and firmly controlled.	5, 17, 20
GENERAL & INSHORE	Noise ranging (NR)	Noise Ranging is carried out to determine the amount of underwater noise created by a ship's propulsion systems at various speeds. The trials are carried out over fixed seabed ranges where the operation will be carried out in accordance with local range orders.	Fixed location trials	Seabed - Fixed equipment. Environmental disturbance will be limited to temporary effects from the noise of ships' movements. The ranges are fixed and permanent, so the area of activity is static and firmly controlled.	5, 17, 20

GENERAL & INSHORE	Hydrographic Surveying (HS)	Survey operations including use of active sonar. Surveying is one of the very few activities that may take RN vessels into protected areas without option. Surveys are subject to detailed advanced planning and consultation with appropriate authorities in order to minimise environmental impact. Most of the survey work will require the ship to move at very slow speed to cover the required area in 'laps'. Work close inshore is done by smaller vessels.	Sonar	Water column - Noise. The ships' activities will have negligible environmental impact unless transmitting on sonar which will be a necessary activity for most of the survey task. The ship will use BRd4985 and s2117 to ensure sonar usage is optimised for the environment. Surveys which have to take place within protected areas and could adversely affect site conservation objectives will be submitted to statutory bodies well in advance for consultation and clearance.	5, 15, 17, 20
GENERAL & INSHORE	Seabed sampling (SBS)	Removal of samples incl. flora and fauna for testing. This is part of survey operations and provides essential scientific data for other government agencies. Sampling plans will take account of local benthic communities.	Seabed sampling	Seabed - Very minor physical disturbance. Seabed sampling practices will take account of the seabed environment and communities.	5, 11, 20
GENERAL & INSHORE	Diving (D)	Diving; not associated with mine or ordnance clearance. Diving operations to exercise general divers' duties can take place anywhere. Their influence on the environment is very minor but any diving tasking will evaluate the local environment and ensure no damage is caused to any level of community.	Diving	Water column - Very minor physical disturbance.	17, 20
GENERAL & INSHORE	Para dropping (P)	Deployment of personnel, weapons or equipment by parachute. Para dropping may take place anywhere. The potential impact is generally very minor. Even the parachuting of heavy equipment into the sea (small boats etc) has little impact.	Surface/sub-surface activity	Air/surface/water column - Very minor and temporary physical disturbance. Prior to planning any operation account will be taken of the local environment.	17, 20

<b>GENERAL &amp; INSHORE</b>	Fast inshore attack craft (FIAC).	FIAC are operated by UK special forces. In addition to their own training they will often be used to simulate terrorist or piratical water bourn attacks on surface vessels. Their activity will involve very high-speed maneuvers and possibly blank munitions firings.	Surface activity	Surface (and water column/seabed in very shallow waters) - Minor noise and physical disturbance. All FIAC operations will take due account of protected areas, especially where high speed manoeuvres and gunfire could disturb benthic or marine mammal communities.	12, 17, 19, 20
<b>GENERAL &amp; INSHORE</b>	Weapons trials (inert) (WTRI)	Weapons trials which do not involve detonation of any explosives. All new or modified naval weapons systems have to be tested before accepted for service. Trial planning will conform to the considerations set out for each type of activity.	Surface/sub-surface activity	Air & water column - Noise, visual and physical disturbance. Planning will conform to the criteria set out above for in-service equipment.	5, 15, 17, 20
<b>GENERAL &amp; INSHORE</b>	Weapons trials (exploding) (WTRE)	Weapons trials involving detonation of explosives. All new or modified naval weapons systems have to be tested before accepted for service. Trial planning will conform to the considerations set out for each type of equipment.	Sub-surface explosions	Air & water column - Noise, visual and physical disturbance. Planning will conform to the criteria set out above for in-service equipment. Activities will be confined to established MOD ranges and will be conducted in accordance with JNCC and BRd 9463 protocols.	5, 6, 15, 17, 20
<b>GENERAL &amp; INSHORE</b>	Flares (F)	Deployment of air or surface flares. These can range from hand-held devices used in search and rescue to illuminations used by ships and aircraft to help identify other vessels or activity. Their use is infrequent, and their effects are minor and transitory.	Flares/smoke	Air - Minor temporary visual disturbance.	5,6, 15, 17, 20
<b>GENERAL &amp; INSHORE</b>	Smoke (S)	Use of smoke generator. Most unlikely to be used in any scenario at sea. If used, the effect will be entirely local to the vessel and temporary. The smoke is not harmful to any species.	Flares/smoke	Air - Very minor temporary visual disturbance.	5, 6, 15, 17, 20

