

# **Assessment of SARAL-ALTIKa alongtrack sea level observations (Tidal correction) over Indian Coastal Ocean**

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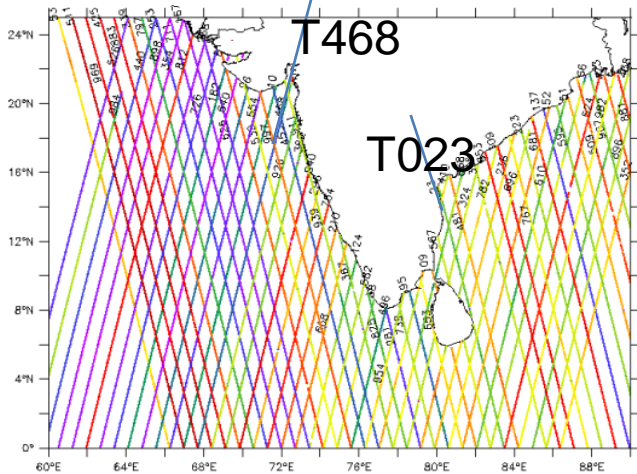
Space Application Centre (SAC), Ahmedabad, India

# Introduction

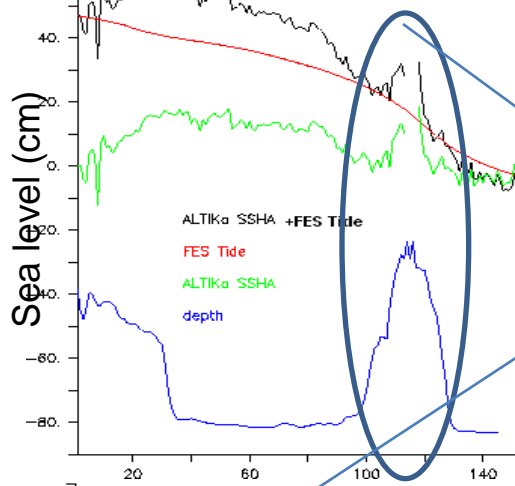
- One of the major challenge in the Altimetric observations in the coastal area is the accurate tidal correction
- India has a very long coastline - aprox- 7500km ; it consists of High, moderate and low tidal regions
- The global tidal models may not be correct
- Here – we have made an attempt to asses the global tidal models along Indian costal region

# Tidal correction.... How accurate is This?

Tracks of SARAL-ALTIKa



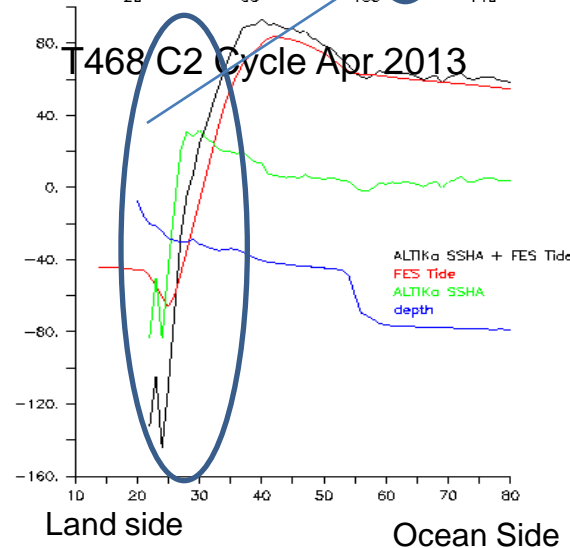
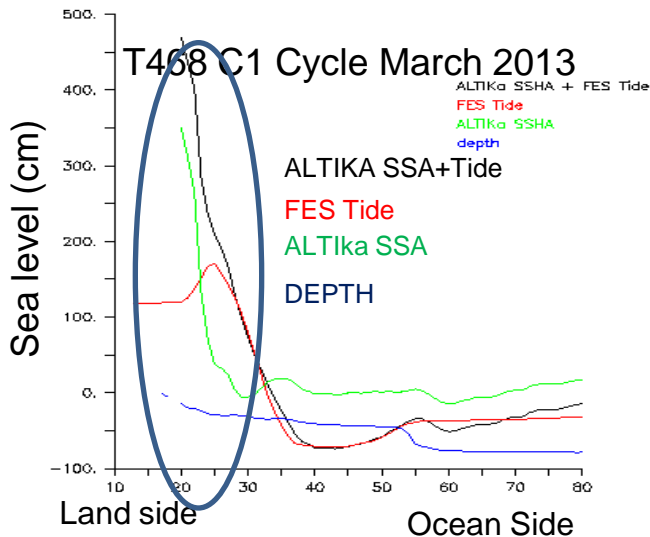
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1. FES Tidal corrections in ALTIKA sea level for the shallow coastal regions may not be appropriate.

