ThalesAlenia Space
A Thales / Finmeccanica Company

SIRAL2 en orbite

26 juin 2012

Corporate Communications

THALES

AGENDA

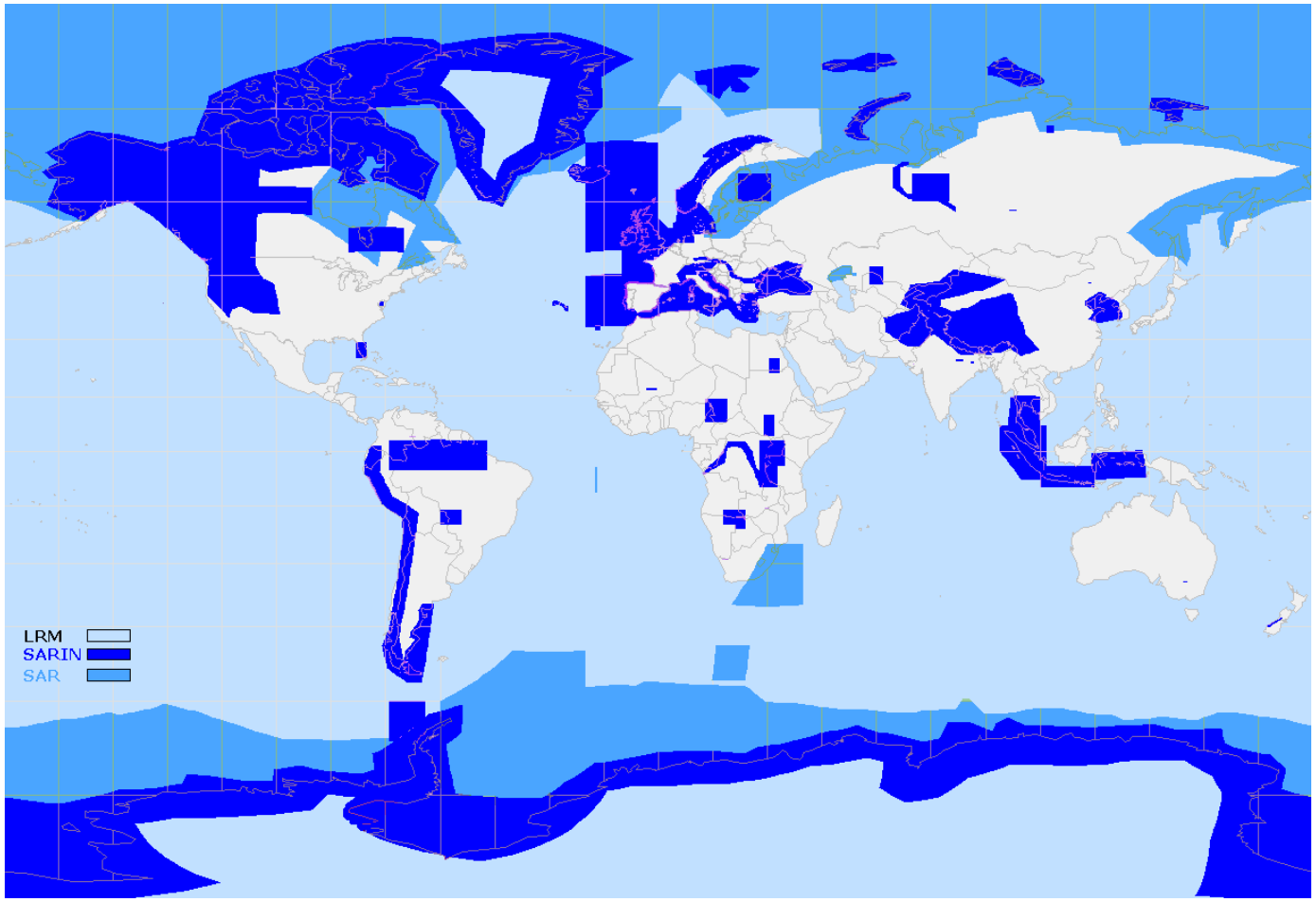
EVOLUTIONS RECENTES

PERFORMANCE EN VOL

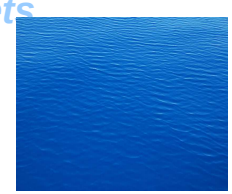
- MODES UTILISES
- GAIN/DELAIS/RESOLUTION
- PHASE INTERFEROMETRIQUE PHASE

CONCLUSION

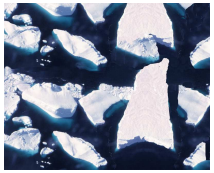
