

**NDIA SE HSI COMMITTEE
QUARTERLY MEETING**

November 30, 2017

- **Welcome and introductions**
- **Membership review**
- **2017 HSI Committee plan and activity**
- **Recent Meetings**
- **HSI Community of Interest Updates**
 - Joint HSI Working Group
 - SAE HSI standard
 - MIL-STD 1472 and MIL-HDBK
- **Future directions**
- **NDIA Upcoming meetings**
- **Wrap-up and actions**

Membership Update

- **43 members**
 - 25 government
 - Navy, Air Force, Army, USMC, NASA, NPS, OSD
 - 18 industry
 - LMCO, NGC, Boeing, GD, Sandia, small business

HSI Committee – 2017 Status



2017 Tasks Planned	Status	Accomplishments (deliverables, etc.) - Comments
Align with ESOH, M&S, SEEC and SoS for the SE Division Conference track	Complete	Participated in abstract selection telecon with other committees. Held HSI track and coordinated HSI-related papers in other tracks at annual meeting
Identify HSI success stories for Joint HSI Working Group (JHSIWG)	In Progress	Submitted 2 success stories to the Joint HSI Working Group (JHSIWG). Continuing to coordinate with NDIA Human Systems Division and the JHSIWG to identify additional success stories.
Assist with HSI Standards and MIL-STDs working groups	In Progress	Participated in the Human Factors and Ergonomics Society (HFES) Conference in Austin, Texas.
Investigate process for RFP development to include HSI language	Complete	Rev B of document posted on HSI Committee webpage on 02 October. Rev C in work. <i>Last update: 11/27/17</i>

Incorporation of Human Systems Integration into a Request for Proposal (RFP)

- **Rev B of document posted on HSI Committee webpage on 02 October**
 - <http://www.ndia.org/divisions/systems-engineering/committees/human-systems-integration-committee>
- **Additional comments received after Rev B release. Will incorporate into Rev C and post on HSI Committee webpage when complete**

- **HSD reviewed draft RFP language**
- **Cross-advertised conferences and meeting**
- **Need for collaboration on Human Systems metrics**
 - HSD developing white paper for new DoD Human Systems COI leadership
- **Communicated need for Success Stories to HSD**
 - Scope, updated template and POC needed
- **HSD to review NDIA SE HSI and HSD coordination graphic**

20th Annual Systems Engineering Division Conference (10/23/17 – 10/26/17)



- **HSI papers**
 - 6 presentations in two sessions
 - 3 HSI-related presentations in other sessions
- **Presentations will be available on DTIC:**
 - <https://ndia.dtic.mil/>
- **HSI-relevant themes this year**
 - Model-Based Systems Engineering (MBSE)
 - Not much mention of modeling human performance
 - Good discussion about the importance of end users and SMEs in planning/development

Dr. Bev Knapp
Director, Army HSI

JOINT HSI WORKING GROUP UPDATE

- **DoD has selected the Society of Automotive Engineers' (SAE) G-45 Committee to develop an HSI Standard**
- **Goal**
 - Define minimum tasking requirements for affordable, responsive contractor HSI programs to optimize human-system performance, and minimize risk and customer ownership costs
- **To be applied to future DoD contracts**
- **DoD to monitor standard implementation, effectiveness, cost, and benefits once adopted**
- **NDIA SE HSI Committee participation**

SAE G-45 HSI Standard Update



Steve Merriman

- **Completed first 100% draft of the HSI Best Practice Standard**
- **Completed full G-45 committee review of the draft Standard**
- **Preparing for review by a group of senior HSI SMEs from government and industry**
- **Still on track for December 2018 release**
- **HSI domain requirements status**
 - HFE, Training, and Safety/OH (Complete)
 - Manpower and Habitability (NPS)
 - Personnel (?)
 - Force Protection (?)

