

Status Report: February 2019

# 21<sup>st</sup> Annual Systems & Mission Engineering Conference

**October 22-25, 2018**  
***Grand Hyatt Tampa Bay***  
***Tampa FL***

***Sponsored by***  
**NDIA Systems Engineering Division**  
***in partnership with***  
**NDIA Integrated Program Management Division**  
***In Conjunction With***  
**Deputy Assistant Secretary of Defense, Systems Engineering**  
***With participation by***  
**IEEE Systems Council and IEEE Aerospace & Electronic Systems Society**









# Committee & Tracks

Agile in Systems Engineering  
Architecture  
Development Test & Evaluation  
Educational & Training  
Engineered Resilient Systems  
Enterprise Health Management  
Environmental Safety & Occupational Health  
Human Systems Integration  
Mission Engineering  
Modeling & Simulation  
Net Centric Operations/Interoperability  
Program Management  
Software Engineering  
Systems Engineering Effectiveness  
Systems Security Engineering  
System-of-Systems  
MBSE Tools Demo Track

John Norton/Linda Maness  
Bob Scheuer/Ed Moshinsky  
Joe Manas  
Don Gelosh  
Lois Hollan  
Chris Reisig  
Sherman Forbes/Dave Schulte/Lucy Rodriguez  
Matt Risser/Tom Hagale  
Judith Dahmann  
David Allsop, Chris Schreiber  
Jack Zavin/John Daly  
Lisa Manning/Vaugh Schlegel  
Ken Nidifer  
Tim White/Joe Elm  
Holly Dunlap  
Judith Dahmann/Rick Poel/Jennie Horn  
Phil Zimmerman

***Conference success is due to these hard-working folks! Many thanks!!***

# Final Track Determinations

- We did not announce track names in Call for Papers, merely topics
- We needed notional tracks since these match up with our committee structure fairly closely, with chairs.
- The July abstract review found that papers submitted matched our notional tracks perfectly.
- The Digital Engineering/Digital Thread/MBSE split from M&S in 2017 wasn't the best approach-
  - No plan for such separation in 2018, but combining all M&S/Digital Engineering/MBSE into single track may be unworkable if we have too much viable content
  - Which is exactly what happened. So part of M&S topics will be in parallel with others. See tabulation for severity impact.
- We had capacity for 9 breakouts for 2018 vs 6 for 2017

# Abstracts

- **215 abstracts submitted.**
  - All were of high quality (as usual)
  - So 215 abstracts were selected
  - Only 1 tutorial (Thanks, Jim “Coooahan”)
- **Only 176 papers presented after cancellations.**
- **We can present 14 to 15 papers per day in each room**
- **9 rooms x 2 days x 15 papers = 270 total**
  - 1 room for 1 day occupied by Phil Zimmermann’s Tool Demo
- **We did have 9 breakout rooms but 3 were added at “the last minute” since NDIA conference staff used space from 2017 as guide as opposed to the requested 9 breakout rooms.**
  - But facility was marginal – per later slide



# Abstracts Selected

- Agile 6 7
- *Architecture (none submitted 2016)* 10 14
- Better Buying Power/Affordability 0 0
- Computational Research & Engineering Acquisition Tools and Environments (CREATE) (added for 2017) 19 1 (put in M&S)
- *Developmental Test & Evaluation (DT&E) none submitted 2016* 4 6
- Digital Engineering/Model-based Systems Engineering (added for 2017) 17 0
- Education & Training 13 11
- Engineered Resilient Systems (ERS) 14 18
- Enterprise Health Management 2 3
- Environment, Safety, and Occupational Health (ESOH) 22 18
- Human Systems Integration (HSI) 6 9
- Mission Engineering 4 8
- Modeling & Simulation 4 57
- Net-Centric Operations (NCO) / Interoperability 6 4
- Program Management 9 16
- Systems Security Engineering (SSE) 30 31
- Systems of Systems Engineering 7 7
- Systems Engineering Effectiveness 12 9
- *Software Engineering (none submitted 2016)* 4 0

2017: black  
2018: red



# Something New

- **DASD/SE conducted a Digital Engineering Summit on Monday afternoon from 1 to 5**
  - DoD only, by invitation
  - Very well attended!
- **DASD/SE (Phil Zimmerman) coordinated a digital engineering/MBSE tools track at the conference as one of the breakout tracks**
  - Tool vendors afforded opportunity to present/discuss their toolset, one at a time
  - Over 16 responses initially received

# Major issue

- Prime defense contractors are only reimbursed for travel per the JTR (per DCAA rules)
  - Some companies allow this although the overage goes to “unallowable”, or a direct subtraction from profit
- Despite alert of this fact last summer to the NDIA principal working the contract, with a request that we have adequate per-diem rooms for defense contractors,
  - **We don't.**
- Britt Sullivan & Dave Chesebrough found an alternate hotel, 3 miles away.
  - Shuttle bus arranged with that hotel to go back and forth.

