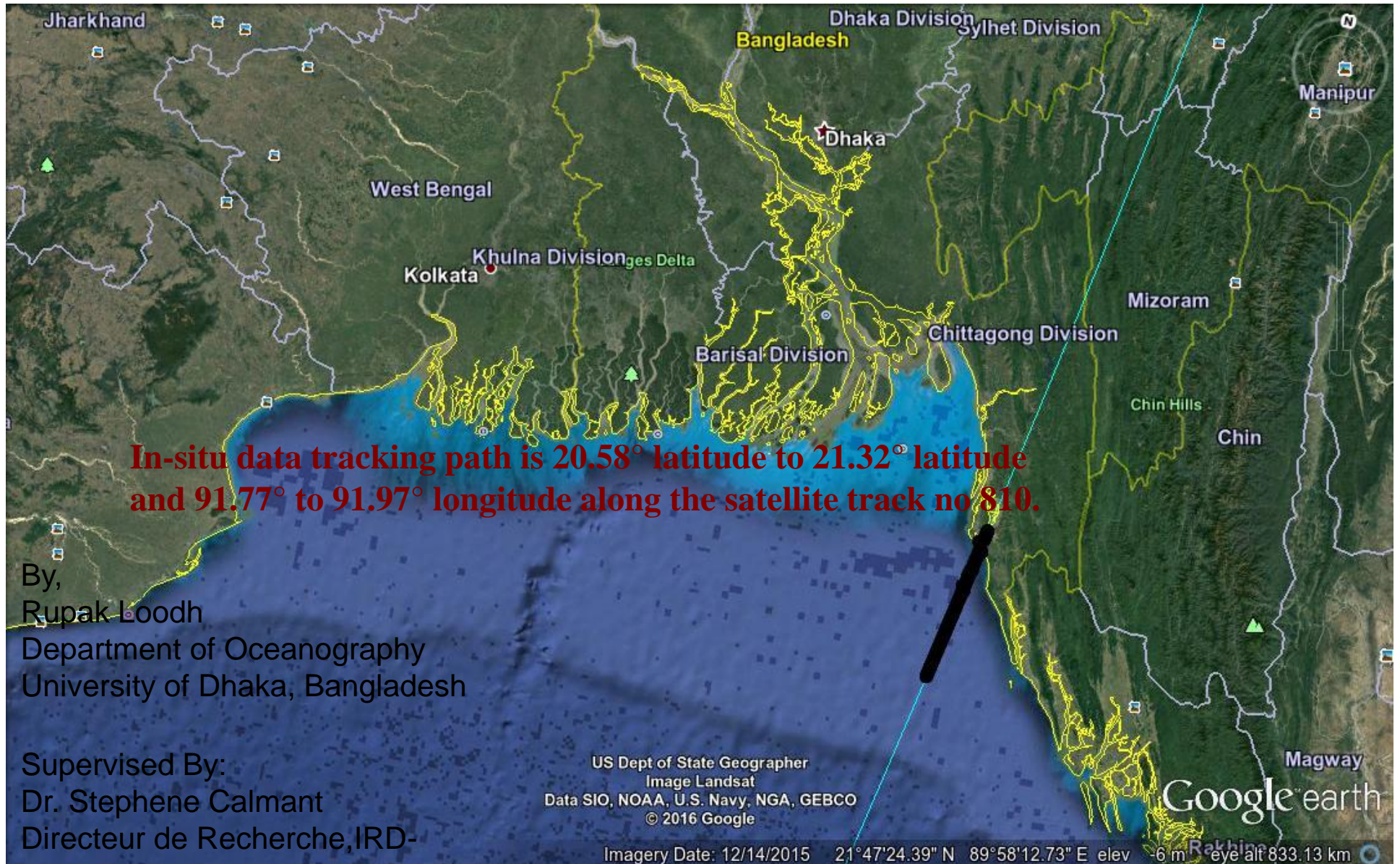


- **Sea Surface Height from Satellite Altimetry, Hydrodynamic Model and in-situ measurement of offshore Cox's Bazar**





