



USAF COMBAT SEARCH AND RESCUE (CSAR)

**THIS BRIEFING IS
UNCLASSIFIED**

**COL LEE MEADOR
ACC / DRMR**



OVERVIEW

- **CSAR Weapon Systems**
- **CSAR Commitments**
- **Rescue Force Structure**
- **CAF Modernization**
- **Analysis of Alternatives**





CSAR WEAPON SYSTEMS

HH-60G



HC/MC-130



Pararescuemen (PJ)





CSAR COMMITMENTS

- **Operations NORTHERN WATCH (ONW) and SOUTHERN WATCH (OSW)**
- **ACC fills 80% of on-going CSAR recovery platform commitments**
 - **10% AFRC/ANG; 10% AFSOC**
- **CAF CSAR is a High Demand / Low Density (HDLD) Asset**

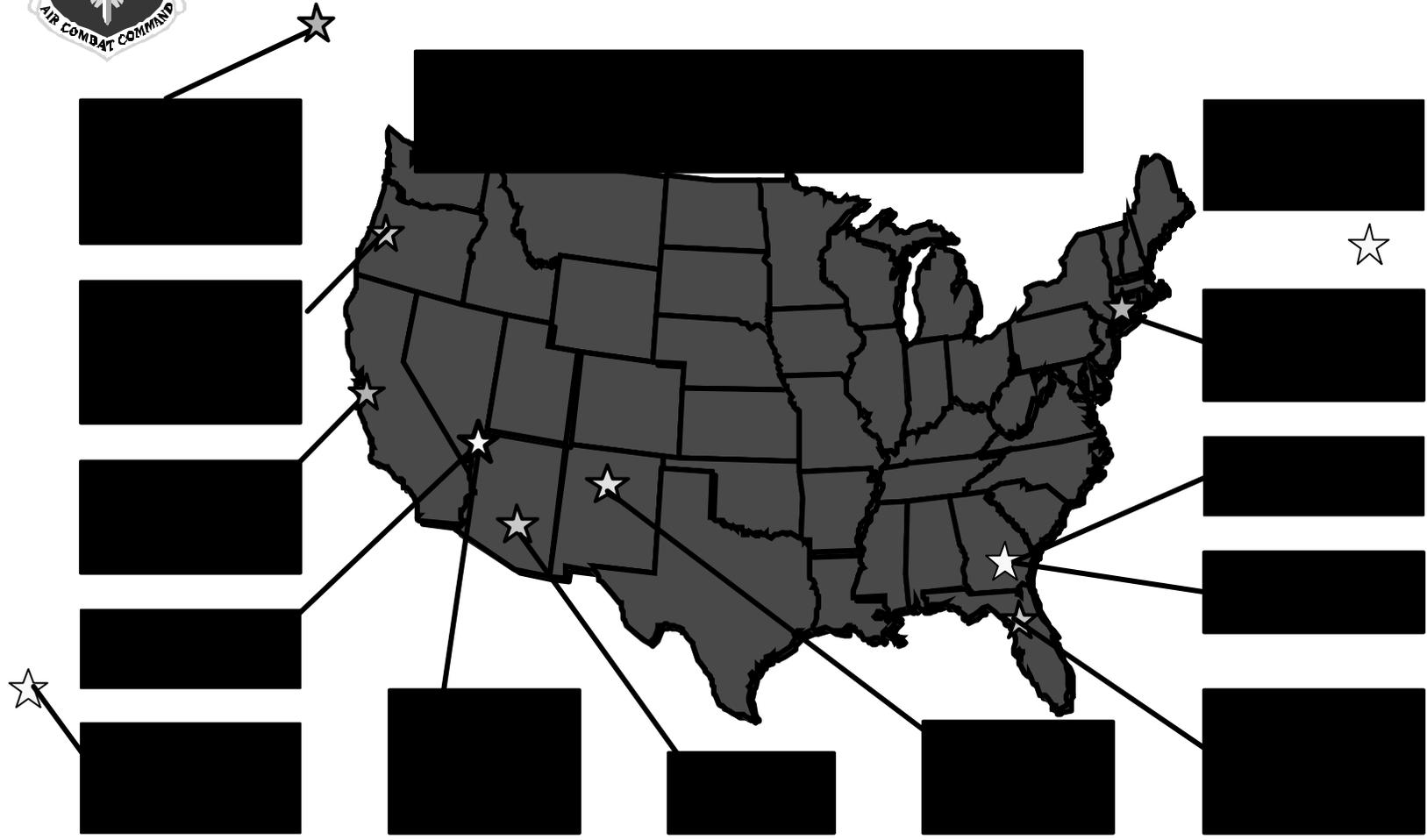


CSAR COMMITMENTS

- **OPERATION ALLIED FORCE**
 - Two rescues performed by AFSOC
 - Pickups accomplished by MH-60G
 - AFSOC no longer has MH-60Gs
 - CAF continued to maintain CSAR alert in ONW & OSW
 - CSAR became an AFSOC, ACC, AFRC combined effort mid-way through Allied Force
