

**National Technical Report on GMDSS for France
2002 - 2006**

Within the GMDSS framework, France is Issuing Service for:

- ✓ **METAREA II**
- ✓ **METAREA VIII (S)** (tropical cyclone warnings)

Within the GMDSS framework, France is Preparation Service for:

- ✓ **Western part of METAREA III** (scheduled bulletins and warnings, for Greece)
- ✓ **METAREA VII** (forecasts for area 30°S/50°S - 50°E/80°E & tropical cyclone warnings West of 90°E, for South Africa)

Scheduled bulletins prepared by Mauritius for METAREA VIII (S) are broadcasted by France.

GMDSS National Focal Points	
For METAREA II (& Metarea III(W))	For Metarea VIII(S) (& Metarea VII)
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1. GMDSS MSI Self Assessment for METAREA II

1.1. SafetyNet & International NAVTEX systems

All forecasts (scheduled bulletins and warnings) are issued by the Marine & Oceanography Division of the National Forecast Centre of Météo-France in Toulouse. Messages are transmitted with X25 protocol, to the Coast Earth Station (CES) of Aussaguel for broadcast both on AOR-E and AOR-W, immediately for warnings (with a 6 minutes echo) and once from the WMO scheduled times for regular bulletins (09h00 and 21h00 UTC). Goonhilly CES is used as a back-up station for both satellites. Bulletins & warnings can be visualized on the JCOMM GMDSS web site (<http://weather.gmdss.org>).

SafetyNet warnings disseminated on each satellite (in addition to 2 scheduled bulletins per day)				
Year	2003	2004	2005	2006 (till 10 th Dec.)
Number of warnings	553	577	615	586

One French NAVTEX station on METAREA II, CROSS Corsen (A - 48°28'N, 5°03'W). Warnings and scheduled bulletins are issued by the Marine & Oceanography Division of the National Forecast Centre in Toulouse, in coherence with SafetyNet warnings and forecasts. Messages are transmitted to the station by Telex, immediately for warnings and from fixed times for regular bulletins (to avoid broadcasting them in an inappropriate slot). Warnings are broadcast as soon as the frequency is free, and repeated at next vacation. Scheduled bulletins are broadcast once at 00h00 and 12h00 UTC. Discussions have begun with the French Coast Guard Agency to find an appropriate way to replace the telex transmission (Secure FTP or E-Mail).

The common list of abbreviations adopted by JCOMM-II for International NAVTEX scheduled bulletins

is used in operations since 6 November 2006.

1.2. Real time monitoring

CES transmission control system

Real time monitoring of the transmission to the CES is available by using a user-friendly interface displaying the files containing the interactive dialogues between our Centre in Toulouse and the CESs.

