AMMO WG Teleconference Minutes – 3 Feb 2016

On 3 Feb, 2016 the Additive Manufacturing Maintenance Operations (AMMO) working group conducted a teleconference. A brief summary of the teleconference follows:

**Qualification / Certification Protocols**

Jennifer Wolk and Dave Barrett provided an update on the NAVSEA program to include Quality Made. The program is closely targeted to broader Navy goals of certification and qualification. The SECNAV listed five AM goals. The next step is working through prioritization and putting resource requirements against those goals. A POA&M has been developed. Below are draft focus areas for AM qualification and certification goal:

Goal 2: Develop the ability to qualify and certify AM parts

***End-State.*** A new framework developed to enable accelerated qualification and certification of

components at a reduced cost thereby providing reasonable assurance those components will

perform to meet their performance requirements. The DON Focus Areas for Goal 2 are as follows (**Note: These are not finalized yet**):

* Broader Library of Materials for Naval AM Use
* Processing
* Material Properties
* Non-Destructive Evaluation (NDE)
* Standards and Specifications Development
* Manufacturing Process Control
* Expeditionary and Afloat Environmental Effects on AM

Col Keith Bearden briefed three US Air Force initiatives:

* USAF AM Road mapping (AFRL/RX)
	+ Visioning: March 16
	+ Functional Analysis: April 6
	+ Synthesis: May 11
* AM Tiger Team (AFLCMC/EZP)
	+ “Start building” and learn
	+ 12 parts selected, non-flying to safety of flight
	+ Purchasing 2 metal machines
* Engineering AM course (AFLCMC/EZP)
	+ Hands-on, design process, metal and plastic

There will be a follow on discussion to review the AF Tiger team initiative and the selection of 12 parts. Tom Naguy pointed out that the USAF is using, as well as purchasing, EOS M290 AM systems.

**AM Business Model Wargame Initiatives**

Marilyn Gaska solicited comments and feedback on the 5 slide summary she provided on the wargame initiative. She encouraged participation to anyone from the AMMO WG interested in implementing AM at the enterprise level, and is planning to have a teleconference next week with the volunteers. The wargame initiative will be co-located with the CTMA partners’ Meeting being conducted 10-12 May, with 9-10 May being the target dates.

The Objectives of the Wargame Initiative are:

* Advance the understanding of the business model of how Industry and the DoD might fully utilize AM technologies and processes
* Understand the impact of these changes on the DoD and it’s commercial partners
* Define and test assumptions with regard to business and operating model

**Maintenance & Sustainment Advisory Group Update** (Marilyn Gaska)

* Business Model Wargame
* Jim Williams provided an update on America Makes
	+ An Additive Manufacturing Standards, Specifications, and Data Schemas (AM3S) meeting was conducted on 13 Jan at NIST. ANSYS conducted the official coordination
	+ Agreement was reached on common AM terminology
	+ 7 action items were identified and posted to SharePoint.

 **Cross Cutting Funding** – Greg Kilchenstein (for Lt Col Randy Ackerman)

Greg described a Joint Staff technical study opportunity on AM interoperability and digital data standards assessment. The purpose of the study is to understand data schemas in the digital thread that are being used and the types of 3D data files required.

**NIST Measurement Science Additive Manufacturing (MSAM)** – Federico Sciammarella

Federico described a conference and workshop on Direct Energy Deposition being conducted on May 23-24 in Chicago near the Northwestern Campus. Anyone interested in attending can contact Federico or Debbie Lilu. For more information go to http://niu.edu/ceet/MSAM/

Additional details will be provided under separate cover within two (2) weeks.

**Actions:** Schedule at the next AMMO WG meeting a discussion of a new Navy AM proposal to be released the end of February/early March. The initial requirement is a white paper only.

New America Makes call for papers to be discussed at the March 2nd AMMO WG call.

**Next Meeting:** - Wed, 2 Mar, at 10:30 am Eastern Time (Scheduled on the first Wednesday

of every month). Topics to be discussed include:

* V-22 support
* USAF 12 parts being tested
* Army AM efforts

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