

32nd AAMDC

Operation Iraqi Freedom

UNCLASSIFIED
(DESTROY AS OPSEC SENSITIVE)

Joint EW Architecture
Most advanced ever –
TES, DSN CNF Bridge,
pagers, AC10, WOTS,
ADSI, C2PC, AMDWS,
AEGIS, COBRA
JUDY

1st ever Wartime
Coalition Patriot
Operations

1-7 ADA
15 C-5s, 21 C17s
Largest movement
of Patriot by air

LNOs in 6 countries

1st Ever support of
the USMC by a
Patriot Brigade

No loss of life or
equipment due to an
Iraqi TBM
9 for 9

Joint Attack Operations
Successful finding, fixing and
killing Enemy TBMs

Innovative use of
Float equipment –
“Shortstop”

1st ever PAC III, GEM,
and GEM+ kills

Operation Iraqi Freedom IMD TF Operations in 8 Countries

EW provided to
Kuwait. Activated
170 Sirens

Textbook
Deployment
(rail, sea, air)

1069 Missiles Moved

Attack Operations
Pre-combat operations:
destroyed 2 Ababil-100 TELS

**41 BTRYs, 7 BNS, 4 BDES,
6500 SOLDIERS**

Joint Area Air
Defense Plan

Multi-service
SADCs

92% Operational
Rate during war

Cruise Missile
Threat is Here and
Now

1st ever Remote
Launch Operations

LARs, MIRs, OAI
combat multipliers!

CZAR of
Operational
Protection (MP,
NBC, ADA)

45 CH47 Sorties to
deliver supplies

AMDWS mission
sharing and air
picture with 48
boxes, 19 units;
including 1st UK Div
and I MEF

“PLAYBOOK”
Reinforce Maneuver
coverage approved by LTG
McKiernan

1st employment of
Battery Command
Post (2 BNs)

UNCLASSIFIED
(DESTROY AS OPSEC SENSITIVE)

Desert Storm –vs- Iraqi Freedom

What was Different?

270 degree coverage
270 degree operations

32d AAMDC

Force Modernization-
Systems (PAC II/PAC III)
Missiles (GEM, GEM+, PAC II, PAC III)
BCP's, Remote Launchers, Link 16
14J and 140A

