

Ad-hoc meeting on Observational Metadata, 10-11 Nov 2014, WMO, Geneva

ATTENDEES:

Jörg Klausen [JK], Steve Foreman [SF], Luis Nunes [LN], Jeremy Tandy [JT], Denis Stuber [DS], Bruce Bannerman [BB], Peer Hechler [PH]

AGENDA:

1. OPENING
2. ORGANIZATION OF THE MEETING
 - 2.1 Adoption of agenda
 - 2.2 Working arrangements
3. BACKGROUND AND STATUS OF OBSERVATIONAL METADATA
 - 3.1 Background and intent of the meeting
 - 3.2 Status of relevant activities
4. MAPPING CDMS SPECIFICATIONS' OBSERVATIONAL METADATA COMPONENTS TO THE WIGOS METADATA STANDARD, AND IDENTIFICATION OF RELEVANT IMPLICATIONS
5. ANY OTHER BUSINESS
6. CONCLUSIONS AND RECOMMENDATIONS
7. CLOSING

3. BACKGROUND AND STATUS OF OBSERVATIONAL METADATA

[SF]

... separate streams of work
... CDMS; a handbook for improving climate data management - includes details of the groups of information required to effectively manage the climate observing systems
... WIGOS; if people are going to use observations they need the contextual information - driver: APPLICABLE TO ALL TYPES OF METADATA ... not focusing on a specific domain; therefore the WIGOS MD should be applicable to climate ... climate may have more specific details.
... the same concepts may be described in different words - potentially clustered in different groups
... CDMS may need to extend WIGOS MD ... need to formalise the relationships between the two ... what's mandator in Climate may be optional in WIGOS MD

[BB]

... bottom line - we want just one observation metadata standard
... with climate the issue is about histories of information
... WIGOS deals with time series
... & notes TimeSeriesML

[JK] {slides for TT-WMD}

... Antonio Mestre (CCI) - but he doesn't know [BB] or [DS] (nor likely the CDMS spec!)
ACTION: BB/DS to make contact with Antonio Mestre
... next physical meeting @ beginning of December
... WIGOS MD spec is near completion - OSCAR implementation is identifying areas of improvement
... not clear which is leading that change: OSCAR or WIGOS?
... WIGOS MD spec is applicable to all observational metadata - and therefore cannot provide details on everything
... TC review complete - but [JK] has not seen any response ... nothing material
... [LPR] the WIGOS manual & draft metadata standards were recommended by CBS for adoption by Cg
... lots of elements in CDMS that are nice to have at the national level; a little less formal than WIGOS MD
... started on extensions to code-lists (see TT-ACV, under CAS) ... governance of these controlled vocabularies / code lists
... comprehensive _semantic_ standard
... fairly consistent view from team on which elements should be MANDATORY
... amendment: between categories 6 & 8 there is overlap ... suggesting that #6 becomes "sampling" (from "sampling and analysis")
... considerations for WIGOS MD

- generation
- transmission (what is 'static' - what travels with the data?)
- both human and machine readable
- time
- space

... progressing WIGOS MD to a formal specification (i.e. Application Schema and [XML] encoding) ... collaboration with IPET-MDRD (to be resolved)

[JK] {slides for OSCAR}

... OSCAR has to take on board both WIS and WIGOS metadata

... OSCAR supports the RRR (observing capability gap analysis); the metadata required for this is largely the mandatory elements from WIGOS MD

... the remaining metadata (which covers much of the Climate metadata)

... OSCAR needs all the metadata - but it needs all the metadata to work, so it won't be fully functional until 2020 ... which means that it is difficult to 'sell' OSCAR to the WMO Members!