MASQUE DES MODES NOMINAL



1. The Low Resolution for sea and in Land ice sheets



2. High resolution for sea ice



3. The interferometric of ice sheets margin

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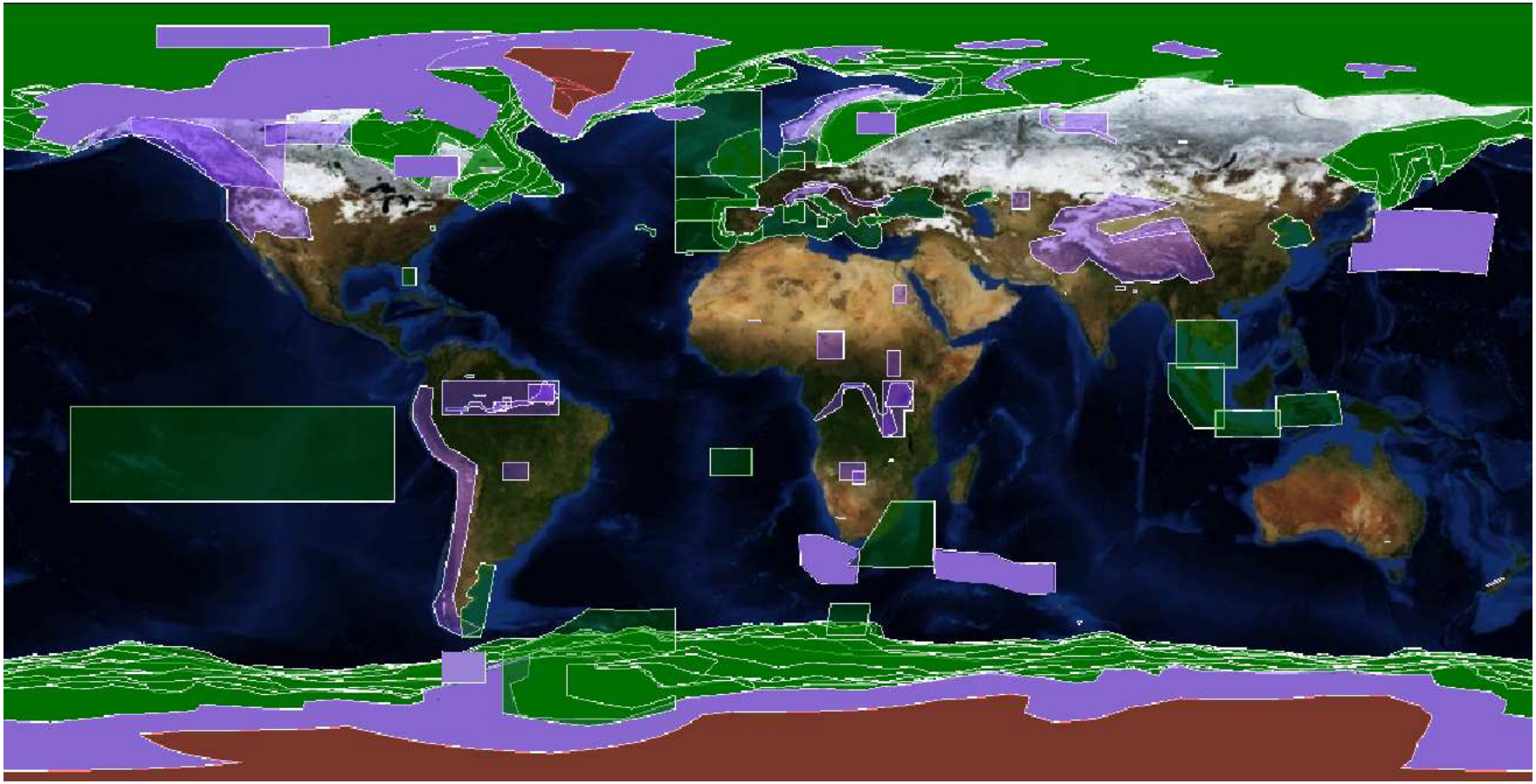
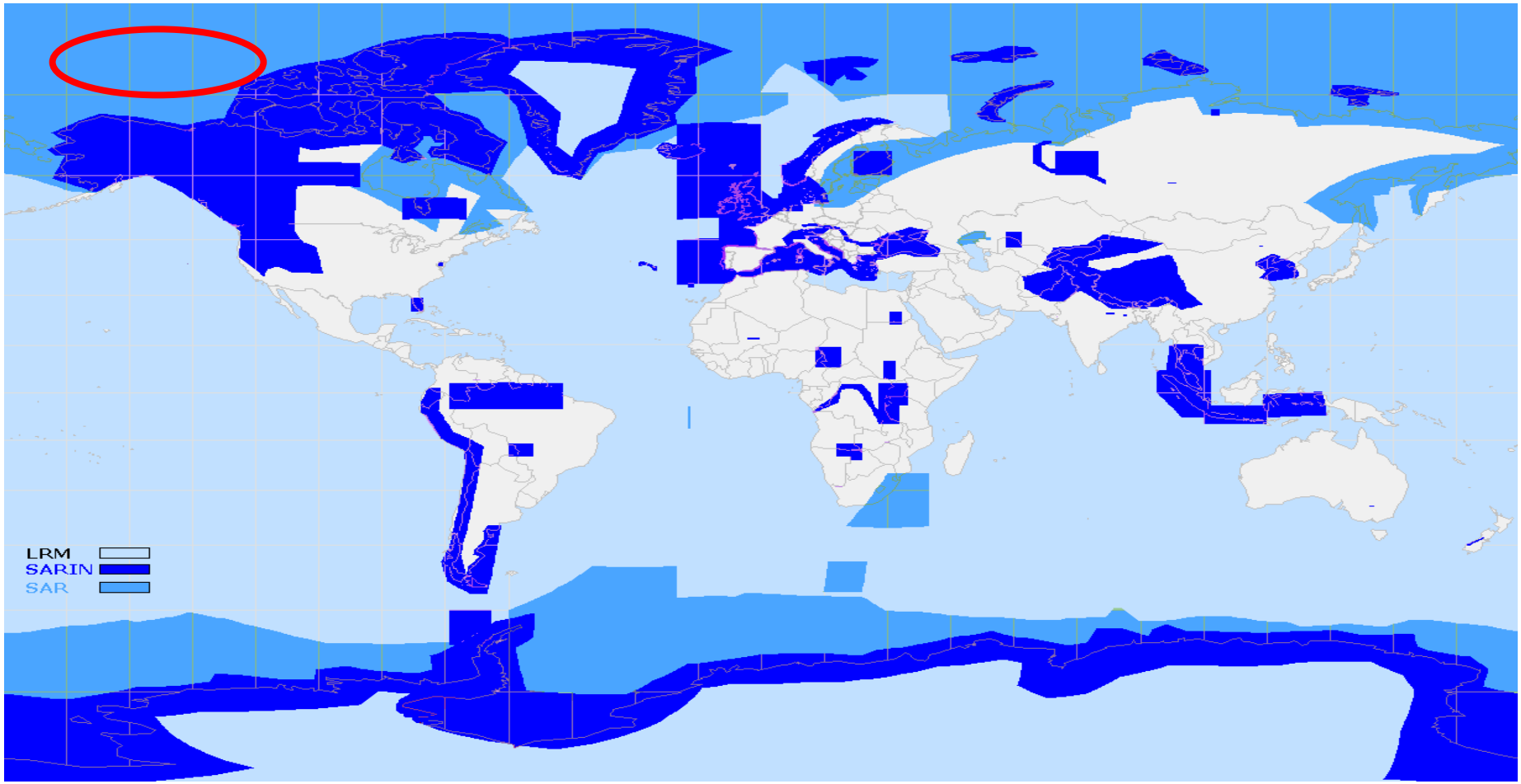
MASQUE DES MODES
MIS A JOUR LE 8 MAI 12

