

From: COMNAVSEASYS COM WASHINGTON DC
Sent: Monday, January 12, 2015 9:30 AM
Subject: R 121201Z JAN 15 COMNAVSEASYS COM WASHINGTON DC POLICY ON THE USE OF ADDITIVE
MANUFACTURING
Importance: Low

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-----OFFICIAL INFORMATION DISPATCH FOLLOWS-----

RTTUZYUW RULSSEA0283 0121201-UUUU--RHMCSUU.

ZNR UUUUU

R 121201Z JAN 15 ZYB

FM COMNAVSEASYS COM WASHINGTON DC

TO COMUSFLTFORCOM NORFOLK VA

COMPACFLT PEARL HARBOR HI

COMNAVSURFLANT NORFOLK VA

COMNAVSURFPAC SAN DIEGO CA

COMNAVAIRLANT NORFOLK VA

COMNAVAIRPAC SAN DIEGO CA

COMSUBLANT NORFOLK VA

COMSUBPAC PEARL HARBOR HI

INFO AIG 193

PRESINSURV VIRGINIA BEACH VA

COMNAVSAFECEN NORFOLK VA

NRL WASHINGTON DC

COMSC WASHINGTON DC

COMSPAWARSSYS COM SAN DIEGO CA

COMNAVAIRSSYS COM PATUXENT RIVER MD

COMNAVSUPSSYS COM MECHANICSBURG PA

COMMARCORSYS COM QUANTICO VA

COMNAVFACENGC COM WASHINGTON DC

COMDT COGARD WASHINGTON DC

COMCOGARD SFLC BALTIMORE MD

DLA FT BELVOIR VA

COMNAVSEASYS COM WASHINGTON DC

CNO WASHINGTON DC

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PASS TO OFFICE CODES:

COMUSFLTFORCOM NORFOLK VA/N43/

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COMNAVSURFLANT NORFOLK VA/N43/

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COMNAVAIRPAC SAN DIEGO CA/N43/

COMSUBLANT NORFOLK VA/N43/

COMSUBPAC PEARL HARBOR HI/N43/

PRESINSURV VIRGINIA BEACH VA/00/

COMNAVSAFECEN NORFOLK VA/30/
NRL WASHINGTON DC/00/
COMSC WASHINGTON DC/N4/N7/PM2/
COMSPAWARSYSCOM SAN DIEGO CA/00/04/
COMNAVAIRSYSCOM PATUXENT RIVER MD/00/04/
COMNAVSUPSYSCOM MECHANICSBURG PA/00/04/
COMMARCORSYSCOM QUANTICO VA/00/
COMNAVFACENCOM WASHINGTON DC/00/
COMDT COGARD WASHINGTON DC/CG-4/CG-93/
COMCOGARD SFLC BALTIMORE MD/ALD/ESD/
DLA FT BELVOIR VA/00/
COMNAVSEASYSYSCOM WASHINGTON DC/05/04/04X/21/08X/06/07/TIC/
CNO WASHINGTON DC/N415/
SECINFO/U/-//
MSGID/GENADMIN,USMTF,2008/COMNAVSEASYSYSCOM WASHINGTON DC//
SUBJ/POLICY ON THE USE OF ADDITIVE MANUFACTURING//
REF/A/MSGID:DOC/ASTM/01MAR2012//
REF/B/MSGID:DOC/CUSFFC/23NOV2013//
REF/C/MSGID:DOC/NAVSEA/21JAN2010//
NARR/REF A IS ASTM F2792, STANDARD TERMINOLOGY FOR ADDITIVE
MANUFACTURING TECHNOLOGIES. REF B IS COMFLTFORCOMINST 4790.3C, CH-1,
JOINT FLEET MAINTENANCE MANUAL. REF C IS PUB SL-720-AA-MAN-030,
NAVY MODERNIZATION PROCESS MANAGEMENT AND OPERATION MANUAL.//

GENTEXT/REMARKS/1. PURPOSE: TO PROVIDE INITIAL POLICY AND GUIDANCE
REGARDING THE USE OF ADDITIVE MANUFACTURING (AM) EQUIPMENT, DESIGN
AND FABRICATION PROCESSES, AND PARTS FOR USE ON NAVY SHIPS AND
SUBMARINES. THIS MESSAGE ADDRESSES AM PROCESS CATEGORIES AS DEFINED
IN REF A AND OTHER CATEGORIES THAT MAY EMERGE.

