



**DEFENCE**

**RESCUE**

**COASTGUARDS**

**OIL & GAS**

**PASSENGER TRANSPORT**

**CUSTOM...**



**KEEP FOCUSED ON YOUR MISSIONS**

**IMPROVED  
PERFORMANCE**

**SHOCK MITIGATION:  
LESS FATIGUE & INJURY RATE**

**SEA***Air*  
FLYING BOAT

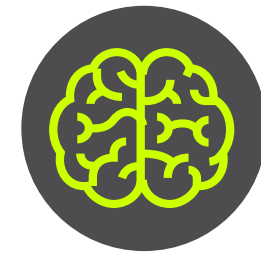


# FOILS BENEFITS

Significant improved navigation conditions for crew on board.  
Underwater wings are used to lift the boat 20 cm above the water surface.



## SUBSTANTIAL REDUCTION OF FATIGUE & INJURIES



## ENHANCED COGNITIVE BENEFITS



## ENHANCED PERFORMANCE

- +20% average speed
- -20% to -35% fuel consumption depending on the payload and sea state
- Increased operating range at sea by at least 20%

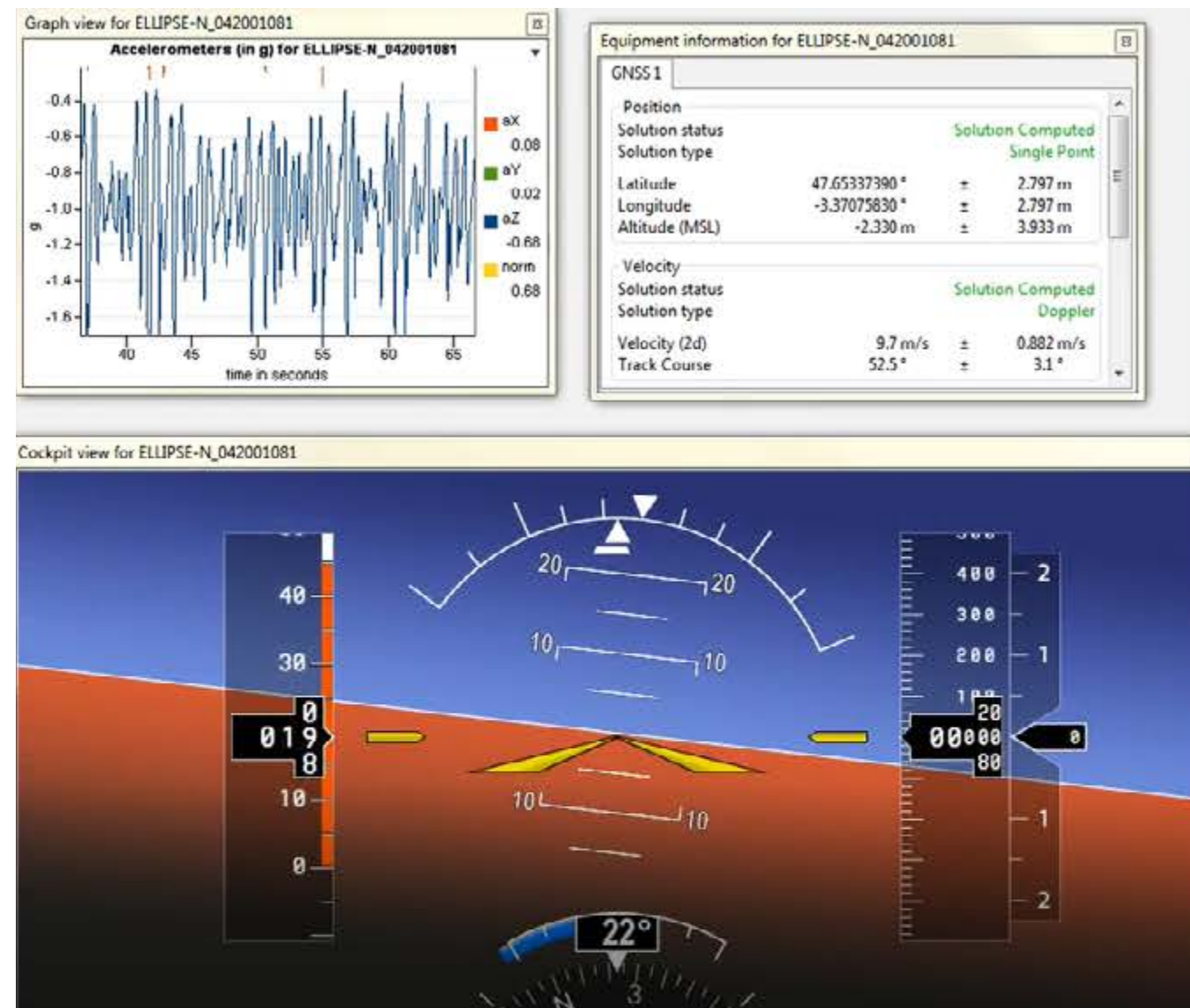


## SEA-KEEPING PERFORMANCE & EFFICIENCY EVEN IN ROUGH CONDITIONS

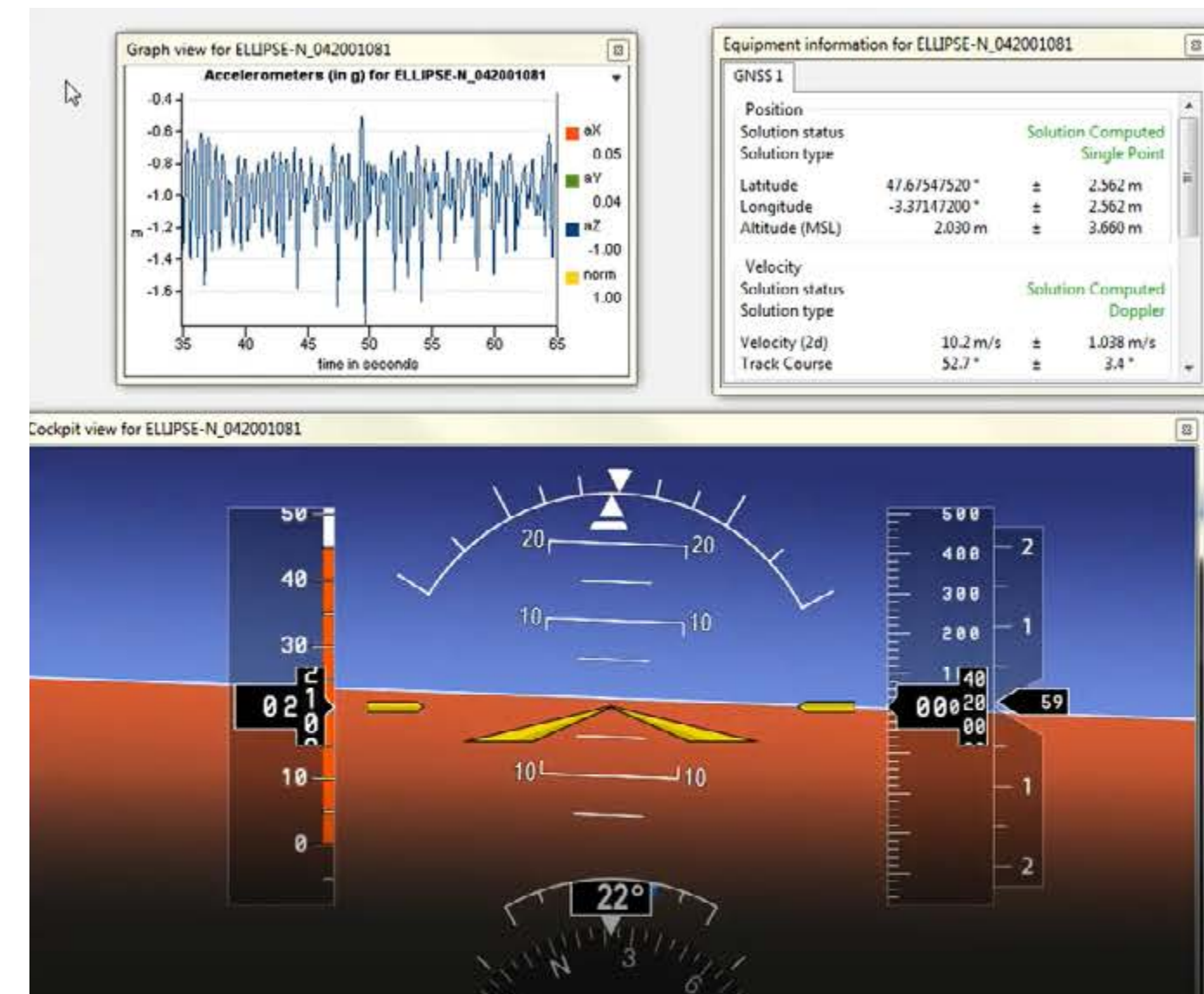
- Quiet running & discretion (less drag, less waves, less noise)
- Safety on board in the most demanding conditions during missions
- Increased stability: shooting during navigation (guns, missiles guidance, ...), better data acquisition for USV

