Carrier Borne AEW&C

G. Sharma

TBM3W
Cadillac I

PB-1W
Cadillac II


U.S.NAVY
Zpg-3W


TL
255
Wv-2


7227
NAVY
VAW 307
011
7Y
E-1B
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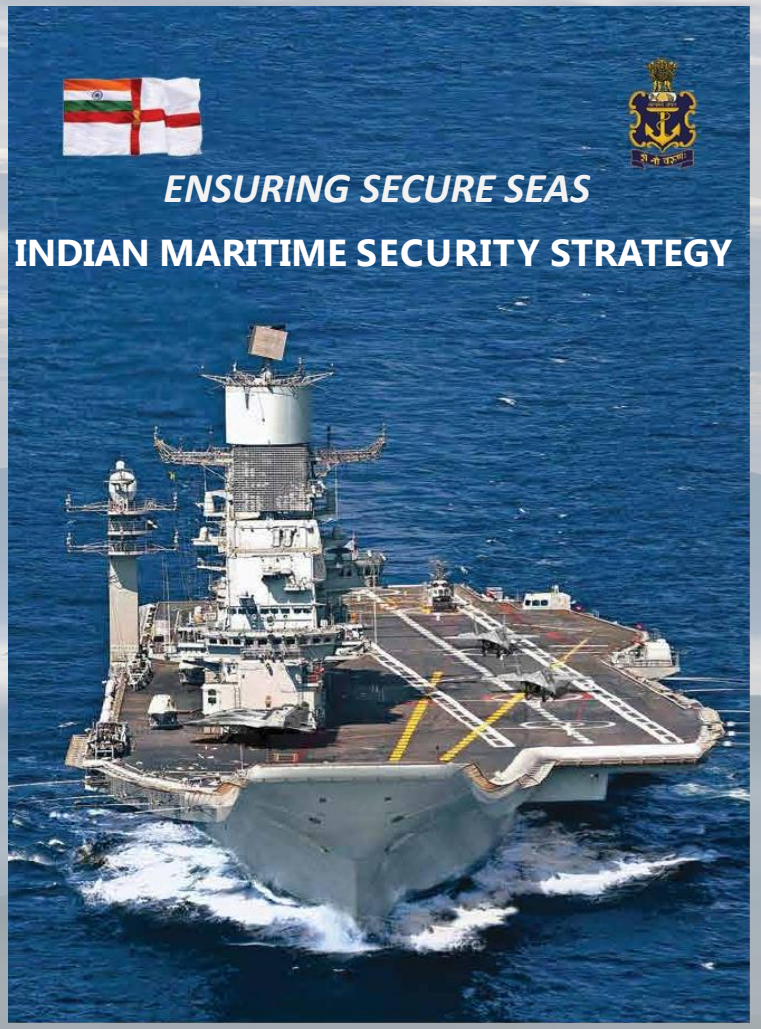
E-2C (Group O)


