



CENTRE NATIONAL D'ÉTUDES SPATIALES

ESTB WORKSHOP

12 november 2001 - NICE

ESTB OPERATIONS

- ESTB Operations outlines
- ESTB availability
- ESTB performance analysis
- ESTB users information



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ESTB Operations

- ESTB operations performed by CNES on behalf of ESA
- ESTB operated during working hours, runs automatically the rest of the time
- Target availability 95%



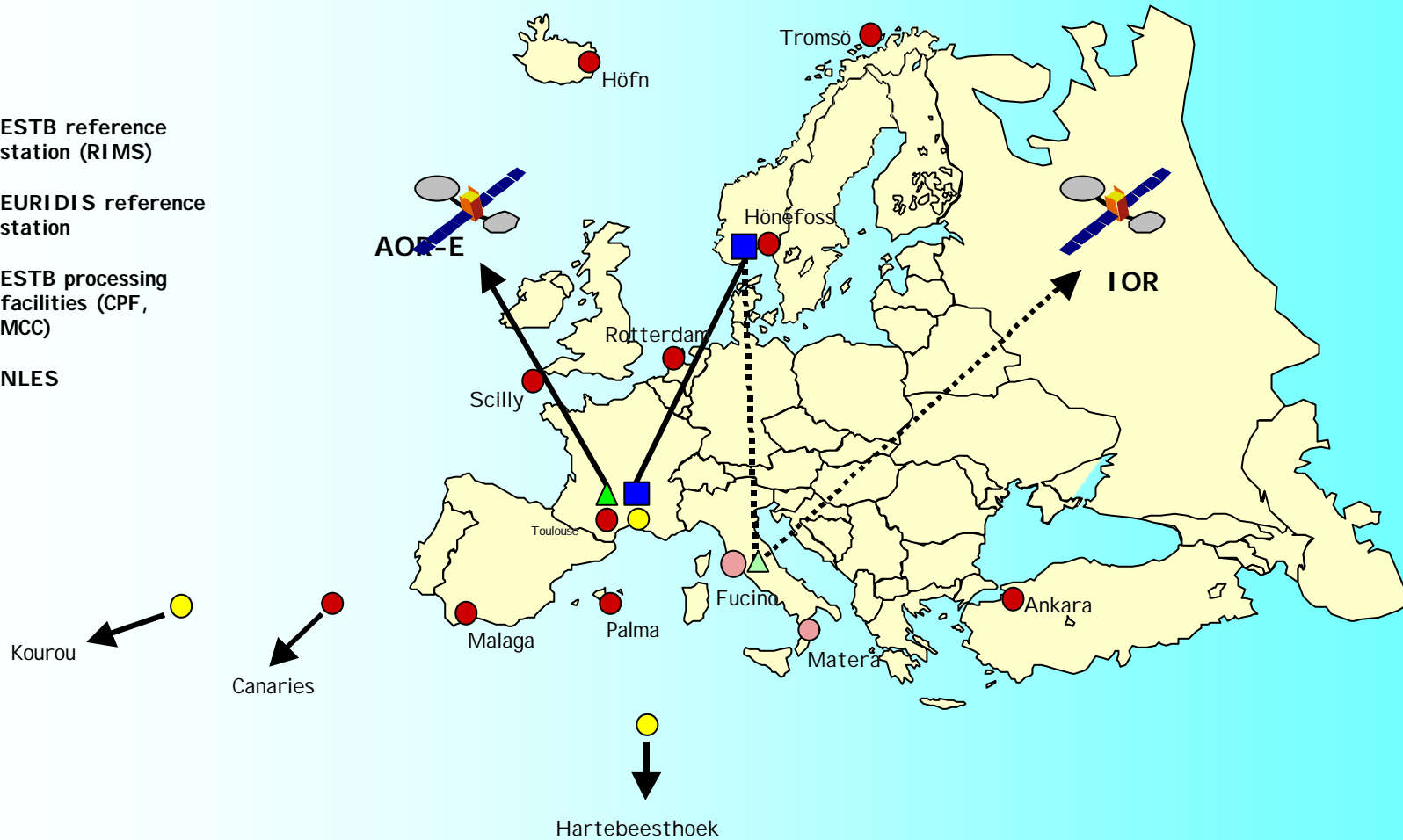
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ESTB Operations

