

[Redacted]

From: [Redacted]
Sent: 18 February 2019 11:48
To: [Redacted] ; 'Montrose Basin SWT'; 'SNH'; MS Marine Licensing
Cc: [Redacted]
Subject: Montrose Port Authority - Maintenance Dredging Notification

Good afternoon,

Sent on behalf of Montrose Port Authority Harbour Master, [Redacted]

Please accept this email as notification that Montrose Port Authority will be undertaking a dredging campaign using vessel UKD Marlin.

This will commence on 27th February for 4 to 5 days.

Kind regards,

[Redacted]

Executive Assistant

MONTROSE PORT AUTHORITY

South Quay

Ferryden

Montrose

Angus

DD10 9SL

[Redacted]

[Redacted]

Web: www.montroseport.co.uk

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[Redacted]

From: [Redacted]
Sent: 04 February 2019 15:37
To: MS Marine Licensing
Cc: [Redacted]
Subject: RE: 05450/16/0, 05450/18/0, 06819/18/0 - Montrose Port Authority - Sea Disposal Returns 2018
Attachments: 05450-16-0.xlsx; 05450-18-0.xlsx; 06819-18-0.xlsx

Good afternoon,

Please find attached returns. If you have any questions please contact me at the details below.

Kind regards,

[Redacted]

Executive Assistant

MONTROSE PORT AUTHORITY

South Quay
Ferryden
Montrose
Angus
DD10 9SL

[Redacted]

[Redacted]

Web: www.montroseport.co.uk

We are exhibiting at



05 - 07 February 2019, Aberdeen

From: MS.MarineLicensing@gov.scot <MS.MarineLicensing@gov.scot>

Sent: 16 January 2019 14:29

[Redacted]

Subject: 05450/16/0, 05450/18/0, 06819/18/0 - Montrose Port Authority - Sea Disposal Returns 2018

Dear [Redacted]

Our records indicate you were issued a marine licence for dredging and/or sea disposal which was valid during 2018.

A condition of your marine licence is that you provide returns to Marine Scotland Licensing Operations Team (MS-LOT) on the amount of material disposed of at sea. Previously this has been done through a FEP4 and/or FEP6 form.

MS-LOT have prepared a bespoke form for each licensee this year and yours should be attached to this email. Please ensure you fill in the form stating the wet tonnes disposed of on a monthly basis, please use 0 if no disposal was carried out during a month. Can you also please ensure that if you had your licence varied during 2017 that the returns are recorded against the correct licence number (original or varied).

This form must be filled in, even if you have previously supplied FEP4 and/or FEP6 forms for 2017. It is not necessary to supply any further FEP4 or FEP6 forms to MS-LOT.

*Can you please provide the completed returns forms to MS-LOT no later than **Wednesday 6th February 2019**.*

MS-LOT have produced a reporting sheet for pre disposal chemistry which must be used when making applications for dredging and sea disposal licences. This reporting sheet can be found [here](#).

Please be aware that from 2019, OSPAR will be changing their reporting requirements so that the returns will need to be split by dredge area. MS-LOT will be amending the returns form to request this additional detail so please ensure that you record this information to enable a complete return to be submitted.

If you have any questions please feel free to get in touch with us.

Marine Scotland - Marine Planning & Policy
Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

[redacted]

Marine Scotland - Marine Planning & Policy
Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

[Redacted]

[Redacted]

website: <http://www.gov.scot/Topics/marine/Licensing/marine>



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Tha am post-d seo (agus faidhle neo ceanglan còmhla ris) dhan neach neo luchd-ainmichte a-mhàin. Chan eil e ceadichte a chleachdadh ann an dòigh sam bith, a' toirt a-steach còraichean, foillseachadh neo sgaoileadh, gun chead. Ma 's e is gun d'fhuair sibh seo gun fhiosd', bu choir cur às dhan phost-d agus lethbhreac sam bith air an t-siostam agaibh agus fios a leigeil chun neach a sgaoil am post-d gun dàil. Dh'fhaodadh gum bi teachdaireachd sam bith bho Riaghaltas na h-Alba air a chlàradh neo air a sgrùdadh airson dearbhadh gu bheil an siostam ag obair gu h-èifeachdach neo airson adhbhar laghail eile. Dh'fhaodadh nach eil beachdan anns a' phost-d seo co-ionann ri beachdan Riaghaltas na h-Alba.

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| Licence Number | Disposal Site | Year | Month | Disposal Amount (wet tonnes) |
|----------------|---------------|-------------|------------------------|---------------------------------|
| 06819 | FO010 | 2018 | 1 | 0 |
| | | | 2 | |
| | | | 3 | |
| | | | 4 | |
| | | | 5 | |
| | | | 6 | |
| | | | 7 | |
| | | | 8 | |
| | | | 9 | |
| | | | 10 | |
| | | | 11 | |
| | | | 12 | |
| | | | Total | |
| | | | Licensed Amount | 246000 |
| | | | Difference | -246000 |
| | | | | |

[Redacted]

From: [Redacted]
Sent: 25 March 2019 13:55
To: MS Marine Licensing
Subject: MPA MMO Return
Attachments: 2019.02 MPA MMO Return.pdf

Good afternoon,

Please find attached MMO returns for the recent maintenance dredging campaign undertaken at Montrose Port Authority.

