

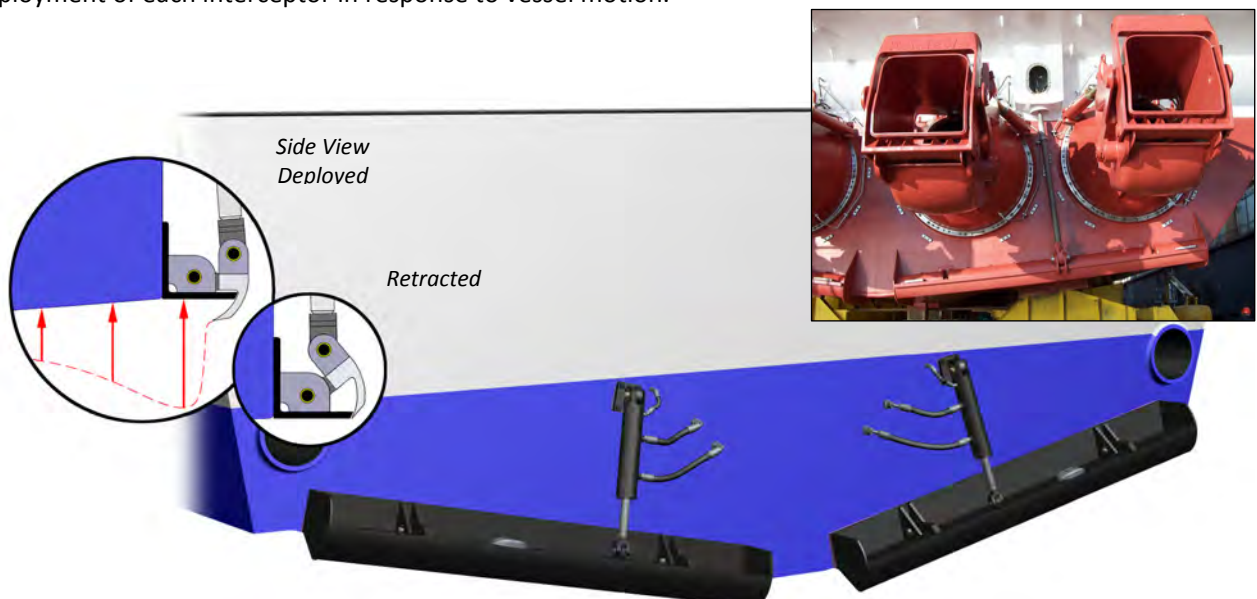
Active Motion Interceptors

Ride Control System for High Speed Vessels

Naiad Dynamics, the world leader in marine motion control solutions, introduces the Motion Interceptor Ride Control System: a low cost, low power consumption, low weight ride control system for high speed (20 to 60 knot) vessels from 10 to 100+ meters (30 to 300+ ft.). The system provides roll and pitch control, and continuously optimizes running attitude for improved speed, better fuel economy and extended range.

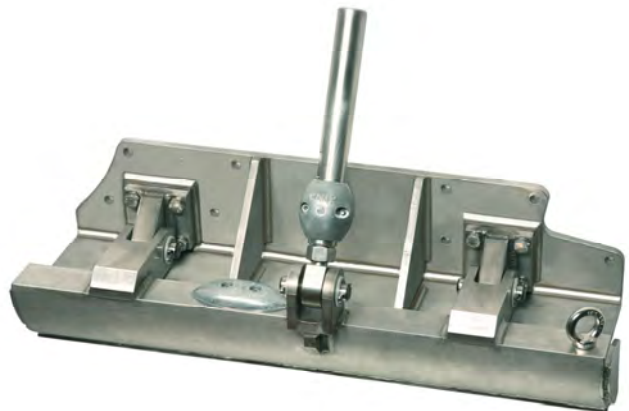
How Interceptors Work

Naiad's Interceptor Ride Control System consists of a pair of transom-mounted blades that are hydraulically or electrically actuated, and controlled by the proven Naiad DATUM™ motion control system. Interceptors generate an increase in pressure on the hull bottom directly ahead of the transom by intercepting the water flow to a greater or lesser degree in continuous proportion to vessel motions. The resulting forces make it possible to simultaneously damp both roll and pitch motions, and optimize running trim, by automatically varying the deployment of each interceptor in response to vessel motion.



Compact & Lightweight

At speed, the interceptor blades are continuously modulated, extending only a few centimeters below the transom to generate forces on the hull equivalent to the forces produced by a trim tab or fin with much less risk of damage from floating debris or grounding. Because the Active Motion Interceptor Ride Control System requires very little movement to produce the necessary stabilization forces, the interceptor mechanisms as well as the hydraulic or electric power system are compact and lightweight. This makes installation relatively simple, especially for retrofits onto finished vessels.



Manufactured by Naiad, supplied to UK MoD for Special Forces application.

Automatic Roll, Pitch, Trim and Heel Control

All NAIAD control systems feature fully proportional closed loop performance, resulting in continuously modulated interceptor blade position management and smooth, exact operation. Operator interface is through a Graphical Display featuring an intuitive and easy to use system of menus and screens. Operators can use the Sensitivity settings to adjust the gains to optimize performance for changing sea conditions.



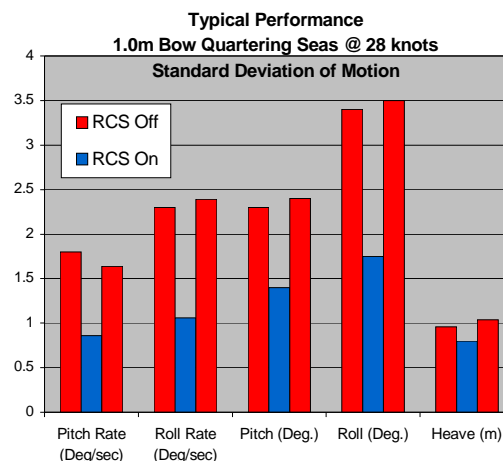
Proven Performance

Typical performance is depicted in the graph below; however, full-scale trials of the Motion Interceptor Ride Control System have documented a 70% reduction of pitch angle and a 57% reduction of roll angle. In addition to pitch and roll reduction, the Interceptor Ride Control System automatically corrects static heel or list, and optimizes the vessel's running trim. Although it seems counter-intuitive that intercepting water flow with a blade will not increase drag, optimizing trim and reducing motions with Naiad's Active Motion Interceptors has been documented to actually **increase vessel speed and fuel efficiency**.

Wide Ranging Applications

Naiad's Active Motion Interceptor Ride Control System technology was pioneered by Naiad Dynamic's naval and commercial marine experts, (formerly Maritime Dynamics, Inc.). These systems have been proven in demanding applications ranging from:

- 11m (36 ft.), 50 knot Special Forces RHIB yielding dramatic reductions in vertical accelerations.
- 54m (177 ft.), 32 knot monohull Crew Supply vessels optimizing trim, reducing pitch & roll, while achieving 5% fuel savings.
- 72m (236 ft.), 38 knot catamaran Alaskan Ferries, reducing pitch, roll and heave.



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Where Old World Craftsmanship meets Cutting Edge Digital Electronics™