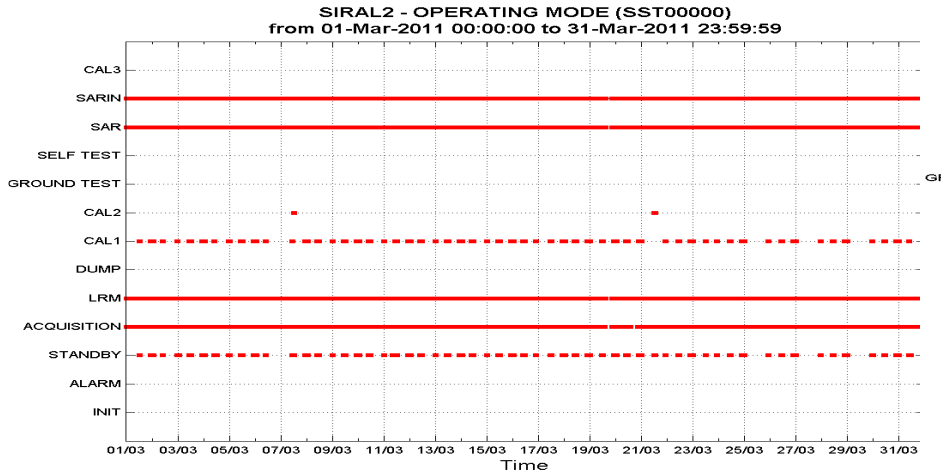


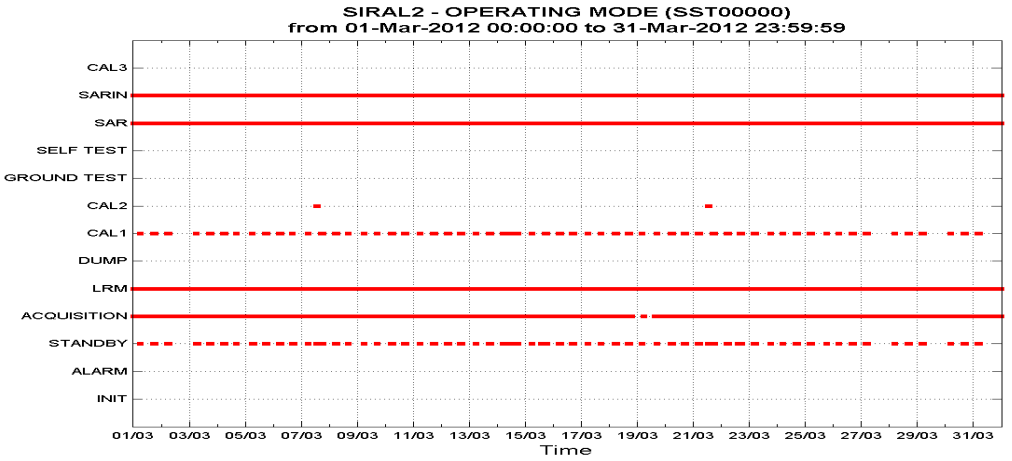
EVOLUTIONS POUR LES GLACES

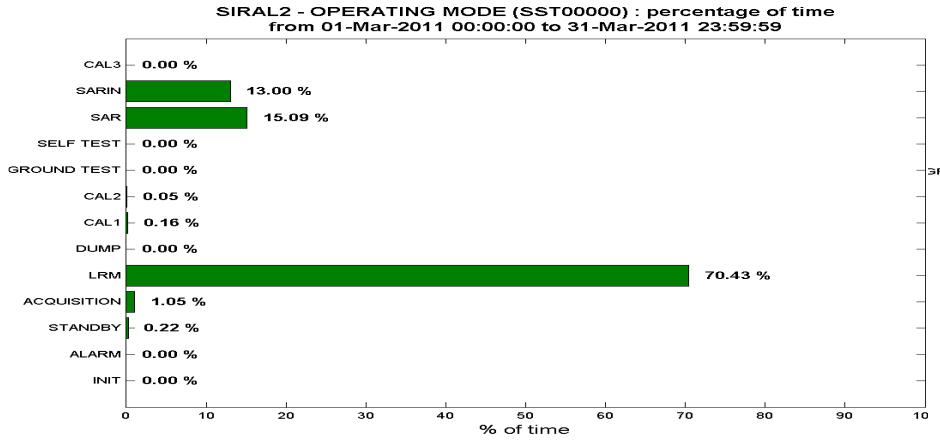


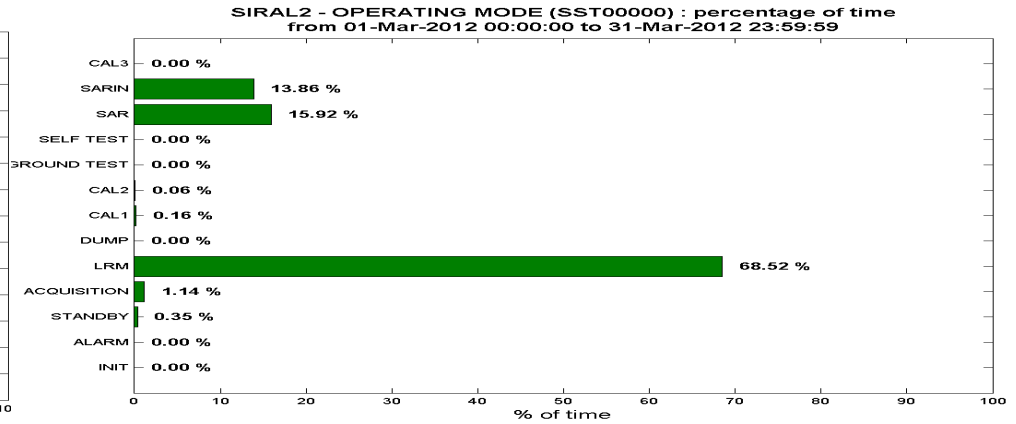
FONCTIONNEMENT INSTRUMENT

COMPARAISON SUR 12 MOIS









