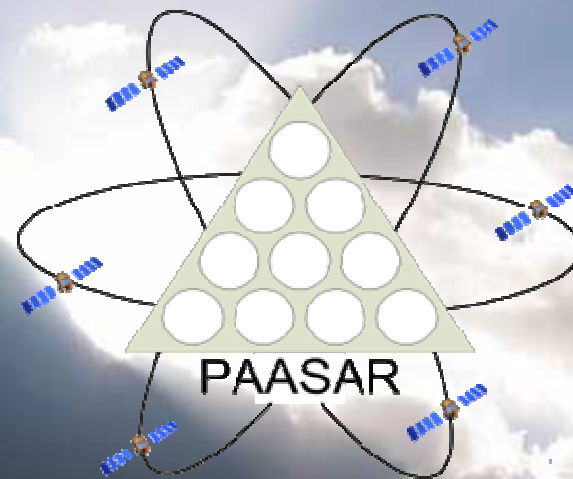


# Technical Introduction to

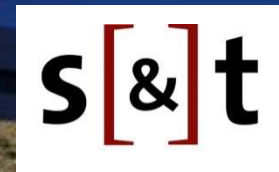
# PAASAR



# Integrated Phased Array Ground Station

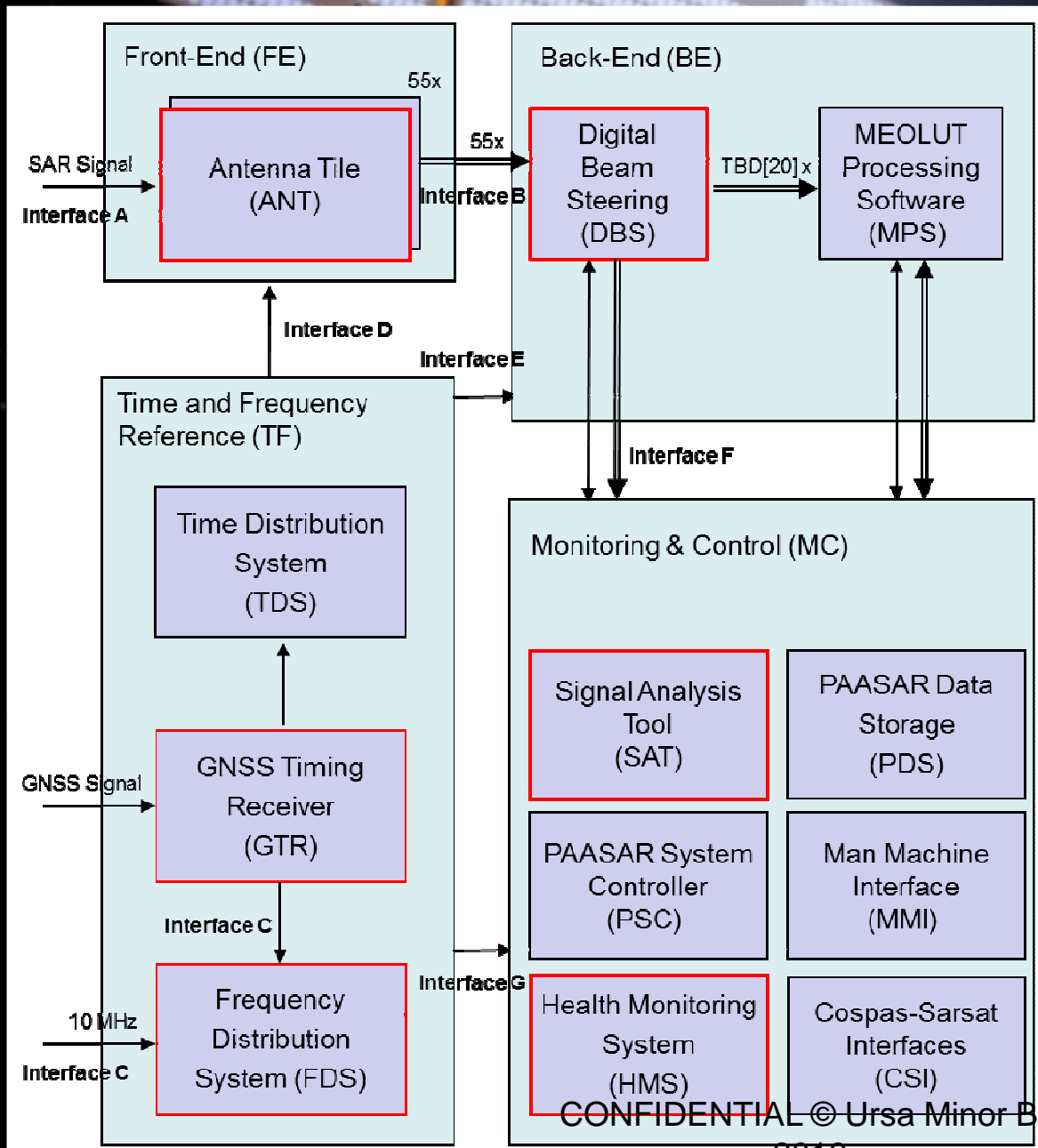
- 1.5 m Ø dome
- Integrating 5 x 10 antennas
- SAR/Galileo + SAR/GLONASS
- 12+ simultaneous satellite tracking
- Flexible
- Lower maintenance cost
- High stand alone performance
- Non-moving parts
- Note that nulling and beam optimisation have not been implemented for the results shown in this presentation.

