



SEADS CONCEPT PROPOSAL AMALGAM VIRGO 01



SCENARIO: **COUNTER TERRORISM** 1-2 JUN 2001



[RETURN TO
FINAL REPORT](#)

[RETURN TO
TAB SUMMARY](#)

Combined (Joint) Training for Unconventional Threat

NORAD FTX EXERCISE CHARTER

(PER NORAD INSTRUCTION 10-45)

- **Mission:** Train NORAD Warriors
- **Focus:** Air Sovereignty and Air Defense
- **Goal:** Enhanced Mission Readiness
- **Scenarios:** Based on Perceived Threats

WORDS FROM THE TOP

“**Missile technology** is proliferating **into** the **hands** of rogue nations and **terrorist** organizations. As a nation we **must** research and **develop options** to combat these emerging threats.”

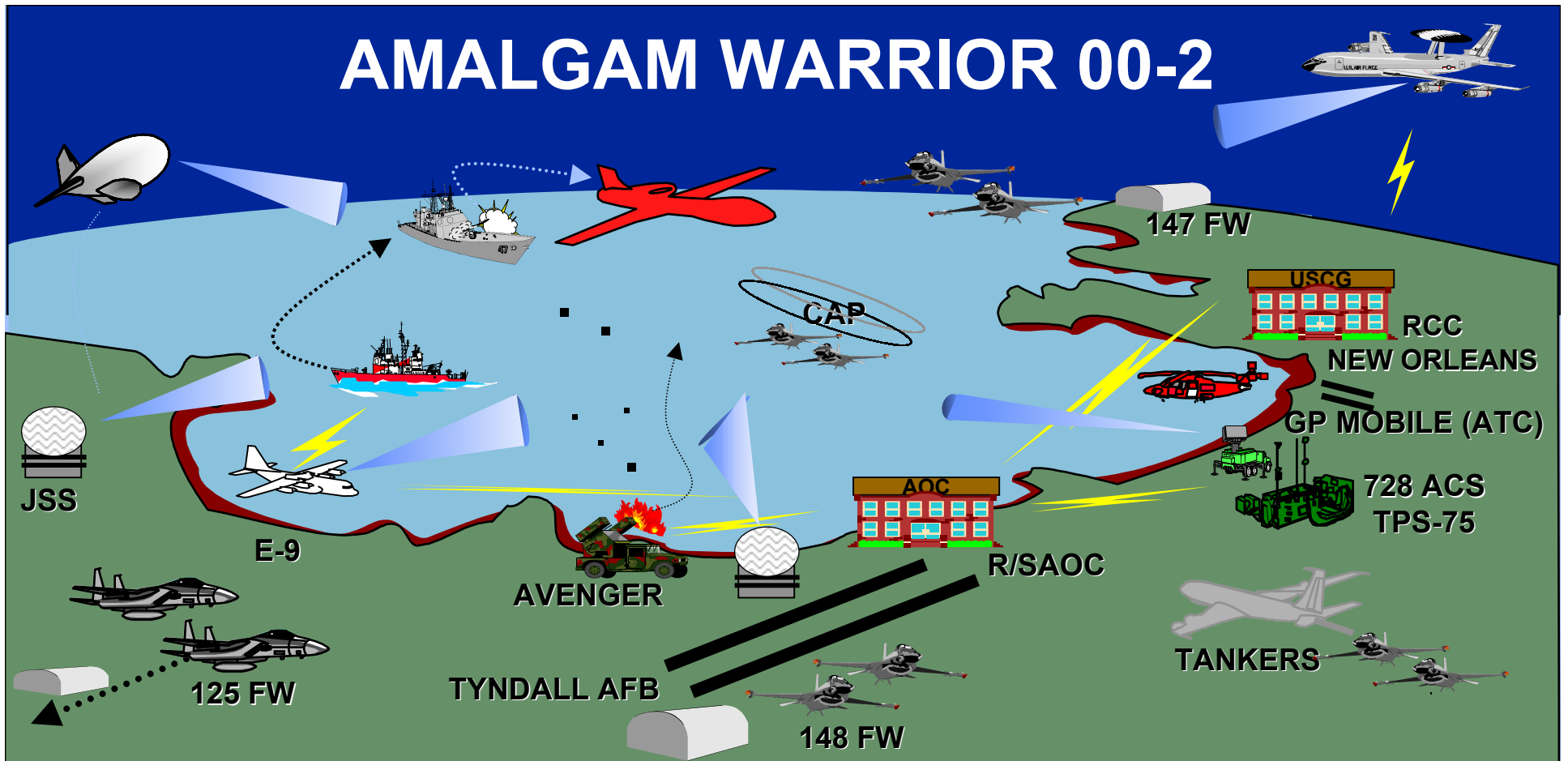


STATEMENT OF
GENERAL RALPH E. EBERHART, USAF
COMMANDER IN CHIEF
NORTH AMERICAN AEROSPACE DEFENSE COMMAND
AND UNITED STATES SPACE COMMAND
BEFORE THE UNITED STATES SENATE ARMED SERVICES COMMITTEE
STRATEGIC SUBCOMMITTEE
8 March 2000

AMALGAM VIRGO EXERCISE GOALS

- **Focus on a Realistic Current Threat**
- **Increase the Realism and Fidelity of Our NORAD/SEADS Live-fly Exercises**
- **“Train Like We’re Going to Fight”**
- **Exercise Contingency OPORD Concepts**

AMALGAM WARRIOR 00-2



C2 NODES

NORAD
 CONR
 SEADS
 728 ACS
 AWACS
 USCG RCC

RADAR

ARSR-4
 TPS-75
 AWACS
 AEROSTAT
 FIGHTERS
 E-9

FIGHTERS

F-15 (JAX)
 F-16C (EFD)
 F-16ADF (PAM)