Expectations - high
Leak Proof Defense

Corps Bde Operations

Separate Battalion Missions-
1-7 ADA Jordan, 1-1 ADA 4ID

CFLCC/CFACC Roles

AC/RC Integration
32d AAMDC
SECFOR

EAC SHORAD
Mission

Short Range TBMs
Cruise Missiles

Force Protection-
Non-contiguous
Asymmetrical Threat

MEF
Operations

Offensive Operations –
integrated with CAOC

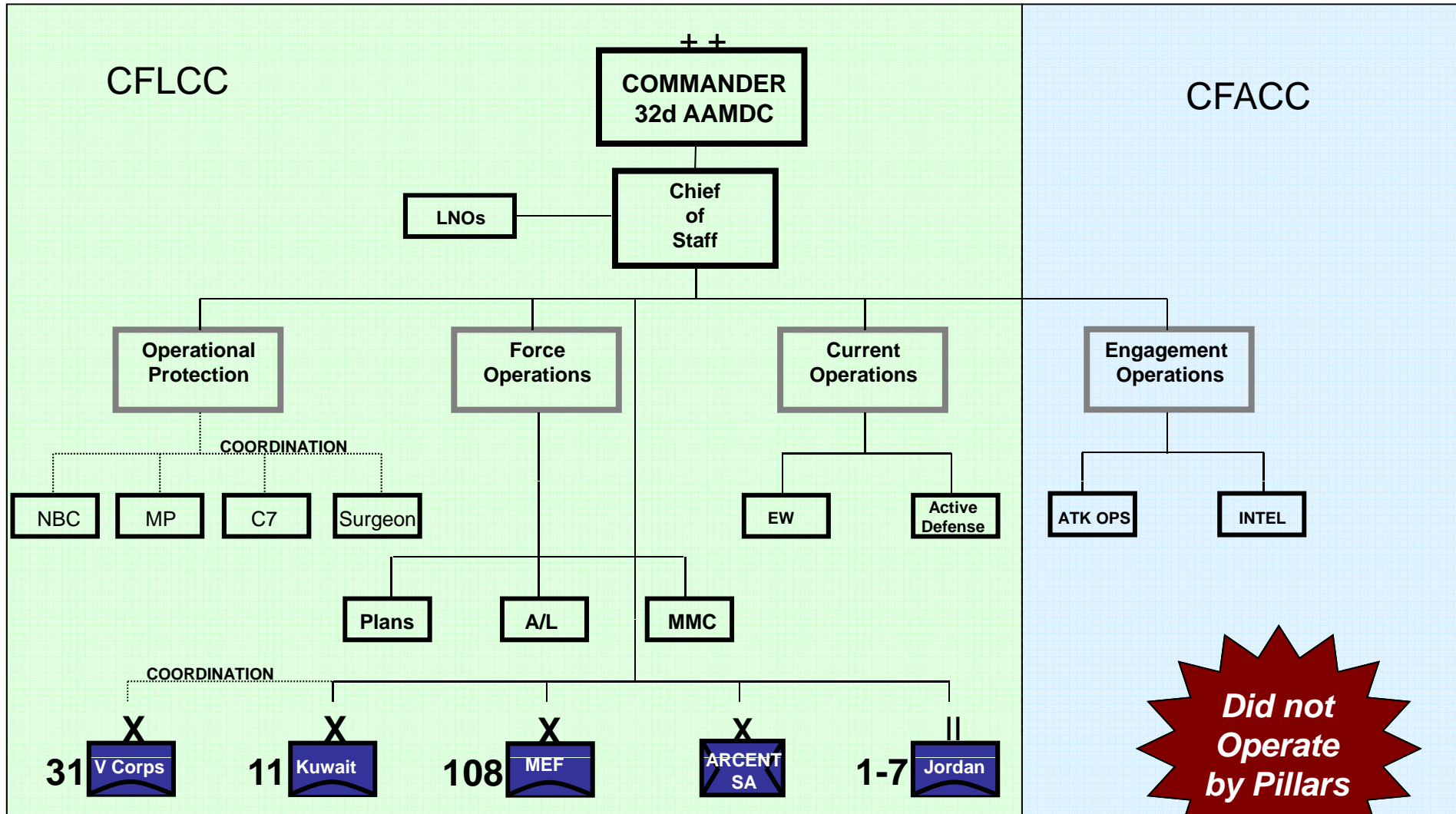
Separate Batteries
in Many Countries

32nd AAMDC

Command, Control, and the roles of 32nd AAMDC

Defining the Command

32nd AAMDC OIF Organization



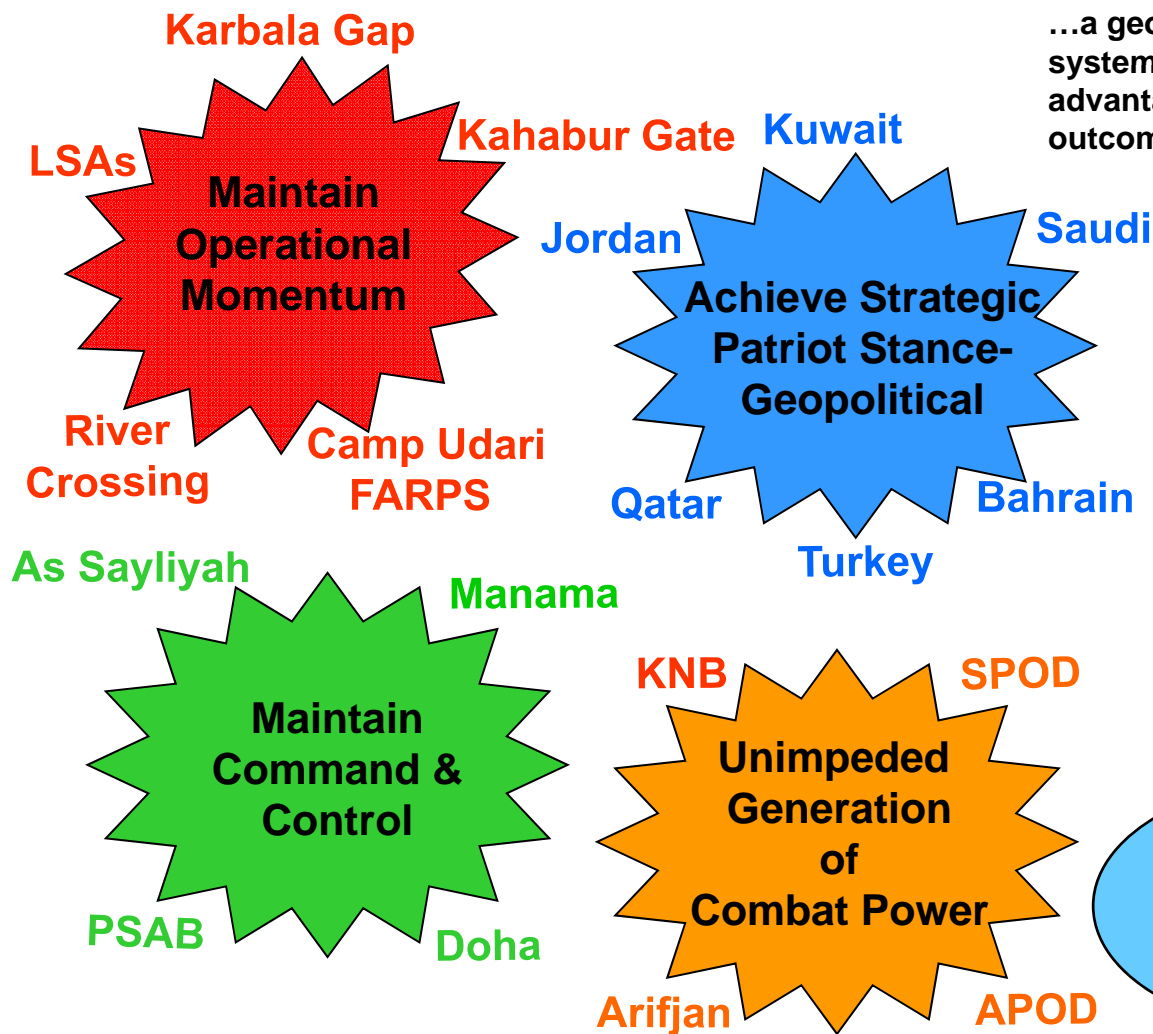
Roles of the AAMDC Commander

Senior ADA Commander	Theater Army Air and Missile Defense Coordinator (TAAMDCOORD)	Deputy Area Air Defense Commander (DAADC)
<ul style="list-style-type: none"> • Single POC for Army AMD in Theater • Responsible for AMD Operational Planning • Conducts Defense Design-Operational Level Planning • Recommends DAL • Develops AMD Annex for CFLCC • Commands all EAC Patriot 	<ul style="list-style-type: none"> • Synchronizes Air Defense Ops • Develops and Maintains TAMD IPB/Situation Template • Assists in Target Definition • ISR Recommendations • Input to Target Nomination Process • Disseminates Early Warning • Vulnerability Analysis/NBC Reporting • Input to Target Nomination Process • Develops AMD Annex for CFLCC • Provides LNOs to Higher and JTAMD C2 Nodes and Accepts LNOs from Lower Elements and Components 	<ul style="list-style-type: none"> • Integrates Air Defense in Theater • Integrates 2 Levels of Modernized Patriot Force • Chairs Repri-Board • Recommends CAL/DAL with CVT Methodology • Assists with AADP development • Assists in Theater Early Warning • Provides LNOs (ADAFCO) to CRC/TAOC/AEGIS • Integrates AMD Communication (Data/Voice) • Issues SAM/SHORAD Tactical Order (SSTO) • Integrates Coalition AD