# INCREASED STABILITY & SEA-KEEPING PERFORMANCE

Data comparison of a navigation on Airshark 7.65 - Sea state 2 - Facing sea



WITHOUT FOILS



WITH FOILS

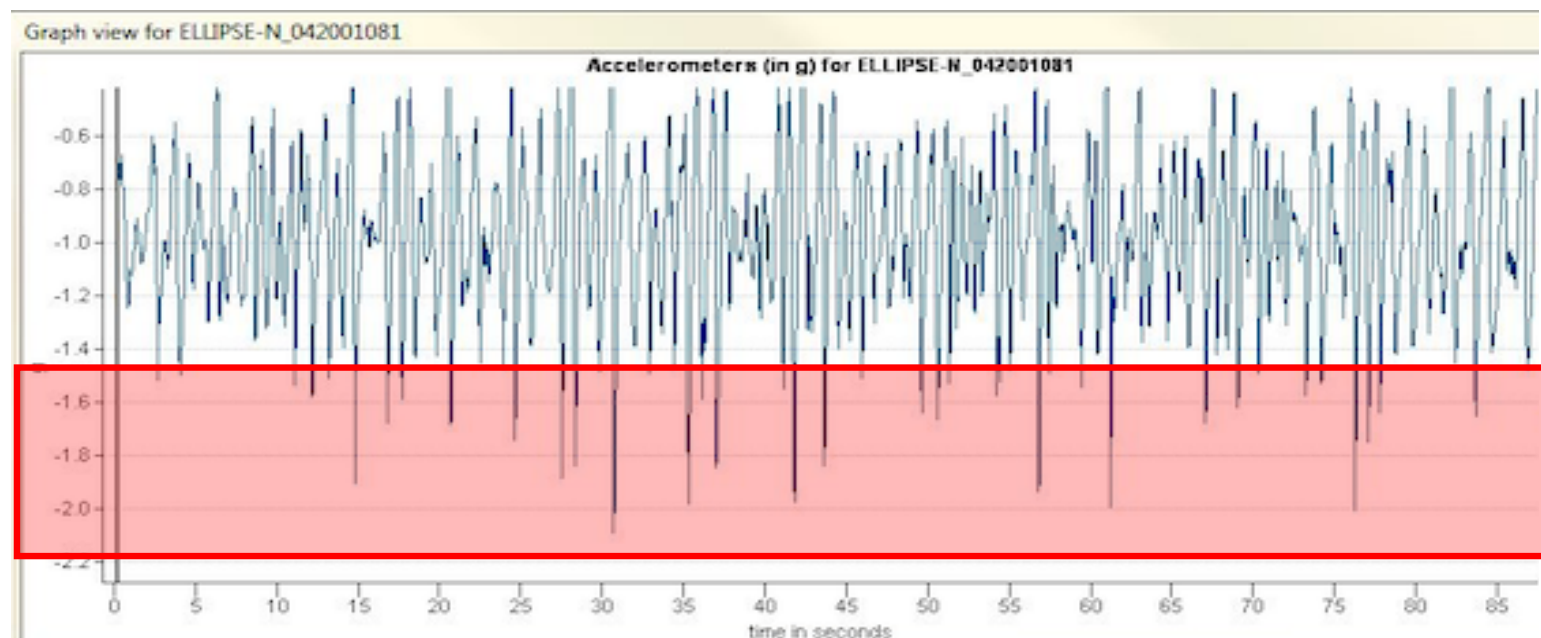