TANKERS

KC-135

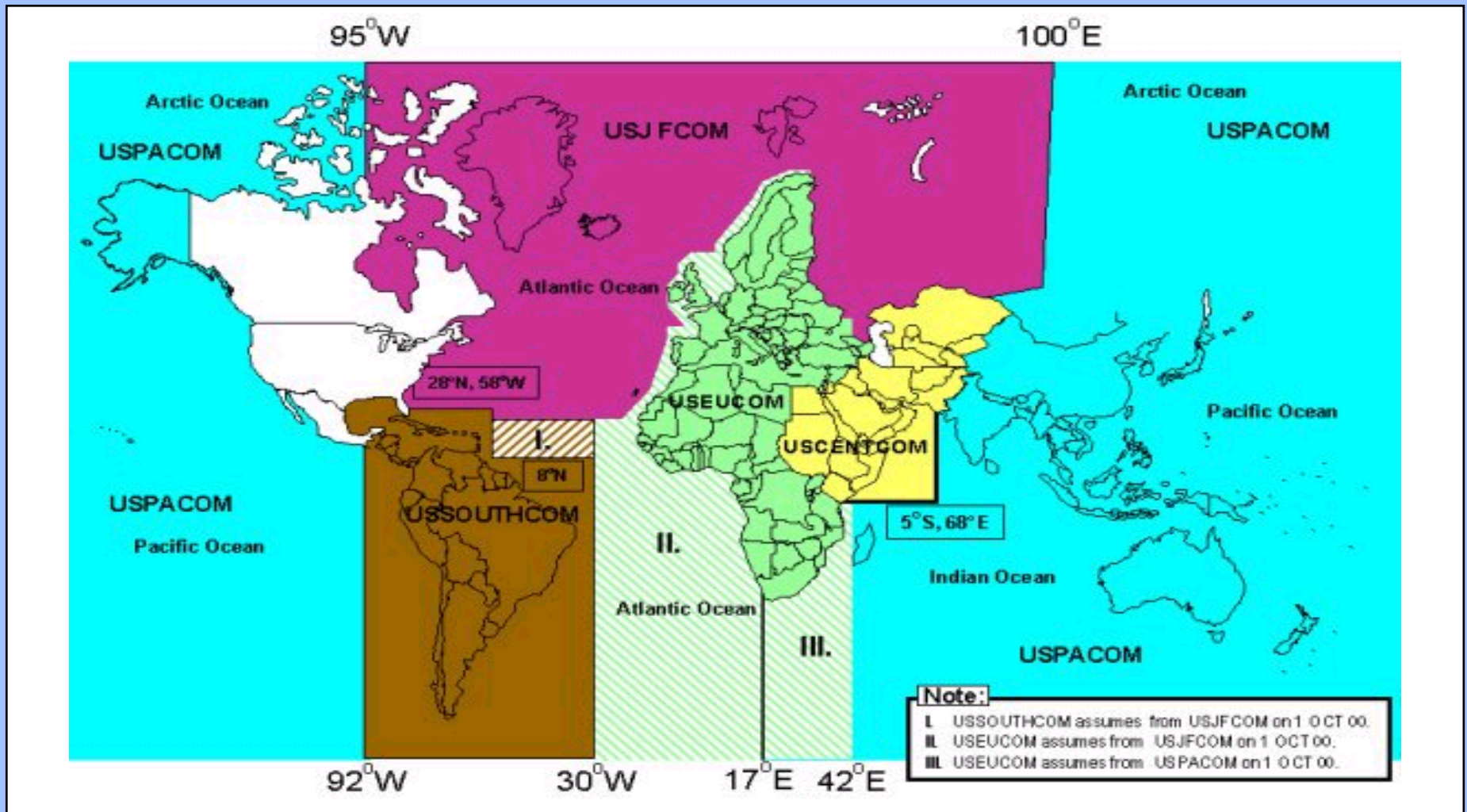
PORT SECURITY

KODIAK IS. (110FT)
 HU-25 (FALCON)
 E-9
 AVENGER
 RCC



CMOC

WORLD AOR's 101



1 NORAD AOO (THE ONLY GIVEN)

2

DOD/SOUTHCOM AOR



Gulf of Mexico

5

3

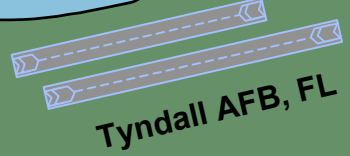
FBI ISSUE/USCG ISSUE



STATE GOVERNOR/
FEMA ISSUE

4

JOINT STAFF ISSUE OR FBI ISSUE

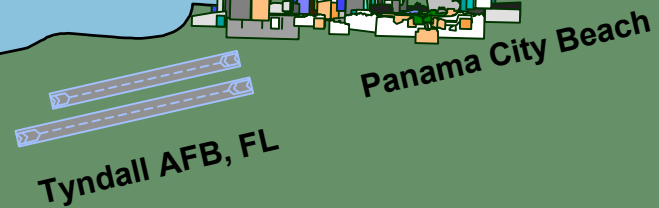
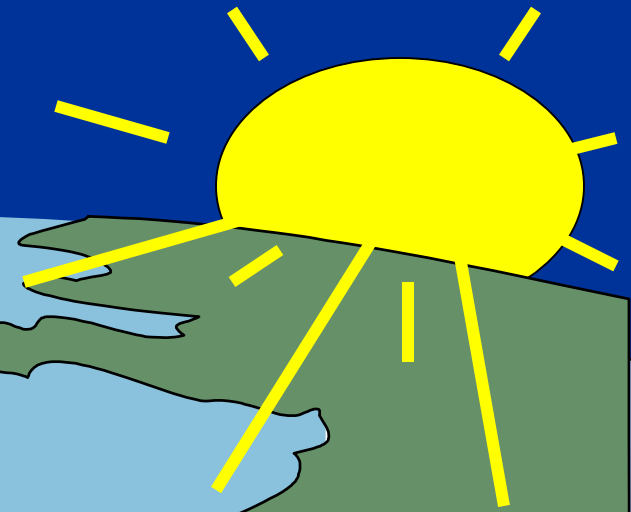


Tyndall AFB, FL

AW 00-2 C2 LESSONS

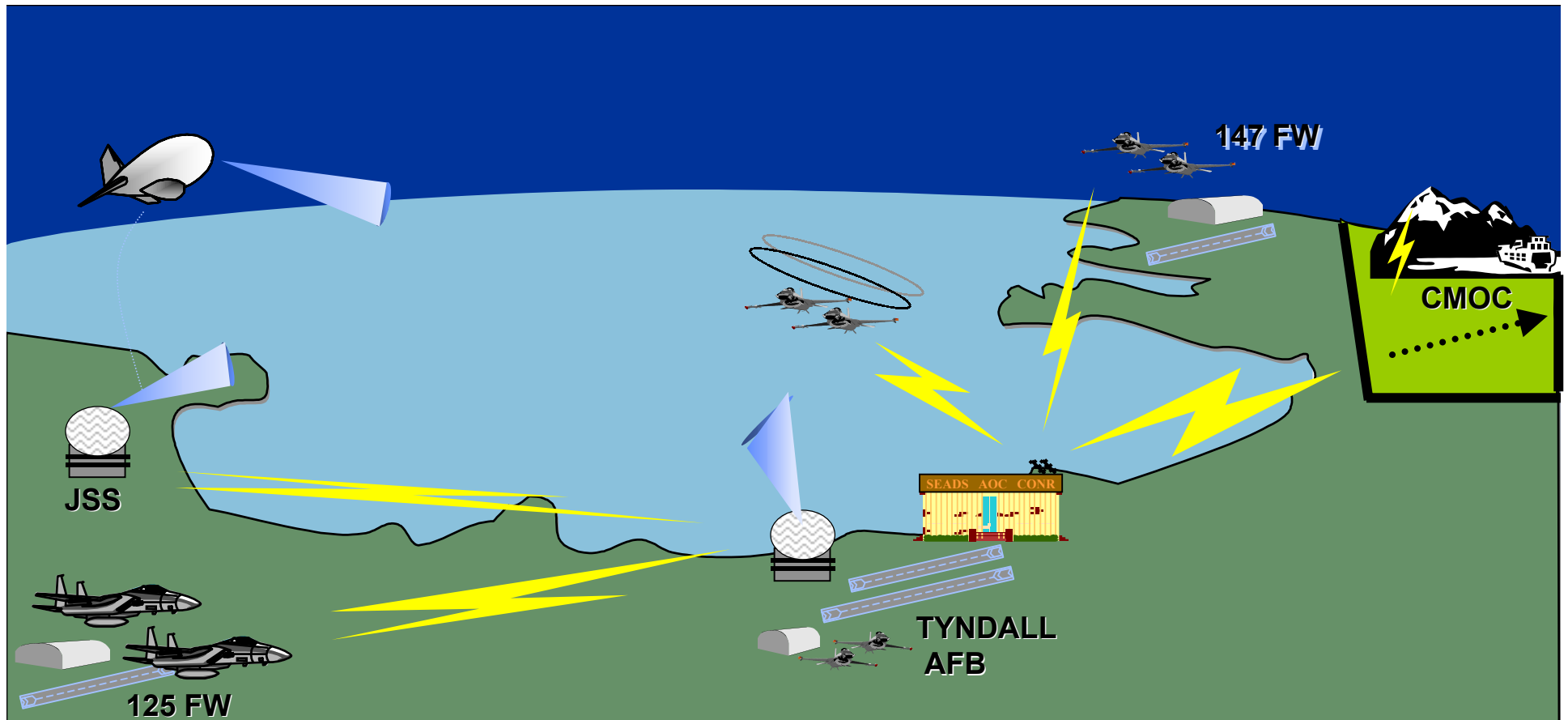
“THE GREY AREA”
WHO IS RESPONSIBLE FOR WHAT AND
WHO IS IN CHARGE?