**32d AAMDC
does more
than active
defense!**

Decisive Points

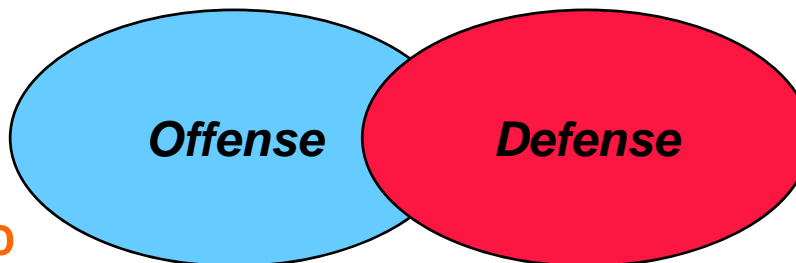
...a geographic place, specific key event, or enabling system that allows commanders to gain a marked advantage over an enemy and greatly influence the outcome of an attack...



ENDSTATE: Protect the Force and the DAL

BRANCHES

- Oil Fields
- Hasty Regime Collapse
- Regional Instability- Iran
- Korea Explodes



32nd AAMDC Playbook



"Let me begin by saying this will be a campaign unlike any other in history — a campaign characterized by shock, by surprise, by flexibility, by the employment of precise munitions on a scale never before seen and by the application of overwhelming force," Gen. Franks

10 "Plays" that provided flexibility

Plays were briefed to COMCFLCC and the V Corps Commander, and were used by subordinate commanders for deliberate planning.

SECRET/ORCON REL MCFI/X4

PLAY 2

Description: C/2-1 (Arifjan) deploys to V Corps zone, OPCON 5-52, A/2-1 (KNB) conducts remote launch from Arifjan

Trigger: Maneuver forces clear PL Arifjan (Max range of SRBM to Arifjan)

Assumptions: No Al Hussein fired, ~+24hr from LD initiate

Task: C/2-1 deploys forward in V Corps Zone (OPCON 5-52), A/2-1 remote launch from KNB to protect Arifjan and SPOD

Purpose: Provide Config 3 coverage forward, mitigate risk to SPOD with remote launch

Operational Benefit: Provides one additional Config 3 forward

Risk: Single point of failure Arifjan/SPOD/KNB

V Corps	MEF
3 x Config 3 (+ 1 Config 3)	2 x Config 3

Patriot Forward of PL Florida LD + 24-36

SECRET/ORCON REL MCFI/X4

32nd AAMDC

Flow of Forces

Achieving the TMD Stance

PATRIOT COMBAT POWER OPERATION DESERT SPRING

DEFENDED ASSET LIST

Camp Doha, KU (KU FU)
Ash Shuaybah, KU (KU FU)
Kuwait City, KU (KU FU)
KCIA, KU (KU FU)
Al Jaber, KU
Ali Al Salem, KU



Extend the SWA rotation (3-2 ADA)