E-2C Group II

SH-3 AEW

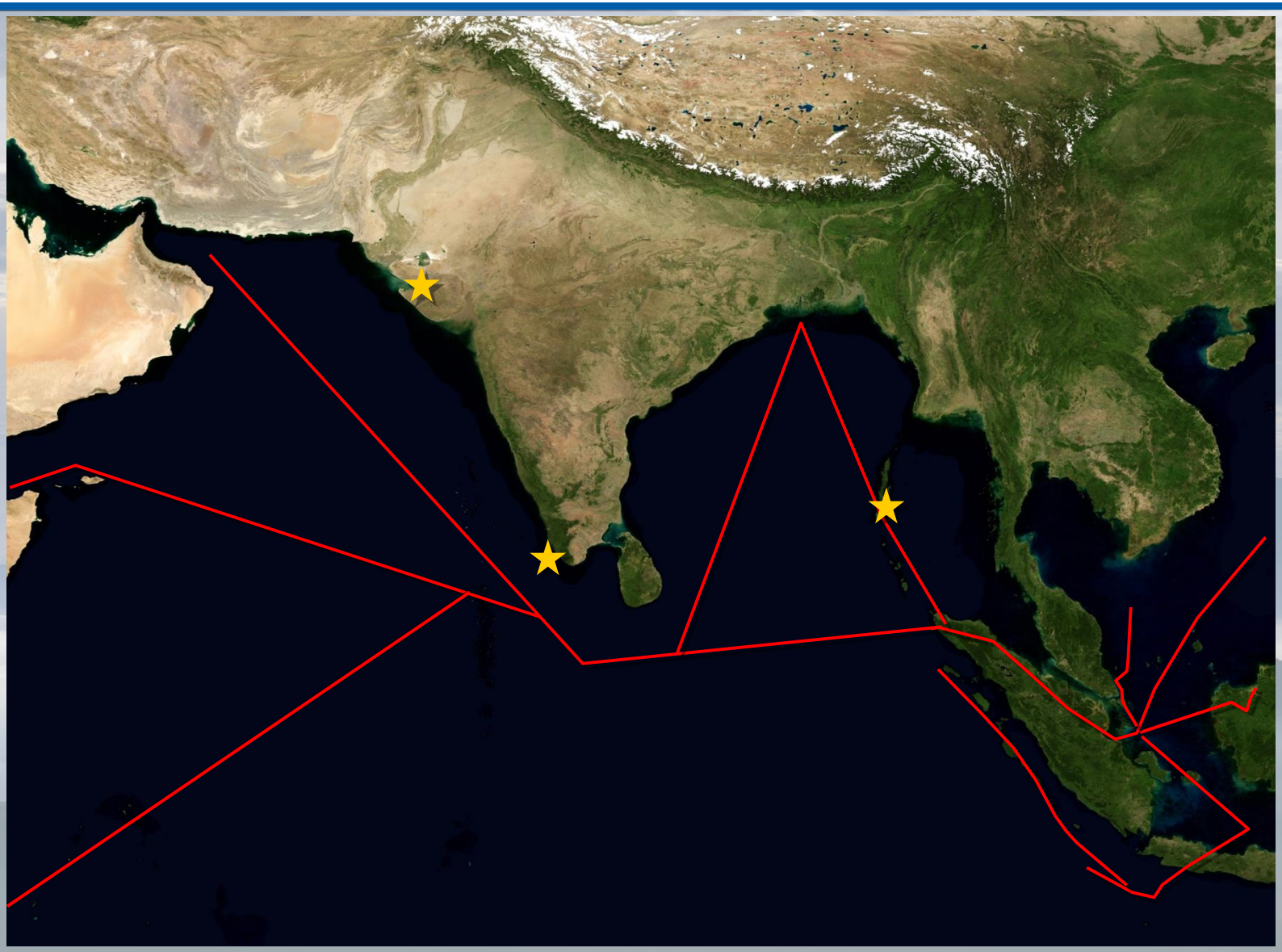
Maritime Security

Strengthen itself continuously as a formidable, multi-dimensional and networked force that maintains high readiness at all times to protect India's maritime interests, safeguard her seaward frontiers and defeat all maritime threats in our areas of interest.

