

F-35 Lightning II Program



September 2007
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The F-35 Design Requirement



Go Deep Into a Double Digit SAM Environment . . .

Surface-to-Air Missiles



SA-10



SA-12



SA-15



2S6M/SA-19

. . . Locate, Identify and Destroy Mobile/Moving Targets Through the Weather . . . While Outnumbered by Fourth Generation Fighters

Fighter Aircraft



Su-27



MIG-35



Su-30



Su-35



Su-37

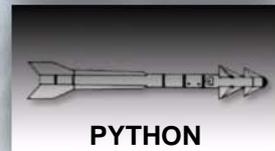
Air-to-Air Missiles



AA-10 ALAMO



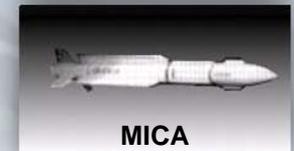
AA-11 ARCHER



PYTHON



AA-12 ADDER

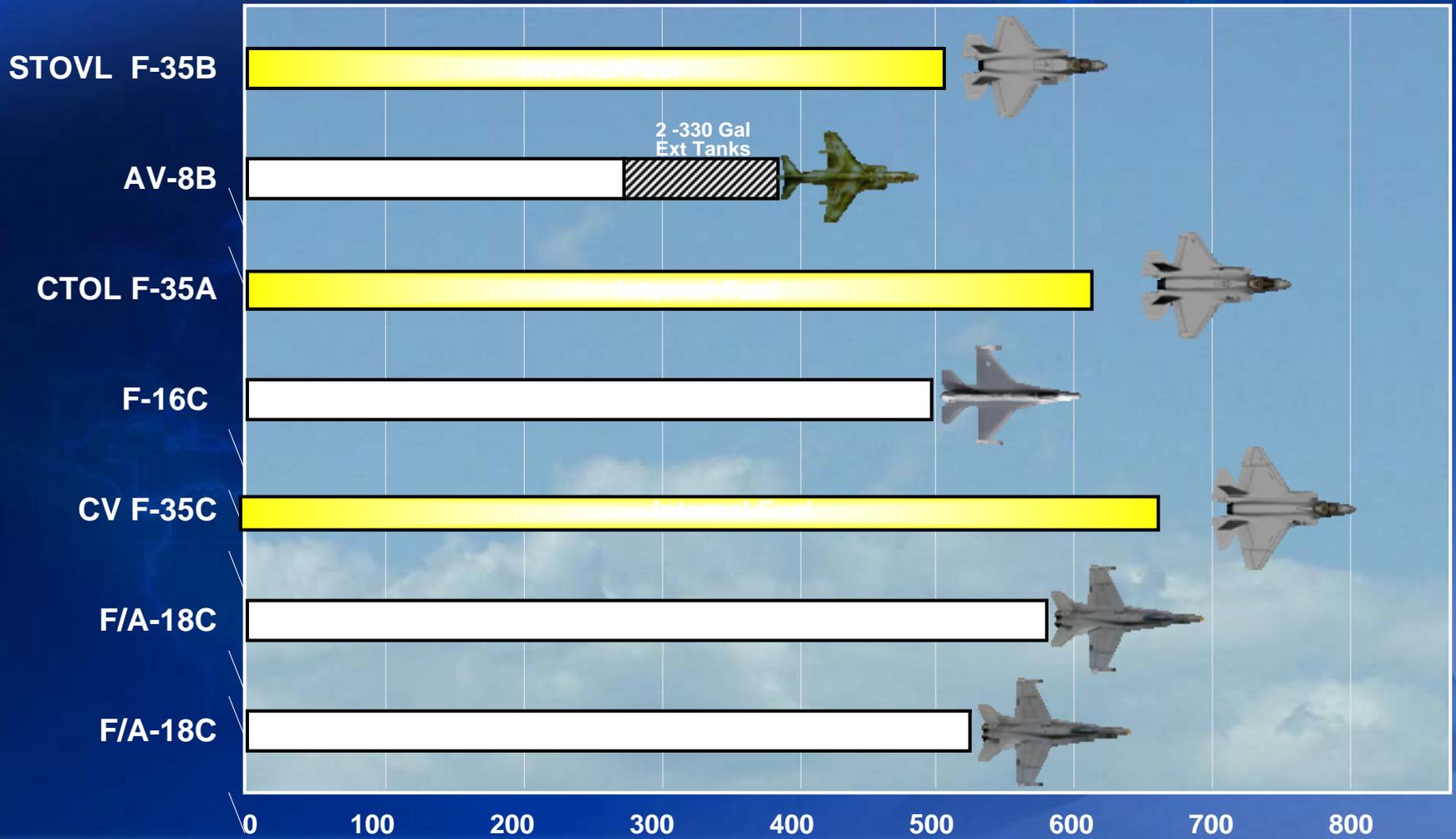


MICA

From Any Base At Significantly Lower Cost Than Legacy Systems



Extraordinary Combat Radius



CTOL 240-4.4
 STOVL 240-4.3
 CV 240-4.2
 Lockheed Martin Aeronautics Company



The Element of Surprise.....



5th Generation Fighters Uniquely Integrate:

- All Aspect Stealth
- Fighter Performance
- Total Situational Awareness
- Advanced Sustainment



F-35



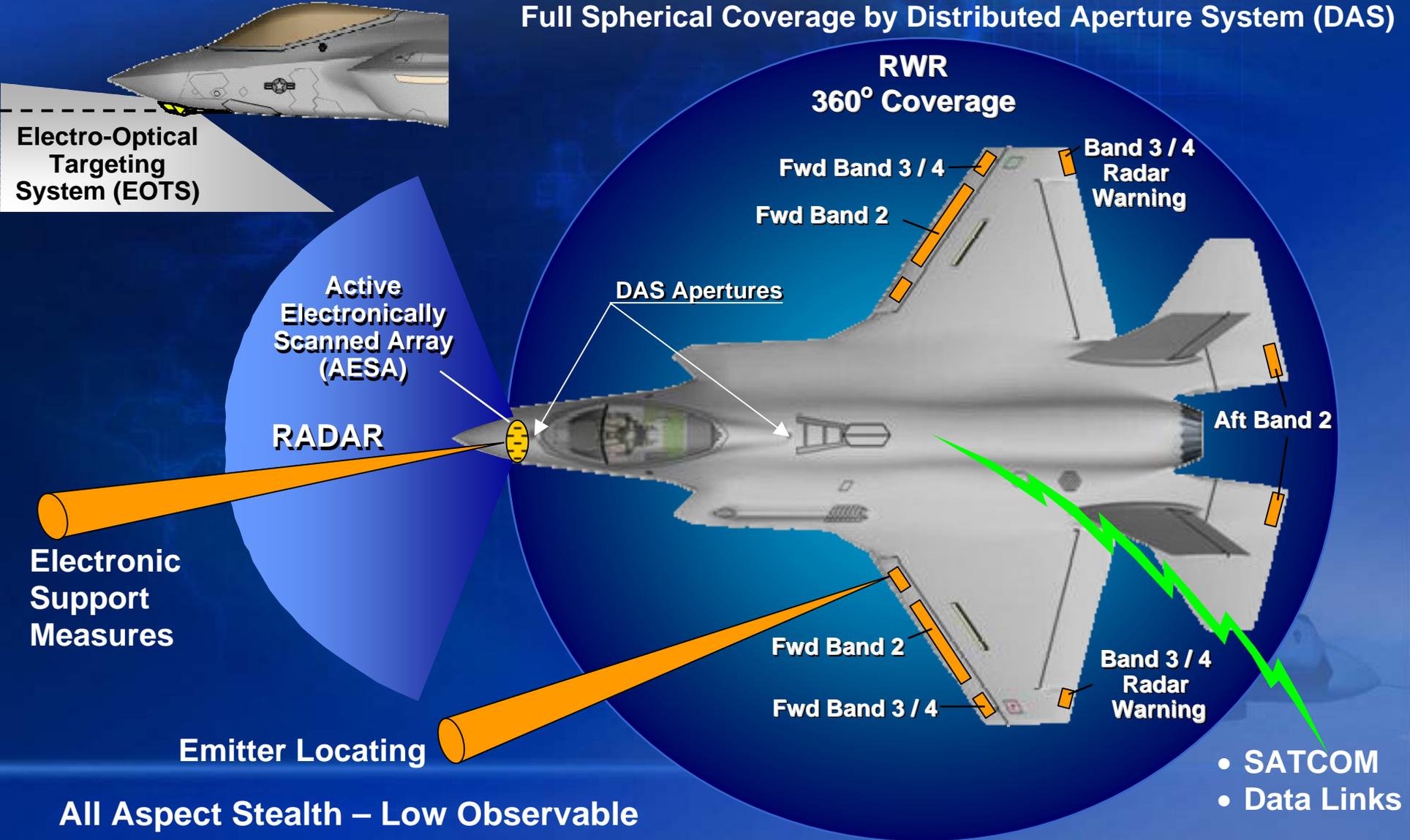
**Unmatched Counter Air, Strike, and ISR Mission Capability
Increases The Effectiveness of Legacy Forces**