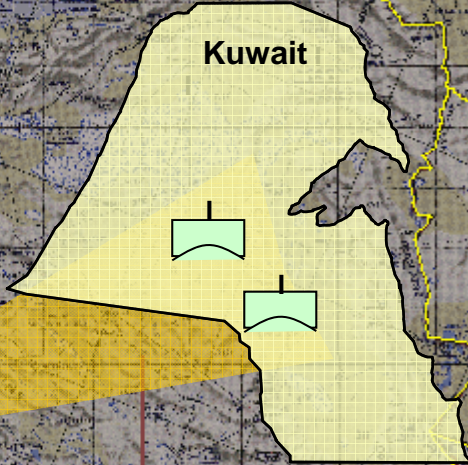
Accelerate PAC 3 fielding to 5-52



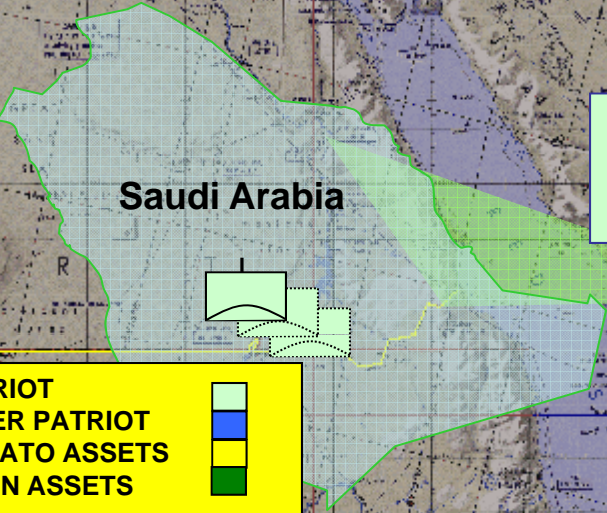
PAC 3 capability to Kuwait early (TF 3-43)



Accelerate PATRIOT PREP



Kuwait



Saudi Arabia

RIYADH AB, KSA
PSAB, KSA (RRB)
ESKAN VILLAGE, KSA (RRB)

COMBAT POWER
1 PATRIOT BATTALION
3 PATRIOT BATTERIES
2 REDUCED READINESS BTRY
4 COALITION BATTERIES

EAC PATRIOT
MANEUVER PATRIOT
EUCOM/NATO ASSETS
COALITION ASSETS



PATRIOT COMBAT POWER

SERIAL 165/ 27 November 2002

DEFENDED ASSET LIST

Camp Doha, KU (KU FU)
Ash Shuaybah, KU (KU FU)
Kuwait City, KU (KU FU)
KCIA, KU (KU FU)
Al Jaber, KU
Ali Al Salem, KU
Arifjan, KU

Kuwait

Saudi Arabia

RIYADH AB, KSA
PSAB, KSA (RRB)
ESKAN VILLAGE, KSA (RRB)

COMBAT POWER

2 PATRIOT BATTALIONS
4 PATRIOT BATTERIES
2 REDUCED READINESS BTRY
4 COALITION BATTERIES

EAC PATRIOT
MANEUVER PATRIOT
EUCOM/NATO ASSETS
COALITION ASSETS



PATRIOT COMBAT POWER

SERIAL 167/ 17 January 2003

DEFENDED ASSET LIST
Camp Doha, KU (KU FU)
Ash Shuaybah, KU (KU FU)
Kuwait City, KU (KU FU)
KCIA, KU (KU FU)
Al Jaber, KU
Ali Al Salem, KU
Arifjan, KU



Deployment Priority: Tactical/operational stance



Deploy 2 sets of float equipment (Shortstop)

RIYADH AB, KSA
PSAB, KSA
ESKAN VILLAGE, KSA (RRB)

COMBAT POWER

1 PATRIOT BRIGADE
2 PATRIOT BATTALIONS
6 PATRIOT BATTERIES
1 REDUCED READINESS BTRY
5 COALITION BATTERIES

EAC PATRIOT
MANEUVER PATRIOT
EUCOM/NATO ASSETS
COALITION ASSETS



Kuwait

Saudi Arabia

Qatar

As Sayliyah, QAT
Al Udied, QAT

PATRIOT COMBAT POWER

SERIAL 174/ 12 February 2003

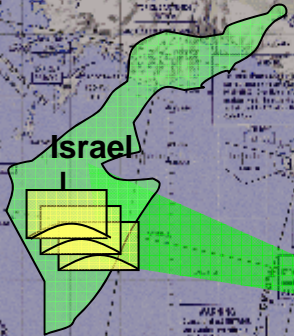
- DEFENDED ASSET LIST**
- Camp Doha, KU (KU/US)
 - Ash Shuaybah, KU (KU/US)
 - Kuwait City, KU (KU FU)
 - KCIA, KU (KU FU)
 - Al Jaber, KU
 - Ali Al Salem, KU
 - Arifjan, KU
 - Kuwait Naval Base