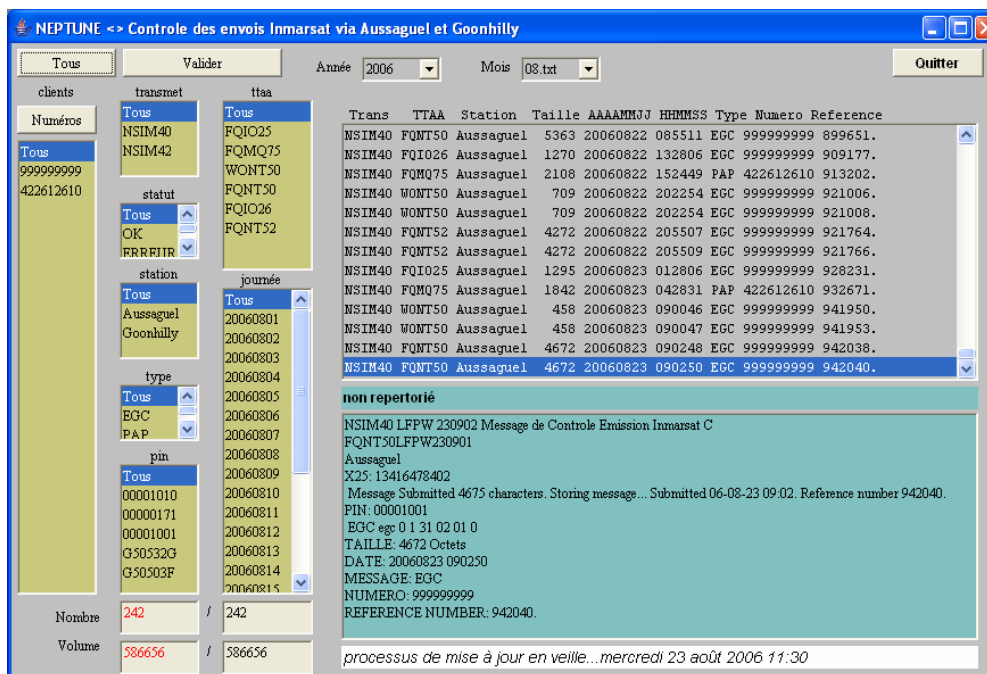


Figure 1 : software for the monitoring of transmission to CESs

SES reception checking system

Forecasters have also at their disposal an Inmarsat-C SES (material: TT 3022D from CAPSAT Company), according to the IMO and WMO recommendations, to check the broadcast at of their bulletins.

Initially, a specific system had been developed (software coded in JAVA on a Linux PC, collecting the messages by querying the receiver), allowing forecasters or other persons to visualize in real-time all the MSI received by the SES, using a navigator on any computer connected to the Local Area Network (LAN) of Météo-France. Now, we use the **easyMail** software developed by Thrane & Thrane. At this stage the monitoring can be done only on the PC connected to the receiver.

NAVTEX reception checking system

For all French NAVTEX stations, the monitoring is done by the French Coast Guard Agency.