MIL-STD 1472H Update

Owen Seely, Jeff Markiewicz, Eric Stohr

- **MIL-STD-1472H Department of Defense Design Criteria Standard – Human Engineering**
- **NAVSEA is the preparing authority for the version H update to MIL-STD-1472**
- **Kicked off in 2015, over 20 sub-groups have been developing new and updated content for an initial draft**
- **Current review and publication schedule**
 - Intermediate Review begins: 10/31/17 (Delayed – draft still in work)
 - Government/Industry and Senior Leadership Review begins: 5/1/18
 - Submitted for publication: 10/31/18
 - Publication: 11/21/18

Owen Seely, Jeff Markiewicz, Eric Stohr

- **Initiated in Sept 2016 as a Government companion piece to the G-45 Standard Practice for HSI**
 - Provides guidance and instruction for Government to implement and oversee an HSI program
 - Not proscriptive, but provides a link to the Practice Standard, which is used to levy HSI on Contract
- **5 authoring teams provided inputs to zero version draft; reviewed during 2 November meeting**
- **Revisions, structural changes, information sharing, and new content due for first version draft; Feb 2018**
- **Multiple ~3 month review and revision cycles will culminate in a final draft submitted to Naval DepSO; Nov 2018**

- **Assist DoD HSI Standards Working Group with reviews**
- **Collaborate with SAE on domain standards**
- **Provide success stories for the Joint HSI Working Group**
- **Coordinate topics/sessions with HSD at annual meetings**
- **Other?**

NDIA Upcoming Meetings 2017-2018



- **SE Division Planning Committee Meeting**
 - December 6, 2017
- **Bi-monthly SE Division meetings**
 - Washington, DC
 - Dates TBD
- **Human Systems Division Conference**
 - Springfield, Virginia
 - March 13-14, 2018
- **21st Annual SE Division Conference**
 - *Abstracts due in June (start planning now!)*
 - Location TBD
 - October, 2018

- **Recent committee activity**
 - SE Division Conference
 - Completed work on incorporation of Human Systems Integration into draft RFP language
 - JHSIWG liaison activity
 - SAE G-45 liaison activity
- **Future activity**
 - Continue support of SAE G-45 HSI Standards development
 - Support NDIA meetings
 - Improve coordination with JHSIWG and HSD
- **Wrap-up and actions**

