



# Airborne ASC<sup>2</sup> AEW/CEC Research Platform

## Briefing





# Introduction



- **NRL/PMS-465 mission**
  - AS  $\mathcal{E}$  purpose
  - CEC/NRL Support Team

- **C apabilities**

## Equipment

- **AEW/CEC Functional Block**
- **C ommuni cations Functional B lock**
- **T est support**
- **S upport i nfor mati on**





# NRL/PMS-465 Mission

## ASC<sup>2</sup> Purpose



### NRL/PMS-465 Mission

Provide a dedicated Team that can support the CEC program goals with an Airborne Surveillance Command and Control (ASC<sup>2</sup>) research platform capable of global operations in support of CEC RDT&E projects goals associated with Department of Defense activities

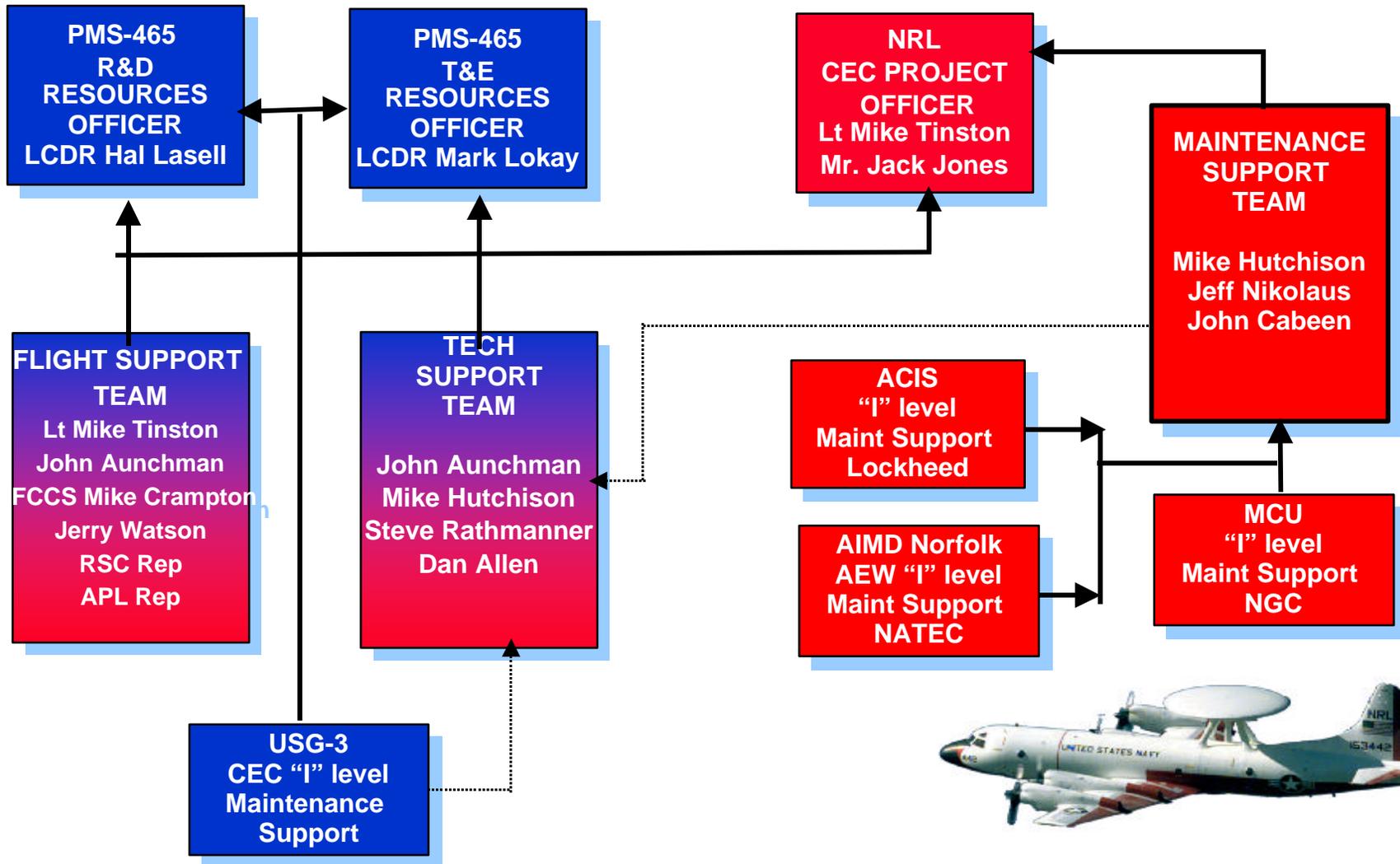
### ASC<sup>2</sup> Purpose

153442 is a AEW /CEC research configured NP-3D Aircraft with upgraded electrical and cooling capabilities, Hawkeye 2000 AEW, CEC USG-3 suites and additional project capabilities to support AEW,CEC and C<sup>4</sup>I RDT&E programs





# NRL/PMS-465 ASC2 Support Team





# ASC<sup>2</sup> Capabilities



- **Specially configured heavyweight P-3B aircraft with Hawkeye 2000 Airborne Early Warning (AEW), Airborne Cooperative Engagement Capability (CEC) suites (USG-3) and other internal modifications to support RDT&E of current and upgrades to the CEC and AEW programs.**
- **Advanced Radar configuration supports modification to meet project requirements**
- **Accommodate 16 crew and project personnel**
- **Support remote worldwide operations**
- **Support up to 10 hours on station**