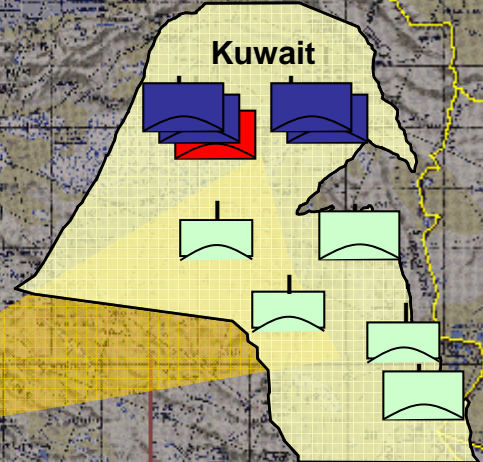
Upgrade Alert State, 27 JAN 03



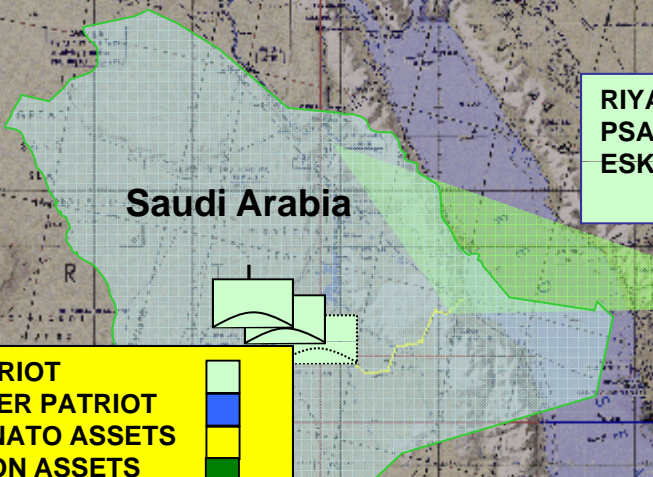
Play 9 (A/5-52 soldiers man Shortstop)



Israel

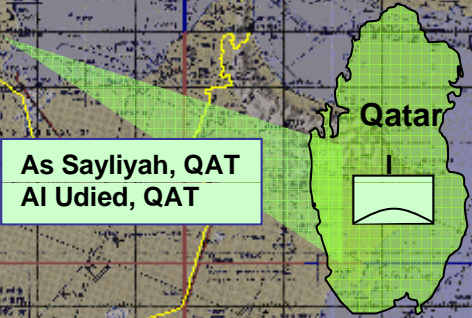


Kuwait



Saudi Arabia

- RIYADH AB, KSA
- PSAB, KSA
- ESKAN VILLAGE, KSA (RRB)



Qatar

- As Sayliyah, QAT
- Al Udied, QAT

- EAC PATRIOT
 - MANEUVER PATRIOT
 - EUCOM/NATO ASSETS
 - COALITION ASSETS
 - SHORTSTOP
- 

- COMBAT POWER**
- 3 PATRIOT BRIGADES
 - 4 PATRIOT BATTALIONS
 - 16 PATRIOT BATTERIES
 - 1 REDUCED READINESS BTRY
 - 1 SHORTSTOP
 - 5 COALITION BATTERIES

PATRIOT COMBAT POWER

SERIAL 179/ 13 February 2003

- DEFENDED ASSET LIST**
- Camp Doha, KU (KU/US)
 - Ash Shuaybah, KU (KU/US)
 - Kuwait City, KU (KU FU)
 - KCIA, KU (KU FU)
 - Al Jaber, KU
 - Ali Al Salem, KU
 - Arifjan, KU
 - Kuwait Naval Base

Israel

Jordan

King Faisal, JO
Amman, JO
Azraq, JO
Prince Hassan, JO

Saudi Arabia

RIYADH AB, KSA
PSAB, KSA
ESKAN VILLAGE, KSA

Kuwait

Qatar

As Sayliyah, QAT
Al Udied, QAT

EAC PATRIOT
MANEUVER PATRIOT
EUCOM/NATO ASSETS
COALITION ASSETS
SHORTSTOP

COMBAT POWER

- 3 PATRIOT BRIGADES
- 5 PATRIOT BATTALIONS
- 21 PATRIOT BATTERIES
- 1 SHORTSTOP
- 5 COALITION BATTERIES

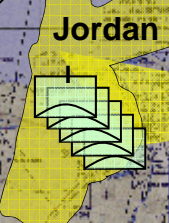
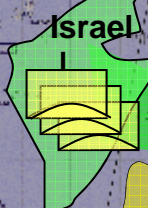
PATRIOT COMBAT POWER

