



CLS

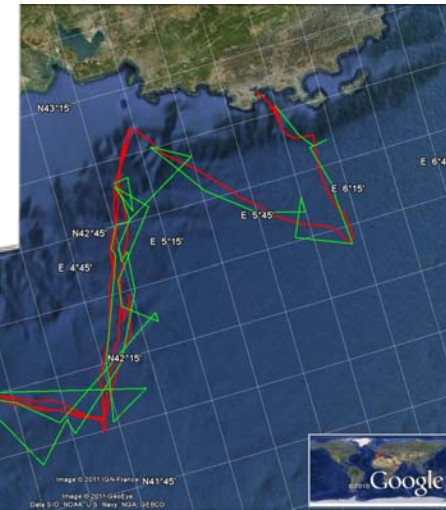
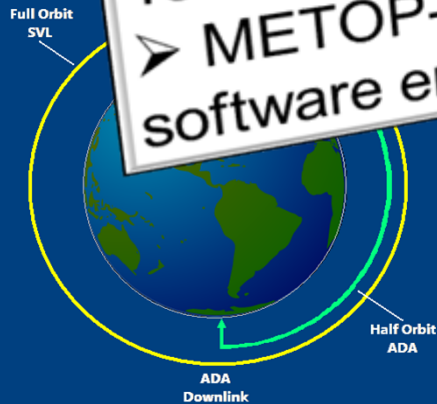
COLLECTE LOCALISATION SATELLITES

ARGOS OPERATIONS

DBCP 28 – Fremantle, Australia, Oct. 2-6, 2012



- Kalman Filter Localization Processing ON since 15 March 2011
- 2 new NOAA Global Antenna: McMurdo (since 08/06/2011) and Svalbard (since 28/09/2011).
- CLS America Processing Center move from Landover to Lanham on June 23rd 2011
- Argos Peru Regional Processing center stopped the 1st June 2011
- METOP-A platform restart on 22/10/2011 / A-DCS software error on 24/10/2011

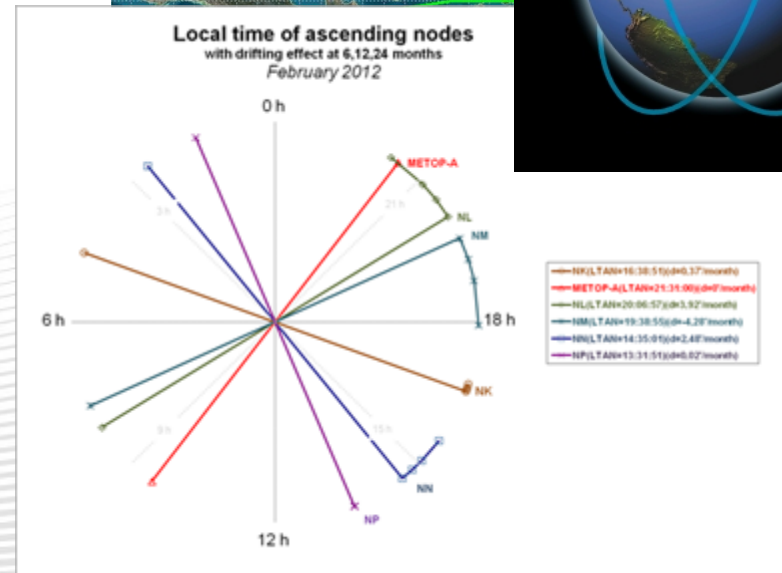
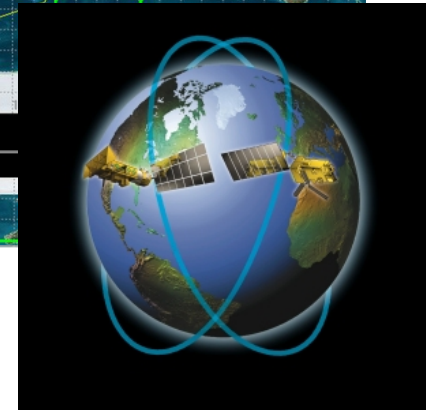
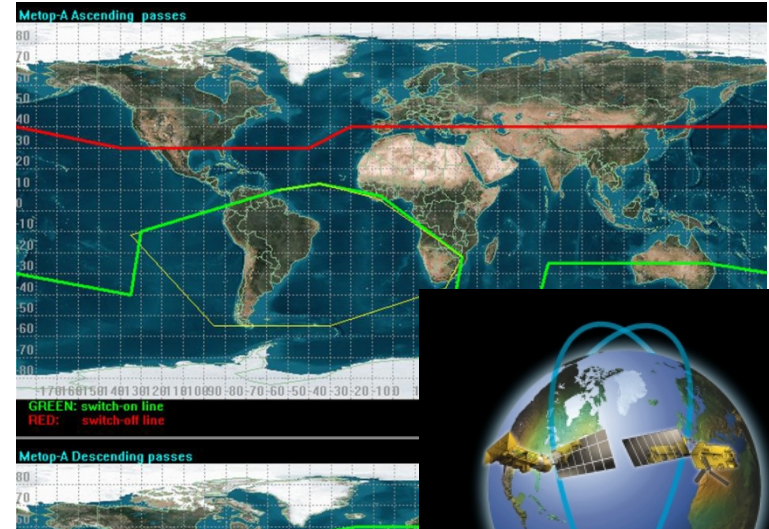


➤ On-Board Anomalies

- METOP-A
 - 22/10/11: Platform Stop/Start
 - 24/10/11: Watchdog and Major Software Error.
- NOAA-15
 - 29/11/11: NOAA-15 was placed into the Gyroless Mode for a baseline on-orbit test. No dataset from NOAA during this period