# IMPACT COUNTING METHOD

Testimonial of a Special Forces Pilot following a navigation with waves of about 1.2m/1.4m at 30-35 kts:

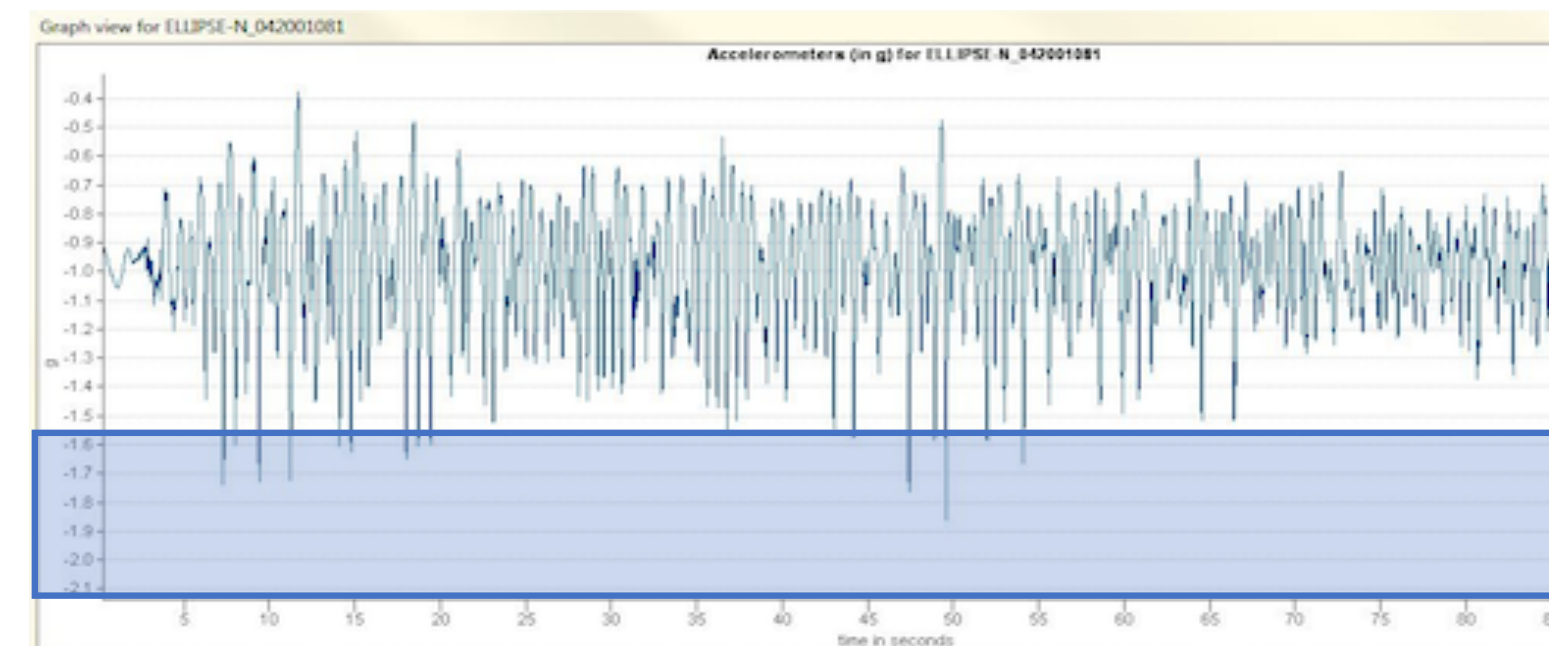
*"Incredible sensations with your systems !  
I'm very impressed."* (Oct.-2020)

