

Inter-comparison
of Altika and ENVISAT altimetry
over rivers
at sites monitored locally

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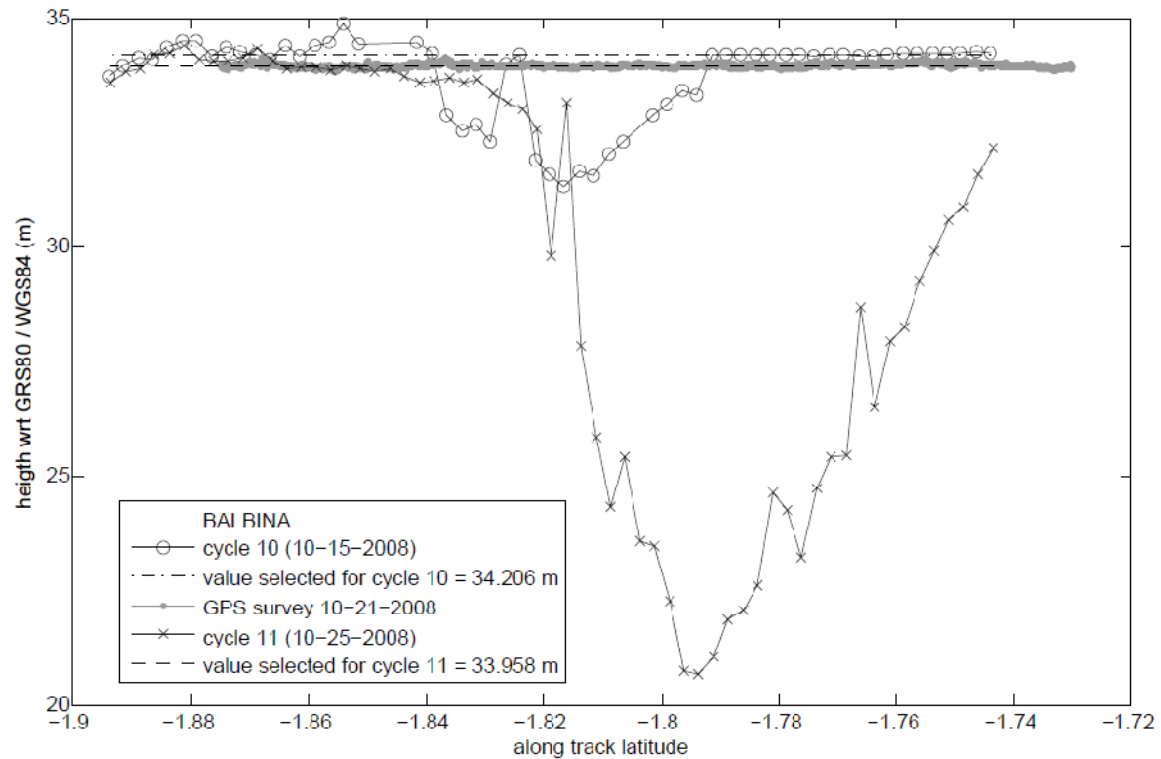
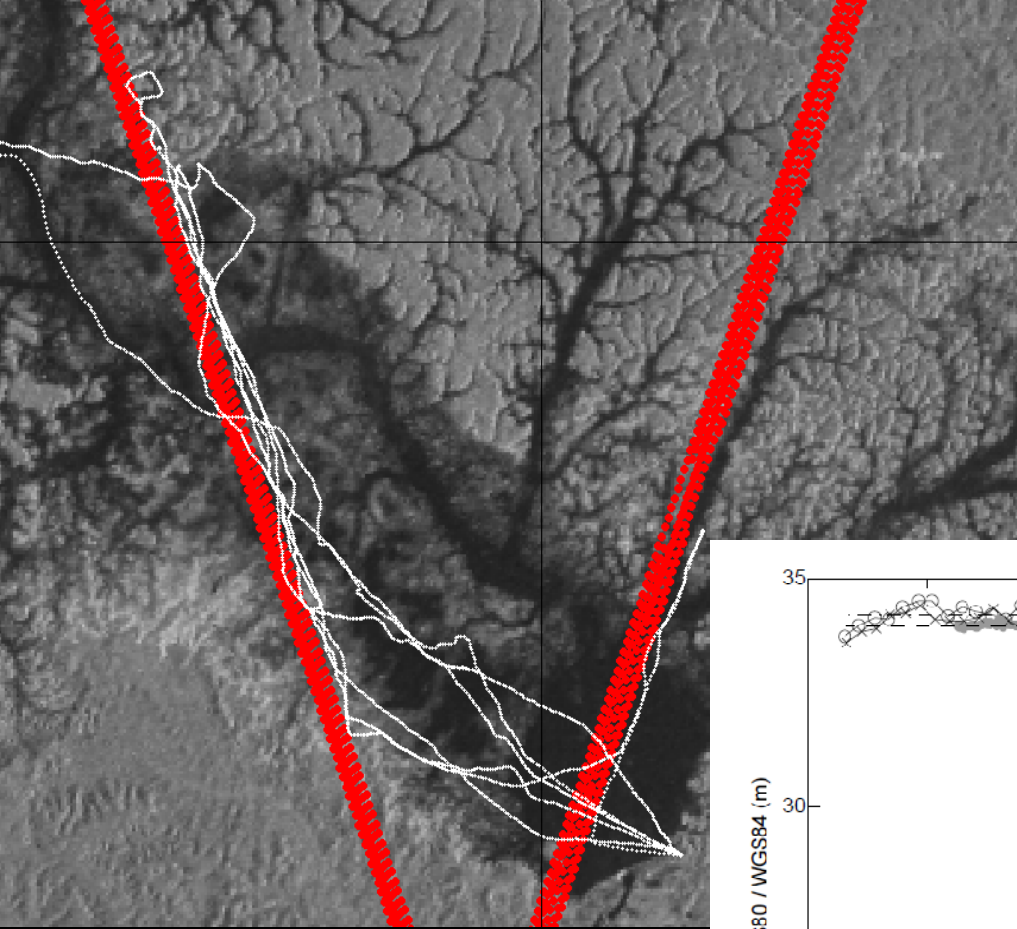
The AltiKamala project

