# IOVWST 2025 Discussion of Goals from Yesterday

## Input from Mark, Session Chairs, and the IOVWST organizing Committee







### **Suggested Action: Surface Currents**

- Summary of the situation:
  - In the oceanography community, there is a strong interest in surface currents
    - May oceanographers in this group are working on surface current modeling, with a wide variety of approaches
      - Luc Lenain's approach looks very interesting (in a good sense of this phrase)
      - SMODE provided invaluable data
    - However, the community is limited by a lack of open ocean surface truth
- What can we do to get more surface truth?
  - How useful are currents from high frequency radar data?
  - How useful are single vector component SAR data?



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### Suggested Action: Suggestions for better linking efforts on modeling processes with Remotely Sensed Data

- We've seen some exciting progress in modeling processes related to wind/wave/ocean coupling.
- We're seeing progress in remote sensing that might be informative regarding these processes
- Can we help each other move forward?



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### **Suggested Action: Winds Validation**

#### • Statement:

- We can intercalibrate wind most remotely sensed wind to a truly remarkable degree of accuracy!
  - However, there are some sensors (or processed datasets) that are noticeably dissimilar to other data sets
    - CYGNSS due to calibration to neutral winds rather than Equivalent neutral winds.
    - CFOSat's scatterometer's dependence on wind speed
    - While these differences are very minor for many applications, we'd prefer consistence
  - Differences in spatial scale, noise and consequently variability are going to be important for the interpretation of extremes and sampling requirements of calibration for extremes
- How to do move forward with 'truth' for extremes?
  - IWRAP seems good, but there are sampling issues impacting 10m winds
  - How does sampling impact links between mean winds and 1-minute maximum winds?
    - Note: it shouldn't otherwise interpretation is impractical.



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### Suggested Action: How can surface wind data by more useful for Tropical Cyclone forecasts?

- I suspect that we are under utilizing the measurements.
- However, we also need better modeling of the extreme winds
- There seems to be progress on both these topics.
  - How can remotely sensed winds, and other data, help modelers?



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