... Vol A will be incorporated into OSCAR, as will GAWSIS

... will use machine-to-machine interfaces where possible

... system has been designed; will be service oriented; operated by Meteo Suisse

... first prototype will be available Dec 2014 - mostly concerning GAWSIS ... but the GAWSIS architecture is very similar to OSCAR

... data model; station, observation (method, instrument), contact, bibliographic references ('grey literature')

... RRR: 4 dimensions of gap analysis ... variable (from code list), vertical layer (from code list; fairly coarse), horizontal coverage (area of interest and, optionally, grid resolution), application area (from code list)

... will allow retrospective analysis

... OSCAR aspires to help Members discover observing capability (& hence data) that they did not know about! ... made available by her Members

... the only way to support the gap analysis is to represent the observations as points in time and space; trivial for in-situ observations but more difficult for remote sensing (method TBD; determining efficient & effective process is a work in progress)

... [SF] notes that moving platforms are challenging too

{effectively, OSCAR is underpinned by a 4D 'point-cloud' of observing system capabilities}

... intention is to demonstrate a prototype @ Cg (May 2015) - focusing on 'exciting' capability for the Members, less so on the engineering that underpins this such as the data exchange standards required for M2M metadata harvest

... [SF] learning from WIS, focus on information content rather than {all agree}

[TP]

... OSCAR consists of 2 main components:

... (i) metadata management

... (ii) RRR gap analysis

[JK]

... the RRR is only a small part of the information to be managed [in OSCAR] (see OSCAR slide #6 ... the light blue sections in the bar graph)

... [SF] RRR was only a check on the information requirements - main objective was to capture sufficient information to understand a given observation data value

... “coherent time series of data samples (observations)” is the unit of data governance
... a time series can have gaps, but other metadata is consistent ... these time series are broken down into SEGMENTS
... the minimum duration of a segment is expected to be about 12-months; events affecting the observation within that duration are captured as metadata about the segment
... there is a hierarchy of metadata elements that apply to a time series - some things don't change, other things (like instrument serial number) might change frequently ...
... but note that the observing METHOD cannot be changed - starting to observe with a new method would result in an entirely new time series!

[BB]

... if a time series allows change in location of a sensor or deployment of a new instrument, does OSCAR / WIGOS allow for `_OVERLAPPING_` segments of a time series? Necessary for high-quality climate record

[JK]

... wasn't designed for this - but should be able to accommodate

[JK] {slide: concepts of time in WIGOS metadata }

... sampling strategies: (effectively) continuous, discrete (regular schedule), event
... anything sampling at a rate of 1-second or less can be effectively considered as continuous sampling
... sampling period (duration of a particular sampling)
... temporal sampling interval (duration between sampling)
... 'meaning of a time stamp' is defined (5-10, 6-05)
... also 'aggregation interval' (5-09), temporal reporting interval (5-03), latency (of reporting) (5-14)

[discussion]

... recording of “observing capability” is limited within OSCAR to 4 “slices” per day (6-hour durations; matching the synoptic hours) or monthly; this is not hard-coded & could be amended later if a requirement arises

[JT] {slides: WaterML2 - Part 1 - Timeseries }

ACTION ([JT]/[BB]): add Karl Monnik and [JK] to the TimeSeriesML SWG mailing list ... limited capability to engage at present, so they will 'lurk' until they spot that they need to intervene - if ever

[BB] {slides: status of relevant activities of CCI and ET-CDMS }

... Climate Data Management System specification WMO No. 1131
... includes both observation and discovery metadata - plus 'data provenance' metadata (so that people know where their data came from)
... presented at CCI-16 and EC
... (almost) all of our data is time series data: “Time series climate data”
... observed properties are the GCOS essential climate variables - with atmospheric subset being the current mandatory set
... “we want only one observations metadata standard - that can be extended to support climate as necessary”

{ QUESTION [JT]: how will OSCAR support climate data management systems in the provision of observing system capability information? } ... would OSCAR become ‘part of’ the CDMS (or at least a component thereof)

... [BB]: potentially ...