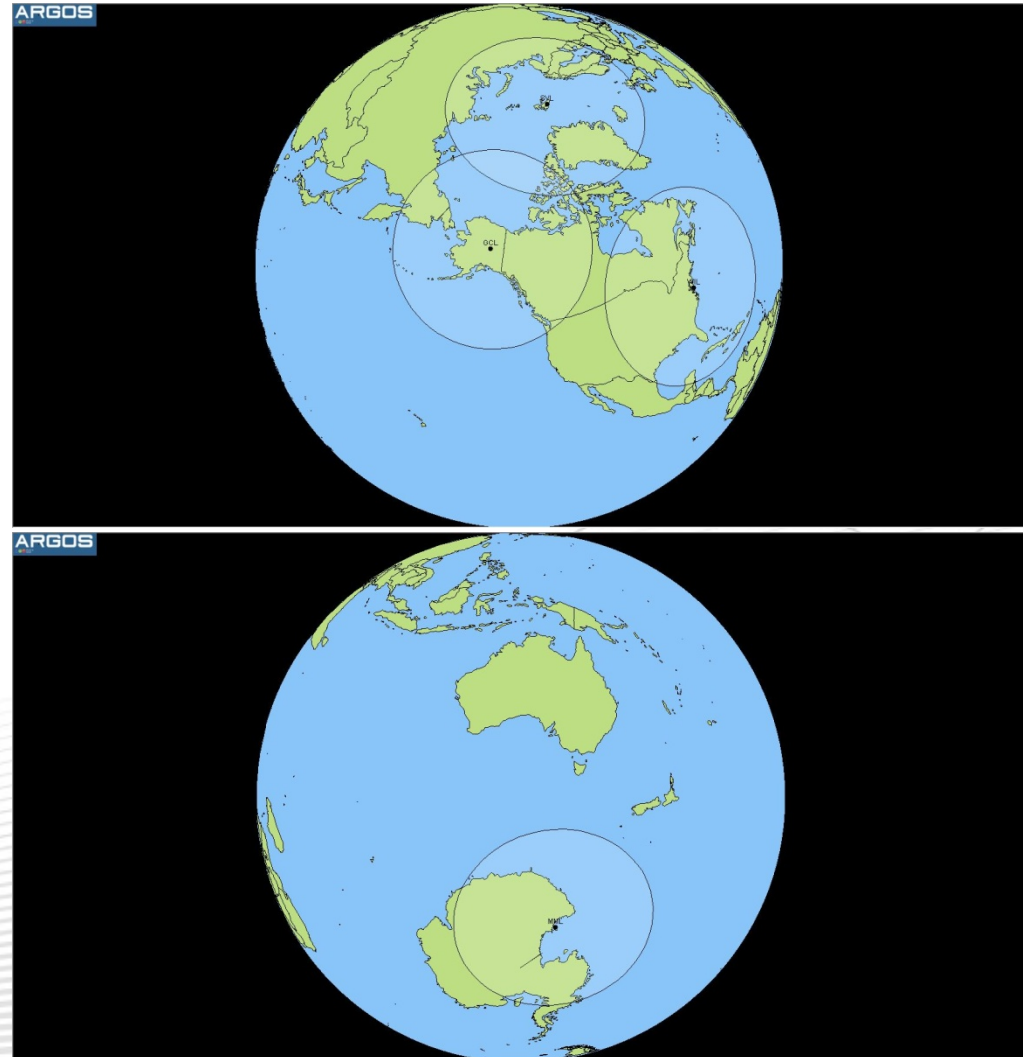
➤ Manœuvres

- METOP-A
 - 31/03/11: In Plane Manoeuvre
 - 01/05/11: Emergency In-Plane Manoeuvre.
 - 09/06/11: In Plane Manoeuvre.
 - 28/09/11: Out of Plane Manoeuvre
 - 14/12/11: In Plane Manoeuvre

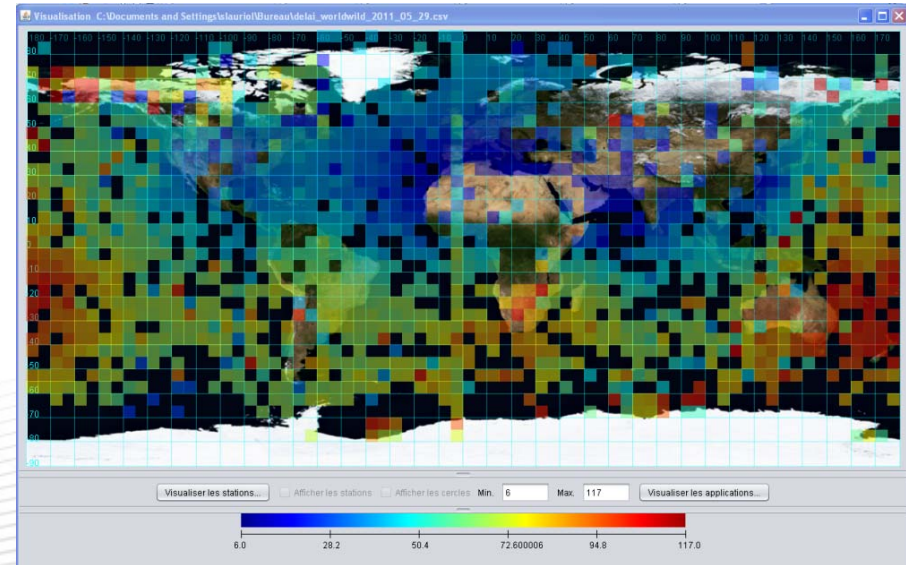
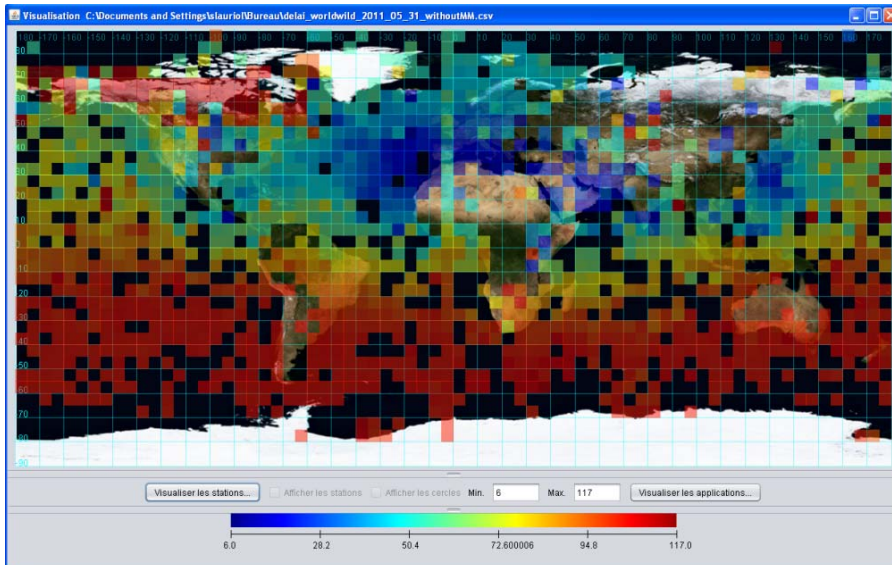


➤ Global Ground Stations (4)