....Plus Near Perfect Situational Awareness



Full Spherical Coverage by Distributed Aperture System (DAS)





DAS – Night Carrier





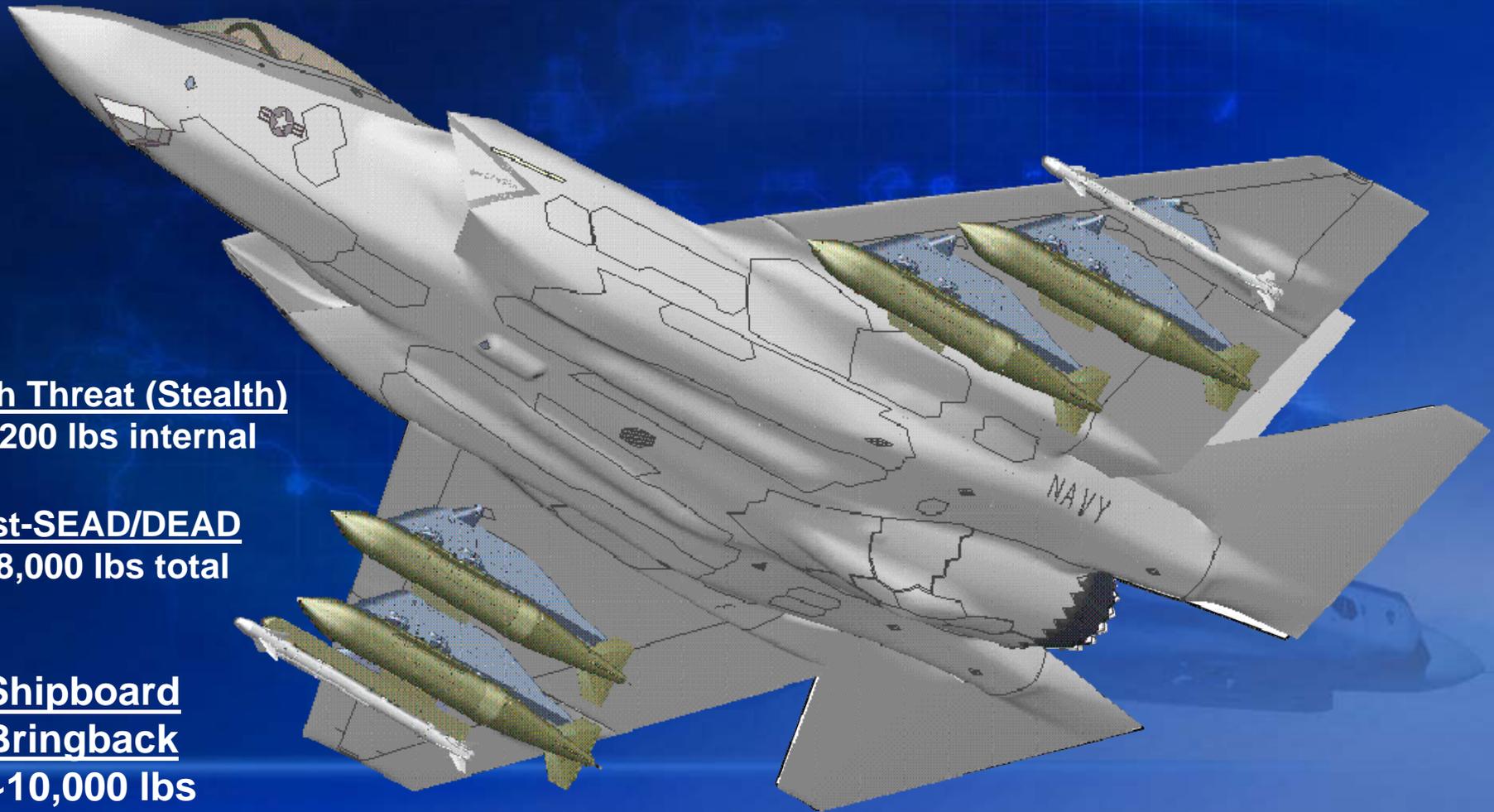
Enabled By a Decision Making Cockpit.....



