



# MIL-STD 881 Update NDIA PMSC

presented by:

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## Background of MIL-STD Update

- Update initiated in October 2008 with requirement to:
  - Update to Incorporate Changes to reflect DoD Acquisition Policy and Guidance (DODI 5000.02)
  - Add/Improve upon WBS Definitions
  - Clarify How WBS can be used with Newer Terms and Processes
  - Ensure the WBS is characterized as an Acquisition tool
  - WBS to support budget, cost, schedule, technical, contractual and performance management
  - Ensure Industry Participation
- Mr. Young's memorandum of 9 January 2009
  - Establishes MIL-HDBK as MIL-STD to ensure consistency in application
  - Enforces April 2005 Memorandum and DFARs clause WBS is consistent for Cost and Software Data Reporting (CSDR), Performance Measurement (EVM), and Scheduling (IMS)
  - Supports development/maintenance of Central Repository



## Appendices

- Aircraft Systems
- Electronic Systems including embedded SW
- Missile Systems
- Ordnance Systems
- Sea Systems
- Space Systems
- Surface Vehicle Systems
- Unmanned Aircraft Systems
- Unmanned Maritime Systems (new appendix)
- Launch Vehicles (new appendix)
- Automated Information Systems (new appendix)
- Common Elements including unique Commodity Common Elements (new addition to appendix)



### Changes from Current Handbook

- Most appendices have been restructured to account for technology changes and integration changes
- Most appendices have been defined to level 4 or 5 of the WBS vs. level 3
  - Reporting level will be determined based on a contract to contract basis could be 3, 4, or 5
  - CSDR reporting vs. CPR reporting level may be different but needs to be consistent at the level reported (i.e., level 4 of the CPR should be the same as level 4 on the CSDR)
  - If elements are considered high cost, high risk, or high technology in nature reporting will go to that level for those items only
- Added "other" elements to account for changes in configuration or new technology that is not defined within the MIL-STD at lowest level
- Eliminated Application and System Software only Software
- Changed definitions for embedded Software in Appendix B
- Added discussion of WBS use with system of systems and family of systems (i.e., take into consideration of common vs. unique WBS elements)
- Added common elements for sustainment activities Interim Contractor Support or Contractor Logistics support
- Expanded discussion on development of WBS to include:
  - Prime/Sub relationship
  - Elements to include vs. not include
- Added pre-acquisition framework discussion
- Updated Common elements
- Added unique Common commodity areas (Space, Launch Vehicles, AIS)



## Status of Appendices

- Appendix A: Aircraft Systems
  - Structure provides detail to Level 4
  - Level 2 major element is Air Vehicle which is broken out into the following Level 3 Major elements
    - Airframe, Propulsion, Vehicle Subsystems, and Avionics, Armament/Weapons Delivery, Auxiliary Equipment, and Furnishings and Equipment; "Other" Air Vehicle Subsystems.
  - Level 3 major elements of Airframe, Vehicle Subsystems, and Avionics are defined to Level 4
- Appendix B: Electronic Systems including embedded SW
  - Structure provides detail to Level 4
  - Increased visibility into embedded software. Software definitions and structures inserted per the Software Working Group who also developed the Automated Information System Appendix
  - Created templates for the following electronic systems Processors, Electronic Warfare, Radar, Communication, Navigation/Guidance and Propulsion (to be hosted on DCARC website)
- Appendix C: Missile Systems (used for all categories of missiles including Intercontinental Ballistic Missiles (ICBMs)
  - Structure provides detail to Level 4
  - Level 2 elements include Air Vehicle, Encasement Device (new Level 2 element), Command and Launch
  - Level 2 element Air Vehicle, broken out into more detailed Level 3 and Level 4 elements
  - Level 2 elements of Encasement Device and Command and Launch are detailed to Level 3
- Appendix D: Ordnance Systems
  - Structure provides detail to Level 4
  - Level 2 elements are "Munition" (which replaces the current HDBK term Complete Round) and Launch System
  - Munition is detailed to Level 3 and Level 4 elements
  - Launch System is detailed to Level 3



## Status of Appendices

- Appendix E: Sea Systems (No Change from HDBK Appendix)
  - Structure will remain the same.
  - Ships WBS remains key lower level breakdown
- Appendix F: Space Systems
  - Structure provides detail to Level 5
  - Structure and definitions developed by JSCC working group and has been edited to read like the other appendices
  - Level 2 Additions Include: Ground Operations and Processing Center, Ground Terminal Gateway, External Network, Vehicles and Shelters, Warranty and Insurance, Task Orders, and Orbital Transfer Vehicles
  - More descriptive "payloads" at Level 4
  - Appendix G: Surface Vehicle Systems (Applies to wheeled, tracked and amphibious vehicles)
  - Structure provides detail to Level 3
  - Removed "Vetronics" as a Level 3 item.
  - Updated structure to more accurately reflect Level 3 elements in a Primary Vehicle (i.e. Level 3 Item Nuclear, Biological and Chemical will now be included in Level 3 element "System Survivability").
  - Added Level 2 element, Remote Control System with detail to Level 3
- Appendix H: Unmanned Aircraft Systems
  - Structure provides detail to Level 4
  - Level 2 elements are Air Vehicle, Payload and Ground Host Segment.
  - Level 2 elements of Payload and Ground Host Segment are not changed from the current HDBK
  - Level 2 element Air Vehicle is broken out into the following Level 3 Major elements
    - Airframe, Propulsion, Vehicle Subsystems, and Avionics, and Auxiliary Equipment
  - Level 3 major elements of Airframe, Vehicle Subsystems, and Avionics are defined to Level 4



#### Conclusion

- Government and Industry worked together to ensure common definitions and application
- Software and the ability to capture new technology incorporated into all appendices
- Reporting levels addressed by program/contract
- Coordinated efforts with OSD CAPE, AT&L/DDR&E
- Provided flexibility to address items outside WBS definitions
- Official coordination is being conducted per DoD Standardization Office
- Anticipated Schedule
  - Draft released for comment on 14 January 2011
  - Comments due 28 February 2011
  - Publish final version 15 April 2011