

SPATIONAV

A system designed for the surveillance of the french maritim approaches

06/29/2009 VMS SSN radar pilot project meeting

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Ressources, territoires et habitats
Énergie et climat
Prévention des risques
Développement durable
Infrastructures, transports et mer

**Présent
pour
l'avenir**

Presentation

- Origin of the project
- Users & Partners
- Real time maritim picture
- Mediteranean focus
- Data availability
- Intented evolutions



Origin of the project

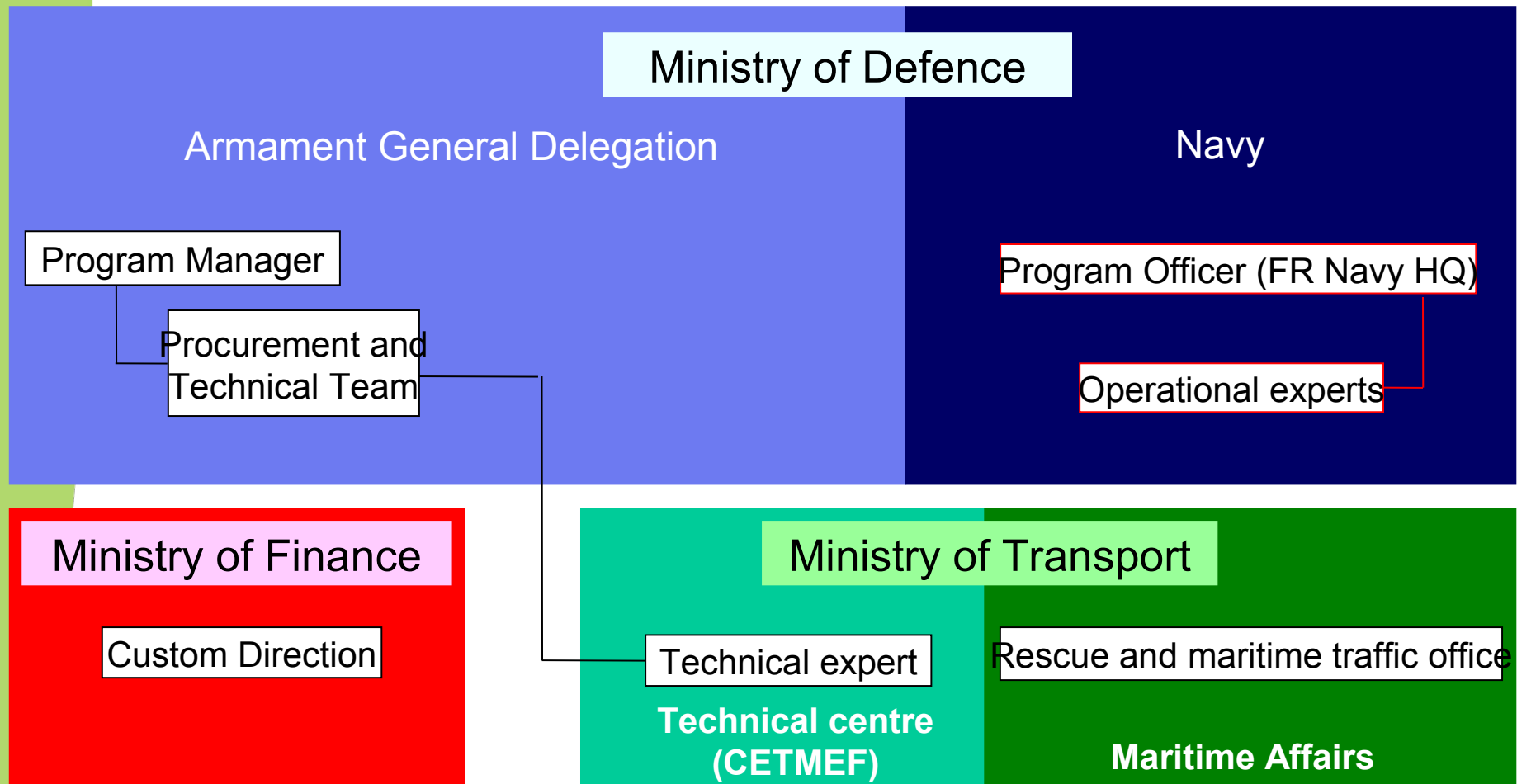
Recent outstanding events instigate the French Navy to take an initiative to :

- Enhance the capacity of looking after maritime traffic
- Enhance the safety at sea
- Face threats from sea :
 - Terrorism
 - Pollution
 - Illegal trafics
 - Illegal immigration



French Navy & MA take the decision to equip the main authorities involved in government actions at sea with a single system, called SPATIONAV : to share the same picture of the maritime approaches and to facilitate operations coordination.

