

FLEMING

F85-009

HUMPHREE®

Sea trial report

Length overall
25.9 meter

Displacement
74,690 kg

Date of issue
2026-01-22

Sea conditions
Moderate

Interceptors
2 × custom HE800

Fin
1.5 m² carbon fiber fin

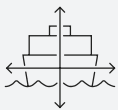
Gyro
3 × QUICK MC2 X19

1.5 M² CARBON FIBER FIN



UNDERWAY

10 kn stabilization

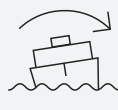


67.7%

Roll reduction

TURNS

10 kn stabilization

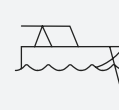


29.74%

List angle reduction

ZERO SPEED

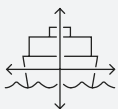
Bow anchor



70.1%

Roll reduction

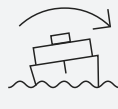
20 kn stabilization



70.4%

Roll reduction

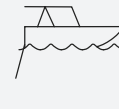
20 kn stabilization



57.24%

List angle reduction

Stern anchor



74%

Roll reduction



UNDERWAY STABILIZATION

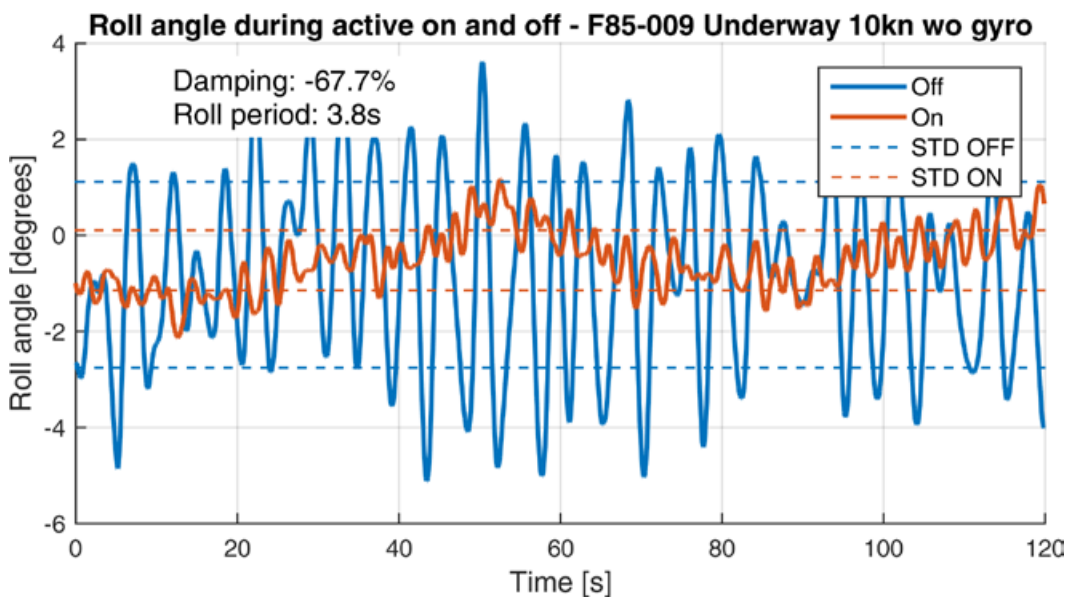
10 kn

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Underway performance is delivered by the fins, and the impact of the gyro underway seems to be negligible.