- CNES team (Toulouse)
 - General ESTB coordination
 - Operations of EURI DI S component
 - Maintenance coordination
 - ESTB signal off-line processing and analysis
- NMA team (Hønefoss)
 - ESTB CPF operations
 - ESTB Reference Stations operations

ESTB Operations

- ESTB reference station (RIMS)
- EURIDIS reference station
- ESTB processing facilities (CPF, MCC)
- ▲ NLES





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ESTB Operations

- ESTB components :
 - EURIDIS
 - EURIDIS MCC (Toulouse)
 - 3 reference stations (AUS, KRU, HBK)
 - NLES (AUS)
 - 10 ESTB reference Stations (Ankara, Rotterdam, Scilly, Toulouse, Høfn, Tromsø, Hønefoss, Malaga, Palma, Canary)



ESTB Operations

- EURI DI S MCC layout
 - "Real time" and "Off line processing" positions well defined
 - GNSS receivers with PC





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ESTB Operations



EURIDIS MCC
Real time control position

Off line processing
computers





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ESTB Operations



GNSS receivers

PC for data storage
and analysis





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ESTB Operations

- EURI DI S MCC, GNSS receivers used for signal monitoring and performances analysis :
 - Thales Avionics TBUE
 - NovAtel millenium
 - Thales Navigation Aquarius
- SI S processing using PEGASUS software



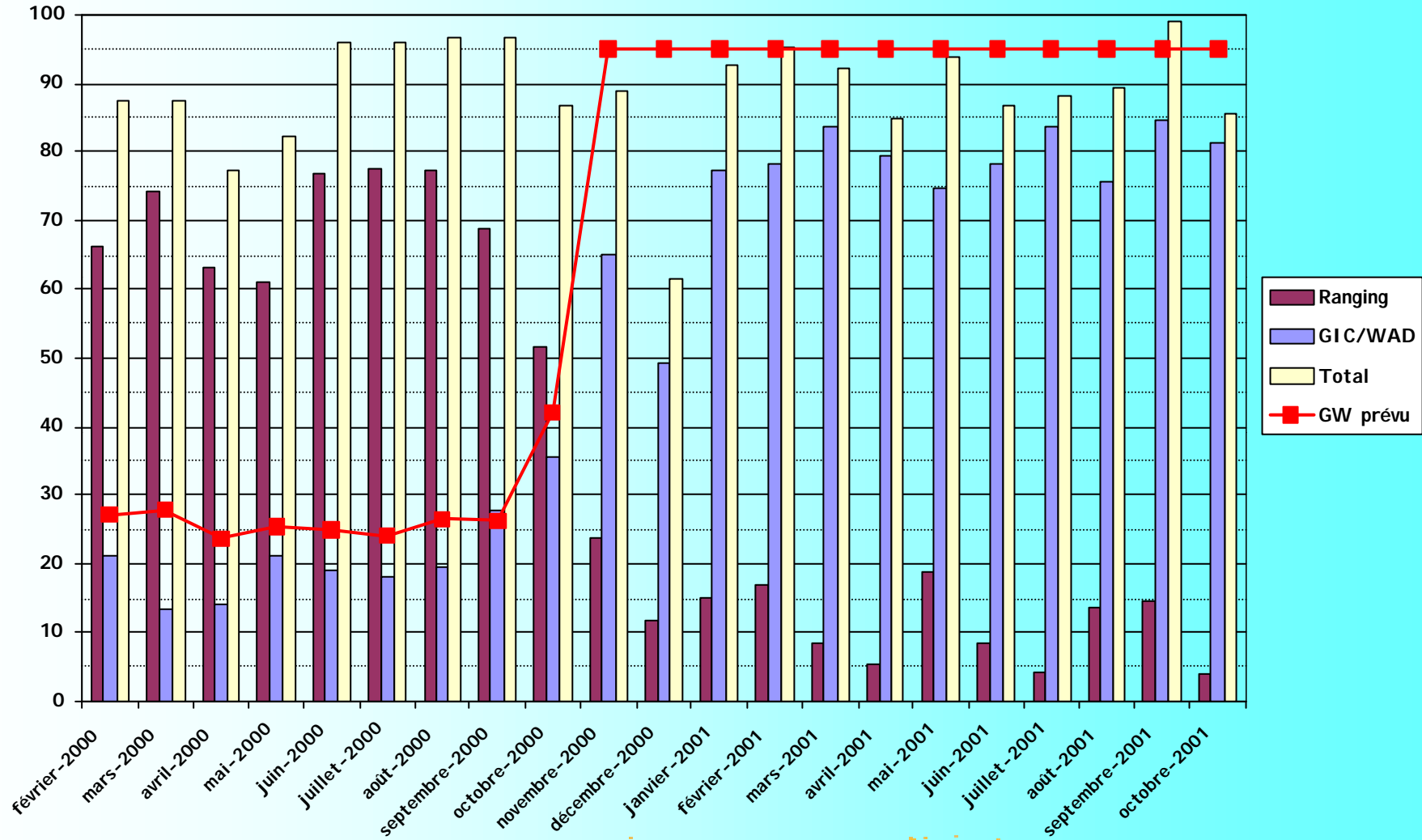
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ESTB Operations

