

# ***Headquarters U.S. Air Force***

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*Integrity - Service - Excellence*

## **9082 – Including ESOH Requirements in JCIDS Documents**



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# *Agenda*

- **Background**
- **Process Description**
- **Training Development**
- **Way Ahead**



# Background

## SECDEF Memo – 22 Jun 06

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- Memo Title: “Reducing Preventable Accidents”
- Defense Safety Oversight Council (DSOC) and the nine DSOC Task Forces responsible for action
- Acquisition & Technology Programs Task Force (ATP TF) focused on responding to these points:
  - “**Accountability is essential** to effective leadership”
  - “If we need to change our training, **improve our materiel acquisition, or alter our business practices** to save the precious lives of our men and women, we will do it.”
  - “We will fund as a first priority those **technologies and devices that will save lives and equipment.**”
  - “We will **retrofit existing systems**”



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# *Background*

## *USD (AT&L) Memo – 21 Nov 06*

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- ATP TF prepared AT&L memo to “influence the entire life cycle of systems” in order to effectively integrate Environment, Safety, and Occupational Health (ESOH) considerations
- **Joint Capabilities Integration and Development System (JCIDS) – define system required capabilities**
- System development process – to meet JCIDS requirements
  - Must address each High and Serious ESOH risk and applicable safety technology requirements in program reviews
- Fielded systems – where ESOH problems manifested; where pain is felt (by the operator)
  - Class A & B mishap reports must include System Program Office hazard analysis and materiel mitigation measure recommendations to eliminate or reduce risk of reoccurrence



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# *Background* *Specific JCIDS Task Statement*

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**“The Acquisition & Technology Programs Task Force will develop a process to provide the DoD Joint Capabilities Integration and Development System with recommendations that have the potential to cost effectively prevent **accidents**. These inputs should include **all aspects** of the MIL-STD-882D System Safety Process.”**

USD (AT&L) Memo – 21 Nov 06



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# Background Scope of JCIDS Task

- “**accident**” as used by SECDEF = mishap
- “**all aspects of the MIL-STD-882D System Safety Process**” = MIL-STD-882D definition of mishap

“An unplanned event or series of events resulting in death, injury, occupational illness, damage to or loss of equipment or property, or damage to the environment”

***System Safety Focus: Preserving combat capability by reducing the risk of mishaps***



# *Process Development*

## *ATP TF Response*

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- **ATP TF stood up Preventable Accident Reduction Working Group (PARWG)**
  - **Purpose: develop response to 21 Nov 06 USD (AT&L) memo assigning ATP TF JCIDS task**
  - **Co-Chairs:**
    - **Dr. Rodriguez-Johnson, ATP TF Vice-Chair**
    - **Mr. Wilmeth, Joint Staff J-8 Protection Assessment Division**
  - **Focus: process to provide opportunity for including ESOH recommendations into the Sponsor JCIDS document development process**
  - **Development: vetted process details with J-8 and DoD Secretariat Systems Engineering and ESOH principals**
  - **Implementation: parallel development of policy and supporting training**



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# ***Process Development ESOH in JCIDS***

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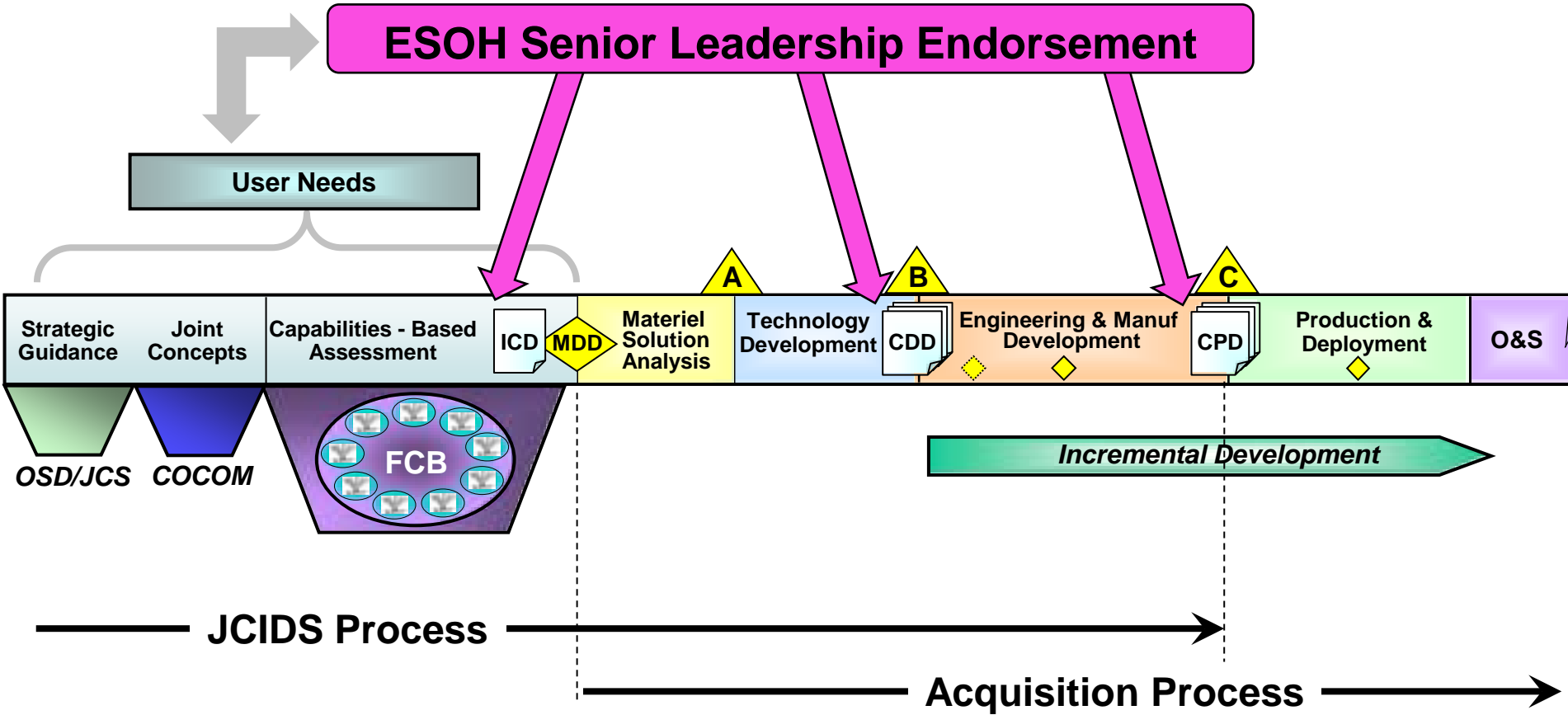
- **Applies to all JCIDS documents**
- **Requires ESOH senior leadership endorsement of JCIDS documents**
  - **Acknowledges that ESOH communities had opportunity to provide inputs (no guarantees)**
  - **Ensures ESOH leadership aware of future systems or system modifications for support planning purposes**
  - **Each DoD Component to designate ESOH senior leaders responsible for endorsing JCIDS documents**
  - **Each DoD Component to set up its own internal ESOH review process to support endorsements**
- **ATP TF developing training to support ESOH SME participation in JCIDS document development**