SERIAL 177/ 7 March 2003

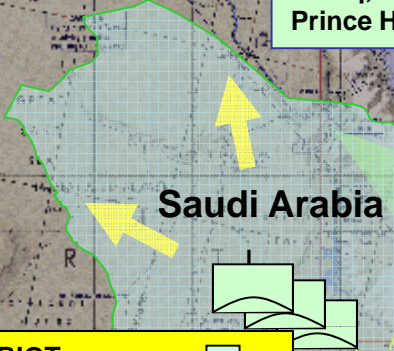
- DEFENDED ASSET LIST**
- Camp Doha, KU (KU/US)
 - Ash Shuaybah, KU (KU/US)
 - Kuwait City, KU (KU FU)
 - KCIA, KU (KU FU)
 - Al Jaber, KU
 - Ali Al Salem, KU
 - Arifjan, KU
 - Kuwait Naval Base

★ Divert ship to get equipment to Kuwait earlier

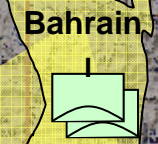
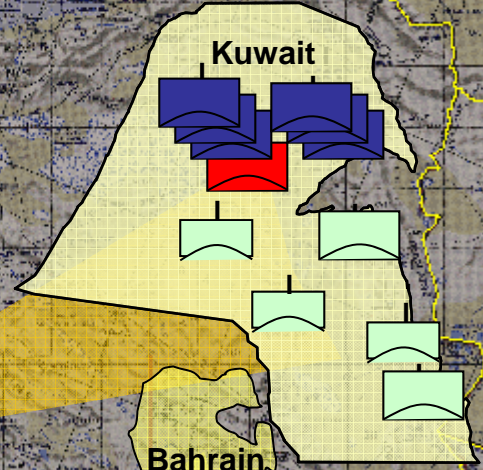
★ Flow soldiers early from late arriving batteries



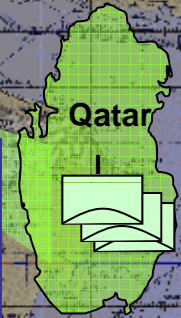
- King Faisal, JO
- Amman, JO
- Azraq, JO
- Prince Hassan, JO



- Ar Ar, KSA
- PSAB, KSA
- Tabuk, KSA



- Riffa AB, BAH
- Sheikh Isa, BAH
- NAVCENT HQs, BAH
- Al Manama, BAH



- As Sayliyah, QAT
- Al Udied, QAT
- Doha City, QAT
- Ras Laffen, QAT
- Camp Snoopy, QAT