Facing Sea - Level 2 measures campaign :



RETRACTED FOILS : 21 CHOCS – MAX 2 G

- Vertical accelerations
- Shocks over 1,6 G
- 20 knots
- 90 second run cut



WITH FOILS : 7 CHOCS – MAX 1,8 G

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

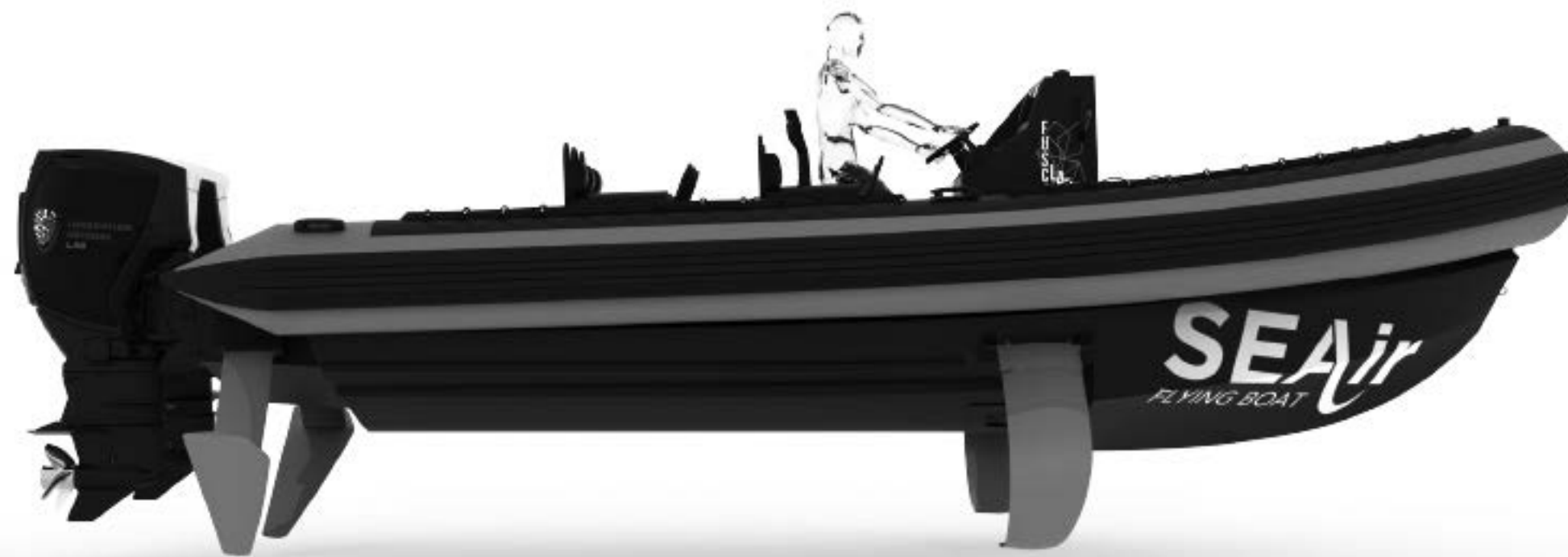
SEA STATE	2	3	4
COMFORT	+++	++	+



# PROJECT 2020: E-FLYCO, AN ASSAULT FLYING