MCM & EOD	Mine counter measures (active sonar- inert mines) (MCM)	Exercising the detection, removal and making safe of mines. MCM operations are taking place constantly around the world, removing live ordnance left from earlier conflicts. This is still the case in UK waters. Minehunters use sonar to detect and investigate mine-like objects on the seabed. Live mines found on the seabed cannot be moved and must be subjected to controlled explosions in situ. MCM exercises may involve use of sonar and use of small explosive devices.	Surface/sub-surface & sonar	Water column - Ship movements cause only minor disturbance. Live mines will only be exploded in operational circumstances subject to the strict controls in BRd 5063 which comply with JNCC protocols. On exercise, any explosive devices used will be very small and will be designed to test the placement of charges to destroy live mines. These activities will also conform to JNCC and BRd 5063 protocols. High frequency mine hunting sonar will be operated in accordance with BRd4985 and s2117.	5, 6, 12, 15, 17, 20
MCM & EOD	Mine laying (practice - inert) (ML)	Laying practice minefields (inert) for MCM exercises. This is carried out occasionally in order to lay a 'dummy' minefield for MCM vessels to hunt and clear. All such operations will be planned well clear of any protected areas.	Surface & sub-surface	Water column & seabed - Minor physical disturbance. Mines are recovered.	5, 12, 15, 17, 20
MCM & EOD	Remotely Operated Vehicle (ROV)	Unmanned submersible activity (MCM/Survey/Deep Diving). These vessels are used to investigate underwater objects located by sonar. Their actual deployment has no significant environmental impact. However, they may be used to lay an explosive charge next to an identified mine which requires destruction. See above.	Sub surface activity	Water column - Very minor physical disturbance. If used to lay explosive charges in an operational or exercise scenario the activity will be closely controlled under the protocols laid down by JNCC and reflected in BRd 5063. Control wire may be left on the seabed.	5, 15, 17, 20
MCM & EOD	Demolition of unexploded ordnance (DUO).	Underwater or shoreline EOD activity - MCM or EOD Teams. This will always take place in established and closely controlled MOD ranges unless it is the operational destruction of live ordnance which cannot be moved.	Surface/sub-surface explosions	Air & water column - Noise & physical disturbance. In all circumstances explosions will be controlled in accordance with JNCC protocols in BRd 5063.	5, 6, 12, 15, 17, 20

<b>MCM&amp; EOD</b>	Explosives trials (ET)	Underwater or shoreline explosives trials. All new or modified naval weapons systems have to be tested before accepted for service. Trial planning will conform to the considerations set out for managing activities involving explosions. Such trials will only take place if licensed by the Naval Authority Explosives (NAEXP).	Surface/sub-surface explosions	Air & water column - Noise & physical disturbance. All explosive operations will be conducted in accordance with the JNCC protocols set out in BRd 5063 and will be strictly controlled within MOD established ranges.	5, 6, 12, 15, 17, 20
<b>BEACH</b>	Amphibious (A)	Beach or other coastal landing by sea and/or air. A small number of sites on the UK coastline are set aside for practicing amphibious landings. These are invariably over MOD land or ranges, or over privately owned land where a formal agreement is in place with the landowner. The operations will be small scale but will typically involve the use of troops, vehicles, small landing craft and helicopters. The troops and vehicles may be landed by sea or air transport directly onto the beach areas.	Coastal landing	Air, seabed & beach - Noise & physical disturbance. All operations will be subject to detailed planning.	5, 10, 12, 17, 20, 21, 23
<b>MISC</b>	Miscellaneous.	General activities (may be concurrent with other listed activities). There are many other minor activities which are carried out frequently by RN ships in many locations. If not covered by the specific activity details above they will only involve the ships' own assets, working close to that unit and causing very minor and temporary environmental impact.	Various activities.	Very minor and temporary surface and water column disturbance.	17, 20



<b>OFFSHORE</b>	Ship, submarine and aircraft offshore operations.	The basis of RN exercise planning is that activities will, in all but the most exceptional circumstances, take place well outside designated protected areas. Where this cannot happen the environmental mitigation measures identified in the EPG(M) will be employed. In all waters outside protected areas, measures will be taken to avoid environmental impact using the established protocols (standard operating procedures, or “SOP”) for controlling noise generation, air activities, explosions and any other activity that may disturb the environment.	Air, surface & sub-surface	Air, water column & seabed noise & disturbance, subject to the controls set out in the RN MESAT where entities must operate against the advice provided in the EPG(M).	5, 6, 15, 17, 20
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**Table 3: Conglomerated Natura 2000 pressure categories<sup>5,6</sup>**