... [JK]: OSCAR has global, regional and national scope - so it could serve as the metadata management component of a CDMS

... [BB] cites the “Time series data / Observations metadata” component ... and “Manage climate metadata” component ... and “Data delivery” in terms of publishing information about the observing stations / platforms (OGC web services etc.) and discovery of new data based on browsing from the station / platform / capability ... could browse by **Linked Data**

... [JK] the intent for OSCAR is to provide a ‘vessel’ to hold everything (including information about volunteer observing networks) ... but the Members are the focal point for adding that information into OSCAR

... [LN] notes that the new WIGOS Manual recommends that metadata about all observations happening in the Member’s country are curated - even if they’re not made available for routine exchange

{ so CDMS can provide a number of use cases for exploitation of the OSCAR system ... probably }

[DS] { slides: “Observational Metadata” ... the bits of CDMS relating to WIGOS MD }

... Sections of interest: “Observation metadata” (10 sub-categories), “Data provenance”, “Time series observation metadata”, “Observation quality assessment” (siting classification, multilayer quality flags, sustained performance classification, climate observation quality classification)

... need to differentiate between “official” observations and crowd- / commercially-sourced observations

... there is some good work in WIGOS MD around specification of uncertainty - looking to bring this information into the CDMS spec for next iteration

... CIMO Guide provides information on “siting classification”: this is also used in WIGOS MD

... new CIMO Guide is anticipated relating to sustained performance classification; classes A - E ... this comes from a meeting report "ET on Standardisation" from Nov 2012

... QUESTION: does WIGOS cover the sustained performance classification?

... [JK] not in this form yet; the information is largely covered but it’s difficult to determine objectively how to map WIGOS MD onto the “sustained performance classification” categories

... [SF] remarks on the note in the CDMS spec 5.4.1.2 that “a more objective approach to developing this classification for the global WMO community is required”

... [BB] these concepts are potentially useful - but recognise that the definitions need further definition ... and we can incorporate this in future iterations

... [JK] notes that there is no current guidance on how to extend the WIGOS-MD spec ... QUESTION for ICG-WIGOS?

4. MAPPING CDMS SPECIFICATIONS’ OBSERVATIONAL METADATA COMPONENTS TO THE WIGOS METADATA STANDARD, AND IDENTIFICATION OF RELEVANT IMPLICATIONS

[BB] and [JK] have both prepared spreadsheets to help with the mapping

[BB]

... GOAL: we have one metadata standard going forward & that is the WIGOS MD spec. ... and the CDMS spec will refer to it
... expectation that there may need to be a “climate profile” of WIGOS MD spec that is also referenced from the CDMS spec

ACTION: request that ICG-WIGOS develop a formal governance procedure for developing extensions

[JK]

... WIGOS MD spec is maleable at this stage so we can modify it to include the additional things that we find

[JT]

... only if its generically applicable - things particular to climate should be put into an Extension for that domain

[TP]

... what is a “station”? what does a station consist of?

[BB][DS]

... in-situ observations only (no remote sensing); it doesn't have to be affiliated to a WMO programme or network

[JT]

... 'platform' is the physical resource on which instruments are hosted - this works for AWS, buoys, ships, AMDAR etc. - the 'station' is the location at which measurements are repeatedly taken

[JK]

... WIGOS / OSCAR makes no distinction between “station” and “platform”

[TP]

... a station may participate in several networks - providing different observations for each network; do you need to be able to indicate what a station contributes to a given network?

[JK]

... a station may have several identifiers; the station is affiliated with observing networks ... in addition, the observing capability (observed quantity) at each station is also affiliated with the relevant observing network

... the WIGOS-Identifier will be a unique 'primary' key

... the WIGOS-Identifier is associated with each 'programme identifier'

... in fact, there is flexibility to link any names ... WIGOS is treated itself as a programme

... the data model connects [STATION], [OBSERV] (the coherent time series of observations of a given quantity @ a station) and [STATION-PROGRAM] ... [STATION] & [OBSERV] are linked ... [STATION_PROGRAM] is related to [STATION_PROGRAM_ID] and [STATION_PROGRAM_NAME]

... the result is that any of the identifiers can be used to find the station; the

[STATION_PROGRAM] table provides for these tertiary linkages

... (note: 'programme' is synonymous with (observing) 'network')

[BB]

... so I'm hearing that the CDMS spec concept 'WMO unique identifier' is the 'WIGOS identifier' [7-06]

AGREED.

