



ONE DAY
ALL BOATS
WILL FLY

ÉRIC TABARLY 1987

Bertrand CASTELNERAC

Co Founder – R&D Director – Coxswain – Sea Trials Manager



SEAir







30 m Crew Transfer Vessel

New generation wind farm CTV prototype :

- Light composite catamaran
- SEAir hydrofoils systems
- Vertical propeller
- Low emission propulsion energy
- Dynamic positioning system



E-DIDP 2020: *Call for tenders* European 20/25 m Foiling fast response craft



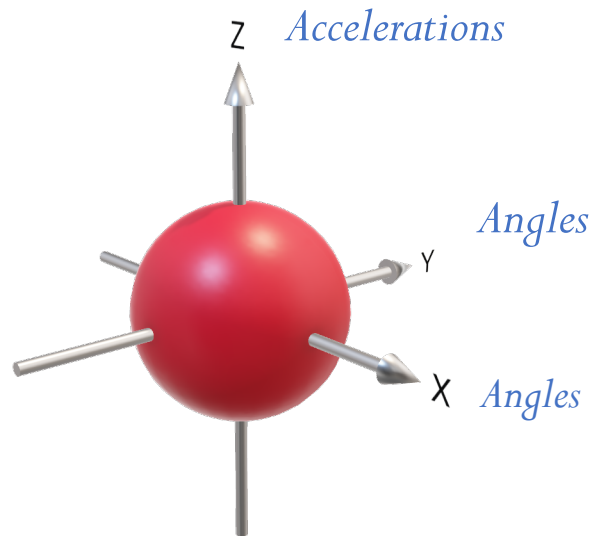
**European military project led
by SEAir with the official
support of 3 European States**



