



OVERVIEW

Maintenance Training and Distance Support: Critical Components of the 'Logistics Support System'

Moderator:

Dr. Joe Sheehan, Human Systems Analyst

Panelists:

- **Mr. Todd Mellon**, Director, Industrial and Logistics Maintenance Planning/Sustainment Department (USN)
- **Mr. Rob Finley**, Deputy for Manpower, Personnel and Training, F-35 Lightning II Program Office
- **Mr. Michael Johnston**, USAF Globalhawk/JTDI Systems Integration Specialist
- **LtCol Donald Evans**, HQMC Avionics Officer
- **Mr. Oswald Ingraham**, Apache Logistics

Distance Support will be the key component of this panel discussion. As an integrated 'system' that supports identification of maintenance tasks and related training, distance support

- delivers electronic curricula,
- documents maintainer proficiency,
- provides access to near real-time authoritative technical support and information,
- and integrates system and maintainer readiness measures.

The panel will assess the interrelationship between distance support systems, on-site technical representatives, and training effectiveness measures and consider how those elements can be integrated to improve operational readiness.



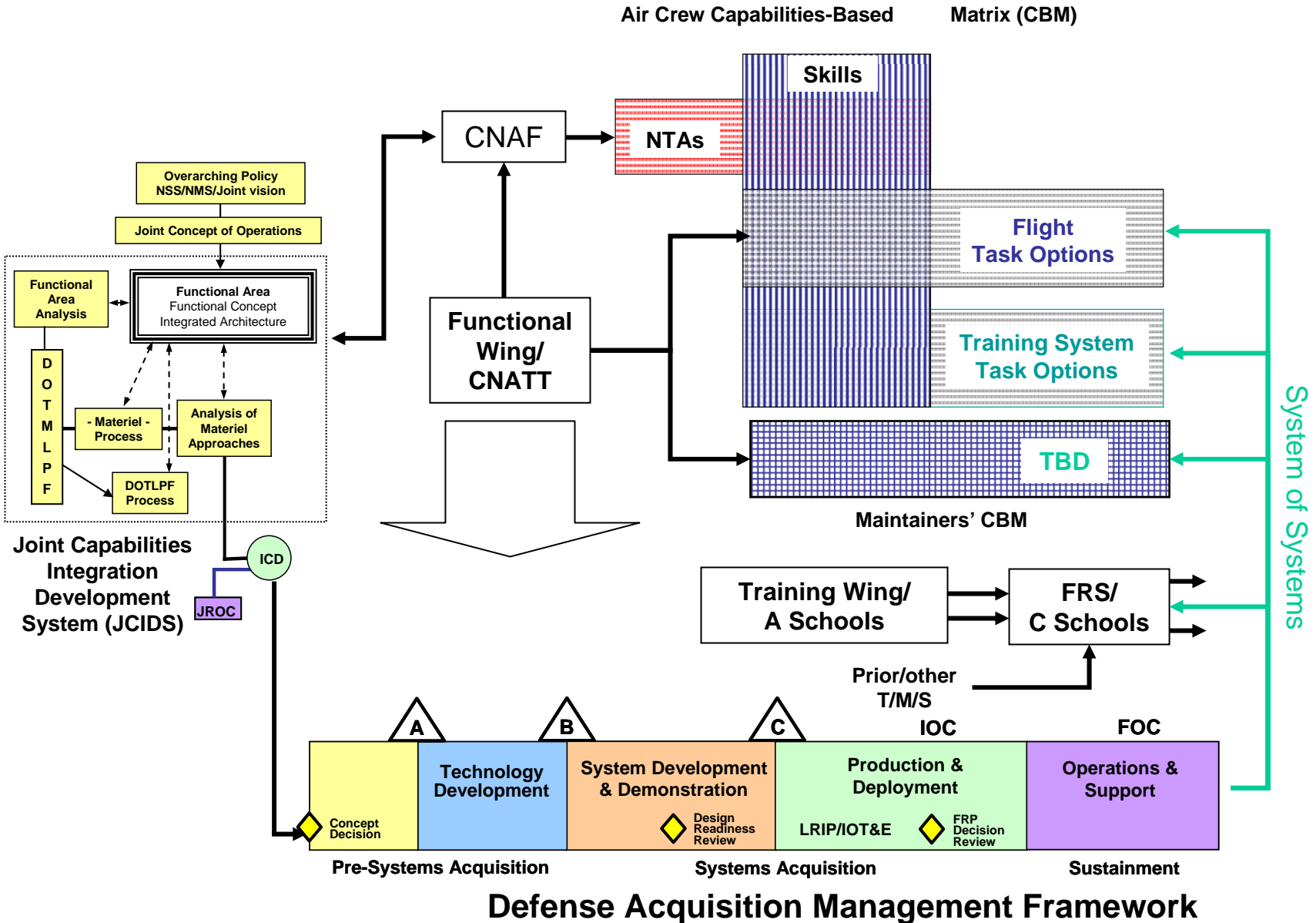
Maintenance Training and Distance Support: Critical Components of the 'Logistics Support System'