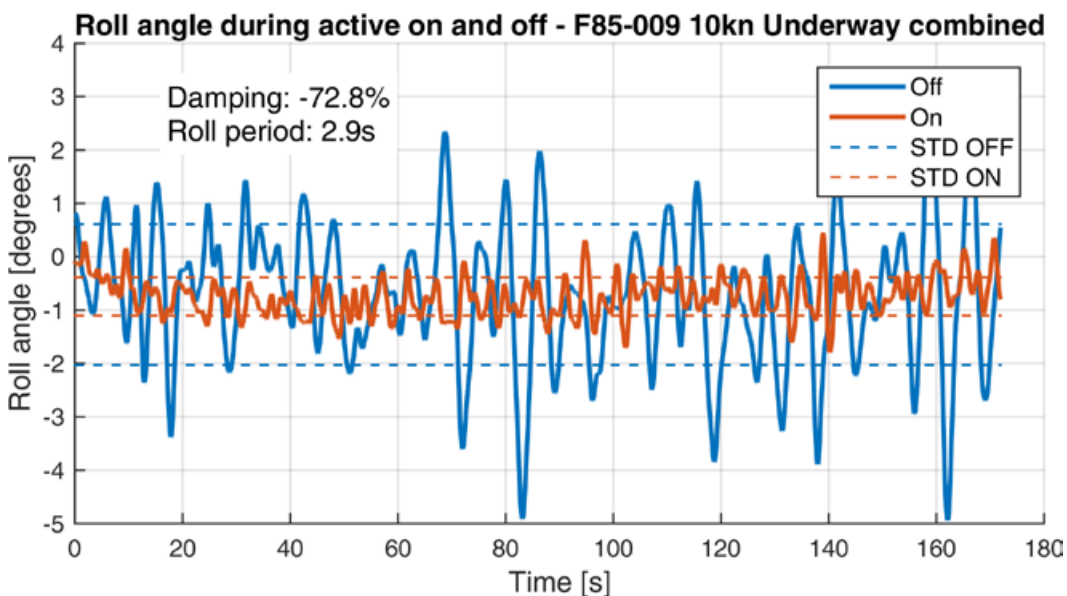
NO GYRO

Roll	Off	On	67.7%
Std dev	1.93	0.63	Roll reduction only fins



COMBINED

Roll	Off	On	72.8%
Std dev	1.32	0.36	Roll reduction combined with fins and gyro



UNDERWAY STABILIZATION

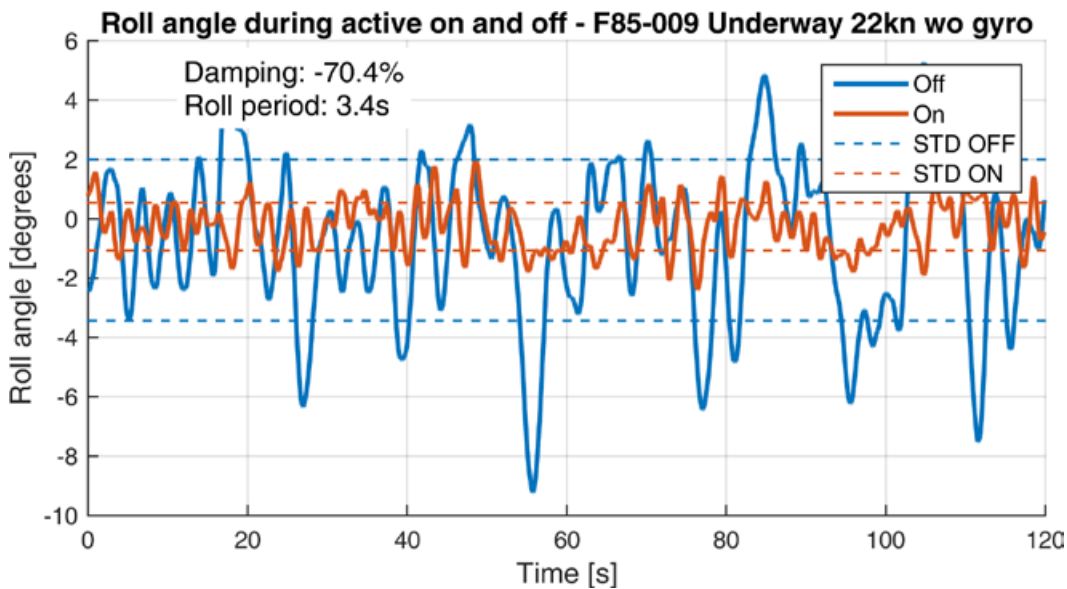
20 kn

HUMPHREE®

Underway performance is delivered by the fins, and the impact of the gyro underway seems to be negligible.