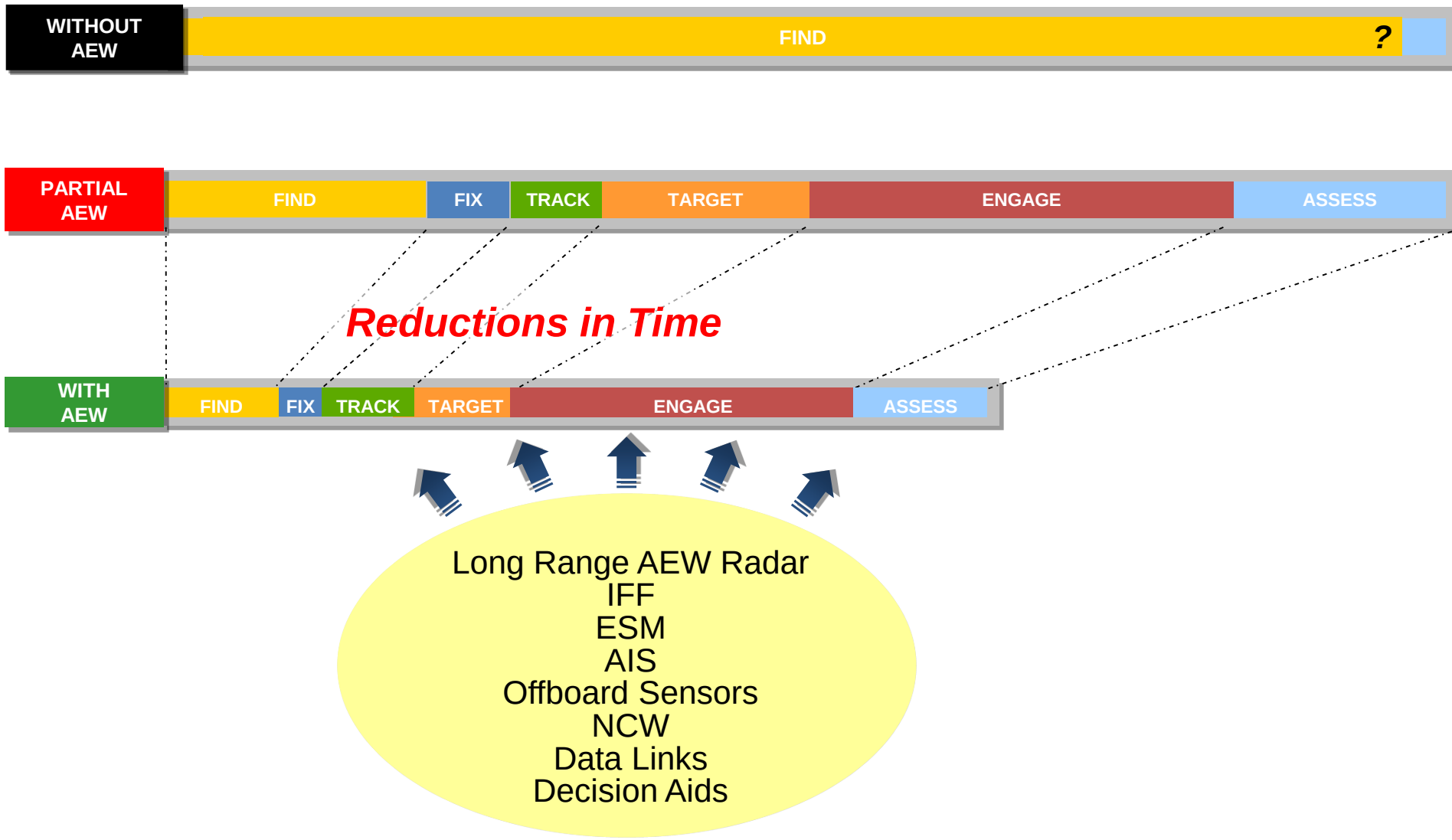


Safeguarding Maritime Interests

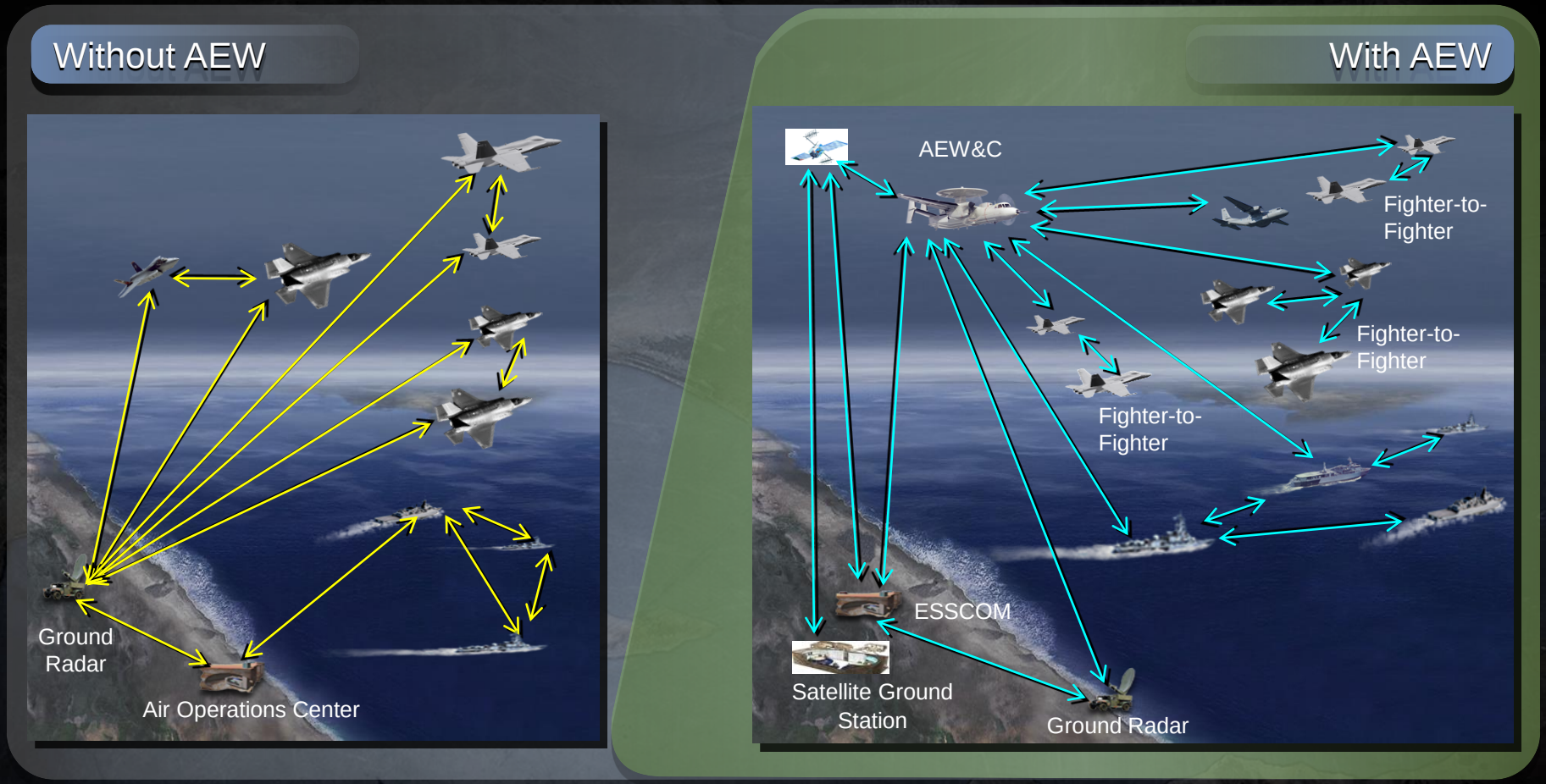
Freedom of Manoeuvre



Impact of AEW on the Engagement Chain

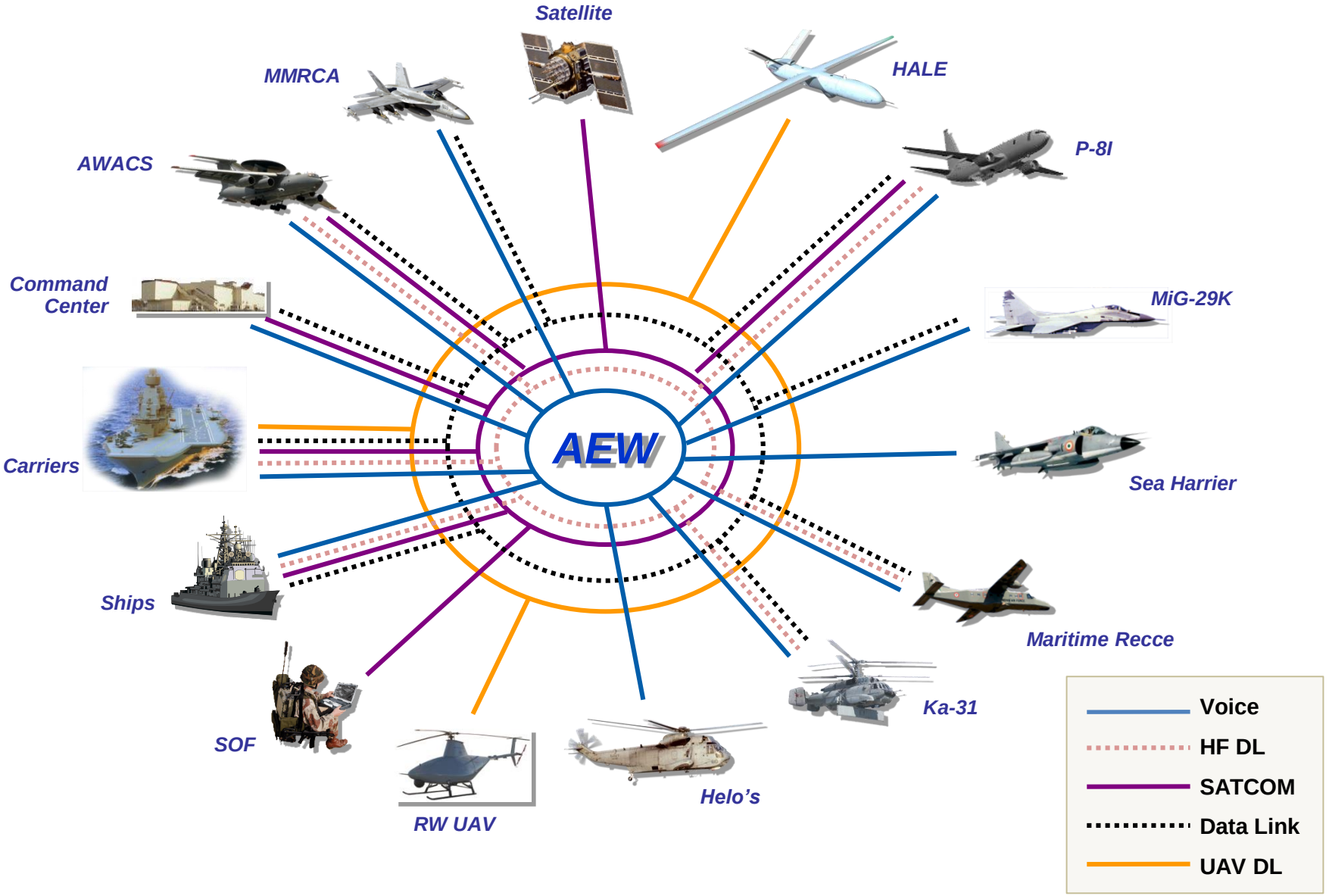