# Another major issue

- **Facility was marginal.**
  - Main breakouts on 1<sup>st</sup> floor were in partitioned rooms (airwalls)
  - Doors were airwall doors; didn't close well
  - Sound carried between rooms
  - Room sizes were somewhat exaggerated
  - Only 6 breakouts initially planned by NDIA conference group, based on 2017 in Springfield, despite Dave and my request for 9 breakouts- fortunately we were able to add 3 more but they were scattered

# Attendance Summary

	<u>Survey</u>	<u>Actual</u>
• Academia	6%	2%
• Government	39%	25% + 3% Int'l
• Industry	34%	28%
• Speaker*	21%	37%
• * Speakers were a mix of government, academia & industry		
• 1 <sup>st</sup> -time attendee:	58%	
• 2-5 years	25%	
• 6-10 years	10%	
• 11-15 years	6%	

– Based on 67 of 475 responses or 14%



# Other attendance feedback

- 4-day conference length: 88% said excellent/good
- Tampa location: Excellent; 43%; Good, 28%; Avg, 2%
- Attend next year: Yes, 66%; Not Sure, 34%; No; 0%
- Opportunity to network with government:
  - Excellent, 53%; Good, 36%; Average, 8%; Fair, 3%
- Hotel used:
  - Hyatt, 50%; Crown Plaza, 10%; Other, 37%
- Track Ratings: (out of 10)
  - EHM, 5.6; IO/NCO, 5.3; SW, PM, ESOH, and DT&E, 5.0; E&T, 4.8; ERS, 4.7;
  - Lowest rated were M&S 1 & 2 (2.5 & 2.6 resp)
- Breakouts: too many, 50%; just right, 40%
- Expectations fulfilled: Yes: 97%; no, 3%

# Suggestions

- More anti-tamper
- More specific topics in Call for Papers
- MBSE as separate topic apart from M&S
- More examples of MBSE in use
- More Mission Engineering
- More Digital Engineering focus, including standards, artifacts, etc
- Less panel discussions – more real “meat”
- 5-minute breaks between sessions (?)
- Fewer plenary sessions
- Tour of local facility
- More on research
- 45-minute papers

# Attendance Snapshot

	M&S 1	M&S 2	SSE	SEE	SW	ME	ERS	PM	IO/NCO	Total
Wed AM 2	60	50	40	10	35		47		20	
Wed PM 3	40	50	29	14	15	44	32	11	27	262
				ESOH	Tools	Arch		DT&E	SoS	
Thurs AM 1	14	42	21	17	24	34	11	21	12	196
Thurs AM 2	21	32	22	19	49	43	30	9	16	241
Total paid attendance as of Thursday AM: 496 reported.										
Final paid attendance reported 475										

# INCOSE CSEP Exam

- The INCOSE Certified Systems Engineering Professional (CSEP) exam was given as part of the 2017 conference and will be conducted in 2018 as well.
- Monday October 22, morning
- Conducted at the hotel