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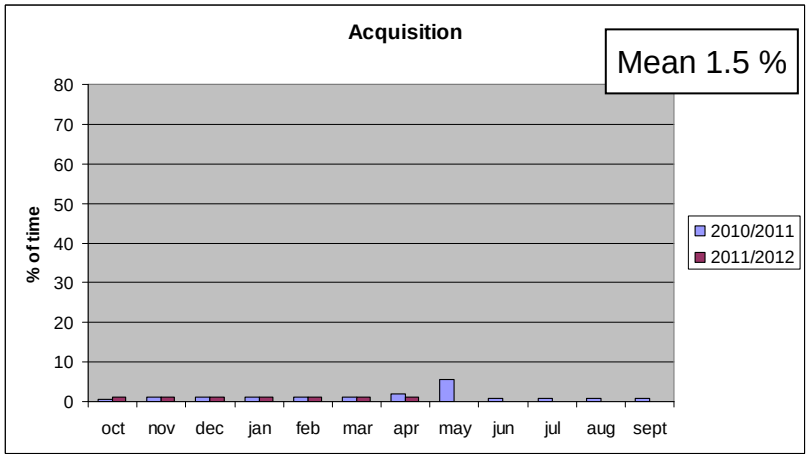
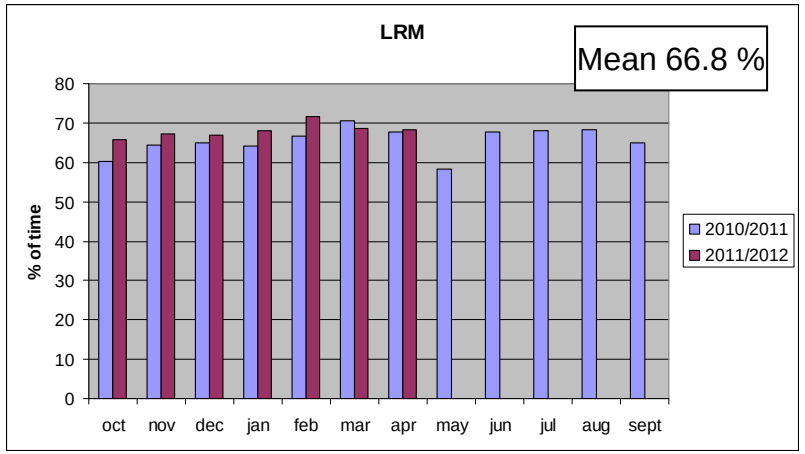
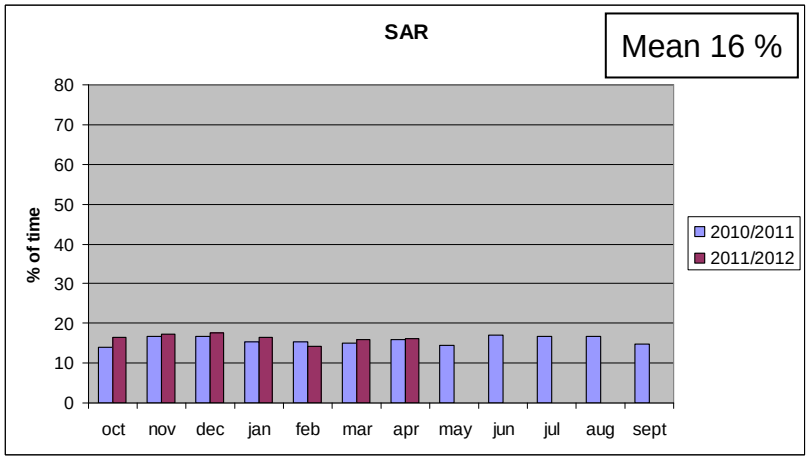
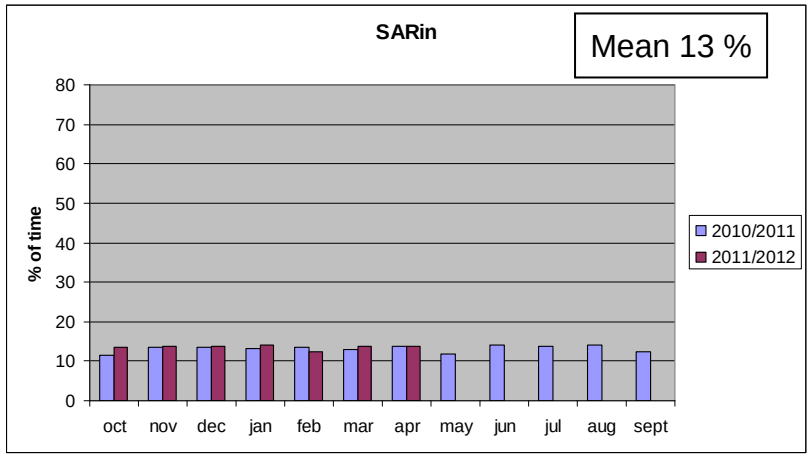
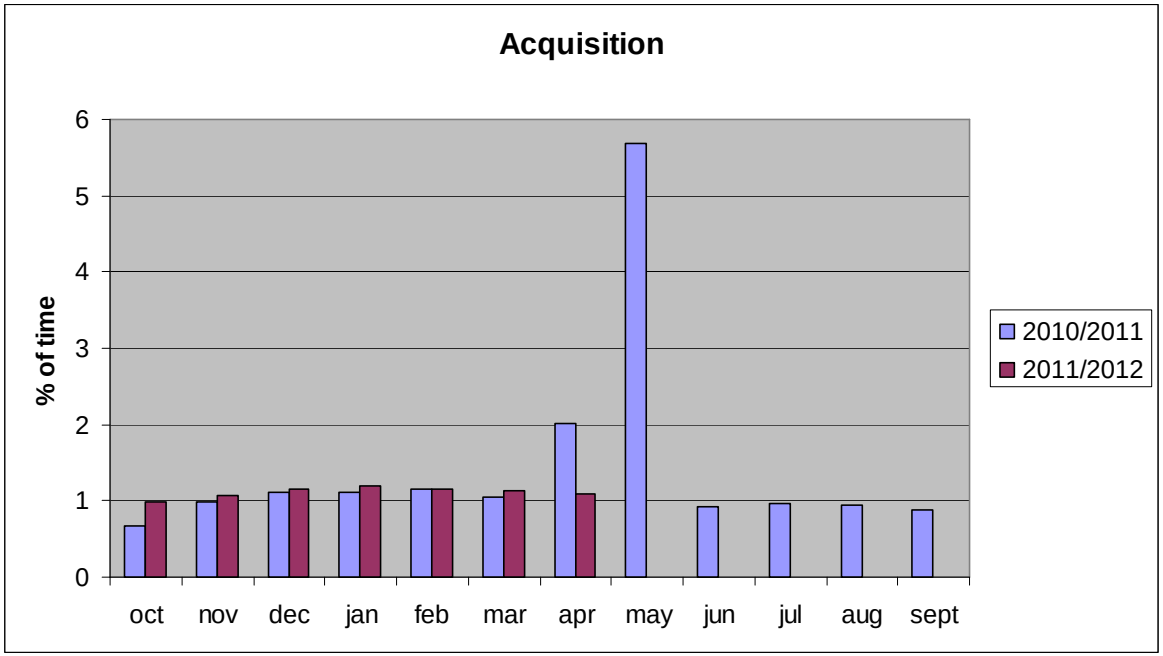