- International (Fr, India, US, Taiwan, Spanish, Brazil, Columbia, Vanuatu...) effort to a global Cal/Val of AltiKa
- *Global* = many sites operated by many teams with different technics in very different contexts (open ocean, coastal zone, lakes, rivers)

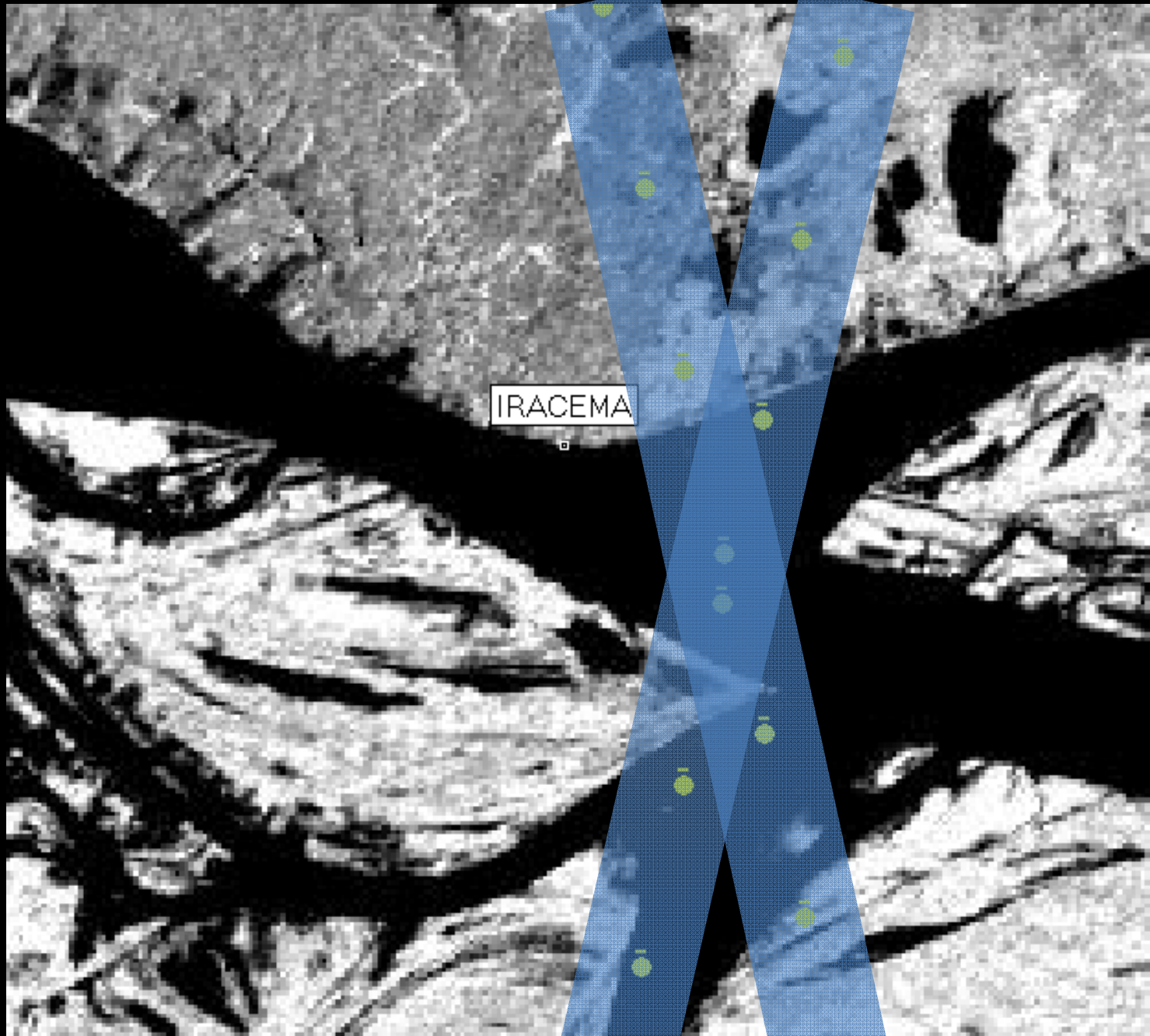
The Amazon river site

- Impossible to assess the quality of altimetry over rivers in the traditional way
 - includes tracking algorithms and data selection algorithms
- Ways used for the validation of the AltiKa data (based on ENVISAT and J2 expertise):
 - - check for the data acquisition capabilities
 - - Compare results in terms of:
 - - time series of water height vs gauge series (rms of differences and bias) -> external validation
 - Cross overs over rivers beds -> internal validation
 - - GPS surveys along selected tracks

FOAM project (P. Bonnefond et al.)



