**DATA BUOY COOPERATION PANEL (DBCP)**

**FORMAT FOR NATIONAL REPORTS ON CURRENT AND
PLANNED BUOY PROGRAMMES**

|  |  |
| --- | --- |
| **Country** | United Kingdom |
| **Year** | 2021 |

**Please Identify your Programme’s Major Opportunities and Challenges/Risks during the upcoming year and how DBCP can most effectively assist your Programme.**

1. ***CURRENT PROGRAMME:***

**Please Identify your Programme’s Major Opportunities and Challenges/Risks during the upcoming year and how DBCP may assist your Programme.**

|  |  |
| --- | --- |
| **Met Office** | Marine network deep ocean moored buoys (K1, K2, K4, K5, K7, Brittany, Gascogne)\* |
| Number and type of buoys | (a) deployed during the year | 3 |
| (b) operational as of 31 August | 5 |
| (c) reporting on GTS as of 31 August | 5 |
| Purpose of programme*(check/uncheck boxes using [\_] or [x] as appropriate)* | (a) operational | [x] |
| (b) met / ocean research |  |
| (c) developmental |  |
| Main deployment areas | North-east Atlantic (2 buoys in Biscay jointly operated with Meteo-France) |
| Vandalism incidents | (a) Nil |

Largely back getting back on track, with a few exceptions, following the disruption of the last couple of years. Rolling out all new AMOS2X buoys

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| **Met Office** | Instrumented light vessels/buoys |
| Number and type of buoys | (a) deployed during the year | 5 |
| (b) operational as of 31 August | 4 |
| (c) reporting on GTS as of 31 August | 4 |
| Purpose of programme*(check/uncheck boxes using [\_] or [x] as appropriate)* | (a) operational | [x] |
| (b) met / ocean research |  |
| (c) developmental |  |
| Main deployment areas | The Channel |
| Vandalism incidents | (a) Nil |

*Last of legacy Mk2b weather stations replaced with AMOS2X.*

*Channel LV replaced with buoy.*

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| **Met Office/NOCS** | Porcupine Abyssal Plain (PAP) OceanSITES mooring |
| Number and type of buoys | (a) deployed during the year | Deployed April 2021 |
| (b) operational as of 31 August | Yes |
| (c) reporting on GTS as of 31 August | Yes |
| Purpose of programme*(check/uncheck boxes using [\_] or [x] as appropriate)* | (a) operational | [x] |
| (b) met / ocean research | [x] |
| (c) developmental |  |
| Main deployment areas | Porcupine Abyssal Plain 49N 16.5W  |
| Vandalism incidents | (a) Nil |

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| **PML/Met Office** | Western Channel Observatory moored buoys (E1 and L4) |
| Number and type of buoys | (a) deployed during the year | 1 |
| (b) operational as of 31 August | 1 |
| (c) reporting on GTS as of 31 August | 1 |
| Purpose of programme*(check/uncheck boxes using [\_] or [x] as appropriate)* | (a) operational | [x] |
| (b) met / ocean research | [x] |
| (c) developmental |  |
| Main deployment areas |  |
| Vandalism incidents | (a) Nil |

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| **Cefas** | WaveNet |
| Number and type of buoys | (a) deployed during the year | Cefas waveriders servicing carried out 12-24 monthly as required |
| (b) operational as of 31 August | 57 (19 Cefas, 38 3rd party) |
| (c) reporting on GTS as of 31 August | None. Data available through WaveNet website |
| Purpose of programme*(check/uncheck boxes using [\_] or [x] as appropriate)* | (a) operational | [x] |
| (b) met / ocean research |  |
| (c) developmental |  |
| Main deployment areas |  |
| Vandalism incidents | (a)  |

*\**[*https://www.cefas.co.uk/data-and-publications/wavenet/*](https://www.cefas.co.uk/data-and-publications/wavenet/)

WaveNet is funded until at least March 2023

|  |  |
| --- | --- |
| **Cefas** | SmartBuoy monitoring sites |
| Number and type of buoys | (a) deployed during the year | ? |
| (b) operational as of 31 August | 2 |
| (c) reporting on GTS as of 31 August | 0 |
| Purpose of programme*(check/uncheck boxes using [\_] or [x] as appropriate)* | (a) operational | [x] |
| (b) met / ocean research | [x] |
| (c) developmental |  |
| Main deployment areas |  |
| Vandalism incidents | (a) Nil |

Cefas have agreed that the SmartBuoy data can be distributed on the GTS. Some development work is required to generate the BUFR message from the raw data received.

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| **Met Office** | Drifters |
| Number and type of buoys | (a) deployed during the year | 28 DBi GDP SVPB5 E-SURFMAR Met Ocean |
| (b) operational as of 31 August | 32 |
| (c) reporting on GTS as of 31 August | 32 |
| Purpose of programme*(check/uncheck boxes using [\_] or [x] as appropriate)* | (a) operational | [x] |
| (b) met / ocean research | [x] |
| (c) developmental |  |
| Main deployment areas | 1. Met Office aim for the South Atlantic, targeting waters around the Falklands and between Cape Town – St Helena/Ascension
2. AOML\*/ESURFMAR targets the North Eastern Atlantic, off the NW coast of Africa
 |
| Vandalism incidents | (a) Nil |