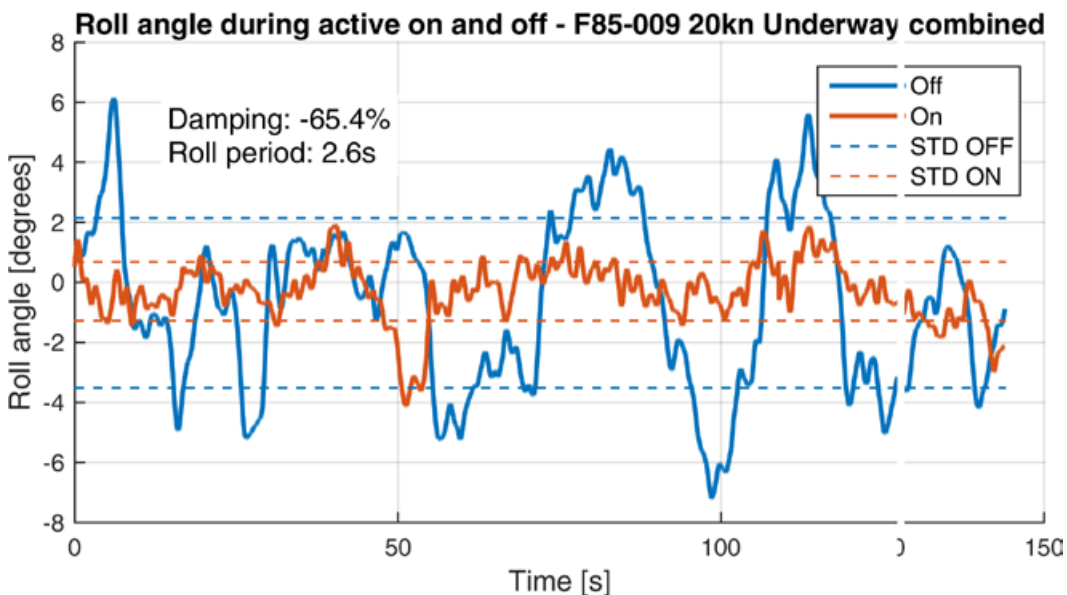
NO GYRO

Roll Off On **70.4%**
Std dev 2.71 0.80 Roll reduction only fins



COMBINED

Roll Off On **65.4%**
Std dev 2.82 0.97 Roll reduction combined with fins and gyro



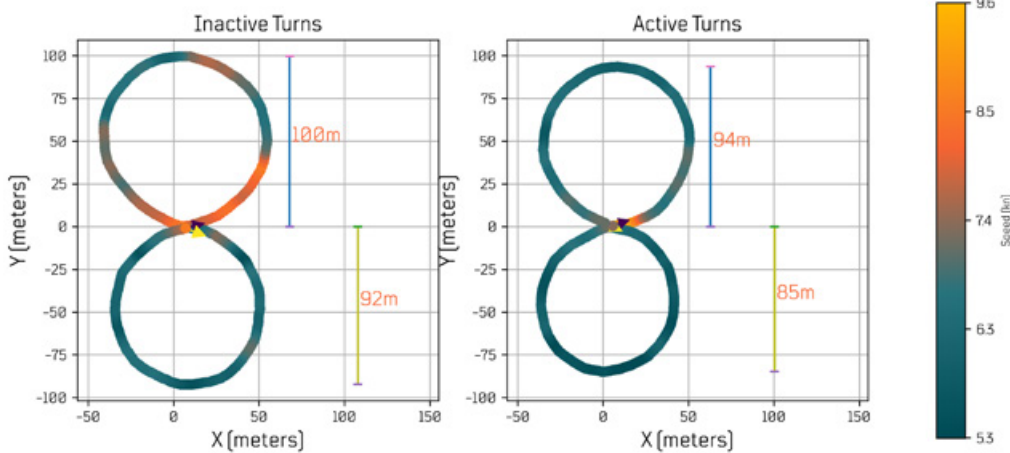
TURNS

10 kn

Turns show significant reduction in heel angle with the Humphree system on, to a pleasant level. The gyros had no effect on turning performance.

