|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **VOS Report for 2018** | | | **Country =** | | | |  | |
|  | | | | | | | | | |
|  | **a.** | **Programme description:** | | | | | | | |
| **Category** | | **No. of ships at**  **31 Dec 2018** | **Recruitments in 2018** | **De-recruitments**  **In 2018** | | **Comments** | | |
| *Selected* | | 36 |  | 3 | |  | | |
| *Selected AWS* | | 3 |  |  | |  | | |
| *VOSClim* | | 13 | 9 | 3 | |  | | |
| *VOSClim AWS* | |  |  |  | |  | | |
| *Supplementary* | |  |  |  | |  | | |
| *Supplementary AWS* | |  |  |  | |  | | |
| *Auxiliary* | | 1 |  |  | |  | | |
| *Auxiliary AWS* | |  |  |  | |  | | |
| *Other* | |  |  |  | |  | | |
| **National VOS Total** | | 53 |  |  | |  | | |
|  |  | |  |  |  | |  | | |
|  | **National VOS Target** | | 70 |  |  | |  | |  |
|  | **National VOSClim Target** | | 20 |  |  | |  | |  |
|  |  | |  |  |  | |  | |  |
|  | **b.** | **Data management:** | | | | | | | |
|  | *Total number of ship observations (BBXX) distributed on the GTS in 2018* | | | | | 38,205 | | | |
|  | *Dates when VOS data submitted to the GCCs in 2018* | | | | | January, April, July, October | | | |

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|  | c. | **Shipboard Automatic Weather System** | | | | | | | |
| **Type** | | | **No. of ships at 31 Dec 2018** | | **Manual Input**  **Yes / No** | | **Method of Comms** | **Year1 Plans** |
| Vaisala Milos 500 | | | 2 | | Yes | | Inmarsat (data mode) | Nil |
| Techsas | | | 1 | | No | | Inmarsat (data mode) | Nil |
|  | | |  | |  | |  |  |
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|  | **d.** | **Electronic logbooks: (TurboWin, SEAS, OBSJMA)** | | | | | | | |
| **Software & version** | | **No. of ships at**  **31 Dec 2018** | | Implementation plans | | | | |
| TurboWin 5.0 | | 35 | |  | | | | |
| TurboWin + | | 15 | | Continue to upgrade all ships to Turbowin+ | | | | |
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| **e.** | **Standard Meteorological Equipment: (Types and Settings)** | | |
| **Equipment Type / Element** | | **Manual Instrumentation** | **AWS Instrumentation** |
| Barometer | | Vaisala PTB 330B | Vaisala PTB 220B |
| Vaisala PTB 220B |  |
|  |  |
| *Default national setting* | | *Station Level* | *Station Level* |
| Barograph | | Marine Electronic Barograph software | None |
| Turbowin + |  |
| *Default national setting* | | *Station Level* | *-* |
| Thermometers | | AMA mercury in glass | Rosemount ST2401 Temperature probe |
|  | | Zeal mercury in glass | Vaisala HMP45D humidity probe |
|  | | Vaisala HMP155 humidity probe | Vaisala HMP155 humidity probe |
| Sea Surface Temperature | | Ship’s own condenser intake | Hull contact sensor Seabird SBE48 |
|  | | Sea bucket and thermometer |  |
| Wind Speed | | Estimated | Vaisala Cups WAA151 |
|  | |  |  |
| Wind Direction | | Estimated | Vaisala Vane WAV151 |
|  | |  |  |

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| **f.** | **PMO ship visit activities: (if a visit is for dual purposes, include all purposes)** | | | | |
| **Activity** | | **Manual Ship** | | **AWS**  **Ship** | **Comment** |
| Routine VOS inspections | | 38 | | 12 |  |
| VOS recruitment visits | | 9 | |  |  |
| VOS de-recruitment visits | | 6 | |  |  |
| VOS courtesy or foreign visits | | 3 | |  | Increased number of remote barometer checks |
| *Total visits to VOS* | | 68 | | |  |
| Routine ASAP inspections | |  | |  |  |
| ASAP recruitment visits | |  | |  |  |
| ASAP de-recruitment visits | |  | |  |  |
| ASAP courtesy visits | |  | |  |  |
| *Total visits to ASAP* | |  | |  |  |
| Routine SOOP visits | | 15 | |  |  |
| SOOP recruitment visits | | 2 | |  |  |
| SOOP de-recruitment visits | | 1 | |  |  |
| SOOP courtesy visits | | 2 | |  |  |
| *Total visits to SOOP* | | 20 | |  |  |
| Visits in support of DBCP (drifting buoys) | | 12 | |  |  |
| Visits in support of Argo (profiling floats) | | 2 | |  |  |
| *Total visits to other programs* | | 14 | |  |  |
| **Total visits by national PMOs** | | 102 | | *Sum of all ship visits (VOS + ASAP + SOOP) + visits to other program (DBCP + Argo)* | |
| **Total number of PMOs(FTE\*)** | | 2.4 | |  | |
| (\*FTE-Full Time Employee) | |  |  | |  |

|  |  |
| --- | --- |
| **g.** | **Major challenges and difficulties:** |
| * Limited staff resources. PMOs only operating at about 50% capacity. * Limited stock of thermometers, during our transition to digital sensors, has affected our capacity to recruit new vessels. | |
|  |  |
| **h.** | **Research / development / testing:** |
| * Testing a wireless connection between HMP155 temp/humidity probe and the Turbowin+ laptop. * Developing next generation SST system using SBE48, HF relay, solar power and Iridium comms for simpler installation and operation. | |
|  |  |
| **i.** | **Other comments** |
| * Going out to tender for a ship-based AWS in early 2019. * Developing PMO competencies at regional offices located near major ports. * National PMO training workshop scheduled for March 2019. | |