Operations Interest Group Closing Summary

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Routine Activities

- Monitoring (NASA/HEASARC): Availability of non-Vizier resources has increased from about 90% in 2014 to 98.5% in 2019 catching up with Vizier itself which has been relatively constant.
- Weather maps:
 - VO Paris: Cone and SIA continue general improvement. SSA shows recent drop in full compliance. API to access from Web with results in JSON.
 - ESA: High level of full compliance for cone search and reasonable level of partial compliance for other DAL services. [In registry session] Demonstrated that new ESA registry will have integrated access to validation.
- Validators: Still no SIA V2 validator, nor validators for VOEvent. Do we need to start routine validation of SODA services (possibly using extant SODA validator)?
- Three IVO Ids that seem to be largely non-responsive: ivo://svo.ifca/axis, ivo://fs.usno/cat/nomad,ivo://magic/ssa). These should be followed up.
- Request from CfA to all registry providers (publishing and queryable): Please validate your registries periodically (semiannually?) using RoR validator: http://rofr.ivoa.net/regvalidate/

Review of Ops Activities

- Has done well to standardize and normalize weather map reports and to provide reasonable location to publicize validation and reliability issues.
- Centralization and publication of information about validators has made use of validators a standard element of VO activity. Ops works to ensure that validators are extant and available to all VO developers for all appropriate standards.
- Feedback from validation results may not be getting back to DAL (and other WG's) as effectively as desirable. Should we have joint (splinter?) sessions to discuss results and implications for standards?

Review of institution overviews

- 13 institutions have given such reviews (four twice).
- Many common themes, notably
 - the use of VO to provide standardized interfaces
 - the complexity and intertwined nature of VO protocols
 - evolution of both data holdings and VO standards deployed
 - huge data volumes and very peaked demand
- Do we need standard documentation (not just introductions) on implementations that addresses data publication in a unified way, rather than a bunch of distinct standards?
- Need to really push reference and/or public VO software implementations

Institutional Summaries

PADC

- Detailed review of the history of the PADC VO effort and the constraints under which it must operate. Budget constraints (both amounts and the way budgets are allocated) define science goals as much as standards.
- Science goals of PADC are extremely broad and push VO in areas like theory and planetary data.

MAST

- Continual evolution of MAST requirements means that there may be multiple approaches to implementation of similar protocols
- Addressing missions that range from GB to PB scales.
- Working to ensure common metadata is used regardless of the software stack used.

Issues

- Identification of validation/monitoring queries
 - Implemented by TOPCAT, PADC and HEASARC
 - Not clear if anyone is using this information yet.
 - Would be nice to know who is querying us when validation causes problems...
 - Registration link on Ops Home Page for services and software that does validation
- HTTPS: Some work on implementing SAMP in HTTPS but not clear if this will work generally.
- FTP/FTPS: Not too much concern if we can no longer support FTP so long as we can do HTTP[S] for these data. May be some legacy issues.
- Monitoring/validating services which require credentials: not a big issue yet
- Handling very large data requests reliably: Clearly an issue. Do we want to address this on server or client? May require different strategies for file download and TAP requests.