- Main failure causes :
 - Long loop equipment (Aussaguel NLES)
 - CPF stop (ESTB CPF in Hønefoss)
 - Network (Data gathering, Hønefoss Toulouse link)

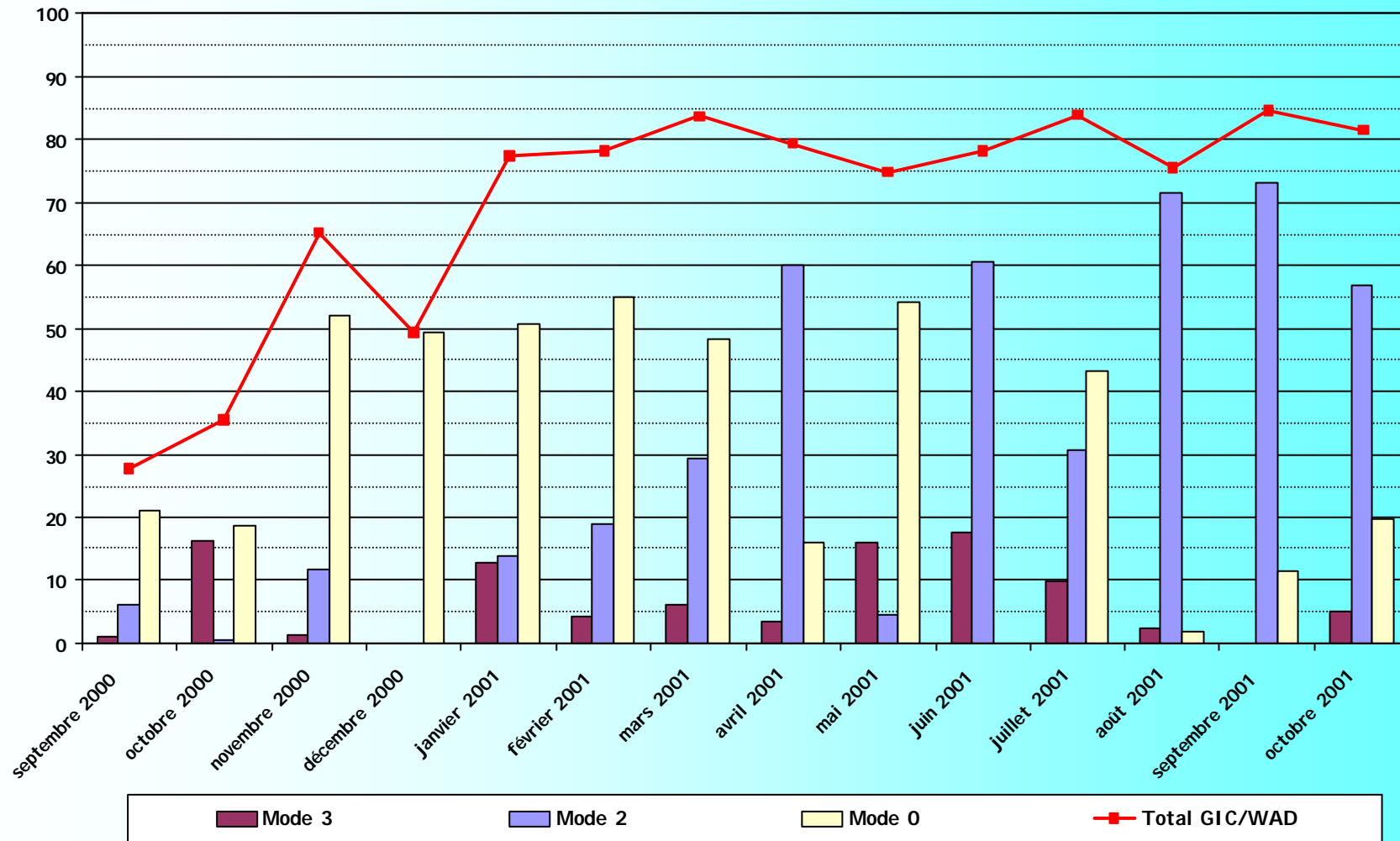
ESTB availability

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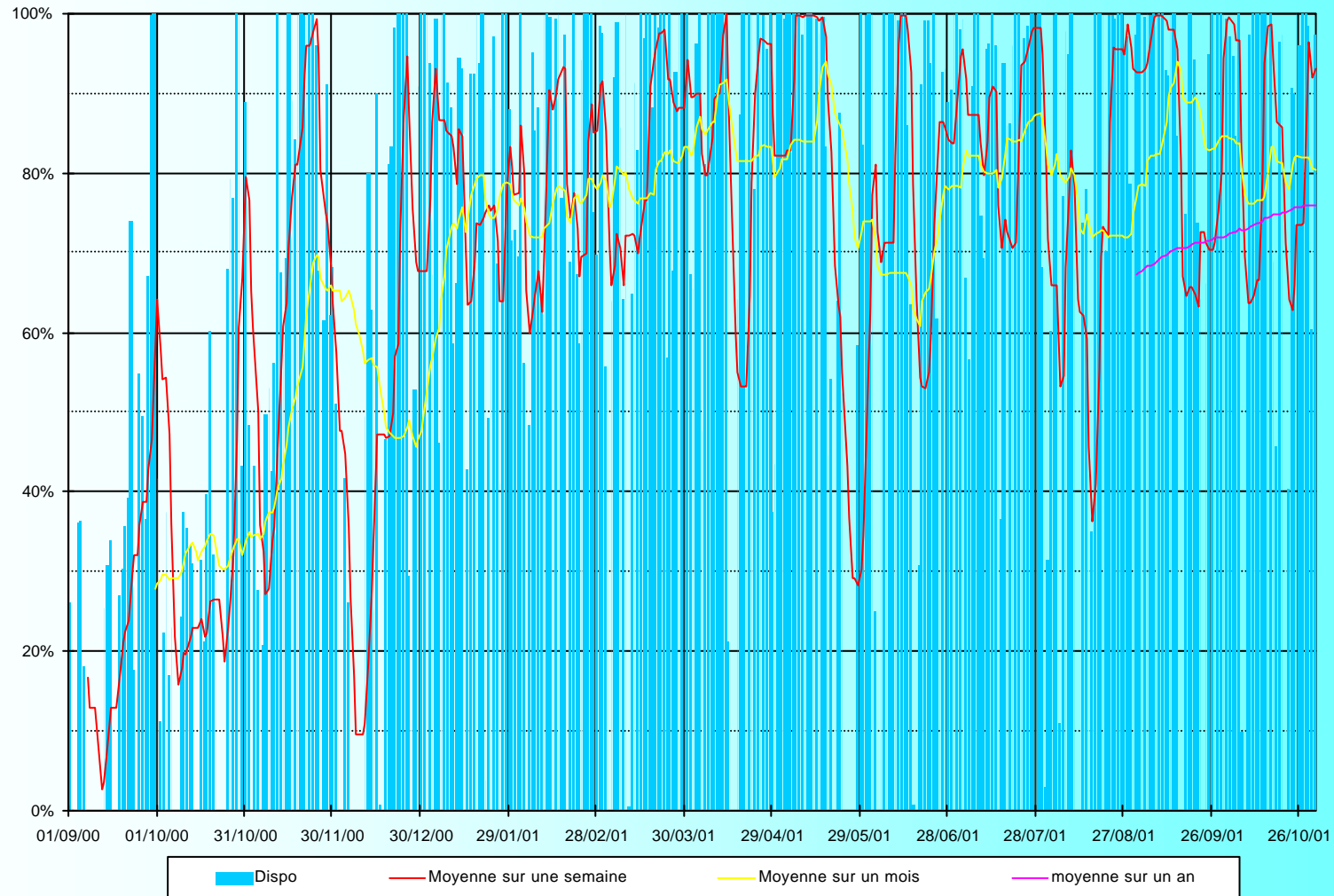