- Troop transport
- Hybrid propulsion
- 50 kts offshore

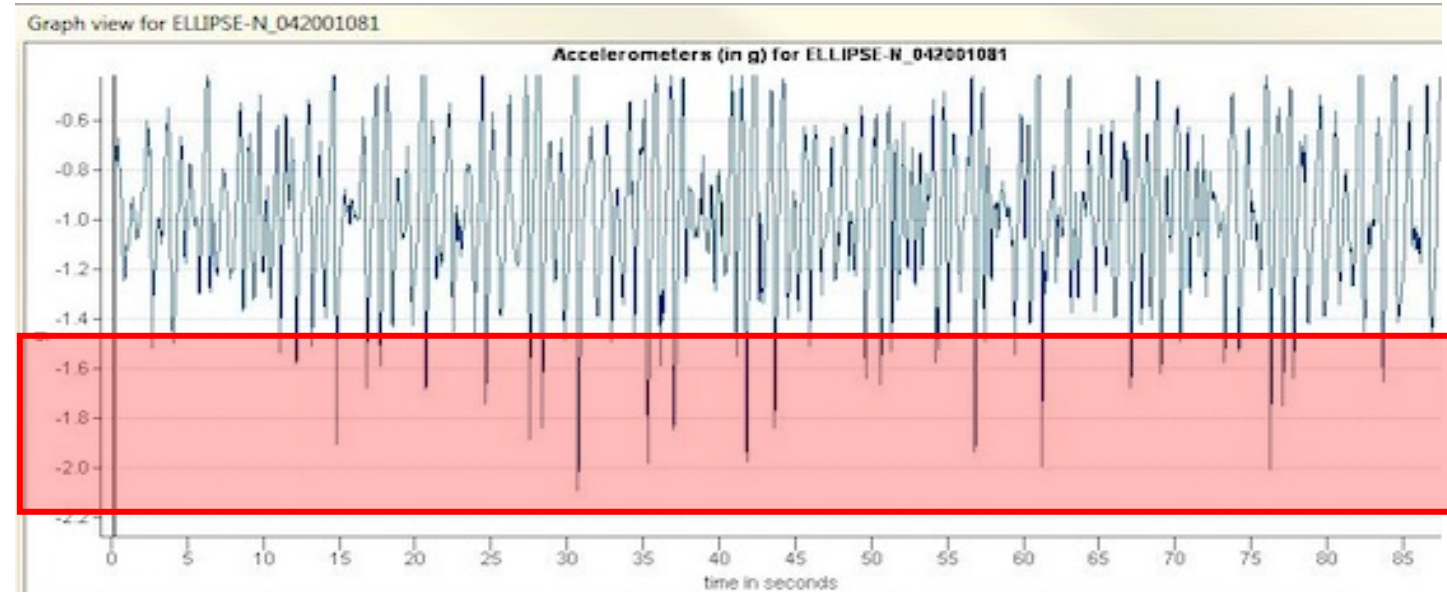
Data recording

- Inertial sensor
- 20 Htz GPS
- Engine recording device

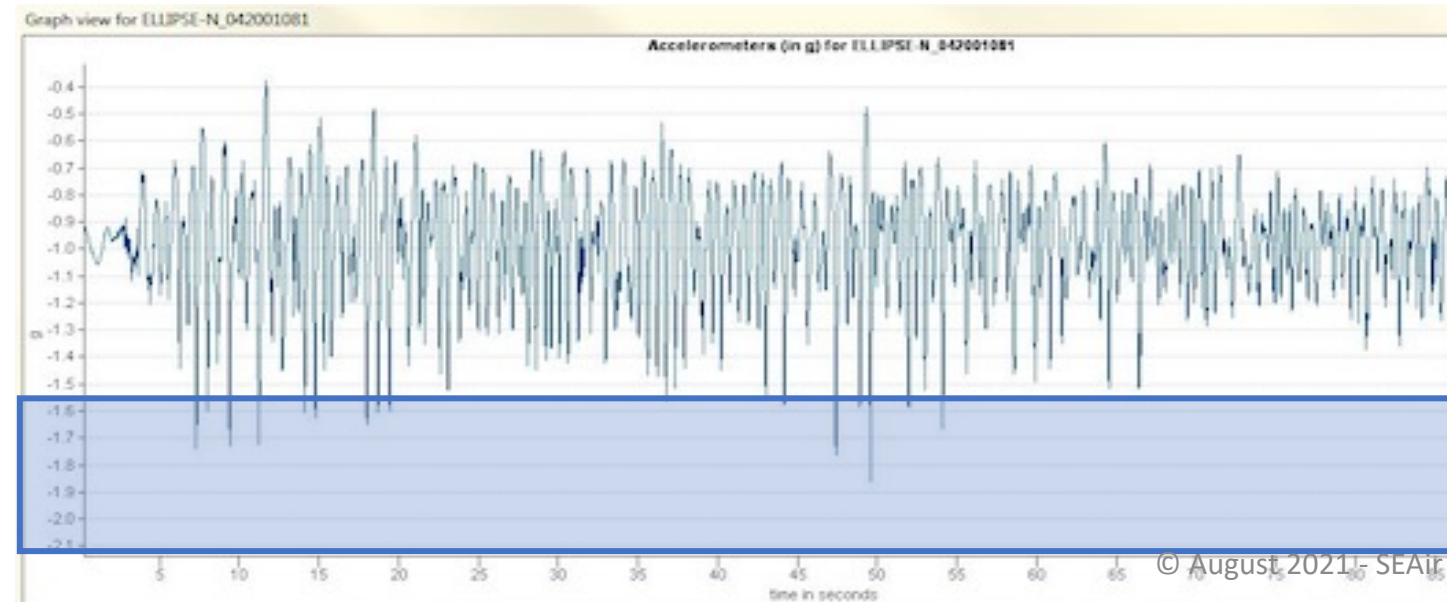


- Vertical accelerations
- Shocks over 1,6 G
- Head Sea - Level 2
- 20 knots
- 90 second run cut

