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Using coastal support and technology to support the fleet

Technology oriented capability development in coastal monitoring

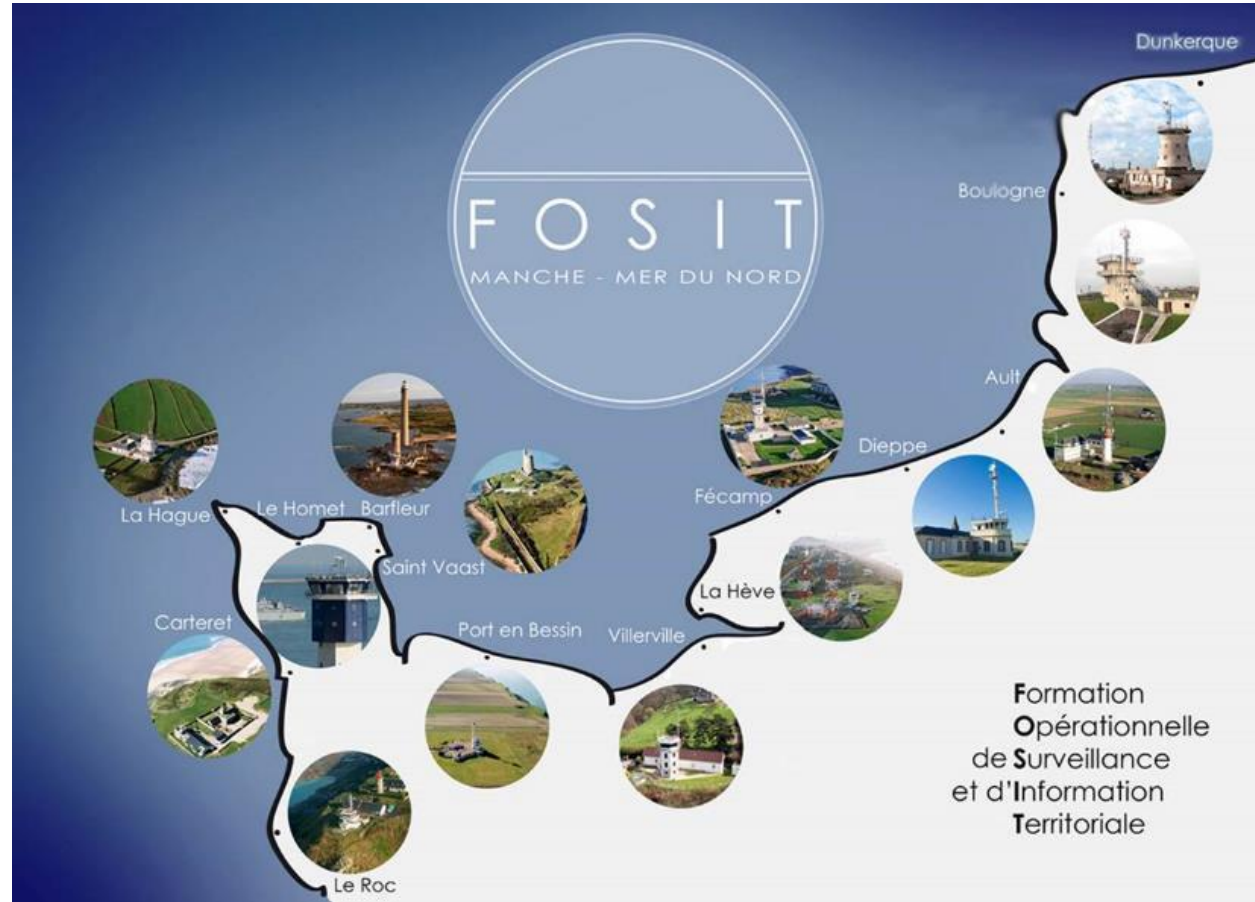


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Maritime surveillance in the Channel – a French perspective





14 *semaphores*

Primary missions:

- 24/7/365 surveillance (RADAR, VHF, optical...);
- Maritime Domain Awareness
- general maritime monitoring missions

Secondary missions:

SAR, vessel traffic monitoring, fisheries surveillance, cultural artefact protection (wrecks...), protected marine areas surveillance...