ESTB availability

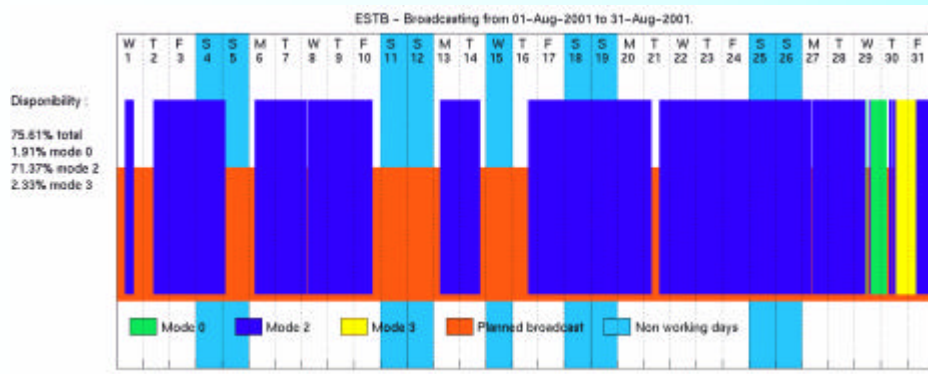
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ESTB availability

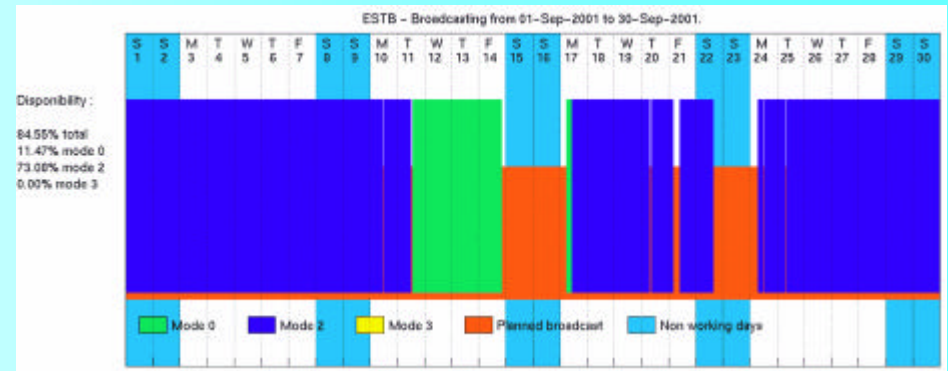


ESTB availability

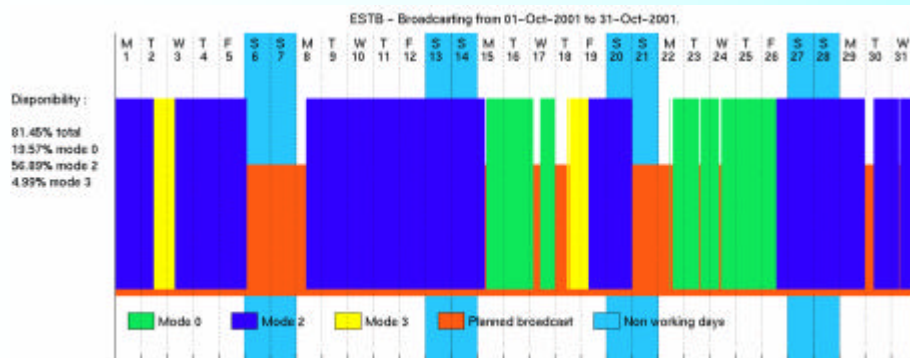


August 2001