Kind regards,

[Redacted]

Executive Assistant

MONTROSE PORT AUTHORITY

South Quay
Ferryden
Montrose
Angus
DD10 9SL

[Redacted]

Please note I am not in the office on a Thurs and Fri

[Redacted]

Web: www.montroseport.co.uk

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MARINE MAMMAL RECORDING FORM - COVER PAGE

| | | | |
|---|--------------------------------|---|--|
| Regulatory reference number (e.g. DECC no., BOEM permit no., OCS lease no., etc.) | Country SCOTLAND | Location MONTROSE HARBOUR & ENTRANCE CHANNEL. | Ship/ platform name UKD MARLIN |
| Client MONTROSE PORT AUTHORITY | Contractor | | Survey type |
| Start date 27/02/19 | End date | | site VSP 2D WAZ 3D piling 4D explosives OBC other 4C |

| | | | |
|---------------------------------|---|--|-------------------------------------|
| 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 (range in which peak energy is emitted, in Hz) | Intensity (primary peak-to-peak amplitude in dB re. 1µPa or bar metres) | Shot point interval (metres) |
| Method of soft start | | | |
| increase number of guns | increase frequency (where permitted) | increase pressure (where permitted) | increase number and pressure |

| | | | |
|--|--|--|---|
| Visual monitoring equipment used (e.g. binoculars, big eyes, etc.) BINOCULARS | Magnification of optical equipment (e.g. binoculars) | Height of eye above water surface (metres) | How was distance of animals estimated? by eye with laser rangefinder with rangefinder stick/ callipers with reticle binoculars by relating to object at known distance other |
| Number of dedicated MMOs ONE | Training of MMOs JNCC approved MMO training course for UK waters PSO training course for the Gulf of Mexico MMO training course for Irish waters MMO training course for New Zealand waters other <u>none</u> | | |

| | | |
|---|--|--|
| Was PAM used? yes 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

| | | | | |
|--|--|--|---|--|
| Regulatory reference number <small>(e.g. DECC no., BOEM permit no., OCS lease no., etc.)</small> | Ship/ platform name <div style="font-size: 1.2em; font-family: cursive;">UKD MARLIN</div> | Sighting number <small>(start at 1 for first sighting of survey)</small> <div style="font-size: 1.5em; text-align: center;">1</div> | Acoustic detection number <small>(start at 500 for first detection of survey)</small> | |
| Date <div style="font-size: 1.5em; font-family: cursive;">28/02/19</div> | | Time at start of encounter (UTC, 24hr clock) <div style="font-size: 1.2em; font-family: cursive;">1430 1430</div> | Time at end of encounter (UTC, 24hr clock) <div style="font-size: 1.2em; font-family: cursive;">1450 1450</div> | |
| Were animals detected visually and/ or acoustically? <div style="font-size: 0.8em;"> <input type="checkbox"/> visual <input type="checkbox"/> acoustic <input checked="" type="checkbox"/> both </div> | How were the animals first detected? <div style="font-size: 0.8em;"> <u>visually detected by observer keeping a continuous watch</u> visually spotted incidentally by observer or someone else acoustically detected by PAM both visually and acoustically before operators/ observers informed each other </div> | | | |
| Observer's/ operator's name [Redacted] | Position (latitude and longitude) <div style="font-size: 1.1em; font-family: cursive;">56°41 - 848 N 2°25 - 284 W</div> | Water depth (metres) <div style="font-size: 1.2em; font-family: cursive;">24m</div> | | |
| Species/ species group <div style="font-size: 1.2em; font-family: cursive;">DOLPHINS</div> | | 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; characteristics of whistles/ clicks) <div style="font-size: 1.1em; font-family: cursive;">POD OF AROUND 10+ ADULT DOLPHINS - LARGE IN SIZE ONE DEFINITELY CONSIDERABLY SMALLER - LIKELY JUVENILE</div> | | |
| Bearing to animal (when first seen or heard) (bearing from true north) <div style="font-size: 1.2em; font-family: cursive;">135°</div> | Range to animal (when first seen or heard) (metres) <div style="font-size: 1.2em; font-family: cursive;">250m</div> | (Continuation of description) | | |
| Total number <div style="font-size: 1.2em; font-family: cursive;">~10</div> | Number of adults <small>(visual sightings only)</small> <div style="font-size: 1.2em; font-family: cursive;">~10</div> | Number of juveniles <small>(visual sightings only)</small> <div style="font-size: 1.2em; font-family: cursive;">1</div> | Number of calves <small>(visual sightings only)</small> <div style="font-size: 1.2em; font-family: cursive;">0</div> | |
| Behaviour (visual sightings only) <div style="font-size: 1.1em; font-family: cursive;">PORPOISING & BREACHING THEN SWIMMING ALONGSIDE BOW OF VESSEL.</div> | | | | |
| Direction of travel (relative to ship) <div style="font-size: 0.8em;"> <input checked="" type="checkbox"/> towards ship <input type="checkbox"/> away from ship <input type="checkbox"/> parallel to ship in same direction as ship <input type="checkbox"/> parallel to opposite direction to ship <input type="checkbox"/> crossing perpendicular ahead of ship </div> | | | Direction of travel (compass points) <div style="font-size: 0.8em;"> N W NE NW E variable SE stationary S unknown SW </div> | |
| Airgun (or other source) activity when animals first detected <div style="font-size: 0.8em;"> <input type="checkbox"/> full power <input type="checkbox"/> not firing <input type="checkbox"/> soft start <input type="checkbox"/> reduced power <input type="checkbox"/> (other than soft start) </div> | Airgun (or other source) activity when animals last detected <div style="font-size: 0.8em;"> <input type="checkbox"/> full power <input type="checkbox"/> not firing <input type="checkbox"/> soft start <input type="checkbox"/> reduced power <input type="checkbox"/> (other than soft start) </div> | Time animals entered mitigation/ exclusion zone (UTC, 24hr clock) | Time animals left mitigation/ exclusion zone (UTC, 24hr clock) | |
| 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? <small>(according to requirements of guidelines/ regulations in country concerned)</small> <div style="font-size: 0.8em;"> <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 </div> | 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) | |

