

# 2020-04-30 Shared Domains Vocabularies meeting

## Date

30 Apr 2020

## Participants

<b>BODC</b>	Violetta Paba	Matt Donnelly	Gwenaelle Moncoiffe	Louise Darroch	Justin Buck
<b>Ifremer</b>	Thierry Carval				
<b>Jcommops</b>	Victor Turpin, Anthonin Lize, Magali Krieger				

## Meeting agenda & Minutes

While working on the transfer of the [Argo User Manual](#) Reference Tables to NVS collections to be placed under Argo governance, we ran into a few cases where the governance wasn't so clear-cut, or where shared governance with other observational system domains could be beneficial.

The two opposing forces are at play when considering shared domains, at least in the case of Argo:

- The collections created so far (R##, where ## is the number reflecting the corresponding Reference table in the Argo User Manual) have seen the CODVAL (concept ID) and CODALT (concept Alternative label) match the metadata terms used in the Argo data files for the fields defined by the name of each table/collection. This is so that NVS searches can intuitively and immediately provide the DACs and the GDACs with the exact codes they would need to create or check an Argo netCDF data file. From here stems the argument that all of the Argo collections should be kept separate from those of other domains, to keep the governance completely within the Argo community and in exact reflection of the Argo data system.
- On the other hand, vocabularies shared among several observational groups would greatly enhance data interoperability, one of the key components of FAIRness. Holistic observational programmes support centres like Jcommops may possibly support this view for this reason, as well as emerging observational systems such as that of Gliders, to avoid duplication of effort and mappings having to be set up to maintain an acceptable degree of interoperability.

The main objective of the meeting is to therefore to discuss the pros and cons of these two points of view, and agree on a direction regarding shared governance, starting from the Argo Reference Tables but with potential effects on the Glider vocabularies and those of other external domains.

**Spoiler overall decision:** Argo to continue creating NVS collections out of the Argo metadata tables, and maintain full governance on them. Jcommops is happy to continue working on creating/maintaining/using 'master' tables and map them to the collections governed by individual observing system domains.

In doing so, we will present a few example of the Argo Reference Tables that have stimulated these questions. Among these are:

## Reference table 8 - Instrument types

Code number	Instrument
831	P-Alace float
837	Arvor-C float
838	Arvor-D float
839	Provor-II float
840	Provor, no conductivity
841	Provor, Seabird conductivity sensor
842	Provor, FSI conductivity sensor
843	POPS ice Buoy/Float
844	Arvor, Seabird conductivity sensor
845	Webb Research, no conductivity
846	Webb Research, Seabird sensor
847	Webb Research, FSI sensor
848	Apex-EM float

849	Apex-D deep float
850	Solo, no conductivity
851	Solo, Seabird conductivity sensor
852	Solo, FSI conductivity sensor
853	Solo2, Seabird conductivity sensor
854	S2A float
855	Ninja, no conductivity sensor
856	Ninja, SBE conductivity sensor
857	Ninja, FSI conductivity sensor
858	Ninja, TSK conductivity sensor
859	Profiling Float, NEMO, no conductivity
860	Profiling Float, NEMO, SBE conductivity sensor
861	Profiling Float, NEMO, FSI conductivity sensor
862	Solo-D deep float
863	Navis-A Float
864	Ninja-D deep float
865	Nova float

This table was originally created as a subset of [WMO table 1770](#).

### Q) Is there an interest in hosting WMO table 1770 onto the NVS? *Thierry and Jcommops*

If yes: who would be the governing body for it? Will it keep on being maintained? Will we be mapping between this and R08, and who will oversee that the two tables from the likely two separate government bodies remain aligned?

If no: we will create R08 only, which will have Argo as the governing body; new additions won't have to be reflected in WMO table 1770.

WMO table 1770 still gets updated once in a while.

Matt noted that although Argo Reference Table 8 was created as a subset of WMO table 1770, the latter started off as a 'sensors' table, whereas Ref. Table 8 developed to reflect 'platforms' more closely.

Mappings between the PLATFORM\_TYPE table (R23) and WMO table 1770 have already been identified with the intention to maintain them - in fact, as new terms are added to PLATFORM\_TYPE, requests are sent to WMO to add the corresponding ones to 1770. Thierry noted that Argo does not wait for WMO to actually create the requested new terms before expanding Ref. Table 8.

