

MARINE MAMMAL RECORDING FORM - COVER PAGE

Authorisation Number	Country	Ship/ platform name
Client	Contractor	Survey type <input type="checkbox"/> site <input type="checkbox"/> 4C <input type="checkbox"/> 2D <input type="checkbox"/> VSP <input type="checkbox"/> 3D <input type="checkbox"/> WAZ <input type="checkbox"/> 4D <input type="checkbox"/> other <input type="checkbox"/> OBC
Start date	End date	

Number of source vessels	Type of source (e.g. airguns)	Number of airguns (only if airguns used)	Source volume (cu. in.)
Source depth (metres)	Frequency (Hz)	Intensity (dB re. 1µPa or bar metres)	Shot point interval (seconds)
Method of soft start <div style="display: flex; justify-content: space-around;"> <input type="checkbox"/> increase number of guns <input type="checkbox"/> increase pressure (where permitted) <input type="checkbox"/> increase frequency (where permitted) <input type="checkbox"/> other </div>			

Visual monitoring equipment used (e.g. binoculars, big eyes, etc.)	Magnification of optical equipment (e.g. binoculars)	Height of eye (metres)	How was distance of animals estimated? <input type="checkbox"/> by eye <input type="checkbox"/> with laser rangefinder <input type="checkbox"/> with rangefinder stick/ calipers <input type="checkbox"/> with reticle binoculars <input type="checkbox"/> by relating to object at known distance <input type="checkbox"/> other
Number of dedicated MMOs		Training of MMOs <input type="checkbox"/> JNCC approved MMO induction course for UK waters <input type="checkbox"/> PSO training course for the Gulf of Mexico <input type="checkbox"/> MMO training course for Irish waters <input type="checkbox"/> other <input type="checkbox"/> none	

Was PAM used? <input type="checkbox"/> yes <input type="checkbox"/> no	Number of PAM operators	
Description of PAM equipment		
Range of PAM hydrophones from airguns (metres)	Bearing of PAM hydrophones from airguns (relative to direction of travel)	Depth of PAM hydrophones (metres)

MARINE MAMMAL RECORDING FORM - SIGHTINGS

Authorisation Number	Ship/ platform name	Sighting number (start at 1 for first sighting of survey)	Acoustic detection number (start at 500 for first detection of survey)
Date		Time at start of encounter (UTC, 24hr clock)	Time at end of encounter (UTC, 24hr clock)
Were animals detected visually and/ or acoustically? <input type="checkbox"/> visual <input type="checkbox"/> acoustic <input type="checkbox"/> both	How were the animals first detected? <input type="checkbox"/> visually detected by observer keeping a continuous watch <input type="checkbox"/> visually spotted incidentally by observer or someone else <input type="checkbox"/> acoustically detected by PAM <input type="checkbox"/> both visually and acoustically before operators/ observers informed each other		
Observer's/ operator's name	Position (latitude and longitude)		Water depth (metres)
Species/ species group		Description (include features such as overall size; shape of head; colour and pattern; size, shape and position of dorsal fin; height, direction and shape of blow)	
Bearing to animal (when first seen or heard)	Range to animal (when first seen or heard) (metres)		
Total number	Number of adults (visual sightings only)	Number of calves (visual sightings only)	
Behaviour (visual sightings only)			
Direction of travel (relative to ship) <input type="checkbox"/> towards ship <input type="checkbox"/> away from ship <input type="checkbox"/> parallel to ship in same direction as ship <input type="checkbox"/> travelling in opposite direction to ship		Direction of travel (compass points) <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> crossing ahead of ship <input type="checkbox"/> variable <input type="checkbox"/> milling <input type="checkbox"/> other </div> <div> <input type="checkbox"/> N <input type="checkbox"/> NE <input type="checkbox"/> E <input type="checkbox"/> SE </div> <div> <input type="checkbox"/> S <input type="checkbox"/> SW <input type="checkbox"/> W <input type="checkbox"/> NW <input type="checkbox"/> variable </div> </div>	
Airgun (or other source) activity when animals first detected <input type="checkbox"/> full power <input type="checkbox"/> not firing <input type="checkbox"/> soft start <input type="checkbox"/> reduced power (other than soft start)	Airgun (or other source) activity when animals last detected <input type="checkbox"/> full power <input type="checkbox"/> not firing <input type="checkbox"/> soft start <input type="checkbox"/> reduced power (other than soft start)	Closest distance of animals from airguns (or other source) (metres)	Time of closest approach (UTC, 24hr clock)
		If seen during soft start give: First distance Closest distance Last distance during soft start (metres)	
What action was taken? (according to requirements of guidelines/ regulations in country concerned) <input type="checkbox"/> none required <input type="checkbox"/> delay start of firing <input type="checkbox"/> shut-down of active source <input type="checkbox"/> power-down of active source <input type="checkbox"/> power-down then shut-down of active source		Length of power-down and/ or shut-down (if relevant) (length of time until subsequent soft start, in minutes)	Estimated loss of production (if relevant) due to mitigating actions (km)