MARINE MAMMAL RECORDING FORM - SIGHTINGS

| | | | | |
|--|---|---|--|--|
| Regulatory reference number (e.g. DECC no., BOEM permit no., OCS lease no., etc.) | Ship/ platform name UKD MARLIN | Sighting number (start at 1 for first sighting of survey) | Acoustic detection number (start at 500 for first detection of survey) | |
| Date 28/02/19 | Time at start of encounter (UTC, 24hr clock) | 1535 | Time at end of encounter (UTC, 24hr clock) 1536 | |
| Were animals detected visually and/ or acoustically? <u>visual</u> acoustic both | How were the animals first detected? <u>visually detected by observer keeping a continuous watch</u> visually spotted incidentally by observer or someone else acoustically detected by PAM both visually and acoustically before operators/ observers informed each other | | | |
| Observer's/ operator's name [Redacted] | Position (latitude and longitude) 56° 41.150 N 2° 25.395 W | Water depth (metres) 23m | | |
| Species/ species group PORPOISES | | 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; characteristics of whistles/ clicks) | | |
| Bearing to animal (when first seen or heard) (bearing from true north) 150° | Range to animal (when first seen or heard) (metres) 150m | | | |
| Total number 2 | Number of adults (visual sightings only) 2 | Number of juveniles (visual sightings only) 0 | Number of calves (visual sightings only) 0 | |
| Photograph taken yes <u>no</u> | | | | |
| Behaviour (visual sightings only) PORPOISING BRIEFLY BEFORE DISAPPEARING. | | | | |
| Direction of travel (relative to ship) <u>towards ship</u> away from ship parallel to ship in same direction as ship parallel to opposite direction to ship crossing perpendicular ahead of ship | | | Direction of travel (compass points) N W NE NW E <u>variable</u> SE stationary S unknown SW | |
| Airgun (or other source) activity when animals first detected full power not firing soft start reduced power (other than soft start) | Airgun (or other source) activity when animals last detected full power not firing soft start reduced power (other than soft start) | Time animals entered mitigation/ exclusion zone (UTC, 24hr clock) | Time animals left mitigation/ exclusion zone (UTC, 24hr clock) | |
| | | 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) none required delay start of firing shut-down of active source power-down of active source 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) | |

MARINE MAMMAL RECORDING FORM - SIGHTINGS

| | | | |
|---|--|---|---|
| Regulatory reference number <small>(e.g. DECC no., BOEM permit no., OCS lease no., etc.)</small> | Ship/ platform name <p style="text-align: center; font-size: 1.2em;">UKD MARLIN</p> | Sighting number <small>(start at 1 for first sighting of survey)</small> <p style="text-align: center; font-size: 1.5em;">3</p> | Acoustic detection number (start at 500 for first detection of survey) |
| Date <p style="text-align: center; font-size: 1.5em;">28/02/19</p> | | Time at start of encounter (UTC, 24hr clock) <p style="text-align: center; font-size: 1.5em;">1455</p> | Time at end of encounter (UTC, 24hr clock) <p style="text-align: center; font-size: 1.5em;">1457</p> |
| Were animals detected visually and/ or acoustically? <div style="display: flex; justify-content: space-around;"> visual acoustic both </div> | How were the animals first detected? <p style="text-align: center;">visually detected by observer keeping a continuous watch <u>visually spotted incidentally by observer or someone else</u> acoustically detected by PAM both visually and acoustically before operators/ observers informed each other</p> | | |
| Observer's/ operator's name [Redacted] | Position (latitude and longitude) <p style="text-align: center;">56° 39.375 N 2° 26.183 W</p> | | Water depth (metres) <p style="text-align: center; font-size: 1.2em;">18.3 m</p> |
| Species/ species group / <p style="text-align: center; font-size: 1.5em;">SEAL</p> | | 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; characteristics of whistles/ clicks) <p style="text-align: center; font-size: 1.2em;">ONLY SAW HEAD ON SURFACE OF WATER BRIEFLY. LARGE IN SIZE, DARK IN COLOUR.</p> | |
| Bearing to animal (when first seen or heard) (bearing from true north) <p style="text-align: center; font-size: 1.5em;">095°</p> | Range to animal (when first seen or heard) (metres) <p style="text-align: center; font-size: 1.5em;">100m</p> | | |
| Total number <p style="text-align: center; font-size: 1.5em;">1</p> | Number of adults (visual sightings only) <p style="text-align: center; font-size: 1.5em;">1</p> | Number of juveniles (visual sightings only) <p style="text-align: center; font-size: 1.5em;">0</p> | Number of calves (visual sightings only) <p style="text-align: center; font-size: 1.5em;">0</p> |
| Photograph taken <div style="display: flex; justify-content: flex-end; gap: 20px;"> yes <u>no</u> </div> | | | |
| Behaviour (visual sightings only) | | | |
| Direction of travel (relative to ship) towards ship away from ship parallel to ship in same direction as ship parallel to opposite direction to ship crossing perpendicular ahead of ship | | | Direction of travel (compass points) <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> variable milling <u>stationary</u> other unknown </div> <div style="text-align: center;"> N W NE NW E variable SE <u>stationary</u> S unknown SW </div> </div> |
| Airgun (or other source) activity when animals first detected full power not firing soft start reduced power (other than soft start) | Airgun (or other source) activity when animals last detected full power not firing soft start reduced power (other than soft start) | Time animals entered mitigation/ exclusion zone (UTC, 24hr clock) | Time animals left mitigation/ exclusion zone (UTC, 24hr clock) |
| | | 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? <small>(according to requirements of guidelines/ regulations in country concerned)</small> none required delay start of firing shut-down of active source power-down of active source power-down then shut-down of active source | | Estimated loss of production (if relevant) due to mitigating actions (km) |

