

Notes from YOPP-SH #01 & #02 Telecons from 19 March 2019 (2-3 pm CET/10-11 am EDT AND 7-9 pm EDT)

Attending #01: David Bromwich, Steve Colwell, Christophe Genthon, Robert Grumbine, François Massonnet, Kirstin Werner

1. Acquisition of radiosonde observations from operators for YOPP SOP1-SH in data denial experiments (Steve Colwell)

- As there were problems to get radiosonde data during YOPP-SH onto the GTS for some stations (e.g. WAIS Divide/Matthew Lazzara working on them), Steve Colwell (SC) has contacted different national centres for high-resolution radiosonde data (e.g., Halley (summer-only station), Rothera, Concordia, Australian stations, etc.)
 - Steve will collect these data sets and make them available to the community so that people can start working on data denial experiments
 - SC currently in contact with Kevin Manning about the format (preferably text format)
 - SC attending next week's EC-PHORS meeting
 - by the Charleston YOPP-SH meeting, the data should all be in place in order to start with Data Denial experiments (planned e.g. by AMPS)
 - plan is to put (raw) files onto a BAS ftp server and possibly link them with YOPP Data Portal (SC and Øystein Godøy are already in contact about it).

2. YOPP-SH workshop in Charleston

- The YOPP-SH meeting #04 will again be following the Workshop on Antarctic Meteorology and Climate, this year organized by SPAWAR (Art Cayette) in Charleston, South Carolina. WAMC will be from 25-27 June 2019, YOPP-SH will be from 1pm 27 June to 1pm 28 June.
 - Kirstin has sent out announcement for the meeting, please see link at <https://www.polarprediction.net/news/> (item from 20 March 2019)
 - There will be limited funding available for people to bring in (David and Kirstin to work on that)

3. Feedback from YOPP SOP1-SH

- Christophe Genthon from CRNS France reported that as far as he knows frequency of radiosondes was increased from the French Antarctic station Dumont D'Urville (contact: Eric Bazile) and from the French-Italian station Concordia/Dome C (Vito Vitale), as well as other instruments.
- At WAIS Divide there were some technical challenges during SOP1-SH getting the data onto the GTS (one RS/day in December and January)
- Alexander Klepikov will report on Russian stations at next week's EC-PHORS meeting in Geneva but has already been contacted by Steve about the data.
- Kirstin has shown a map with increased RS launches that needs to be updated so Steve's collection will really be helpful.

4. IUGG meeting in Montreal (8-18 July)

- There will be a YOPP Session M02 at the coming IUGG meeting in July (please see <https://www.polarprediction.net/news/> (item from 10 December).
- Kirstin has received a list of YOPP contributions to that and other IUGG sessions and is further collecting abstracts to eventually send this list around via the PPP mailing list.
- **ALL: Please send Kirstin your abstract information if you have submitted something at IUGG.**

5. SIPN South Update

- François Massonnet presented preliminary results of the SIPN South Activities during the YOPP SOP1-SH
- As reminder: SIPN South is a 2 year project to learn about skills of seasonal sea ice forecast in Southern Hemisphere, unique in targeting ocean-sea ice modelling as a YOPP-endorsed project
- 2017/2018 summer season sea ice has been predicted as a test (some areas such as Ross Sea showed negative anomaly due to strong cyclones)
- 12 contributions (different models) have been submitted to forecast the summer season 2018/2019
- first preliminary results show that there may be a problem of the initialisation (too high compared to observations) but forecasts spread consistent with observations over time
- daily evolution of sea ice concentration available by seven groups
- post-season report will be written
- the future of SIPN south not clear yet but a paper will come out of this for sure.
- François plans to attend the Charleston YOPP-SH meeting.
- His view on a potential winter SOP was that it might be a good academic exercise, not sure if efforts can be made from all forecasting groups.
- See François' presentation under <https://drive.google.com/open?id=1FsNfudHVLt7-KnuWFKZzwsjqFXBocB6i> (PPT and PDF versions. The PDF version is lighter but it does not play the animation at the end)

5. Next telecon

- In another telco in late April (see doodle at <https://doodle.com/poll/wr6nxq5peubtku73>), we should have discussion on the potential winter SOP in Antarctica and about a BAMS paper on the YOPP-SH efforts.

Notes from Second Telecon for Year Polar Prediction in the Southern Hemisphere (YOPP-SH), Tuesday March 19, 2019, 7-9 pm EDT.

Attending #02: David Bromwich, Scott Carpentier, Barbara Casati, Jun Inoue, Matthew Mazloff, Jordan Powers, Penny Rowe, Sang-Jong Park, Edgardo Sepulveda, Vito Vitale.