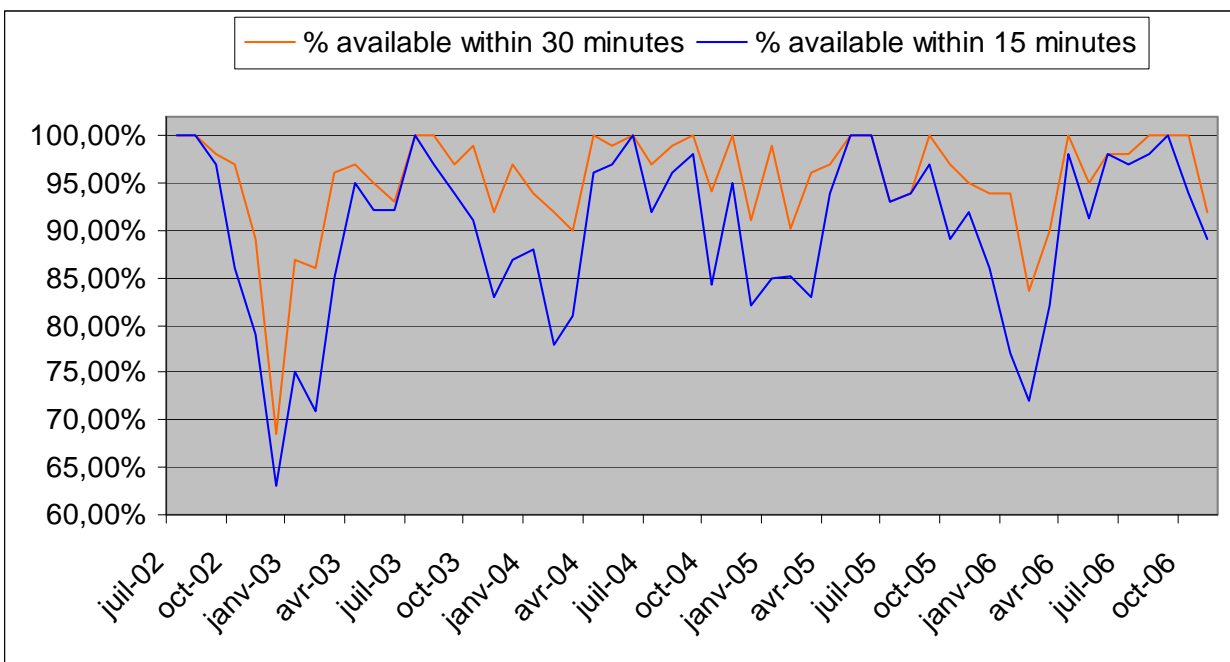
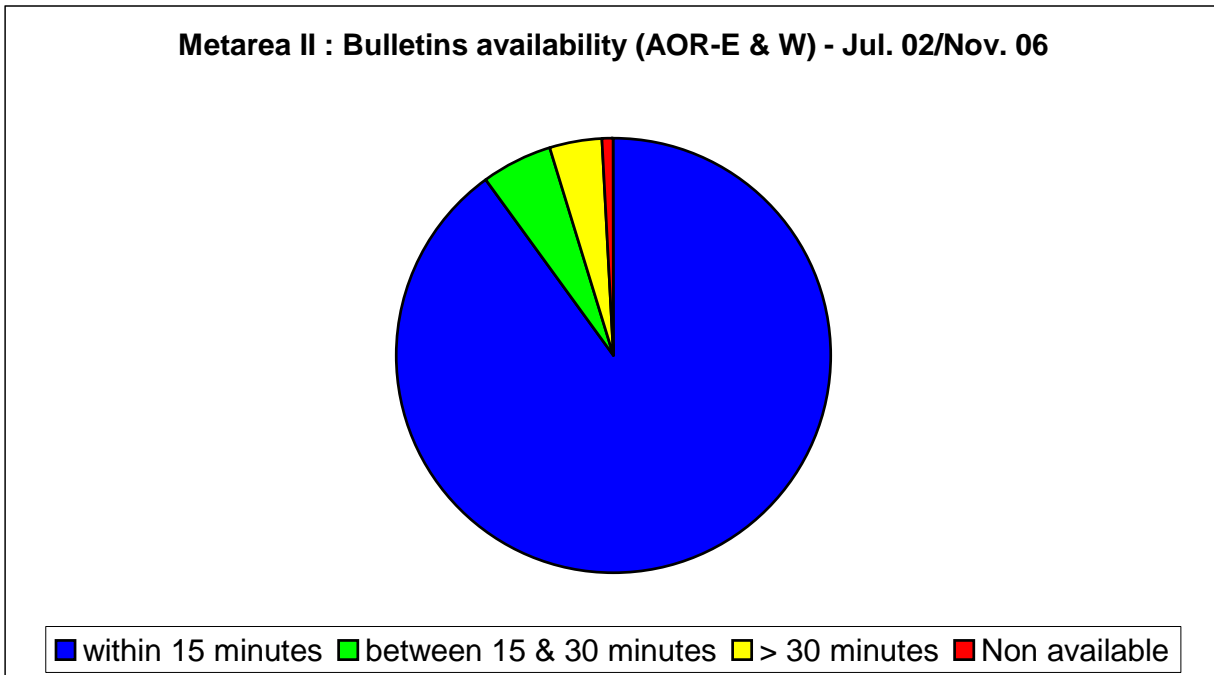
1.3. Monitoring / Statistics

Table I : transmission of scheduled bulletins to CES for METAREA II - AOR-E & W satellites (%) - 2003 to 2006

Month	Year 2003			Year 2004			Year 2005			Year 2006		
	within H±15 min.	within H±30 min.	Non available	within H±15 min.	within H±30 min.	Non available	within H±15 min.	within H±30 min.	Non available	within H±15 min.	within H±30 min.	Non available
01	75	87	0	88	94	0	85	99	0	77	94	0
02	71	86	0	78	92	0	85,3	90,2	2	72	83,6	4
03	85	96	0	81	90	0	83	96	0	82	90	0
04	95,1	97	3	96	100	0	94	97	0	98	100	0
05	92,2	95,1	2	97	99	0	100	100	0	91,2	95,1	3
06	92,2	93,1	5	100	100	0	100	100	0	98	98	0
07	100	100	0	92	97	0	93,1	93,1	6	97	98	0
08	97	100	0	96	99	0	94	94	0	98	100	0
09	94	97	0	98	100	0	97	100	0	100	100	0
10	91	99	0	84,3	94,1	2	89	97	0	94	100	0

11	83	92	0	95	100	0	92	95	0	89	92	0
12	87	97	0	82	91	0	86	94	0			

For period July 2002 to November 2006 : around 90 % within +/- 15 min., 95 % within +/- 30 min., less than 1 % not available