MARINE MAMMAL RECORDING FORM - SIGHTINGS

| | | | |
|---|--|--|--|
| Regulatory reference number <small>(e.g. DECC no., BOEM permit no., OCS lease no., etc.)</small> | Ship/ platform name UKD MARLIN | Sighting number <small>(start at 1 for first sighting of survey)</small> 4 | Acoustic detection number <small>(start at 500 for first detection of survey)</small> |
| Date 28/02/19 | | Time at start of encounter (UTC, 24hr clock) 1502 | Time at end of encounter (UTC, 24hr clock) 1505 |
| Were animals detected visually and/ or acoustically? visual acoustic both | How were the animals first detected? visually detected by observer keeping a continuous watch visually spotted incidentally by observer or someone else acoustically detected by PAM both visually and acoustically before operators/ observers informed each other | | |
| Observer's/ operator's name [Redacted] | Position (latitude and longitude) 56° 39' 301 N 2° 26' 122 W | Water depth (metres) 21m | |
| Species/ species group SEAL | | 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; characteristics of whistles/ clicks) ONLY SAW HEAD ON SURFACE BRIEFLY - LARGE IN SIZE, DARK IN COLOUR. | |
| Bearing to animal (when first seen or heard) (bearing from true north) 300° | Range to animal (when first seen or heard) (metres) 75m | | |
| Total number 1 | Number of adults <small>(visual sightings only)</small> 1 | Number of juveniles <small>(visual sightings only)</small> 0 | Number of calves <small>(visual sightings only)</small> 0 |
| Photograph taken yes <input type="checkbox"/> no <input checked="" type="checkbox"/> | | | |
| Behaviour (visual sightings only) | | | |
| Direction of travel (relative to ship) towards ship away from ship parallel to ship in same direction as ship parallel to opposite direction to ship crossing perpendicular ahead of ship | | | Direction of travel (compass points) N NE E SE S SW W NW variable stationary unknown |
| Airgun (or other source) activity when animals first detected full power not firing soft start reduced power (other than soft start) | Airgun (or other source) activity when animals last detected full power not firing soft start reduced power (other than soft start) | Time animals entered mitigation/ exclusion zone (UTC, 24hr clock) | Time animals left mitigation/ exclusion zone (UTC, 24hr clock) |
| | | 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? <small>(according to requirements of guidelines/ regulations in country concerned)</small> none required delay start of firing shut-down of active source power-down of active source 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) |

MARINE MAMMAL RECORDING FORM - SIGHTINGS

| | | | | |
|---|---|---|---|--|
| Regulatory reference number <small>(e.g. DECC no., BOEM permit no., OCS lease no., etc.)</small> | Ship/ platform name <p style="text-align: center; font-size: 1.2em;">UKID MARLIN</p> | Sighting number <small>(start at 1 for first sighting of survey)</small> <p style="text-align: center; font-size: 1.5em;">5</p> | Acoustic detection number (start at 500 for first detection of survey) | |
| Date <p style="font-size: 1.5em; text-align: center;">01/03/19.</p> | | Time at start of encounter (UTC, 24hr clock) <p style="text-align: center; font-size: 1.2em;">1452</p> | Time at end of encounter (UTC, 24hr clock) <p style="text-align: center; font-size: 1.2em;">1453</p> | |
| Were animals detected visually and/ or acoustically? <div style="display: flex; justify-content: space-around;"> visual acoustic both </div> | How were the animals first detected? <p style="text-align: center;">visually detected by observer keeping a continuous watch visually spotted incidentally by observer or someone else acoustically detected by PAM both visually and acoustically before operators/ observers informed each other</p> | | | |
| Observer's/ operator's name [Redacted] | Position (latitude and longitude) <p style="text-align: center;">56° 42.152 N 02° 27.743 W</p> | Water depth (metres) <p style="text-align: center;">8.5m <i>8.5m (Redacted)</i></p> | | |
| Species/ species group <p style="text-align: center; font-size: 1.2em;">SEAL</p> | | 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; characteristics of whistles/ clicks) | | |
| Bearing to animal (when first seen or heard) (bearing from true north) <p style="text-align: center; font-size: 1.2em;">090°</p> | Range to animal (when first seen or heard) (metres) <p style="text-align: center; font-size: 1.2em;">30m</p> | | | |
| Total number <p style="text-align: center; font-size: 1.5em;">1</p> | Number of adults <small>(visual sightings only)</small> <p style="text-align: center; font-size: 1.5em;">1</p> | Number of juveniles <small>(visual sightings only)</small> <p style="text-align: center; font-size: 1.5em;">0</p> | Number of calves <small>(visual sightings only)</small> <p style="text-align: center; font-size: 1.5em;">0</p> | Photograph taken yes <input type="checkbox"/> no <input checked="" type="checkbox"/> |
| Behaviour (visual sightings only) | | | | |
| Direction of travel (relative to ship) towards ship away from ship parallel to ship in same direction as ship parallel to opposite direction to ship crossing perpendicular ahead of ship | | | Direction of travel (compass points) N W NE NW E <u>variable</u> SE <u>stationary</u> S unknown SW | |
| Airgun (or other source) activity when animals first detected full power not firing soft start reduced power (other than soft start) | Airgun (or other source) activity when animals last detected full power not firing soft start reduced power (other than soft start) | Time animals entered mitigation/ exclusion zone (UTC, 24hr clock) | Time animals left mitigation/ exclusion zone (UTC, 24hr clock) | |
| | | 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? <small>(according to requirements of guidelines/ regulations in country concerned)</small> none required delay start of firing shut-down of active source power-down of active source power-down then shut-down of active source | | Estimated loss of production (if relevant) due to mitigating actions (km) | |