[JT]

... to respond to [BB]'s requirement for overlapping observation, can an [OBSERV] (or [STATION]) be unaffiliated during the calibration phase?

[JK]

... the "time series" is affiliated with a Programme; the "segments" within that time-series are not

... segments are affiliated with a time-series; there is no constraint about overlapping segments

... ACTION: need to add a flag into the OSCAR data model to indicate whether a data value in a given segment provides the "official" data value for a time series in the case of overlapping segments

[BB]

... "sensor ID" is missing from the CDMS spec

[JK]

... there has not yet been a requirement to do this in WIGOS - but there are attributes "manufacturer", "model" & "serial number" (& "firmware version" - see below) ... these can be combined to form a composite primary key

... see data model [INSTRUMENT] ... this describe the deployment of a particular instrument in a given segment ... if you want to re-use a (real-world) instrument, then create a new [INSTRUMENT] record and match against the composite key

... each [INSTRUMENT] record indicates the interval within which that (real-world) instrument provides observation values for that segment

... ACTION: add firmware version (WIGOS [8-09]) to the OSCAR data model

[JT]

... so is "firmware-id" missing from the CDMS spec?

[BB]:

... no: see 4.3.1.7 Sensor description

{ we are now filling in [BB]'s spreadsheet }

[JK]

... OSCAR has a 'photo-box' function; for which observing site photos could be uploaded - with metadata ... but this will require manual upload / intervention (to avoid OSCAR being turned into a photo-sharing website!)

... OSCAR also allows reference to external documentation (so long as it is accessible via the web)

{ we agree that the CDMS spec should allow for additional reference materials to be referenced - but not list them explicitly; just provide examples e.g. location of (sensor/station) reference manuals }

[JK]

... contact information can be associated with [STATION] and [OBSERV] (time series) - not individual segments

... contact information is not provide a time series; only the current contact details

[BB]

... raises the question about determining who carried out given maintenance in order to determine impact of systemic maintenance issues

{discussion on how the individual or organisation responsible for the maintenance should be identified; we need a globally unique identifier in order to correlate those systemic maintenance concerns; we don't need contact/personal information for this individual or organisation - the goal is only to allow correlation}

[JK]

... happy to add a free-text field for "maintenance party" (e.g. the given individual or organisation responsible for undertaking a given maintenance event) ... the trick is how to populate that free-text field to ensure that it is unique

... ACTION: add free-text field for "maintenance party" within category [8-11]

[BB]

... would like to make this mandatory for the climate domain

[JT]

... recommends that this is not dealt with as a CONDITIONAL element in the WIGOS MD spec (e.g. "if climate, then ..." - otherwise you will end up with WIGOS MD spec having many conditional statements for a myriad of domains & thus becoming difficult to maintain

{agreed that "nmhs issue" (as stated in [BB]'s spread sheet pertains to details of how the nmhs maintains, say, a sensor - it does not affect how the data is interpreted and therefore does not need to be in the WIGOS or CDMS specs}

[SF]

... WIGOS MD "Application Area" [2-01] is a proxy for some inferred quality ... e.g. a climatologist might question the validity of observations collected for "Nowcasting" ... guidance on the applicability of particular Application Areas might be provided in a future iteration of the GDPFS

[JK]

... the ISO 19115 metadata record (and the MD_FileIdentifier for that metadata record) will be created automatically by OSCAR! ... :-)

{this would give people a reason to put their data into OSCAR}

{QUESTION: how would the discovery metadata abstract be compiled?}

{discussion on referring to the data; e.g. the database within which the data is managed or the data-service endpoint from which the data can be acquired ... aim to "get people as close to the data as possible"; could be (i) an http url for a data file, (ii) a WCS describe coverage for the time series offering, (iii) a landing page providing details about how to acquire the data

out of band ... etc. ... the OSCAR data model identifies the 'data URL' at the SEGMENT level