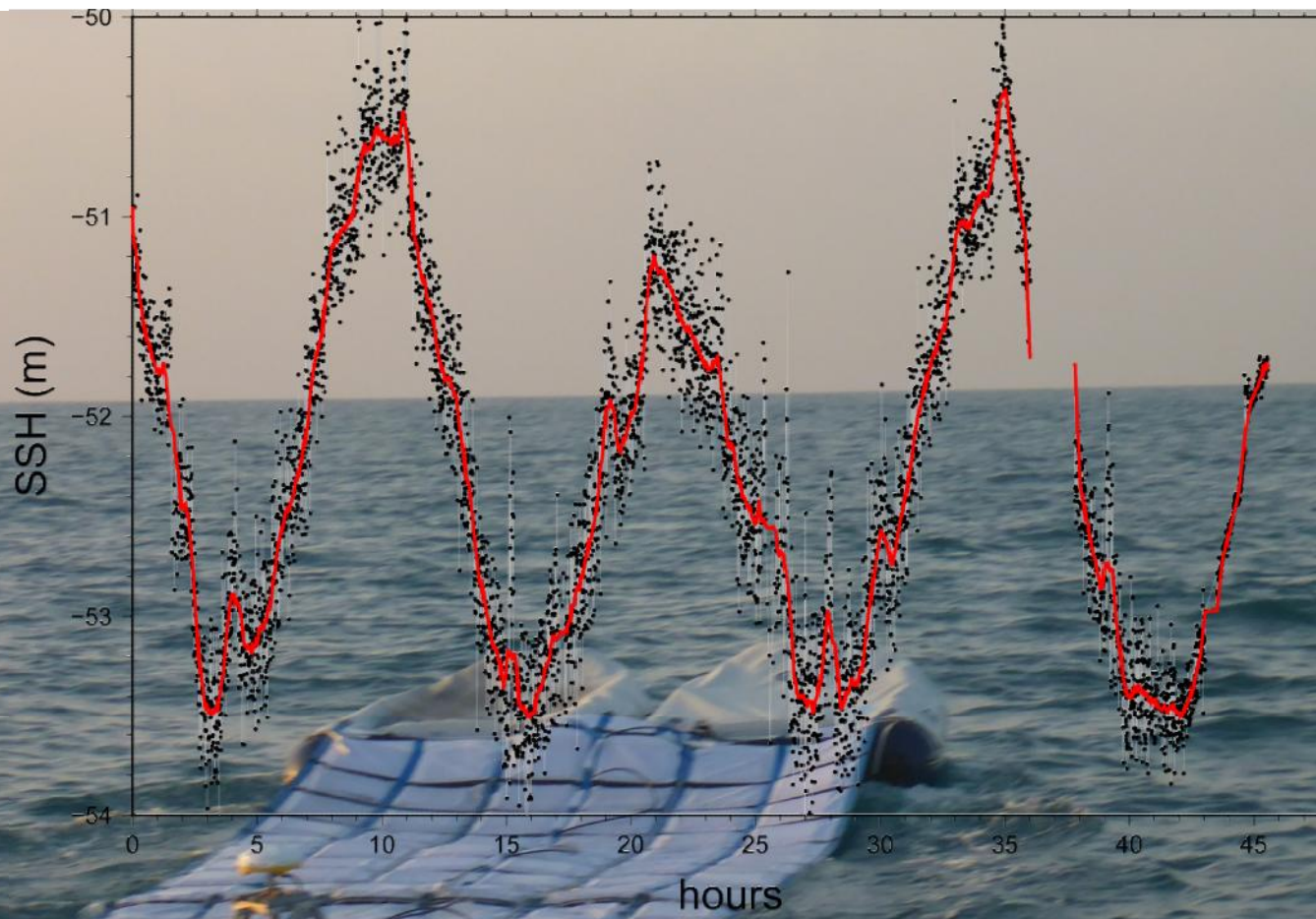
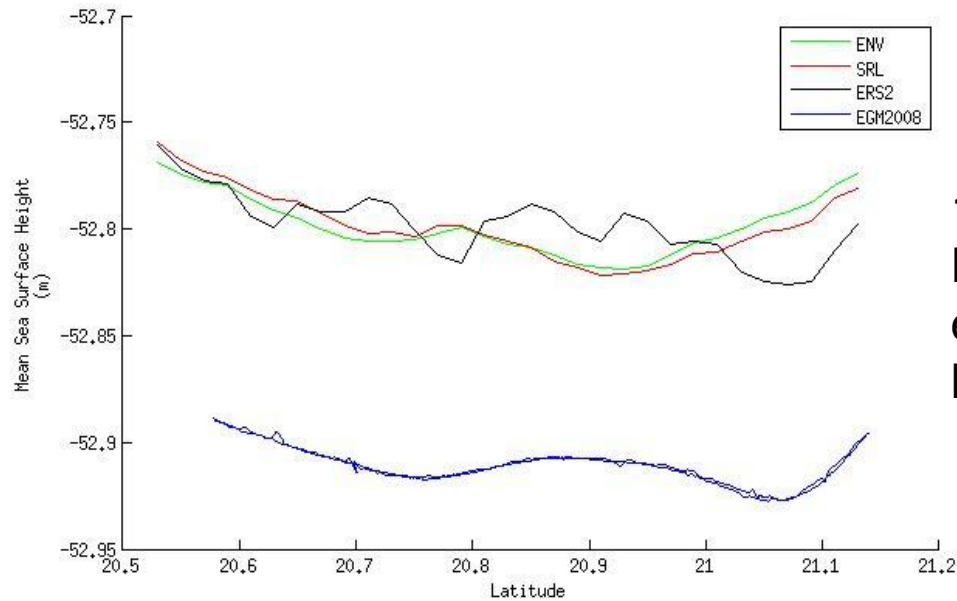