Figures 2 & 3 : availability and punctuality of scheduled bulletins for Metarea II on SafetyNet (AOR-E and AOR-W)

2. GMDSS MSI SELF ASSESSMENT for METAREA III (W) (input of France as Preparation Service)

2.1. SafetyNet & International NAVTEX systems

All forecasts (scheduled bulletins and warnings) are issued by the Marine & Oceanography Division of National Forecast Centre of Météo-France in Toulouse, and transmitted immediately on issue (before 1000 and 2200 UTC for scheduled bulletins) to Greece (Issuing Service) via GTS (Roma), Télec and E-Mail.

Telex should be re-considered

Warnings prepared for SafetyNet dissemination by Greece (in addition to 2 scheduled bulletins per day)				
Year	2003	2004	2005	2006 (till 10 th Dec.)
Number of warnings	318	352	317	313

One French NAVTEX on METAREA III, CROSS La Garde (W - 43°06N, 5°59E). Warnings and scheduled bulletins are issued by the Marine & Oceanography Division of the National Forecast Centre in Toulouse, in coherence with messages prepared for SafetyNet broadcast. Messages are transmitted to the station by Télec, immediately for warnings and from fixed times for regular bulletins (to avoid broadcasting them in an inappropriate slot). Warnings are broadcast as soon as the frequency is free and repeated at next vacation, scheduled bulletins are broadcast once at next vacation (2340 and 1140 UTC).

Work is in progress to replace the telex transmission. Secure ftp and E-Mail are considered.