## Our solution



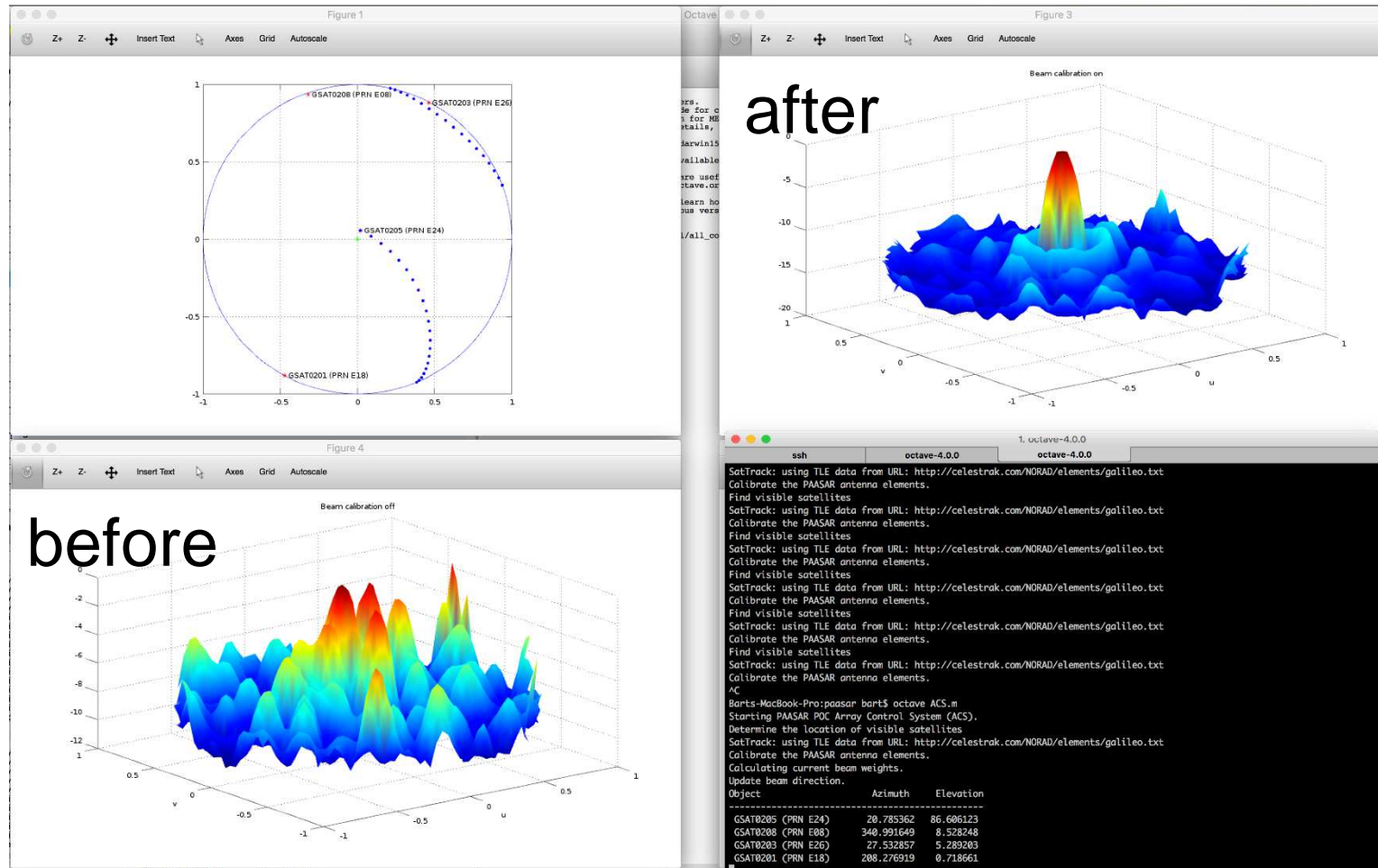
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2016

