

THE PPM DU PROJECT

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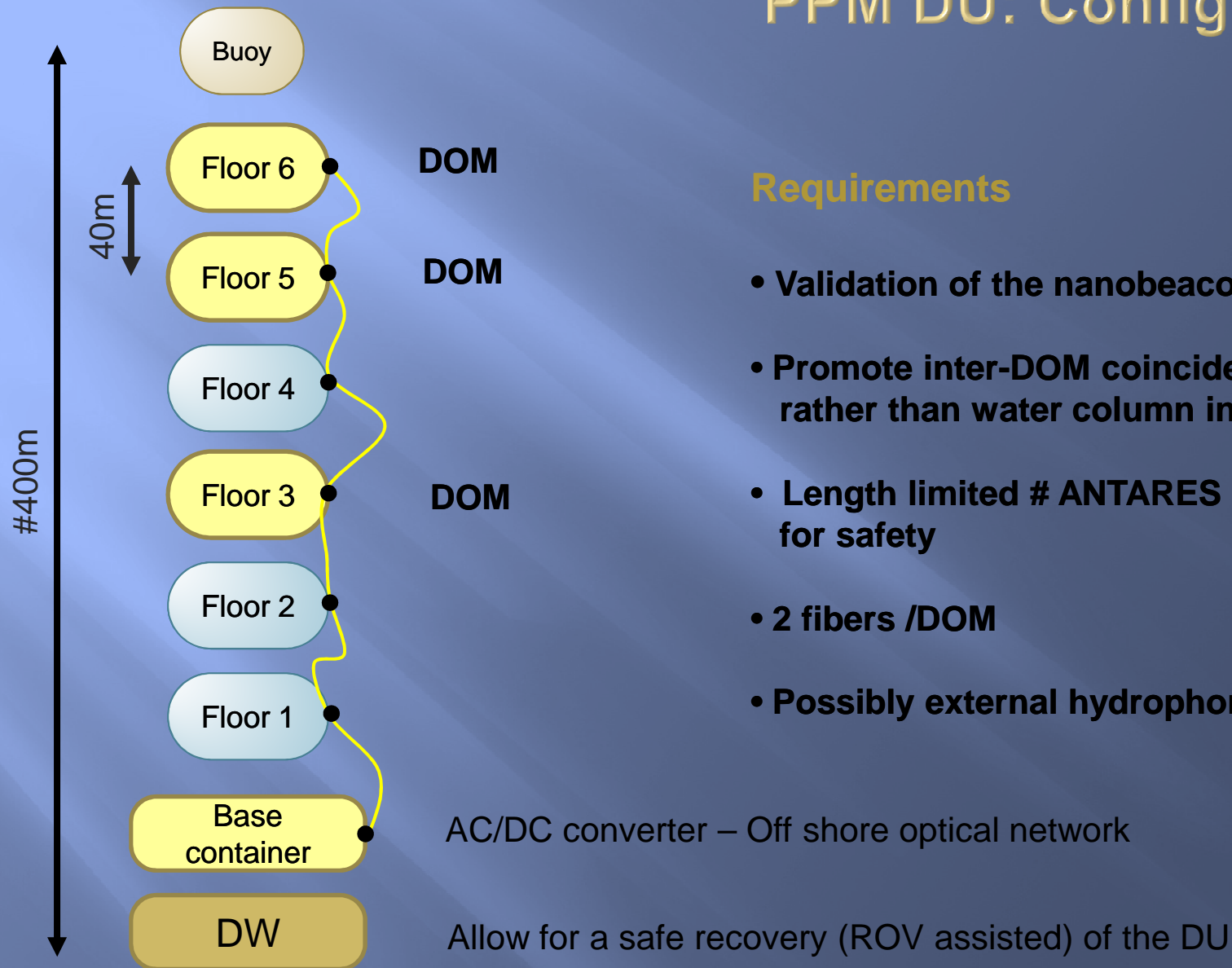
PPM DU: what is it?