Interoperability
...is the key to effective airborne early warning



Integrated Network Connectivity Adaptable to User Requirements

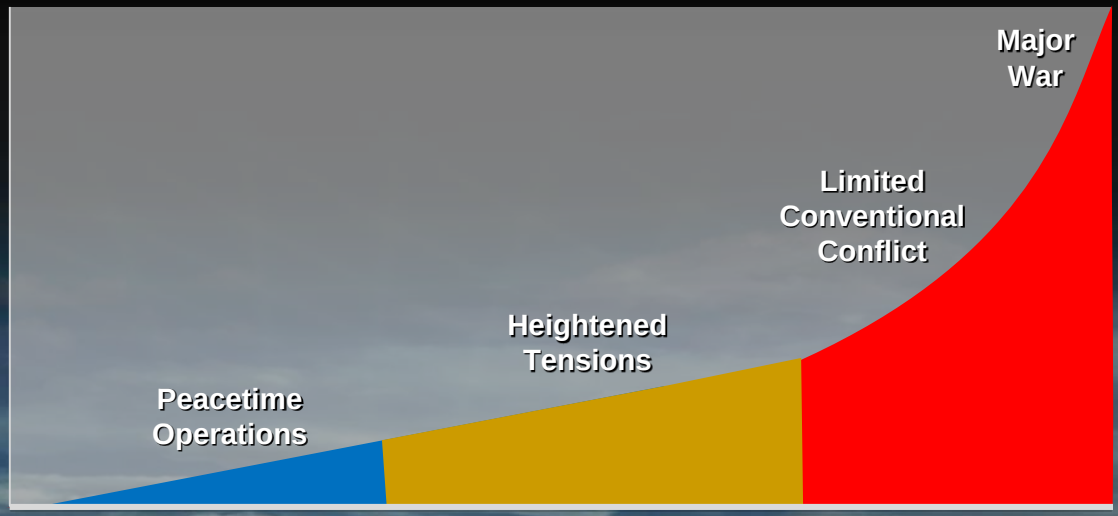
