

**EASTERN PACIFIC OCEAN**  
**PREDICTION FORUM(ePOPf):**  
**PROGRESS REPORT FOR**  
**EPOC-58, 11 TO 14 OCT 11**

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# PRINCIPAL ELEMENTS OF PROGRESS

- ePOPf WORKSHOP HELD 20 TO 22 SEP 10 @ PSU, AS REPORTED (IN MY ABSENCE) BY CHRIS EDWARDS @EPOC 57
- ENGAGED W/ SURA'S SUPER-REGIONAL MODEL TESTBED AS IT BROKE NEW GROUND W/IOOS SUPPORT ON THE EAST & GULF COASTS, AND WHICH ADVANCED THE DIALOG W/ & W/I NOS & NWS RE: TESTBED COLLABORATIONS W/ACADEMIA
- NOS SIGNALLED THAT IT PLANS A WEST COAST SUPER-REGIONAL OPERATIONAL MODEL & NEEDS COLLABORATION W/WEST COAST COMMUNITY ON ITS DEVELOPMENT, SKILL ASSESSMENT, ETC. PRESENTLY, NOS PLANS CALL FOR IMPLEMENTATION IN FY2015

# **SOME ATTRIBUTES OF THE WEST COAST SUPER-REGIONAL OPERATIONAL MODEL**

- DOMAIN WILL COVER AT LEAST THE EEZ FROM BAJA CALIFORNIA TO BRITISH COLUMBIA
- IT WILL DOWNSCALE FROM EITHER THE NCEP OR NAVY GLOBAL OCEAN OPERATIONAL MODEL (HYCOM) TO SHELF AND ESTUARINE OPERATIONAL MODELS
- IT WILL HAVE HORIZONTAL RESOLUTION OF CA. 0.1 DEG & VERTICAL RESOLUTION OF CA. 50 SIGMA LEVELS

# CONTINUED

- ITS OUTPUT TIME STEPS WILL BE CA. 1 HR
- ITS FORECAST HORIZON WILL BE CA. 5 DA.
- IT WILL BE FORCED BY GLOBAL HYCOM, SYNOPTIC NWP FORECASTS, TIDES, WAVES, RIVER RUNOFF, & REALISTIC BOTTOM TOPOGRAPHY
- IT WILL ASSIMILATE ALTIMETRIC SSH; MCSST; T,S, & (U,V) PROFILE DATA; HFR-DERIVED SFC CURRENTS, ETC.
- IT WILL HAVE A LOW-TROPHIC LEVEL ECOLOGICAL SUB-MODEL
- ROMS OR FVCOM WILL BE THE FIRST-GENERATION CIRCULATION MODEL

# ROLES OF THE R&D COMMUNITY

- THE MODEL OUTPUT WILL BE IN THE PUBLIC DOMAIN & AVAILABLE IN REAL-TIME & FROM ARCHIVES FOR R&D, ETC.
- COMMENT ON IMPLEMENTATION PLANS
- ADVISE ON OBSERVING SYSTEM DESIGNS
- PARTICIPATE IN **SKILL ASSESSMENT** STUDIES FOR DOWNSCALING TO SHELVES & ESTUARIES, ETC.
- PARTICIPATE IN PREDICTION EXPERIMENTS, INCLUDING OSSEs & **RE-ANALYSES**
- PARTICIPATE IN PROCESS & CASE STUDIES
- **CONDUCT DIAGNOSTIC STUDIES**
- CONTRIBUTE TO SKILLED WORK-FORCE DEVELOPMENT
- UTILIZE A **TESTBED APPROACH** FOR THESE PURPOSES

# **SOME ATTRIBUTES OF A TESTBED**

- W/THE NATURE OF A COLLABORIUM (OR AN INCUBATOR) LONG-TERM COMMUNICATION & COOPERATION BETWEEN R&D, OPERATIONAL, & APPLICATION COMMUNITIES ARE FOSTERED IN A SUSTAINED FASHION TO FACILITATE UPGRADES
- BOTH OPERATIONAL AND R&D SYSTEMS ARE IN PLAY
- MULTIPLE MODELING, DATA ASSIMILATION & OBSERVING SYSTEMS ARE CONSIDERED
- SKILL ASSESSMENT METRICS ARE DEVELOPED AND VETTED ON A COMMUNITY BASIS
- IT-CI-DMS IS A CENTRAL ENABLING TECHNOLOGY

# CONTINUED

- OPERATED IN AN OPEN FASHION W/SCIENTIFIC COMMUNITY STEWARDSHIP
- R&D AND OPERATIONAL PARTNERS FUNCTION SYNERGISTICALLY W/O CROSS-CULTURAL COMPETITION AND FRICTION
- AWARENESS OF NEW REQUIREMENTS & CAPABILITIES IS ACHIEVED THRU REGULAR COMMUNICATIONS
- HENCE, TECHNOLOGY TRANSFER IS FACILITATED AND CONDUCTED AT A NATURAL PACE
- **FINALLY, ePOPf IS POSITIONED TO HELP BRING THE WEST COAST TESTBED INTO EXISTENCE**