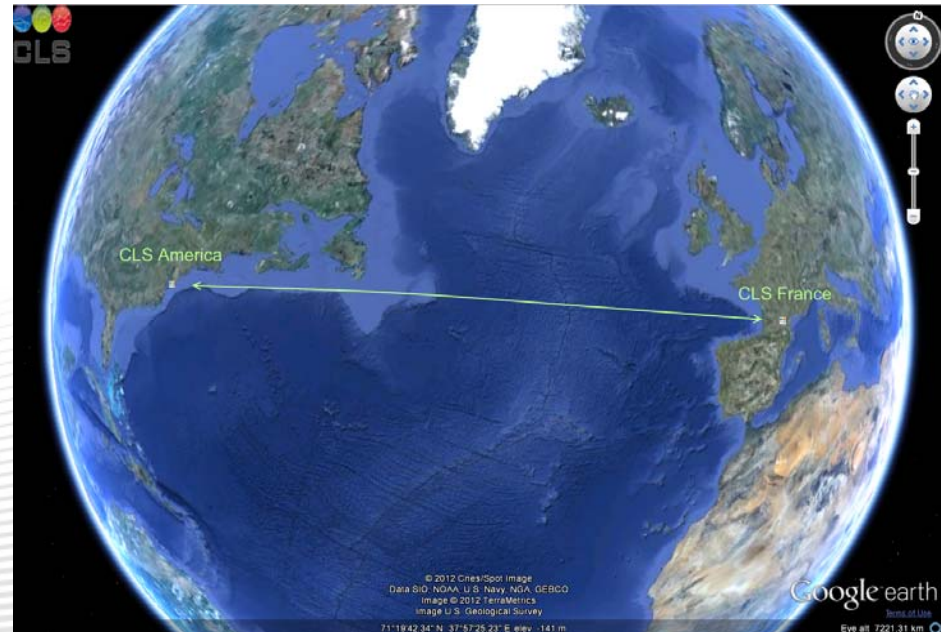
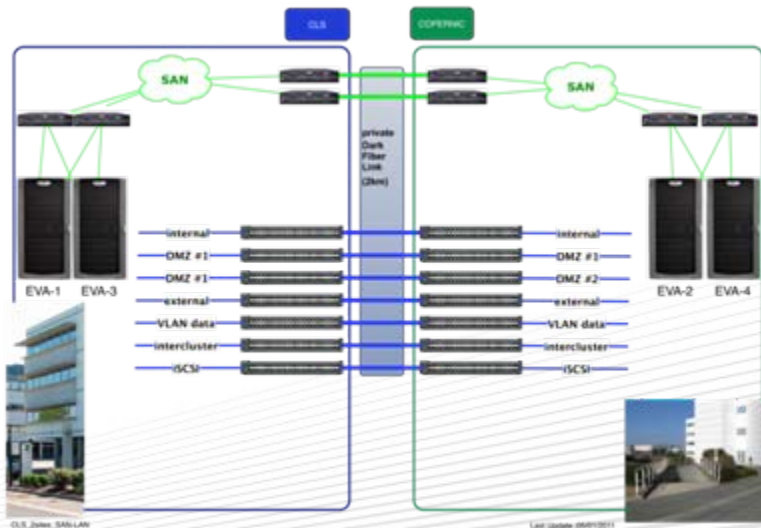
- **Fairbanks & Wallops**
 - N15 to N19
 - METOP-A backup
- **Svalbard (NOAA antenna)**
 - N15 to N19 blind orbits
 - NPP (Suomi)
- **Svalbard (Eumetsat antenna)**
 - METOP-A
 - N19 blind Orbits (received through NOAA link)
- **McMurdo:**
 - METOP-A



- Metop-A data reception delays Before and After McMurdo



- 2 Global Processing Centers
 - Fully Redundant
 - 24/7 Dedicated and Qualified Staff