AEW Command and Control Connectivity



Role of AEW&C in the Spectrum of Conflict

CORE AEW&C Functions

- Detection & Surveillance
- Tracking
- Communication
- Network Connectivity
- Robustness
- Multi-sensor Integration



AEW&C Contribution

Mission Areas

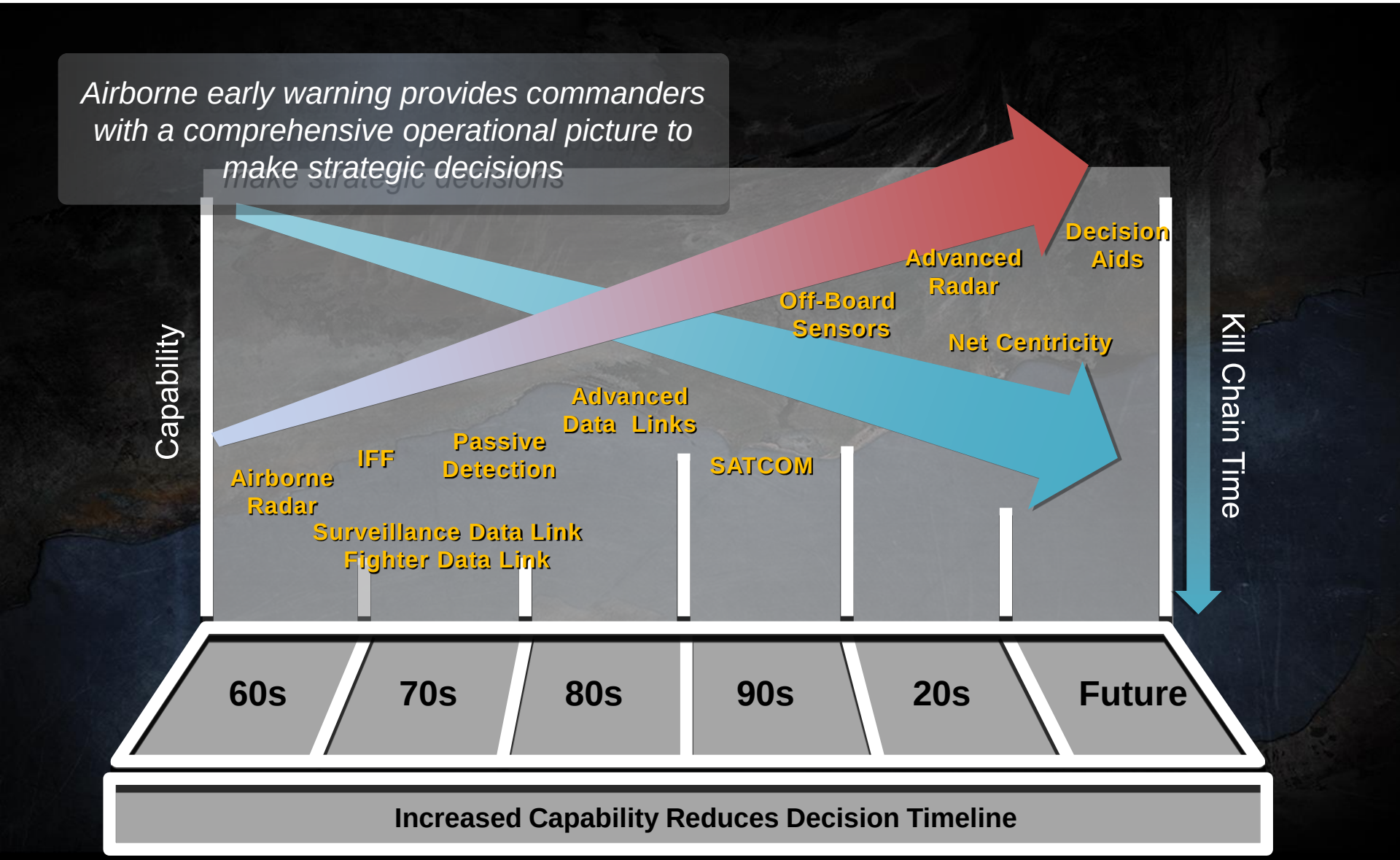
- Border Surveillance
- Maritime Surveillance
- Piracy
- Smuggling / Arms Control
- Air Traffic Control
- Search & Rescue