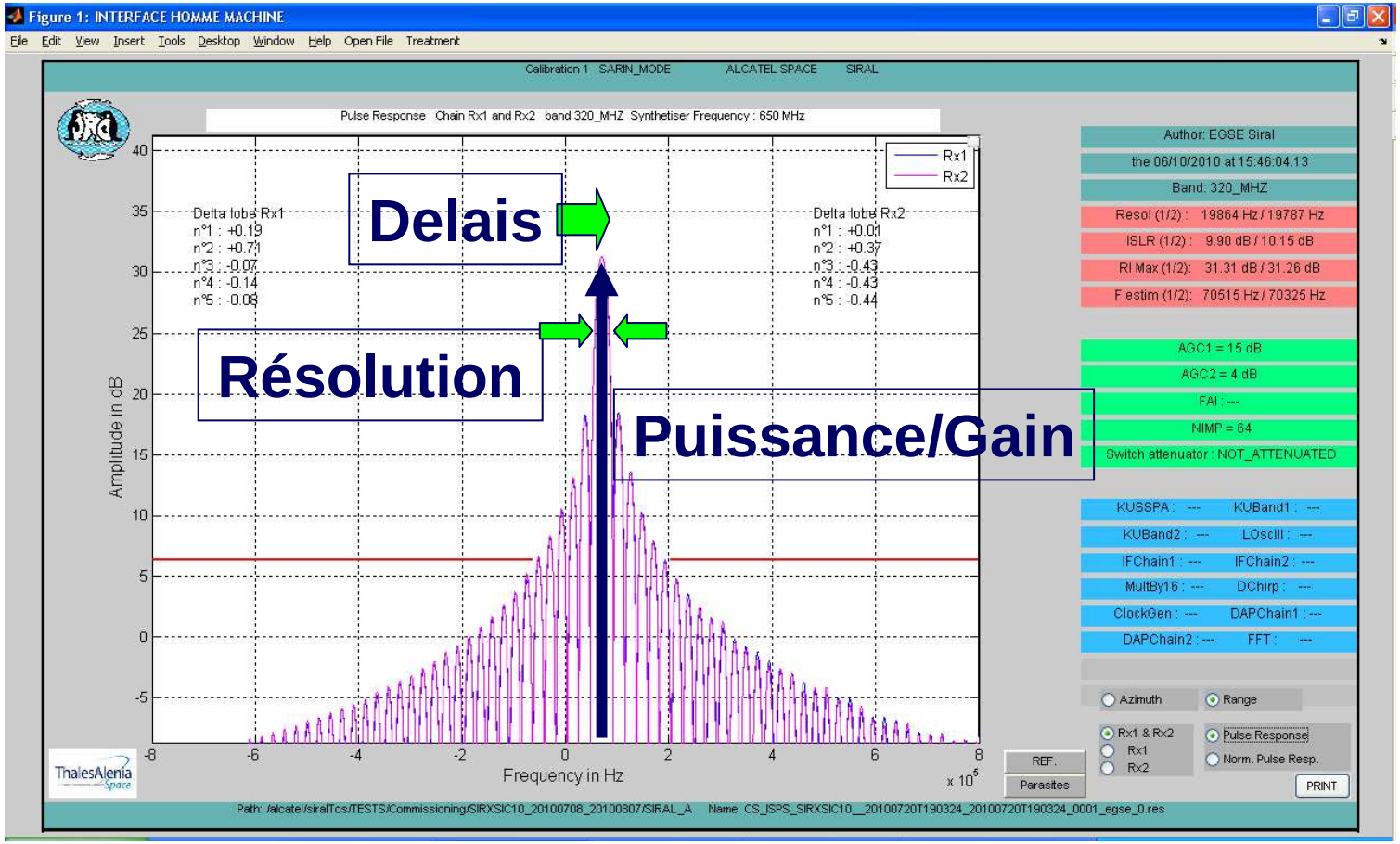
FONCTIONNEMENT INSTRUMENT



STATISTIQUE D'ACQUISITION

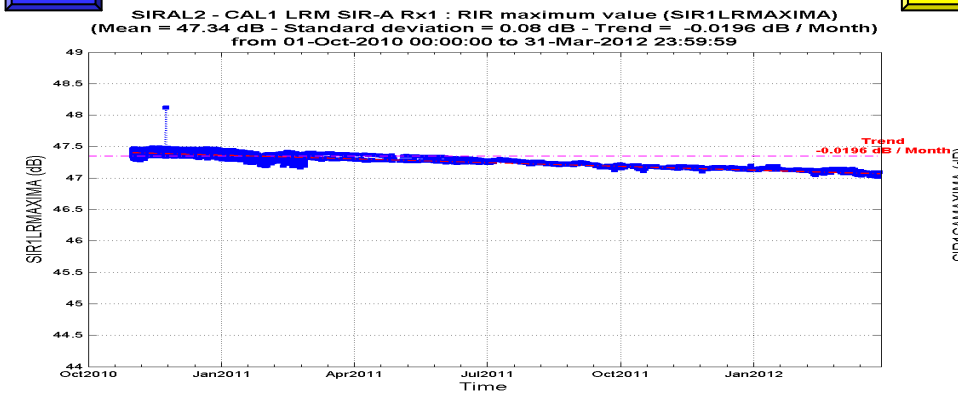
- De Décembre à Février => durée plus importante
- De Juin à août => durée la plus faible
- Effets liés à la couverture de glace ? Effets des saisons ?