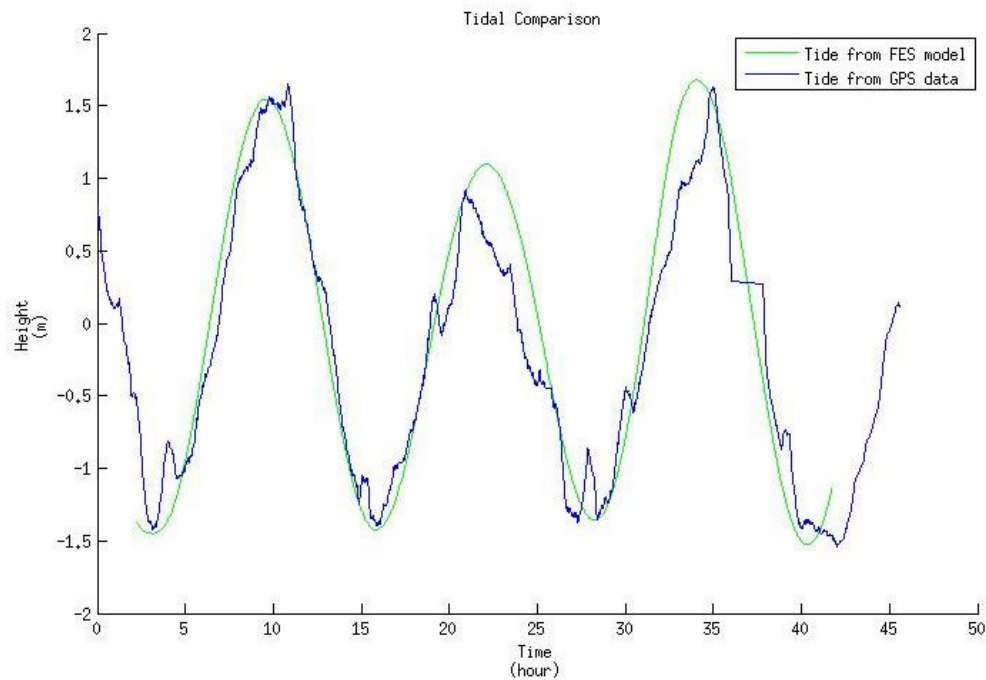
Figure: In-Situ data

In-situ data was collected with GPS, about 45 hours along track 810. Black Dots are the instantaneous sea surface by GPS measurement (-50 m to -54 m) and red line was the smooth profile.