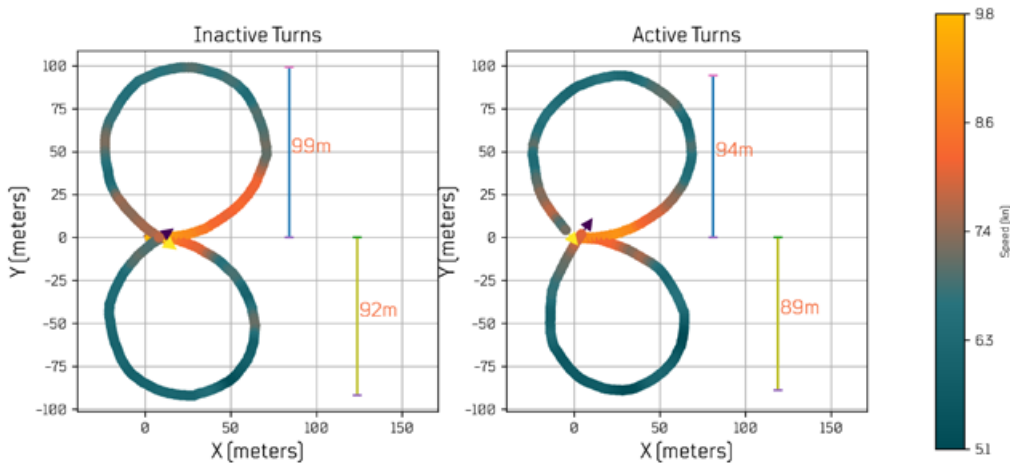
NO GYRO

Turn Off On **29.74%**
List angle 2.32° 1.63° List angle reduction



COMBINED

Turn Off On **28.77%**
List angle 2.23° 1.59° List angle reduction combined with fins and gyro



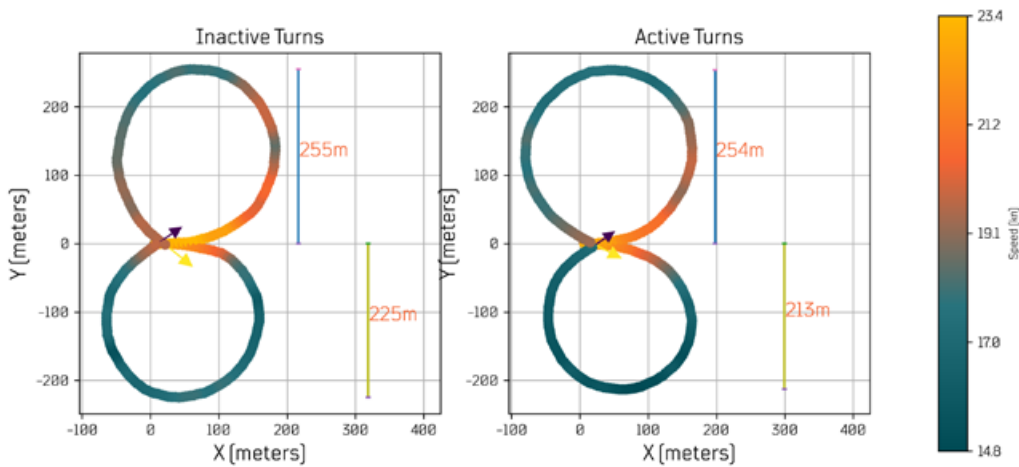
URNS

20 kn

Turns show significant reduction in heel angle with the Humphree system on, to a pleasant level. The gyros had no effect on turning performance.