No	List of conglomerated Natura 2000 pressure categories used in MoD MESAT	JNCC Pressures-Activity Database (PAD) Oct 2020
1	Changes in thermal regime (e.g. cooling water discharges)	Temperature decrease
		Temperature increase
2	Changes in salinity (e.g. outfalls from rigs, ships)	Salinity decrease
		Salinity increase
4	Changes in turbidity (e.g. laying of pipelines, aggregate dredging)	Changes in suspended solids (water clarity)
5	Introduction of non-synthetic compounds (e.g. heavy metals, crude oil spills)	Transition elements & organo-metal (e.g. TBT) contamination.
		Hydrocarbon & PAH contamination
6	Introduction of synthetic compounds (e.g. TBT, PCBs, industrial chemical discharge, produced water, fuel oils)	Synthetic compound contamination (incl. pesticides, antifoulants, pharmaceuticals)
7	Introduction of radionuclides (e.g. nuclear energy industry)	Radionuclide contamination
8	(Direct) deoxygenation (e.g. ballast water & power plant outflows)	Deoxygenation
9	Changes in nutrient loading (e.g. outfalls, nitrogen & phosphorus, organic enrichment – sewage, discards etc.)	Nutrient enrichment
11	Removal or physical loss (e.g. aggregate dredging, isolated rock dump, through infrastructure development)	Habitat structure changes - removal of substratum (extraction)
12	Physical disturbance or abrasion (e.g. mobile benthic fishing, anchoring, windfarm scour pits, pipeline burial, potting)	Penetration and/or disturbance of the substrate below the surface of the seabed, including abrasion

<sup>5</sup> The numbering reflects the Natura 2000 pressure categories follows those published by JNCC. The pressures retained in this document are only those which are relevant to MOD. Any apparent discontinuities in numbering reflect this.

<sup>6</sup> JNCC PAD can be found online: <https://jncc.gov.uk/our-work/marine-activities-and-pressures-evidence/>

13	Smothering (e.g. Drill cuttings, sediment plumes from dredging) - sediment falling from water column	Smothering and siltation rate changes (Heavy)
15	Introduction of litter (e.g. plastic containers, fishing nets)	Litter
17	Noise (e.g. boat activity, seismic)	Underwater noise changed
		Above water noise changes
18	Obstruction (passive) to movement (habitat e.g. sandbank migration & species e.g. species migration)	
19	Collision (e.g. cetaceans being struck by vessels; birds being struck by wind turbines etc) (active)	Collision ABOVE water with static or moving objects not naturally found in the marine environment (e.g., boats, machinery, and structures)
20	Visual presence (e.g. recreational activity)	Visual disturbance
21	Introduction of non-native species & translocation (e.g. Ballast water, hull fouling)	Introduction or spread of invasive non-indigenous species (INIS)
23	Introduction of microbial pathogens (e.g. outfalls)	Introduction of microbial pathogens

## Annex E: EPG(M)

# ENVIRONMENTAL PROTECTION GUIDELINES (MARITIME) VERSION 3.0 – June 2020 ACTIVITY GUIDANCE

### To Note:

1. EPG(M) is generic precautionary advice applicable when operating within or adjacent to Marine Protected Areas (MPA). When undertaking activities within Port Authority jurisdiction or on MOD Ranges, Port Authority rules and Range Orders are to take precedence over EPG(M) if there is contradiction between them.
2. Should a unit need to operate against this advice when in or near to MPA, the CO is responsible for assessing the likelihood of any impact on the protected features of the MPA. NSC have provided a tool to support such assessments ([MESAT](#)) and recommend that this is used to ensure an adequate assessment is undertaken and suitable mitigation identified.
3. EPG(M) includes all MPA within the UK but only internationally designated sites outside UK waters. Therefore, operators are advised to consult local authorities to understand any local measures that may be in place in foreign waters. This is also the case when operating within waters not yet covered by EPG(M).

## **GROUP 1 – Marine Protected Area (MPA) designated primarily for the protection of birds**



### **RESTRICTED ACTIVITIES**

#### **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.

#### **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.

#### **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.

#### **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 should take place inside or within 500 yards of the MPAs unless cleared as operationally essential (see Note <sup>1</sup>) 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 are to be in accordance with the UK Military Low Flying System (UKLFS) (see Note <sup>2</sup>).