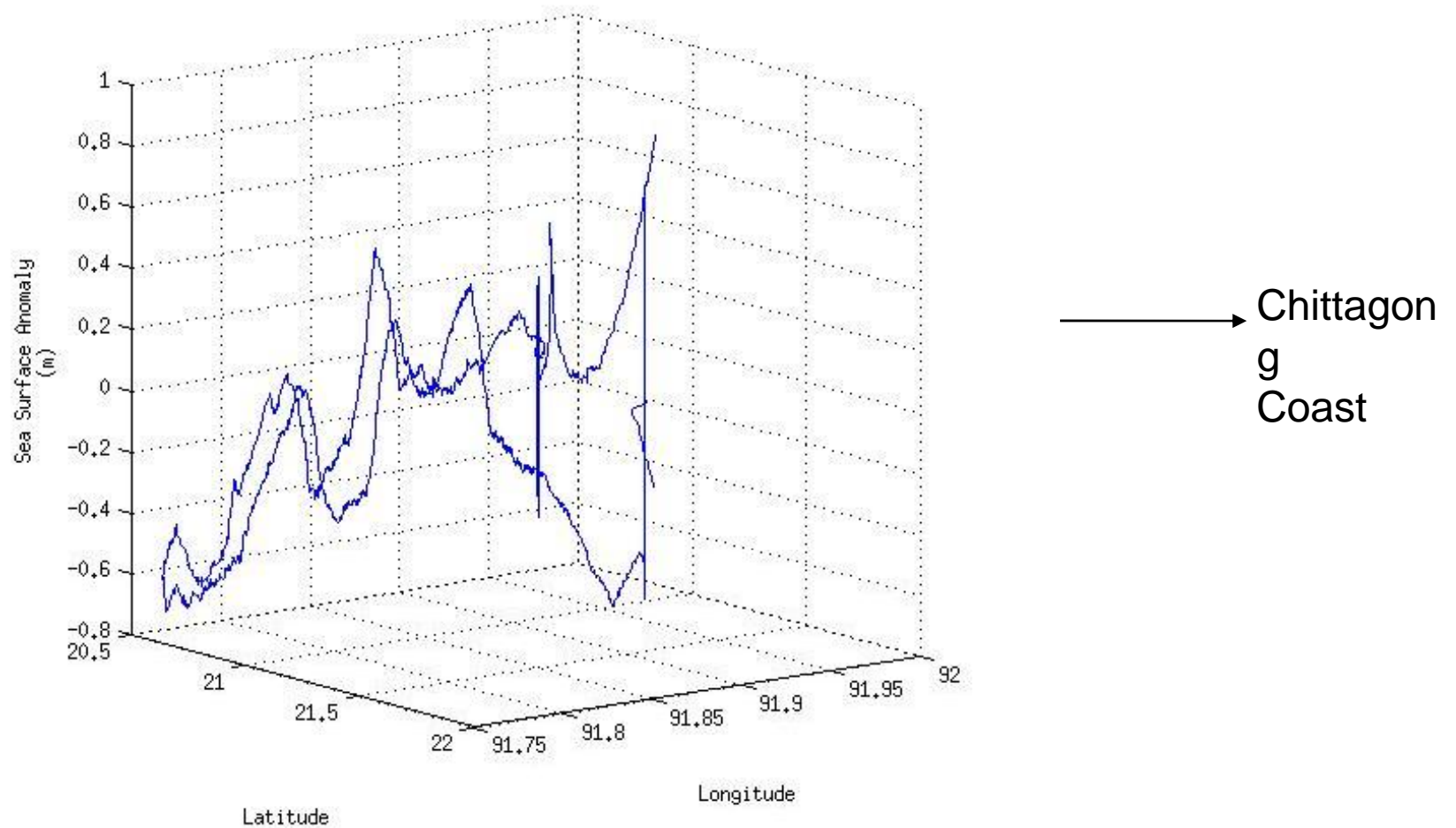
15 years satellite data (ENVISAT, SARAL & ERS2) has computed and find a referenced ellipsoid and compared with EGM2008 Model, which showed 0.15 m difference.

Comparison with Setellite altimetry reference and EGM 2008 Model



For water level from FES04 model,  $K_1$ ,  $K_2$ ,  $L_2$ ,  $M_2$ ,  $M_4$ ,  $N_2$ ,  $Nu_2$ ,  $O_1$ ,  $P_1$ ,  $S_2$  tidal constituents for Bay of Bengal.

Tidal range found 1.5 m to -1.5 m in my Domain area. In-situ measured data is also showed same tidal range.



Sea-level anomaly is more stable found at the open ocean, but at the near at the coast of Chittagon g coast sea-level anomaly found some variation about -0.6 m to 0.6 m

Thanks To All