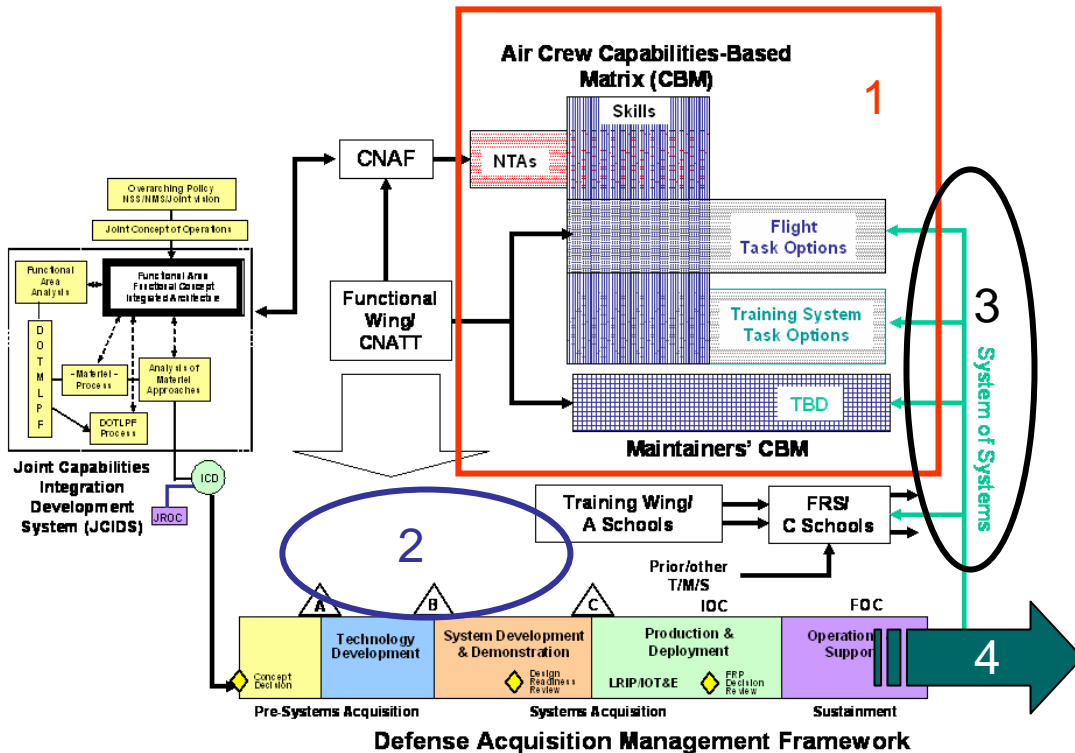
Enhancing Maintenance Training through Distance Support Initiatives

Joe Sheehan, Ph.D.
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We buy capabilities...