MARINE MAMMAL RECORDING FORM - SIGHTINGS

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|--|---|---|---|
| Regulatory reference number <small>(e.g. DECC no., BOEM permit no., OCS lease no., etc.)</small> | Ship/ platform name <p style="text-align: center; font-size: 1.2em;">UKD MARLIN</p> | Sighting number <small>(start at 1 for first sighting of survey)</small> <p style="text-align: center; font-size: 1.5em;">6</p> | Acoustic detection number <small>(start at 500 for first detection of survey)</small> |
| Date <p style="font-size: 1.5em; text-align: center;">02/03/19</p> | | Time at start of encounter <small>(UTC, 24hr clock)</small> <p style="text-align: center; font-size: 1.2em;">1425</p> | Time at end of encounter <small>(UTC, 24hr clock)</small> <p style="text-align: center; font-size: 1.2em;">1426</p> |
| Were animals detected visually and/ or acoustically? <div style="display: flex; flex-direction: column; gap: 5px;"> <input type="checkbox"/> visual <input type="checkbox"/> acoustic <input type="checkbox"/> both </div> | How were the animals first detected? <div style="display: flex; flex-direction: column; gap: 5px;"> <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 </div> | | |
| Observer's/ operator's name [Redacted] | Position (latitude and longitude) <p style="text-align: center;">56° 42.233 N 002° 28.077 W</p> | Water depth (metres) <p style="text-align: center; font-size: 1.2em;">4.5 m</p> | |
| Species/ species group <p style="text-align: center; font-size: 1.2em;">SEAL</p> | | 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; characteristics of whistles/ clicks) | |
| Bearing to animal (when first seen or heard) (bearing from true north) <p style="text-align: center; font-size: 1.2em;">135°</p> | Range to animal (when first seen or heard) (metres) <p style="text-align: center; font-size: 1.2em;">30m</p> | | |
| Total number <p style="text-align: center; font-size: 1.5em;">1</p> | Number of adults <small>(visual sightings only)</small> <p style="text-align: center; font-size: 1.5em;">1</p> | Number of juveniles <small>(visual sightings only)</small> <p style="text-align: center; font-size: 1.5em;">0</p> | Number of calves <small>(visual sightings only)</small> <p style="text-align: center; font-size: 1.5em;">0</p> |
| Photograph taken <div style="display: flex; justify-content: flex-end; gap: 20px;"> yes <input checked="" type="checkbox"/> no </div> | | | |
| Behaviour (visual sightings only) | | | |
| Direction of travel (relative to ship) <div style="display: flex; flex-direction: column; gap: 5px;"> <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"/> parallel to opposite direction to ship <input type="checkbox"/> crossing perpendicular ahead of ship </div> | | | Direction of travel (compass points) <div style="display: flex; flex-direction: column; gap: 5px;"> <input type="checkbox"/> N <input type="checkbox"/> W <input type="checkbox"/> NE <input type="checkbox"/> NW <input type="checkbox"/> E <input type="checkbox"/> variable <input type="checkbox"/> SE <input type="checkbox"/> stationary <input type="checkbox"/> S <input type="checkbox"/> unknown <input type="checkbox"/> SW </div> |
| Airgun (or other source) activity when animals first detected <div style="display: flex; flex-direction: column; gap: 5px;"> <input type="checkbox"/> full power <input type="checkbox"/> not firing <input type="checkbox"/> soft start <input type="checkbox"/> reduced power <input type="checkbox"/> (other than soft start) </div> | Airgun (or other source) activity when animals last detected <div style="display: flex; flex-direction: column; gap: 5px;"> <input type="checkbox"/> full power <input type="checkbox"/> not firing <input type="checkbox"/> soft start <input type="checkbox"/> reduced power <input type="checkbox"/> (other than soft start) </div> | Time animals entered mitigation/ exclusion zone <small>(UTC, 24hr clock)</small> | Time animals left mitigation/ exclusion zone <small>(UTC, 24hr clock)</small> |
| | | 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? <small>(according to requirements of guidelines/ regulations in country concerned)</small> <div style="display: flex; flex-direction: column; gap: 5px;"> <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 </div> | 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) |

MARINE MAMMAL RECORDING FORM - OPERATIONS

Regulatory reference number

(e.g. DECC no., BOEM permit no., OCS lease no., etc.)

Ship/ platform name 'UKD MARLIN'

Complete this form every time the airguns are used, including overnight, whether for shooting a line or for testing or for any purpose.

Times should be in UTC, using the 24 hour clock.

| Date | Reason for firing l = line t = test x = test followed immediately by line | Time soft start/ ramp-up began | Time of full power | Time of start of line ↓ | Time of end of line ↓ | Time of reduced output (if relevant) | Time airguns/ source stopped | Time pre-shooting search began | Time search ended ↓ | Time PAM began | Time PAM ended | Depth range (during pre-shooting search) s = <200m d = >200m b = both | Was it day or night in period prior to firing? d = day n = night w = dawn k = dusk ↓ | Was any mitigating action required? (yes/ no) ↓ |
|----------|--|--------------------------------|--------------------|----------------------------|--------------------------|--------------------------------------|------------------------------|--------------------------------|------------------------|----------------|----------------|--|---|--|
| 27/02/19 | | | | 1900 | 1955 | | | | 1955 | | | | N W | NO |
| 27/02 | | | | 2230 | 2330 | | | | 2330 | | | | N | NO |
| 28/02 | | | | 0110 | 0210 | | | | 0210 | | | | N | NO |
| 28/02 | | | | 0400 | 0440 | | | | 0440 | | | | N | NO |
| 28/02 | | | | 0650 | 0740 | | | | 0740 | | | | W | NO |
| 28/02 | | | | 1050 | 1135 | | | | 1135 | | | | D | NO |
| 28/02 | | | | 1405 | 1525 | | | | 1525 | | | | D | NO |
| 28/02 | | | | 1830 | 1920 | | | | 1920 | | | | K | NO |
| 28/02 | | | | 2300 | 2350 | | | | 2350 | | | | N | NO |
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MARINE MAMMAL RECORDING FORM - OPERATIONS

Regulatory reference number

Ship/ platform name UKD MARLIN

(e.g. DECC no., BOEM permit no., OCS lease no., etc.)

