



THE SECRETARY OF THE NAVY  
WASHINGTON DC 20350-1000

September 3, 2015

MEMORANDUM FOR CHIEF OF NAVAL OPERATIONS  
COMMANDANT OF THE MARINE CORPS  
ASSISTANT SECRETARY OF THE NAVY (RESEARCH,  
DEVELOPMENT AND ACQUISITION)

SUBJECT: Additive Manufacturing/3-D Printing

The United States (U.S.) Navy and Marine Corps team is realizing the potential of Additive Manufacturing (AM) and 3-D Printing (note: these terms will be used interchangeably), to transform our future maintenance and logistics supply chains, increase logistics resiliency, and enable true self-sustainment for our forces during operations. AM affords extraordinary agility over traditional manufacturing, procurement and acquisition methods, and will lead the Department of the Navy (DON) in radically enhancing fleet life cycle logistics, increasing the operational availability of our forces, and reducing total ownership costs.

Around the fleet, our Sailors and Marines are embracing AM. Our scientists and engineers are developing AM processes and controls, experimenting with AM produced parts, and planning a secure network for optimized digital production and information sharing. The incorporation of 3-D printing capabilities on the amphibious assault ship USS ESSEX, the use of AM to make rapid repair of aircraft at MCAS Cherry Point, or the use of custom 3D printed cranial plates for wounded warriors at Walter Reed clearly demonstrates the significant benefits from rapid AM technology development, use, and implementation.

To maintain this momentum and broaden our efforts, a DON-level coordinated effort is necessary to assist, accelerate, and enable AM implementation across the DON Enterprise, and provide the training needed to harness its full potential.

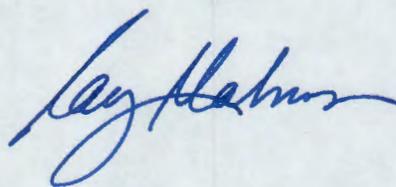
To realize the potential of AM, drive innovative change, and facilitate adoption within the DON, Assistant Secretary of the Navy (Research, Development and Acquisition) (ASN (RD&A)) shall, in coordination with the U.S. Navy and Marine Corps, develop an integrated and detailed implementation plan that will achieve the following:

- Increase development and integration of additive manufacturing systems.
- Develop the ability to qualify and certify AM parts.

SUBJECT: Additive Manufacturing/3-D Printing

- Standardize the digital AM framework and tools and enable end to end process integration.
- Establish the DON advanced integrated digital manufacturing grid.
- Formalize access to AM education, training, and certifications for the DON workforce.
- This plan will include the identification of an AM coordinator within ASN (RD&A), responsible for ensuring the execution of the above stated goals.

ASN (RD&A) will develop this plan in coordination with the DON AM Executive Committee and deliver the plan to the Under Secretary of the Navy no later than December 1, 2015.



cc:

USN  
ASNs  
DUSNs  
JAG  
NAVIG  
DNS  
AUDGEN  
NCIS  
DMCS  
DON/AA  
DONCIO  
DON SAPRO  
OIG  
OLA  
CNR  
OSBP  
CHINFO