- Our Last Argos Regional Processing Center was closed on June 2011



COLLECTING BLIND ORBIT DATA FROM THE NPOESS ANTENNA IN SVALBARD



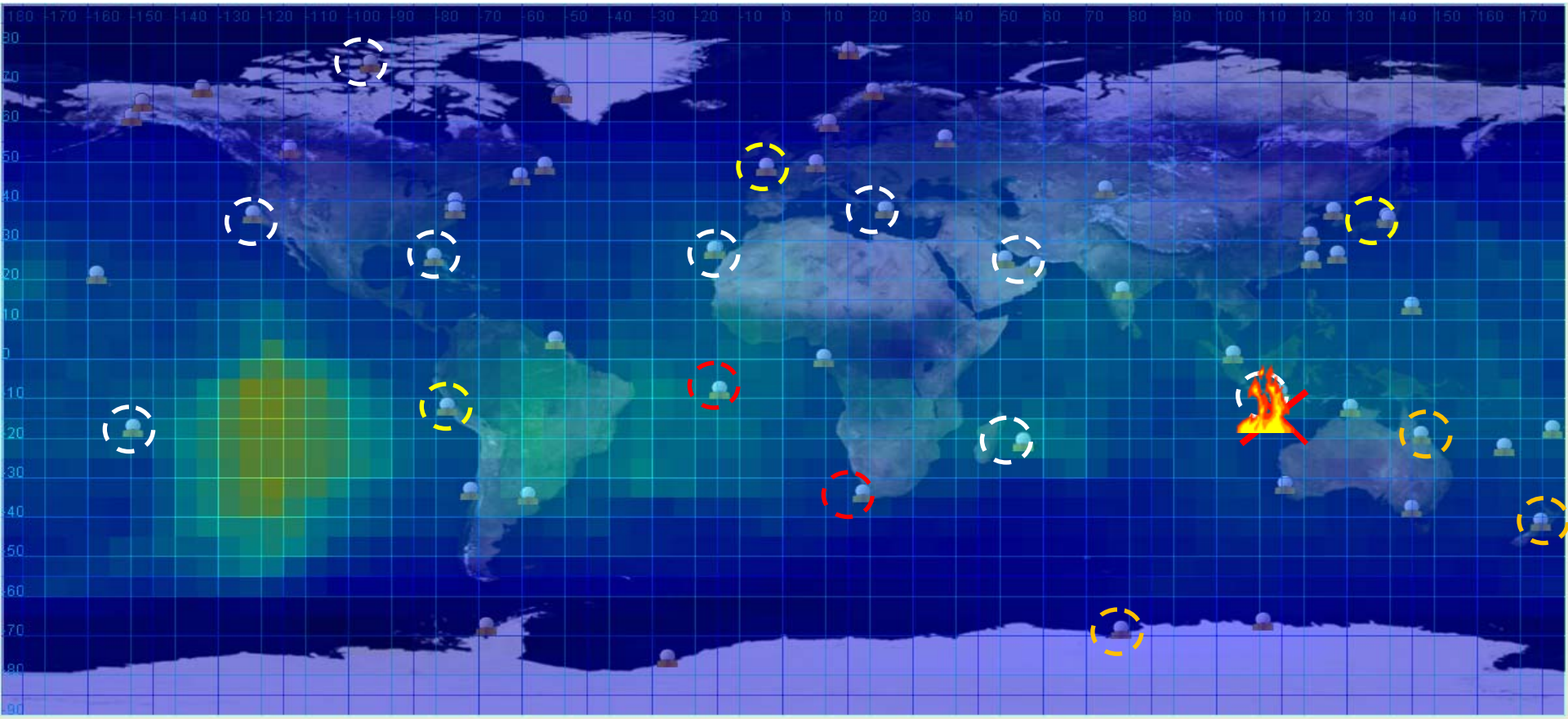
BLIND ORBITS

- ✓ “Blind orbits” from Svalbard have been implemented operationally! **THANKS NOAA!!**
- ✓ However, all secondary spacecraft do conflict with NPOESS Preparatory Program for 6-10 days at a time.
- ✓ Schedulers determine which spacecraft to schedule at NOAA Svalbard for a given period, selecting up to 10-20 double GAC dumps (5-10 passes) for a given week.
- ✓ Due to conflicts, some weeks will have less than 10 passes, and only one spacecraft is selected for any given week.

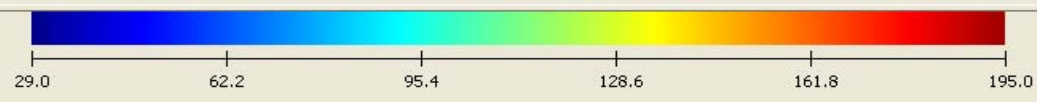
SELECTED ANTENNAS


YELLOW (3) CLS STATIONS (3)
ORANGE Upgraded by BOM/ES&S

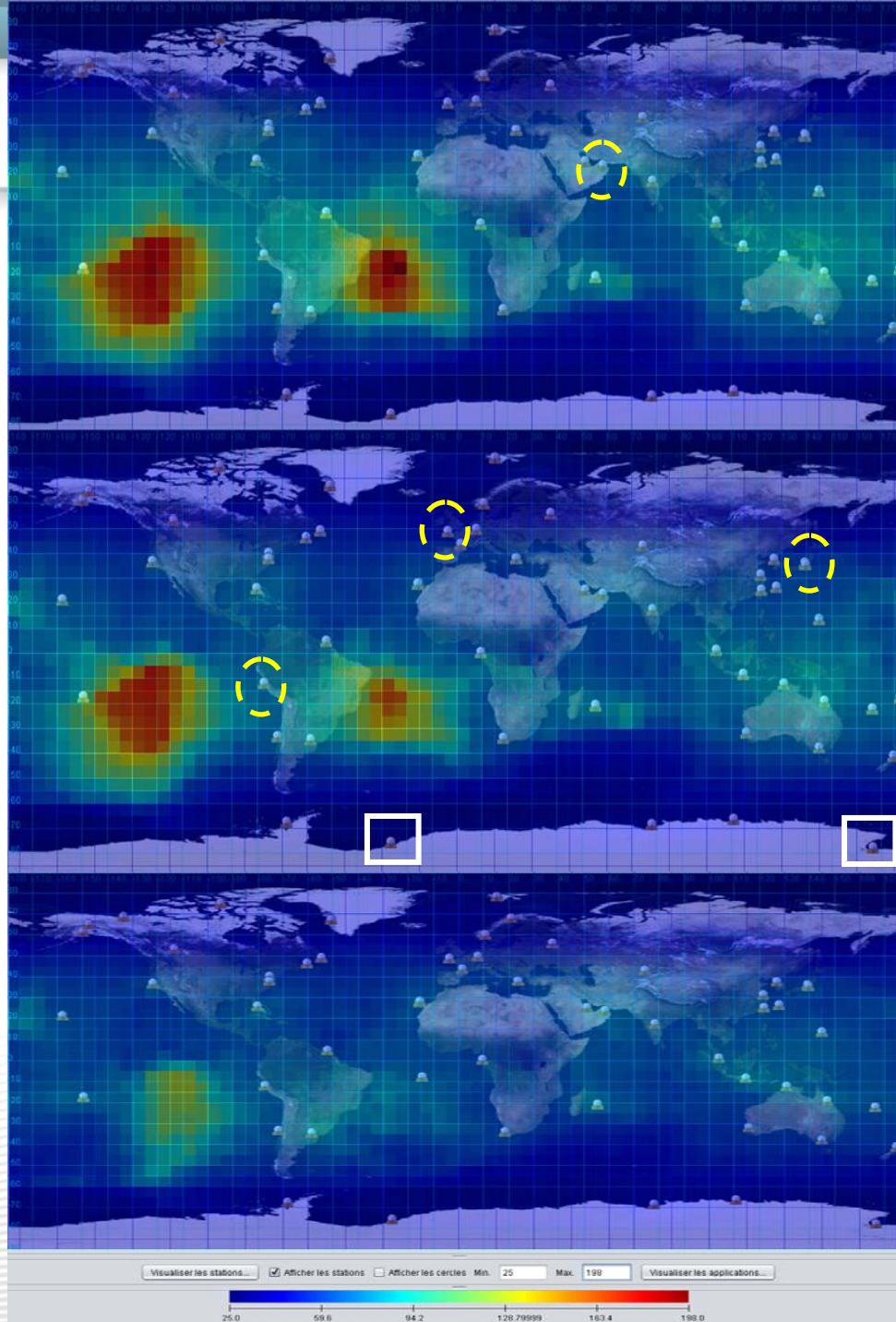
2



Visualiser les stations...
 Afficher les stations
 Afficher les cercles
 Min. 29 Max. 195
 Visualiser les applications...



 1 Spare



MARCH 2011

- Adding OMAN
- Improving Hyderabad & Reunion
- Increased METOP-A HRPT Coverage (more stations + descending and ascending orbits)

JUNE 2011

- 3 Upgraded CLS Stations
- 2 Antarctic Stations: MCMURDO & HALLEY

END-2013?