Exceptional Situational Awareness



.....Ensures Lethality.....



High Threat (Stealth)
~ 5,200 lbs internal

Post-SEAD/DEAD
~ 18,000 lbs total

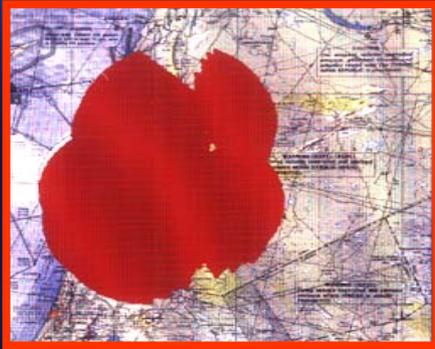
**Shipboard
Bringback**
~10,000 lbs



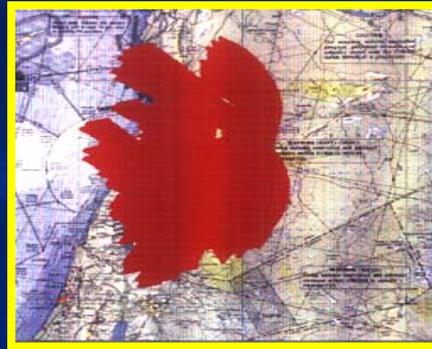
...Threat Avoidance, Survivability and Mission Success



SAM ENGAGEMENT ZONES



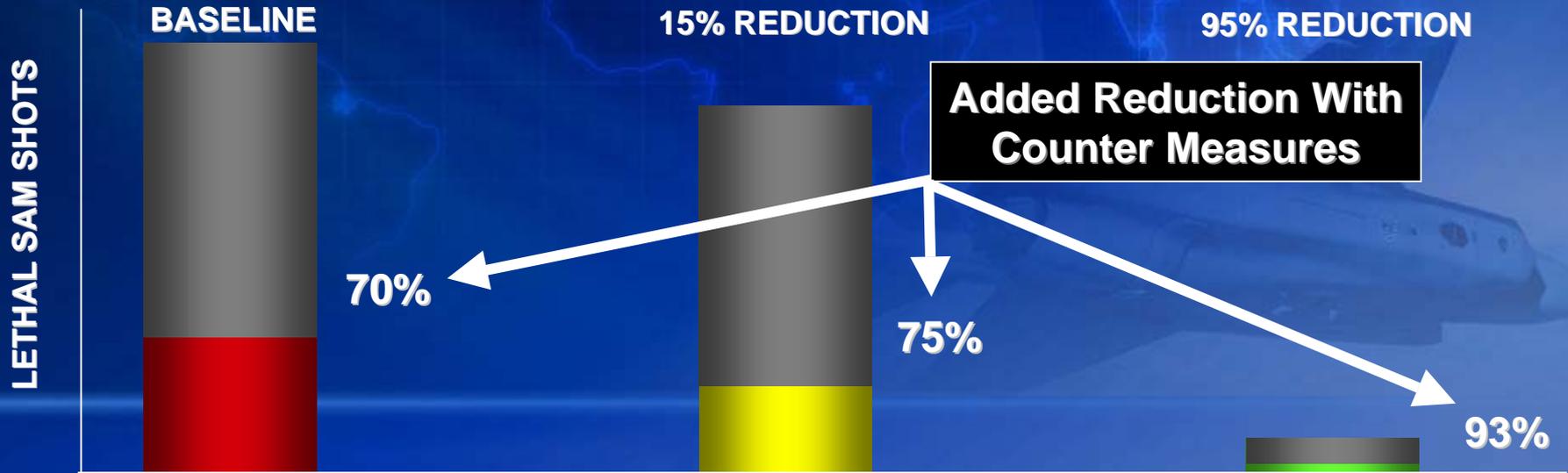
**1st to 3rd Generation
Fighters - Conventional**