A step in the *in situ* validation program of the strings

- VEOC prototype in Atlantic - **nov 12**
- PPM DOM on ANTARES IL12 - **feb13**
- LOM qualification deployment method / PPM VEOC / Full length DU - **apr13**
- **PPM DU – June13 ↔October13**
 - Deployment with LOM
 - Real VEOC/BEOC
 - Power board, acoustic piezo, compass/tilt meter and nanobeacon
 - PMT ETL & Hamamatsu
 - Measurement of PMT single & coincidence rates, time residuals, synchronisation between DOM
 - **No** instrumentation in DU foot
 - **No** Optical fan out module
 - **Obsolete** generation of CLB v1
- Engineering DU →**2014**



PPM DU: Configuration



Requirements

- Validation of the nanobeacon
- Promote inter-DOM coincidences rather than water column investigation
- Length limited # ANTARES line for safety
- 2 fibers /DOM
- Possibly external hydrophones

PPM DU: anchor & base container

ANTARES items package



jumper



Ti cylinder



SPM



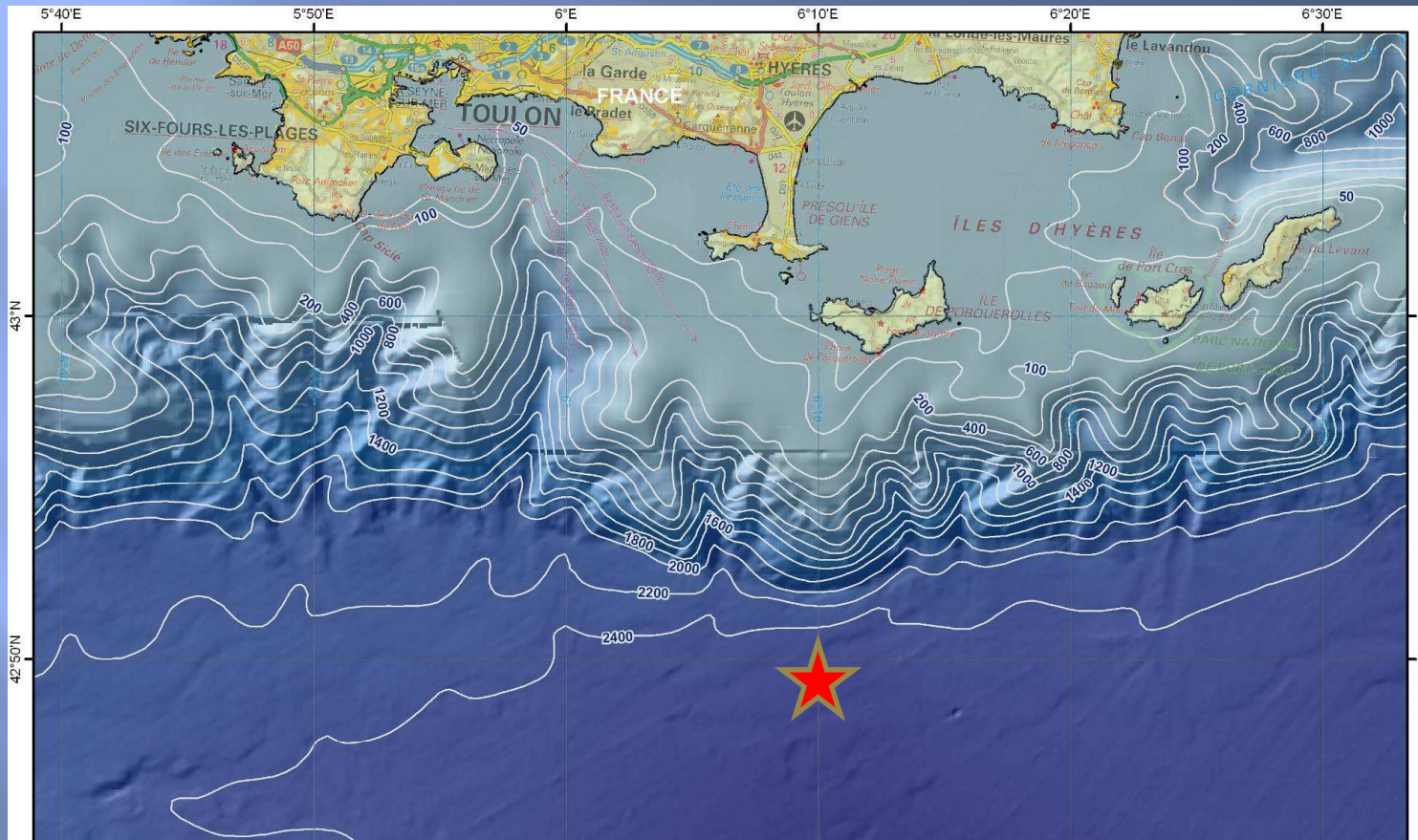
Tool developed on ANTARES IL 12 DW

to match

the APACHE capability

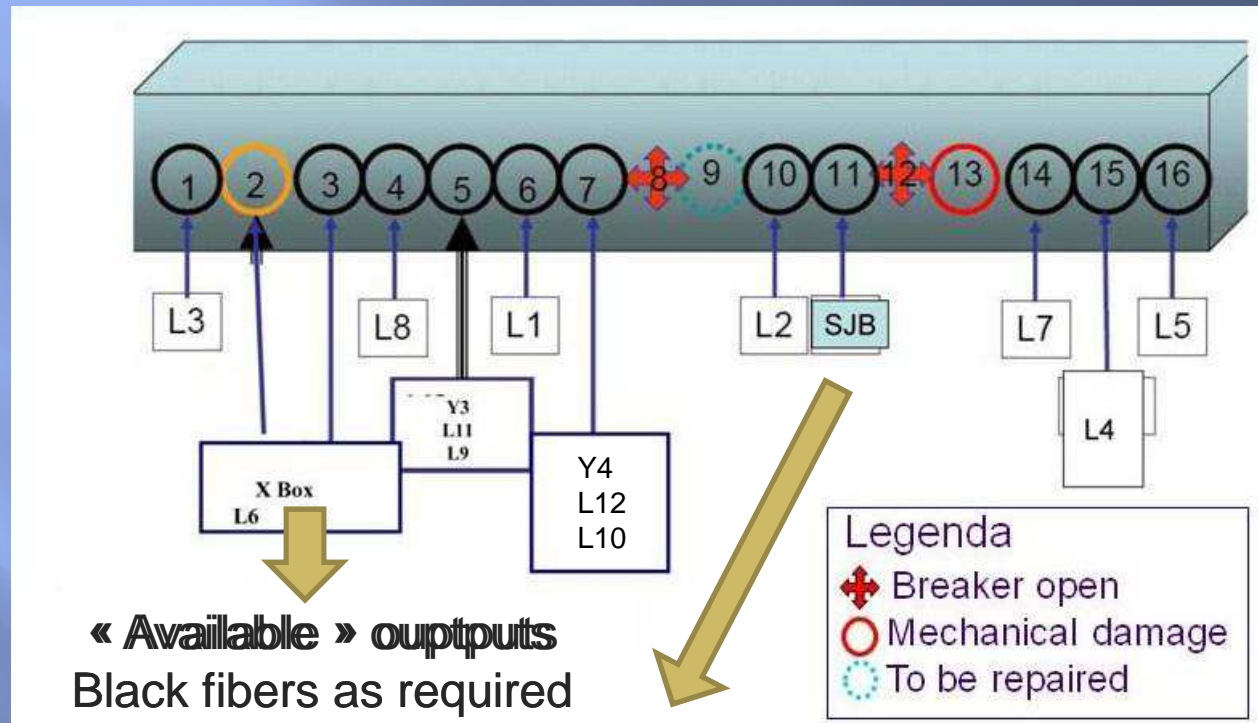


PPM DU on the ANTARES site & JB for \approx 3months...

