

ADCSS 2011 Workshop FDIR Session – Round Table

European Space Agency

FDIR Session Objectives



1. To evaluate **issues**, shortcomings, challenges of the current FDIR Development and V&V Practices

To evaluate state of the art approaches offering effective solutions

3. To identify common core areas and agree on way forward how to address them.

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Issues/Points from Presentations



- Lack of principles to guide FDIR engineering process fitting FDIR concept to mission goals and objectives to FDIR goals, Fault tolerance, FDIR architecture and risk posture etc.
 - a. FDIR concepts and specifications in many cases are missing.
 - b. For similar missions and mission goals FDIR concepts and specifications **are diverged**.

(notions of Failure Levels, FDIR Levels, HW Alarms are used but often lack consistency. FDIR strategy are linked to Failure levels but has very many exception rules).

Issues/Points from Presentations



- 2. Who is **responsible** for FDIR engineering. Do we need it ?
 - a. No identified FDIR responsibility exists.
- 3. Does **advanced techniques** and **emerging technologies** in the DHS, AOCS and SW domains impacts FDIR concept and design with a new perspective ?
- 4. Today's **FDIR engineering techniques** are sufficient ?
- 5. Does FDIR domain needs a **generic set of requirements** which can be elaborated and instantiated ?
 - a. Is it desirable to promote *FDIR functional requirements* instead of *Design implementation requirements* ?
 - b. What Operators and Designers would like to see as FDIR requirements from customer side (simplicity, variability etc).

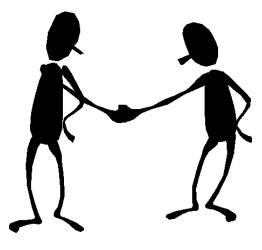
Conclusions



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Thank You !





Round table conclusions will be forwarded to SAVOIR.

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