<u>Topic:</u> Tropical Cyclone-Probabilistic Forecast Products (TC-PFP) Pilot Project

Virtual Meeting Date: April 12, 2021, 0800 ET/1200 UTC

Attendees:

- Raghu Ashrit (National Centre for Medium Range Weather Forecasting, Noida, India)
- Julia Chasco (NMS Argentina)
- Estelle Coning (WMO, World Weather Research Programme)
- Chris Davis (NCAR Mesoscale and Microscale Meteorology Laboratory)
- Jason Dunion (University of Miami NOAA/AOML/Hurricane Research Division
- Anne-Claire Fontan (WMO, Tropical Cyclone Programme (TCP)
- Helen Greatex (Pennsylvania State University)
- John Methven (University of Reading)
- Jane Rovins (Massey University, New Zealand)
- Helen Titley (UK Met Office)
- Zhuo Wang (University of Illinois at Urbana-Champaign)
- Munehiko Yamaguchi (Japan Meteorological Agency)
- ◆ Hui Yu (Shanghai Typhoon Institute, CMA)

Agenda:

- 1. Determine workshop name
 - Tropical Cyclone-Probabilistic Forecast Products (TC-PFP) Workshop
- Clarify Phase description wording >> Helen G. and Jason will meet to discuss the wording of
 "value-cycle approach" and clarifying the social science linkages that we're trying to
 communicate here >> done >> Helen and Jason met on 10 March and will follow up again in
 April
- Identify participating forecasts centers >> done >> these centers filled out our survey and expressed interest in attending the planned workshop:
 - TCWC BOM Australia, CMA, NTC Korea, RSMC La Reunion, RSMC Nadi, RSMC New Delhi, TCWC Jakarta, TCWC Port Moresby PNG, TCWC Wellington, HKO, Meteo France, RSMC Tokyo, ECMWF, RSMC Honolulu, RSMC Miami, JTWC, Canadian NHC
- Identify task team members to help lead the organization of a late spring/early summer workshop >> done
 - Jason, Hui, and Munehiko will co-chair the workshop
- 5. Workshop (dates, format, virtual platform, etc.):
 - Jason sent out a Doodle poll to the forecast centers listed above:
 https://doodle.com/poll/3guznqfabsckrm75?utm source=poll&utm medium=link
 - Centers have been slowly filling in the poll >> Jason will send off a reminder email early this week
 - Workshop Main Goals:
 - Overview of current efforts related to probabilistic tropical cyclone forecasts and evaluation
 - Integrate scientific and social aspects of ensemble based forecasts to develop best practice guidance to be delivered at the 2022 IWTC

- Sharing of information amongst forecast centers (e.g., available resources (TIGGE), techniques, etc.
 - Make sure all NWP contributors are engaged >> what could a new, enhanced TIGGE archive look like? Forecast centers also need access to the data in real time.
- Identify participants willing to join a post-workshop writing team
- Format
 - 3 day workshop, ~2 hr each day (1 June 2 July), preferably 3 consecutive days, but we'll see what the center availability looks like after the poll
 - Time: 12-14 UTC or 13-15 UTC
 - We discussed having 3 main focus areas with a single overview talk that provides an overview of current practices, issues, resources, etc:
 - 1) Physical Science aspects of TC-PFPs
 - 2) Social Science aspects of TC-PFPs
 - 3) Resources (e.g., TIGGE) to support TC-PFP efforts
 - Chris suggested that this talk could be recorded before the workshop and viewed by the attendees before Day-1...each day could be devoted to one of the 3 focus areas listed above.
 - o Given our limited time, could consider a similar format to IWTC:
 - Overview talks of current efforts, followed by break-out sessions, followed by summaries of the break-outs
 - We'll need to identify best tools/platforms to host the meeting and virtual break-out rooms (e.g., Google Meets, Zoom, Microsoft Teams, etc.)
- Identify key invitees (forecast centers, NWP centers) >> these should be completed ASAP
 - Hui, Munehiko, and Anne-Claire will provide POC emails from their assigned forecast centers >> done
 - Helen T., Munehiko, and John will provide POC emails for NWS centers (from TIGGE contact list) that might be interested in participating in the workshop >> ongoing
 - o Jason sent out a Doodle poll to the forecast centers listed above
- Discuss potential enhancements to the TIGGE Cyclone data that could help us meet the
 project goals. For Phase 1, this could involve the development of extra TC track
 attributes that centers would be willing to calculate from operational ensembles and
 add to their TIGGE TC data stream. Then formulate a proposed plan that could
 hopefully be brought together ahead of the workshop. >> John, Helen T., Munehiko, and
 Jason will meet to discuss before our April meeting >> done >> a telecon was held on 16
 March. Discussion included:
 - Utility and limitations of TIGGE, centers that use TIGGE TC data (John will gather names), use of alternative ensemble data sources (e.g., HWRF), use of different trackers at different centers)
 - This early discussion will help shape the "Resources" part of the workshop
- Chris will reach out WGNE co-chairs >> ongoing
- 6. Possible WMO grant to enhance/support the scientific activities supporting the TC-PFP project (also a GDPFS pilot project)

- Estelle and Chris reported that 60K CHF is available to support a few high profile projects in WWRP in 2021. This funding could help enhance/support the scientific activities supporting our TC-PFP project (e.g., part-time postdoc). We'll need to consider the best way to take advantage of this potential opportunity.
- 7. Google Folder for the TC-PFP effort- if you have access to the Google suite, Jason has added several documents here (e.g., meeting notes, forecast center survey results, TC-PFP overview doc:
 - https://drive.google.com/drive/folders/1lPx-y-jqc-mq665pvREBDb6jkZxu3nau?usp=sharing
- 8. Next team meeting- we'll be witching to a 2 week tempo for our meetings as the workshop dates approach >> Jason will send calendar invites for these dates:
 - Monday 3 May, 7:00 AM CST 8:00 AM EST 1200 UTC
 - Monday 17 May, 7:00 AM CST 8:00 AM EST 1200 UTC
 - Tuesday 1 June, 7:00 AM CST 8:00 AM EST 1200 UTC