- 1- Dedicated sites



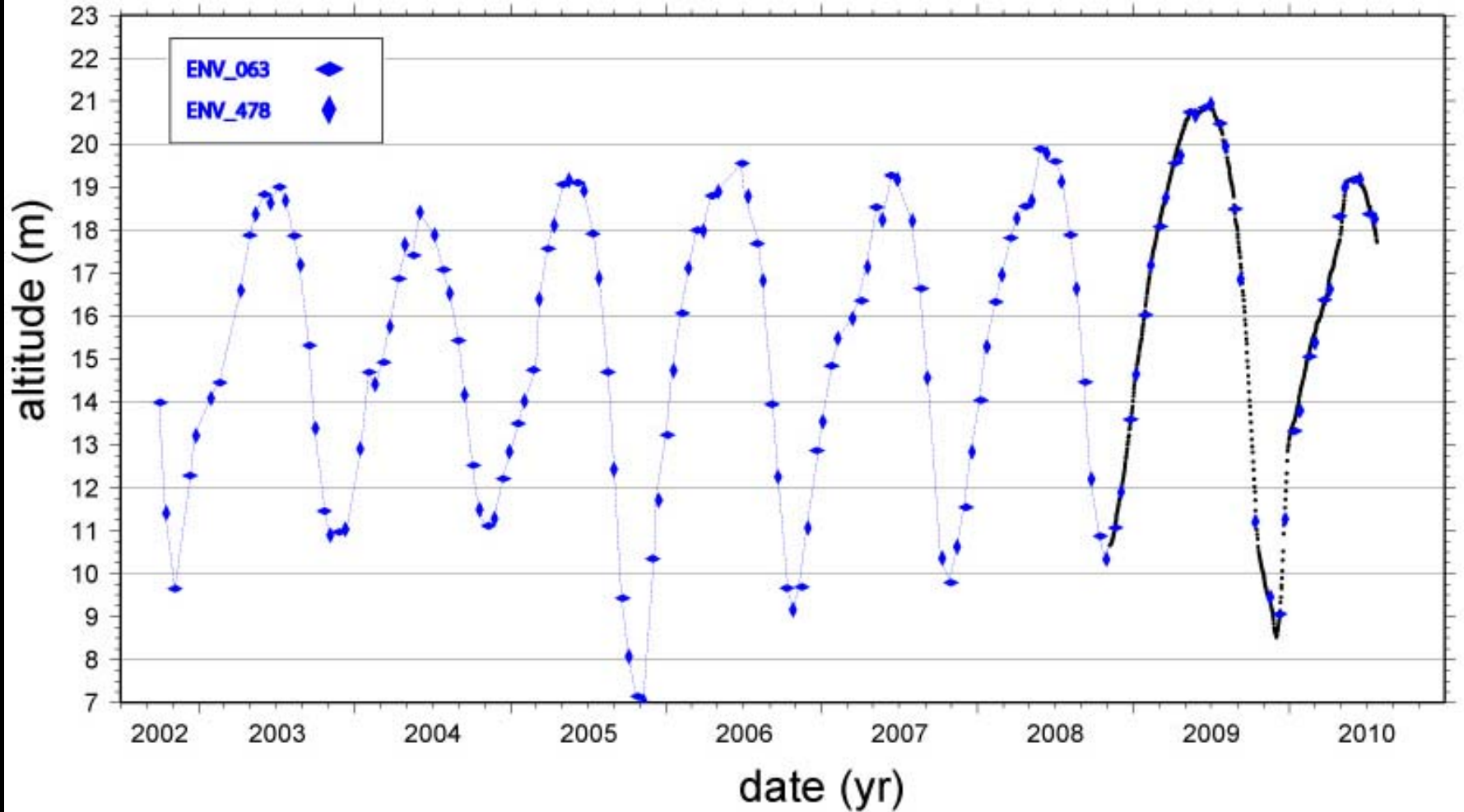
IRACEMA







ENVISAT series at Iracema



- 2- Comparison with Existing gauges