# ASC<sup>2</sup> Equipment

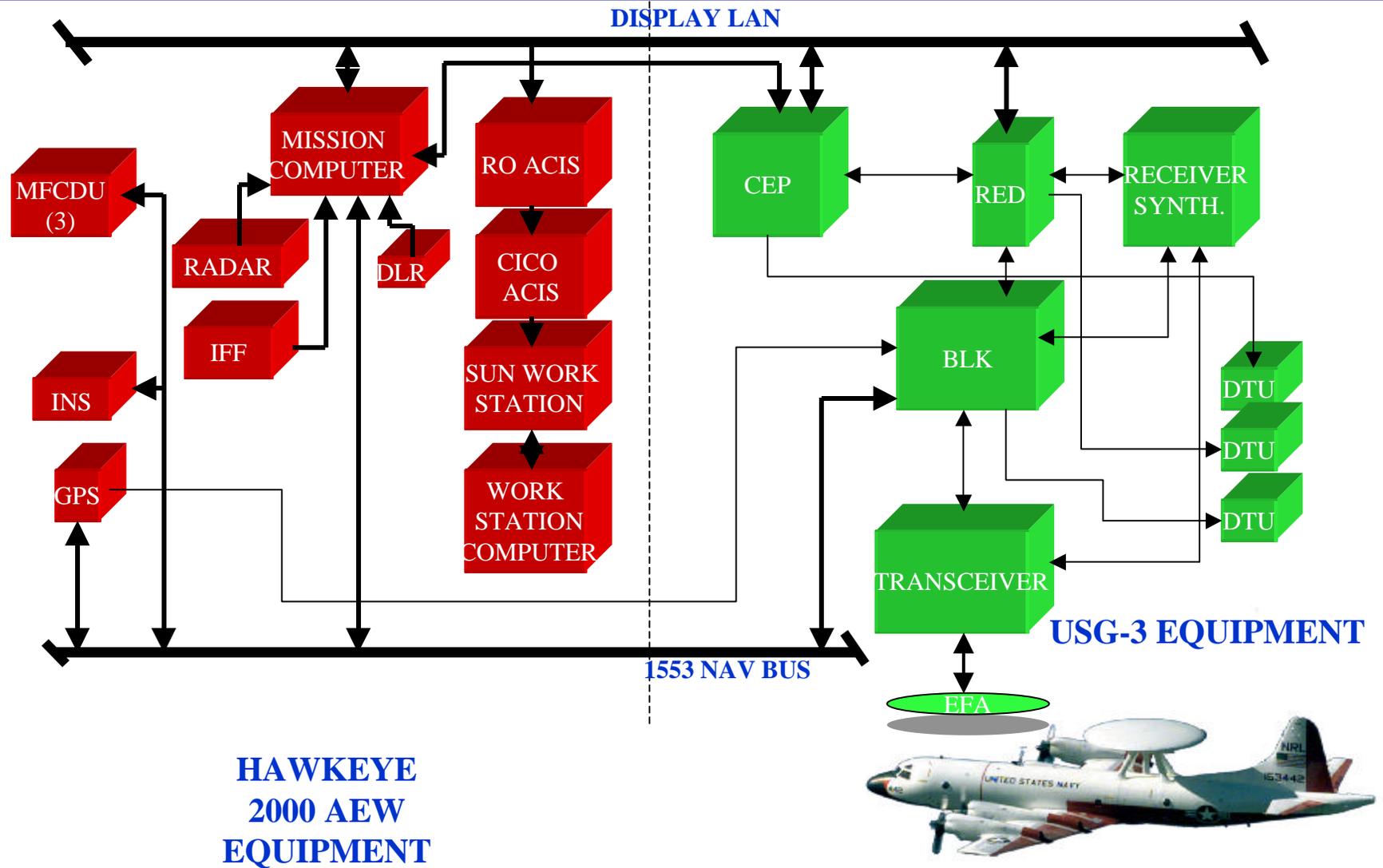


- **Hawkeye 2000 Airborne Warning System**
  - **E-2C AEW suite**
    - **AN-APS-145 radar system**
    - **OL-483 Improved IFF System (IIS)**
    - **Carrier Inertial Navigation System (CAINS II)**
    - **Mission Computer Upgrade (MCU) and ACIS displays**
    - **Link - 4 (TADIL C), Link - 11 (TADIL A, Link-16 (TADIL J JTIDS)**
    - **8 UHF, 5 VHF, 2 high power HF radios (Have Quick II)**
    - **AIC-42 ( specially designed ICS system)**
    - **AN/ARC-210 SATCOM**
    - **AN/ALR-73 Passive Detection System compatible**
  - **CEC Equipment -USG-3 Common Equipment Set (CES)**