... but most (climate) data management systems do not organise their data by segment - so there will likely be a mismatch between OSCAR metadata and those data management systems

... also a segment might be split across many files; the multiple data URL's may be required for this case}

ACTION: apply further consideration to how OSCAR refers to the data based on use case review

[BB]

... based on the above, it seems like it would be best for the CDMS to maintain metadata locally - and then relevant summaries (etc.) would be provided to OSCAR

... preference would be to store metadata locally anyway due to the amount of (meta)data required for climate data analyses (see use case 'Generate Climate Grids')

... if the CDMS is consistent in exposing data by segments, then OSCAR may be able to be used as the metadata management component (so long as performance relating to remote access are manageable)

{discussion on whether the operational status for a Station needs to be explicitly stated or whether it can be inferred from the presence of data segments (with associated metadata and quality information)}

... the operational status should capture the operational status - but we do not anticipate that segments will be fine-grained enough to capture details of repeated damage to a station (either natural or manmade) over the course of a few weeks}

[SF]

... these types of issues seem related to the quality flags relating to an observation; metadata that is tightly coupled with the data ... and not likely published to OSCAR

{see WIGOS MD [3.03] for data quality flag categories}

[SF]

... we also need to consider event-based observations; in this case the absence of data may mean no event or non-operational station

... suggest that we can't meet the climate use case with current WIGOS MD

DECISION: Climate 'extension' required to capture the time-series of operational status; possible inclusion in a later version of the WIGOS MD spec

{discussion on choice of spatial referencing system - noting that the WIGOS MD spec refers to WGS84-EGM96 (which is taken from the relevant CIMO guide & originates from ICAO)}

[BB]

... WGS84 actually refers to a different ellipsoid

... Cg resolution to use WGS84-EGM96 appears to be inconsistent with current practice in the use of WGS84

{appears that the CDMS spec should provide additional information about the spatial reference systems _and_ the detailed survey information; where as the WIGOS MD _must_ have location information provided in the spatial reference system require by Cg}

ACTION [BB]: provide recommendation to TT-WMD about how WIGOS MD spec should consistently specify vertical elevation

ACTION: amend WIGOS MD spec to include the temporal reference system used in reporting the data

[SF]

... all events relating to stations / sensors carry time-stamps; so the date-time of any update to the location of a sensor or station will be recorded

[JK]

... time zone (which is used to help determine the schedule of local operations) is in OSCAR not WIGOS MD spec; complexities arise when considering inclusion of day light savings ... what (ISO?) standard should we use?

ACTION [JT] (end Nov-2014): request guidance from OGC Temporal DWG about how WIGOS MD spec should refer to both temporal reference system and time zone (&/or locale)

ACTION: CDMS spec to be amended to adopt reporting practice from WIGOS MD regarding “type of station” [7-04], [7-05] and “source of observation” [8-01] (automated, manual, visual)

ACTION: add new element to WIGOS MD to describe maintenance events - including the type maintenance ... [8.13] “maintenance activity”

{sensor status - not included in scope of WIGOS MD where the main focus is the observation (time series) rather than the traditional station / sensor view ... this means that WIGOS seeks to _infer_ things about the stations and sensors from the observation rather than make explicit statements about those stations or sensors}

ACTION: remove “result of maintenance” from CDMS spec (sensor maintenance)

ACTION: amend WIGOS MD [8.03] “observing range” to cover a greater range of instrument characteristics ... rename to “instrument specifications” & rework the definition; perhaps merge with [8.04] “instrument stability”

ACTION (LN): review CIMO guide to help with reworked definition of [8.03]

ACTION: revise WIGOS MD [8.08] to refer to the history of calibration events - not just the most recent

ACTION: add a code-table to WIGOS MD [8.08] providing categories of calibration result