AMALGAM VIRGO 01 PROPOSAL



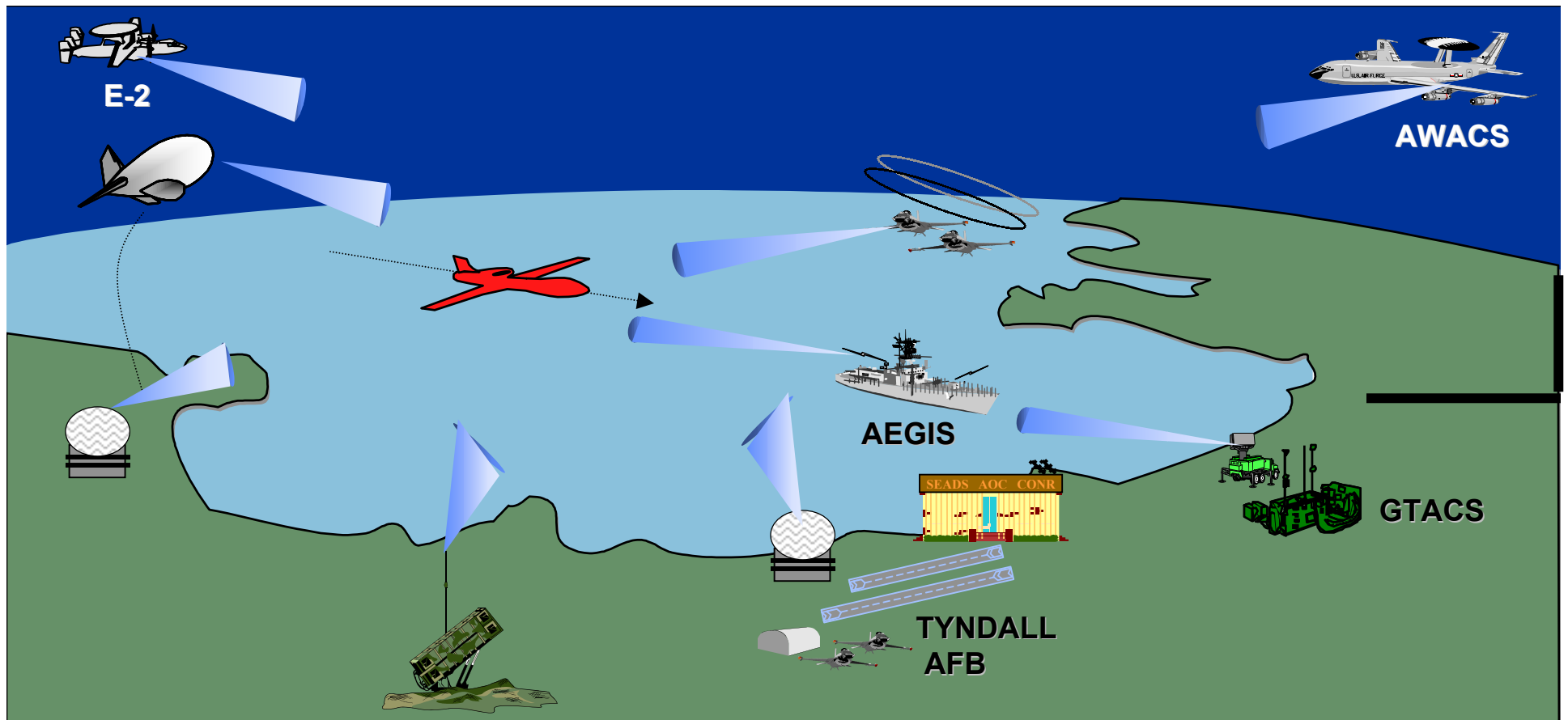
NORAD homeland defense missions: Aerospace Warning and Aerospace Control.

- **Aerospace Control** provides surveillance and control over North American airspace. This includes the capability to **detect, identify, monitor and, if necessary, take appropriate action (ranging from visual identification to destruction)** against manned or unmanned air-breathing vehicles approaching North America.



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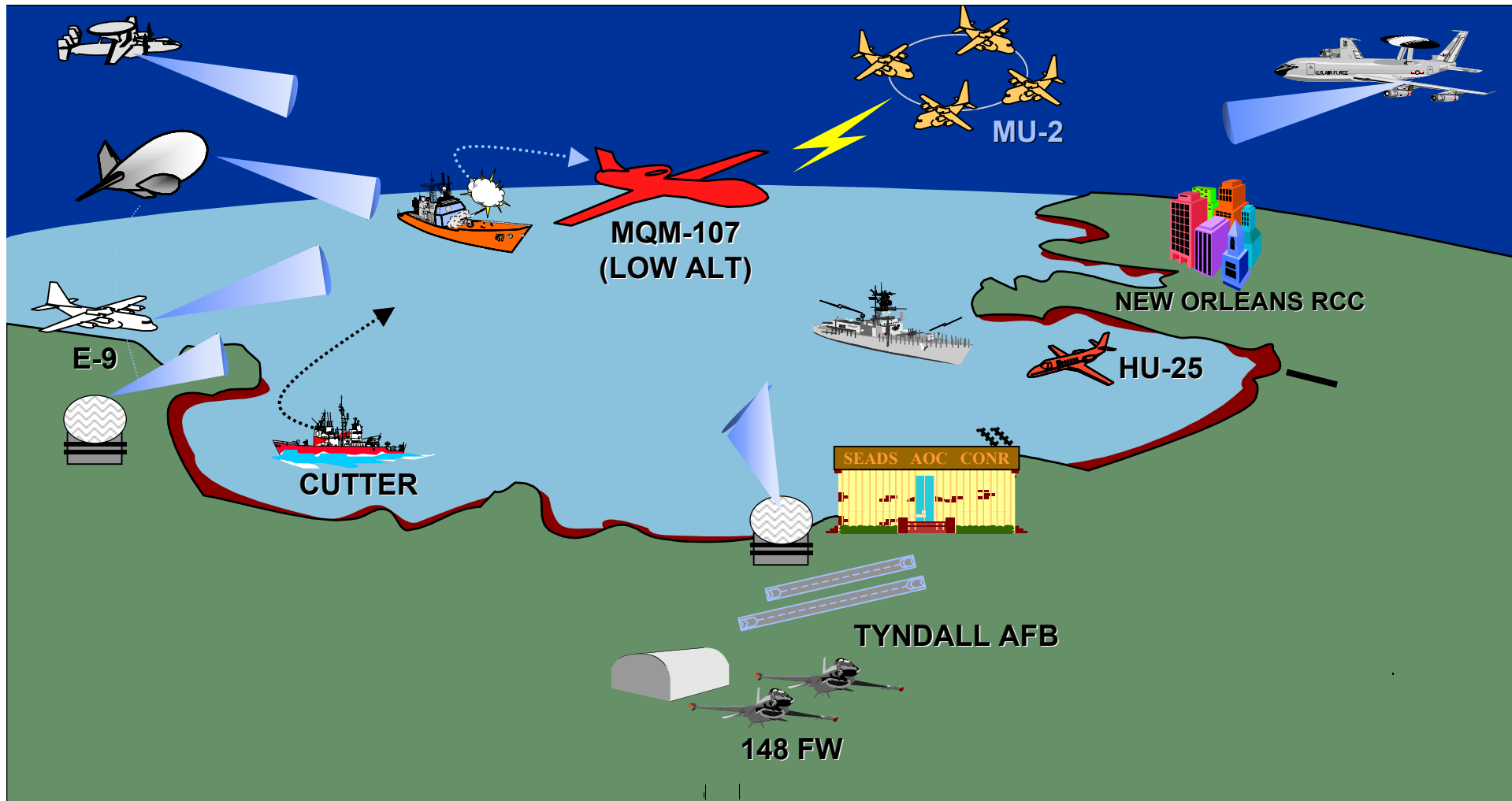
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NORAD (ARSR-4, AEROSTAT, FTRs)