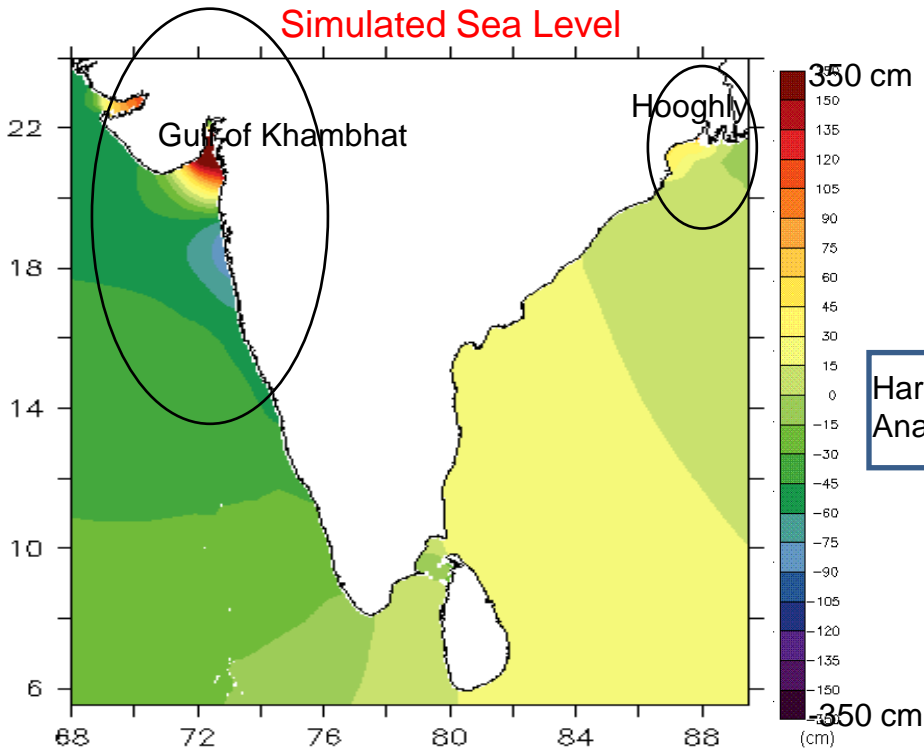
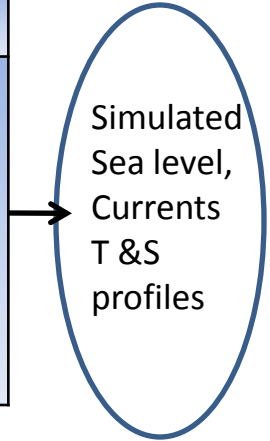
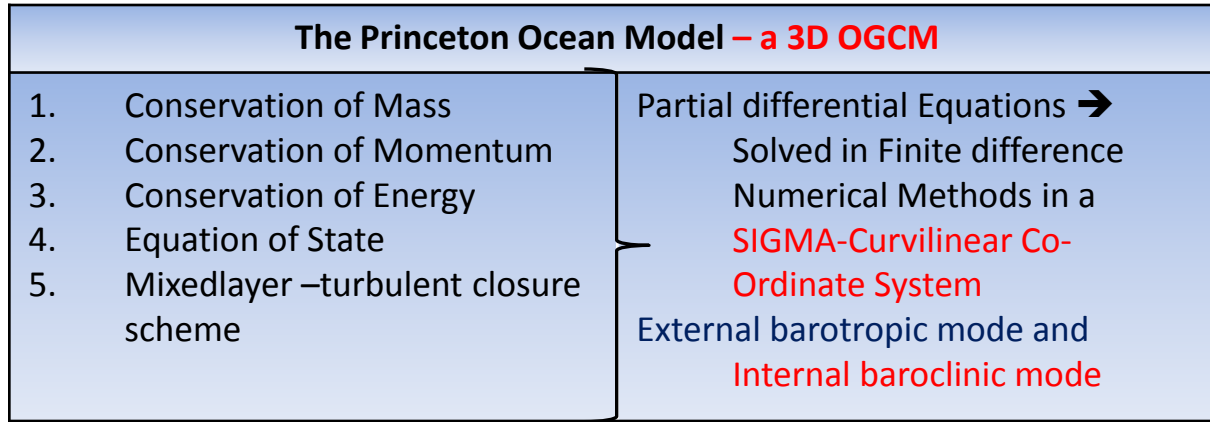
2. Regional Model to be formulated.