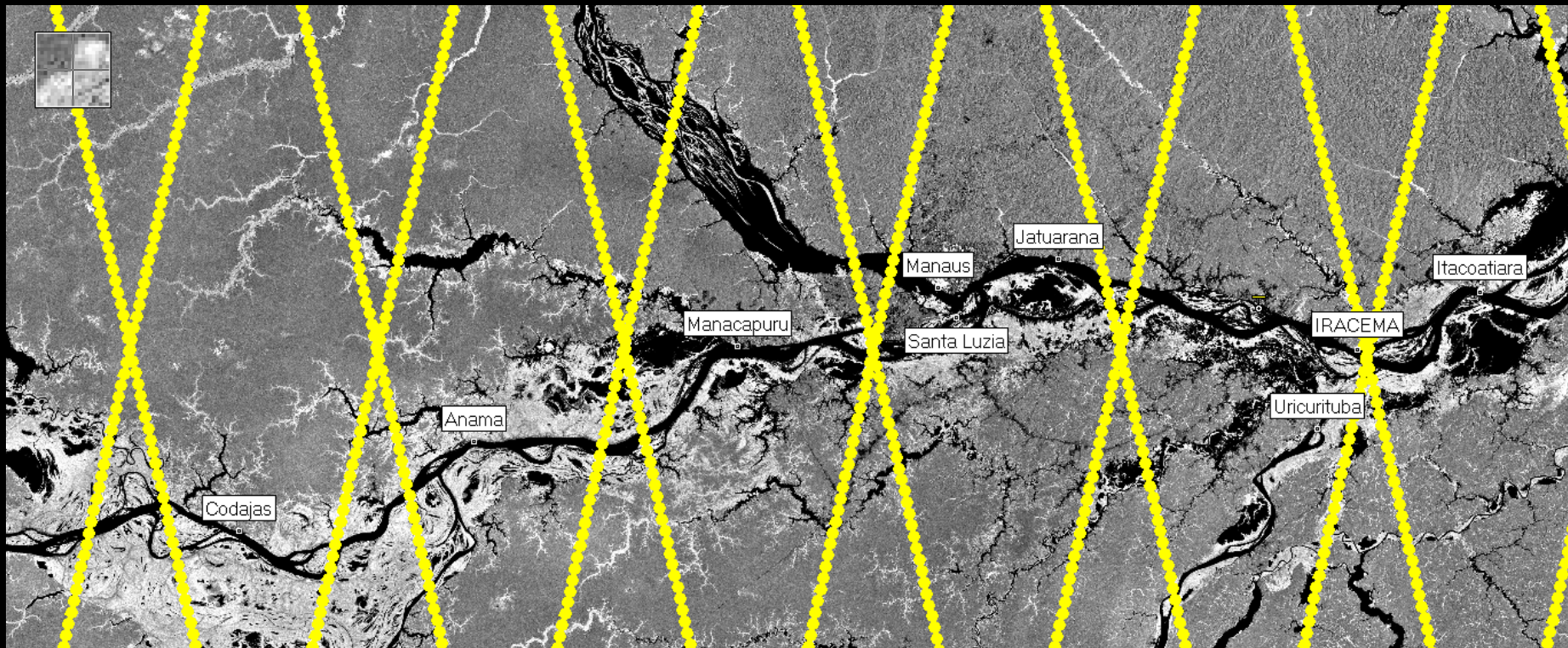
Height relative to a local zero



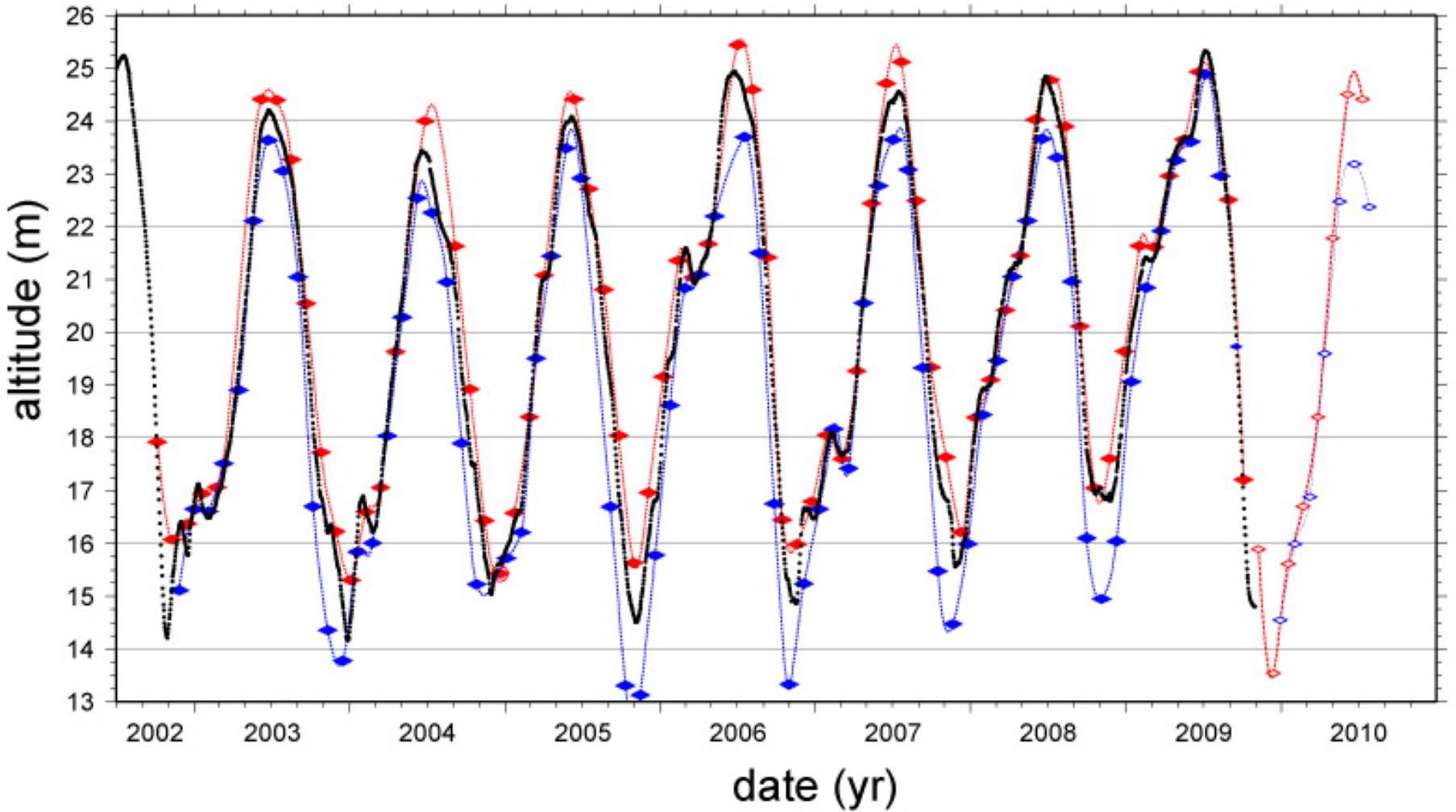
GPS : height relative to global Reference (GRS80/WGS84)

