

Safety

Whole Life Cycle Safety Support

WEC Safety engineers have established an excellent reputation across military and civil aircraft programmes with over 25 years in the Aerospace industry working with various aircraft OEMS, equipment suppliers and aircraft operators.

Our experience covers the whole product life cycle from trade studies and initial design concepts through to in-service evaluations, modification and life extension analysis, including liaison with regulatory authorities.

The safety team benefits from being embedded within the systems engineering team, allowing safety engineers direct access to detailed system domain knowledge.

Working Practices and Standards

ARP4761	Def Stan 00-56	NUREG -0492
ARP4754	RTCA DO-160	Mil-Hdbk-217
FAR/CS 25	RTCA DO-178	NPRD
FAR/CS 29	RTCA DO-254	ARP1595
Def Stan 00-970	IEC 61508	

In-service Safety Support

- Master Minimum Equipment Lists
- Despatch Deviations Guide
- New certification requirements compliance
- In service incident analysis
- Safety Related Operational & Maintenance Task Definition and Scheduling

System Level Design

System FHA, Risk Assessment

Sub-System Level Design (Functional Level)

FHA, PSSA, Trade-off Analysis, CCA, Failure Rate (λ)

Budgeting, Prototype Modelling, Concept Analysis

Sub-System Level Design (Operational Level)

PSSA - Preliminary System Safety Assessment

FHA - Functional Hazard Analysis

FMEA - Failure Mode and Effects Analysis

FMES - Failure Modes and Effects Summary

CCA - Common Cause Analysis (Particular Risk,

Zonal Hazard, Common Mode)

SSA - System Safety Assessment

FTA - Fault Tree Analysis

RBD - Reliability Block Diagrams

Equipment Level Design

FHA, FMEA,

FMES, SSA,

CCA

CONCEPT

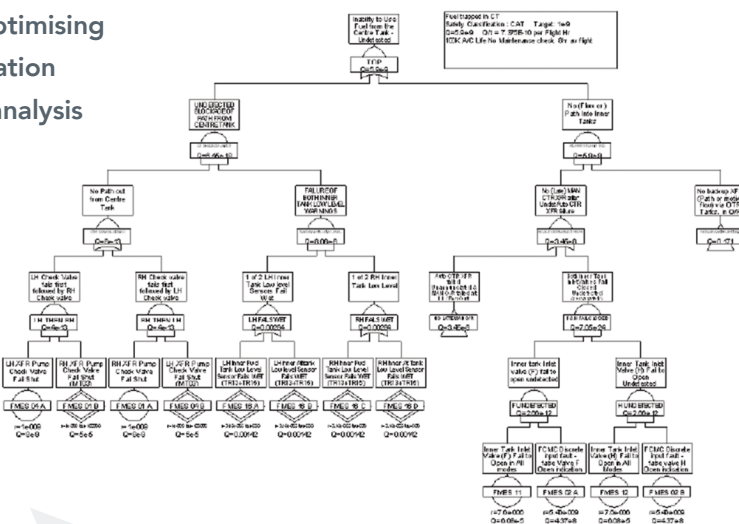
PRELIM
DESIGN

DETAILED
DESIGN

DESIGN
V&V

Fault Tree+ skills

- Tree Construction
- Inspection optimising
- Cutset evaluation
- Importance analysis



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