1. Update on Polar Prediction Project-Societal and Economic Research and Applications (PPP-SERA) Task Team (Daniela Liggett, met with David prior to start of telecon)

- The fifth meeting of the PPP-SERA will be held in Puenta Arenas, Chile, April 8-12, 2019. The goal is to engage colleagues from South America. Local organizer is Jorge Carrasco. The schedule is still in flux. Remote participation from Scott Carpentier and David Bromwich would be desirable in the open session on Wednesday April 10. Other suggested participants were some-one from Kenn Borek Air who use forecasts extensively and Alvaro Scardilli from Argentina whose group issues sea ice forecasts.
- One activity of PPP-SERA in the YOPP Consolidation Phase is the Special Service Projects (SSPs) that are not unlike the Special Observing Period(s), but for users and providers of forecasts. User engagement workshops will be the primary emphasis with one being planned for the SCAR Open Science Conference in Hobart during August 2020. This should be coordinated with the Workshop on Antarctic Meteorology and Climate (WAMC) that is planned to meet in Hobart. The idea of an SSP during the 2020-2021 austral summer was raised, details to be developed. COMNAP that will also be meeting in Hobart are keen to participate in PPP-SERA, perhaps facilitating an SSP.
- The WMO Executive Council Panel of Experts on Polar and High Mountain Observations, Research and Services (EC-PHORS) will be held March 27-29, 2019 (next week) in Geneva, Switzerland (<https://public.wmo.int/en/events/meetings/ninth-session-of-executive-council-panel-of-experts-polar-and-high-mountain>). Scott Carpentier, Steve Colwell, Alexander Klepikov, and Kirstin Werner will be attending. Scott Carpentier reported that David Grimes, President of WMO, is keen

to see improved forecast services in the polar regions. This message was communicated in a pre-EC-PHORS briefing. PPP-SERA activities will likely be discussed at EC-PHORS.

2. Summary of earlier telecon. David Bromwich went through the topics covered in telecon number 1 (see above) earlier in the day. Additional input is as follows:

Feedback on Special Observing Period, mid November 2018-mid February 2019:

- Jun Inoue reported that Syowa released two extra radiosondes/day during the SOP. David Bromwich requested that the detailed ascents be provided to Steve Colwell to distribute for use in data denial experiments. Naohiko Hirasawa will be back from fieldwork in the Antarctic very soon and they will consult on providing all Japanese radiosonde ascents during the SOP. ASCII text file format might be best.
- Vito Vitale summarized the extra radiosonde ascents from Mario Zucchelli (MZS) and Dome Concordia Stations. These data have already been provided to Steve Colwell. January 1-15, 2019 will be an excellent period for data denial experiments given all the extra radiosonde ascents for the Ross Sea region from MZS, Dome Concordia, WAIS Divide, Dumont D'Urville, and the twice daily regular ascents from McMurdo and South Pole stations. Vito also summarized the major educational activity on analysis and forecasting for students organized by him and his colleagues. Research instrumentation was also operating at MZS and Dome Concordia during the SOP.
- Penny Rowe outlined the radiosonde releases from near Frei station on King George island. She is in contact with Steve Colwell to provide these data. She introduced Edgardo Sepulveda who is working with Penny on their clouds and radiation project involving lidars etc. The last radiosonde ascent was around Feb. 23-25.

IUGG session on YOPP in Montreal during July 2019:

- It is a very good idea to have a side meeting on YOPP-SH there. David Bromwich will explore the feasibility of this idea.

3. Preliminary analyses from the YOPP Verification Task Team (Barbara Casati)

- Barbara Casati presented two preliminary analyses from the YOPP Verification Task Team on global model forecast skill in the upper air for the Antarctic and surface forecast performance of the Canadian global coupled model (25 km resolution).
- **ALL please note: We will provide the presentations to you on request for your personal use, but please don't pass them on. Please send your request to David Bromwich.**

Some highlights:

- The upper air forecast performance is, not surprisingly, better in summer than winter. The ECMWF model performs the best of those global models considered.
- The forecast skill of global forecast models for 60-90S is 0.75 days poorer than for the SH extratropics south of 20S. This is more degradation than seen for the Arctic.
- The Canadian model has a 1C cold bias and a 1m/s slow speed bias at the surface of Antarctica.
- The 12Z run of the Canadian model performs slightly better than the 00Z run.
- Cloud cover prediction is challenging for the Canadian model.
- Barbara is also working on the Supersites for the Antarctic. The French have provided their model output. NCAR has archived the AMPS Supersite output but making it available for community analysis will be a challenge.