- Upgrade Project Completed
- 2 Satellites Added: METOP B & SARAL

UPGRADE SCHEDULE

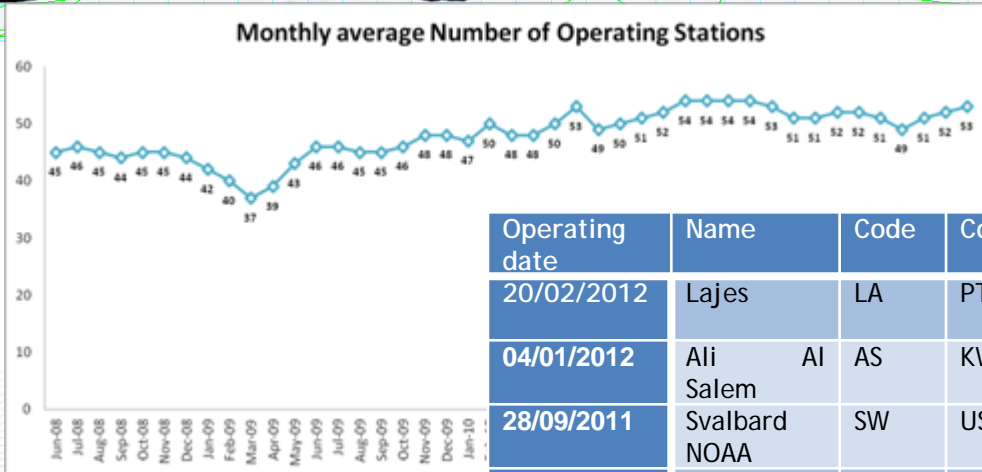
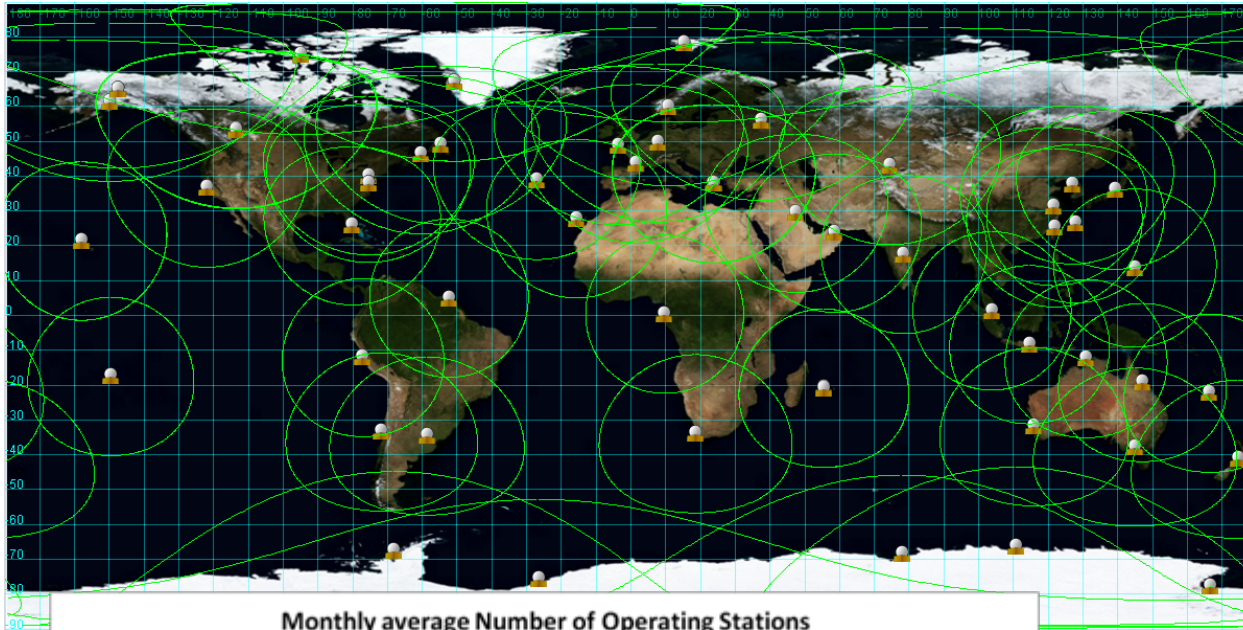


- **UPGRADE 3 CLS STATIONS:**
LIMA, HATOYAMA, LANNION Completed
- **UPGRADE 9 'NON-CLS' EXISTING STATIONS:**

[La REUNION,	Completed
MONTERY, MIAMI	end 2012 ?
BALI	April 2012 / SARAL update 2012/10
[RESOLUTE BAY,	Closed
OMAN	2012/10
ATHENS	2012/9
LAS PALMAS	2012/9
PAPEETE	2013
- **PROCURE AND INSTALL 2 NEW STATIONS:**

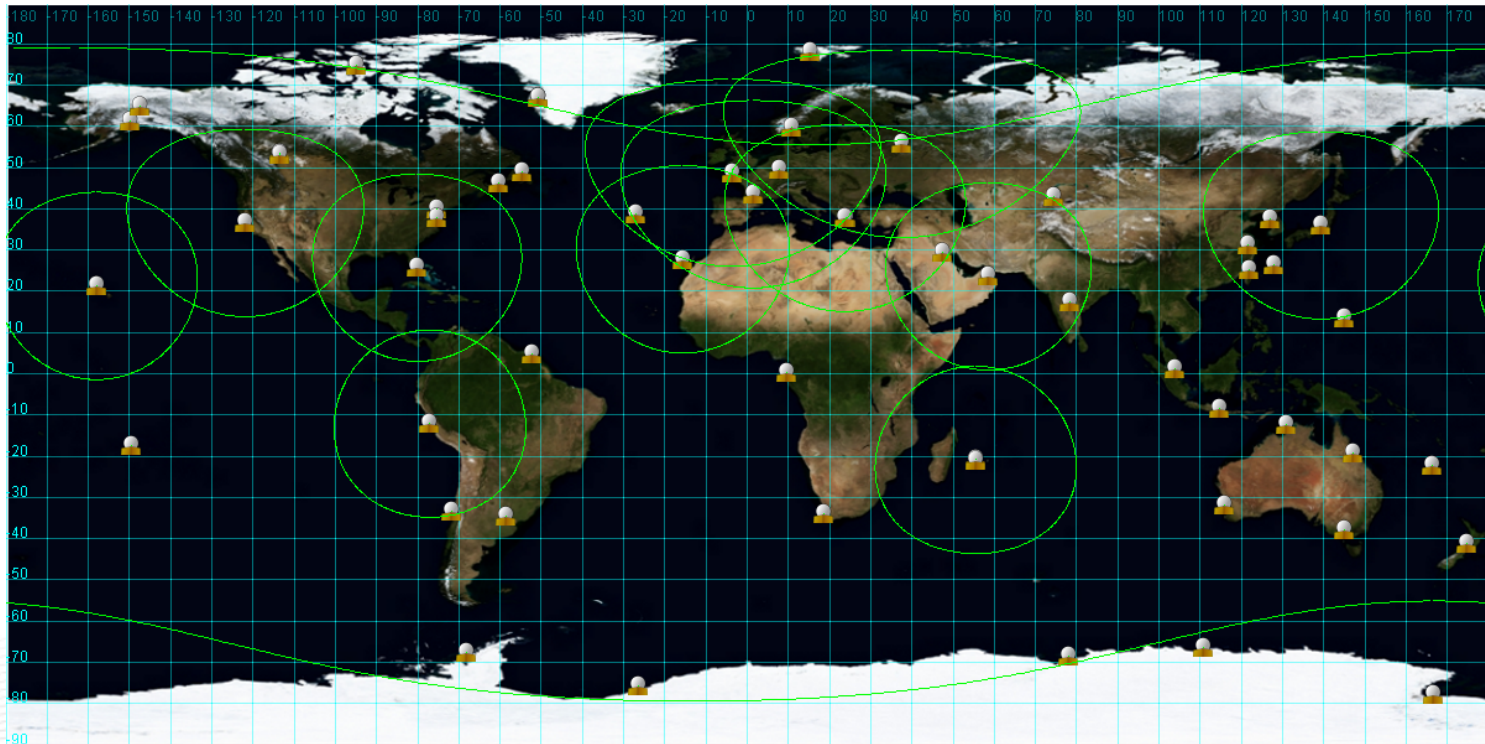
[CAPETOWN]	Completed
[ASCENSION ISLAND]	Early 2013?
- **UPGRADE 3 EXISTING AUS/NZ STATIONS:**
[DAVIS, CAPE FERGUSON, WELLINGTON] End 2012