Leading team



Users and Partners

- Navy

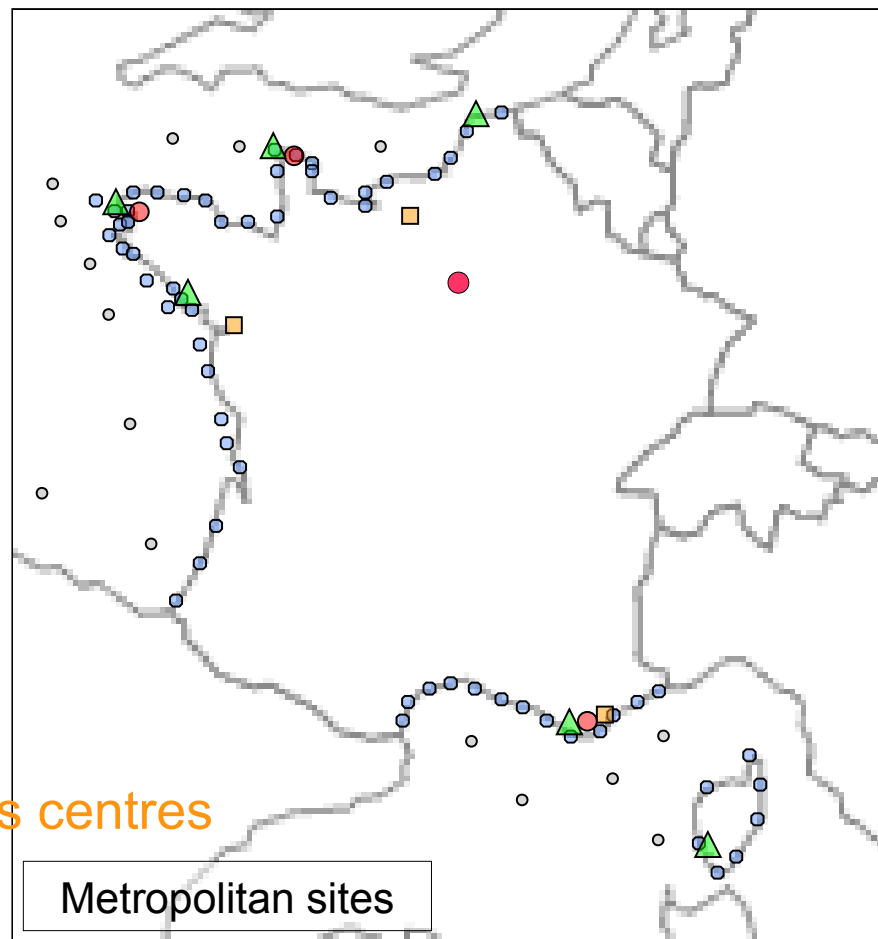
- Signal stations
- Operational centres
- Aircraft and ships