CALIBRATION 1

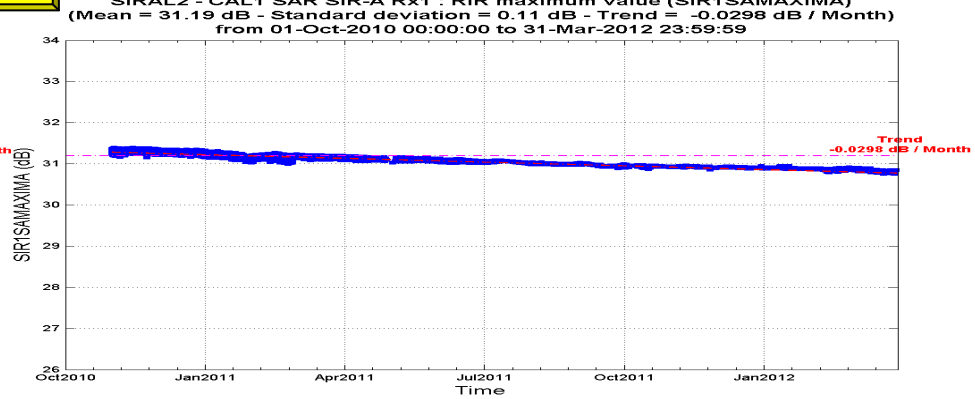


CALIBRATION 1

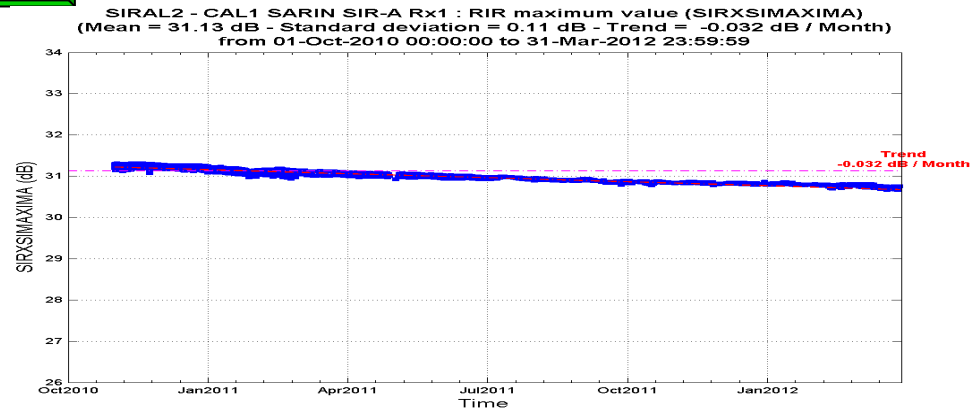
LRM



SAR



SARin

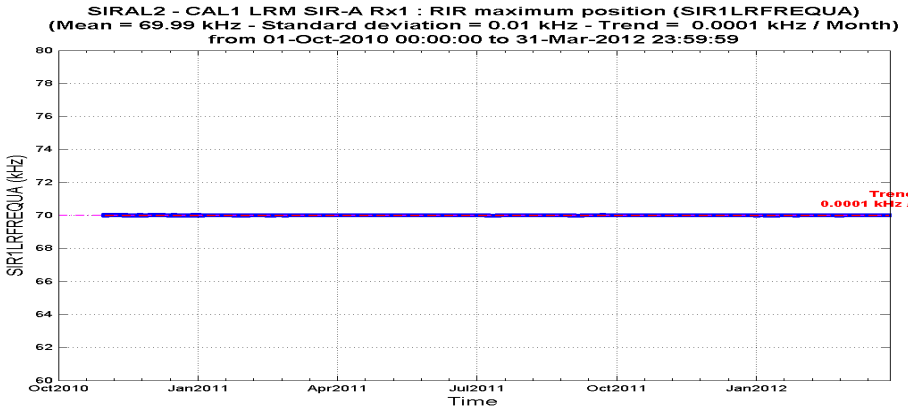


Evolution de la puissance à bord

- Puissance/gain
  - -0.3 dB evolution
  - <0.03 dB/mois

CALIBRATION 1

LRM



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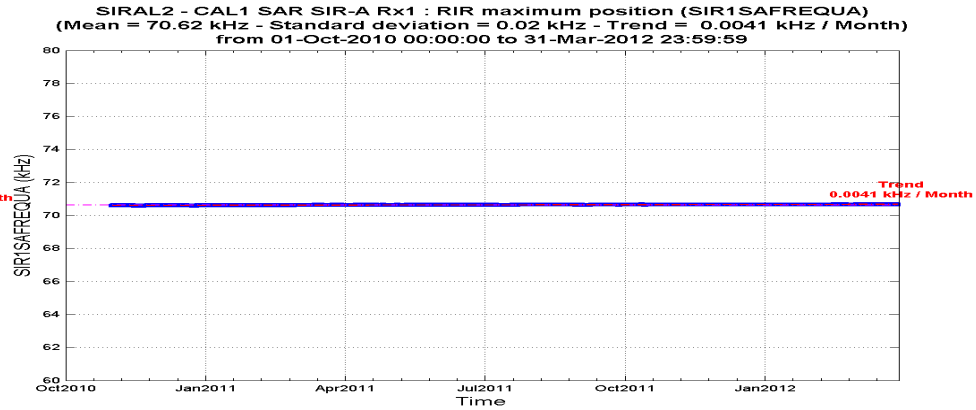

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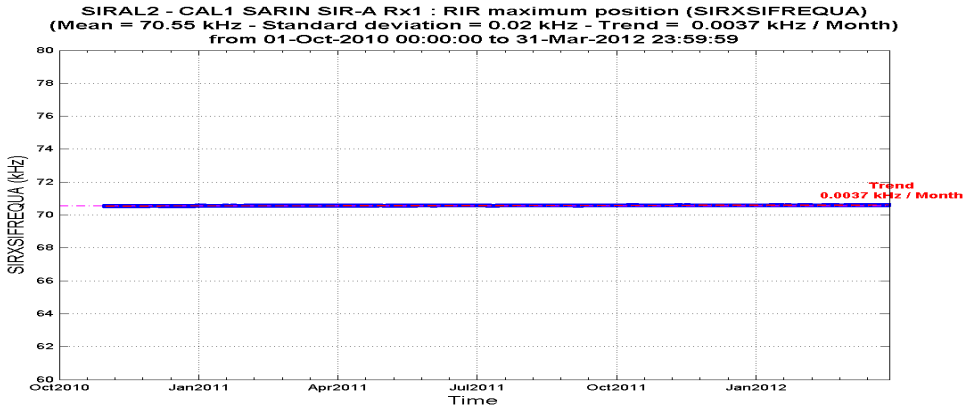
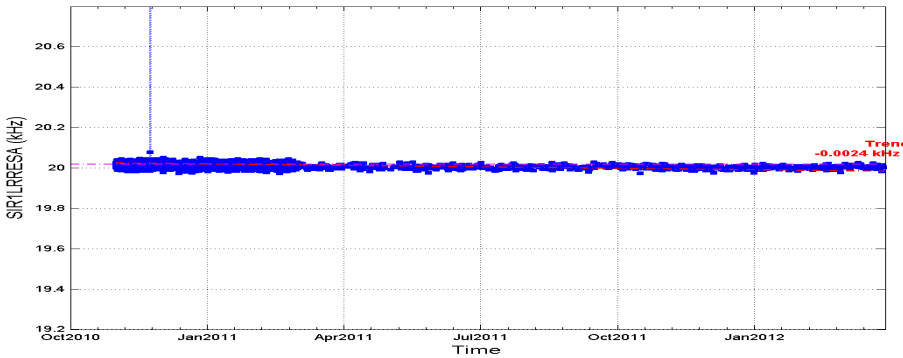


Evolution délais

- Délais stable
  - 0.02 kHz de variation (< 3 ps)
  - <0.004 kHz tendance (<< ps)

CALIBRATION 1

LRM



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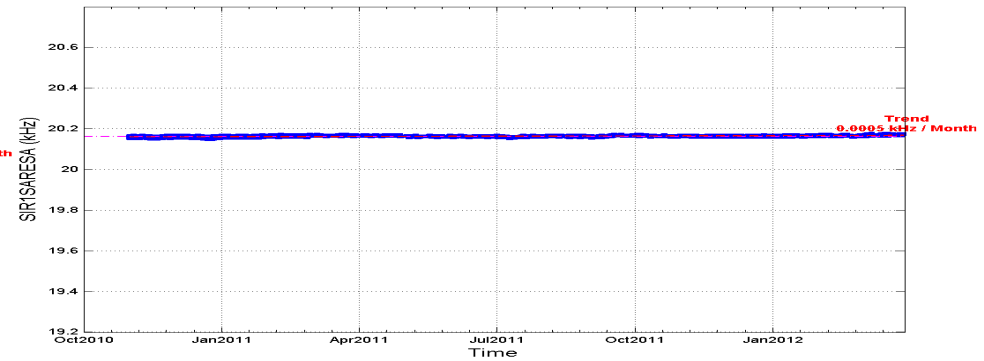