Maritime surveillance in the Channel – the *status quo*



A two pronged approach :

- coastal monitoring by semaphores / signal stations ;
- 14 signal stations / semaphores + 2 CROSS (MRCC + VTS) ;
- RADAR + optical + networked surveillance system + comms...
- surveillance at sea (vessels / aircrafts).





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Maritime surveillance in the Channel – *key development areas*



A technology driven capability development effort :

Key additional capacities in development :

- Drones (consumer grade) + MILSPEC SUAS ;
- EO/IR systems ;
- Next gen. digital RADAR ;
- (New) mobile semaphore system ;
- AI...



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Maritime surveillance in the Channel – *key development areas*



Centralised / program driven :

- Large scale projects / long term investments ;
- Standardised systems ;
- Top down.

Decentralised / innovation / partnership driven :

- Win-win industry-navy partnerships ;
- « One shot » deployment ;
- Very short capacity building timing.

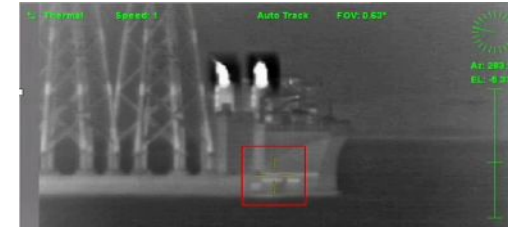




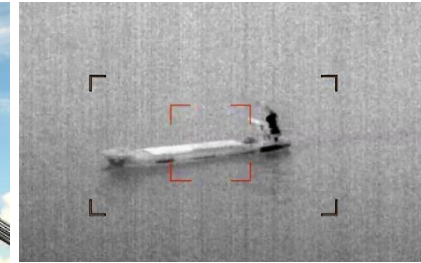
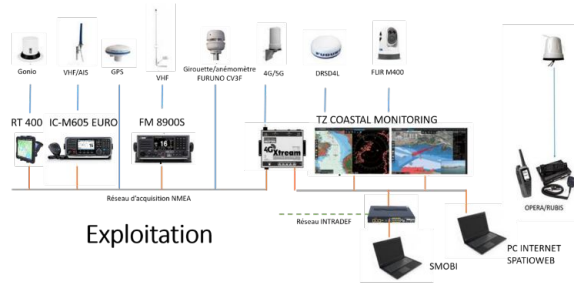
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Maritime surveillance in the Channel – key development areas



Mobile semaphore



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Maritime surveillance in the Channel – the way forward

Current + future acquisition plan:



- Further develop commercial SUAS capability:
 - Consumer grade quadcopters : atm = ANAFI USA;
 - Target : +/- 20 machines (6 remaining for initial target);
- Initial MILSPEC SUAS capability:
 - 2 SURVEYCOPTER ALIACA (SMDM) systems ordered;
- Under consideration : COTS VTOL
 - compatible with FR regulatory framework;
 - Able to operate from populated areas & small take off/landing zones.



Maritime surveillance in the Channel – *done focus*



Coastal drone capacity building:

- a few years in development;
- most semaphores equipped w/ consumer grade drones;
- limited additional recon capability.

SUAS program: a real game changer

- SMDM (Navy mini drone system) = Survey copter ALIACA;
- Channel and North Sea deployment upcoming;
- HR costs VS operational capability gain;
- worthy investment !*





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Maritime surveillance in the Channel – SMDM



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Opportunities for industry input



Program & partnership driven:

- DGA + Program officer (FN HQ);
- FOSIT Channel & North Sea = **testing grounds**;
 - VTOL drone programs;
 - EO/IR camera programs;
 - Payloads (RADAR, cameras, EW...)

Short cycle innovation and capability enhancement





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Thank you for your attention.



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