- Maritim affairs

- MRCC
- ships

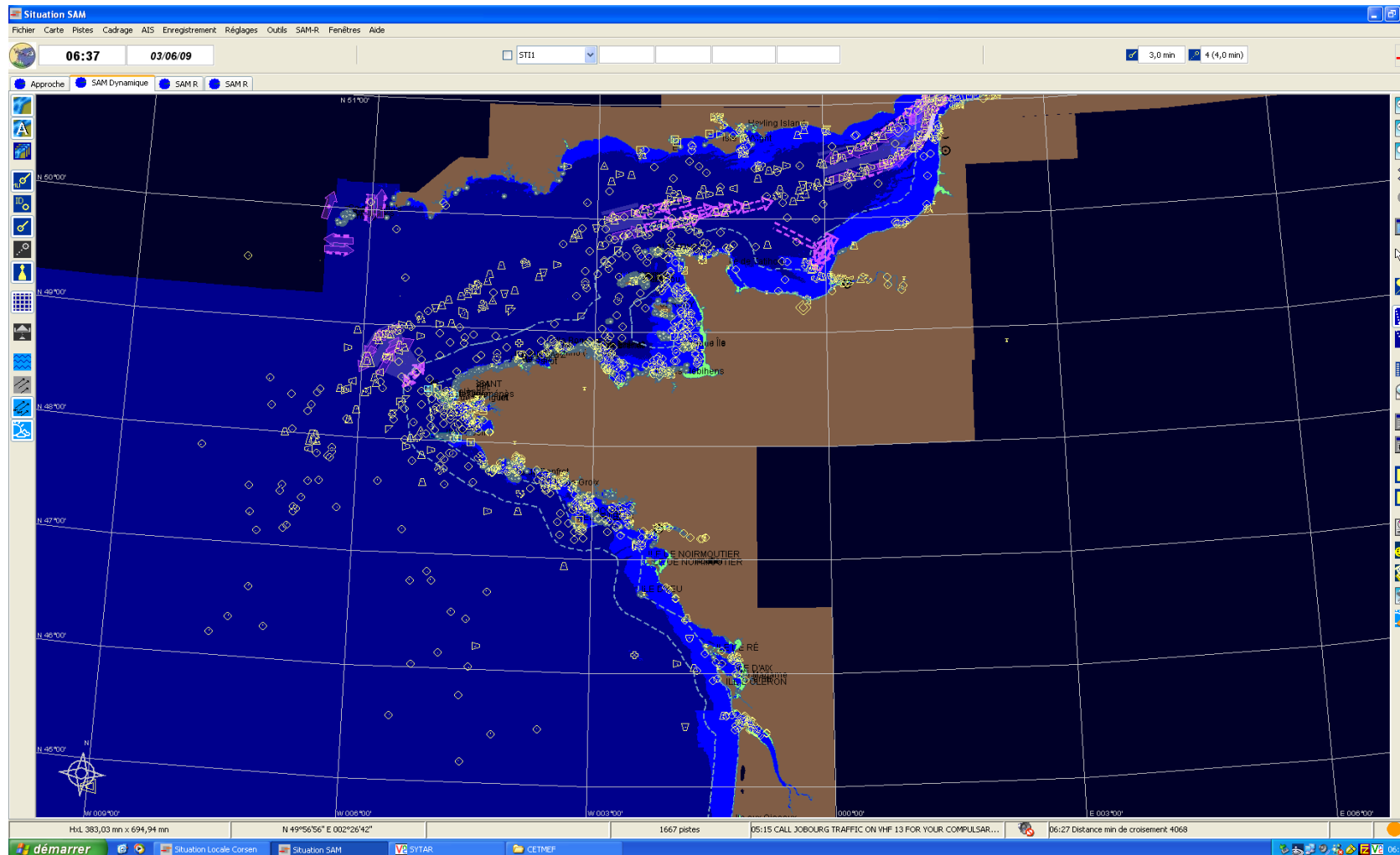
- Customs

- Customs coordinations centres
- ships



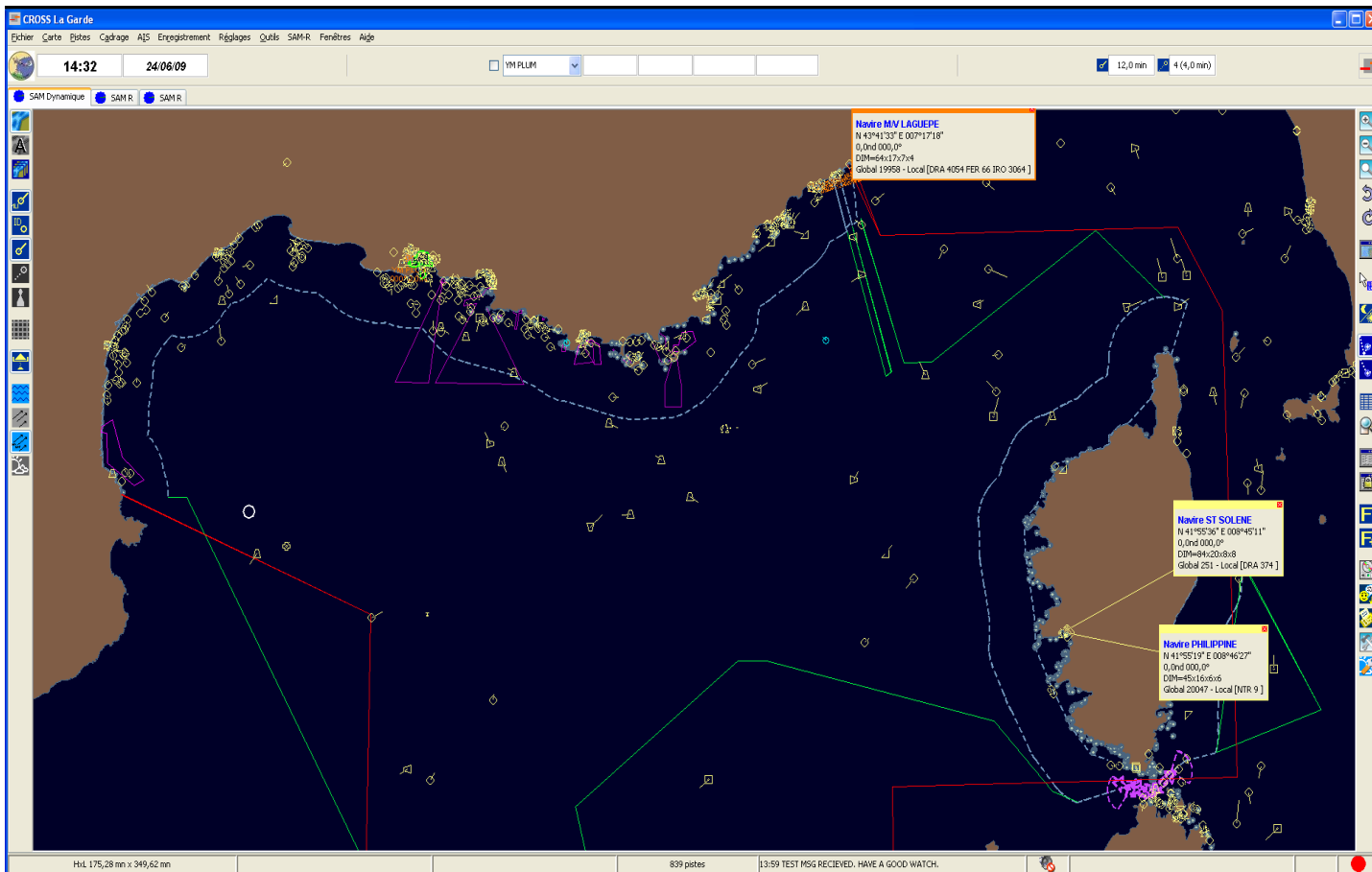
Real time maritim picture

- One real-time picture for each maritim area
 - ➔ Northern sea / Channel / Atlantic



Real time maritim picture

- One real-time picture for each maritim area
 - ➔ Northern sea / Channel / Atlantic
 - ➔ Mediterranean



Real time maritim picture

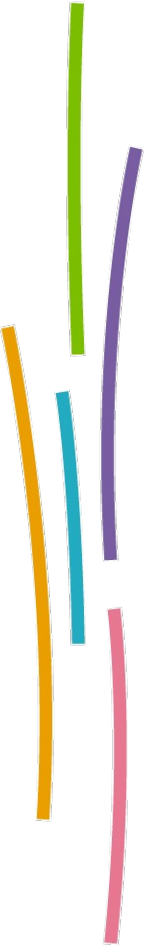
- One real-time picture for each maritim area
 - ➔ Northern sea / Channel / Atlantic
 - ➔ Mediterranean
- Provided to all decision centres
 - ➔ Navy operational centres
 - ➔ MRCC
 - ➔ Customs coordination centres
- Provided to other authorized participants
 - ➔ using a web application : SPATIOWEB