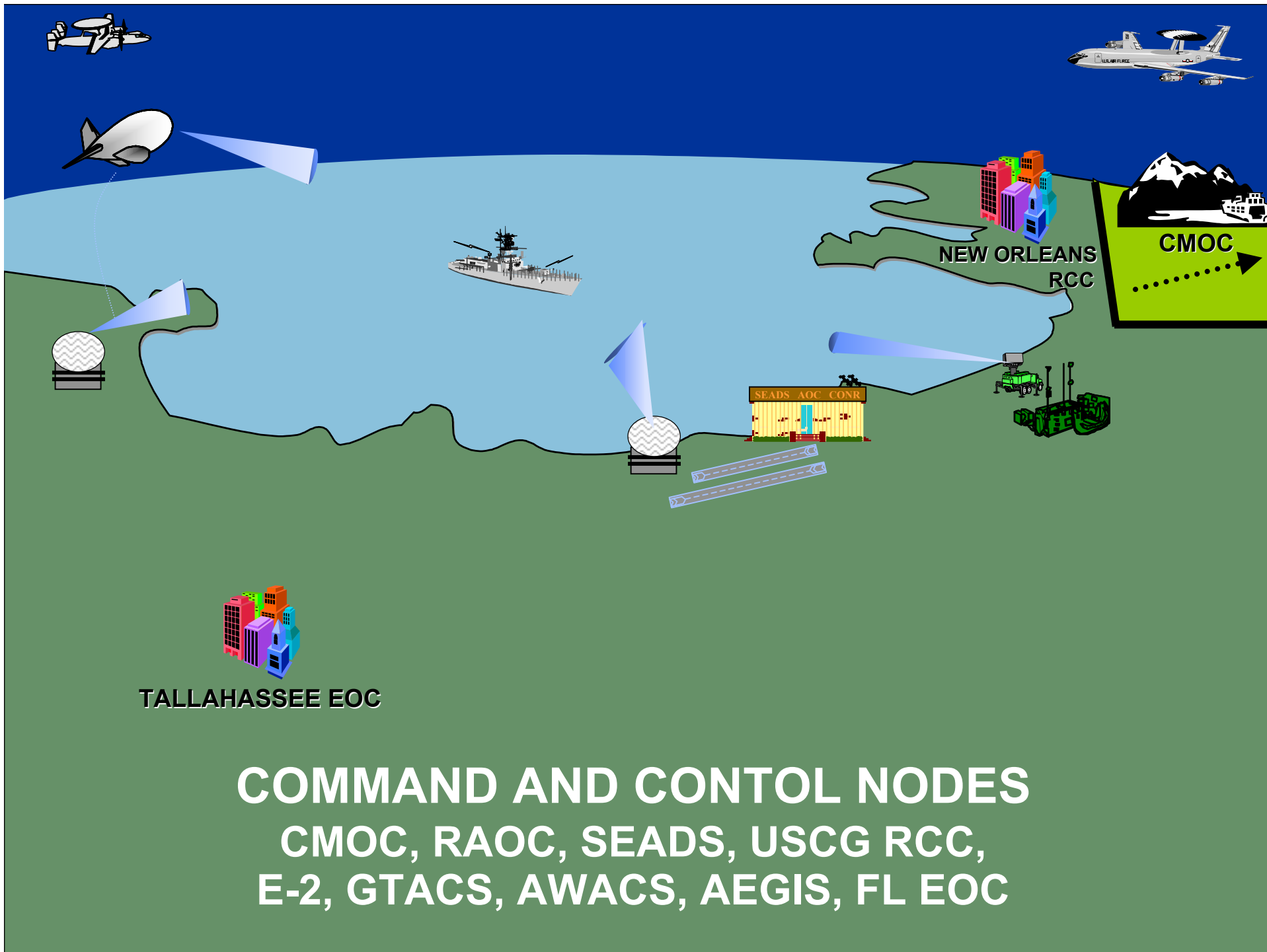
Detection Augmentation

E-2, E-3, GTACS, PATRIOT, AEGIS



SURFACE VESSEL PROSECUTION

NORAD, USCG, USN, ACC
AWACS, CUTTER, HU-25, AEGIS, E-9





THREAT PROSECUTION AND TRAINING OPPORTUNITIES



E-2

MU-2

AWACS

DRONE BOAT

MQM-107 (LOW ALT)

CAP

147 FW

RCC

E-9

CUTTER

AEGIS

HU-25

GTACS

JSS

CUTTER

SEADS AOC CONR

GTACS

125 FW

AVENGER HUMRAAM

JSS

R/SAOC

TYNDALL AFB

BAY COUNTY EOC/RAIDS

PATRIOT

148 FW

TANKERS

JBECC TEST HUMRAAM

Joint Training For Unconventional Threat

AMALGAM VIRGO 01 PROPOSAL

NEW PLAYERS

- E-2
- AEGIS
- MU-2 (LOW ALT TGT)
- RAIDS
- PATRIOT
- HUMRAAM
- JBECC

AV 01 FIGHTER FLOW

30 MAY 2001 - 4 JUN 2001

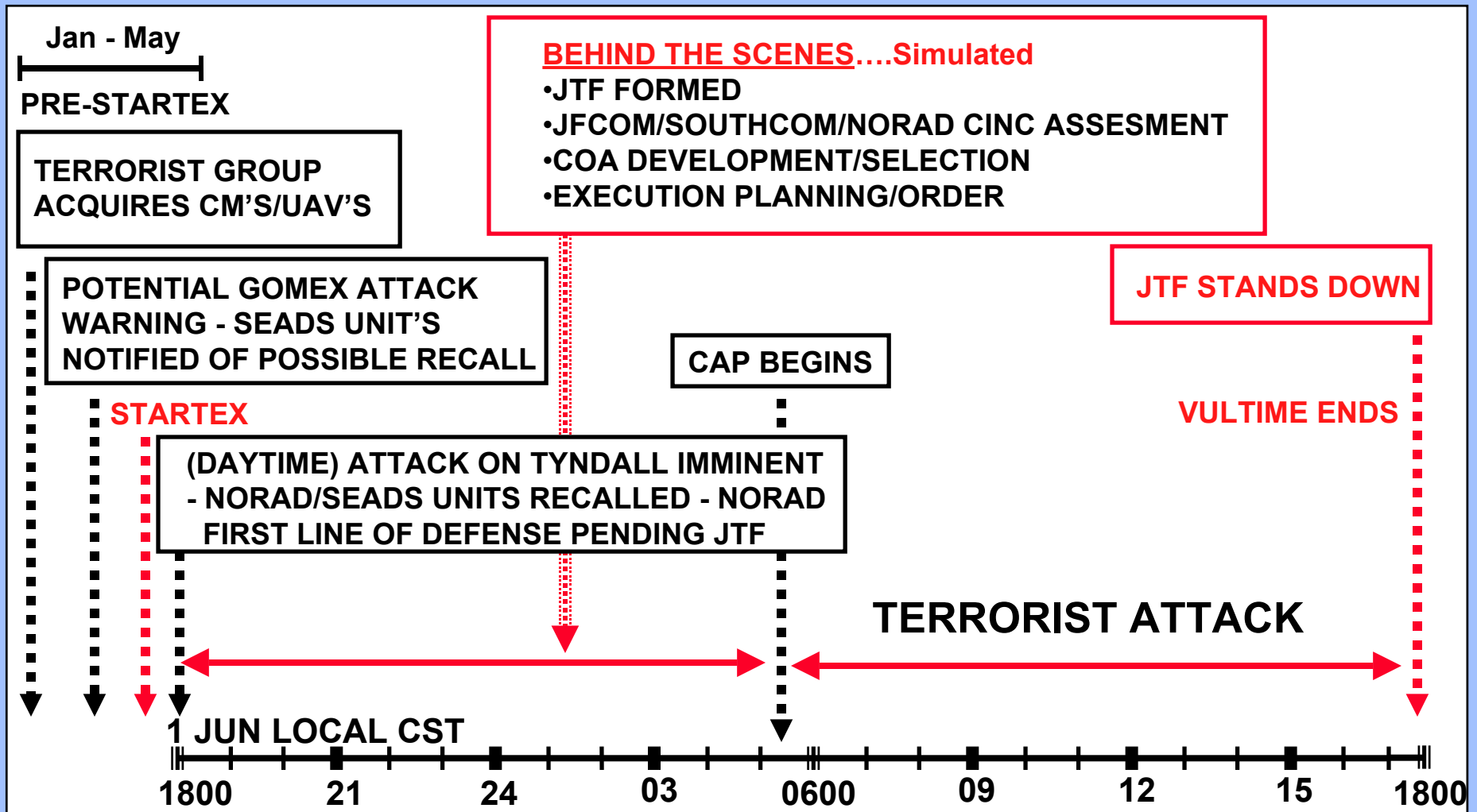


Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday
29	30	31	1	2	3	4
	CF-18s Deploy To Tyndall AFB	DACT CF-18 (Red) vs F-15/16			DACT CF-18 (Red) vs F-15/16	CF-18s Re-deploy To Canada
		SEADS/ADA* FED VIRGO (OFF-LINE TNG)	AMALGAM VIRGO		SEADS/ADA* FED VIRGO (OFF-LINE TNG)	
			CF-18 Blue Air			

***SEADS/DOCW/T RESPONSIBLE FOR PLANNING, ORGANIZING AND EXECUTING FEDERAL VIRGO EXERCISE (I.E. DACT WITH SEADS BATTLESTAFF)**

INTEL SCENARIO FLOW

1-2 JUN 2001



CANADA-UNITED STATES BASIC SECURITY DOCUMENT MCC 100-35

UNCLASSIFIED

20 August 1999

(Cover Letter - para 1) When directed by the Government of Canada and the National Command Authorities of the United States, CANUS forces will conduct **combined** operations to maintain the security of the CANUS region.

