**DATA BUOY COOPERATION PANEL (DBCP)**

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

|  |  |
| --- | --- |
| **Country** | CANADA |
| **Year** | 2022 |

**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.**

|  |  |
| --- | --- |
| **Agency or programme** | Environment & Climate Change Canada Moored Buoys |
| Number and type of buoys | (a) deployed during the year | 20 all season buoys19 seasonal buoys(no new sites) |
| (b) operational as of 31 August | 20 all season buoys17 seasonal buoys |
| (c) reporting on GTS as of 31 August | 20 all season buoys17 seasonal buoys |
| Purpose of programme*(check/uncheck boxes using [\_] or [x] as appropriate)* | (a) operational | [x] |
| (b) met / ocean research | [x] |
| (c) developmental | [x] |
| Main deployment areas | Pacific Ocean, Atlantic Ocean, Great Lakes, inner lakes |
| Vandalism incidents | None |

*(repeat table above as often as necessary)*

|  |  |
| --- | --- |
| **Agency or programme** | Environment & Climate Change Canada Drifter Buoys |
| Number and type of buoys | (a) deployed during the year | 8 |
| (b) operational as of 31 July | 35 |
| (c) reporting on GTS as of 31 July | 35 (8 were deployed after July 31st) |
| Purpose of programme*(check/uncheck boxes using [\_] or [x] as appropriate)* | (a) operational | [x] |
| (b) met / ocean research | [x] |
| (c) developmental | [x] |
| Main deployment areas | Arctic |
| Vandalism incidents | None |

|  |  |
| --- | --- |
| **Agency or programme** | Environment & Climate Change Canada Oceans Protection Plan (OPP) Buoys |
| Number and type of buoys | (a) deployed during the year | 5 all season buoys |
| (b) operational as of 31 July | 4 all season buoys |
| (c) reporting on GTS as of 31 July | 4 all season buoys |
| Purpose of programme*(check/uncheck boxes using [\_] or [x] as appropriate)* | (a) operational | [x] |
| (b) met / ocean research | [x] |
| (c) developmental | [x] |
| Main deployment areas | PACIFIC AND ATLANTIC COAST |
| Vandalism incidents | None |

|  |  |
| --- | --- |
| **Agency or programme** | Department of Fisheries and Oceans Canada Moored Buoys |
| Number and type of buoys | (a) deployed during the year | 45 seasonal buoys  |
| (b) operational as of 31 July | 45 seasonal buoys |
| (c) reporting on GTS as of 31 July | 11 viking buoys reported temperature and salinity on the GTS |
| Purpose of programme*(check/uncheck boxes using [\_] or [x] as appropriate)* | (a) operational | [x] |
| (b) met / ocean research | [x] |
| (c) developmental |  |
| Main deployment areas | Atlantic Ocean, Gulf of St Lawrence, Pacific Ocean |
| Vandalism incidents | None |

|  |  |
| --- | --- |
| **Agency or programme** | Department of Fisheries and Oceans Canada Drifting Buoys |
| Number and type of buoys | (a) deployed during the year | 34 |
| (b) operational as of 31 July | 29 all season buoys |
| (c) reporting on GTS as of 31 July | 19 all season buoys |
| Purpose of programme*(check/uncheck boxes using [\_] or [x] as appropriate)* | (a) operational | Not yet |
| (b) met / ocean research | Yes |
| (c) developmental | Yes |
| Main deployment areas | Atlantic Ocean |
| Vandalism incidents | None |

***2. PLANNED PROGRAMMES:***

|  |  |
| --- | --- |
| **Agency or programme** |  |
| Number and type of buoys | planned for deployment in the next 12 months | N/A |
| Purpose of programme*(check/uncheck boxes using [\_] or [x] as appropriate)* | (a) operational |  |
| (b) met / ocean research |  |
| (c) developmental |  |
| Main deployment areas |  |

*(repeat table above as often as necessary)*

***3. TECHNICAL DEVELOPMENTS:***

|  |  |
| --- | --- |
| (a) Buoy design | * One 1.7m seasonal buoy deployed manufactured by SeaLite on Lake St Clair with a slightly different design, but no significant changes
 |
| (b) Instrumentation | * ECCC – 21 WM500 payloads have been installed on buoys on the inner lakes. The program will slowly integrate the new payloads and new TriAxys wave sensors into the network.
 |

***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 |  |
| (b) Communications | * ECCC – Buoy raw messages were reformatted to reduce message size, transmission costs, and to include more parameters such as additional wave information.
 |
| (c) Buoy lifetimes |  |
| (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) |  |

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**

|  |  |
| --- | --- |
| **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** |  |
|  |   |   |   |   |   |   |   |   |
|  2022 |  44o39’38.016” N; |  66o22’6.960”W |  Met-Ocean Buoy (Ocean Protection Plan) |  Mooring entangled in fishing gear -> intentionally cut |  4400490 |  June 19, 2022 - Present |  Mooring (~$20k-$25k cad), Emergency Retrieval (~$30k cad), redeployment costs (tbd – decision pending) |  Photos taken |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |
| **Efforts taken against vandalism** | * Discussing vandalism occurrences and potential mitigation measures with other network operators in Canada (particularly in Atlantic Canada)
* Considering general media articles/messaging describing our buoy monitoring program and related purpose importance via our communication division
* Also investigating the potential of adding cameras to our moored buoys as a potential deterrent (in addition to support met operations)
 |
| **Awareness meeting Organised**  |  |
| **Suggestions (if any)** |  |
| **Photos on Vandalism** | (please include pictures if available; and email electronic versions to dbcp-tc@jcommops.org and dr.r.venkatesan@gmail.com) |

Note: It is recommended that this form is filled in electronically and returned electronically also to OceanOPS (dbcp-tc@jcommops.org and dr.r.venkatesan@gmail.com ). 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)