Status Report: December 2018

# 22<sup>nd</sup> Annual Systems & Mission Engineering Conference

**October 21-24, 2019**

***Hilton Downtown Tampa  
Tampa FL***

***Sponsored by***

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***In Conjunction With***

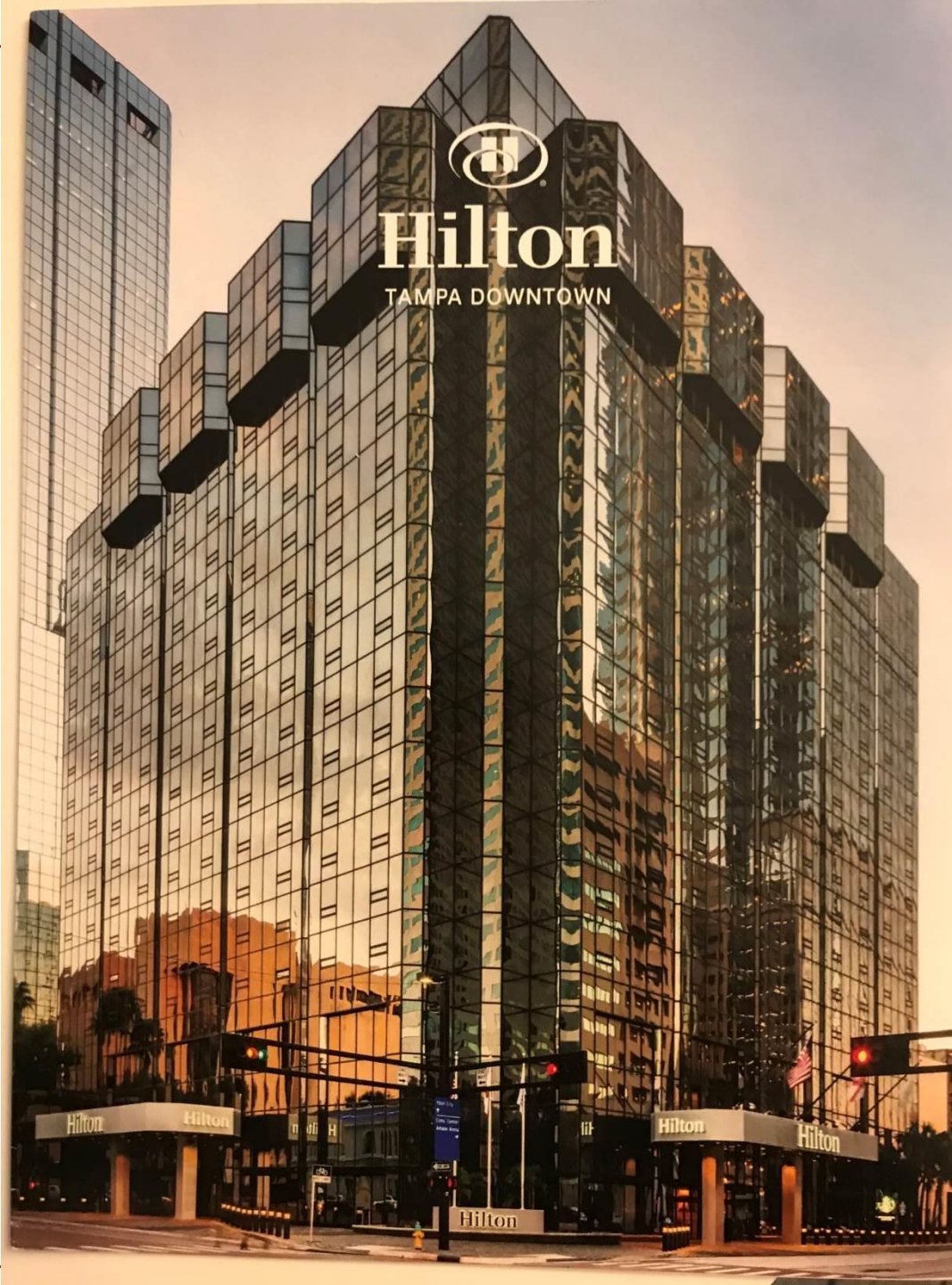
***Deputy Assistant Secretary of Defense, Systems Engineering (new titles?)***

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# Where after 2018?

- Conference started in San Diego, 1998
  - Hilton, I-8 Hotel Circle
  - Stayed there 2 years
- Dallas TX (3x)
- Back to San Diego (Hyatt Regency Islandia)
- Tampa FL (Tampa Marriott Waterside)
- Back to Hyatt Mission Bay in 2004
  - Stayed there until 2012 when bottom fell out
  - Attendance in 2011 was 575; in 2012 it was 225
- Moved to Hyatt Crystal City in 2014 (175 attendees)
- Moved to Waterford, Springfield VA in 2015
- Moved to Tampa in 2018
  - And we plan to stay there for the next 2-3 years
  - 2019 is at the Hilton Tampa Downtown
    - WITH adequate per-diem rooms for defense contractors AND 9 breakout rooms (requested)





# Call for Papers

- **Call for Papers at 99.9%**
- **Very few committee offered any suggestions on topics list, but we did clarify topics especially M&S**
- **Will go with 3 M&S focused tracks for 2019**
  - **Digital Engineering Implementation and Infrastructure**
  - **Model-based Systems Engineering – Applications & Project Experience**
  - **Modeling & Simulation – Design & Methodology**
- **Will send to NDIA tomorrow to release.**



# Potential Issues

- We do have 9 breakouts
- Many of the conference rooms are also airwalled from a larger ballroom, some with airwall doors only
- Working with Dave C to resolve.
- I am informed that we have adequate government-rate rooms; I hope to know this definitively very soon.