Complete this form every time the airguns are used, including overnight, whether for shooting a line or for testing or for any purpose.

Times should be in UTC, using the 24 hour clock.

| Date | Reason for firing l = line t = test x = test followed immediately by line | Time soft start/ramp-up began | Time of full power | Time of start of line ↓ | Time of end of line ↕ | Time of reduced output (if relevant) | Time airguns/source stopped | Time pre-shooting search began | Time search ended ↓ | Time PAM began | Time PAM ended | Depth range (during pre-shooting search) s = <200m d = >200m b = both | Was it day or night in period prior to firing? d = day n = night w = dawn k = dusk | Was any mitigating action required? (yes/ no) |
|----------|--|-------------------------------|--------------------|----------------------------|--------------------------|--------------------------------------|-----------------------------|--------------------------------|------------------------|----------------|----------------|--|--|---|
| 01/03/19 | | | | 0130 | 0230 | | | | 0230 | | | | N | NO |
| 01/03 | | | | 0435 | 0535 | | | | 0535 | | | | N | NO |
| 01/03 | | | | 0755 | 0840 | | | | 0840 | | | | W | NO |
| 01/03 | | | | 1200 | 1250 | | | | 1250 | | | | D | NO |
| 01/03 | | | | 1440 | 1540 | | | | 1540 | | | | D | NO |
| 01/03 | | | | 1820 | 1915 | | | | 1915 | | | | K | NO |
| 01/03 | | | | 2210 | 2300 | | | | 2300 | | | | N | NO |
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MARINE MAMMAL RECORDING FORM - OPERATIONS

Regulatory reference number
 (e.g. DECC no., BOEM permit no., OCS lease no., etc.)

Ship/ platform name UKD MARLIN

Complete this form every time the airguns are used, including overnight, whether for shooting a line or for testing or for any purpose.
 Times should be in UTC, using the 24 hour clock.

| Date | Reason for firing l = line t = test x = test followed immediately by line | Time soft start/ramp-up began | Time of full power | Time of start of line ↓ | Time of end of line ↓ | Time of reduced output (if relevant) | Time airguns/source stopped | Time pre-shooting search began | Time search ended ↓ | Time PAM began | Time PAM ended | Depth range (during pre-shooting search) s = <200m d = >200m b = both | Was it day or night in period prior to firing? d = day n = night w = dawn k = dusk | Was any mitigating action required? (yes/ no) |
|----------|--|-------------------------------|--------------------|----------------------------|--------------------------|--------------------------------------|-----------------------------|--------------------------------|------------------------|----------------|----------------|--|--|---|
| 02/03/19 | | | | 0155 | 0300 | | | | 0300 | | | | | |
| 02/03 | | | | 0620 | 0710 | | | | 0710 | | | | | |
| 02/03 | | | | 1025 | 1120 | | | | 1120 | | | | | |
| 02/03 | | | | 1420 | 1520 | | | | 1520 | | | | | |
| 02/03 | | | | 1750 | 1835 | | | | 1835 | | | | | |
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MARINE MAMMAL RECORDING FORM - EFFORT

Regulatory reference number

Ship/ platform name 'UKD MARLIN'

(e.g. DECC no., BOEM permit no., OCS lease no., etc.)

Record the following for all watches, even if no marine mammals are seen.

START A NEW LINE IF SOURCE ACTIVITY OR WEATHER CHANGES. ENTER DATA AT LEAST EVERY HOUR.

| Date | Visual watch or PAM (v/p) | Observer's/ operator's name(s) | Time of start of section of watch (UTC, 24hr clock) | Time of end of section of watch (UTC, 24hr clock) | Source activity (f/s/r/n/v) <u>D</u> <i>Dump/ink</i> | Start position (latitude and longitude) | Depth at start (m) | End position (latitude and longitude) | Depth at end (m) | Speed of vessel (knots) | Wind dir'n | Wind force (B'fort scale) | Sea state (g/s/c/r) | Swell (o/m/l) | Vis. (visual watch only) (p/m/g) | Sun glare (visual watch only) (n/wf/sf/vf/wb/sb/vb) | Precip. (n/l/m/h/s) |
|-------|----------------------------------|--------------------------------|---|---|--|---|--------------------|---------------------------------------|------------------|-------------------------|------------|---------------------------|----------------------------|----------------------|---|--|----------------------------|
| 27/02 | V | [Redacted] | 1900 | 1955 | D | 56° 42.185 N 02° 25.827 W | 4.0 | 56° 39.529 N 2° 26.091 W | 19.5 | 4.8 | W | 1 | G | O | G | N | N |
| 27/02 | V | [Redacted] | 2230 | 2330 | D | 56° 42.179 N 02° 25.821 W | 4.3 | 56° 39.780 N 2° 26.320 W | 19.3 | 2.4 | WSW | 1 | G | O | G | N | N |
| 28/02 | V | [Redacted] | 0110 | 0210 | D | 56° 42.189 N 02° 25.817 W | 4.5 | 56° 39.780 N 2° 26.250 W | 20.1 | 1.5 | W | 2 | G | O | G | N | N |
| 28/02 | V | [Redacted] | 0400 | 0440 | D | 56° 42.175 N 02° 25.830 W | 5.0 | 56° 39.720 N 2° 26.068 W | 18.9 | 1.3 | W | 2 | S | O | G | N | N |
| 28/02 | V | [Redacted] | 0650 | 0740 | D | 56° 42.192 N 02° 26.310 W | 5.1 | 56° 39.710 N 2° 26.08 W | 18.5 | 1.7 | NE | 3 | S | O | M | N | N |
| 28/02 | V | [Redacted] | 1050 | 1135 | D | 56° 42.198 N 02° 25.959 W | 3.9 | 56° 39.740 N 2° 26.05 W | 24 | 2.1 | E | 2 | S | O | M | N | N |
| 28/02 | V | [Redacted] | 1405 | 1525 | D | 56° 42.210 N 02° 26.620 W | 3.5 | 56° 39.237 N 2° 26.084 W | 23.1 | 2.3 | NE | 1 | S | O | M | N | N |
| 28/02 | V | [Redacted] | 1830 | 1920 | D | 56° 42.177 N 02° 25.900 W | 3.1 | 56° 39.660 N 2° 26.080 W | 22.4 | 2.0 | SSW | 2 | S | O | G | N | N |
| 28/02 | V | [Redacted] | 2300 | 2350 | D | 56° 42.200 N 02° 27.110 W | 3.4 | 56° 39.570 N 2° 25.980 W | 18.9 | 1.6 | E | 2 | S | O | G | N | N |