#### **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.

#### **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.

#### **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:**

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

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

#### **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 weapons firings.

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

1. Activities relating to seabed sampling and equipment attachment to the seabed.
2. Human diving.

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

1. All activities not involving weapons firings and exploding ordnance.

#### **MISCELLANEOUS (see Note <sup>3</sup>):**

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 <sup>1</sup>:** 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 <sup>2</sup>:** Seasonal avoidance of specific Schedule 1 nesting and breeding sites may be required and will be promulgated by UKLFS CATY NOTAM.

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

## Group 2 – MPA designated primarily for the protection of general coastal features



### RESTRICTED ACTIVITIES

#### **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.

#### **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.

#### **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.

#### **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.

#### **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 <sup>1</sup>) or unless such firings are programmed within an established MOD weapons range when local range orders are to be observed.

#### **MISCELLANEOUS (See Note <sup>2</sup>):**

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.

### CONTROL MEASURES REQUIRED

#### **AIR:**

1. All flying activities 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.

#### **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:**

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

### NO ADDITIONAL CONTROL MEASURES REQUIRED

#### **AIR:**

1. Air to air 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:**

1. Use of ROV.

#### **MISCELLANEOUS (See Note <sup>2</sup>):**

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

**Note <sup>1</sup>:** 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 <sup>2</sup>:** Miscellaneous activities include e.g. RAS, boarding, anti-piracy, high speed / power manoeuvres, sea-boat drills and anchoring.

### **Group 3 – MPA designated primarily for the protection of benthic seabed features with some depths less than 20 m**



#### **RESTRICTED ACTIVITIES**

##### **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.

##### **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.

##### **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.

##### **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 within the MPAs.

##### **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.

##### **AMPHIBIOUS:**

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 CONTROL MEASURES REQUIRED**

##### **AIR:**

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

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

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

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

1. All activities not involving exploding ordnance.

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

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

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

1. Use of ROV.

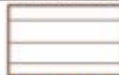
##### **MISCELLANEOUS (see Note 2):**

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.

## **Group 4 – MPA designated for the protection of marine mammals (including whales, dolphins and seals) and basking sharks**



### **RESTRICTED ACTIVITIES**

#### **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.

#### **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.

#### **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.

#### **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.

#### **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 <sup>1</sup>), 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 activities are to be in accordance with the UK Military Low Flying System (UKLFS) (Note <sup>2</sup>). Caution should be exercised when flying oversighted aggregations of cetaceans, avoiding hovering or low level activities overhead.

#### **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, 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:**

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

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

#### **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.

#### **MISCELLANEOUS (see Note <sup>3</sup>):**

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 CATY N OTAM.

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

**Group 5 – MPA designated primarily for the protection of benthic seabed features entirely at depths greater than 20 m**



**RESTRICTED ACTIVITIES**

**MCM AND EOD:**

1. No MCM or minelaying activities (including dummy mines) should take place within 0.5nm of the MPA.
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 <sup>1</sup>) or unless firings are programmed within an established MOD weapons range when local range orders are to be observed.

**MISCELLANEOUS (see Note <sup>2</sup>):**

1. No anchoring should take place in or within 0.5 nm of the MPAs.

**SUBMARINE AND ANTI-SUBMARINE WARFARE:**

1. No physical interaction with the seabed should occur within the MPAs.

**GENERAL AND INSHORE ACTIVITIES:**

1. No human diving incorporating interactions with the seabed should take place within the MPAs.
2. No seabed samples should be taken and no equipment should be attached to the seabed with the MPAs.

**CONTROL MEASURES REQUIRED**

**SUBMARINE AND ANTI-SUBMARINE WARFARE:**

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

**GENERAL AND INSHORE ACTIVITIES:**

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

**MCM AND EOD:**

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

**NO ADDITIONAL CONTROL MEASURES REQUIRED**

**AIR:**

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

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

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

**SUBMARINE AND ANTI-SUBMARINE WARFARE:**

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

**GENERAL AND INSHORE ACTIVITIES:**

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

**MCM AND EOD:**

1. Use of ROV.

**MISCELLANEOUS (see Note <sup>2</sup>):**

1. No restrictions apart from anchoring.

**GENERAL:**

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

**Note <sup>1</sup>:** 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 <sup>2</sup>:** Miscellaneous activities include e.g. RAS, boarding, anti-piracy, high speed / power manoeuvres, sea-boat drills and anchoring.