- **AFSOC is Phasing out their MH-53**



FORCE STRUCTURE



Active units

AETC/USAFWS/TES units

AFRC units

ANG units



FORCE STRUCTURE

- **ACC Focus has been on fixing force structure**
- **Bought H-60s from AFSOC; WC-130s from AFRC**
- **On going: AFRC mission swap**
 - **939th Rescue Wing, Portland, OR, converts to an air-refueling wing 4QT FY02**
 - **CSAR assets (8 HH-60, 5 HC-130) are an active force-structure gain to ACC**



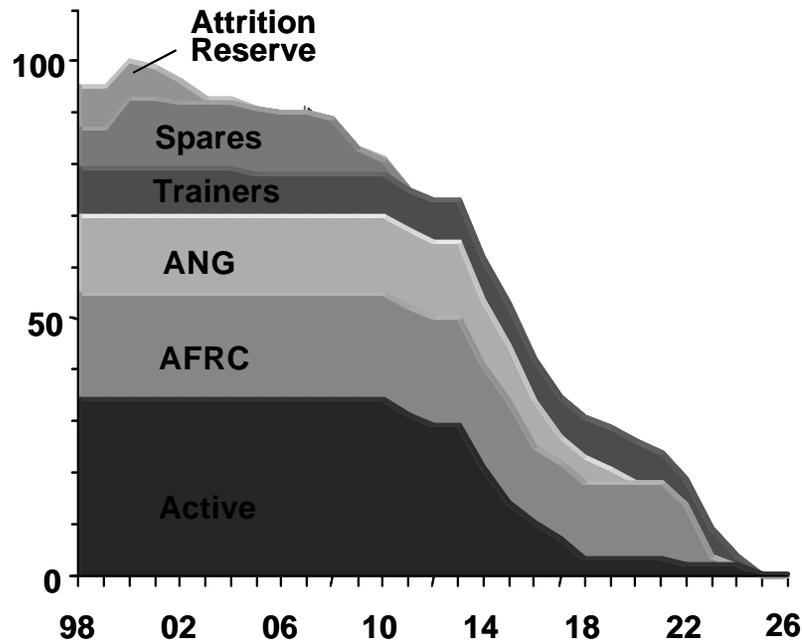
CAF MODERNIZATION

- **Self Protection System (SPS)**
- **Block 152 Upgrade & 486 NAV System CDU upgrade**
- **701 engine retrofit**
- **HAVECSAR - HH-60 RTIC, T1 Mod, 3 deployed to ONW, 3 will be deployed to OSW**
- **SLEP funding for 20 older HH-60s (10 Now Funded)**
- **241 Radar Upgrades – HC-130**
- **Analysis Of Alternatives - replacement HH-60**

