Relevant Projects:

Tropical Pacific Observing System for 2020 (TPOS2020)

Year of the Polar Prediction (YOPP)

TPOS & TPOS2020

Background & Social Needs



TAO/TRITON is perennially suffering from vandalism & insufficient ship time.

In addition to conventional mooring, new technology including argo & gliders, satellites, model, should be incorporated into a backbone system.



TPOS & TPOS2020

Objectives

- 1) To redesign and refine the TPOS to observe ENSO and advance scientific understanding of its causes,
- 2) To determine the most efficient and effective observational solutions to support prediction systems for ocean, weather and climate services, and
- 3) To advance understanding of tropical Pacific physical and biogeochemical variability and predictability.

By 2020, an efficient, effective and comprehensive observing system, sustained by an international network should be established.



YOPP (Year of Polar Prediction)

YOPP is one of activities of decadal-scale project "Polar Prediction Project (PPP)" of WWRP.

Mission.

Enable a significant improvement in environmental prediction capabilities for the polar regions and beyond, by coordinating a period of intensive observing, modelling, verification, userengagement & education activities.

Project Office. AWI, Germany

Consolidation-Preparation YOPP mid-Phase Phase 2017 to mid-2019 to 2013 to mid-2017 mid-2019 2022 Intensive Community Data denial observing periods engagement experiments Align with other Dedicated model Model planned activities experiments developments Develop imple-Use & value of Dedicated forecasts research mentation plan reanalyses Preparatory Intensive Operational verification effort research implementation Summer school Summer school YOPP Workshops publications Liaise with YOPP funders conference

YOPP (Year of Polar Prediction)

Prediction mid-2017 to mid-2019 Polar ь Year

4.1 Intensive **Observing Period** 4.2 Intensive Modelling & Forecasting Period

4.3 Forecast Use and **Decision Making**

4.4 Education

4.1.1 MOSAiC and Comprehensive Reference Stations

> 4.1.2 Field Campaigns

4.1.3 Extra **Observations**

4.1.4 Satellite Data

4.2.1 High Resolution and Coupled **Forecasts**

4.2.2 Archived Model Data and Reforecasts

> 4.2.3 Field Campaign Support

4.2.4 Sea Ice Modelling

4.2.5 Subseasonal to Seasonal **Predictions**

4.3.1 Value of **Polar Predictions** in Decision Making

4.3.2 Verification

4.4.1 YOPP **Summer Schools**

4.4.2 Workshops and Outreach

Field Campaigns.

Coordination with "Multidisciplinary drifting Observatory for the Study of Arctic Climate (MOSAiC)"

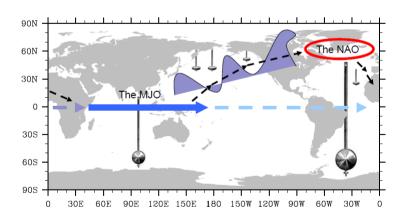
YOPP (Year of Polar Prediction)

Special Remarks for YMC on the relationship to YOPP.

- 1) WWRP and WCRP require the coordination of two projects.
- 2) ECMWF will produce hi-res (10-km) analysis.

cf.

Tropical forcing (MJO) is critical for mid-latitude atmospheric predictability (AO and NAO) at S2S scale. (ex. Lin et al. 2009, JC)



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