ACTION: amend the CDMS spec to make the “sensor calibration results” match WIGOS MD [8.08]; currently misleading

[JK]

... the meaning of precision has changed and is no longer relevant ... we can estimate the uncertainty of a measurement but we cannot make qualitative statements about the “true” value and the precision thereof ... observations produce estimates of the value }

ACTION: amend CDMS spec to refer to the concepts of uncertainty rather than making (apparently qualitative) statements about precision (CDMS spec “precision of measurement”)

ACTION: amend CDMS spec to remove “input source” (data processing) ... this is probably covered under the data provenance section(s)

{agree that “network” (in the sense of observing system network) is synonymous with “programme” for WIGOS & OSCAR }

[JK]

... the controlled list of “programmes” is expected to include national level entities ... these are covered under the “national” scope

[BB]

... a given sensor and/or station may belong to multiple programmes? {yes }

[BB]

... we’re after a method of describing the relative quality of (climate) observations
... we need a way to differentiate between climate observations based on that quality
... looking to use “siting classification”, “sustained performance classification”, “multi-layer quality flags” and “climate observation quality classification”

{siting classification (from CIMO Guide ... WMO No. 8 Annex 1b) is ok }

[JK]

... “sustained performance classification” goes beyond instrument drift (as inferred from [8.04] “instrument stability”)

... seems reasonable to add this to the WIGOS MD spec

ACTION (JK): discuss the concept of “sustained performance classification” with TT-WMD with the aspiration of including something like this; will also discuss the ‘interim’ status (e.g. classification scheme is only published in annex to ET report) with President of CIMO

[JK]

... WIGOS MD [3.03] and [3.04] provide a basis for the quality flags; it is something to build on

... we’re waiting for an authority to tell us what these quality flags should look like

[BB]

... WIGOS MD [3.03] doesn’t cover what we need

[SF]

... but the spec only provides a single example (based on the BUFR code table) - the intent is that you would describe many facets ... or at least as many as necessary

... the intent is to allow a data consumer to understand the quality flags provided with the data

... therefore WIGOS will describe the ‘quality flag system’ whilst the data provider’s local system will provide the quality flags themselves

[BB]

... best to formulate a well thought out quality flag system for climate data - noting that this will likely take some time (possibly years!) to agree - before progressing with the multi-layer quality flags (etc.)

... in the interim we will flag that this is coming & note that WIGOS MD elements [3.03] and [3.04] are where this information will be put

[JK]

... should OSCAR capture a quality flag for each segment?

{discussion ensues ... it's complex because the quality flags really apply at the individual data record level & OSCAR is working at the segment level}

[SF]

... should the OSCAR segment quality flag be 'representative' (what ever that means; perhaps the [statistical] mode of the quality flags in the dataset itself) of the quality of the data in the segment as a whole

[BB]

... a CDMS will hold the quality flags for each data record ... and potentially the provenance graphs showing how the data values changes as a result of each QC process

{discussion on this stopped - out of scope}

- 1) what are the areas of difference?
- 2) which of those differences can amicably diverge?
- 3) what is the plan for convergence with the remaining issues?

Issues:

- station status; operational vs non-operational
 - - WIGOS MD does not allow a time-series of 'status' for sensors or stations
 - [SF] suggests an enhancement to the WIGOS MD spec to be able to record when an instrument is considered to be non-operational
 - Could OSCAR implement this?
 - [INSTRUMENT] has 'since-till' ... but this means that a change in the status would require a new INSTRUMENT record to be created
 - ... alternatively, could create a sub-table which provided the periods of (non) operational usage: status code and period of application
 - Recording this kind of outage information is currently rare amongst the WMO Members
 - Is it worth amending the database to deal with these rare occurrences?
 - Yes - and this shouldn't impact the performance of the database
 - {hmm, it appears that OSCAR already supports the history of station status using values: "reporting", "partially reporting", "silent", "closed"}
 - ACTION: amend WIGOS MD to allow history of station status ... and make sure that OSCAR can implement (if it doesn't already do so)
- instrument status ...