September 2001

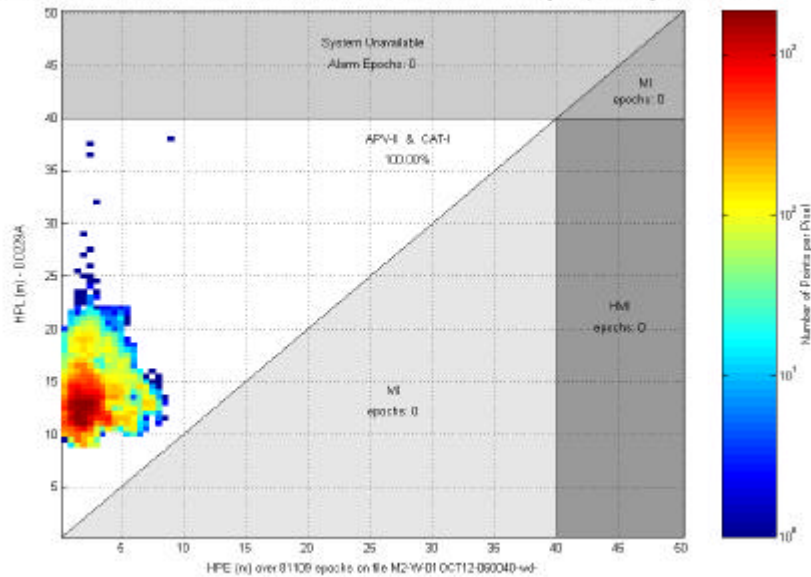


October 2001

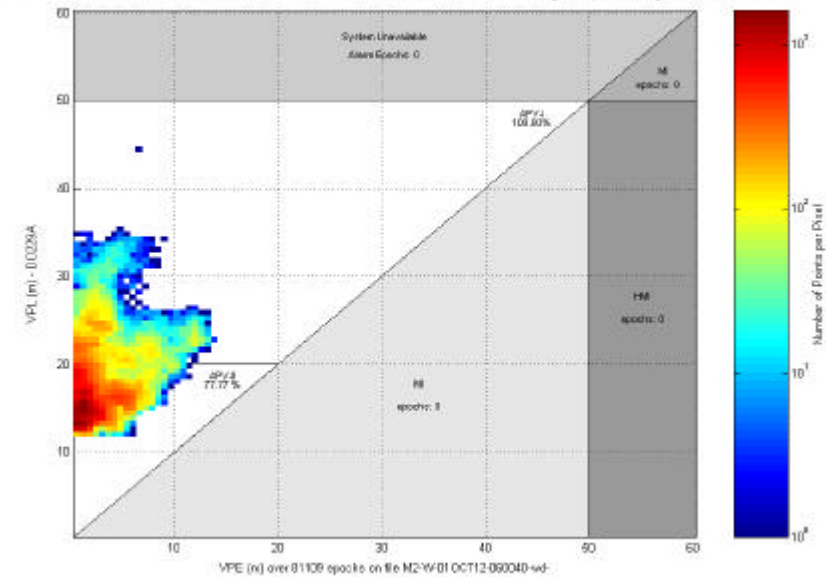


ESTB performance analysis

Horizontal Performance ESTB, MCC data from 12/10/2001 - 06:00 to 13/10/2001 - 04:40, Pegasus processing, mode 2, 10 RMS