Jcommops is a WMO office. Jcommops would like more flexibility in managing vocabularies, and to be able to edit and expand them quickly and without depending on 'red tape' from the government bodies of observing systems. This ability would better support Jcommops to support an integrated, global view of all the observing systems.

Lou pointed out that NVS collection [L33](#), 'WMO C3 vocabulary of XBT data types', closely resembles/matches WMO table 1770.

**Action:** [Gwen and Lou](#) to dig out the history of L33 (why it was set up, who was looking after it, whether it does match WMO table 1770, etc.)

**Action:** [Anthonin](#) to contact WMO and ask how table 1770 and other WMO vocabularies are governed. Most importantly, to find out whether WMO would be interested in taking on the governance of [L33](#).

**Action:** [Violetta](#) to create the R08 out of Argo Reference Table 8.

**Decision:** Hold off any mappings between R08 and L33 - we first need to ensure that L33 was intended to match WMO table 1770, and that it does indeed.

**Decision:** The OceanGliders team is happy to use L33 and add terms to it (as opposed to creating a separate collection exclusively under the glider domain to map to it).

## Reference tables 22-27

These are:

- 22 – Platform family
- 23 – Platform type
- 24 – Platform maker

25 – Sensor

26 – Sensor Maker

27 – Sensor Model

These tables could technically be expanded to serve the glider community too.

### **Q) Argo reference table 22-27: extend them to serve the Glider community too? All**

If yes: the domains would be merged, with entries that would only be relevant to one of the two; how would this impact the use of the NVS for the Argo community? How would the shared governance be managed? how would the emergence of new domains interested in these tables be handled?

If no: Separate, semantically equal and mapped collections would be created for each domain, managed by separate governance groups. Who would be in charge of mappings?

Matt noted that extending the domain of these and other tables beyond Argo's domain would not be trivial. There is currently a set procedure for adding new terms to these tables, requiring the approval of the Argo Steering Team (AST). Argo and OceanGliders have some overlapping terms, though also divergent terms which would break the way that Argo tables are currently governed and maintained.

Victor suggested that Jcommops would be happy to use 'master' tables to map on to domain-specific collections. In the case of Reference Table 25 - SENSOR, L22 would serve well as master table; however, Jcommops has already started building an integrated sensor table from all the observing systems. This will be part of Magali's workplan in the future.

**Decision:** Reference tables 22-27 to remain under exclusive Argo domain and be loaded in their current form. This could be re-examined in future if need-be.

**Decision:** Jcommops to use master tables, which are mapped to collections governed by individual observing system domains.

## **Units**

The Argo data system uses UDUNITS, which are the ones accepted on netCDF files. At the moment however, these are not stored on the NVS.

Currently, the Argo Reference Table 3 (Argo parameters) is hosted on the NVS as R03, and has been mapped to P06 (SeaDataNet units).

### **Q) Would there be scope for storing UDUNITS on the NVS? What would the governance of the table be? All**

The UDUNITS governance lies with Unidata ('UD' - <https://www.unidata.ucar.edu/software/udunits/>), and it is not shared by the Climate and Forecast (CF - <http://cfconventions.org/index.html>) governance body. As Justin/Matt pointed out, there is a 'nested' dependence in the sense that CF builds on netCDF (<https://www.unidata.ucar.edu/software/netcdf/>), which in turn build on UDUNITS and other conventions.

Gwen noted that there is a CODATA ([www.codata.org/](http://www.codata.org/)) RDA (<https://www.rd-alliance.org/>) task group already looking at creating controlled vocabularies for units as it is an important requirement from an interoperability point of view.

The NVS can map to external vocabularies. Lou noted that UDUNITS were published by the Marine Metadata Interoperability (MMI) project, though it appears that that vocabulary is no longer managed.

**Action:** Gwen to contact John Graybeal (MMI) to ask for more information on the MMI UDUNITS vocabulary.

**Action:** Justin and Thierry to create an ENVRI-FAIR task team focused on units and initiate collaboration on this.

Birgit Klein from BSH would be a good person to get involved, as she sits in Euro Argo, the Argo Steering Team (AST), the Argo Data Management Team (ADMT) and she will also embody the governance of the Argo technical parameter names and units tables/NVS collections.

## **Agenda**

Presented in slides, also held in M:\BODC\_DOC\Data\_Projects\Argo\ENVRI-FAIR WP9\2020-04-30\_Shared\_Domains\_Vocabularies\_meeting\Shared\_Domains\_Vocabs\_agenda\_final.pptx



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