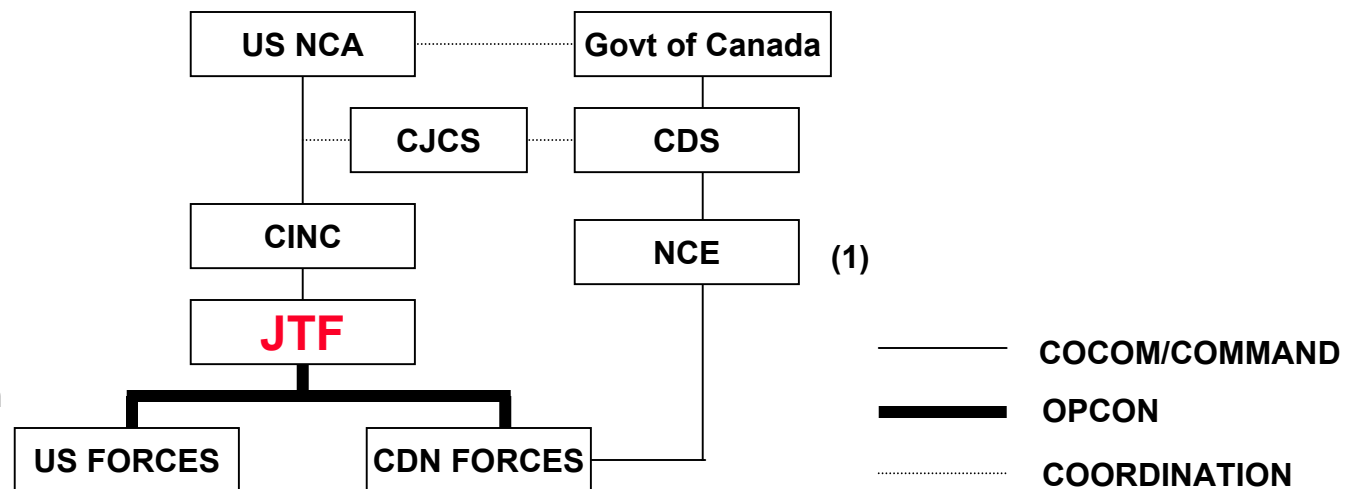
[signed]

J.M.G. BARIL
General, Canadian Forces
Chief of the Defence Staff

[signed]

HENRY H. SHELTON
General, United States Army
Chairman, Joint Chiefs of Staff

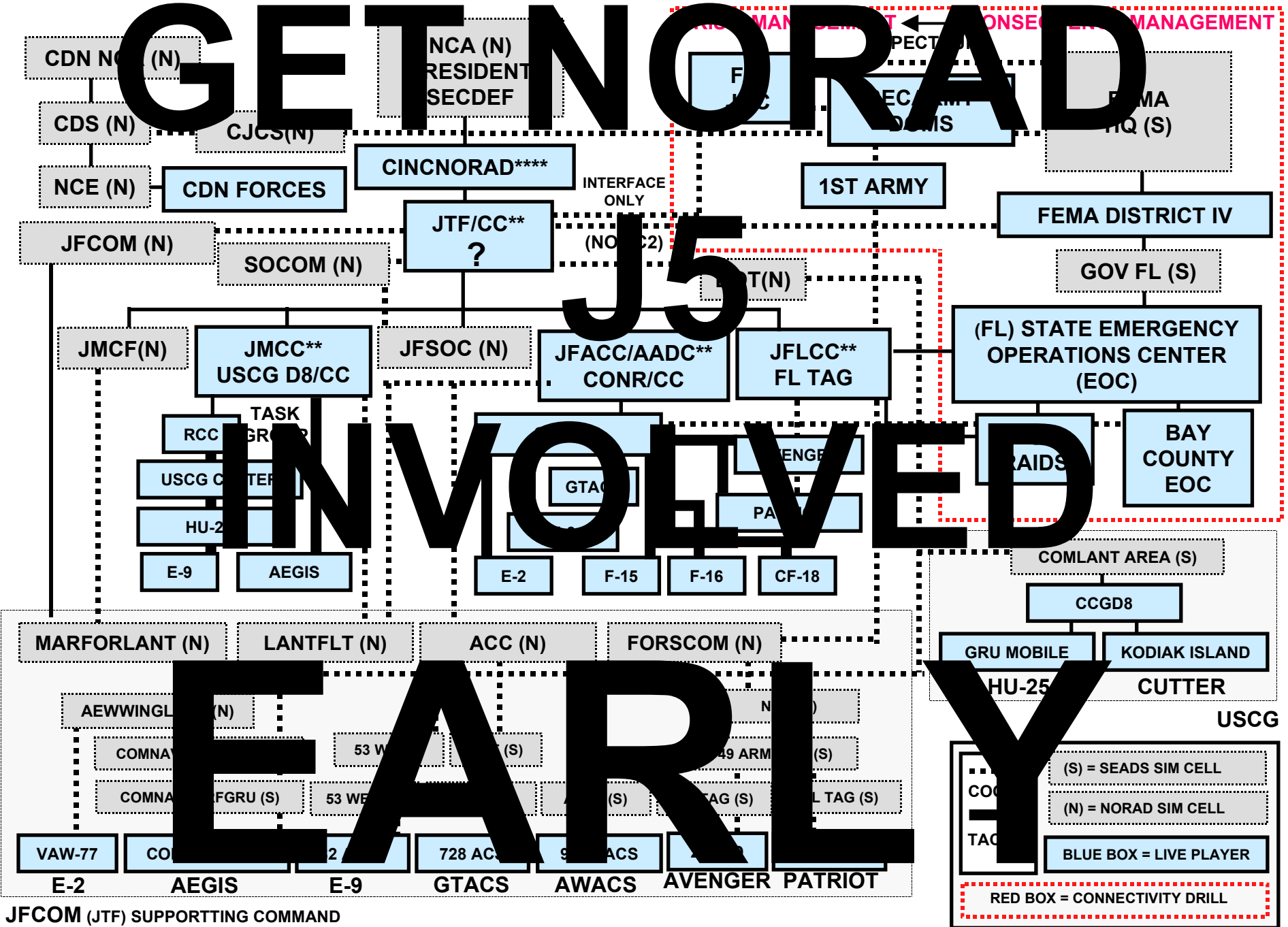
**APPENDIX 4 TO ANNEX J TO CANUS BASIC SECURITY PLAN
UNITED STATES AS LEAD NATION COMMAND STRUCTURE**



Note:

(1) The CDS will exercise command of the Canadian forces through a National Command Element (NCE)

GET NORAD



J5 INVOLVED

EARLY

JFCOM (JTF) SUPPORTING COMMAND

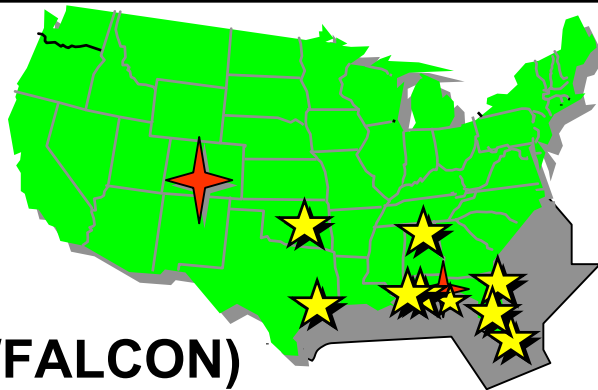
Legend:

- (S) = SEADS SIM CELL
- (N) = NORAD SIM CELL
- BLUE BOX = LIVE PLAYER
- RED BOX = CONNECTIVITY DRILL

PARTICIPANTS

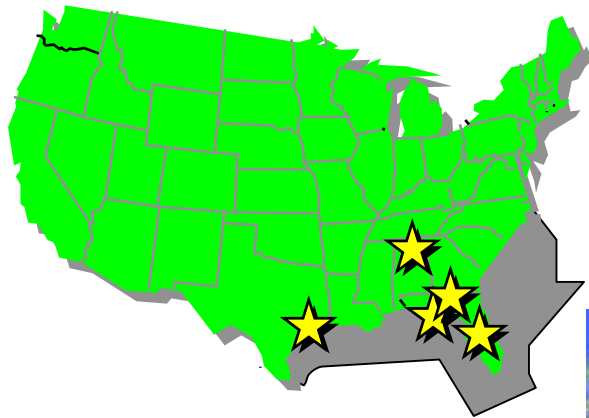
BLUE

- NORAD
- CONR
- SEADS
- 970 AACCS (AWACS)
- USCG (RCC/CUTTER/FALCON)
- 125 FW, 147 FW, 148 FW
- 53 WEG (E-9)
- 728 ACS (GTACS)
- 2-263/5 ADA (AVENGER)
- 1-203 ADA (PATRIOT)
- DESRON6 (AEGIS)
- VAW-77 (E-2)
- CF-18