Ground Segment (LUT)

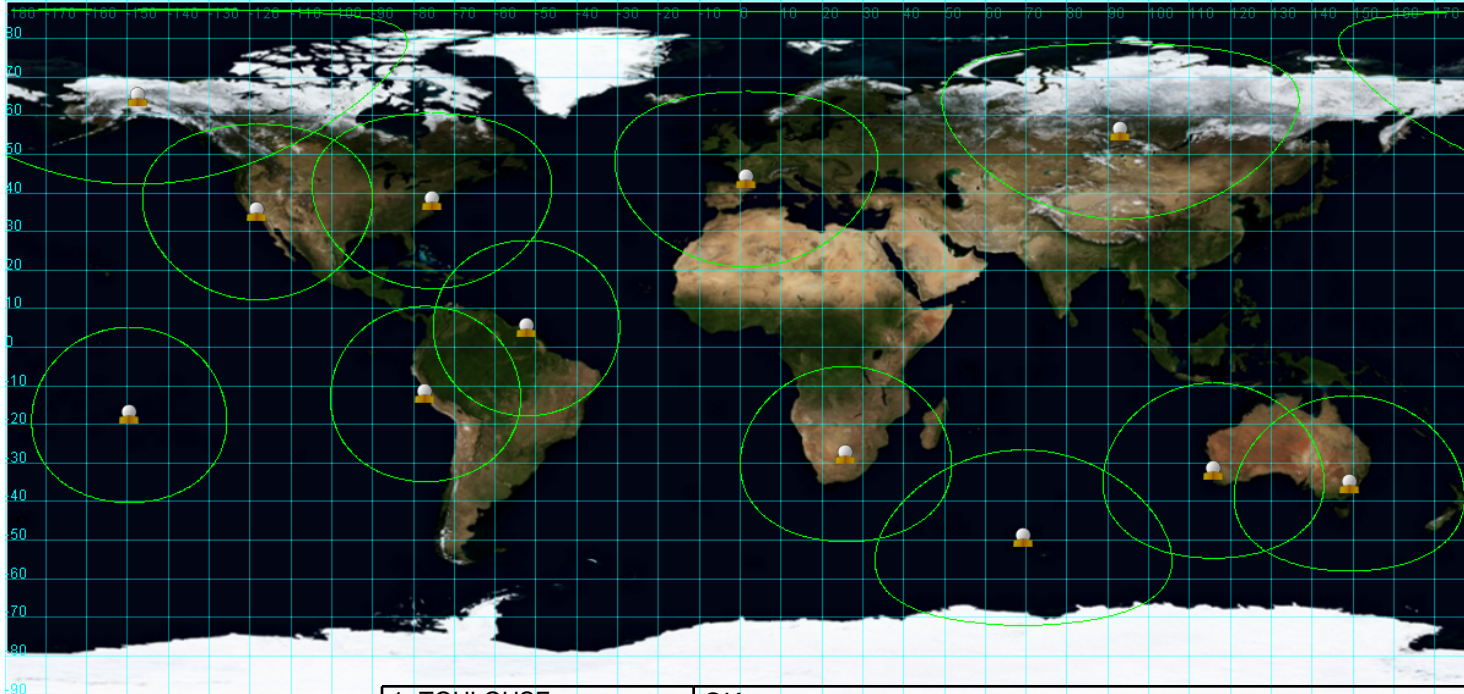


Operating date	Name	Code	Country	Operator	Possible satellites					
20/02/2012	Lajes	LA	PT	US AIR FORCE		NL		NN	NP	
04/01/2012	Ali Salem	AI AS	KW	US AIR FORCE	NK	NL		NN	NP	
28/09/2011	Svalbard NOAA	SW	US	NOAA	NK	NL	NM	NN		
08/06/2011	Mc Murdo	MM	AQ	NOAA						MA
11/05/2011	Ramonville	RV	FR	CLS	NK	NL	NM	NN	NP	MA