- Sanctions Enforcement
- Sea Lane Control
- Show of Force
- Limited Objective Air Strikes
- Counter Insurgency

- Strike & Intercept Control
- Theater Air Missile Defense
- Maritime Domain Interdiction
- Detection & Tracking of All Sea Surface Targets

Airborne Early Warning Battle Management Command & Control

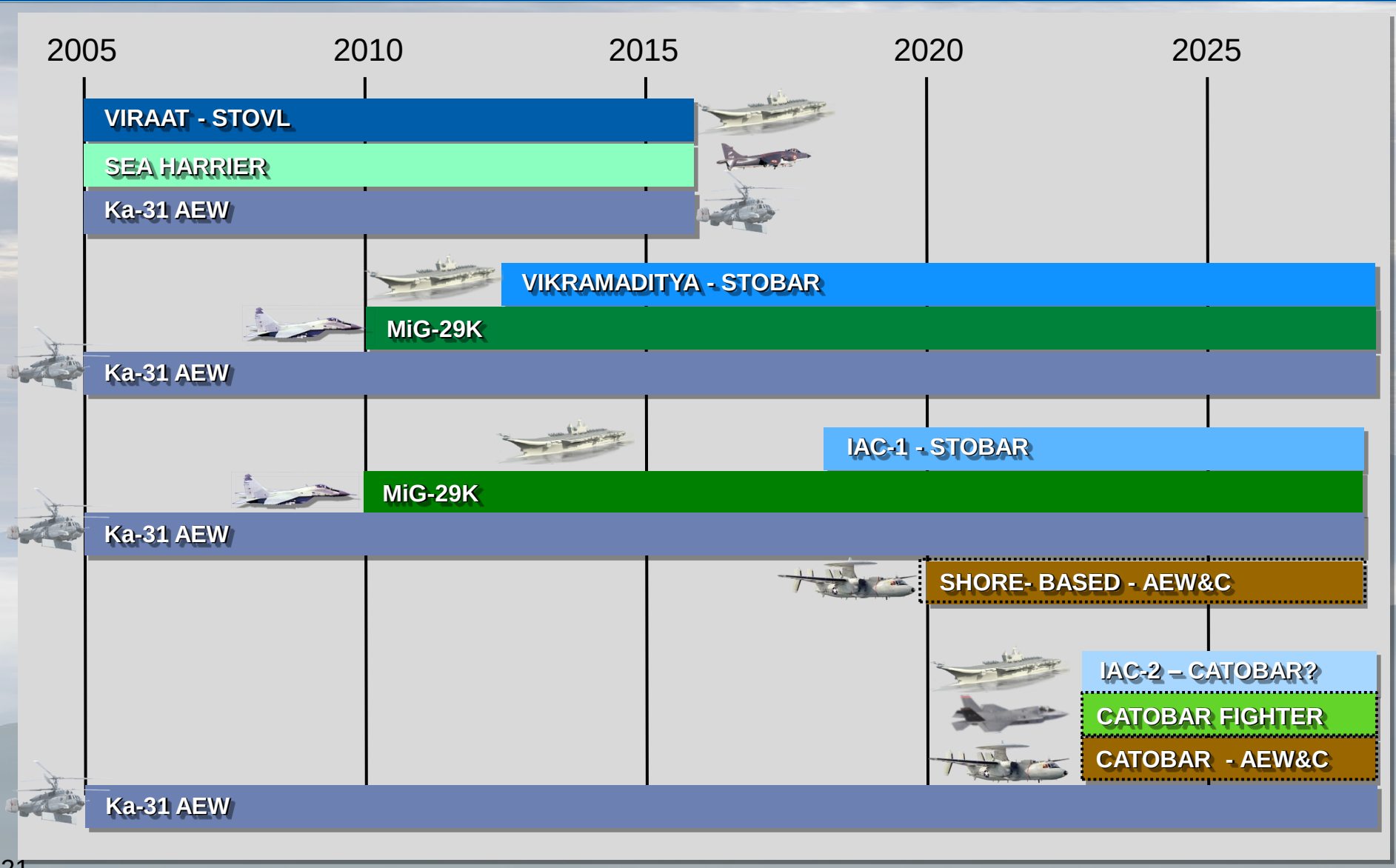
AEW&C is a Critical Force Multiplier



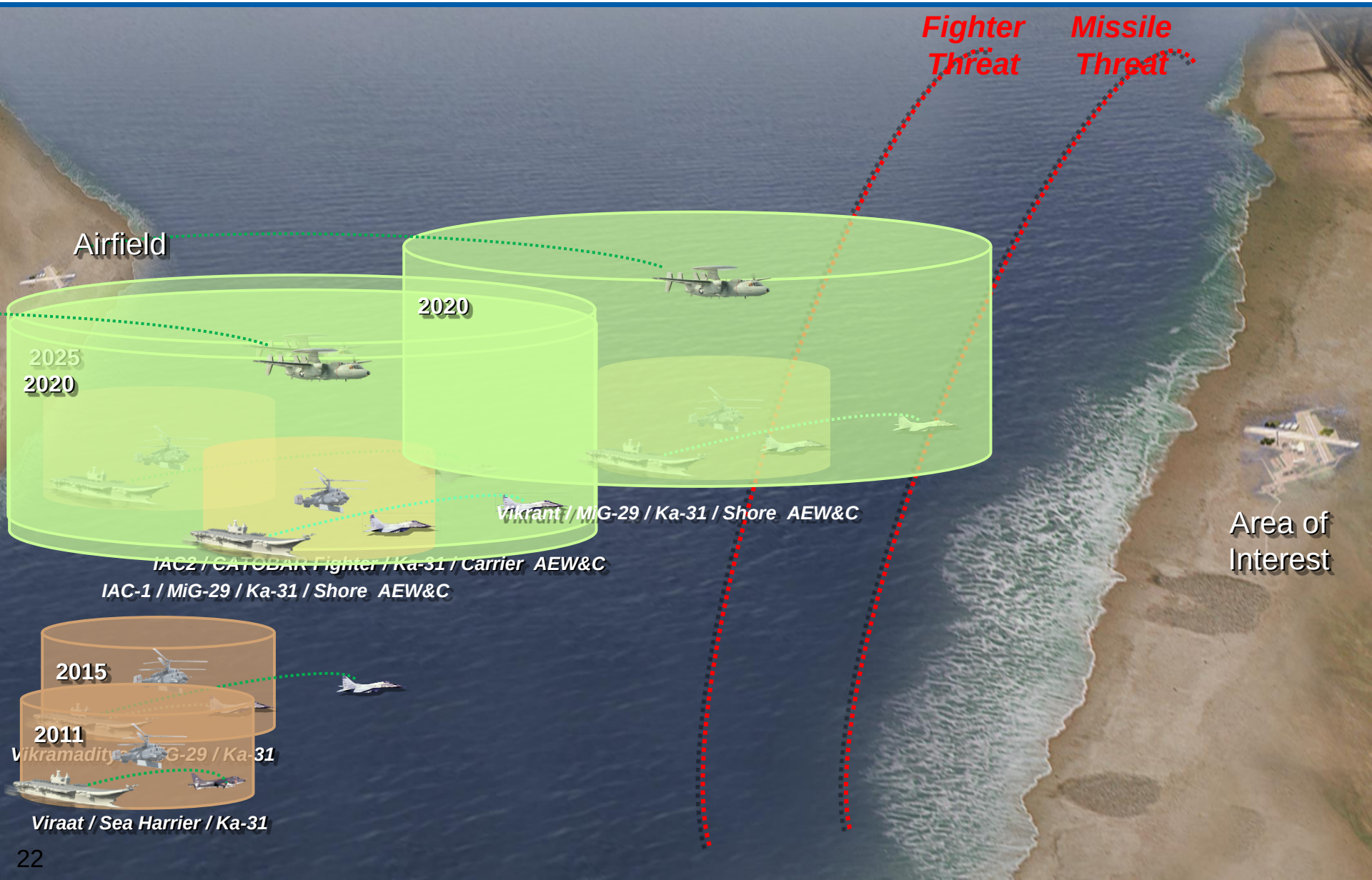

EMB-145

IL-78

Supporting Indian Naval Aviation Transformation



Projecting Combat Power Across the Littoral



What Does the Future Hold for the Indian Navy?


