SOME OF THE HIGH & EXTREME LEVEL RISKS IDENTIFIED AND SINCE MATERIALISED IN F-35A JSF DESIGNS

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(Refer Air Power Australia Website for Original Risk Assessments)

STOVL F-35B JSF IS BASELINE DESIGN:
* Inappropriately influenced other variant designs
* Aerospace version of Herpes
* Gift that will keep on giving for LOT

DOES NOT INCLUDE RISKS INCUMBENT IN:
* ALIS, ALGS, TMS, OMS or PHM
* Supportability and Sovereign Control
* Interoperability and NCW (e.g MADLS, et al)
* Fact that JSF is not a 5th Generation Fighter

SUSCEPTIBLE TO AERO/ELASTIC INSTABILITIES
(circa 2004)
* Unacceptable Limits on Mission Performance
* Degraded aero/propulsive performance
* Degraded aircraft structural life
* Fails to meet Threshold * JORD Specifications

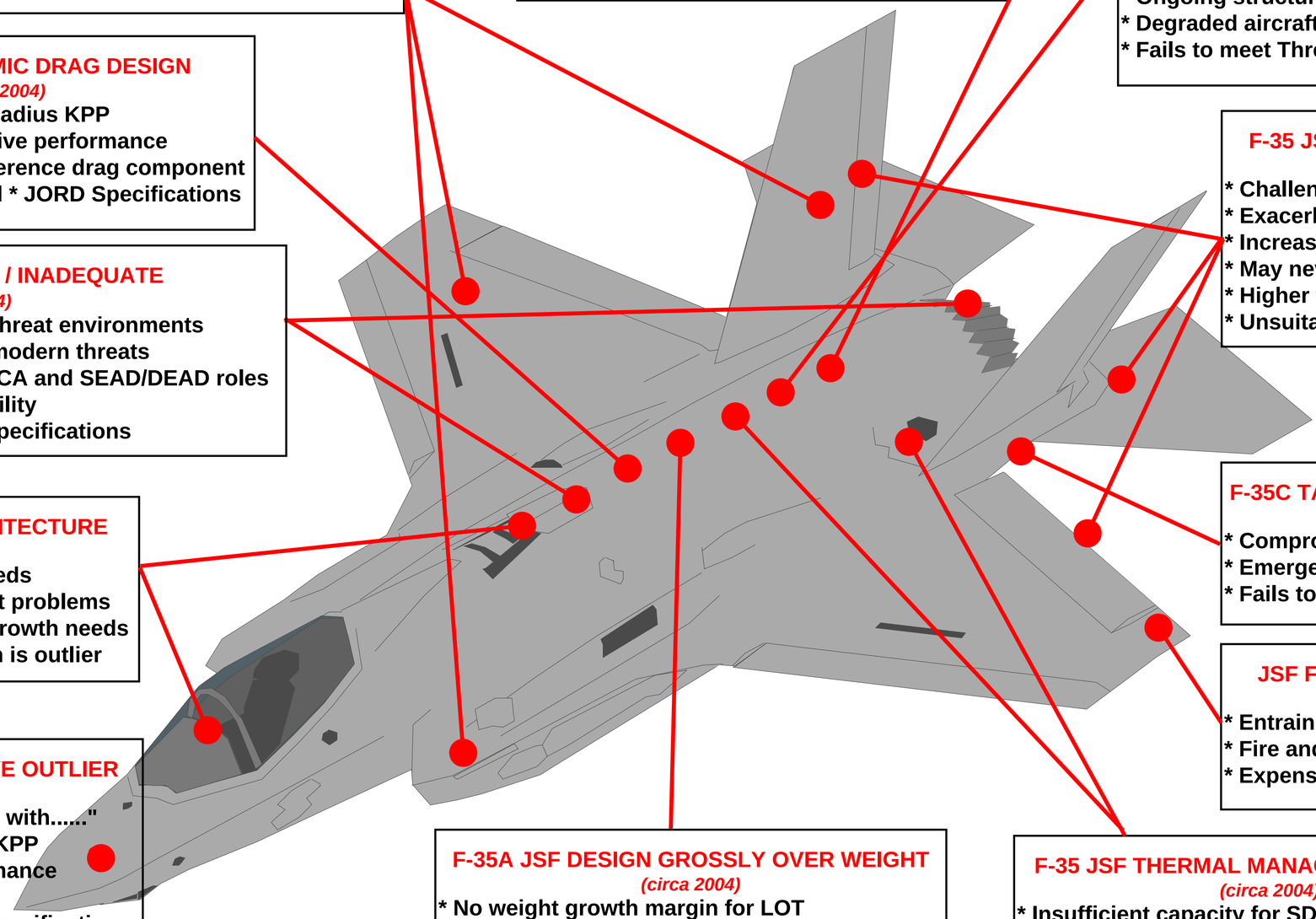
STOVL REQUIREMENT ON ENGINE IMPOSED >2,000LBS OF DEADWEIGHT ON NON-STOVL JSFs
(circa 2004)
* Result of "commonality" run amok/rampant
* No weight growth margin for LOT
* Degraded aero/propulsive performance
* Negative effects on aircraft structural life

