Radio interest group running meeting notes:

https://github.com/ivoa-std/ObsCoreExtensionForRadioData

A) ObsCoreExtension remaining issues

1) dataproduct_type for single dish data
2) em_xel and spectral MOCs
3) Facility_name and instrument
4) s_fov
5) o_ucd
6) uv_distribution_fill
7) uv_distance_min/max
8) sky_scan_mode

Alessandra: tracking can't be used to describe scanning mode, scanning mode in extension could be useful. Not dependent on the movement of the telescope.
Can we describe a 2D map without the spectral dimension - can we still use the cube description?
Is SD data a time series? But time is just from scanning patten and position varies with time.
Baptiste - focus on the data dimensions. But how to describe cross-scan and on/off.
Spatial profile?
Use dataproduct_type, sky scan mode and propose a solution

Spectral MOC - still have to add a parameter for spectral coverage/support. Similar to issue with time domain. SMOC2.0 has time but not frequency, but prototypes well-advanced.

MarkK - Obscore would probably be OK with small gaps, MOCS would be good for a more detailed approach.

Can't yet query MOCS with ADQL, so coarse ObsCore and detailed (MOC) approach probably both needed. Time similar with interspersed cal/target observations.

Instrument: combination of front and back end. Need a facility name and instrument name in ObsCore - how to fill these e.g. for LOFAR? Could just keep instrument blank.

Mireille: add instrument_type? Maybe use it to distinguish arrays within a single facility?

S_fov: fov_min, fov_max? Should s_fov should be a typical (mid) value, or fov_max? Or should we just not worry as fov is only an approximation anyway for an interferometer.
MarkK - should be the area that can be reasonably imaged (i.e. within the primary beam around the mid-frequency). Should all agree on what we use though.

O_ucd - if voltage data are not correlated it's not fourier types. Maybe use phot.count as an idea? For interferometric visibilities stat.fourier is OK. Mireille will wait for further input.

Uv plane: Mattia - filling factor would be good, sample the uv plane, define a grid, count how many uv-samples per cell. What about MFS? Should write up a definition? Could have a max and min filling factor for MFS versus cube. Similar for time (earth rotation synthesis).

uv-max/min - absolute max/min or percentiles? Overlaps a lot with beamsize and largest angular scale, so may not be needed? Use cases would be very specialized.

Sky scan mode not just for SD, will move discussion.

For dirty beam, use datalink?

How to register an extension? Mirielle - distinguish between ObsTAP services as to which ones just serve ObsCORE and which ObsCore + extension. Talking with registry about how to do this.

B) TimeSeries discovery and access discussion

- Note, not a spec
- PSRFITS, filterbank, PSRARCHIVE <--> ObsCore mapping
- time and radio extensions mapping
- discovery and access

C) Implementation review upgrade

  - ALMA ?
  - CADC ? * NRAO/ngVLA
  - ASTRON/LOFAR ?
  - Nancay
  - INAF
  - Australia : CASDA, MWA, ..;
  - IRAM
  - Others ?
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Update the implementation review. Alessandra - could rewrite SD section.

Attendees: Vincenzo, Alessandra Zanichelli, Francois, Mattia Mancini, Renaud Savalle, Marjolein Verkouter, Mark Kettenis, Marco Molinaro, Mireille, Peter Teuben, Mark Lacy