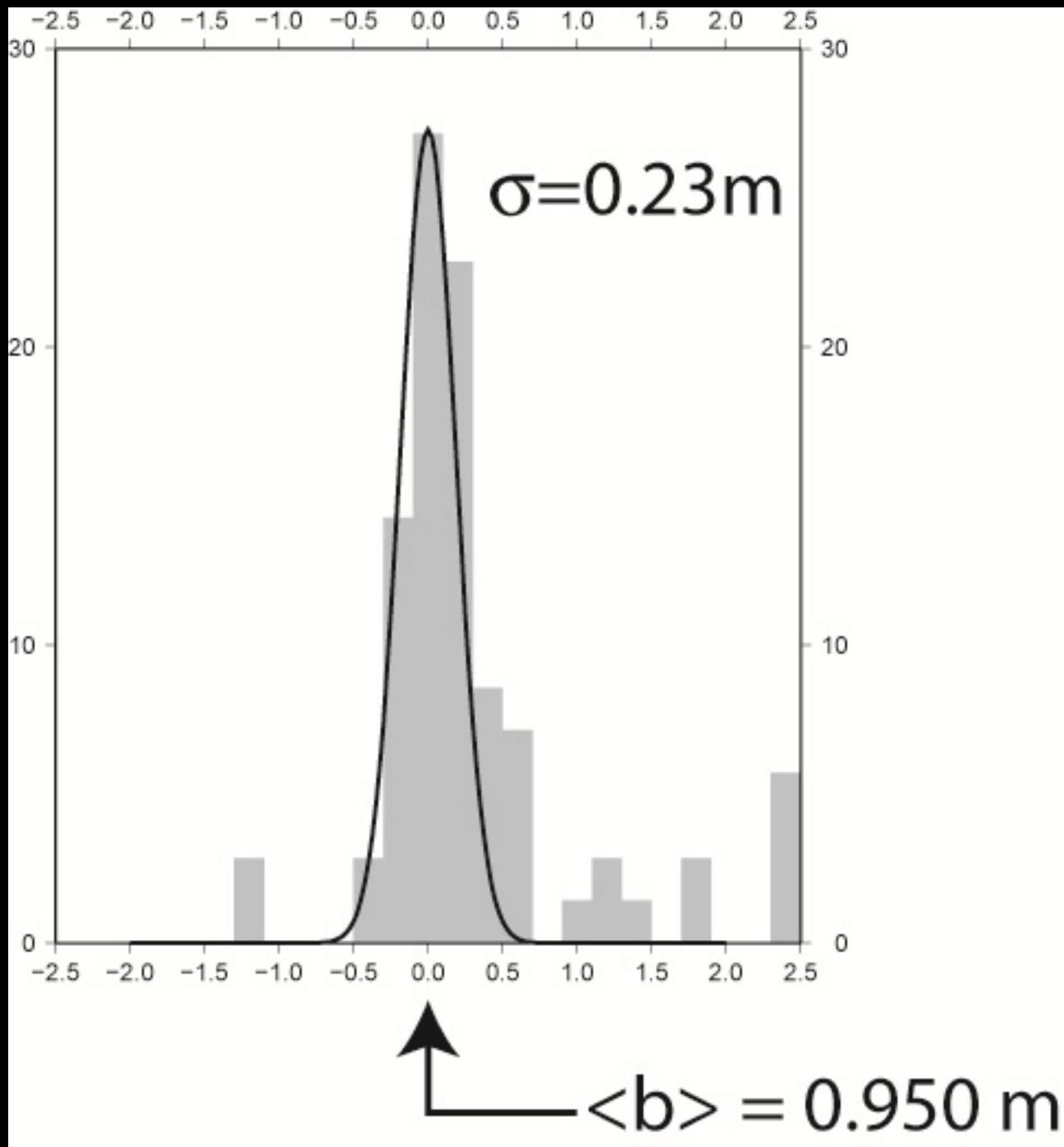


ENVISAT/AltiKa tracks over the Amazon basin



Gauge = Moura



