**TITLE OF INVENTION: DYNAMIC ACTIVE CONTROL SYSTEM WITH ENGINE CONTROL**

## ABSTRACT

A dynamic active control system (DACS) configured for: (1) total vessel pitch axis control by fast symmetric deployment of water engagement devices (WEDs) or controllers, coupled with engine trim adjustments; (2) total roll and heading control by differentially deploying WEDs to counter rolling motions while simultaneously adjusting engine steering position to counter the steering moment associated with WED delta position; and (3) adjustment of the engine steering angle to counter yaw moments produced by gyroscopic stabilization systems.

[FIG. 1]