



KEEP FOCUSED ON YOUR MISSIONS

IMPROVED PERFORMANCE

SHOCK MITIGATION: LESS FATIGUE & INJURY RATE





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 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%



ENHANCED COGNITIVE BENEFITS



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 FT 80 Facing Sea - State 2





WITHOUT FOILS



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

"Incredible sensations with your systems ! I'm very impressed."

SHOCK MITIGATION

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

Measures campain Facing Sea - State 2



Vertical accelerations

Shocks over 1,6 G

- 20 knots 90 second run cut
- INJURY SITES AMONG **SOCOM** HIGH SPEED BOAT OPERATORS

154 sailors monitored:

- 121 violent impacts recorded
- 100 (64,9%) experienced at least 1 violent impact

Out of these 100, 11 sailors reported 2 and 5 sailors reported 3

WITH FOILS : 7 CHOCS - MAX 1,8 G



Shocks reduction by 67%
G reduction by 10%



FAST VESSEL, RIB OR USV

E-FLYCO



USV MOTHER-SHIP



TRANSFLYTOR







E-FLYCO an assault flying RIB

Project carried out with the French special forces

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







A new generation of vessel with retractable hydrofoils

TRANSFLYTOR a 20 m fast vessel

SPEED AUTONOMY STEALTHY

- COASTAL / HIGH SEA TARGET
- NAVAL SPECIAL OPERATIONS
- MARITIME DEFENCE OPERATIONS
- OPERATIONAL AGILITY FOR 2AD & HYBRID WARFARE CONTEXTS
 High intensity / terrorism / piracy / traffics
 illicit activities / other agressions







EXTENDED CAPABILITIES FOR NAVAL SPECIAL OPERATIONS AND MARITIME DEFENCE

FAST STEALTH INFILTRATION/EXFILTRATION OF SOF & ISR ASSETS

FAST ON SCENE ACTION: SURFACE & SUBSURFACE



ACTICAL

yload

FT 80 a versatile RIB

Keep focused on your missions

- EQUIPPED WITH RETRACTABLE
 AND SERVO-CONTROLLED
 HYDROFOILS
- DEDICATED TO CIVIL, PROFESSIONAL, COMMERCIAL AND DEFENCE USAGE



SURCOUF a high-performance USV Mothership

A versatile USV equipped with hydrofoils to enhance the tactical projection of a highly specialized USV, UAV, or other equipment

- GREATER STABILITY = ELECTRONIC SENSORS ACCURACY: IMPROVED DETECTION AND AVOIDANCE CAPABILITIES
- FUEL ECONOMY = LONGER RANGE
- ► FASTER = OPERATIONAL BENEFITS







TECHNICAL ANSWERS

Expert in design & manufacturing stabilization solutions for motorboats



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

OUR ACTIVITY

Projects, research & 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



AT THE HEART OF INNOVATION

2016 2017 2018 2019 2020 2022

UNION INTERNATIONALE MOTONAUTIQUE "Special Green mention"



WORLD PREMIERE First Flying RIB



ADEME "French Government Green Agency"



INNOVATION OF THE YEAR French Army - Special Forces



E-FLYCO PROJECT



TRANSFLYTOR European Defence Agency project



SEA IT

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