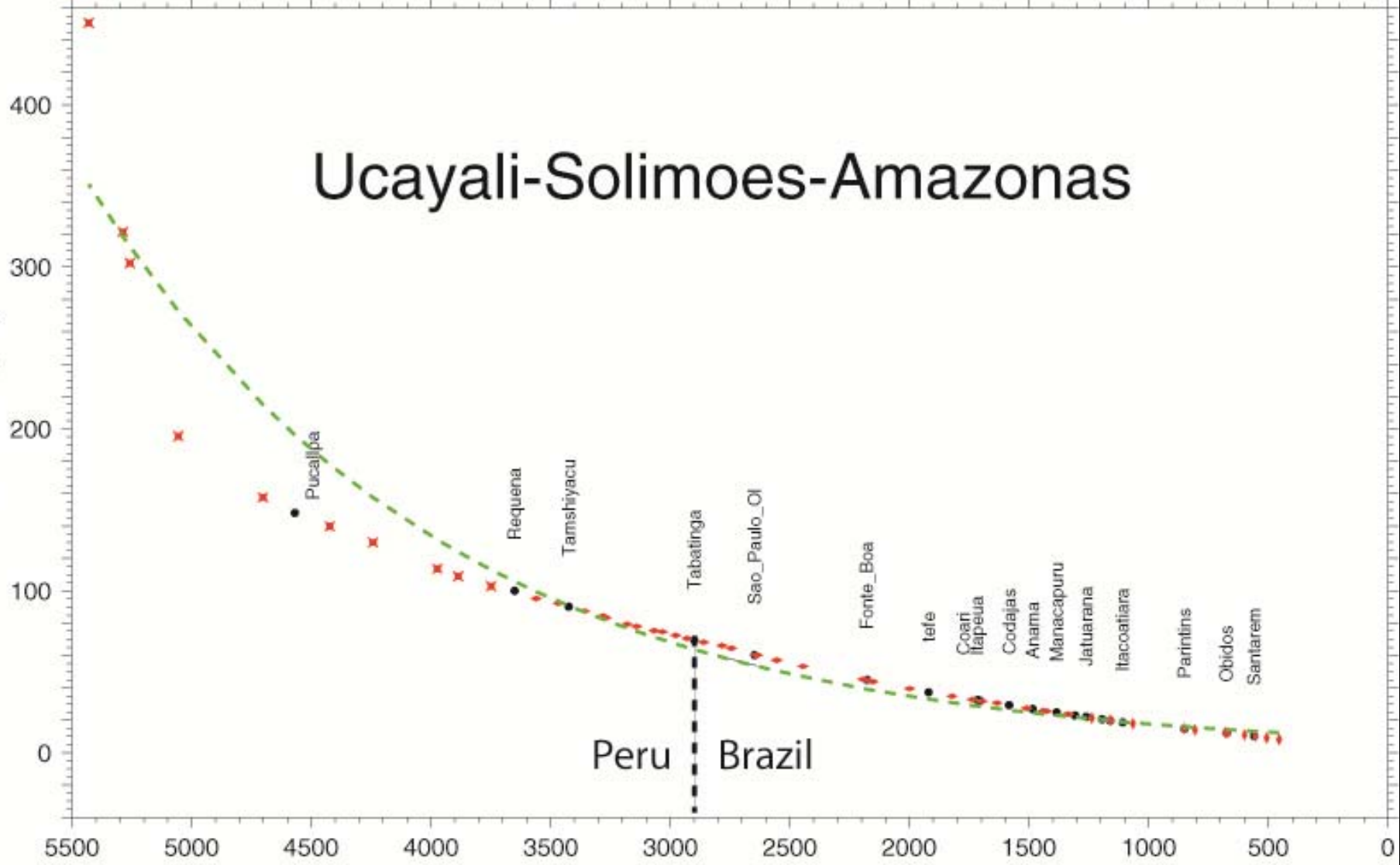


Ucayali-Solimoes-Amazonas

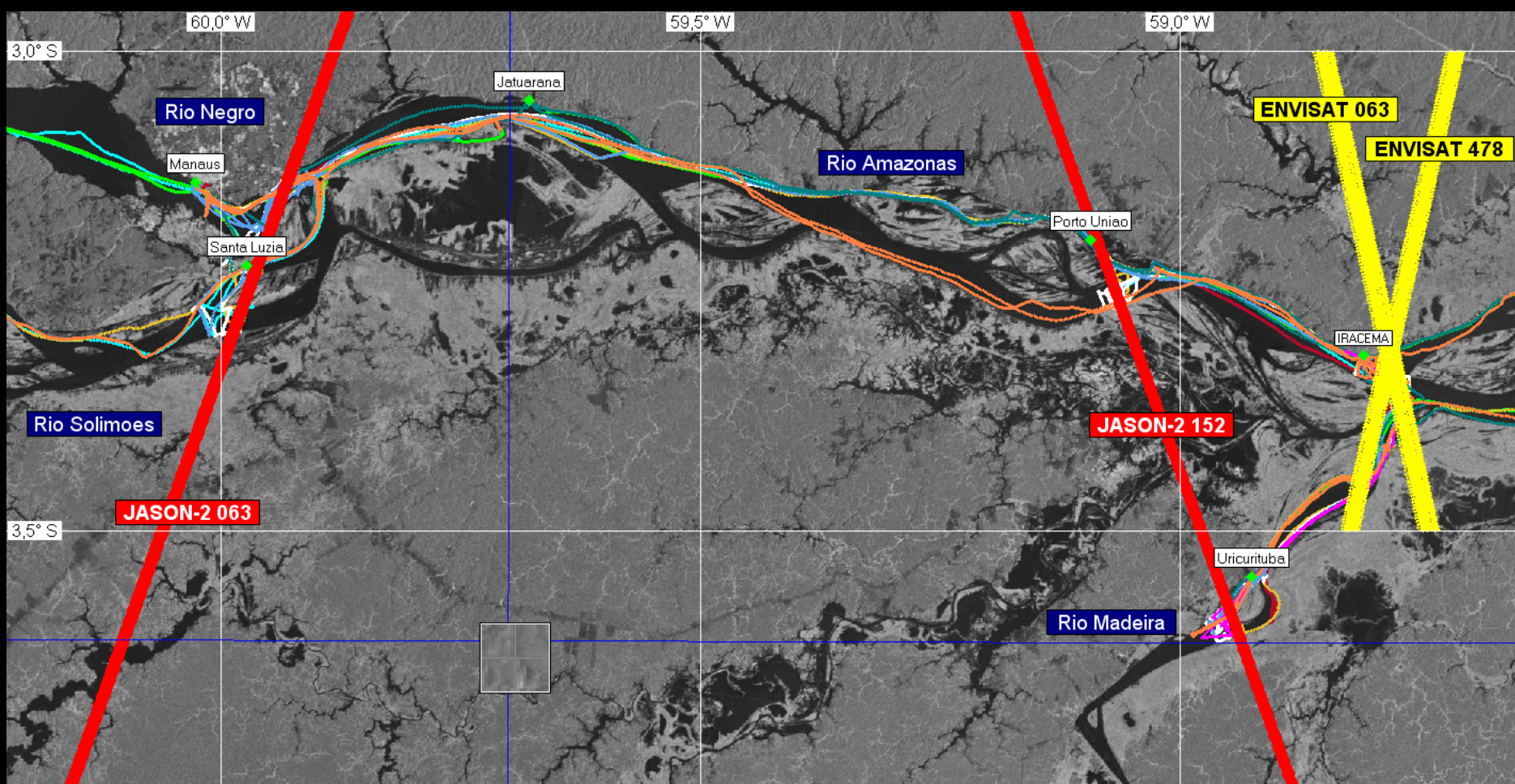
altitude (m)