3. We have made it → based on POM-OGCM

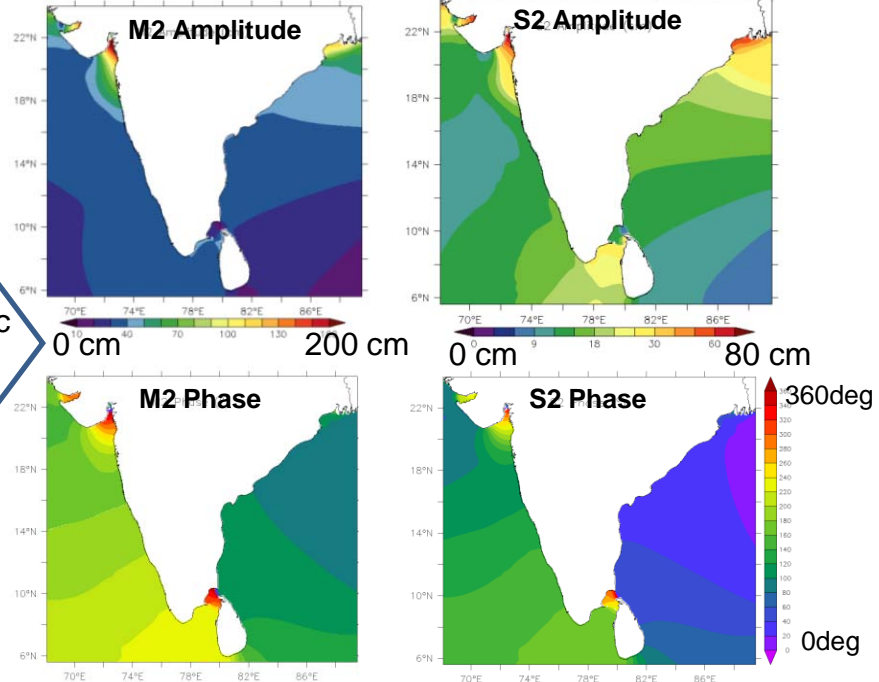


# Formulation of Regional Tidal Model for Indian Coast

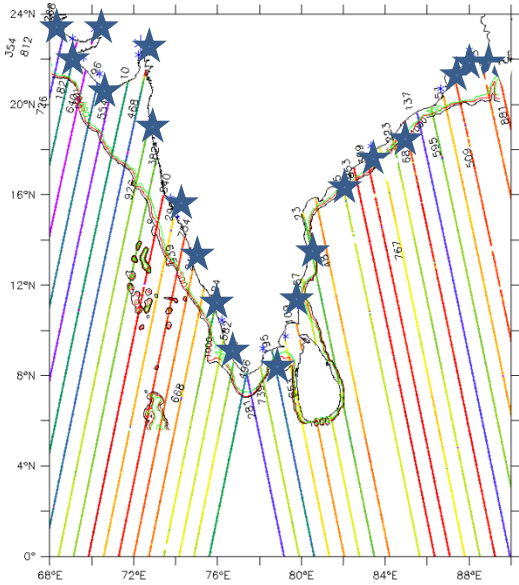
1. Initial Model State
2. Surface boundary conditions
3. Lateral Boundary conditions