PARTICIPANTS

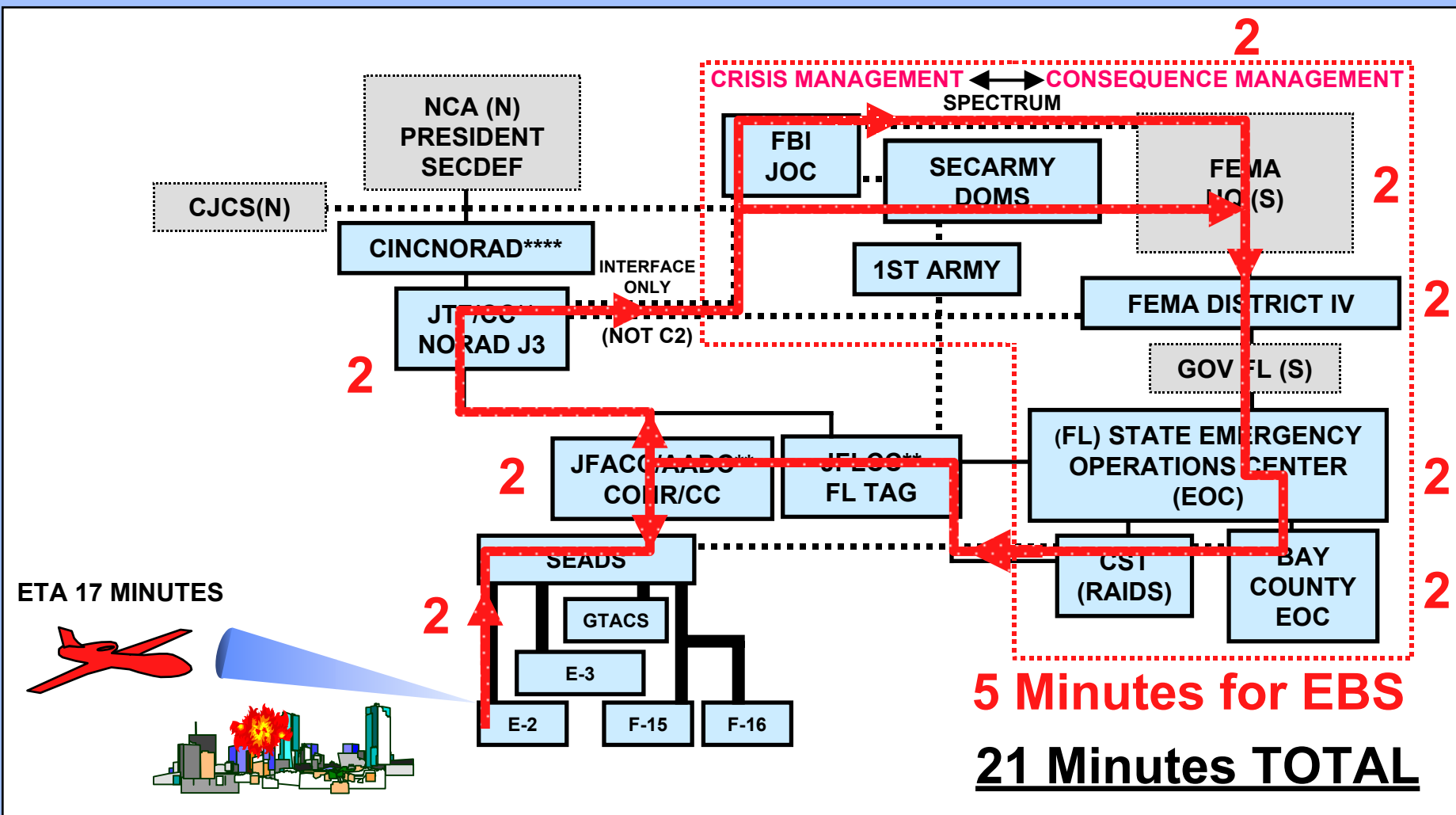
RED



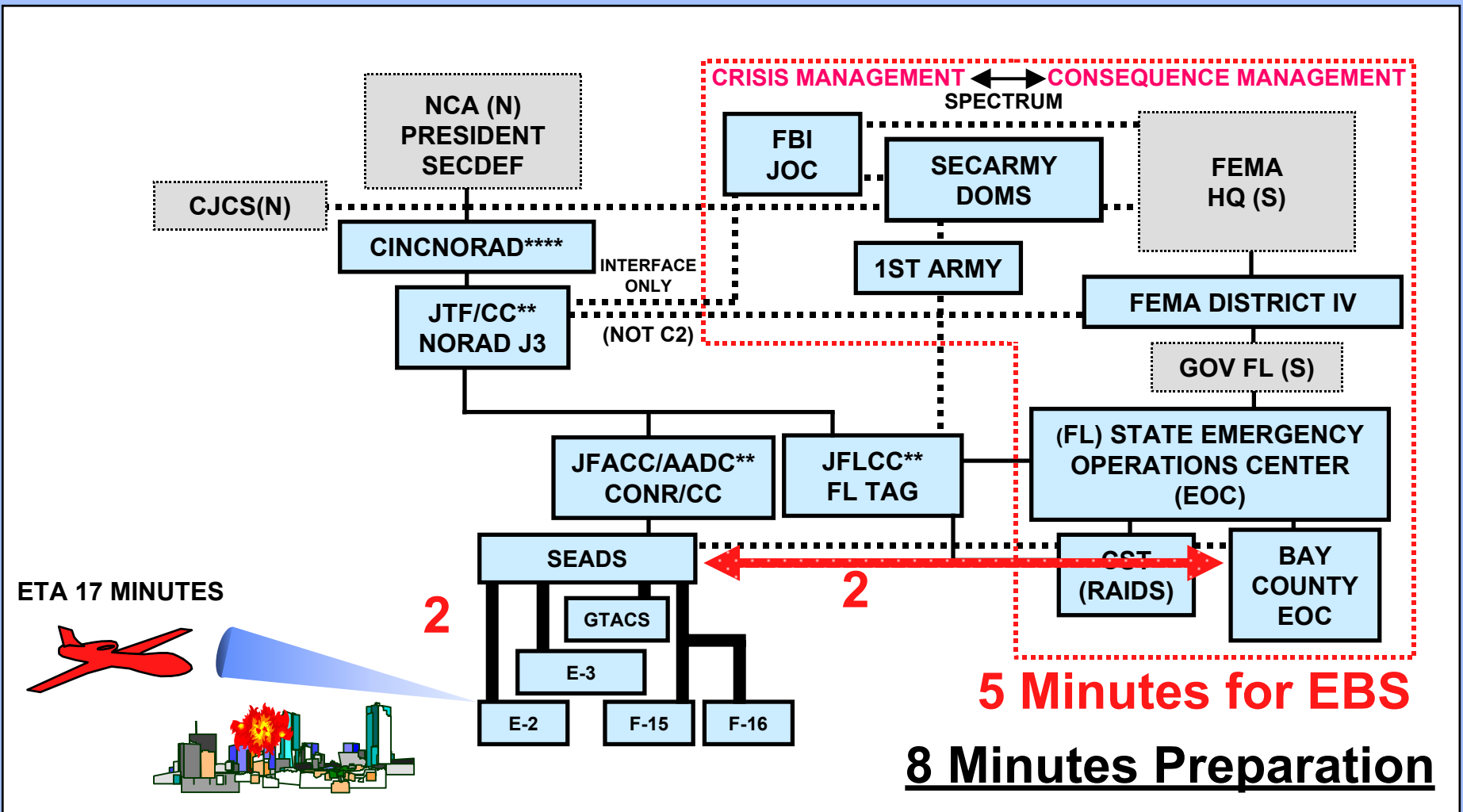
- Phoenix Air (Surrogate UAVs)
- CAP (CD/TERRORIST TGTs)
- 53 WEG (MQM-107/VESSEL)
- MU-2 Relay Platform
- 2-263 ADA (manpad)