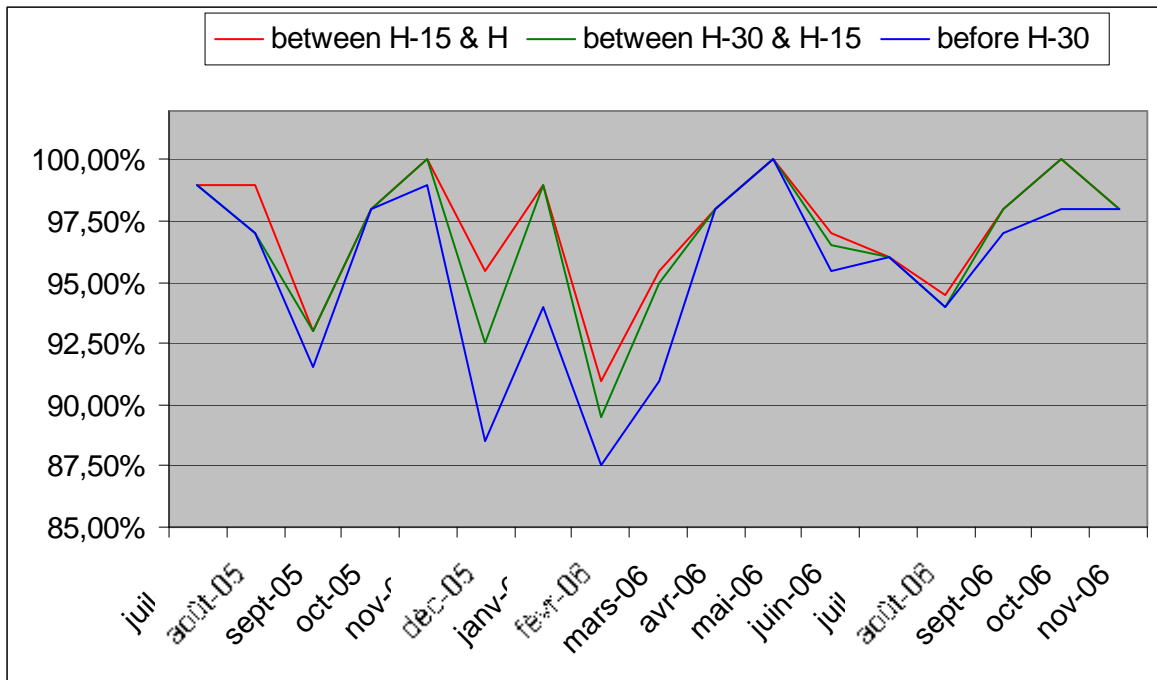
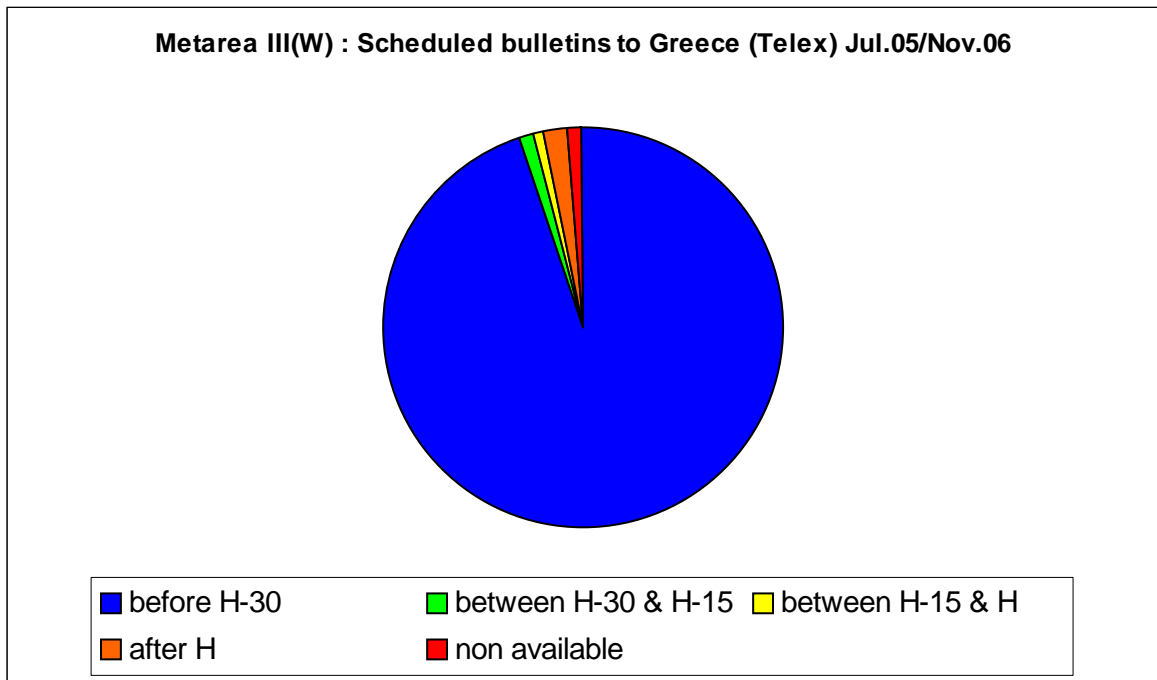
The common list of abbreviations adopted by JCOMM-II for International NAVTEX scheduled bulletins is used in operations since the 6 November 2006.

2.2. Monitoring / Statistics

Table II : transmission of scheduled bulletins to Greece for METAREA III(W) by Telex (%) - H = 10h00 and 22h00 UTC

Month	Year 2005					Year 2006				
	before H-30	before H-15	Before H	after H	non available	before H-30	before H-15	Before H	after H	non available
01						94	99	99	1	0
02						87	89,5	91	3,7	5,3
03						91	95	95,5	1,3	3,2
04						98	98	98	2	0
05						100	100	100	0	0
06						95	96,5	97	3	0
07	99	99	99	1	0	96	96	96	2,4	1,6
08	97	97	99	1	0	94	94	94,5	3,9	1,6
09	91,5	93	93	3,7	3,3	97	98	98	2	0
10	98	98	98	0,4	1,6	98	100	100	0	0
11	99	100	100	0	0	98	98	98	2	1,6
12	88,5	92,5	95,5	4,5	0					

For period July 2005 to November 2006 : schedules are sent to Greece by Telex around 95 % before H-30 minutes & 97 % before H



Figures 4 & 5 : availability and punctuality of scheduled bulletins for Metarea III (W) transmitted to Greece
Only Telex is considered in the statistics - Additional transmissions (GTS & E-Mail) are used

3. GMDSS MSI SELF ASSESSMENT for METAREA VII (input of France as Preparation Service)

3.1. Tropical cyclone warnings West of 90°E

La Réunion (France), RSMC for tropical cyclone in SW Indian Ocean, prepares tropical cyclone warnings for METAREA VII (GTS headers WTIO22 FMEE and WTIO24 FMEE) every 6 hours when needed,. Those warnings are sent by E-Mail (FTP expected in the future) to the South African Weather Service, Meteorological Issuing Service for METAREA VII.