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# Process Development ESOH in JCIDS



**Integral Part of the Early Systems Engineering Activities**



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# *Process Development Draft AT&L Policy Memo*

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- **Draft ready to enter formal staffing following ESOH Risk and Technology Reporting policy memo**
- **Linked to development of training materials**
- **Addressed to Components and Joint Staff**
- **Directs each Component to designate to AT&L the office(s) that must provide ESOH endorsements**
- **Requests Joint Staff incorporate process into CJCSI 3170 Manual**
- **Directs the DoD Components to brief AT&L (or designee) annually on implementation status**



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# *Training Development ESOH in JCIDS*

- Effort funded by DSOC through the ATP TF
- Purpose: to prepare ESOH SMEs to be effective participants in the JCIDS document development process
- Goal: Have training in place to support policy release
- End State: a Defense Acquisition University (DAU) Continuous Learning Module (CLM), similar to CLE009 “System Safety in Systems Engineering”
  - Generic DoD training, not Service-specific
  - Potential for follow-on Service-specific training development
- NDIA Systems Engineering Division System Safety Committee sponsoring workshops to develop training materials content
  - First workshop held 16-17 Sep 09 in St. Louis, MO
  - Second workshop set for 18-19 Nov 09 in Arlington, VA



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# *Training Development ESOH in JCIDS*

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- Training material topics
  - JCIDS basics
  - Developing appropriate ESOH capability statements
  - Participating in JCIDS document development
- JCIDS basics - focused on what ESOH SMEs will need
  - CJCS 3170.01 Manual
  - Terminology
  - Top-level process description
  - Sequence and appropriate content of documents: Initial Capabilities Document (ICD), Capability Development Document (CDD), Capability Production Document (CPD)



# *Training Development*

## *ESOH in JCIDS*

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- **Developing appropriate ESOH capability statements**
  - **Identifying potential ESOH issues/concerns for a given solution/system**
    - **Lessons learned from similar systems' mishap data, Notices of Violation, NEPA documents, ESOH hazard logs, etc.**
    - **ESOH engineering evaluation of proposed system concept or design (extent of evaluations depend on maturity of system)**
    - **Results from testing activities**
  - **Tailoring for the given JCIDS document (ICD vs. CDD vs. CPD)**
    - **Degree of specificity**
    - **Thresholds and Objectives (except for Other System Attributes)**



# *Training Development*

## *ESOH in JCIDS*

- **Participating in JCIDS document development**
  - **Goal: effective advocacy for inclusion of ESOH capability statements**
    - **Describe contribution to preserving mission capability**
    - **Demonstrate potential program and ESOH risk reduction**
    - **Address any potential lifecycle cost savings**
  - **Understanding the appropriate use of parameters and attributes**
    - **Key Performance Parameters (KPPs): essential and critical to program success; typically not appropriate for ESOH**
    - **Key System Attributes (KSAs): crucial to program success; appropriate for the most significant ESOH issues**
    - **System Attributes: support KPPs and KSAs; appropriate for ESOH issues**
    - **Other System Attributes: appropriate for detailed ESOH inputs**



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# *Way Ahead*

- **Formal staffing of policy memo through OSD and Components**
  - **Expected to begin Feb 2010**
  - **ECD Oct 2010**
- **Continue training development**
  - **Next workshop 18-19 Nov 09**
  - **Third workshop TBD**
  - **Compile and refine training materials**
  - **FY2010 DSOC funding of course development**



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# Questions?