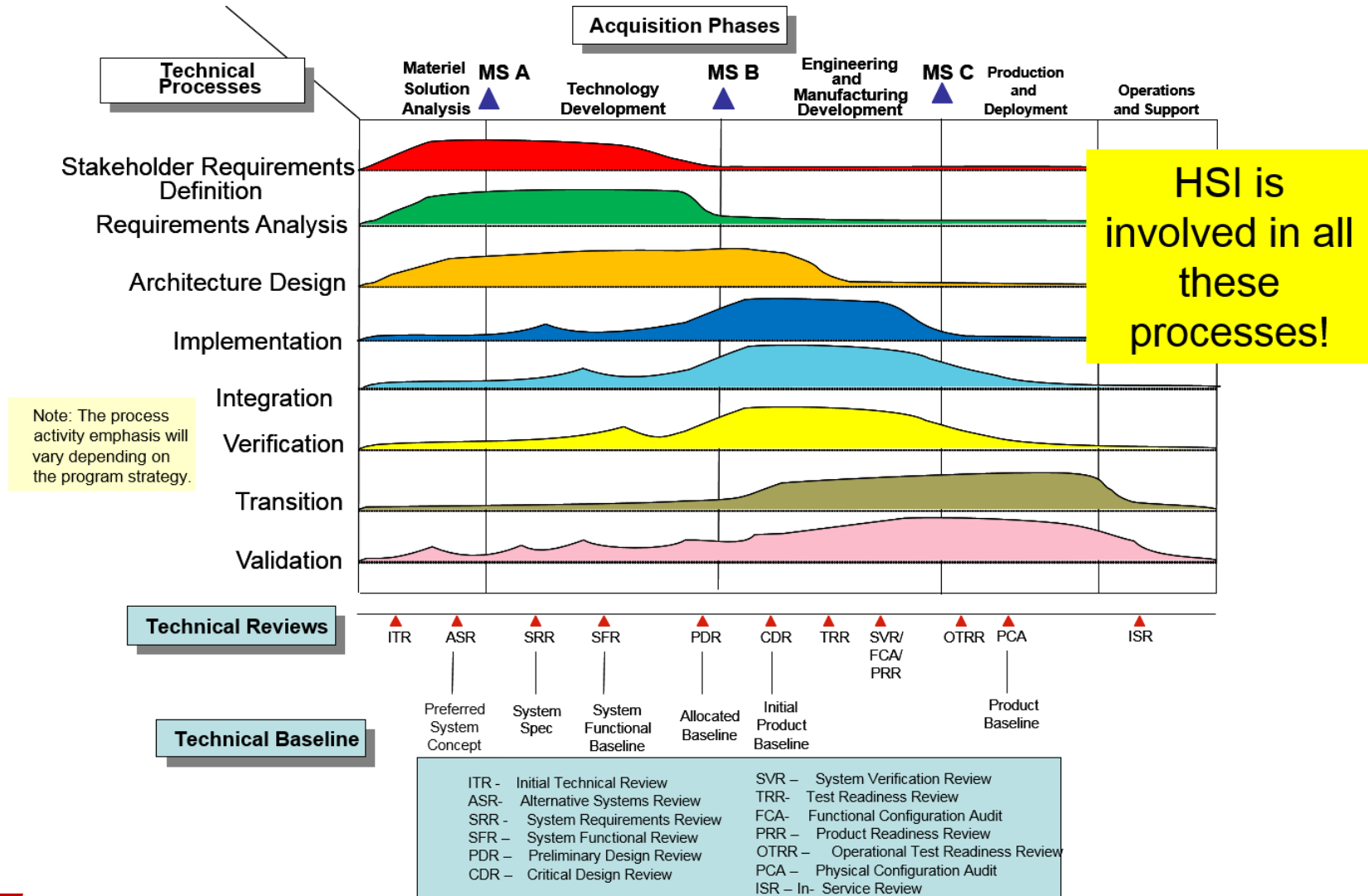
BACKUP

- **HSI committee reports to the NDIA SE Division**
- **Draft OSD Charter in 2008, Committee in 2009**
- **NDIA venue provides an opportunity for both government and contractors to share and align**
- **Concerned with HSI policy, processes, and tools that support our community of interest to inform and add value to the SE community**
- **Chairs**
 - Government (ODASD-SE)
 - Andrew Monje
 - David Schulte
 - Industry
 - Dr. Matthew Risser (Pacific Science & Engineering)
 - Dr. Patrick Fly (Boeing)