Tropical cyclone warnings prepared for SafetyNet dissemination by South Africa				
Year	2003	2004	2005	2006 (till 10 th Dec.)
Number of warnings	205	172	177	147

3.2. Forecasts for area 30°S/50°S, 50°E/80°E

La Réunion (France) prepares scheduled bulletins (header FQIO20 FMEE) twice a day for area 30°S/50°S, 50°E/80°E. Those bulletins are sent by E-Mail (FTP expected in the future) to the South African Weather Service, for insertion in scheduled bulletins before broadcasting. Complete bulletins can be visualized on the JCOMM GMDSS web site (<http://weather.gmdss.org>).

4. GMDSS MSI SELF ASSESSMENT FOR METAREA VIII (S)

4.1. SafetyNet system

La Réunion (France) prepares tropical cyclone warnings for METAREA VIII (S) (GTS headers WTIO20 FMEE and WTIO22 FMEE), every 6 hours when needed.

Mauritius prepares scheduled bulletins (headers FQIO25 FIMP and FQIO26 FIMP) that are received in La Réunion via FTP protocol. Parts I of those bulletins have to be in accordance with warnings elaborated by La Réunion, if any.

All those messages (scheduled bulletins and warnings) are sent to the National Weather Centre of Météo-France in Toulouse for transmission to the CES of Aussaguel (for broadcast over IOR). Goonhilly is also used as the back-up station.

Scheduled bulletins, if available, are transmitted automatically to the CES near the agreed WMO times of 0130 and 1330 UTC. Warnings are broadcast as soon as available with a 6 minute echo.

SafetyNet Tropical Cyclone warnings disseminated (in addition to 2 scheduled bulletins per day)				
Year	2003	2004	2005	2006 (till 10 th Dec.)
Number of warnings	317	345	353	146

There is no existing or planned French NAVTEX station in METAREA VIII(S).

4.2. Real time monitoring

Real-time monitoring of the transmission to the CES is possible by using a user-friendly interface displaying the files containing the interactive dialogues between the national Centre in Toulouse and the CESs (cf § 1 for Metarea II).

Forecasters in La Réunion have also an Inmarsat-C SES at their disposal to monitor manually the SafetNet broadcast, if needed.

