

PAON project status

J.E Campagne LAL 18/7/2012

PAON: Paraboles A l'Observatoire de Nançay

The feeds

Nançay (J.Pezzani)



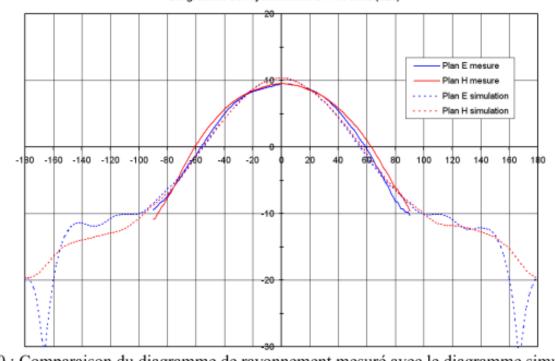


Diagramme de rayonnement à 1400 MHz (dBi)

<u>Figure 10</u> : Comparaison du diagramme de rayonnement mesuré avec le diagramme simulé pour le feed1 à 1,4 GHz

The measurements & simulations agree

BAO Electronics

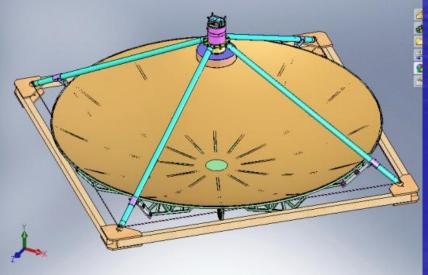


Ready to be put in the EMBRACE container (CEM)



The dishes

 PAON-2 (3m Ø) All the elements to adjust the feed and the fiber glass bars are ready to be assembled and we foresee a test at Meudon next week, then transfer to



Nançay.

Wood frame for feed position commissioning and dismounting.

PAON-4 (ie. \emptyset 5m)

 Since last time we were in standby (see slides of previous meeting)

Very recent news:

 Meudon J.M Martin prepare an official request for the technical service to design and produce 5m dishes. End of August 12 decision
Cobham representative takes contact with Nançay to sell for 2,5k€ two 5m Patriot dishes

Specifications

Electrical	C-Band	Ku-Band
Gain Midband	44.1 dBi	53.2 dBi
Efficiency	60%	60%
3dB Beamwidth	1.0Deg	.35Deg
Avg 1st Side Lobe	-22dB	-22dB
Cross Polarization	>30dB	>30dB
VSWR (typ)	1.3:1	1.3:1
Noise @ 30deg elevation	25K	35K

Mechanical

Antenna Size Focal Distance F/D Operational Wind Survival Wind Operational Temp Rain

Ice

5.0m (16.4") 1.63m (64.32") .33 50mph 125mph (see wind spec. pg. 13) -40 to 140 F Operational = 1/2in./hr Survival = 3in./hr 1 in. Radial -or-1/2 in. + 60mph wind

Quality seems well enough Minimal mount: manual elevation Need new feed positioning system

Current status: finalization of the offer.