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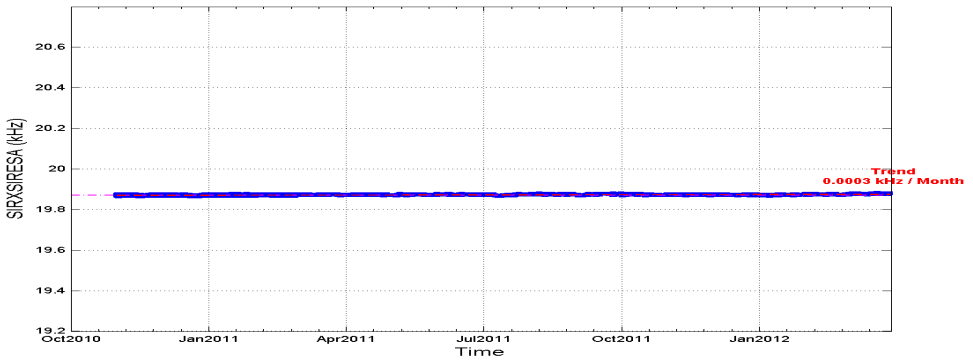
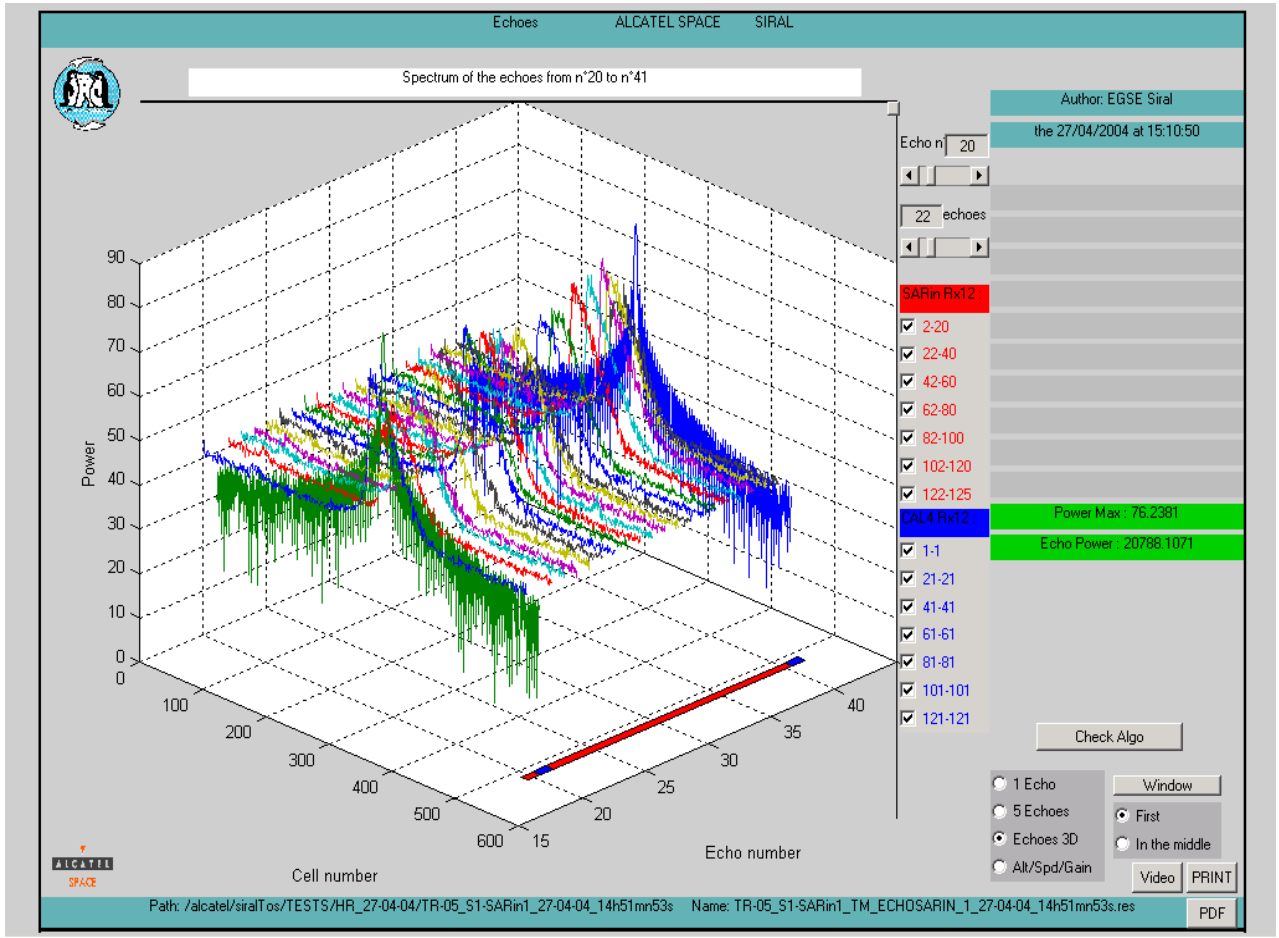
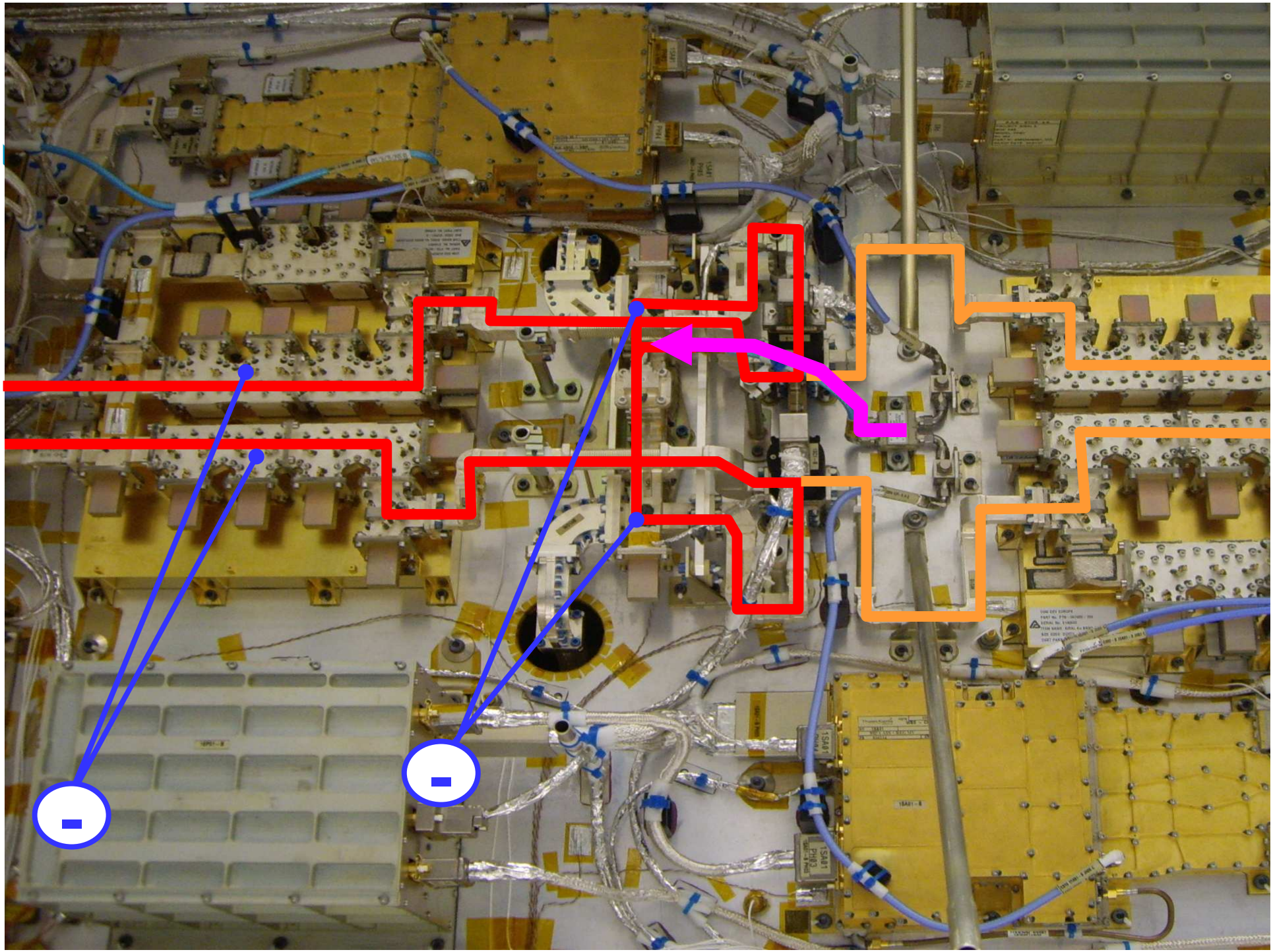