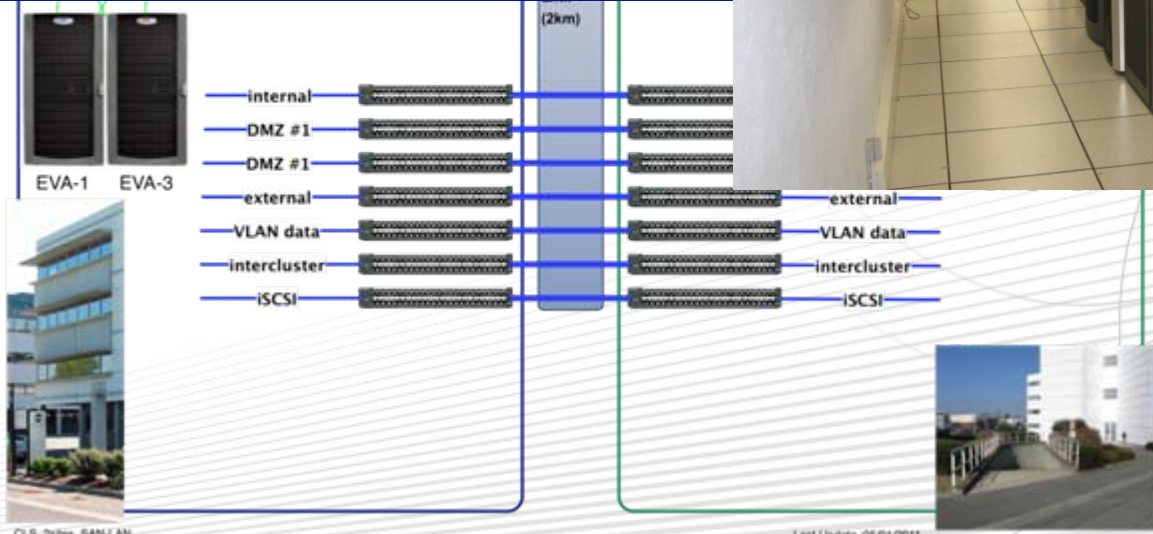
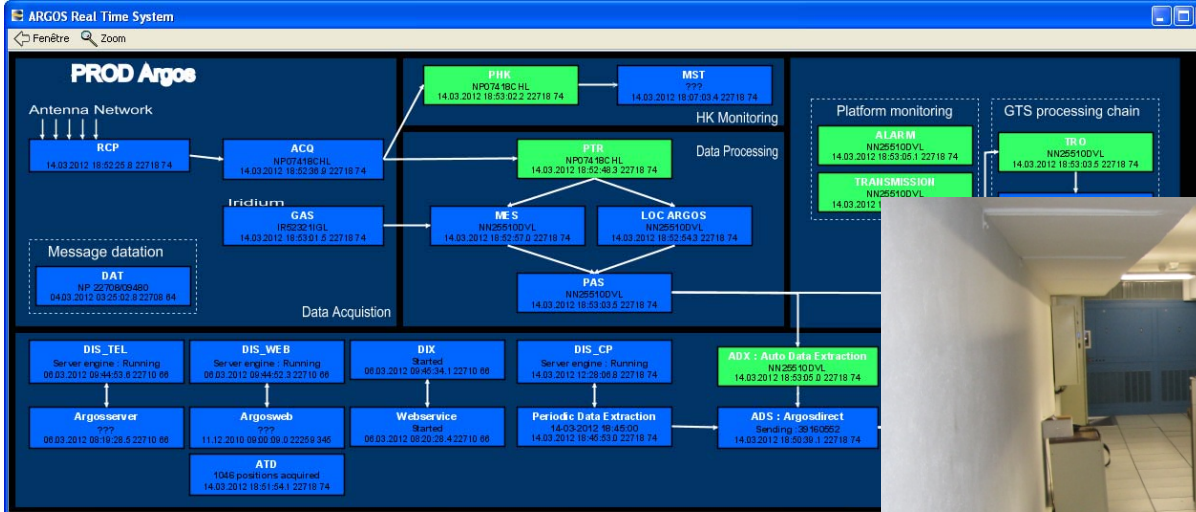
- Current METOP-A (and METOP-B as well) coverage



Ground Segment (ORBITO)



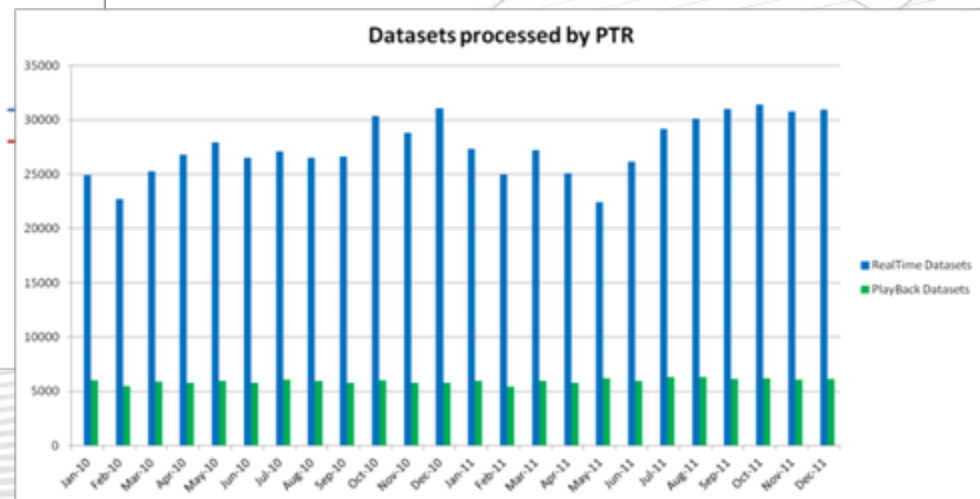
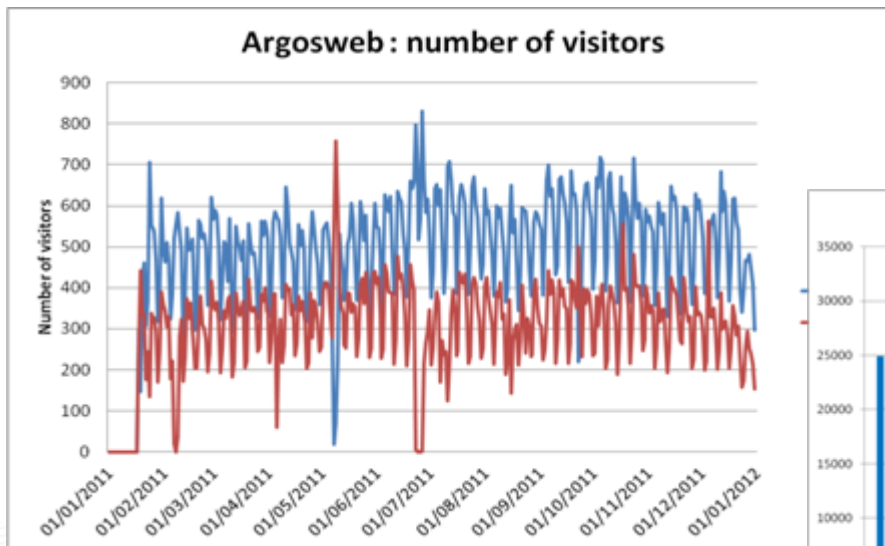
1- TOULOUSE	OK
108 - GILMORE_N	OK
109 - KOUROU_N	OK
111 - HARTBEES_N2	OK
112 - CANBERRA_N	Canberra orbitography platform will be stopped in March/April 2012 due to the host site destruction. The platform will be installed in a place to be determined.
113 - LIMA-N	OK
114 - KRASNOIARSK	Stopped on 01/26/06. Expecting administrative paper in order to restart this PTT. A. Salman in charge.
116 - PAPEETE	OK
118 - WALLOPS	OK
119 - KERGUELEN_N	OK
149 - PERTH	OK
110 - MOJAVE	OK