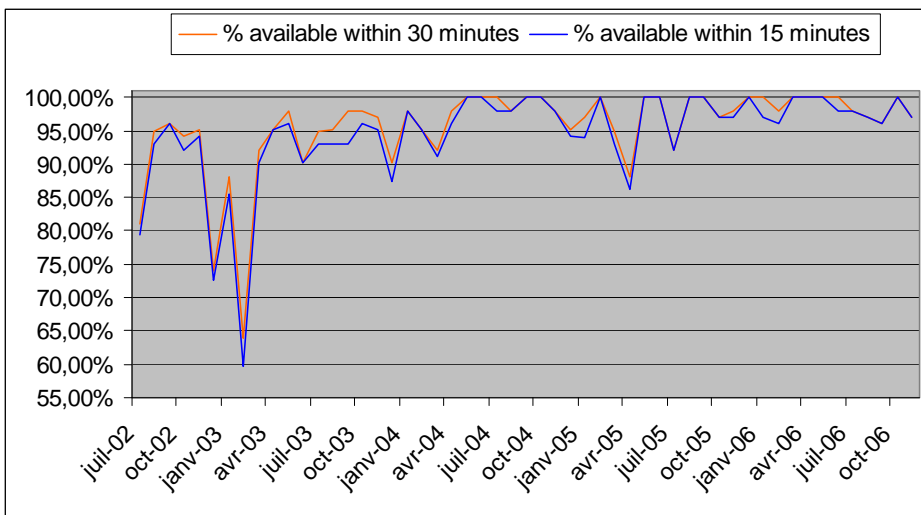
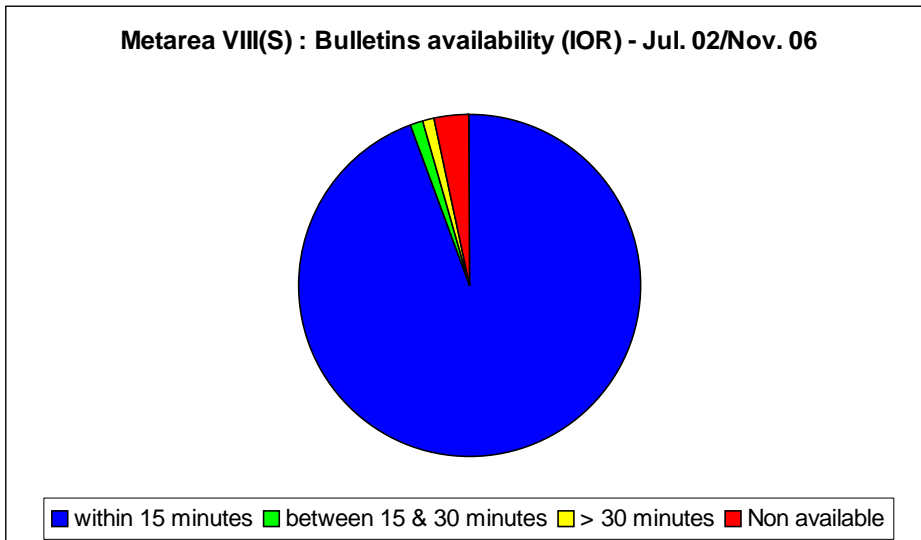
4.3. Monitoring / Statistics

Table III : transmission of scheduled bulletins to CES for METAREA VIII(S) - IOR satellite (%) - 2003 to 2006

Month	Year 2003			Year 2004			Year 2005			Year 2006		
	within H±15 min.	within H±30 min.	Non available	within H±15 min.	within H±30 min.	Non available	within H±15 min.	within H±30 min.	Non available	within H±15 min.	within H±30 min.	Non available
01	85,5	88,2	10	98	98	2	94	97	0	97	100	0
02	59,7	63,9	29	95,1	95,1	3	100	100	0	96	98	0
03	90,3	92,2	5	91,2	92,2	3	93,1	95	5	100	100	0
04	95,1	95,1	3	96,1	98	2	86,3	88	12	100	100	0
05	96	98	2	100	100	0	100	100	0	100	100	0
06	90,2	90,2	8	100	100	0	100	100	0	98	100	0
07	93,1	95	5	98	100	0	92,2	92,2	6	98	98	2
08	93,1	95,1	2	98	98	2	100	100	0	97	97	0

09	93,1	98	2	100	100	0	100	100	0	96,1	96,1	2
10	96	98	0	100	100	0	97	97	3	100	100	0
11	95,1	97	3	98	98	2	97	98	0	97	97	3
12	87,3	90,2	3	94,1	95,1	3	100	100	0			

For period July 2002 to November 2006 : around 94 % within +/- 15 min., 95 % within +/- 30 min., 3,5 % not available



Figures 6 & 7 : availability and punctuality of scheduled bulletins for Metarea VIII(S) on SafetyNet (IOR)

5. MISCELLANEOUS

In France, the authority in charge of the dissemination of Maritime Safety Information (MSI) at sea is the Maritime Affairs Direction (i.e., the French Coast Guard Agency) from the Ministry of Transports, both for SOLAS (GMDSS) and non-SOLAS vessels. It operates the Regional Search & Rescue Centres (CROSS) which broadcast the MSI (except for SafetyNET). Météo-France is responsible for the preparation of all Meteorological warnings and scheduled bulletins and the Navy Hydrographic Service (SHOM) for the navigational warnings. For non-SOLAS vessels, off-shore and coastal scheduled bulletins and warnings in French for the western Mediterranean Sea, the northeast Atlantic and the North Sea are also broadcasted by VHF (coastal), HF and national NAVTEX (off-shore). The wind threshold for coastal warnings (20 Nautical Miles) is 7 Beaufort.