Real time maritim picture

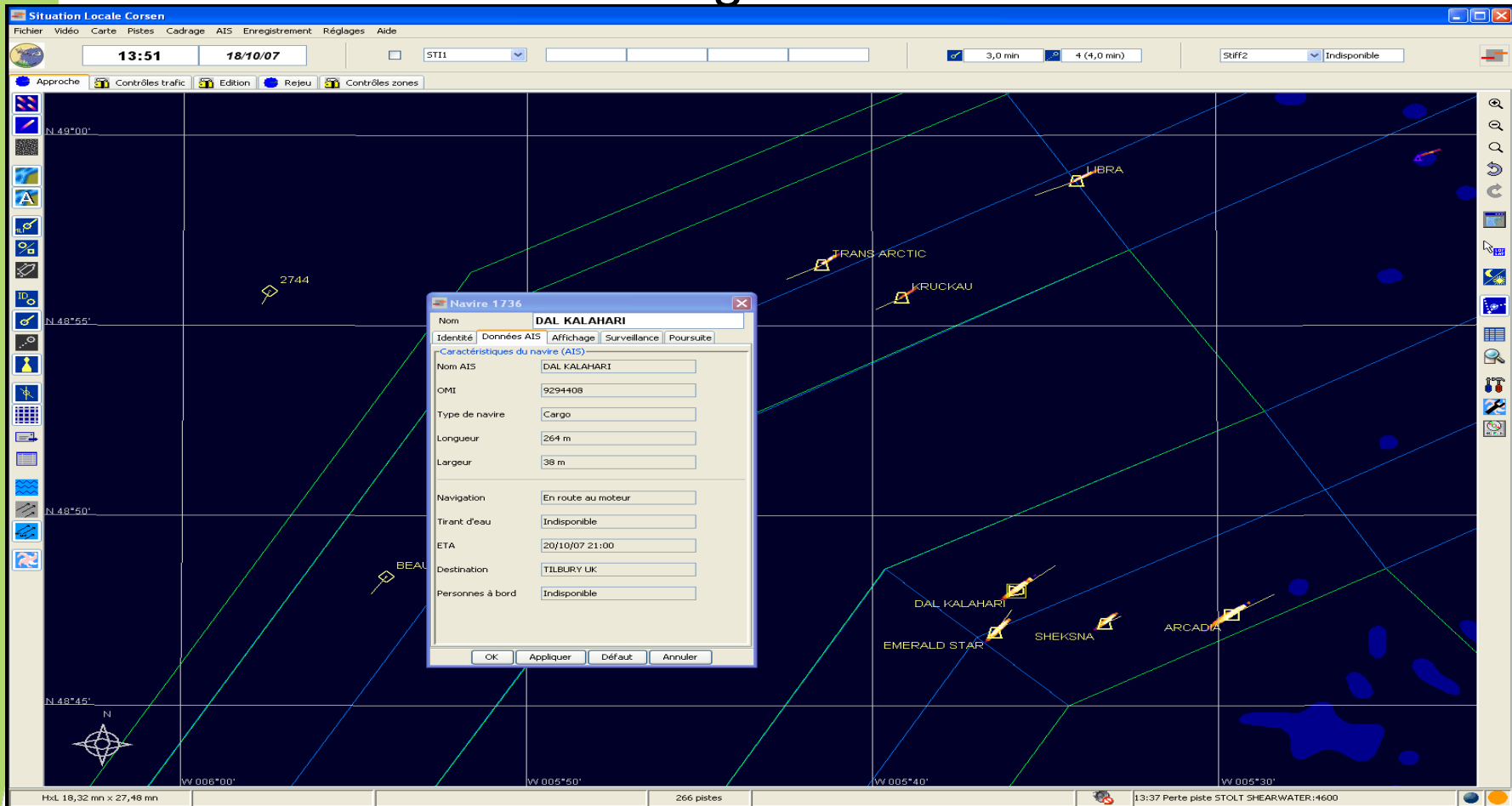
Various aggregated data :