Peru Brazil

distance



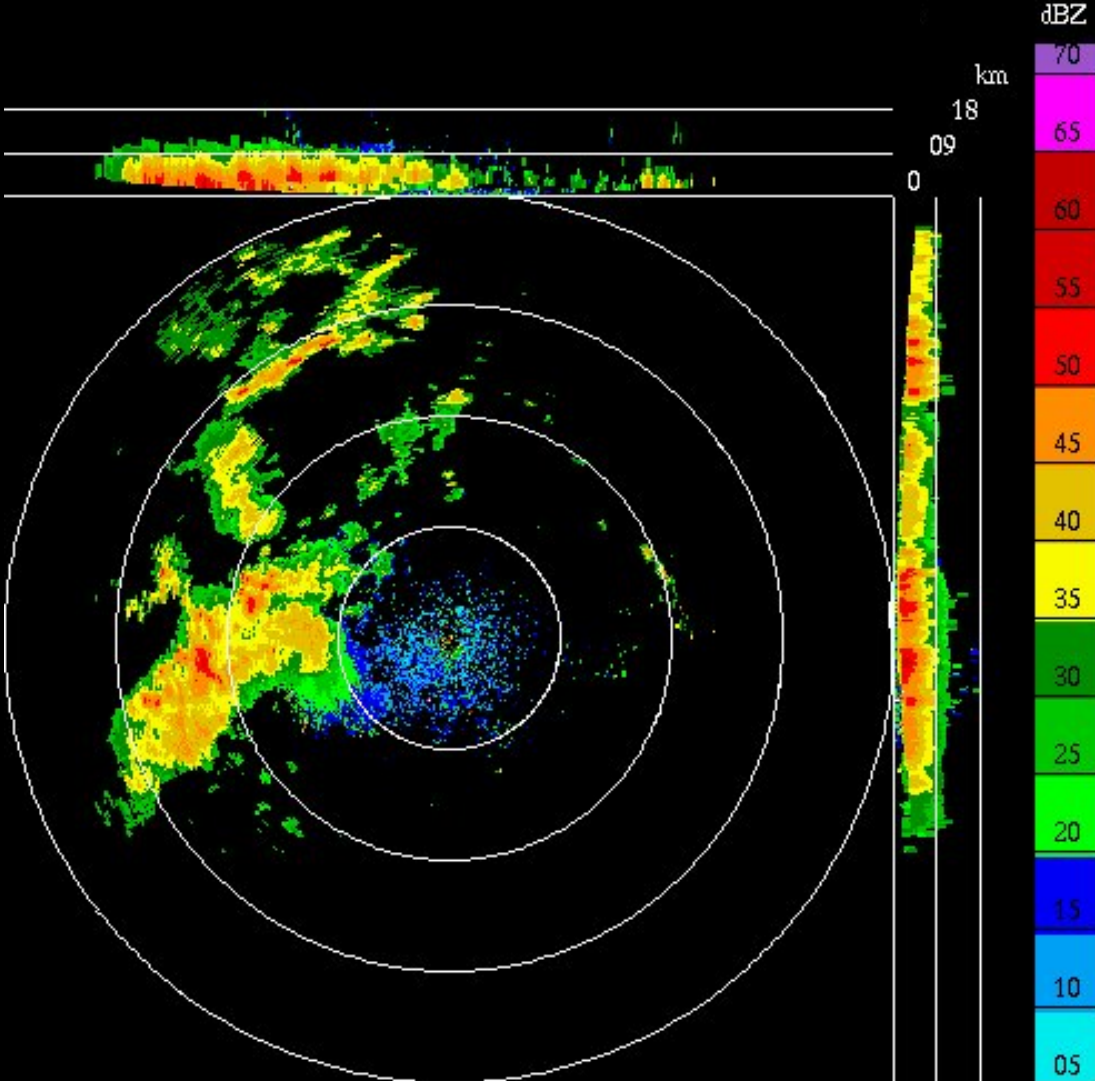
- 3- Comparison with
GPS cruises



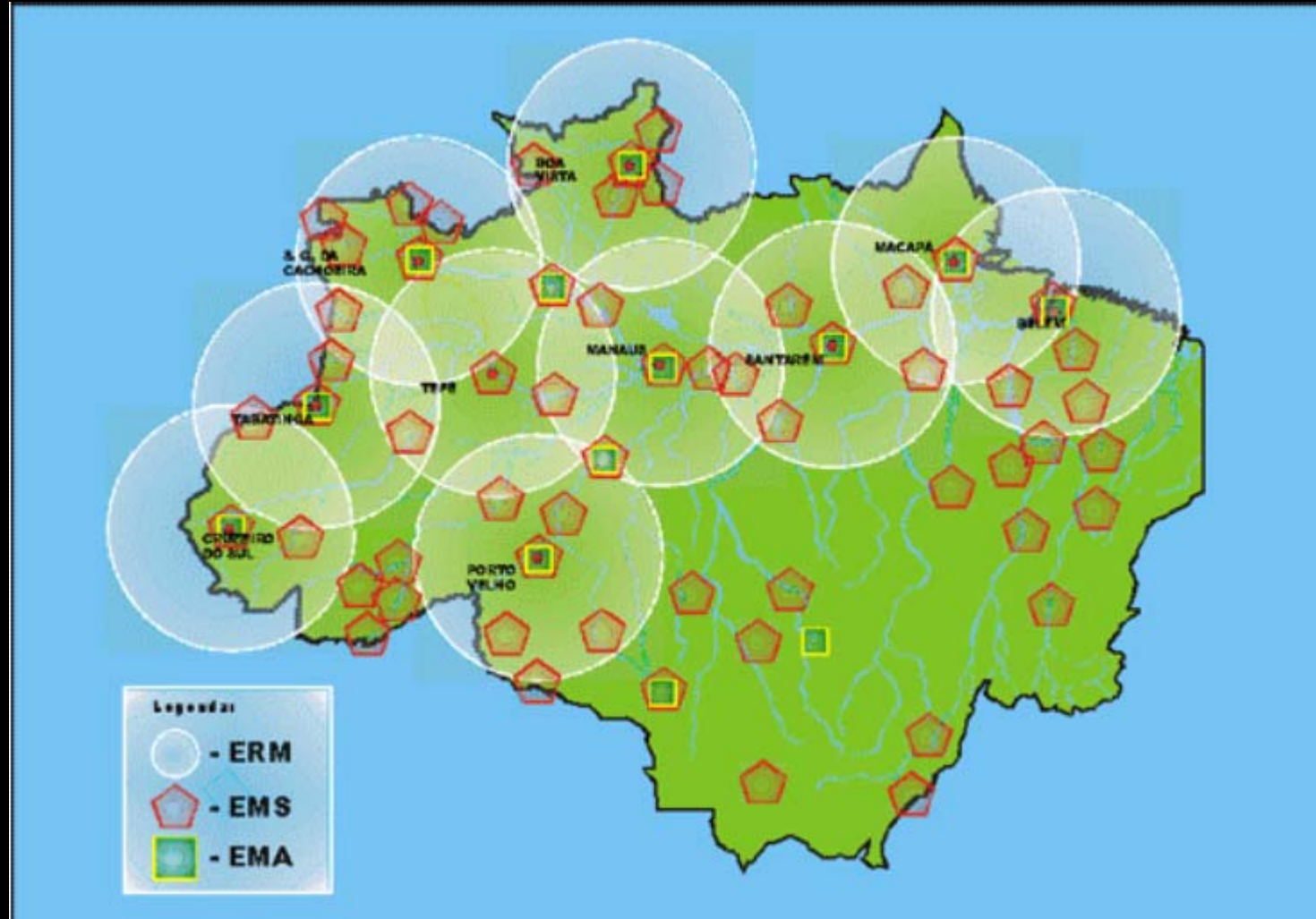
GPS computations in PPP mode
Using the new CNES software GINS-PC
(integer ambiguities ?)