SWAT COMPROMISED STRUCTURAL DURABILITY
(circa 2004)
* Issues/Problems arise early in testing programs
* Not just limited to Primary Structure
* High cost rectifications/Mid Life Upgrades
* Ongoing structural mod programs
* Degraded aircraft structural life
* Fails to meet Threshold * JORD Specifications

HIGH AERODYNAMIC DRAG DESIGN
(circa 2004)
* Fails to meet Combat Radius KPP
* Degraded aero/propulsive performance
* High wing/stores interference drag component
* Fails to meet Threshold * JORD Specifications

F-35 JSF ELECTRICAL FLIGHT CONTROLS
(circa 2002)
* Challenge power generating capability
* Exacerbate thermal management problems
* Increase ballistic vulnerability in all roles
* May never provide required control effect
* Higher than expected duty cycles
* Unsuitable for addressing aero/elastic issues

LO DESIGN OBSOLETE / INADEQUATE
(circa 2004)
* Defined and designed for legacy threat environments
* Survivability inadequate against modern threats
* Not viable for penetration, OCA/DCA and SEAD/DEAD roles
* Lethality loss due to low survivability
* Fails to meet Threshold * JORD Specifications



F-35C TAIL HOOK INSTALLATION AN OUTLIER
(circa 2008)
* Compromised tail hook design on F-35A
* Emergency arrestments highy problematic
* Fails to meet Threshold * JORD Specifications

F-35 JSF ICP/SOFTWARE ARCHITECTURE
(circa 2002)
* Unable to meet computational needs
* Exacerbates thermal management problems
* Unable to meet mid & long term growth needs
* Software complexity/complication is outlier

JSF FUEL DUMP SYSTEM ENTRAINMENT
(circa 2007/8)
* Entrainment obvious during AA-1 testing
* Fire and explosion hazard
* Expensive fix will have RCS/LO implications

F-35A JSF AN AERO/PROPULSIVE OUTLIER
(circa 2004)
* "Fighter performance comparable with....."
* Does not meet sole performance KPP
* Degraded aero/propulsive performance
* Does not meet performance KPIs
* Fails to meet Threshold * JORD Specifications

F-35A JSF DESIGN GROSSLY OVER WEIGHT
(circa 2004)
* No weight growth margin for LOT
* Degraded aero/propulsive performance
* Degraded aircraft structural life
* Fails to meet Threshold * JORD Specifications

F-35 JSF THERMAL MANAGEMENT SYSTEM
(circa 2004)
* Insufficient capacity for SDD systems
* No growth margin for design evolution
* Imposes severe operational limitations
* Bounding constraint for avionics and controls

"The Source of Risks Equation"

PRIMARY SOURCE OF RISKS
LOOSELY COUPLED "COMPROMISE ^3" DESIGN METHODOLOGY RISKS
(circa 2003)
* *Outlier designs*
* *Huge growth in costs*
* *Huge overruns and delays in schedule*
* *Major & serious deficiencies/defects in designs*
* *'Fixes' become "self eating watermelons"*
* *Fails to meet Threshold * JORD Specifications*

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PRIMARY SOURCE OF RISKS
RISKS ARISING FROM FLAWED & CAIV-ed JORD
(circa 2003)
* *Obsolete and Overmatched before IOC*
* *Loss of technological edge needed for air superiority*
* *Loss of strategic edge needed for air superiority*
* *Damage to whole Force Structure - "Cuckoo in Nest"*

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PRIMARY SOURCE OF RISKS
IGNORING ADVICE OF LM/FWD RISK OFFICE & INDEPENDENT EXPERTS
(circa 2003)
* *All identified and assessed risks materialise*

* Threshold = Bare Minimum Acceptable Specification

Legend
IDENTIFIED RISK ASSESSED AT HIGH or EXTREME LEVEL
(date identified and assessed)
* Reasons behind risks
* Main Consequences of Materialised Risks

Data Sources: US DoD QLR Report, GAO, CRS, Air Power Australia, PGAA