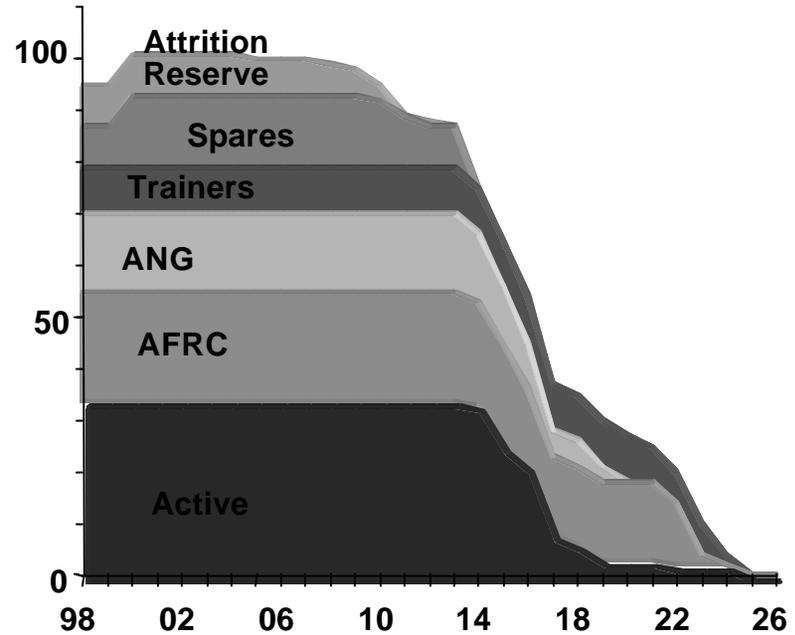


HH-60 SERVICE LIFE

No Extension



20 A/C Extended



- The HH-60G is approaching its service life limits
- These charts depict force structure for the next 25 years



ANALYSIS OF ALTERNATIVES (AoA)

- **Analysis of Alternatives (AoA) - \$1.5M/18 Month Effort**
- **IOC - FY 2007**
- **AoA force level analysis should take Peacetime CSAR operations into account**
 - **It may have the largest impact on force structure**
 - **Space shuttle support should not be considered a required capability (JROCM 005-99)**



AoA OBJECTIVES

- **Identify best Combat Rescue concept (2010-2030)**
- **Update required mission capabilities**
- **Document mission area deficiencies**
- **Examine nonmaterial and systems solutions**
- **Identify and baseline most cost effective solution(s)**
- **Set size and distribution of next generation force**



AoA REQUIRED CAPABILITY

- **High service life**
- **Low threat susceptibility**
- **Tactical adverse-weather penetration**
- **High combat radius**
- **Improved situation awareness**
- **High payload space**
- **Low reaction time**



AoA INITIAL OPTIONS

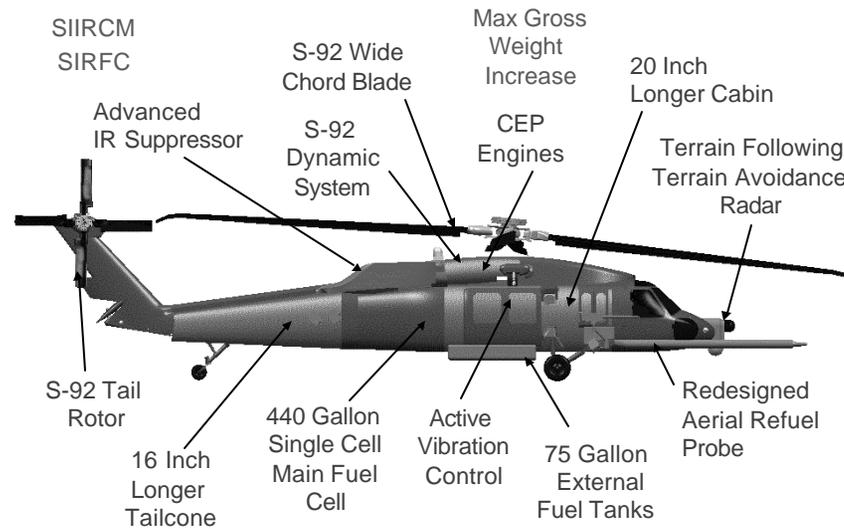
- **HH-60G SLEP / Upgrade**
- **Commercial Options**
- **Currently Fielded Systems**
- **Systems Being Fielded**
- **Mixed Fleet Options**
- **Allied Cooperative Development**
- **New Program Development**