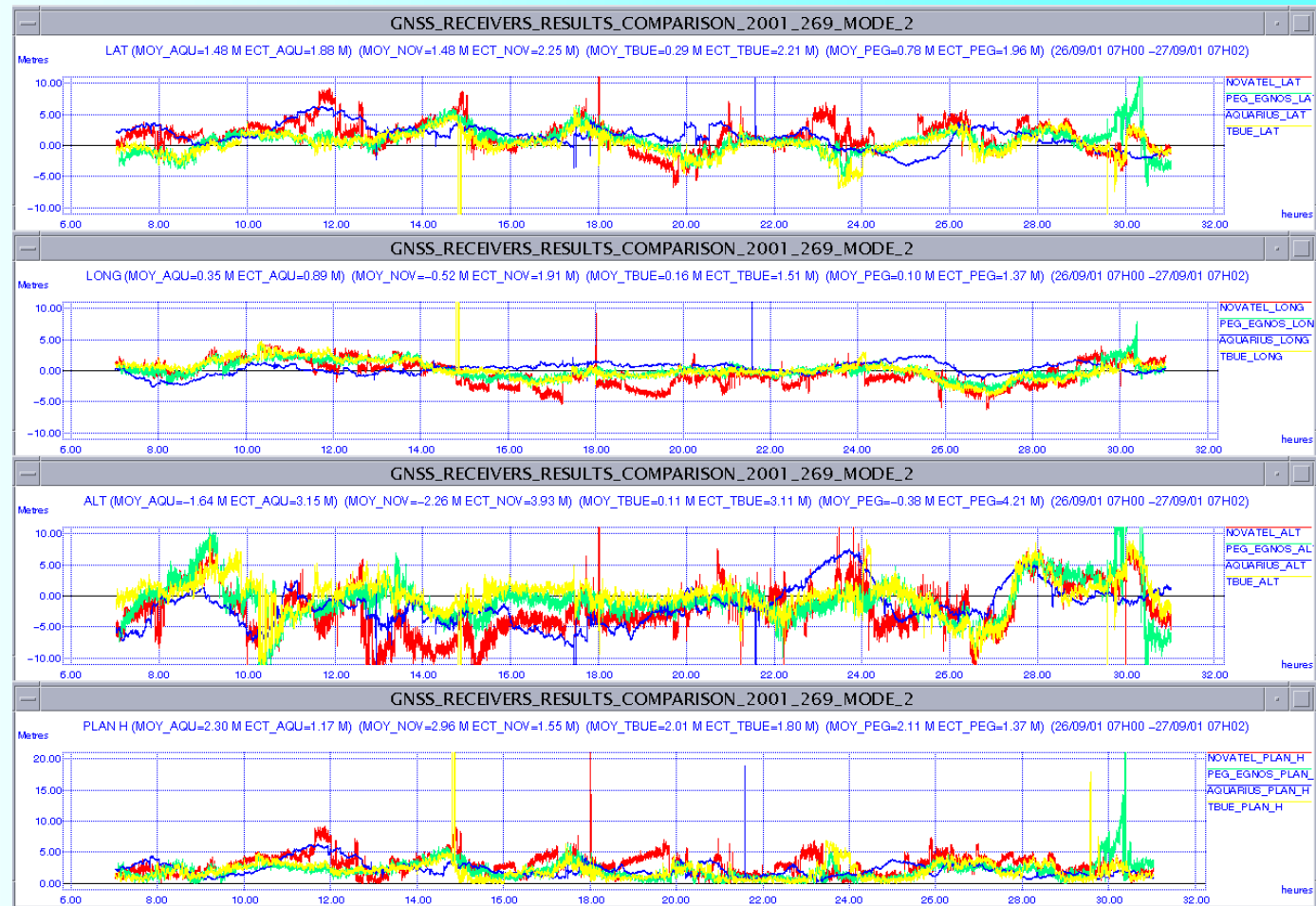
Vertical Performance ESTB, MCC data from 12/10/2001 - 06:00 to 13/10/2001 - 04:40, Pegasus processing, mode 2, 10 RMS