Visual watch or PAM:

v = visual watch; p = PAM

Source activity:

f = full power; s = soft start; r = reduced power (not soft start); n = not active; v = variable (e.g. tests)

Sea state:

g = glassy (like mirror); s = slight (no/ few white caps); c = choppy (many white caps); r = rough (big waves, foam, spray)

Swell:

o = low (< 2 m); m = medium (2-4 m); l = large (> 4 m)

Visibility:

p = poor (< 1 km); m = moderate (1-5 km); g = good (> 5 km)

Sun glare:

n = none; wf = weak forward; sf = strong forward; vf = variable forward; wb = weak behind; sb = strong behind; vb = variable behind

Precipitation:

n = none; l = light rain; m = moderate rain; h = heavy rain; s = snow

MARINE MAMMAL RECORDING FORM - EFFORT

Regulatory reference number
 (e.g. DECC no., BOEM permit no., OCS lease no., etc.)

Ship/ platform name UKD MARLIN

Record the following for all watches, even if no marine mammals are seen.

START A NEW LINE IF SOURCE ACTIVITY OR WEATHER CHANGES. ENTER DATA AT LEAST EVERY HOUR.

| Date | Visual watch or PAM (v/p) | Observer's/ operator's name(s) | Time of start of section of watch (UTC, 24hr clock) | Time of end of section of watch (UTC, 24hr clock) | Source activity (f/ s/ r/ n/ v) D = Damp, NC | Start position (latitude and longitude) | Depth at start (m) (sander) | End position (latitude and longitude) | Depth at end (m) | Speed of vessel (knots) | Wind dir'n | Wind force (B' fort scale) | Sea state (g/ s/ c/ r) | Swell (o/ m/ l) | Vis. (visual watch only) (p/ m/ g) | Sun glare (visual watch only) (n/ wf/ sf/ vf/ wb/ sb/ vb) | Precip. (n/ l/ m/ h/ s) |
|----------|------------------------------|--------------------------------|---|---|--|---|--------------------------------|---------------------------------------|------------------|-------------------------|------------|----------------------------|---------------------------|--------------------|--|---|----------------------------|
| 01/03/19 | V | [Redacted] | 0130 | 0230 | D | 56° 42.200 N 02° 26.923 W | 4.0 | 56° 39.731 N 02° 26.283 W | 21 | 1.9 | VAR. | 1 | S | O | G | N | N |
| 01/03 | V | [Redacted] | 0435 | 0535 | D | 56° 42.170 N 02° 25.966 W | 3.9 | 56° 39.85 N 02° 26.961 W | 23 | 2.2 | VAR. | 1 | S | O | G | N | N |
| 01/03 | V | [Redacted] | 0755 | 0840 | D | 56° 42.156 N 02° 26.369 W | 4.2 | 56° 39.557 N 02° 25.867 W | 25 | 3.0 | NE | 1 | S | O | M | N | N |
| 01/03 | V | [Redacted] | 1200 | 1250 | D | 56° 42.211 N 02° 28.135 W | 3.5 | 56° 39.637 N 02° 26.203 W | 20 | 2.4 | SE | 4 | S | O | M | WF | N |
| 01/03 | V | [Redacted] | 1440 | 1540 | D | 56° 42.171 N 02° 28.034 W | 3.2 | 56° 39.831 N 02° 26.176 W | 17.5 | 2.6 | SSE | 4 | S | O | G | SF | N |
| 01/03 | V | [Redacted] | 1820 | 1915 | D | 56° 42.192 N 02° 26.061 W | 3.0 | 56° 39.697 N 02° 25.885 W | 18.3 | 1.3 | SE | 3 | S | O | M | N | N |
| 01/03 | V | [Redacted] | 2210 | 2300 | D | 56° 42.213 N 02° 26.815 W | 3.4 | 56° 39.630 N 02° 26.030 W | 19.4 | 1.8 | S | 4 | S | O | G | N | N |
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Visual watch or PAM: v = visual watch; p = PAM
 Source activity: f = full power; s = soft start; r = reduced power (not soft start); n = not active; v = variable (e.g. tests)
 Sea state: g = glassy (like mirror); s = slight (no/ few white caps); c = choppy (many white caps); r = rough (big waves, foam, spray)
 Swell: o = low (< 2 m); m = medium (2-4 m); l = large (> 4 m)
 Visibility: p = poor (< 1 km); m = moderate (1-5 km); g = good (> 5 km)
 Sun glare: n = none; wf = weak forward; sf = strong forward; vf = variable forward; wb = weak behind; sb = strong behind; vb = variable behind
 Precipitation: n = none; l = light rain; m = moderate rain; h = heavy rain; s = snow

MARINE MAMMAL RECORDING FORM - EFFORT

Regulatory reference number
 (e.g. DECC no., BOEM permit no., OCS lease no., etc.)