# PAASAR Functional Design

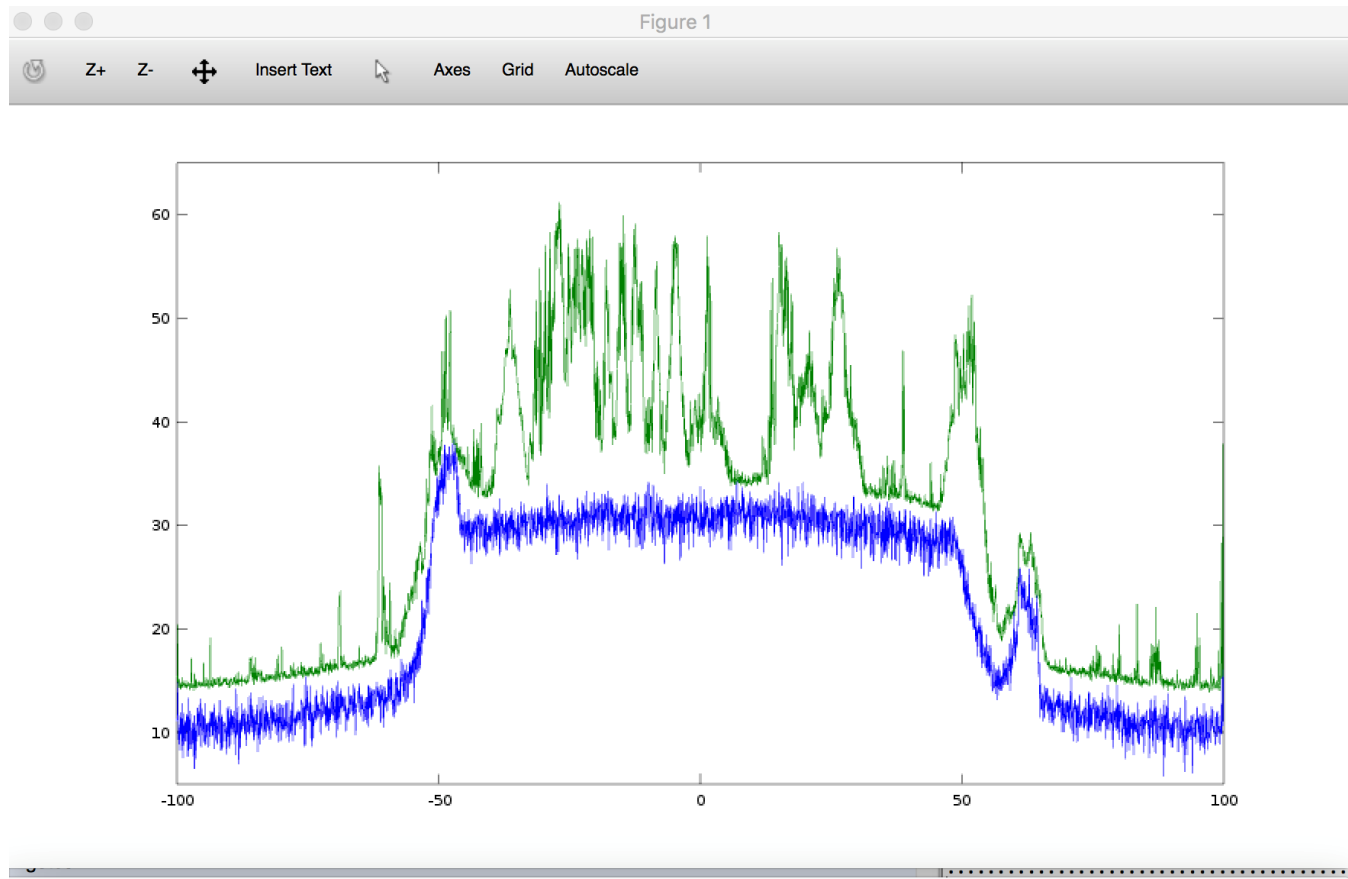




