EASA-FAA Industry-Regulator AM Event

Cologne, 8 – 12 November 2021

Virtual Event via Webex

DAY 1

15:25	**WELCOME LOGIN TO WEBEX INVITATION**
15:30 -16:00	**Opening of the Workshop and Welcoming Remarks** R. Daeschler, EASA Certification Director **EASA Introduction and AM Update, Agenda Overview, Practical Arrangement** Simon Waite, EASA Senior Expert Materials Michael Gorelik, FAA Chief Scientific and Technical Advisor – Fatigue and Damage Tolerance
16:00 -16:30	**FAA AM introduction Update** Michael Gorelik (FAA)
16:30 – 16:50	**BREAK**
16:50 -17:15	**EAAMIRG AM Update** EAAMIRG INDUSTRY presenter(s) Neil Mantle (Rolls Royce), John Van-Doeselaar (Airbus)
17:15 -17:45	**Applicant Specific Guidance Memorandum for Additive Manufacturing** Bob Grant (FAA)
17:45 -18:05	**EASA FAA AM EVENT WG 1** WG1 Progress and Meeting Plan - Qualification of Additive Manufacturing (AM) Parts of No, or Low, Criticality (for use in Certified products). WG1 - Co-chairs: Simon Waite (EASA), Mitch Rife (Delta), Omiros Kastanis (EASA)
18:05-18:25	**EASA FAA AM EVENT WG 2** WG2 Progress and Meeting Plan - Fatigue and Damage Tolerance (F&DT) and Non-Destructive Inspection (NDI) Considerations for Metal AM WG2 - Co-chairs: Michael Gorelik (FAA), Andreas Fischersworring-Bunk (MTU)
18:25-18:45	**EASA FAA AM EVENT WG3** WG3 Progress and Meeting Plan - AM Machine Makers and End Users – Key Process Parameters (KPPs), Qualification, Requalification, and the Ideal 'End State' WG3 - Co-chairs: Richard Mellor (Rolls Royce), Don Godfrey (SLM)
19:15	**End of Day 1**

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Day 2

15:25	**WELCOME LOGIN TO WEBEX INVITATION** **Performance based regulation**: Presentation intended to seed performance based regs/SDO panel thoughts Wednesday
15:30 -16:00	**Standards at FDA &CDRH (Centre for Devices & Radiological Health)** **Performance based regulation** Terry Woods FDA (Food and Drug Administration)
16:00 -16:20	**Computer Modelling and Simulation** Technical presentations to seed Computer/Modelling/Digital Twin framework discussion Wednesday **Technical Presentation #1: Digital Twin & Digital Thread – Definition, Value & Relevance to Certification** Olivia Pinon (GEORGIA TECH)
16:20 -16:40	**Computer Modelling and Simulation** Technical presentations to seed Computer/Modelling/Digital Twin framework discussion Wednesday **Technical Presentation #2: Simulation of additive Manufacturing Process** Pedro De la Calzada (ITP)
16:40-17:00	**Computer Modelling and Simulation** Technical presentations to seed Computer/Modelling/Digital Twin framework discussion Wednesday **Technical Presentation #3: Computationally Enhanced Probabilistic Fracture Mechanics for AM parts** Javier Gómez-Escalonilla Martín (Airbus)
17:00 – 17:45	**Keynote: 'Thoughts on Fatigue Certification of Metal Additive Manufacturing for Aircraft Structures'** Loris Molent (Molent.com Consultant - DSTO - Australia (retired))
17:45 – 17:55	**BREAK**
17:55 -19:30	**WG Breakout sessions** General update WG Co-chairs
19:30	**End of Day 2**

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Day 3

15:25	**WELCOME LOGIN TO WEBEX INVITATION** **Performance based regulation**: Presentation intended to seed performance based regs/SDO panel thoughts Wednesday
15:30-15:40	**Opening Remarks & Panel session - Performance based regulation and the SDOs** Simon Waite & Roland Dutton (Arctos)
15:40-17:00	**Theme 1 - Coordination/Collaboration across the SDOs, AMSC roadmap as a backdrop for discussion** **Potential themes: development of supporting M&P specs; mechanisms for better coordination / collaboration; etc. Theme 2: Data generation / databases / guidelines** **Potential themes: equivalence, acceptance of external M&P specs, etc.** Racheal Andrulonis, Royal Lovingfoss (CMH-17/NCAMP), Bill Mohr (AWS), Doug Hall (MMPDS), Don Godfrey (SLM), Mark Shaw (GE), TBD (AMDC), Jesse Boyer (ASTM), Hector Sandoval (SAE)
17:00 -17:10	**Open discussion**
17:10 – 17:30	**BREAK**
17:30 -17:50	**Mini WS - Computational Materials/Qualification/Certification - Industry Regulator Framework Discussion** General update **Computational Materials for Qualification and Certification (CM4QC)** Michael Gorelik (FAA)
17:50 -18:10	**Effective and pragmatic introduction of simulation and CM into AM certification activities** Doug Wells (NASA)
18:10 -18:30	**Potentials of model-based data analytics in manufacturing** Tommy Venek (Fraunhofer)
18:30 -18:50	**ESA strategy for additive manufacturing technology** Thomas Rohr (European Space Agency (ESA))
18:50 -19:10	**Defining acceptance limits for Ni-AM powder using materials simulation** Caspar Schwalbe (MTU Aero Engines AG)
19:10 -19:30	**Open Discussion & Closing remarks**
19:30	**End of Day 3**

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Day 4

15:25	**WELCOME LOGIN TO WEBEX INVITATION**
15:30-19:30	**WG Breakout sessions (including break)** WG1, 2, 3 - Co-chairs
19:30	**End of Day 4**

Day 5

15:25	**WELCOME LOGIN TO WEBEX INVITATION**
15:30 -15:50	**Technical Presentation #1** NDT for AM Ben Dutton (MTC)
15:50 -16:10	**Technical Presentation #2** EASA AI Roadmap : challenges and opportunities for use of AI in Aviation. Guillaume Soudain (EASA)
16:10-16:30	**Technical Presentation #3** Additive Manufacturing Research activities contributing to the Cleansky2 flagship demonstrators. Antonello Marino & Vittorio Selmin (CLEANSKY2)
16:30 -16:50	**BREAK**
16:50-17:50	**WG Summaries (3x20mins)** WG Co-chairs
17:50-18:50	**Regulators Panel Session** Moderator: Roland Dutton
18:50-19:00	**Wrap-up** Michael Gorelik (FAA), Simon Waite (EASA), Ted Blacklay (CAA UK), Natasa Mudrinic (TCCA), Massimo Praitano (ENAC (Italy)), Matthew Di Prima (FDA), Bob Grant (FAA), Cindy Ashforth (FAA), Doug Wells (NASA), Dietmar Goldschmidt (LBA), Howard Sizek (AFSRO (USAF))
19:00	**End of Day 5**