*(repeat table above as often as necessary)*

***2. PLANNED PROGRAMMES:***

No new programmes

***3. TECHNICAL DEVELOPMENTS:***

|  |  |
| --- | --- |
| (a) Buoy design | * Exclusively rolling out new hardware buoys consisting of 2 AMOS2X AWS (CR1000X-based) on a hydrosphere/Mobilis hull.
* Dual AMOS2X AWS installed on all light vessels
* Channel LV withdrawn by Trinity House and replaced with type 1 buoy, Met office have installed 2 x AMOS2X on this new buoy.
 |
| (b) Instrumentation | * MOTUS directional wave sensors are being incorporated into the moored buoy network
 |
| (C ) Data Processing | * The Met Office will be moving the data processing for the moored buoys and light vessels over to new in house SurfaceNet system architecture. Testing is at an advanced stage although the migration to operations has been delayed.
* Once the switch has been made the data will be shared in the BUFR 3-15-008 template, this should occur early in 2022
 |

***4. PUBLICATIONS (on programme plans, technical developments, QC reports, etc.):***

|  |  |  |
| --- | --- | --- |
| ***Ref*** | ***Title*** | ***Type[[1]](#footnote-1)*** |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |

*(repeat rows in the table above as necessary)*

***5. ADDITIONAL COMMENTS:***

|  |  |
| --- | --- |
| (a) Quality of buoy data | * Data quality from buoys remains a consistent high standard
 |
| (b) Communications | * Met Office aims to reduces communications costs by switching to binary data format for
 |
| (c) Buoy lifetimes | * With a new generation of moored buoys being rolled out on the network we’re keeping a close eye on how the new systems performed compared to previous systems
 |
| (d) Data Accessibility[[2]](#footnote-2) |  |
| (e) New Observations[[3]](#footnote-3) |  |
| (f) GFCS and WIGOS[[4]](#footnote-4) |  |
| (g) Additional Requirements[[5]](#footnote-5) |  |
| (h) DBCP Linkages[[6]](#footnote-6) |  |
| (i) Contribution to UN Decade and UN SDGs[[7]](#footnote-7) | ● ● ●  |
| (j) Other (i.e. Impact of COVID19 on observing systems and mitigation efforts) | * Challenging couple of years but getting back to near full complement
 |

Note: It is recommended that this form is filled in electronically and returned also electronically to the Secretariat. A template of the form can be downloaded from the following SharePoint site:

[https://wmoomm.sharepoint.com/:w:/s/wmocpdb/EQ1z8KndbxREkzE6RH4NFkkBDdvOItne74OP8f4voMMSbg?e=pgru6r](https://wmoomm.sharepoint.com/%3Aw%3A/s/wmocpdb/EQ1z8KndbxREkzE6RH4NFkkBDdvOItne74OP8f4voMMSbg?e=pgru6r)

**ANNEX - FORM FOR REPORTING INCIDENTS OF VANDALISM ON DATA BUOYS**

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| --- | --- |
| **Country** |   |
| **Contact person e-mail** |  |
| **Year** | **Buoy Location** | **Type of Buoy****(e.g. Tsunami / Met -Ocean Buoy/Drifter/ARGO floats/ Other)** | **Type of damage to buoy** | **Buoy id/WMO id** | **Number of days of transmission lost** | **Cost of replacement** | **Remarks****(e.g. whether photos have been taken)** |
| **Latitude** | **Longitude** |  |
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| **Efforts taken against vandalism** |   |
| **Awareness meeting Organised**  |  |
| **Suggestions (if any)** |  |
| **Photos on Vandalism** | (please include pictures if available; and email electronic versions to dbcp-tc@jcommops.org and karen.grissom@noaa.gov ) |

Note: It is recommended that this form is filled in electronically and returned electronically also to OceanOPS (dbcp-tc@jcommops.org and karen.grissom@noaa.gov ). A template of the form can be downloaded from the following SharePoint site: [https://wmoomm.sharepoint.com/:w:/s/wmocpdb/EXsq1FXv0vpHmOjQA-tTobwBMrNnjXnaQok3oudPhKIb3A?e=2IR9Wh](https://wmoomm.sharepoint.com/%3Aw%3A/s/wmocpdb/EXsq1FXv0vpHmOjQA-tTobwBMrNnjXnaQok3oudPhKIb3A?e=2IR9Wh)

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1. : Types of publications: (1) Implementation, (2) Operations, (3) Instrumentation, (4) Quality Management, (5) Data Management, (6) Data collection and/or location, (7) Data use, (8) Other [↑](#footnote-ref-1)
2. How does the international community access the ocean observing data provided by your Organization [↑](#footnote-ref-2)
3. What new ocean observations does your Organization plan to make in the upcoming year (i.e. new parameters, expanding geographic scope, filling spatial or latency gaps)? [↑](#footnote-ref-3)
4. How do your Organization’s observations contribute to the WMO’s Integrated Global Observing System (WIGOS) and/or Global Framework for Climate Services (GFCS)? [↑](#footnote-ref-4)
5. What additional requirements (other than climate) does your organization have that are currently not adequately addressed by the DBCP? [↑](#footnote-ref-5)
6. How would your organization benefit from DBCP’s closer linkages to the Global Ocean Observing System(GOOS), Data Management and Modelling Communities? [↑](#footnote-ref-6)
7. How do your ocean observing networks contributing to the UN decade on Ocean Science and UN Sustainable Development Gloas . [↑](#footnote-ref-7)