BASELINE / SLEP/ NEW LIGHT HELICOPTER



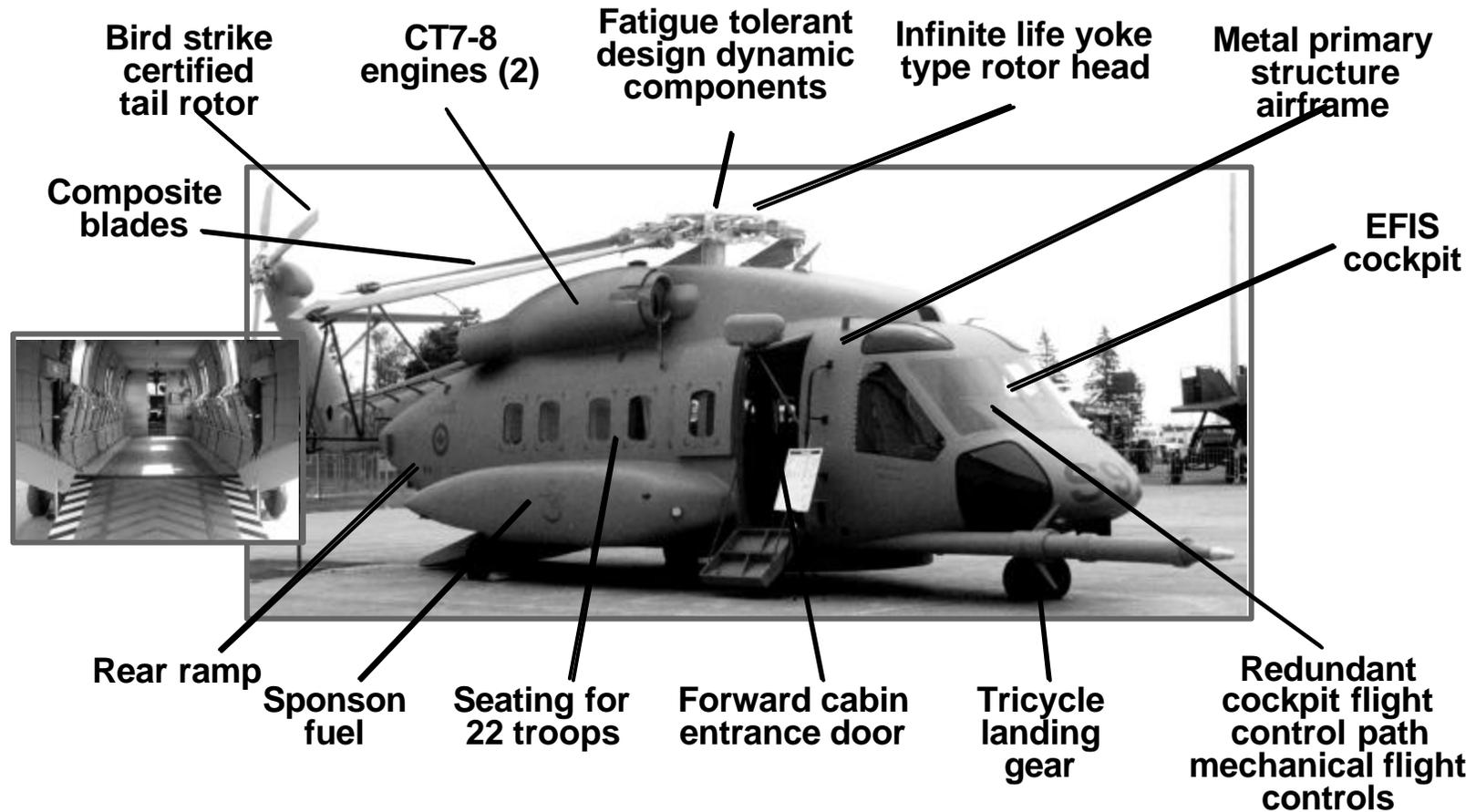
H-60 Airframe SLEP



Sikorsky: HH-60 Pave Hawk Upgrade



COMMERCIAL OPTIONS SIKORSKY S-92 / BA-109 / MI-8





CURRENTLY FIELDDED SYSTEMS

- HH-60J
- MH-60K
- H-53
- MH-47





SYSTEMS BEING FIELDDED

- CH-60
- UH-60X
- UH-1Y
- MV/CV-22





MIXED FLEET

Find best mix of cost and effectiveness





ALLIED COOPERATIVE DEVELOPMENT

- **Cougar**
- **EH-101**
- **NH-90**





NEW DEVELOPMENT



Sikorsky: HV-X Medium Lift



Piasecki: VTDP/H-60



**Dupont Aerospace: DP-2
Turbofan VTOL**



STATUS OF AoA – DEC 00

- **Studies completed**
 - **Historical Operational Review**
 - **Rescue / Tanker Demand**
 - **Terminal Area / Payload Analysis**
 - **Force Structure**
 - **Possible Acquisition Strategies**
 - **Costs Analysis**



STATUS OF AoA

- **Ongoing**
 - **Modeling and Simulation**
 - **Survivability / Vulnerability**
 - **Excursions**
 - **Cost**
 - **Force Structure**
 - **Mixed Fleet**
 - **M&S Scenarios**
- **Will determine best option**
- **Decision by Mar 01**