- 4- Check for data loss caused by strong rains

Radar echoes due to rain cells

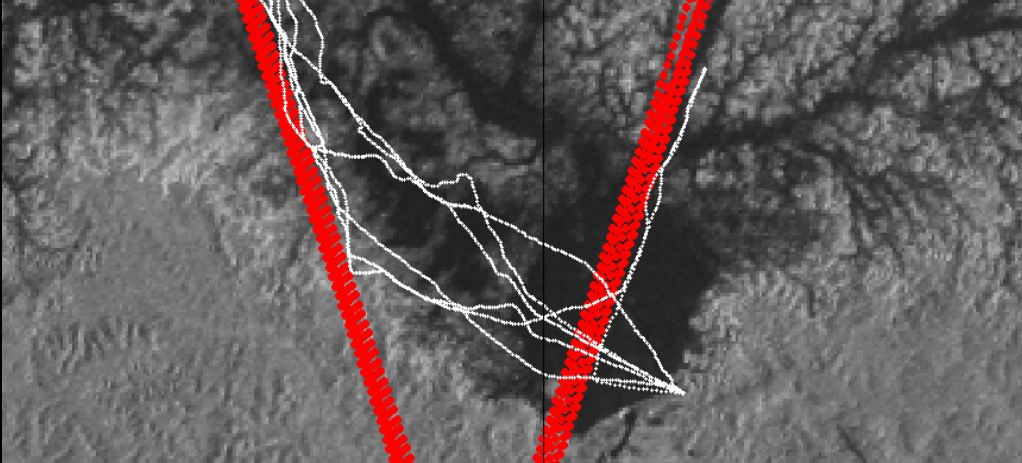


Coverage of the Amazon basin with met radar



That's all





The FOAM Project (JASON 2)