Ship/ platform name UKD MARLIN

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START A NEW LINE IF SOURCE ACTIVITY OR WEATHER CHANGES. ENTER DATA AT LEAST EVERY HOUR.

| Date | Visual watch or PAM (v/p) | Observer's/ operator's name(s) | Time of start of section of watch (UTC, 24hr clock) | Time of end of section of watch (UTC, 24hr clock) | Source activity (f/ s/ r/ n/ v) D = Pumping | Start position (latitude and longitude) | Depth at start (m) | End position (latitude and longitude) | Depth at end (m) | Speed of vessel (knots) | Wind dir'n | Wind force (B' fort scale) | Sea state (g/ s/ c/ r) | Swell (o/ m/ l) | Vis. (visual watch only) (p/ m/ g) | Sun glare (visual watch only) (n/ wf/ sf/ vf/ wb/ sb/ vb) | Precip. (n/ l/ m/ h/ s) |
|-------|------------------------------|--------------------------------|--|--|---|---|--------------------|---------------------------------------|------------------|-------------------------|------------|----------------------------|---------------------------|--------------------|--|---|----------------------------|
| 02/03 | ✓ | [Redacted] | 0155 | 0300 | ND | 56° 42.179 N 02° 25.813 W | 3.9 | 56° 39.630 N 02° 26.280 W | 18.7 | 2-3 | S | 3 | S | 0 | G | N | N |
| 02/03 | ✓ | [Redacted] | 0620 | 0710 | D | 56° 42.176 N 02° 25.823 W | 4.1 | 56° 39.710 N 02° 25.760 W | 18.1 | 2.6 | S | 3 | S | 0 | G | N | N |
| 02/03 | ✓ | [Redacted] | 1025 | 1120 | D | 56° 42.185 N 02° 28.005 W | 3.2 | 56° 39.598 N 02° 26.276 W | 21.6 | 2.1 | SSE | 2 | S | 0 | G | SF | N |
| 02/03 | ✓ | [Redacted] | 1420 | 1520 | D | 56° 42.253 N 02° 28.167 W | 2.7 | 56° 39.851 N 02° 26.127 W | 18.1 | 2.7 | SSE | 4.5 | C | 0 | G | N | N |
| 02/03 | ✓ | [Redacted] | 1750 | 1835 | D | 56° 42.219 N 02° 28.155 W | 3.3 | 56° 39.812 N 02° 25.983 W | 19.3 | 2-3 | SSE | 6 | C | M | M | N | N |
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Visual watch or PAM: v = visual watch; p = PAM
Source activity: f = full power; s = soft start; r = reduced power (not soft start); n = not active; v = variable (e.g. tests)
Sea state: g = glassy (like mirror); s = slight (no/ few white caps); c = choppy (many white caps); r = rough (big waves, foam, spray)
Swell: o = low (< 2 m); m = medium (2-4 m); l = large (> 4 m)
Visibility: p = poor (< 1 km); m = moderate (1-5 km); g = good (> 5 km)
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MARINE MAMMAL RECORDING FORM - EFFORT

Regulatory reference number
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Ship/ platform name 'UKD MARLIN'

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| Date | Visual watch or PAM (v/p) | Observer's/ operator's name(s) | Time of start of section of watch (UTC, 24hr clock) | Time of end of section of watch (UTC, 24hr clock) | Source activity D = Dumping (f/ s/ r/ n/ v) | Start position (latitude and longitude) | Depth at start (m) | End position (latitude and longitude) | Depth at end (m) | Speed of vessel (knots) | Wind dir'n | Wind force (B'fort scale) | Sea state (g/ s/ c/ r) | Swell (o/ m/ l) | Vis. (visual watch only) (p/ m/ g) | Sun glare (visual watch only) (n/ w/ sf/ v/ wb/ sb/ vb) | Precip. (n/ l/ m/ h/ s) |
|-------|------------------------------|--------------------------------|---|---|---|---|--------------------|---------------------------------------|------------------|-------------------------|------------|---------------------------|---------------------------|--------------------|--|---|----------------------------|
| 03/03 | V | [Redacted] | 1520 | 1620 | D | 56° 42.229 N 02° 28.069 W | 4.7 | 56° 39.784 N 02° 26.016 W | 23.5 | 2.5 | S | 5 | S | 0 | G | N | N |
| 03/03 | V | [Redacted] | 1850 | 1955 | D | 56° 42.316 N 02° 28.116 W | 4.6 | 56° 39.739 N 02° 25.931 W | 22.9 | 1.4 | S | 2 | S | 0 | G | N | N |
| 03/03 | V | [Redacted] | 2330 | 0020 | D | 56° 42.159 N 02° 28.137 W | 4.8 | 56° 39.880 N 02° 26.021 W | 23.1 | 2.3 | SSW | 3 | S | 0 | G | N | N |
| 04/03 | V | [Redacted] | 0335 | 0430 | D | 56° 42.320 N 02° 28.151 W | 5.1 | 56° 39.691 N 02° 26.003 W | 24 | 1.9 | WNW | 3 | S | 0 | G | N | N |
| 04/03 | V | [Redacted] | 0735 | 0820 | D | 56° 42.125 N 02° 28.019 W | 5.0 | 56° 39.832 N 02° 26.017 W | 22.1 | 2.4 | W | 3 | S | 0 | G | N | N |
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- Visual watch or PAM: v = visual watch; p = PAM
 Source activity: f = full power; s = soft start; r = reduced power (not soft start); n = not active; v = variable (e.g. tests)
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 Sun glare: n = none; wf = weak forward; sf = strong forward; vf = variable forward; wb = weak behind; sb = strong behind; vb = variable behind
 Precipitation: n = none; l = light rain; m = moderate rain; h = heavy rain; s = snow