

Intercomparison and Validation Task TeamGreg Smith and Fabrice Hernandez

- Status of present Class4 activity (USGODAE server, OPOS-WG)
- Possible workshop this fall
- Class4 Publication
- Redefine IV-TT around science actions
- UN decade
- Membership and next steps





IV-TT – Status of Class4 activities



- Participants and productions:
 - NOAA is withdrawing, specific action around Class4-drifter BoM+MOi+UKMO
 - In recent years, the Class4 production of has depended on the people available at the UKMO, MOi and ECCC, with occasional interruptions, which are acceptable, since we are in a "best effort" framework
 - Our "seeds" in order to motivate and create a permanent committed activity around OP
 Intercomparison have still not germinated among decision makers of the Operational Oceanography world. Maybe the DCC initiative might help for that

US GODAE servers:

- Despite the responsive actions of Mike Frost, the permanence of the server is not assured, there are interruptions and difficulties in uploading data
- With OPOS-WG (D. Ford) and F. Davidson, a first round of actions have been carried out:
 - Find who is in charge and discuss with Emily Smith, NOAA responsible for the USGODAE server:

 Describe present situation with the USGODAE server, identify needs for future facilities at short and medium term
 - Short term: mirroring the USGODAE server (potential candidate MOi) → redundancy
 - Medium term: More friendly using server with DISCOVERY (and Stats), VISUALISATION functions
 - Contribution of IV-TT participants to support server framework with Decade Actions ?





IV-TT – Workshop



- During recent years, intercomparison/validation topics discussed around: WWRP JWG on Forecast Verif.
 Res., COSS-TT etc...
- IV-TT activity needs to keep on a science momentum and discuss working plans:
 - evolution of Class4 with new sources of observations...
 - Evolution of metrics and verification approaches...
- Need for new common research actions.
- Need to discuss evolution of the IV-TT working group in the frame of changing structures (OPOS-WG, DCC, Decade Actions....)
- Need for in-person meeting: tentative schedule: 4th trimester 2023 ... could be linked with OP-ST8 meeting





IV-TT – Class 4 Community Publication



- Nothing issued in common since 2015, with Class4 data from 2013-2015 (papers from OceanObs'19 did not present comprehensively results)
- Main idea of the article:
 - Progresses of operational systems since the beginning of Class 4
 - Benefit of the Class4 approach (eg compared to specific Validation like in CMEMS) and perspective for such activity
- Agenda: Fishbone of the article before next IV-TT meeting, discussion/content during IV-TT meeting, final redaction by beginning of 2024





IV-TT – Redefine IV-TT activity (in prep Workshop)



- Term of reference and what should be actions of IV-TT
- Class 4 : what next ? e.g.
 - new sources of observations and/or evolution of existing Class4 products
 - new metrics based on existing class4
 - new metrics characterising finer scales, efficiency of downstream system strategies, metrics on biogeochemistry, ecosystems....
- New approaches: eg,
 - the clustering analyses of T. Splinter on Class1 was a pioneering step, what next for ensemble verification?
 - User oriented metrics?
 - Use of IA technics ?
 - **→** Provide input for the Workshop





IV-TT – UN Decade TT contributions



- TT contributions to ForeSea/Decade objectives (new or updated info)
 - Class 4 intercomparison = Best effort, but unique and heritage of GODAE (framework, expertise, team involved worldwide, international recognition of this approach)
 - IV-TT provides science based innovation on ways to verify and characterise quality of products for operational oceanography stakeholders
 - Identified contributions
 - Project 1: Class4 on dedicated mirror maintained by MOi
 - Project 2: Uncertainty estimation and drift
 - Project 3: User-relevant and process-based metrics
 - Project 4: Regional/Coastal verification with adapted observing system, including ensemble approaches
 - F. Hernandez joined the DCC experts for verification/intercomparison aspects
- TT suggestions for OPST group projects undertaken in the Decade
 - TBD
- What contributions would you like OceanPredict to make supporting the Digital Ocean approach?
 - TBD





IV-TT – MemberShip / What next



- IV-TT already extended since 2013 Class4 activity
- The DCC and the OPOS-WG are mapping the existing Operational Oceanography initiatives, should we open to "not global" groups?

- NEXT:
 - Online dedicated meetings before the IV-TT meeting?