The French National NAVTEX system (490 kHz) is based on 3 NAVTEX stations (2 French, 1 UK):

- ✓ CROSS Corsen (E - the Bay of Biscay and the south part of the British islands)
- ✓ CROSS La Garde (S – northwest of Mediterranean Sea)

- ✓ Niton Radio (T - the English Channel).

The use of French NAVTEX abbreviations is also planned but the list is still under construction.

Evaluation and evolution of meteorological products for non-SOLAS vessels are discussed with users representatives (fishing, sailing, cruising, etc.), and the Maritime Affairs Direction in the Marine Commission of the High Meteorological Council every six months. VHF loop broadcasting is under consideration, but no planned date for implementation of the appropriate network. The use of automatic vocalization for VHF and HF broadcasts are under experiment.

The first version of the JCOMM GMDSS web site (<http://weather.gmdss.org>) has been developed and is maintained by Meteo-France.

Chronology of the implementation of the French contribution to the GMDSS – Meteorological broadcast

Date	Event
1st June 1992	warnings broadcasted once a day via Bracknell (Metarea II & III(W))
June 1992	bulletins and warnings for Metarea III (W) transmitted to Greece via GTS (Roma)
1st September 1992	Pleumeur Bodou CES operational: warnings and scheduled bulletins for Metarea II broadcasted on AOR-E and AOR-W
26th may 1993	forecasts for Metarea III (W) included in the morning bulletins broadcasted by Greece on IOR (Thermopylae)
1st August 1993	CROSS Corsen NAVTEX station operational: warnings and scheduled bulletins for the Bay of Biscay are broadcasted (slots : 00 and 12 UTC) CROSS Lagarde NAVTEX station operational: warnings and scheduled bulletins for the NW of Mediterranean sea are broadcasted (slots : 1140 and 2340 UTC)
1st October 1993	forecasts for Metarea III (W) included in scheduled bulletins broadcasted by Greece on IOR (Thermopylae)
17th November 1994	closing down of Pleumeur Bodou for standard C broadcasting - Aussaguel CES operational: bulletins for Metarea II broadcasted on AOR-E only
21th March 1995	bulletins for Metarea II broadcasted on AOR-E (Aussaguel) and AOR-W (Goonhilly)
1st May 1996	addition of further outlooks in Navtex forecasts
10th July 1996	bulletins and warnings for Metarea III (W) transmitted to Greece via GTS & Telex
15th September 1996	addition of further outlooks in SafetyNet forecasts (Metareas II & III (W))
3 March 1997	Goonhilly used as a back-up station for AOR-E (Metarea II)
January 1998	Scheduled bulletins from Mauritius and warnings from La Réunion transmitted to Aussaguel CES by the national weather centre of Météo-France in Toulouse. South Africa stopped broadcasting (Metarea VIII(S))
1 st February 1998	Installation of new Inmarsat-C SESs (Ship Earth Station) in the national weather centre (Toulouse) & in La Réunion to check the SafetyNet broadcasts
1 st July 1998	Implementation of automatic back-up procedures for transmission to CESs (Metarea II & VIII(S))
October 1998	Implementation of an automatic function that broadcasts scheduled SafetyNet bulletins at the WMO scheduled times (Metarea II & VIII(S))
September 1999	bulletins and warnings for Metarea III (W) transmitted to Greece via GTS, Telex & E-Mail
2 nd September 2001	Aussaguel CES broadcast all messages on both AOR-E and AOR-W Goonhilly CES used as a backup station for both satellites
4 th February 2002	Implementation of the new set of common sub-areas in coordination with Morocco, Portugal, Spain and also United Kingdom.
27 th May 2002	Implementation of an automatic function that delays the transmission of scheduled NAVTEX bulletins (if needed), to avoid broadcasting them in the previous slot.
6 th November 2006	Implementation of the common abbreviations for the preparation of the scheduled bulletins for International NAVTEX service
Expected	Goonhilly CES is closed and transfers, at least till December 2006, all messages automatically to Burum CES for broadcast. Meteo-France has to organize tests and direct agreement with a new back-up CES