Evolution de la résolution

- résolution stable
  - 0.004 kHz variation
  - <0.001 kHz tendance

CALIBRATION INTERFEROMETRIQUE





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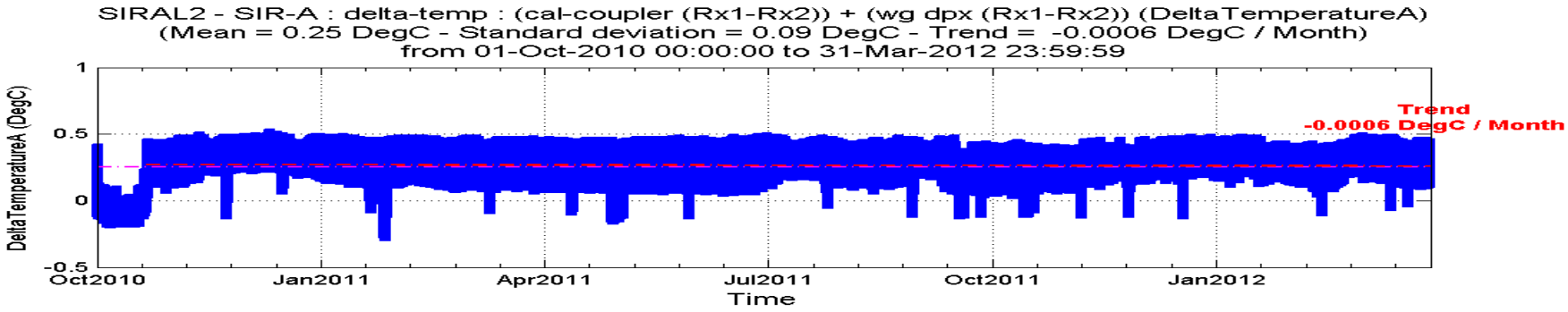

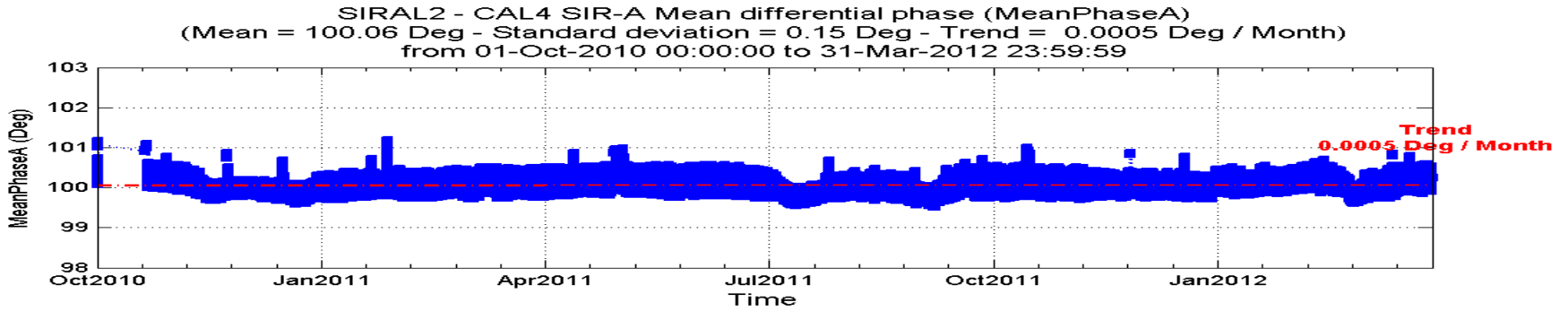

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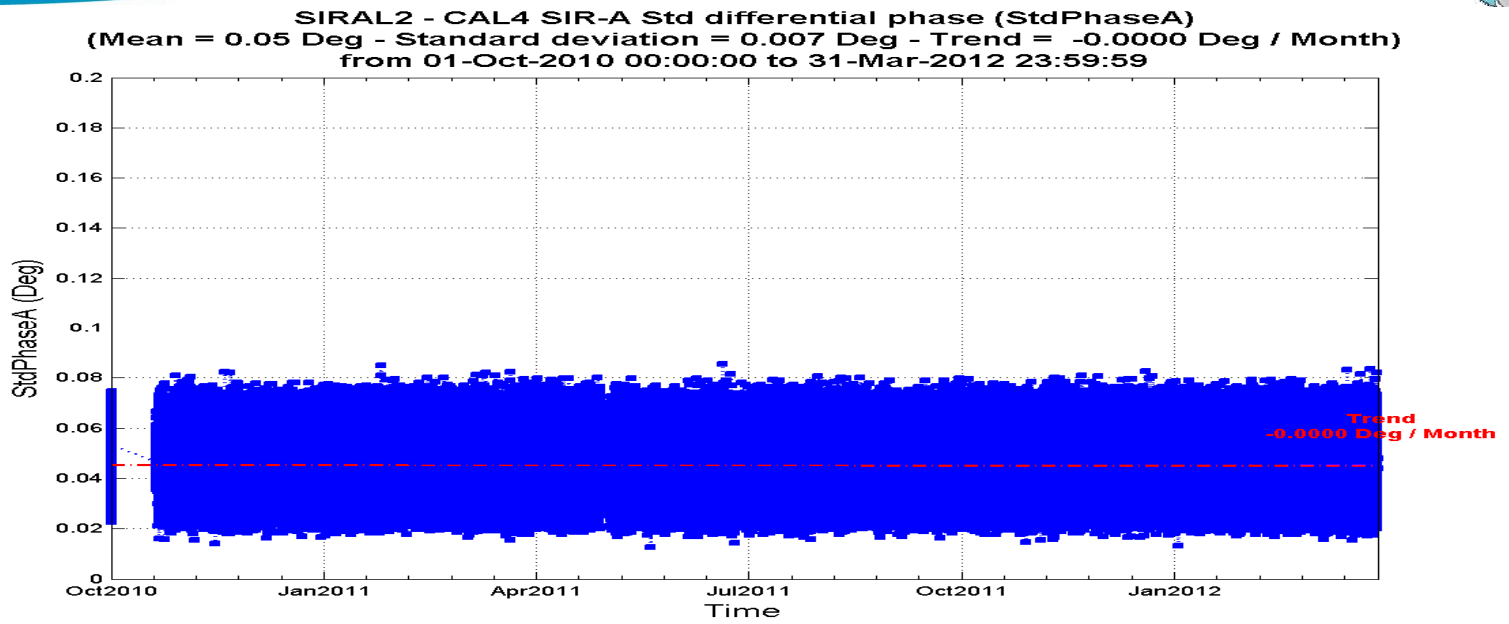

Evolution de la phase interférométrique

- La phase interférométrique varie suivant la température 0.5℃ => 1deg
- L'écart type des mesures est constant : 0.05 deg

CONCLUSION

STABILITE DE L'INSTRUMENT

- L'instrument a une grande stabilité de la phase interférométrique
- Les évolutions constatées sont étallonnées et concernent :
  - La température différentielle des chemins de réception
  - Le produit puissance transmise / gain reçu équivalent à Jason 2
- Les performances délais et résolution donnent d'excellents résultats qui assurent une bonne qualité de données