- Radars information from Navy's signal stations and MRCC
- Shore AIS base stations used as a sensor
- Commercial traffic's information from TRAFIC 2000 system and from information from European Safe Sea Net
- Radar and AIS information from surveillance aircrafts and ships



Real time maritime picture

- Tracks detected using radar & AIS sensors



Real time maritime picture

- Tracks detected using radar & AIS sensors
- Semi-automatic correlation with T2000 database

TRAFIC 2000 v1.3 PROD
système de suivi et d'information sur la circulation maritime

Accueil > Dossier DST Ouessant > Fiche navire

DAMGM/SM1 EXPLOITANT
24 nov. 2004 10:40:03

Fiche navire
Message
Rafraîchir
Déconnexion

Alertes
Alertes
Dossiers
Interrogations
Requis
Événements

Nom NORMANNIA MMSI 212340000 Indicateur valide
Indicatif d'appel P3LF7
OMI 8223074
Immatriculation

MMSI 212340000
CY/CHYPRE
GGC: Cargo classique
Type Commerce
Type Flotteur Navire de Commerce (OMI)

MAJ par : Message CRO émis par OUESSANT TRAFIC le 24/11/2004 à 09:15

M. D. 1 2 3 4 5 6 7 8 9 PDB 8 PAX 0
Latitude 49° 09' N Longitude 005° 05' W
Cap 240 Vitesse 10,3 nds

Messages

Type	Emetteur	Date	Attendu à	Le	Port de départ	Description	Action
CRO	FRCORCST	24/11/2004 09:15	PTBRO	27/11 00:00	GBBLS	NORMANNIA P3LF7	+
CRO	FRJOBCST	23/11/2004 20:53	PTBRO	27/11 00:00	GBBLS	NORMANNIA P3LF7	+
CRO	FRGRNCST	16/11/2004 19:58	GBNFT	17/11 00:00	SIKOP	NORMANNIA P3LF7	+
CRO	FRJOBCST	16/11/2004 04:23	GBNFT	17/11 00:00	SIKOP	NORMANNIA P3LF7	+
CRO	FRCORCST	15/11/2004 12:33	GBNFT	17/11 00:00	SIKOP	NORMANNIA P3LF7	+

Retour

Dossier piste - OCEAN LIGHT - CONSULTATION

Identité du navire

Indicatif 9HMH6 Nom OCEAN LIGHT Immat. Certificat Aucun
OMI OMI 7632620 Catégorie Pavillon MALTE Année de constr. 1976
MMSI 248660000 Type Vraquier Tirant d'eau (m) Coque

Cinématique Voyage Navire Classification Multimédia

Route Cargaison AIS

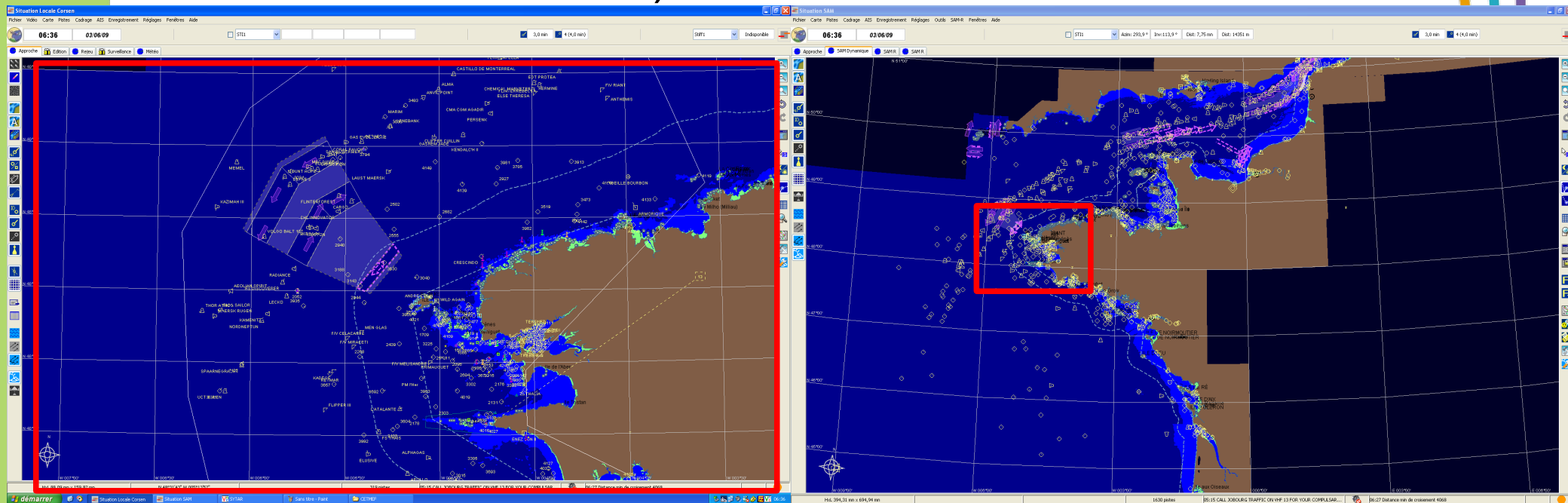
Port de départ Port d'arrivée Port de destination Equipage
Nationalité Nationalité Nationalité Nombre de passagers
ETD ETA Code d'alerte
Heure de départ Heure d'arrivée Ligne régulière Code force
Etat de navigation Long. remorque (m) Type remorque Sens du trafic