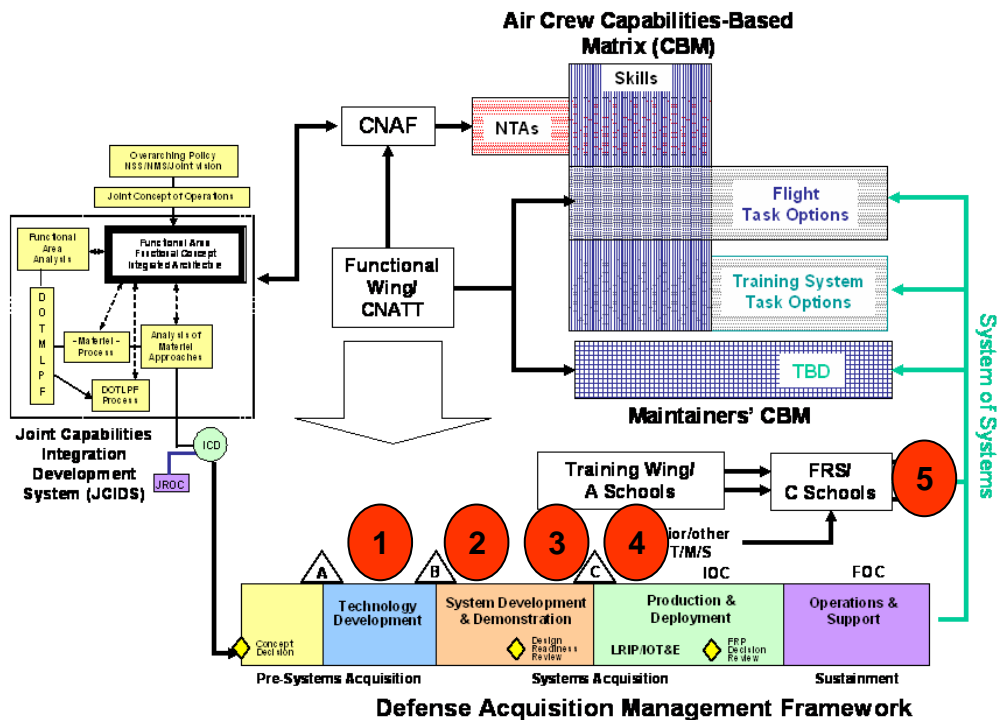


So what?



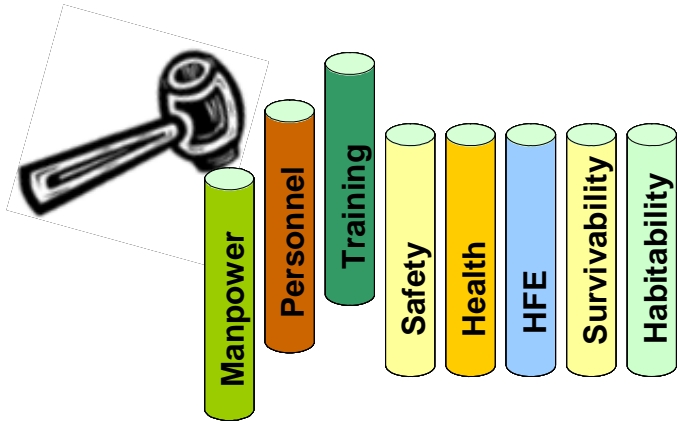
1. Aircrew/Maintainers are factors of A_0 .
2. If human system needs and limitations not addressed here...
3. They won't be represented here...
4. And Maintainers will have to suck it up here.

How far back should we reach?

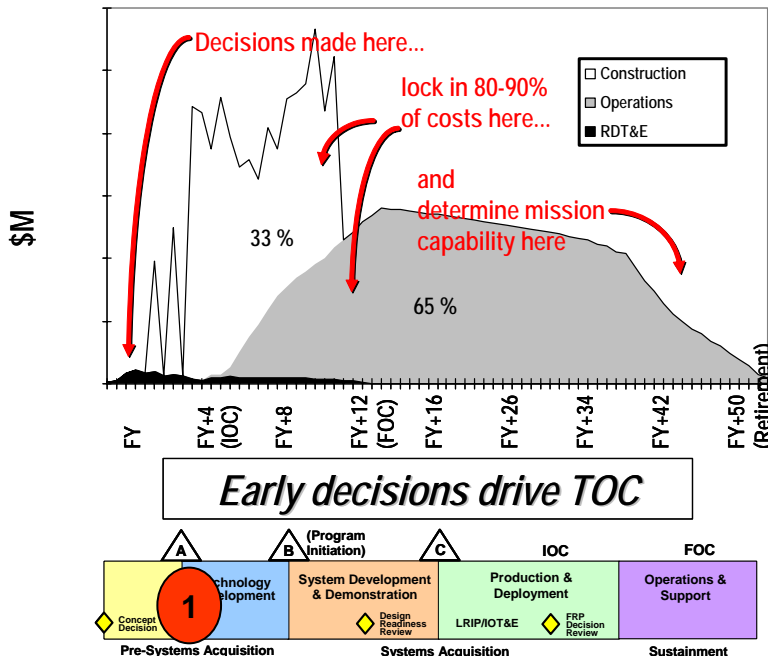


1. MPT trade space
2. Maintainer (vice Maintenance) task analysis
3. Media analysis (before allocation)
4. Content/scenario development and
5. Revision

1—Manpower, Personnel, Training



- In an acquisition, there are tradeoffs that involve the human systems disciplines.
- Because they're so interdependent, MPT must be considered simultaneously.
- MPT decisions are made before most human systems analyses are conducted.

