

Wichita State University | NIAR



Rhatigan Student Center
1845 Fairmount St #56
Wichita, KS 67260

Recommended Attire: Business Casual

**Day 1 Agenda (September 17)**

0730 – 0800	Networking & Registration	The Rhatigan Student Center Beggs Ballroom
0800	Welcome, Introduction & Keynote <i>Rachael Andrulonis, NIAR</i>	
0900	EASA, FAA, Updates 0900 FAA <i>Tom Broderick, FAA</i> 0930 EASA <i>Simon Waite/EAAMIRG Action 2 Richard Mellor - Rolls</i>	
1000	Summary: AM Parts in Service <i>Jonas VOM-WEG, EASA</i>	
1015	Office of the Secretary of Defense (OSD) POV on AM <i>Dr. Brett Conner, OSD MANTECH</i>	
1035	<i>BREAK</i>	
1055	Design Approval Holder Updates 1055 Boeing <i>Nick Mule & Anna Tomzynska</i> 1115 Eaton <i>Frank May</i>	
1135	<i>LUNCH</i>	
1305	Working Group Breakout Session Instructions	
1310	Working Group Breakout Sessions: Day 1	The Rhatigan Student Center <i>WG 1: Beggs Ballroom</i> <i>WG 2: McKay</i> <i>WG 3: Gridley</i> <i>WG 4: Prairie</i>
1545	Design Approval Holder Updates 1545 GE Aerospace <i>Apostolos Karafillis</i> 1605 Rolls Royce <i>Rob Moriarty</i> 1625 Pratt & Whitney <i>Jesse Boyer</i>	
1645	Day 1 Closing Comments	



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Day 2 Agenda (September 18)

0730 – 0800	Networking & Registration	
0800	Opening Comments Day 2 <i>John Tomblin, NIAR</i>	The Rhatigan Student Center Beggs Ballroom
0810	Regulations for AM <i>Cindy Ashforth, FAA</i>	
0830	Production Approval Holder 0830 GKN <i>Matthew Harding</i> 0850 Siemens <i>Tad Steinberg</i> 0910 Sintavia <i>Christina Kurth</i> 0930 Knust-Godwin <i>Matthew Carl</i> 0950 RPMi <i>Tyler Blumenthal</i>	
1010	BREAK	
1030	NIAR Update <i>Brandon Saathoff & Neville Tay, NIAR</i>	
1100	LUNCH	
1230	Discussion: PAQCS <i>Mark Shaw, NIAR</i>	The Rhatigan Student Center Beggs Ballroom
1300	Quick Hits: 1300 SAE <i>Chloe Johnson</i> 1310 ASTM <i>Rick Huf</i> 1320 America Makes <i>John Martin</i>	
1330	Working Group Breakout Session Instructions	
1340	Working Group Breakout Sessions: Day 2	The Rhatigan Student Center WG's 1 & 4: Beggs Ballroom WG 2: McKay WG 3: Gridley
1650	Closing Comments Day 2	



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Day 3 Agenda (September 19)

0730 – 0800	Networking & Registration	
0800	Opening Comments Day 3 <i>Rachael Andrulonis, NIAR</i>	The Rhatigan Student Center <i>Beggs Ballroom</i>
0810	Working Group Breakout Sessions	The Rhatigan Student Center <i>WG's 1 & 4: Beggs Ballroom</i> <i>WG 2: McKay</i> <i>WG 3: Gridley</i>
1000	<i>Break</i>	
1010	Working Group Report Outs 1010 Working Group 2 1030 Working Group 3 1050 Working Group 1 & 4	The Rhatigan Student Center <i>Beggs Ballroom</i>
1120	Closing Comments – FAA & EASA <i>Tom Broderick, FAA</i> <i>Simon Waite, EASA</i>	
1150	LUNCH	
1330	TOURS (Optional)	



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WORKING GROUPS**Working Group 1: Qualification of AM Parts of No, or Low, Criticality (for use in Certified products)**

AM offers to the aviation industry many potential opportunities, including those associated with applications of no, or low, criticality (being of no, or minimal, safety concern either at aircraft or passenger level), e.g. as may be of interest to some cabin interiors supplier organizations, design organizations supporting MROs etc. Noting the novelty of AM applications to aviation, and the need to maintain both safety and a "level playing field." from a business perspective, a 'step by step' approach to AM utilization has been adopted by the regulators and industry. Building upon previous Industry-Regulator Events, WG1 continues with this theme in support of evolving guidelines development, i.e. the next revision to the EASA AM Certification Memo CM-S-008.

Working Group 2: F&DT and NDI Considerations for Metal AM

Fatigue and damage tolerance (F&DT) related qualification considerations and related certification requirements have historically presented more significant challenges for structural components produced using process-intensive manufacturing technologies (PIM), and additive manufacturing (AM) is no exception. The intent of this breakout session is to discuss the most recent developments in these technical areas, while building on the outcomes of the F&DT and NDI breakout sessions from the 2022 AM Workshop, and to further develop considerations for aviation application of AM. The desired outcomes of this working group and the corresponding breakout sessions during the 2023 AM Workshop include continued discussion regarding the exchange of best practices and lessons learned, recommendations for standards development organizations (SDOs) / industry working groups, and development of recommendations for supporting R&D work.

Working Group 3: Developing a 5 Year Plan to Allow EASA / FAA acceptance – Machine Monitoring

Inspections after build, as well as qual testing are both expensive and time consuming. Today, FAA / EASA regulations require that the suitability and durability of materials used for parts, the failure of which could adversely affect safety must be established on the basis of experience or tests. (14 CFR Part 25 Regulations – Materials - 25.603 Materials) and the methods of fabrication used must produce a consistently safe structure. Each new aircraft fabrication method must be substantiated by a test program (14 CFR Part 25 Regulations – Material – 25.605 Fabrication Methods) While the industry mostly agrees that today's machine monitoring technologies are not robust enough to be used in qualification of flight worthy components, the experts also generally agree that there is a need for this technology to mature so that it can be used as one of the tools in perform this task.