CONSEQUENCE MGT CONNECTIVITY DRILL

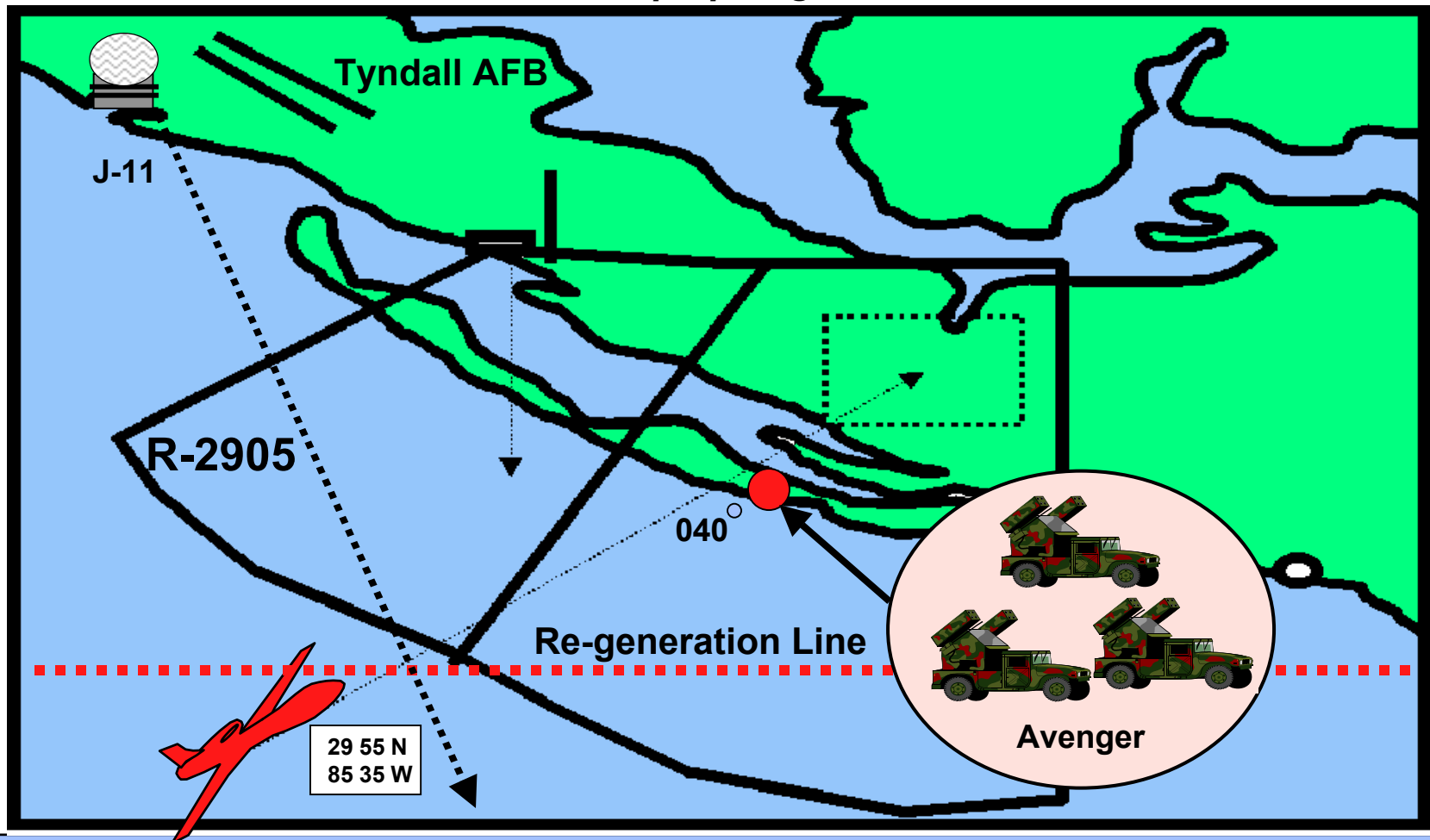


CONSEQUENCE MGT CONNECTIVITY DRILL



(SHORAD) ADA CONOPS AMALGAM VIRGO 01

OAKGROVE: "Pop-up target 10 SSE of J-11"



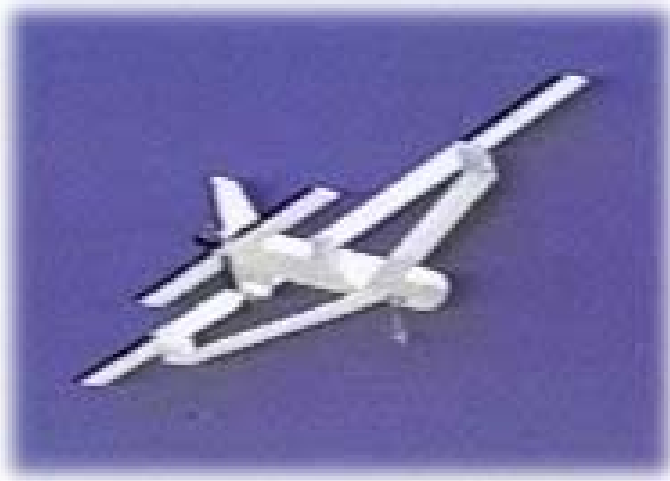
CM Statistic and UAV Programs and Platforms SAMPLE

75,000 Cruise Missiles Distributed Amongst 75 Countries

+

- | | | | |
|-------------------|-------------|--------------|----------------|
| •AV Pointer | •Huntair | •Shadow 600 | •Global Hawk |
| •AV Pointer Micro | •Hunter | •Skyeye | •Gnat 750 |
| •Blimp | •Javelin | •Spectre II | •Hawk-I 7b/f/h |
| •Aerobot | •Model 324 | •Tern | •Raptor |
| •Aerosonde | •Model 350 | •Theseus | •SASS Lite |
| •Altus 2 | •Model 410 | •Truck | •STM-5B |
| •BQM-34 | •Outrider | •MQM-107 | •Seabat |
| •Chiron | •Pathfinder | •LEARS | •Shadow 200 |
| •Darkstar | •Ferseus B | •Hummingbird | •Onithopter |
| •Eagle Eye | •Pioneer | •Dragonfly | •Entomopter |
| •Exdrone | •Porter | •Vindicator | •Seamos |
| •Firebee | •Predator | •VC-6 | •Dirigible AAV |
| •Freewing | •Prowler | •Micro | •AMGSSS |

LEARS UAV



LEARS COST

\$83,613.00

(Includes GPS driven air vehicle and Ground Control Station and is capable of carrying a 40lb payload)

•“The LEARS UAV was developed for sales to third world nations”

***James H. Boschma
Technical Director
Bosch Aerospace, Inc
Huntsville, AL***

“A Scary Thought”

16 AUG 99



New Foundland to Scotland

26 hours

3,200 km



Federal Flight Rules Eyed For Unmanned Aircraft

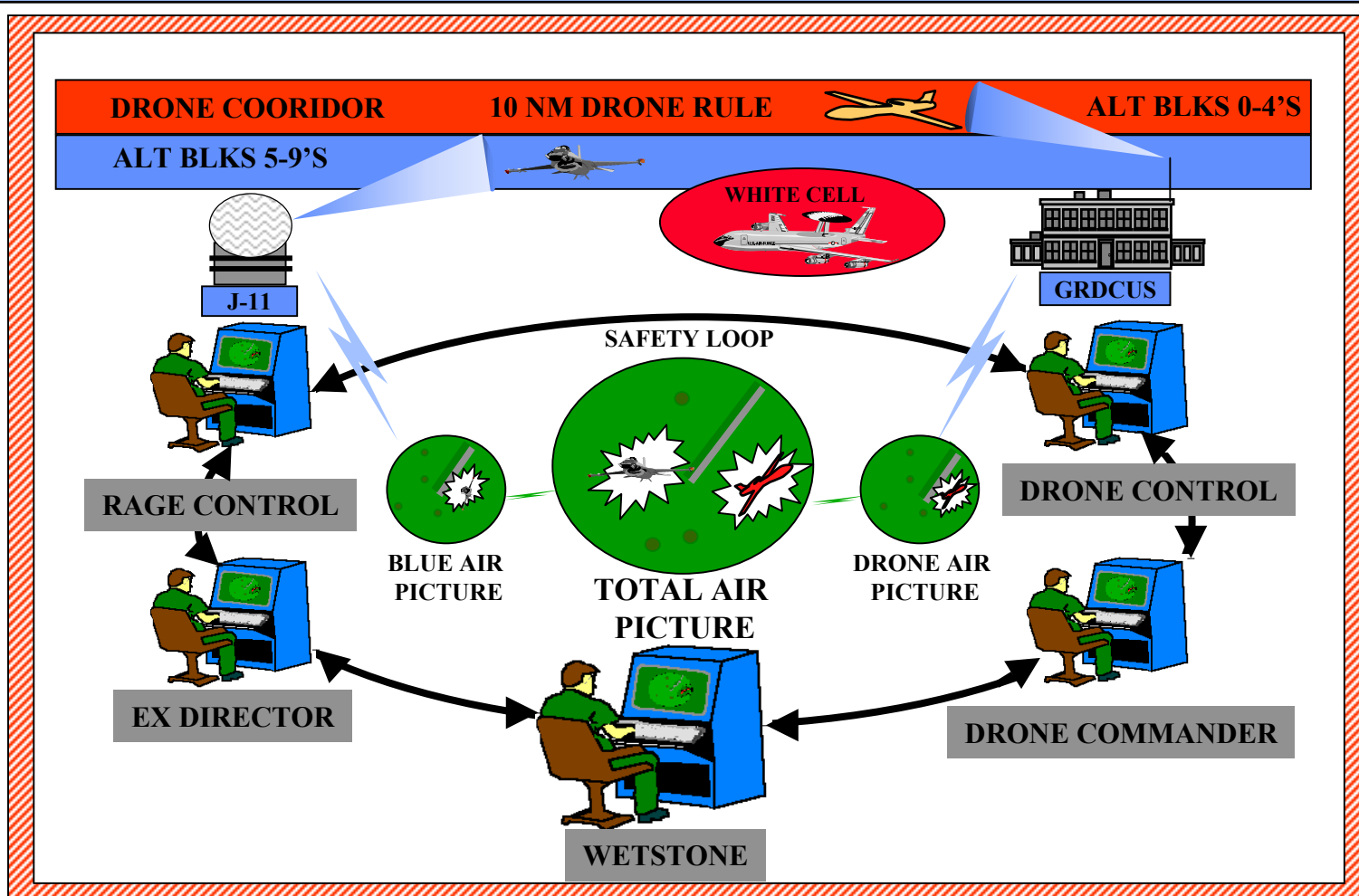
Aviation Week & Space Technology June 5, 2000