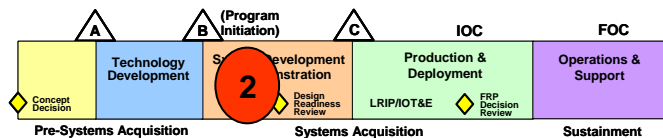


Documented MPT feedback with emerging requirements and lessons learned

2—Maintainer task analysis

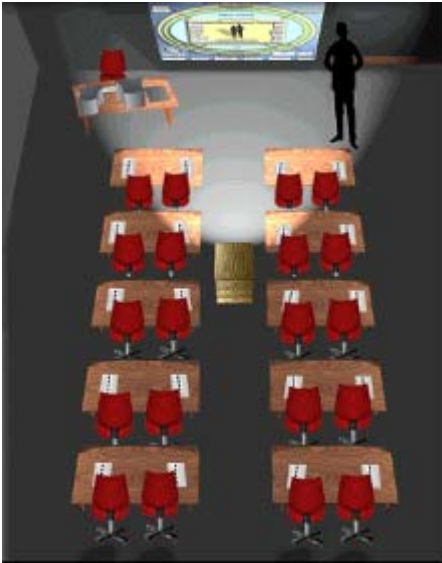


- Human performance attributes are critical for the design of effective instruction, for example
 - Difficulty to learn; perform
 - Probability/consequence of error
 - Skill decay
 - KSA taxonomies
 - Initiating cue requirements
- Troubleshooting sophisticated systems must be underpinned by cognitive task analysis.

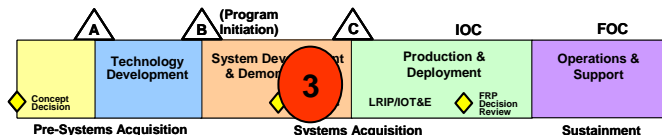


**Actual task data, metrics,
standardized analysis tools,
JPAs**

3—Media analysis

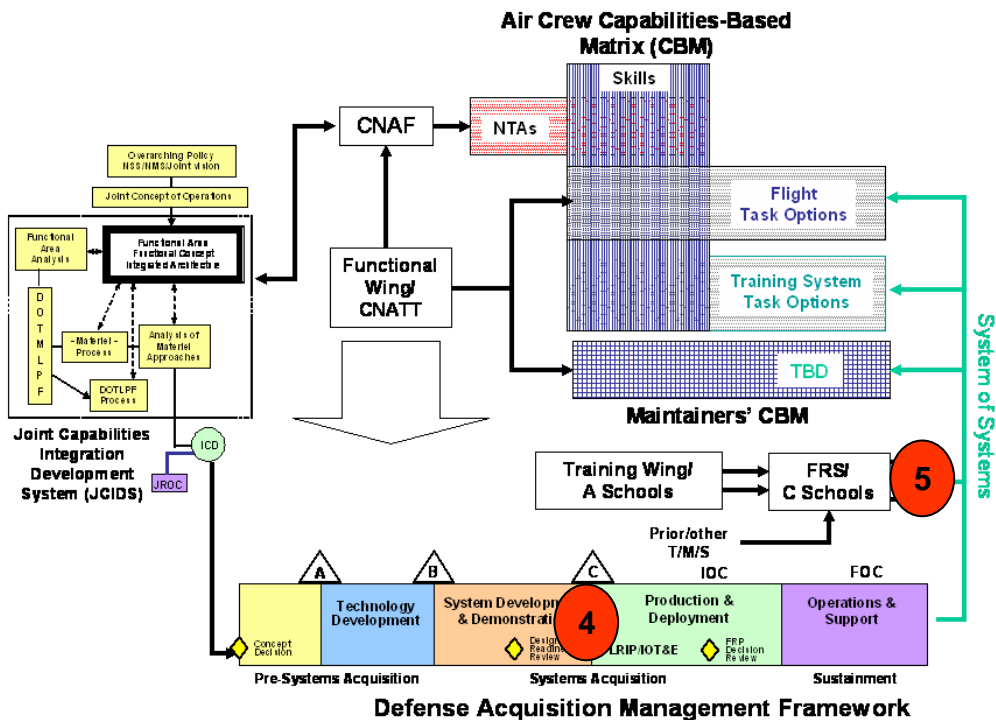


- Just as the Maintainer is part of the Weapons System, so the Instructor is part of the total Training System.
- Stuffing instructor-led training into HTML is NOT training.
- Legacy bias is a major problem, especially when the system is transformational
- The Instructor operating Station must be designed *using* the ISD analysis



Feedback for use in editing media models and modifying trainers, adding JPAs, media clips, etc.

4—Content/scenario development and 5—Revision



- During development, CONOPS all over the map; weapons system in flux
- Malfunction predictions are best guesses
- Assumptions are shaky
- Field reach-back must be *implemented*
- Revised ICW can be recycled into the database

Actual faults, video clips, lessons learned, etc.