Retracted foils :
21 chocs – max 2 G



With foils :
7 chocs – max 1,8 G



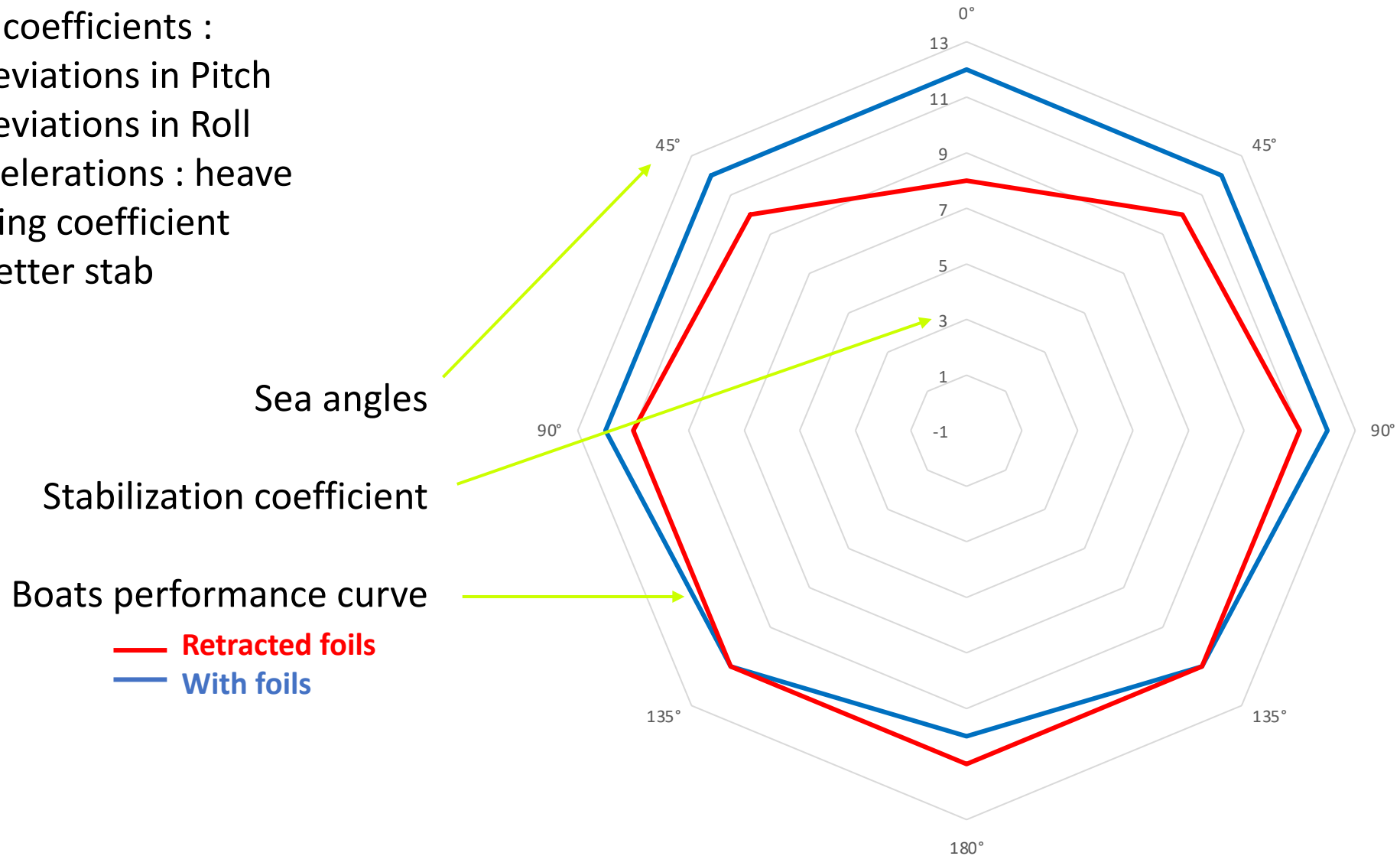
- ➔ Shocks reduction by 67%
- ➔ G reduction by 10%

Sum of stability coefficients :

1. Standard deviations in Pitch
2. Standard deviations in Roll
3. Vertical accelerations : heave

Without weighting coefficient

Higher Coef = Better stab



1. Analysis based on SEAir boat motions with highly sensitive sensors.
2. The IC graph clearly shows significant shock mitigation.
3. The polar stab coefficient method give us a global view.
4. Further work is ongoing to link the analysis to motion **induced fatigue**, **cognitive capacity** and chronic **musculoskeletal injury**.
5. Human sensor and factor : piloting skills, automatics, etc, must be considered to improve the stability with foils.
6. As a great benefit, the foils helps reducing the fuel bill : able to sail 280 Nm instead of 200 Nm at 25 kts speed.

We can bring our own expertise to measure your boats stability and study the possibility to upgrade its performance





ONE DAY
ALL BOATS
WILL FLY

ÉRIC TABARLY 1987

Bertrand CASTELNERAC

bertrand@seair.fr + 33 (0)6 62 46 17 88