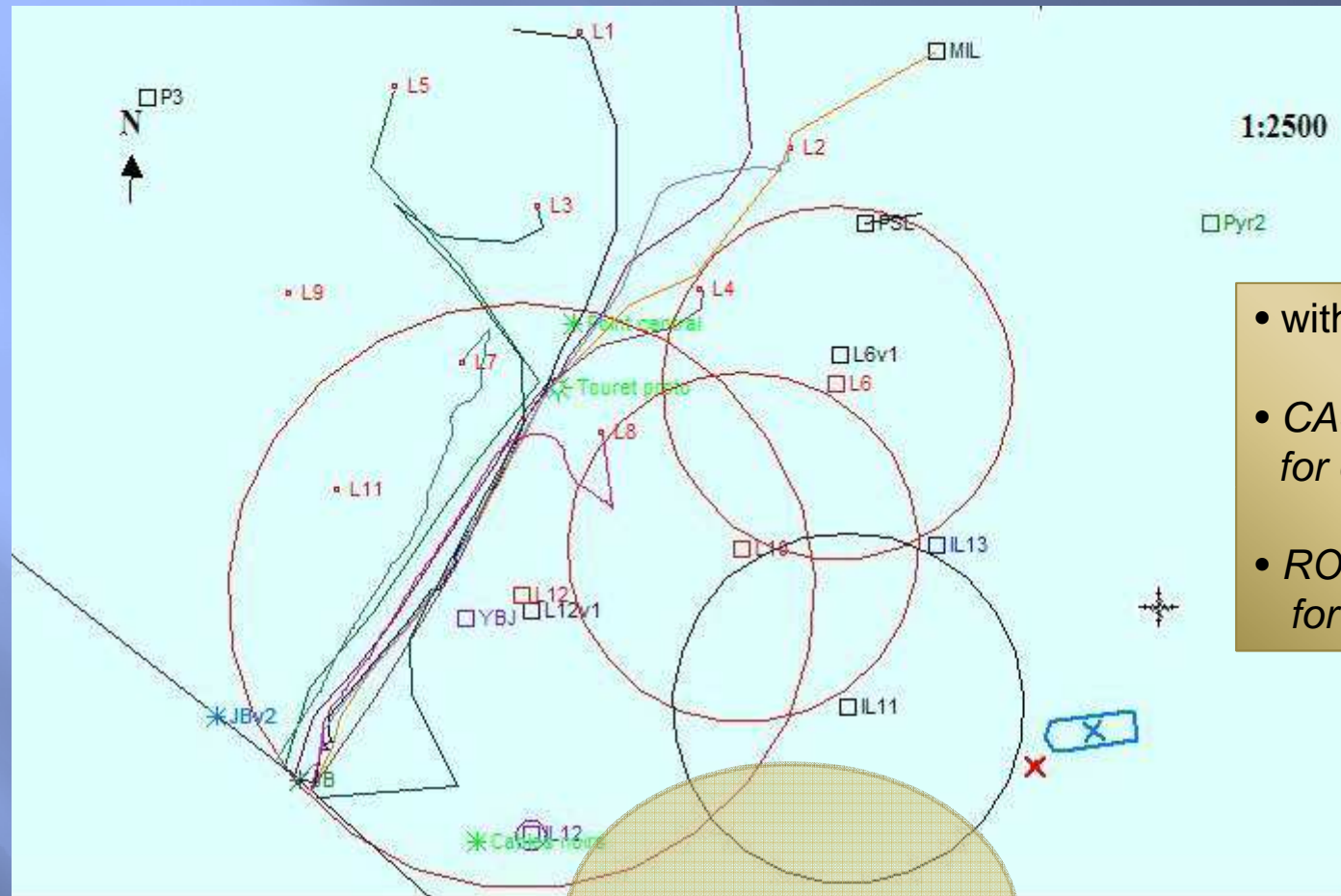


Output	Shore distance	Depth	Ac. positionning	Sea current estimation	Laser Beac.
1 +1	42km	2500m	operationnal	OK	operationnal

PPM DU on the ANTARES site & JB



PPM DU on the ANTARES site & JB



- with IL IC 13 (350m)
- *CASTOR*
for deployment
- *ROV Apache*
for connection

Possible area

Planning

	Jan13	Feb13	Mar13	Apr13	May13	Jun13	Jul13	Aug13	Sep13
Sea qualification (mech. DU)				XX..					
DOMs assembly		.. XX	XXXX	XXXX					
Optical network	XXXX	XXXX	XXXX	XX					
Anchor design		XXXX	XXXX	XXXX					
Base container		XXXX	XXXX	XXXX					
VEOC production	XXXX	XXXX	XX..						
DU lab. tests					XXXX				
Assembly						XXXX			
Deployment							X...		
Operations							XX	XXXX	XXXX

Questions, remarks & Conclusion

- How to recover PPM DU ?
- Further connection to Capo Passero ?
- Where to assemble PPM DU ? CPPM / NIKHEF ?
- When to recover PPM DU ?
- Physicist for DAQ & data analysis?

- km3net phase 1 wiki pages:
<http://wiki.km3net.physik.uni-erlangen.de/index.php/KM3NeT-phase1>

- Critical path:
DOM assembly + tests, some optical components

- No Human Ressources: Monitoring, soft, PC farm shore station

- See dedicated talk:
 - «PPM DU optical network» - Jan Willem Schmelling
 - « Spring deployment test programme » - Paul Kojiman
 - « Progress on the VEOC» - Paul Kojiman