RIB



PROJECT CARRIED OUT WITH THE FRENCH SPECIAL FORCES



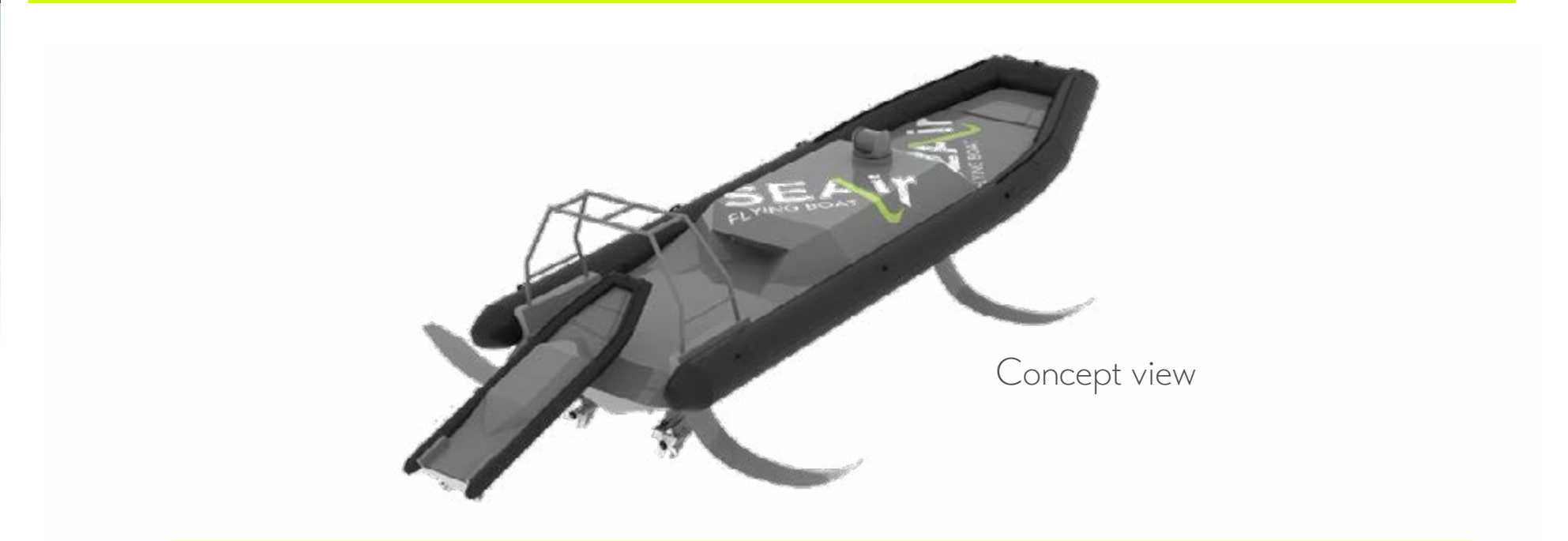
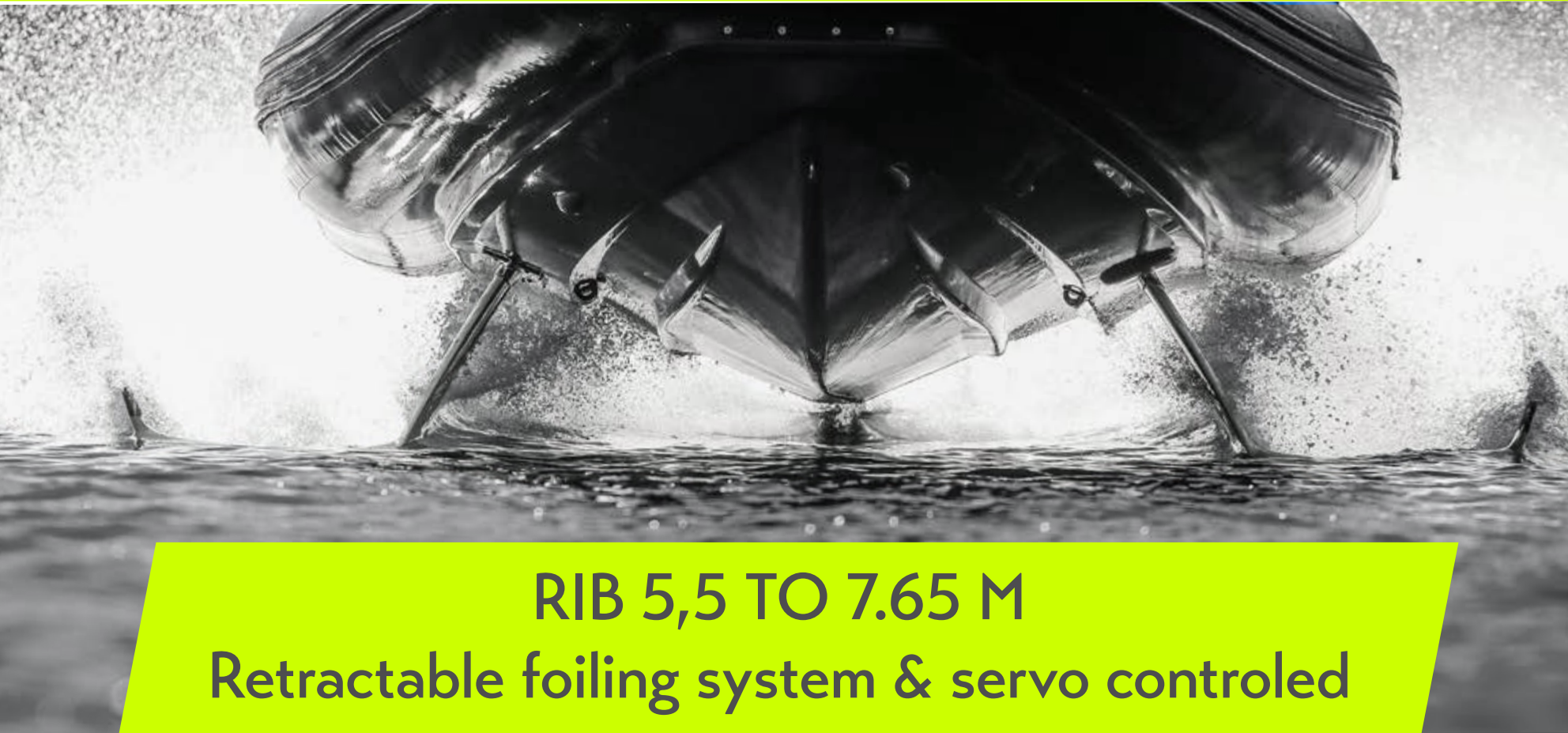
[VIEW THE PROJECT DESCRIPTION](#)