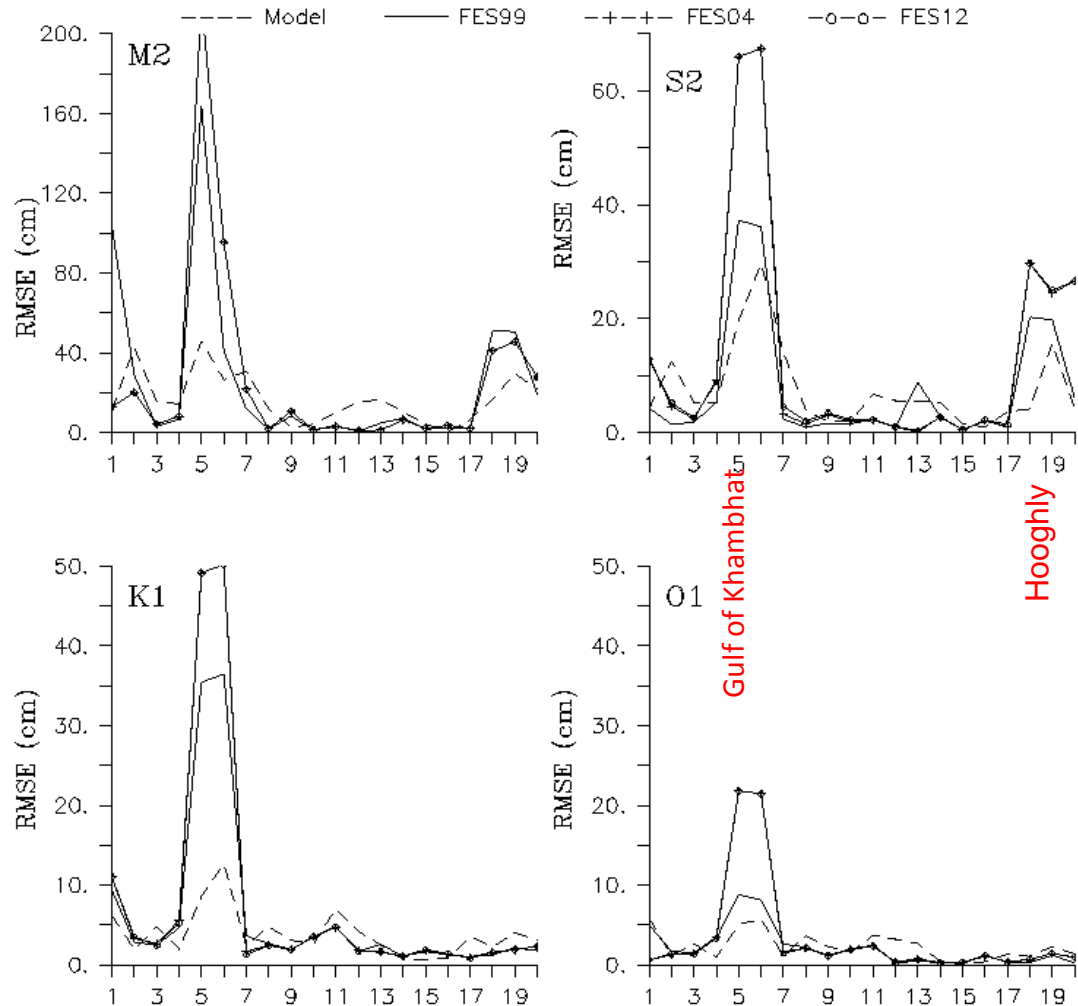
## Amplitude and Phases of Major Tides



# ERRORS (RMSE) at Tide Gauge Stations



1. FES tides have more error at the NW and NE coastal stations with wider and converging continental shelves
2. They are very accurate at most of tide gauge stations.



Tide gauge stations from NW (OKHA) to NE (HALDIA) coast of Indian

INCOIS has provided Tide Gauge DATA

Thank You