“Pentagon and FAA officials have ordered a Defense Dept. study of how UAVs should be integrated into national airspace”



“Predictions are that the U.S. may be operating as many as **2,000 UAVs** in 5-10 years. The market is ready to explode”

DRONE SAFETY PROCECURES



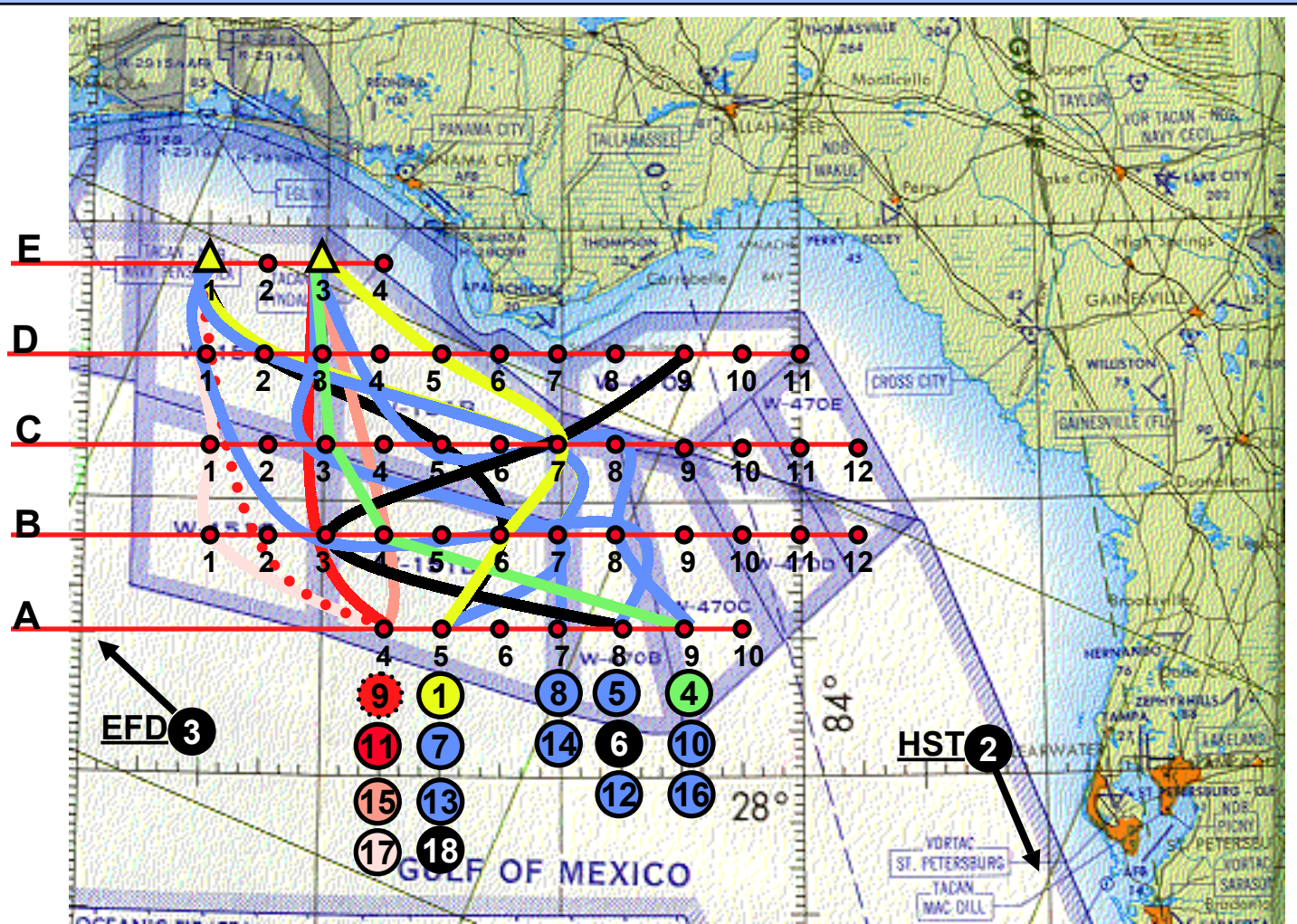
AW 00-2 TRACK SYNOPSIS

All times in local CST time (+5 for zulu)

TRACK TIMES (LOCAL)

1. 1830-1914 UNK
2. 2030-2138 CD
3. 2240-2341 CD
4. 0050-0140 SUICIDE
5. 0630-0700 RPV
6. 0700-0801 CD
7. 0715-0745 RPV
8. 0815-0842 RPV
9. 0830-0930 UAV
10. 0900-0927 RPV
11. 1030-1123 UAV
12. 1100-1130 RPV
13. 1145-1215 RPV
14. 1245-1312 RPV
15. 1210-1300 UAV
16. 1330-1357 RPV
17. 1400-1506 UAV
18. 1716-1800 CD

- | | |
|--|---|
| ● UNK | ● RPV |
| ● CD | ● UAV |
| ● SUICIDE | |



NORAD AV PROPOSAL GUIDELINES

Need your proposals for a live-fly event

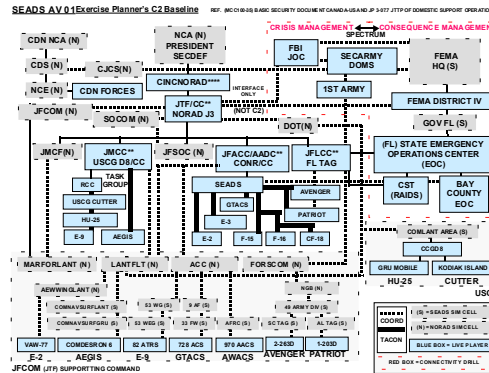
- ✓ Multi-region exercise preferred
- ✓ Should be short duration (1-2 days)
- ✓ Should focus on emerging threats
 - ✓ Cruise missile defense
 - ✓ Anti-airborne terrorism
 - ✓ WMD
- ✓ Should include outside agencies
 - ✓ FBI, RCMP, FEMA, DTRA...

NI 10-45 OBJECTIVES

- ✓ Exercise Integrated Tactical Warning and Attack Assessment (ITW&AA).
- ✓ Exercise command interface with higher and lateral headquarters.
- ✓ Exercise intelligence, logistics and personnel functions.
- ✓ Exercise command, control and communications systems and procedures.
- ✓ Exercise NORAD Headquarters, region and sector joint binational battle staffs.
- ✓ Exercise crisis action planning, deployment planning and CONPLAN execution.
- ✓ Exercise regeneration, NBC and battle staff support operations and test concepts.
- ✓ Exercise contingency operations (including Cruise Missile Defense).
- ✓ Exercise air sovereignty and air defense missions.
- ✓ Exercise the counterdrug mission.

EVERYONE PARTICIPATES

- ANR
- CANR
- WADS
- NEADS



WHITE FORCE AUGMENTATION



ANR/CANR/CONR/WADS/NEADS

SUMMATION

AMALGAM VIRGO 01 Will Provide:

- ① Challenging and Realistic Training ...(PA)
- ② Significant break from “Cold War” Paradigm
- ③ State-of-the-art Target
- ④ Integration of New Concepts
- ⑤ “Train-Like-You-Fight” Wargaming
- ⑥ Robust Battle Management Training
- ⑦ Joint Training for Unconventional Threat

[RETURN TO
FINAL REPORT](#)

[RETURN TO
TAB SUMMARY](#)