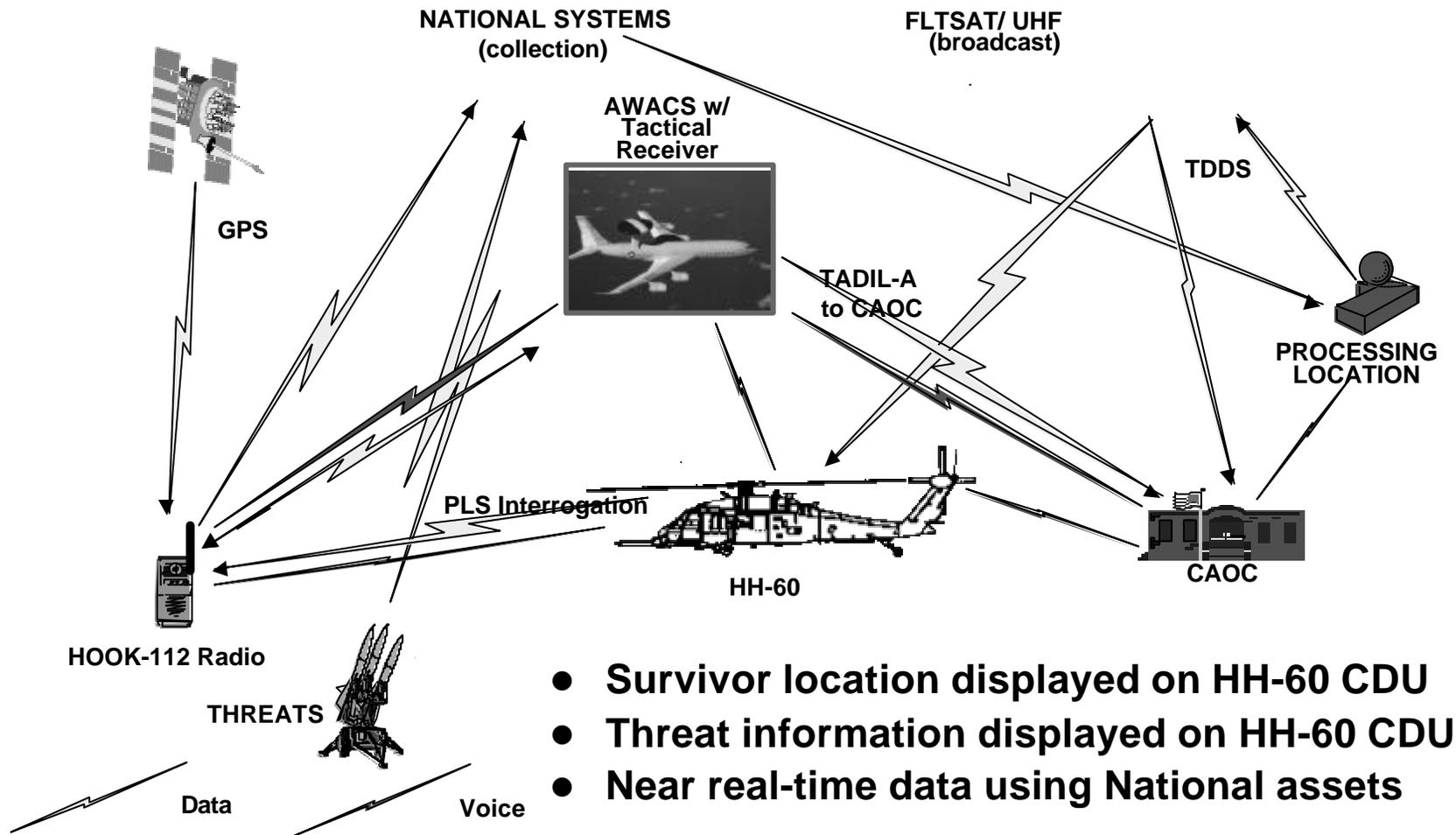


SUMMARY

- **CAF CSAR forces (including AFRC, ANG) will be primary recovery assets in the future**
 - **Best trained and prepared**
 - **We are applying Allied Force lessons learned**
 - **In the middle of major force expansion and modernization**
 - **AoA exploring options for the future growth**



ONW HAVE CSAR ARCHITECTURE



- Survivor location displayed on HH-60 CDU
- Threat information displayed on HH-60 CDU
- Near real-time data using National assets



ANALYSIS OF ALTERNATIVES TIMELINE OF EVENTS

- Sep 97: WR-ALC IDs service life problem**
- Oct 97: ACC convenes RDT: Drafts MNS**
- Oct 98: AFROC Validation / CSAF Approval**
- Jan 99: JROC Validation / VCJCS Guidance**
- May 99: MS 0 DAB / USD/A&T ADM+Guidance**
- Jul 99: ACC convenes AoA study team**
- Aug 99: USAF/XOR issues PMD**
- Mar 01: Complete AoA**
- Apr 01: Brief Results to AFROC**
- Oct 01: JROC / DAB ?**



AoA UPCOMING EVENTS

- **Mar 01 – Complete Analysis**
- **Mar 01 – ORD Development**
- **Apr 01 – Present results to AFROC**
- **Apr 01 – Oct 01 – Complete Milestone B Deliverables**
- **OCT 01 – JROC / DAB ???**
 - **Dependent on status of program funding**



ANALYSIS OF ALTERNATIVES (AoA)

- **The HH-60G is quickly approaching its service life limits**
- **USAF CSAR replacement AoA is a \$1.5m/18 month effort**
- **AoA objectives**
 - **Identify best combat rescue concept (2010-2030)**
 - **Update required mission capabilities**
 - **Document mission area deficiencies**
 - **Examine nonmaterial and systems solutions**
 - **Identify and baseline most cost effective solution(s)**
 - **Set size and distribution of next generation force**
- **Decision by Mar 01**