# ASC<sup>2</sup> NP-3D AEW/CEC FUNCTIONAL BLOCK

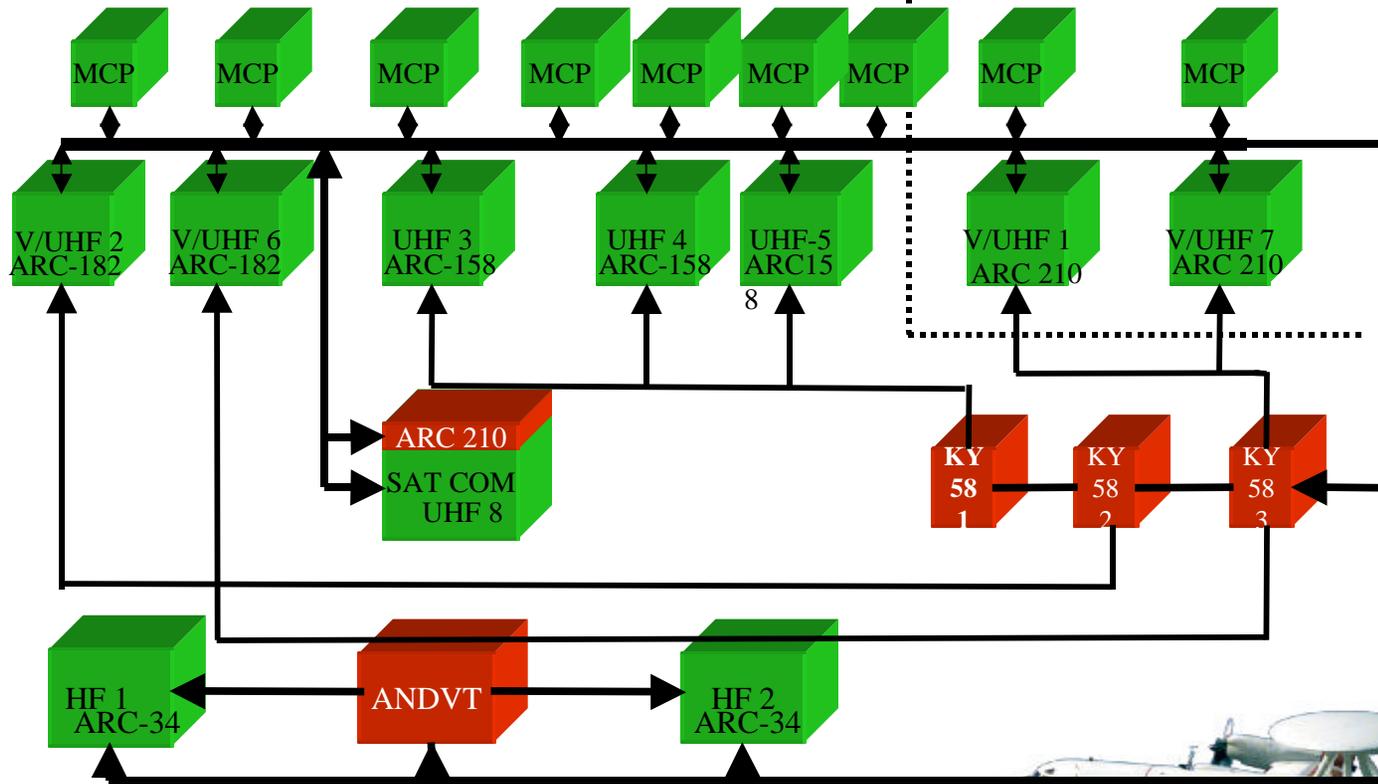




# ASC<sup>2</sup> COM LAYOUT



OPERATIONS AND CONTROL CENTER      PROJECT STATIONS      FLIGHT STATION





# Additional Project Support Equipment



- Retractable IRDS Turret in nose of the aircraft for support of Electro Optics (EO) projects
- Fore/Aft Antenna mounts for Radar/Data Link projects
- Floor rails to support for up to 6 internal project/operator stations (19" x 54") with full Comm/ICS and wing station access in aft crew compartment
- External electronics pod wiring installed
  - 16-22 gauge wire, fiber optics, coax cables
  - Universal connectors mate pod to wing
- Project Load center
- Beefed up floor to accommodate 700 lbs. of project equipment in forward equipment bay





# NP-3D Test Support



- **Completed Test**
  - **JTFEX 00 (TPS-59/CEC (Engineering Support))**
  - **CEC Developmental Test (U/W #8)**
  - **ASCIET-00 (CEC Multi-rotator Net)**
  - **CEC/ACIS/MCU Engineering**
  - **CEC Developmental Test (U/W #9)**
- **Future Test**
  - **CEC Developmental Test (U/W #10)**
  - **Patriot CEC (Engage on Remote)**
  - **CEC Developmental Test (U/W #11)**





# General Support Information



- **NRL Points of Contacts**

**Support/Scheduling -  
Information**

**Lt Mike Tinston (202)767-2271**

**mtinston@planes.nrl.navy.mil**

**Mr Jack Jones (202)767-7630**

**jjones@planes.nrl.navy.mil**

- **Availability - based on CEC program requirements**

- **Cost - \$5500 per flight hour (FY01)**

- **No other cost incurred (except travel/per diem for deployments)**

