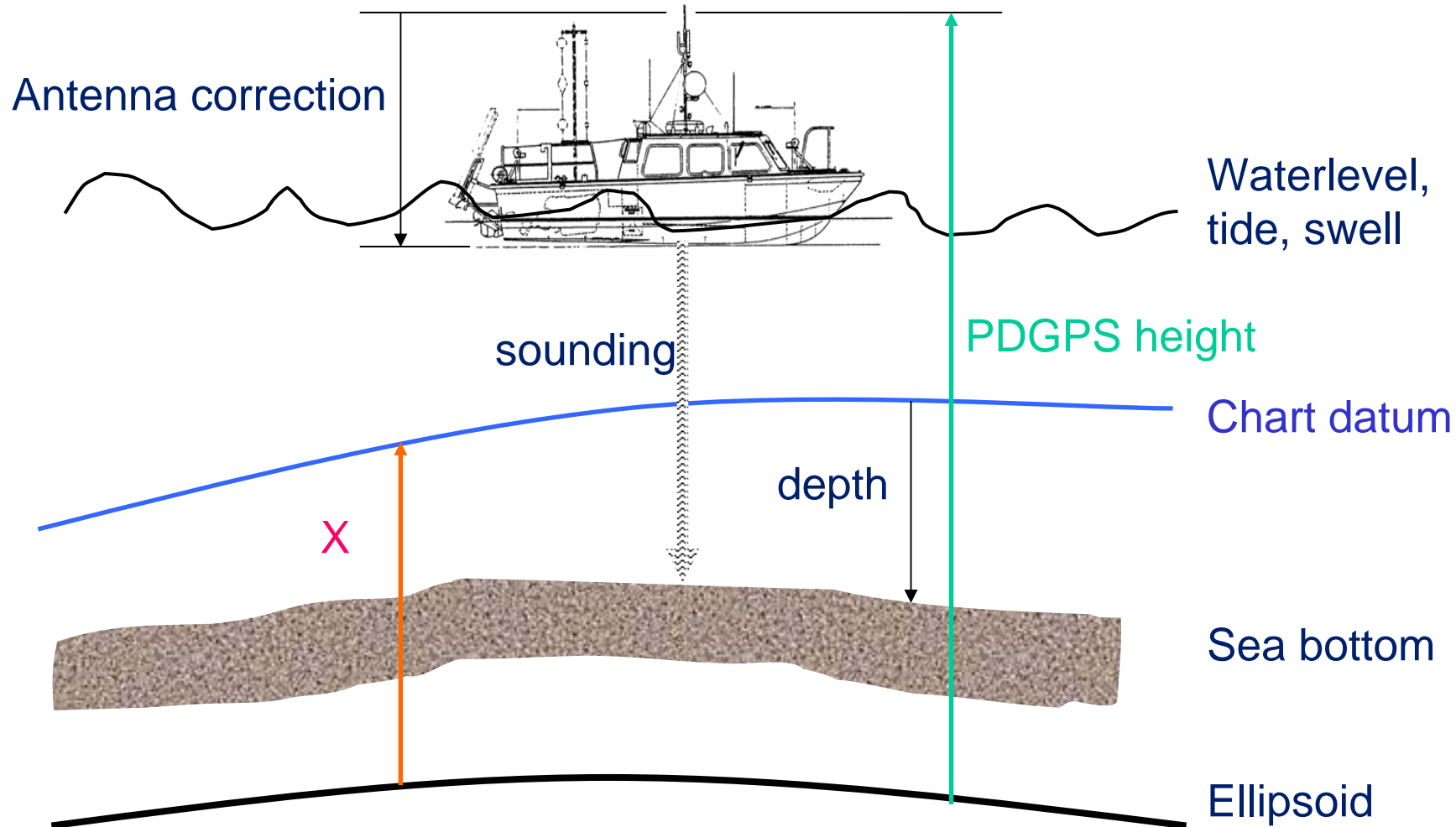


Depth reduction using PDGPS



Depth reduction using PDGPS

Project to develop the chart datum surface:

- surface referred to ETRF89-ellipsoid (**38,5m** near Borkum, **37m** near Cuxhaven)
- 140 tide gauge readings
- quasigeoid EGG97 as an approximation of the geoid
- finite element numerical model
- GPS campaign to determine ellipsoidal heights of tide gauges
- completed in early 2006

Depth reduction using PDGPS

GPS height measurements on board:

- DGPS is normally used via IALA reference stations (i.e. Helgoland) for positioning only (code correction)
- phase-correction to reach dm accuracy
- Reference stations:
 - SAPOS (german state survey)
 - use of FM 2m-band or GSM
 - temporary reference station
- limited coverage of survey area
- changes in data processing



Depth reduction using PDGPS

**Test measurement in the
North Frisian area
and in the
Fehmarn Sound**