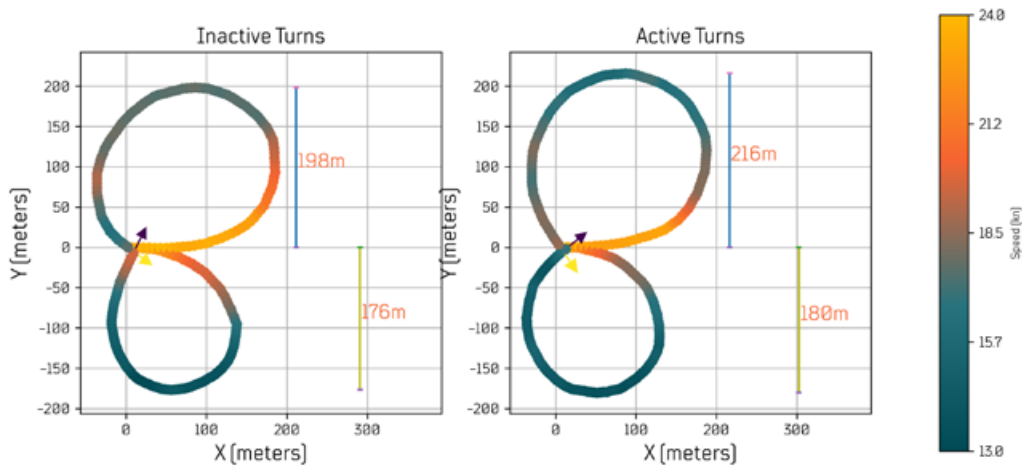
NO GYRO

Turn Off On **57.24%**
List angle 2.08° 0.89° List angle reduction



COMBINED

Turn Off On **55.05%**
List angle 2.36° 1.06° List angle reduction combined with fins and gyro



ZERO SPEED STABILIZATION

HUMPHREE®

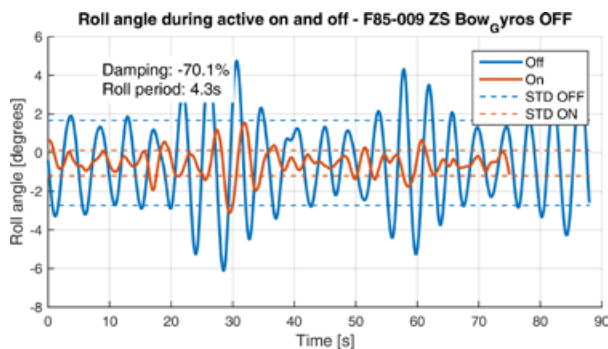
Fins show great performance on their own. In the combined case with the gyros we see slightly shorter wavelength which in general is tougher to stabilize. The performance combined is still good, and from the data there is no reason to believe the Humphree system is not working well together with the gyros, at least they are

not interfering with one another. That of course, is something we can't be 100% sure of out of the data. Looking at the gyros own performance, we're seeing waves during the recording that indicate a wavelength of 4.8 seconds and a noticeable effect, but easier condition to stabilize.

HUMPHREE ONLY NO GYRO

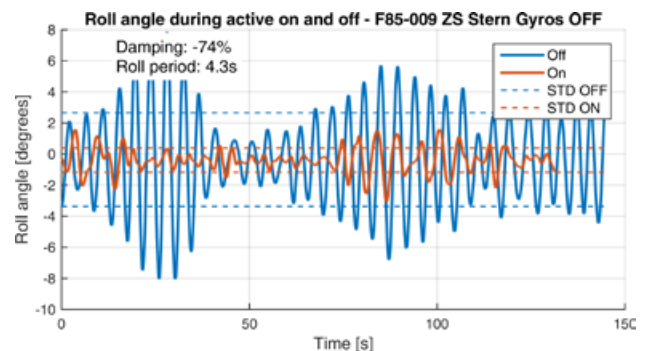
BOW ANCHOR

Zero speed Off On **70.1%**
Std dev 2.20° 0.65° Roll reduction



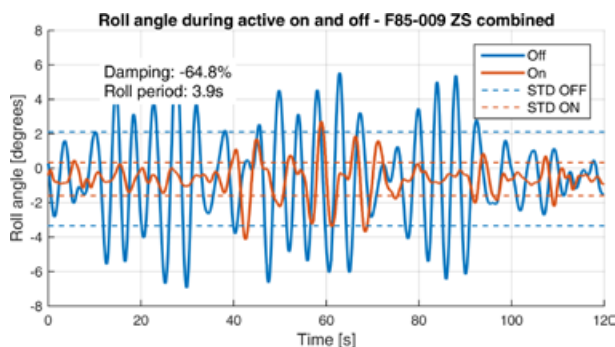
STERN ANCHOR

Zero speed Off On **74%**
Std dev 3.00° 0.78° Roll reduction



COMBINED

Zero speed Off On **64.8%**
Std dev 2.72° 0.96° Roll reduction



ONLY GYRO

Zero speed Off On **64.4%**
Std dev 3.36° 1.19° Roll reduction