2. DISCUSSION:

A. REF A DEFINES AM AS THE PROCESS OF JOINING MATERIALS TO MAKE
OBJECTS FROM 3D MODEL DATA, USUALLY LAYER UPON LAYER, AS OPPOSED TO
SUBTRACTIVE MANUFACTURING METHODOLOGIES.

B. AM IS AN ENABLING TECHNOLOGY THAT CAN PROVIDE A CRITICAL
CAPABILITY TO SUPPORT THE NAVY MISSION. NAVSEA SUPPORTS THE
NUMEROUS INITIATIVES TO FURTHER THE APPLICATION OF AM, BUT REQUIRES
EXISTING MATERIAL, OPERATOR AND PROCESS QUALIFICATION AND
CERTIFICATION, AND CONFIGURATION CONTROL MECHANISMS REMAIN IN EFFECT
UNLESS APPROVED BY NAVSEA THROUGH A DEVIATION PROCESS. AS DIRECTED
BY THE CNO, AND LED BY OPNAV N4, NAVSEA WILL COLLABORATE WITH THE
OTHER NAVAL SYSCOMS, OPNAV, ONR, THE FLEET, AND OTHER STAKEHOLDERS
TO ENSURE INITIATIVES ARE ALIGNED AND DE-CONFLICTED TO SUPPORT
UTILIZATION AND ADVANCEMENT OF AM TECHNOLOGY.

C. THOUGH NUMEROUS TECHNICAL AND BUSINESS CHALLENGES REMAIN TO BE
RESOLVED WITH THE IMPLEMENTATION OF AM, NAVSEA RECOGNIZES THAT AM
APPLICATION CAN RESULT IN INNOVATIVE MATERIALS AND DESIGN, IMPROVED
RESPONSE TO FLEET ISSUES, REDUCED ACQUISITION AND LIFE CYCLE COSTS,
AND IMPROVED READINESS. HOWEVER ACTION MUST BE TAKEN TO ENSURE SAFE

IMPLEMENTATION OF FLEET AM INNOVATION, DEVELOPMENT, AND APPLICATION.

D. THE MODERNIZATION PROCESS, PER REF C, IS REQUIRED TO BE FOLLOWED FOR BOTH NON-PERMANENT AND PERMANENT SHIPBOARD INSTALLATIONS OF AM EQUIPMENT. SHIPBOARD INSTALLATION OF AM EQUIPMENT MAY REQUIRE SHIPBOARD SYSTEM INTERFACES (E.G., WILL IT CONNECT TO SHIPBOARD LANS?) CONSIDERATIONS AS WELL AS PHYSICAL CONSIDERATIONS (POWER, WEIGHT, MATERIAL STOWAGE, PROPER DISPOSAL AND INSTALLATION IMPACTS) WHICH REQUIRE EVALUATION AND APPROVAL PRIOR TO INSTALLATION.

3. RECOMMENDED ACTION: IF AN AM MADE PART IS DESIRED TO BE INSTALLED INTO A SHIPBOARD OR SUBMARINE APPLICATION, THE DEPARTURE FROM SPECIFICATIONS (DFS) PROCESS SPECIFIED IN VOLUME V, PART I, CHAPTER 8 OF REF B SHALL BE FOLLOWED. THE NAVSEA AUTHORIZED TECHNICAL AUTHORITY WILL REVIEW AND ADJUDICATE REQUESTS FOR DEVIATION USING ELECTRONIC DFS (EDFS) SYSTEM IN ORDER TO CAPTURE THE CASE BY CASE REQUESTS AND APPROVALS FOR AM PART INSTALLATION. FOR INSTALLATION OF AM EQUIPMENT SHIPBOARD, REF C REQUIREMENTS ARE REQUIRED TO BE FOLLOWED.

4. NAVSEA IS TAKING ACTION TO INSTITUTIONALIZE THE POLICY OUTLINED IN THIS MESSAGE THROUGH THE DEVELOPMENT OF NEW AND/OR THE REVISION OF EXISTING NAVY INSTRUCTIONS.//

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