Mission, Goals & Objectives

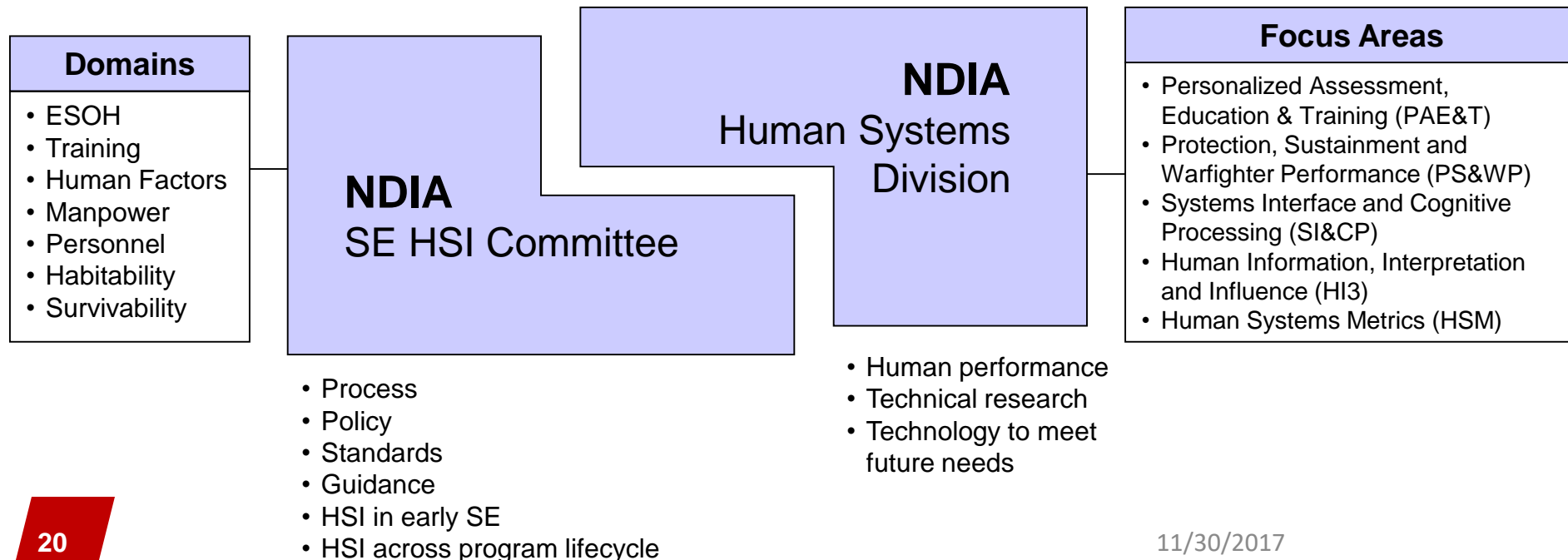
- **Mission:**
 - Develop a Government and Industry partnership to effectively integrate Human Systems Integration (HSI) in the DoD acquisition process to improve overall system performance and decrease total ownership lifecycle costs
- **Strategic Goals**
 - Through partnership and collaboration to:
 - Establish and promote a common understanding of HSI
 - Advocate for the continued integration of HSI in acquisition efforts
 - Establish a means to share HSI knowledge, methods and best practices
 - Address common HSI gap areas
 - Standardize on use of language-coordinate with others
- **Objectives**
 - Grow our HSI community of practice to share knowledge, methods & tools, and collaborate with other committees and industry/academia groups
 - Implement HSI uniformly, per DoDI5000.02, for best value HSI design & development solutions
 - Leverage the best of HSI best practices and technology use from government, industry and academia to close gap areas and position HSI for the future

SE Technical Processes and Activity



SE HSI Synergy with HSD

- **Complementary groups advocating for humans and systems**
- **NDIA Systems Engineering Division HSI Committee (SE HSIC) & NDIA Human Systems Division (HSD) to collaborate and support each others meetings and products**



- **Quarterly teleconferences**
- **HSI track at annual SE Division Conference**
- **Bi-monthly SE Division meetings**
- **Align with**
 - Other SE Committees (e.g., ESOH)
 - NDIA Divisions (e.g., NDIA Human Systems Division)
 - Related groups (e.g., Joint HSI Working Group)

SE Division Website

<http://www.ndia.org/Divisions/Divisions/SystemsEngineering/Pages/default.aspx>

- **Architecture**
- **Automatic Test**
- **Capability Maturity Model Integration (CMMI) Project**
- **Education & Training**
- **Enterprise Health Management**
- **Environment, Safety, and Occupational Health (ESOH)**
- **Government Liaison**
- **Human Systems Integration**
 - <http://www.ndia.org/divisions/systems-engineering/committees/human-systems-integration-committee>
- **Joint Committee for Systems Engineering and Manufacturing**
- **Life Cycle Support**
- **Mission Analysis**
- **Modeling & Simulation**
- **Software Experts Panel**
- **Steering Committee and Industry Affiliations & Liaisons**
- **Systems Security Engineering**
- **Systems Engineering Effectiveness**
- **Systems of Systems Engineering**