Commentaire

Modifier Envoyer Associer-Rechercher Associer-Créer Rétablir Plus... Imprimer T2000 Désassocier Quitter

Real time maritime picture

- SPATIONAV provides two global view composed with the sum of local pictures (one for the Channel/Atlantic area, the other one for the mediterranean area)



Mediterranean focus

- The Navy signal stations radars (bridgemaster-BM250)

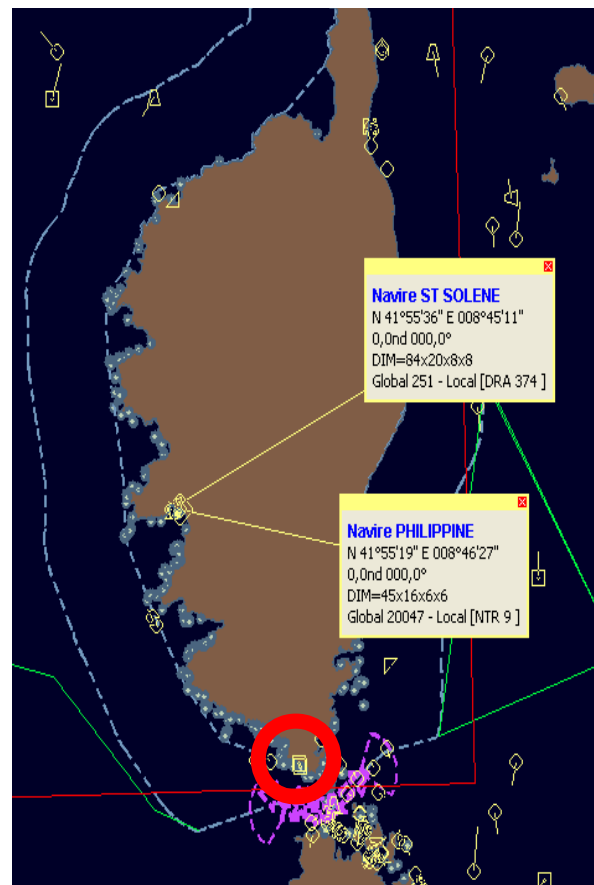


MINISTÈRE DE LA DÉFENSE

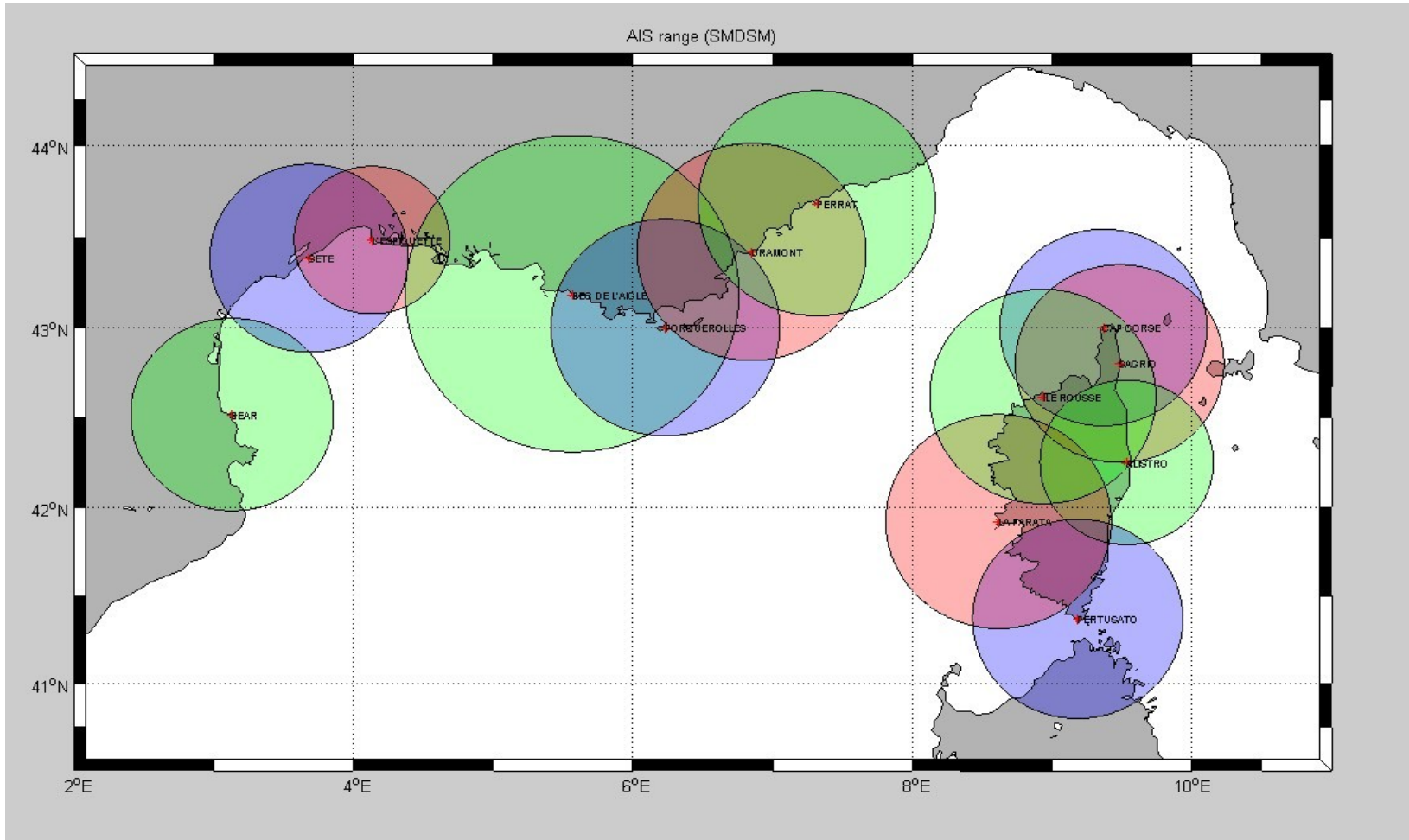


Mediterranean focus

- The maritime affairs radar (Therma - scanner2001)



- ## • The AIS base station network



Data availability

SPATIONAV should be able to export data in a near futur

- ➔ Raw real time AIS data (NMEA sentences)
- ➔ Tracks information after processing
 - Extracted from the merged maritim picture : delayed mode (1 minute).
 - Merged radar & AIS data positions
 - Merged AIS & T2000 static informations



Intended evolutions

- Preparation phase in progress SPATIONAV v2 & v3
- 2009-2010 : signal stations radars upgrade
- After 2010 : extension of the surveillance area by integrating
 - ➔ New sensors (DF, HF radars, satellites, unmanned vehicles, LRIT, ...)
 - ➔ New stake holders:
 - In France (inter-agencies and civil sector)
 - In Europe



Thank you for your attentions...

Some slides are in courtesy of L. Michoux (DGA/SPATIONAV Project Manager) & X. Bertrand (CETMEF)