**Some 4th Generation
Fighters – LO Enhancements**

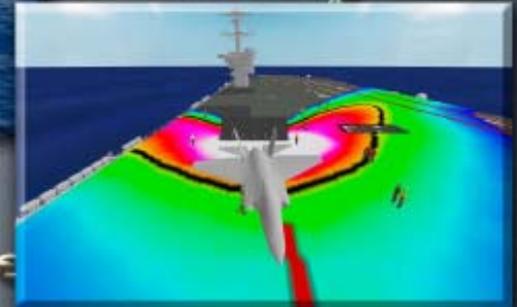
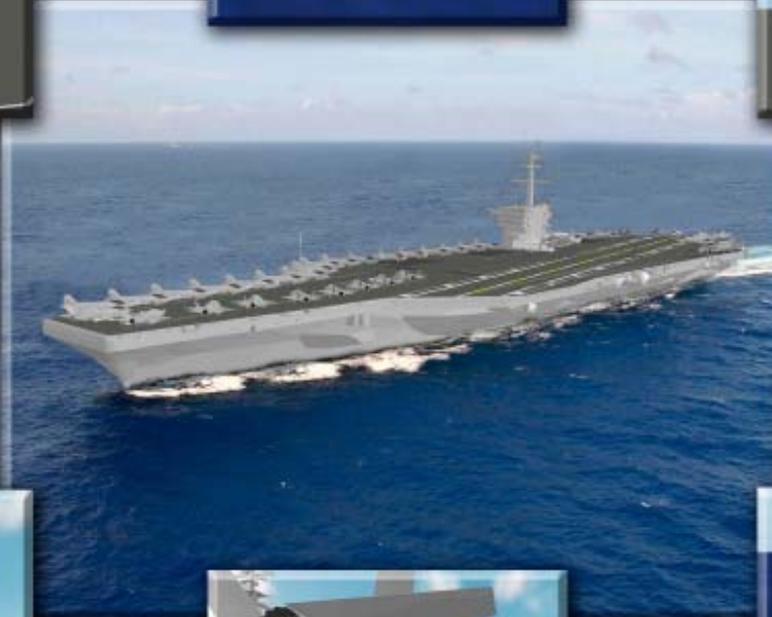
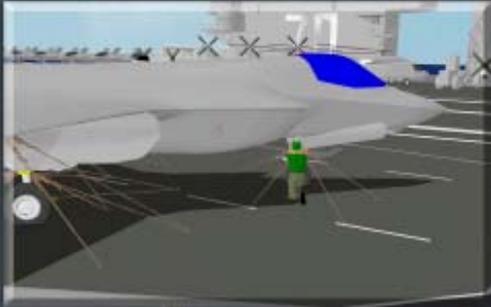


**5th Generation
Fighters – All Aspect Stealth**





Taking the F-35 to Sea Virtually



Advanced Visualization System • F-35 Ship-Air Integration Lab (SAIL)



Support & Sustainment



Questions?