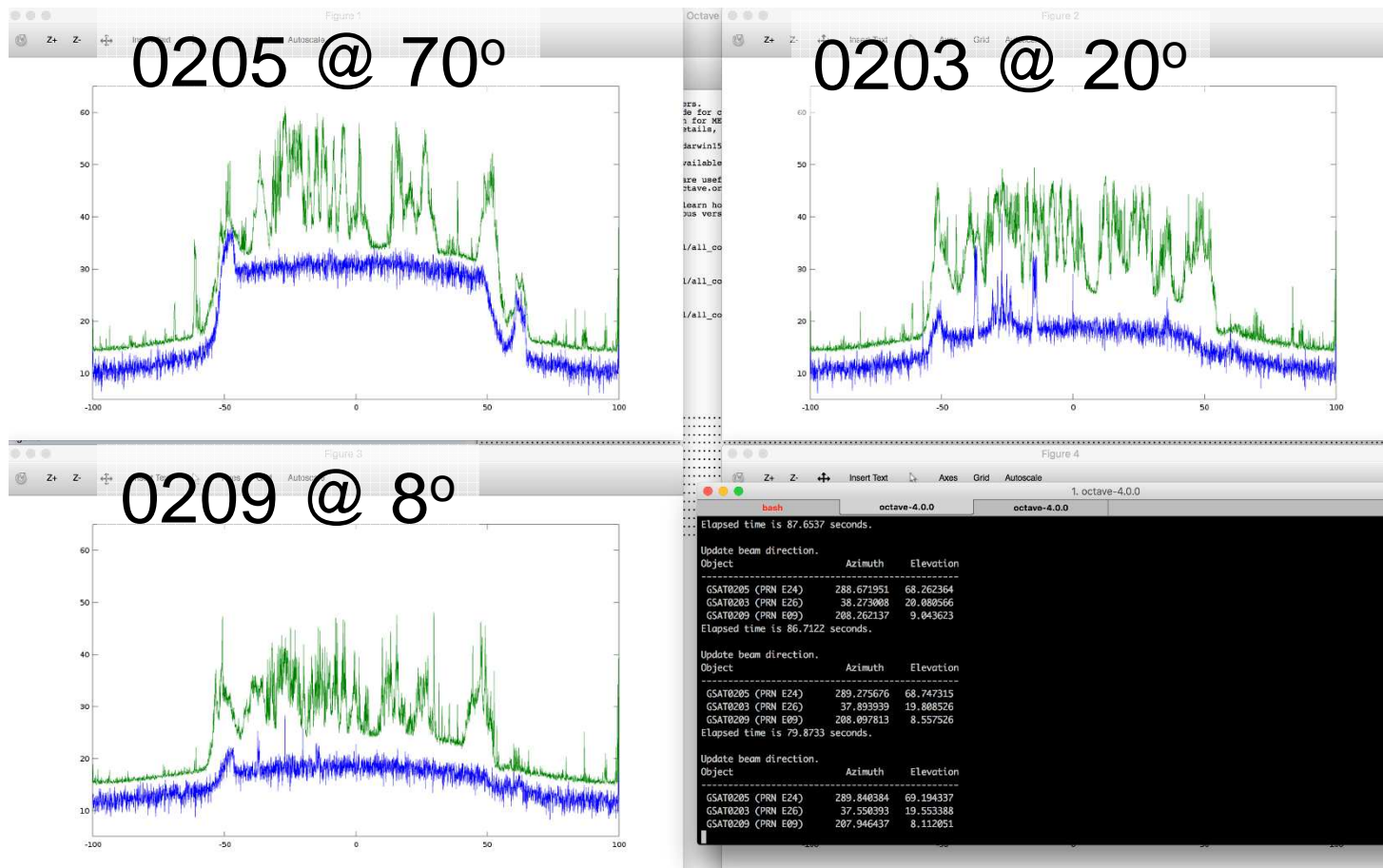
## Field Tests – Calibration example:



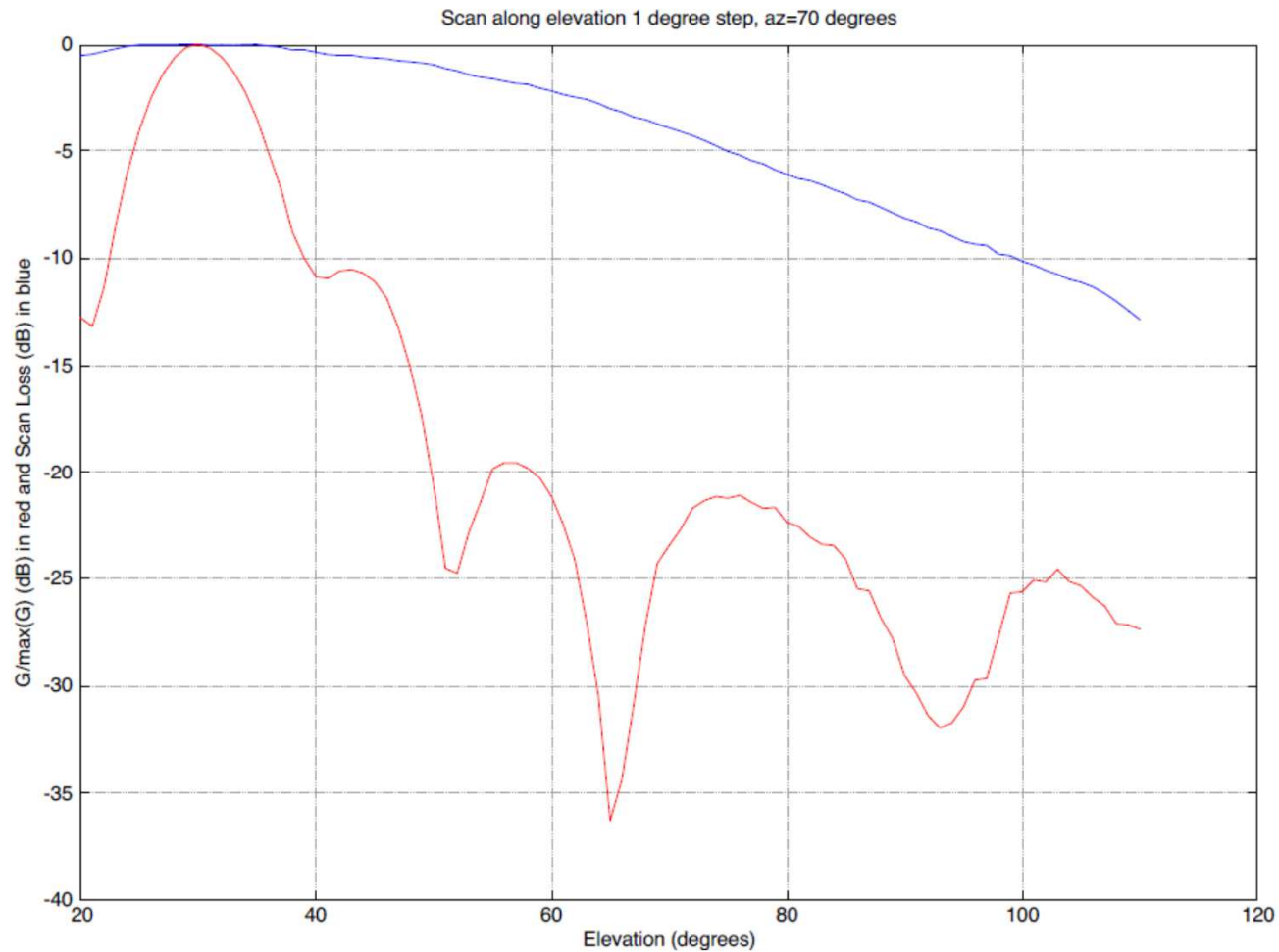
## Field Tests – Spectrum example:



## Field Tests – Spectra / elevation example:

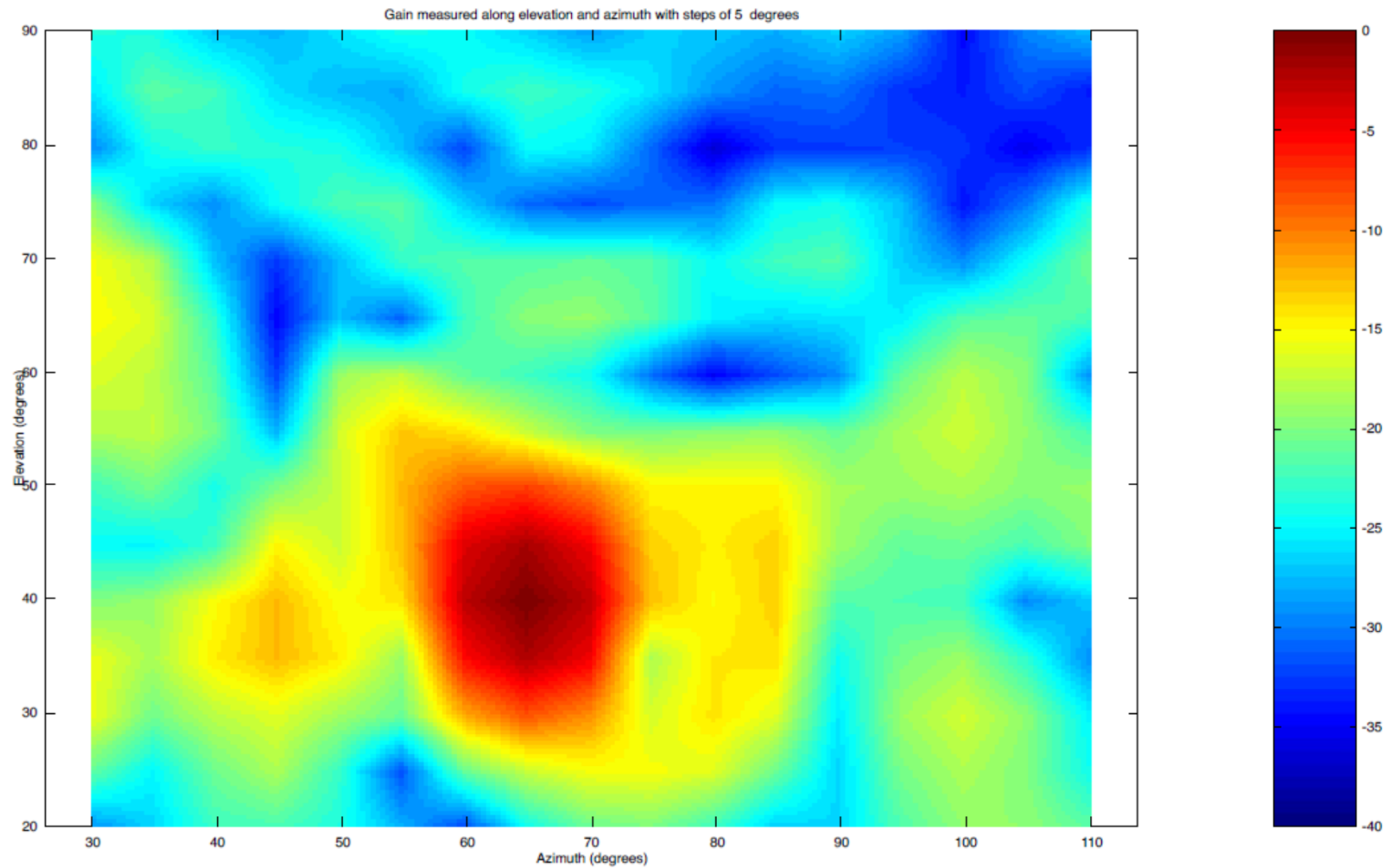


Antenna Characterizations: **gain pattern** / **scan loss**

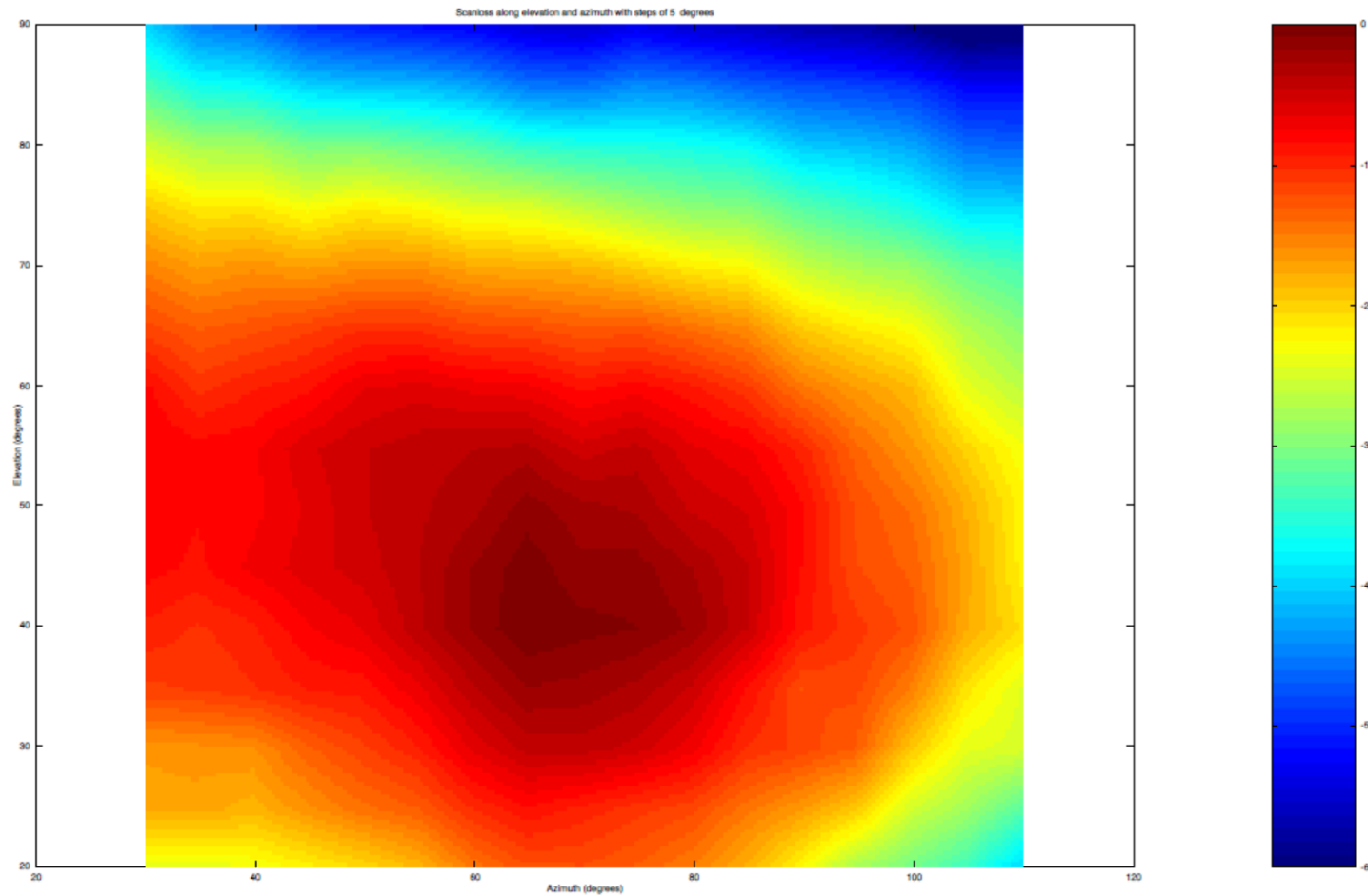




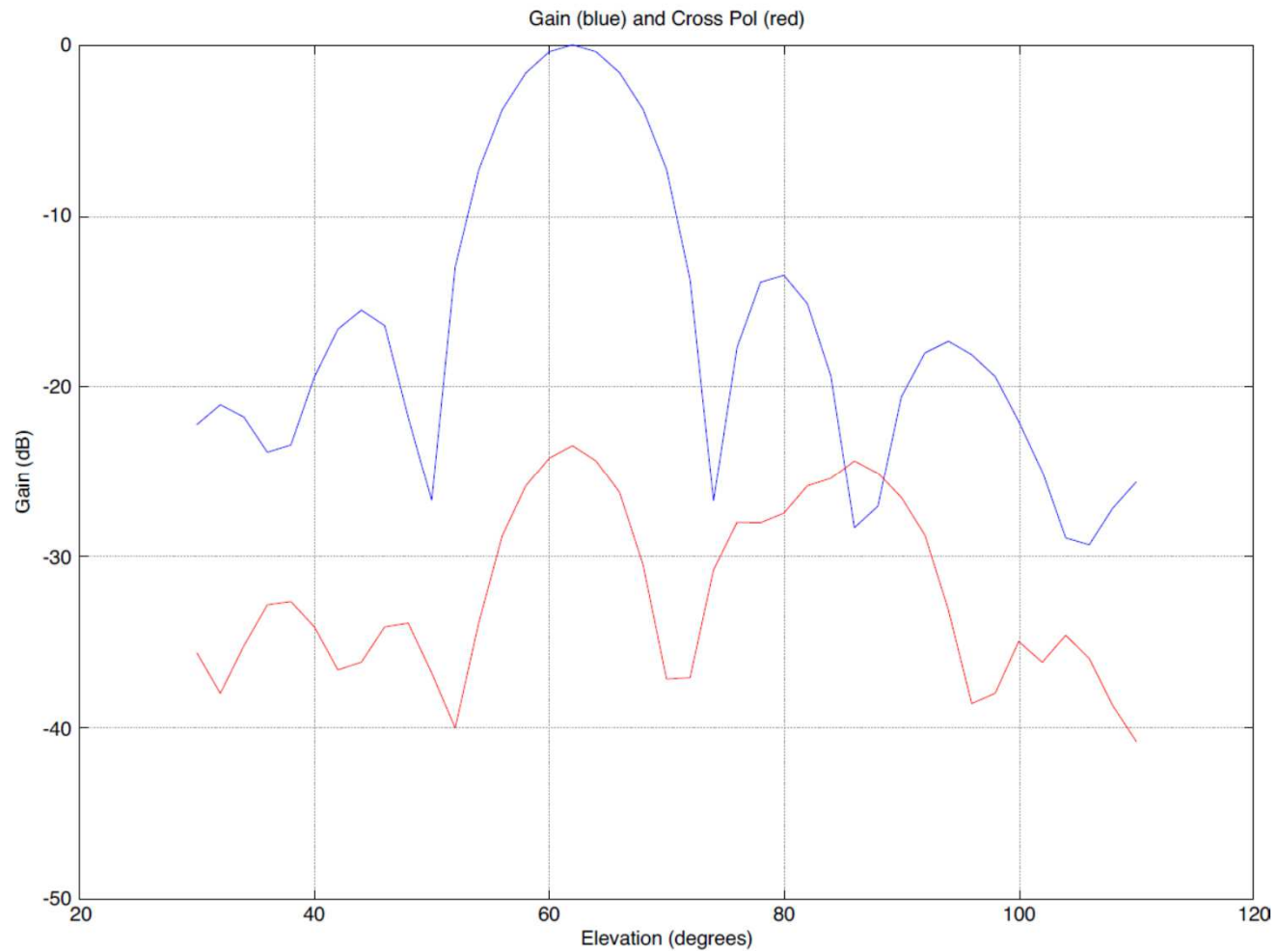
## Antenna Characterizations: gain pattern



## Antenna Characterizations: scan loss



## Antenna Characterizations: Gain / Cross pol.



## Results

- Successful integration of all PAASAR subsystems
- Successful implementation of Digital Beamforming
- Successful implementation of Calibration principle
- Successful implementation of simultaneous tracking of satellites
- Reception of both SAR/Galileo as SAR/GLONASS
- System performance better than expected