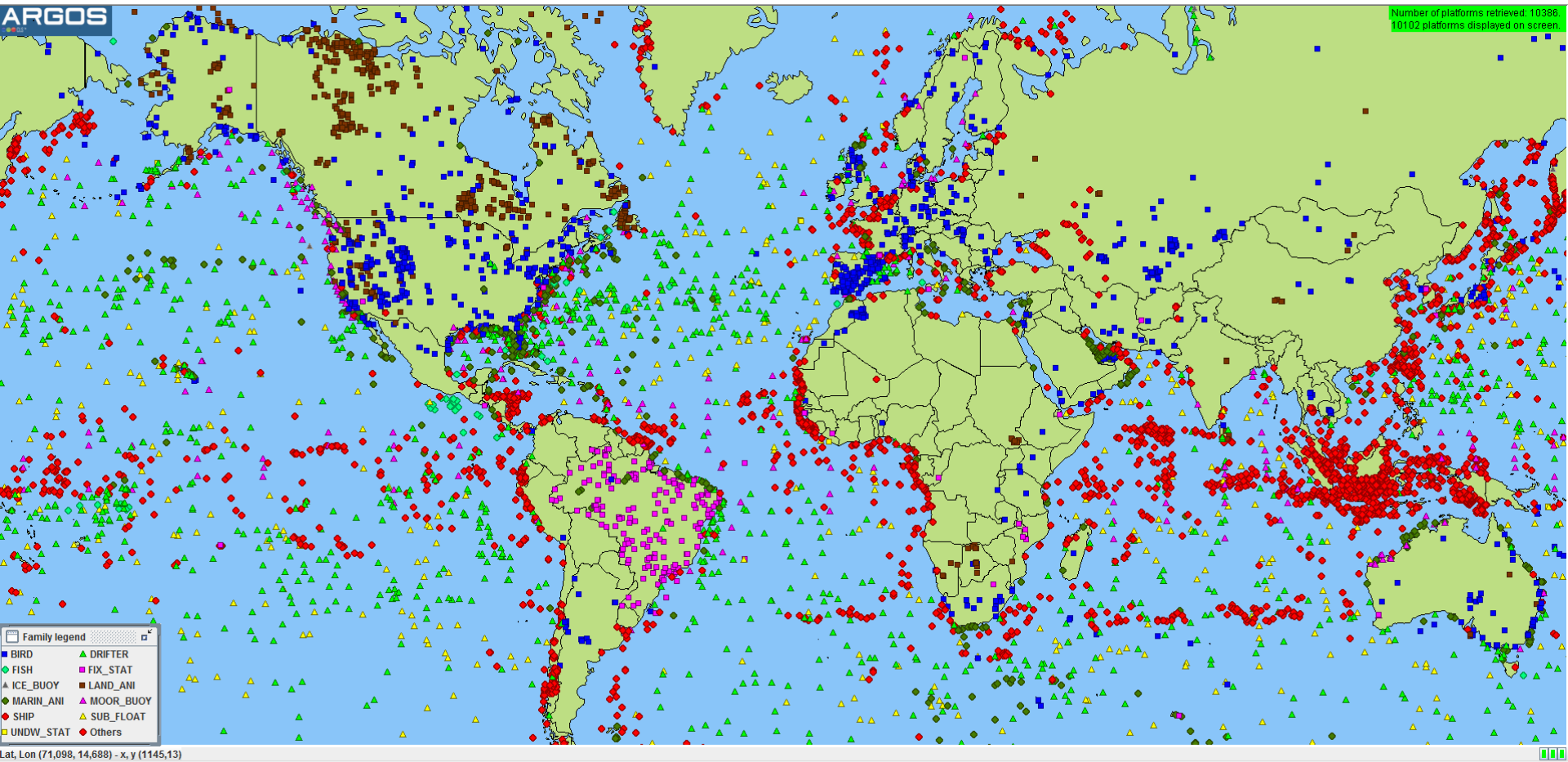


Last Update :05/01/2011

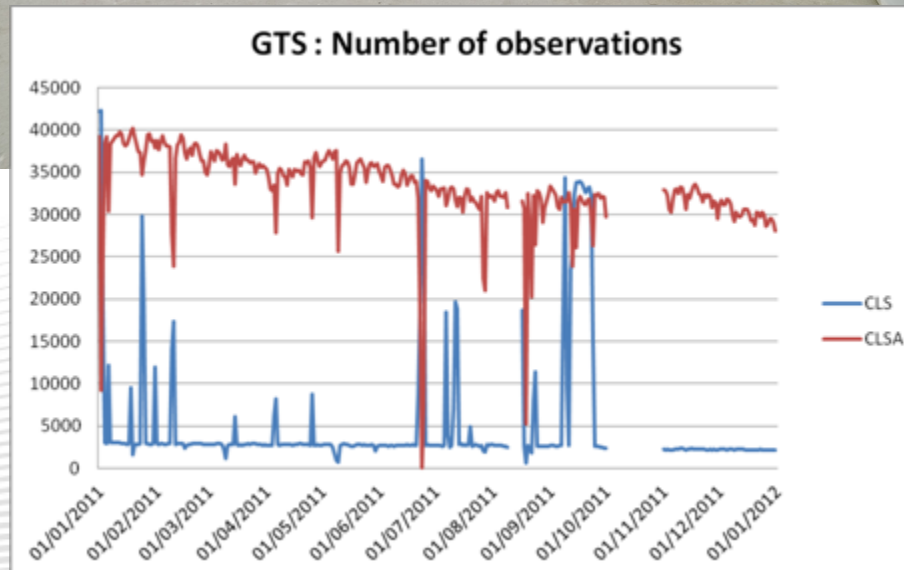
Per day	2008	2009	2010	2011
Messages received	1 969 658	2 273 233	2 871 885	2 904 476
Distinct Messages received	1 164 717	1 272 459	1 470 953	1 451 938
Argos Locations	66 176	77 837	94 151	92 168
GPS Locations	187 829	185 496	205 259	212 587

2011 FR Annual availability: 99.79%
2011 US Annual availability: 99.74%





- SARAL and Metop B
- CLS processing Center and Control Room move in October 2012
- Observations available via the Argos WebService
- Argos 86 data from 1994 to 2007 (Argos 86) available for On line Databank



New Control Room

AFIMES
Technologies de sécurité



CLS
COLLECTE LOCALISATION SATELLITES

SAIFOR



CAPETOWN TEAM – MARCH 2012