Horizontal and Vertical performance - PEGASUS

ESTB performance analysis

GNSS receivers position plot

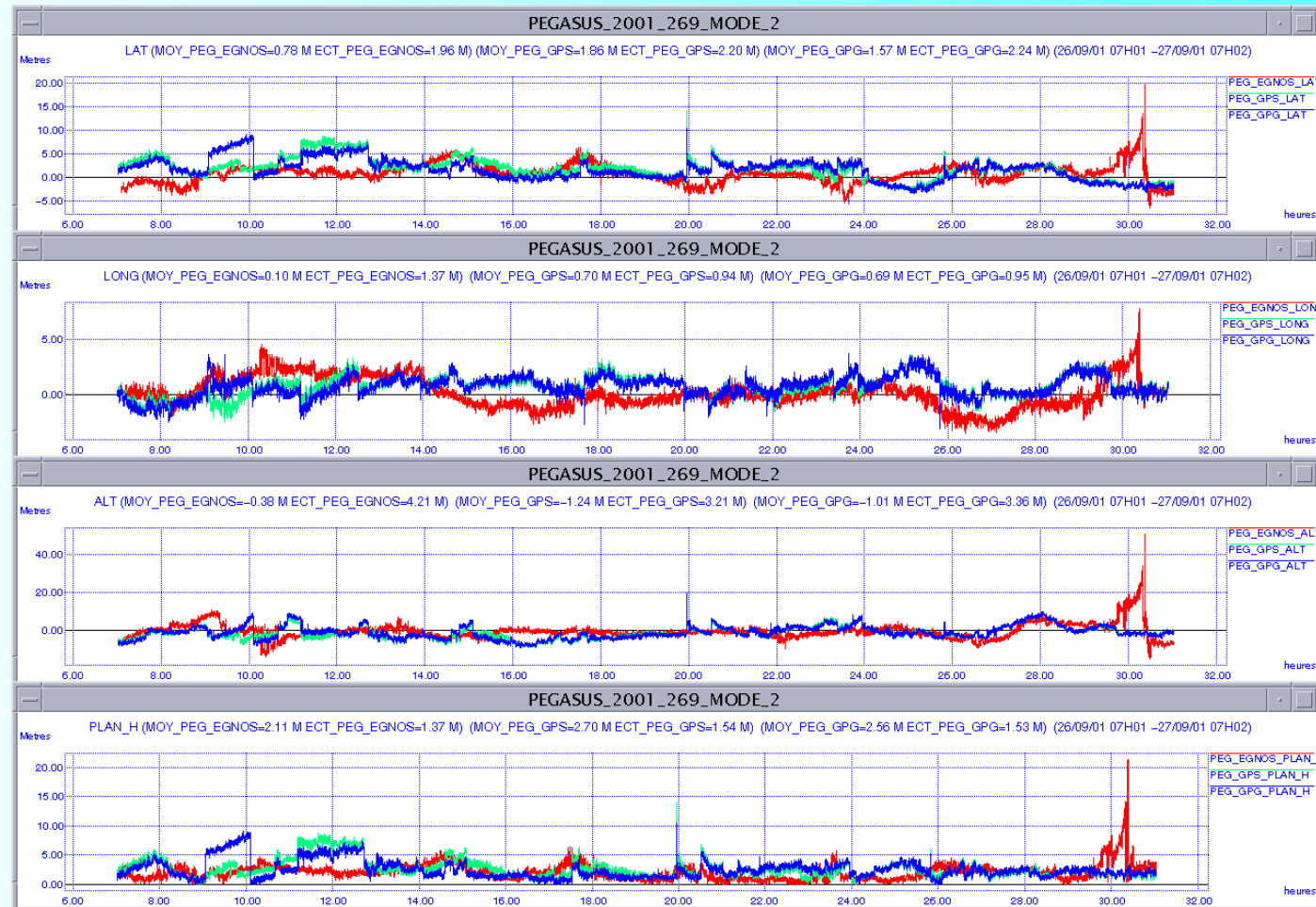




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ESTB performance analysis

PEGASUS position plot





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ESTB User information

- Daily mail
 - more than 130 subscribers
 - request to be sent to :
christophe.texier@cnes.fr
- Signal performances analysis
 - accessible through ESA website
 - CNES website in progress