



THE SECRETARY OF THE NAVY  
WASHINGTON DC 20350-1000

June 5, 2015

MEMORANDUM FOR CHIEF OF NAVAL OPERATIONS  
COMMANDANT OF THE MARINE CORPS

SUBJECT: Artificial Intelligence and Robotics for Support Functions

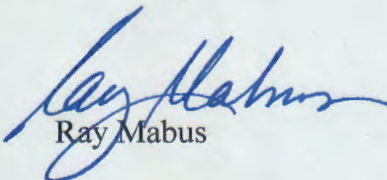
The Department of the Navy (DON) is on the forefront of artificial intelligence (AI) and robotics research. Recent operational examples of the DON's application of AI and robotics technology include: Ghost Swimmer, an unmanned underwater vehicle that mimics a Bluefin tuna; the X-47B Unmanned Combat Air System that can autonomously land aboard an aircraft carrier; and the Swarmboat unmanned surface vehicle that can sync with other unmanned vessels to swarm and interdict enemy vessels.

The private sector is investing heavily in AI and robotics automation for decision-making and physical implementation tasks. The DON could benefit from considering how to adapt recent private sector advances in fields such as machine learning, natural language processing, ontological engineering, and automated planning for naval applications.

To accelerate the exploration of these emerging fields, the Chief of Naval Operations shall:

- Create a team to identify opportunities for the DON integration of proven AI and robotics technologies.
- Announce and conduct a DON and industry wide effort to identify opportunities for the application of proven AI and robotics technologies for cost-effective performance of tasks and functions throughout the support structure and shore establishments.
- Coordinate with the Marine Corps to identify opportunities to use AI and robotics in integrated Navy-Marine Corps applications.
- Conduct end-to-end cost-effectiveness analysis of proposals and identify necessary resources to implement prudent business decisions with high return on investment.

An identification of potentially innovative solutions for the DON, to include timelines and required resources, should be provided to the Under Secretary of the Navy no later than December 31, 2015.

  
Ray Mabus



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cc:

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