725

Typical Air Wing Composition

- Strike Aircraft (1-3 Squadrons)
  - LCA Mk II
  - F/A-18E/F Super Hornet
  - Rafale
  - Sea Gripen
- Surveillance Aircraft (4-5 Aircraft)
  - E-2D Advanced Hawkeye
  - Ka-31
- Electronic Attack Aircraft (5 Aircraft)
  - EA-18G Growler
- Logistics Aircraft (2-3 Aircraft)
  - C-2A Greyhound
- Rotary Wing Aircraft (4-8 Aircraft)
  - S70 Seahawk Multi Mission aircraft

Strike Aircraft

Surveillance Aircraft

E-2D Advanced Hawkeye

Ka-31

Support Aircraft and Missions

Long Range Logistics

Multi Role Rotary Wing Aircraft

Electronic Attack

Inflight Refueling

X-47B Unmanned Combat Air System Demonstrator

The View of AEW……

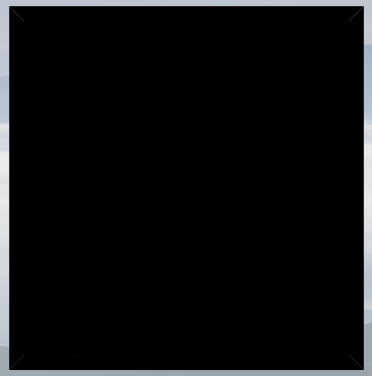
An Optimum Solution Should be Both

THANK YOU

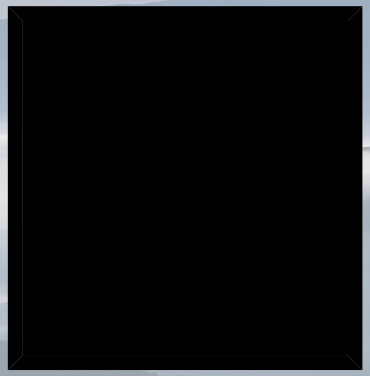
APY-9 Radar Overview

- Provides all-weather coverage and multimode airborne early warning (AEW) capability with significantly increased sensitivity, flexibility, and overall performance
- Selection of UHF makes the radar less vulnerable to incorporation of radar cross section reduction technology into targets now and in the future
- Space/time adaptive processing (STAP) provides superior clutter and interference cancellation to detect air, surface, and sea targets in hostile environments
- Automatically adapts to clutter and interference in land, littoral, and sea environments
- The radar simultaneously detects air and surface targets in each of three scanning modes:

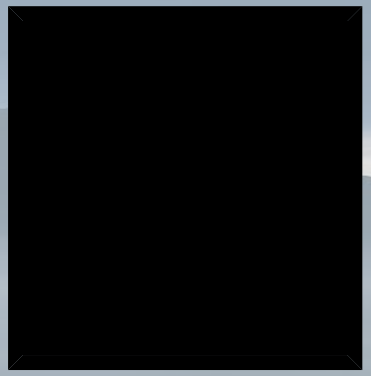
Mechanical Scan



Mechanical & Electronic Scan



Electronic Scan



Maximum Detection Capability Combining Rotodome and Electronically Steered Array

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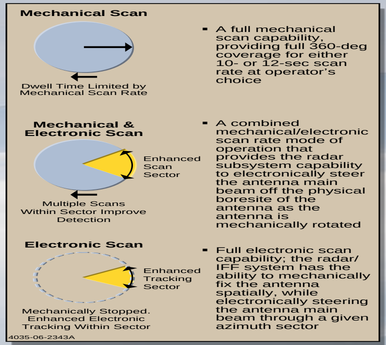

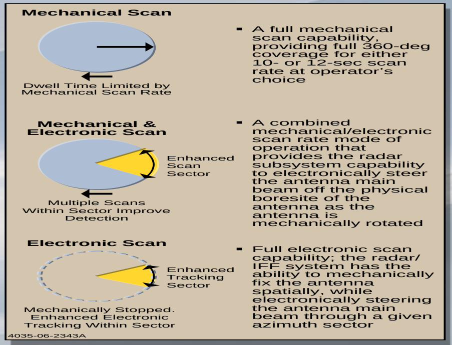

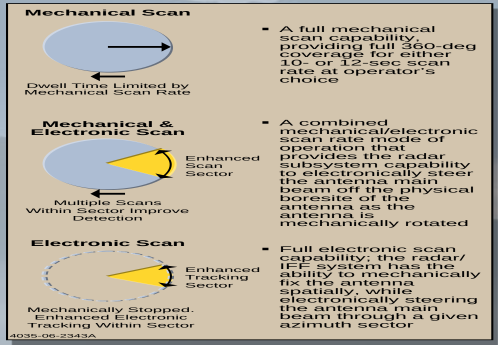

Maximum Detection Capability Combining Rotodome and Electronically Steered Array

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