The intent of this breakout session is to discuss the most recent relevant technological developments in this field of AM science and then chart a development plan to mature the technology or the monitoring process so that components qualification can be supported via in-situ AM machine monitoring technology.

The desired outcomes of this working group and the corresponding breakout sessions during the 2023 AM Workshop include continued discussion regarding the exchange of best practices and lessons learned, recommendations for standards development organizations (SDOs) / industry working groups, and development of general recommendations for industry and regulators.

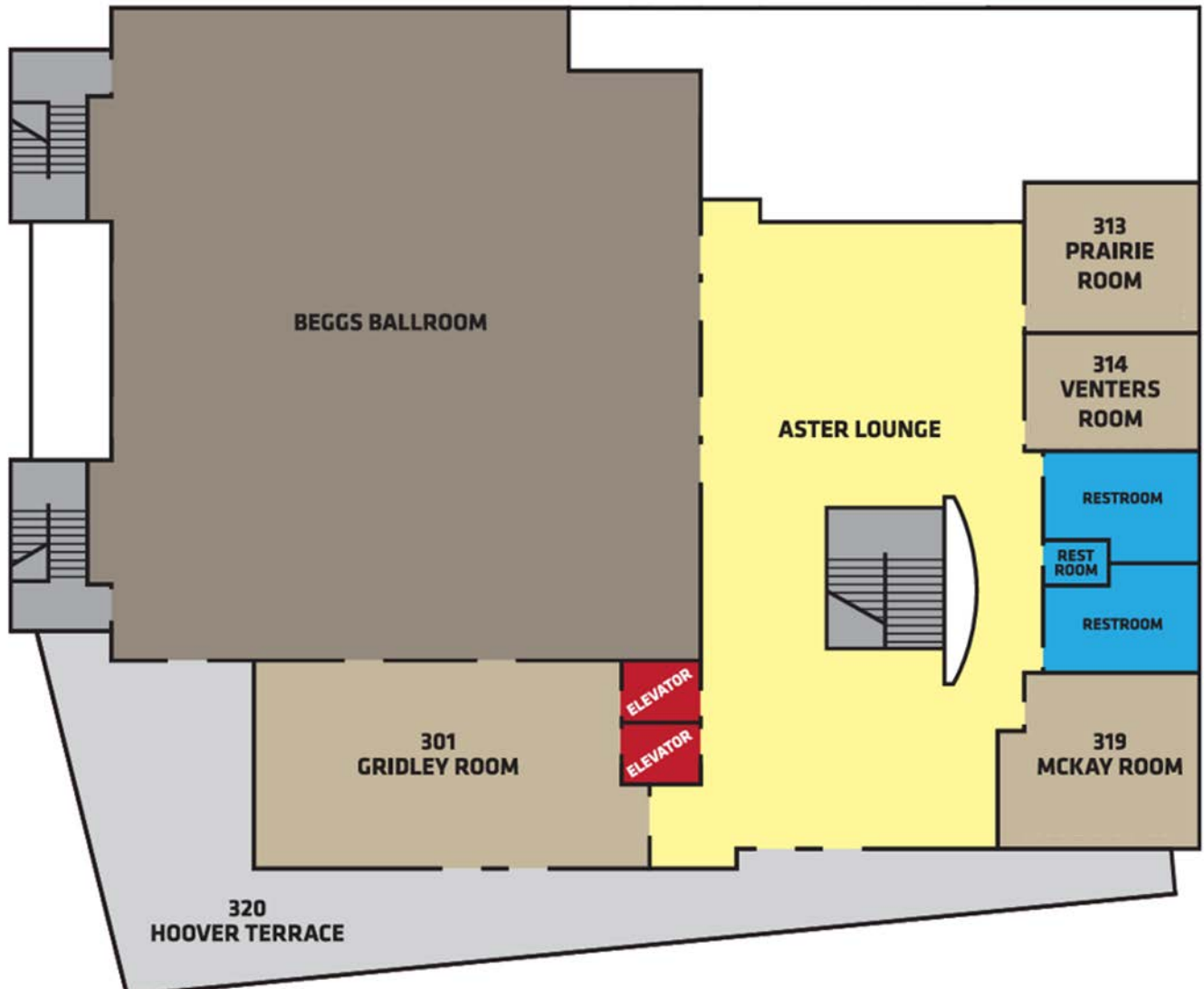
Working Group 4 (New): Part Classification

This working group will come together to answer the following questions: what are the part classifications used for castings and forgings? How does existing organizations manage part classification? Should AM parts have unique part classification as compared to no-AM parts? What is the reason to establish AM part classifications within the context of FAA certification. Should part classification include criticality and/or risk? Part risk = criticality*likelihood? The stated purpose of ASTM: F3572 – 22, Standard Practice for Additive Manufacturing – General Principles – Part Classifications for Additive Manufactured Parts Used in Aviation, is to "establish part classification to establish a metric for AM parts in downstream documents." Should the 4 AM part classifications in ASTM: F3572 – 22 be adopted as part of the qual/cert process? Why?



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Breakout Rooms



Day 1

- Working Group 1: Beggs Ballroom
- Working Group 2: McKay
- Working Group 3: Gridley
- Working Group 4: Prairie

Day 2

- Working Group 1: Beggs Ballroom
- Working Group 2: McKay
- Working Group 3: Gridley
- Working Group 4: Beggs Ballroom