Configuration Management: It's *not* just a necessary evil!

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What is CM?

- People sitting in cubicles who want nothing more than to be a thorn in my side.

- The list that says how the vehicle is configured for the test. I think its verified by QC.

- Another mystical process that the Air Force makes us use that no one really understands.

- It's the way documents get released.

- Oh, those are the people who manage the configuration of the vehicle.

CM is *Much More* Than Physical

- DoD first defined CM in the 1950's

- IEEE 610.12-1990 definition:

  "...a discipline applying <u>technical</u> and <u>administrative</u> direction and <u>surveillance</u>..." in order to:

CM Intent

- **ID & document** the *functional requirements & physical characteristics* of the vehicle & associated support equipment.
- **Audit** the *functional requirements & physical characteristics* to verify conformance to intended design.
- **Control changes** to the *functional requirements & physical characteristics* & related documentation.
- **Capture and report** information necessary to effectively manage *functional requirements & physical characteristics* to include status & implementation information for changes to the intended design.

CM is *Foundational*

Flight Testers are *Consumers & Owners:*

The 'auditors' that ensure that the 'identified and documented' functional requirements & physical characteristics work as intended.

The 'capture & reporting' function that results in substantiating the design, or identifying changes necessary.

CM is really our business.

CM: WIKIPEDIA OF FLIGHT TEST

- Not always 100% accurate, but an excellent place to start for reference.

- Can be modified by anyone willing to use the system.

- The more input given, the more accurate it becomes.

Take What You Need & Leave the Rest!

Technical Manuals	Test Control	Operations Manuals
Design (Model/ Lab/ Sim)	Test Review (Briefs/ FRR/TRR)	CR/MCC
Specs (ICD/ QC/ Requirements)	Risk/ Hazard/ Safety	Site Readiness
Test Plans	T&E Control & ID	Mishap/ Emergency
Test Reporting	CND Failure Acceptance	Ranges
Flight Limitations	Retest Requirements	Maintenance/ Modification
Test Cards	Security & Integrity	Flight Manual
TOPs	TOPs	TOPs

A few examples:

Test Plans & TOPs define clear test points.

FOL & Flight Manuals contribute to Go/No-Go criteria.

Control/Firing Room Ops gives clear expectations on team while conducting testing.

Summary

- CM requires input from flight testers to be effective.

  - Put yourself in the customer role & make your needs known.

  - Be the owner by ensuring that you perform your part in contributing to the success of the system.