- - similar discussion as above for station status
 - what code-list is relevant for instrument status? see CDMS spec: “operational”, “not operational”, “defective”, “testing”
 - [SF] should these status changes be added to the segment metadata (e.g. on [OBSERV] table)?
 - [JK] ‘instrument’ instance is associated with the segment; the instrument status can be factored out into a separate table to record history (keyed to the ‘instrument’ instance)
 - {changes in these status’ should relate to some ‘event’}
 - ACTION: amend WIGOS MD to allow history of instrument status ... and amend OSCAR implementation accordingly
 - ACTION: for [BB]/[DS] to test the resulting OSCAR query model with their use cases to ensure they can dig out their necessary information
- quality assessment
 - - an amicable divergence ... with more work needing to be done on the climate side to develop the quality flag system
- spatial reference
 - - pending response from ACTION
- temporal reference
 - - pending response from ACTION
- vertical datum
 - - pending response from ACTION

[BB]

... other than the ‘local (NMHS) issues’ identified in the spreadsheet, given the resolution on the sensor & station history (above) can provide the underpinning for CDMS _without_ the need for an extension to WIGOS MD for climate observation data
 ... noting that the use case work pending in ET-CDMS may result in additional items needing to be added (e.g. as extension to WIGOS MD for climate observation data) - but the intent would be to add these at the next maintenance release for WIGOS MD

[JT]

... it’s important to realise that the WIGOS data holding / OSCAR database is not intended to replace the tools of a (observation) network manager

[BB]

... “I don’t think we need a climate extension to WIGOS MD - so long as the station & sensor history issues are fixed as agreed above”

{yay}

Conclusion:

The changes proposed for the CDMS spec will be added to the issue tracker & incorporated into the next release scheduled for approx 2016 ... plus a descriptive note on the wiki identifying the WIGOS MD & relationships

The changes proposed for WIGOS MD spec (above) can be incorporated into the “review by technical commissions” currently in progress.

Edits on the WIGOS MD spec can occur until December; then submit to ICG-WIGOS and onward to Cg

5. ANY OTHER BUSINESS

Agreeing the (governance) arrangements for formalising the (revised) WIGOS MD spec to an Application Schema (the formal data model and encoding)

Joint task team under CBS, CCI and ICG-WIGOS ... primarily under the IPET-MDRD

Duration

{participation}

- expressions of interest from IPET-MDRD members (UK, FR, AU, HK, USx2)
- expressions of interest from ET-CDMS: Denis, Hernan, Rachid (& Bruce)
- ACTION: TT-WMD to propose new members for this task team

{terms of reference}

- timeseriesML (complete Jun 2015)
- WIGOS MD application schema & XML encoding ... probably a couple of AS; one for the “observations” themselves, the other for the station/sensor/programme (complete no later than Apr 2016 - for CBS / EC)
- assisting ET-CDMS with climate observations application schema & XML encoding (complete within current CCI inter-sessional period ending 2018) ... noting the more urgent requirement to use the AS to define the ‘contracts’ between CDMS components
- assisting ET-CDMS with CLIMAT message application schema & XML encoding (complete within current CCI inter-sessional period ending 2018)
- & amendments to WMO No 306 Vol I.3 for the above

{work plan}

- timeseriesML work is always underway; primarily through OGC
- given that WIGOS MD will be finalised in Dec, we recommend starting the WIGOS MD work in Jan
 - - face-2-face meeting to initialise the work - new people, new (& unfamiliar) work ... include report on the TimeseriesML stuff (which should be well progressed) ... outcome: training (data modelling, tools), briefing, tasking ... & detailed workplan ...

- ahead of the f2f have teleconf to agree the ToRs & provide the “homework” ...
Jan 2015
- [SF] and [LPR] to work the budget

OSCAR development is due to conclude 2016 / 2017 - need to determine how to retrofit the “formal” data exchange standards to OSCAR as they become available.