- ▶ A MODIFIED ETRACO
- ▶ SUITABLE FOR VIOLENT ASSAULTS
  - Hull & deck flush
  - Fully retractable foils
  - Hydraulic raising/lowering of the front foils
  - Hydro-electric regulation of the rear foils
- ▶ LAUNCHING: DEC. 2020



# FURTHER EXAMPLES OF FOILS APPLICATION





# AT THE HEART OF INNOVATION

2016

UNION INTERNATIONALE  
MOTONAUTIQUE  
"Special Green mention"



2017

WORLD PREMIERE  
First Flying RIB



2018

ADEME  
"French Government  
Green Agency"



2019

INNOVATION OF THE YEAR  
French Army - Special Forces



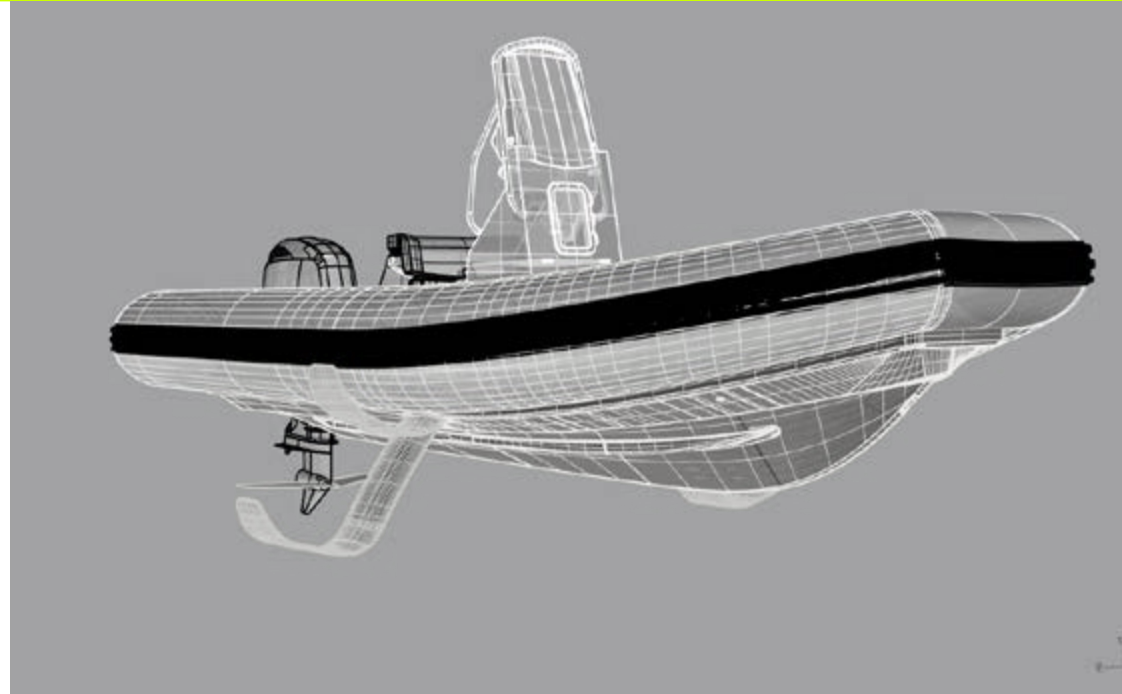
2020

E-FLYCO PROJECT





# TECHNICAL ANSWERS



## FIELDS OF EXPERTISE

- ▶ Naval architecture
- ▶ Servo control engineering
- ▶ Composite manufacturing (classic or robot mode)
- ▶ Prototyping



## DESIGN OFFICE

- ▶ Collaborating with boat builders
- ▶ Study and design
- ▶ Data analysis
- ▶ Simulations: VPP, CFD, FEA

***EXPERT IN DESIGN & MANUFACTURING  
STABILIZATION SOLUTIONS FOR MOTORBOATS***



# OUR ACTIVITY

## PROJECTS

### RESEARCH AND INNOVATION

#### ► OUR OFFER

- Customized studies
- R & D
- Proof of concept and prototypes
- Other projects

#### ► A SPECIFIC EXPERTISE ON SHOCK MITIGATION ON ALL TYPES OF BOATS

- Custom measurements
- Data analysis and debriefing





# SEAir

FLYING BOAT



---

[www.seair-boat.com](http://www.seair-boat.com)

## YOUR CONTACT

Christine Perrot Cornu    [christine@seair.fr](mailto:christine@seair.fr)  
Head of Sales & Business development    +33 6 10 45 71 12

---

10, rue Chalutier Les 2 Anges • 56100 Lorient • France  
+33 (0)9 72 60 10 84

SEAir - SAS au capital de 433.924 € - RCS de Lorient: 819 778 838