EAC PATRIOT
 MANEUVER PATRIOT
 EUCOM/NATO ASSETS
 COALITION ASSETS
 SHORTSTOP

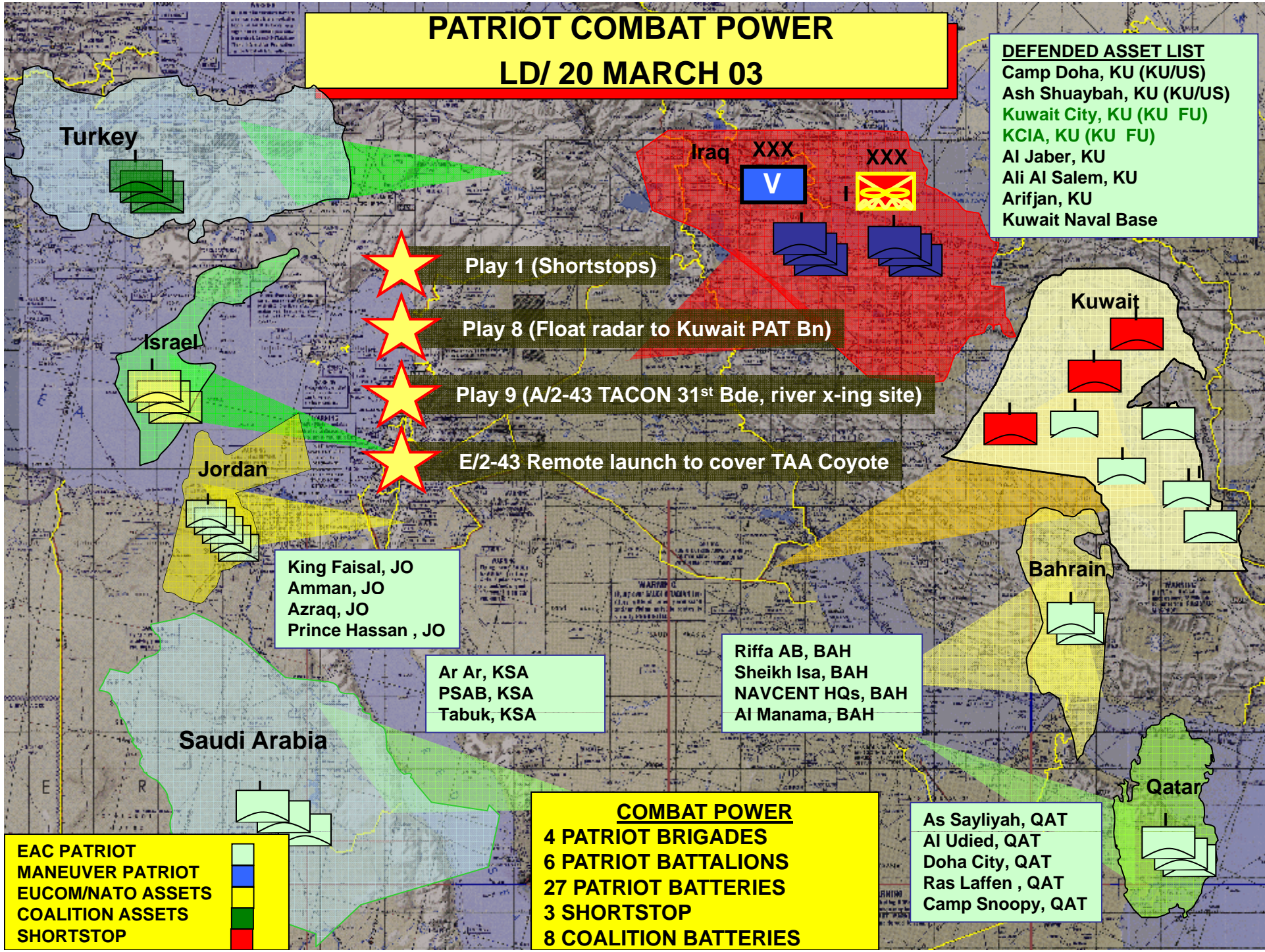
COMBAT POWER

- 4 PATRIOT BRIGADES
- 6 PATRIOT BATTALIONS
- 27 PATRIOT BATTERIES
- 1 SHORTSTOP
- 5 COALITION BATTERIES

PATRIOT COMBAT POWER

LD/ 20 MARCH 03

- DEFENDED ASSET LIST**
- Camp Doha, KU (KU/US)
 - Ash Shuaybah, KU (KU/US)
 - Kuwait City, KU (KU FU)
 - KCIA, KU (KU FU)
 - Al Jaber, KU
 - Ali Al Salem, KU
 - Arifjan, KU
 - Kuwait Naval Base



- ★ Play 1 (Shortstops)
- ★ Play 8 (Float radar to Kuwait PAT Bn)
- ★ Play 9 (A/2-43 TACON 31st Bde, river x-ing site)
- ★ E/2-43 Remote launch to cover TAA Coyote

- King Faisal, JO
Amman, JO
Azraq, JO
Prince Hassan, JO

- Ar Ar, KSA
PSAB, KSA
Tabuk, KSA

- Riffa AB, BAH
Sheikh Isa, BAH
NAVCENT HQs, BAH
Al Manama, BAH

EAC PATRIOT
MANEUVER PATRIOT
EUCOM/NATO ASSETS
COALITION ASSETS
SHORTSTOP

COMBAT POWER

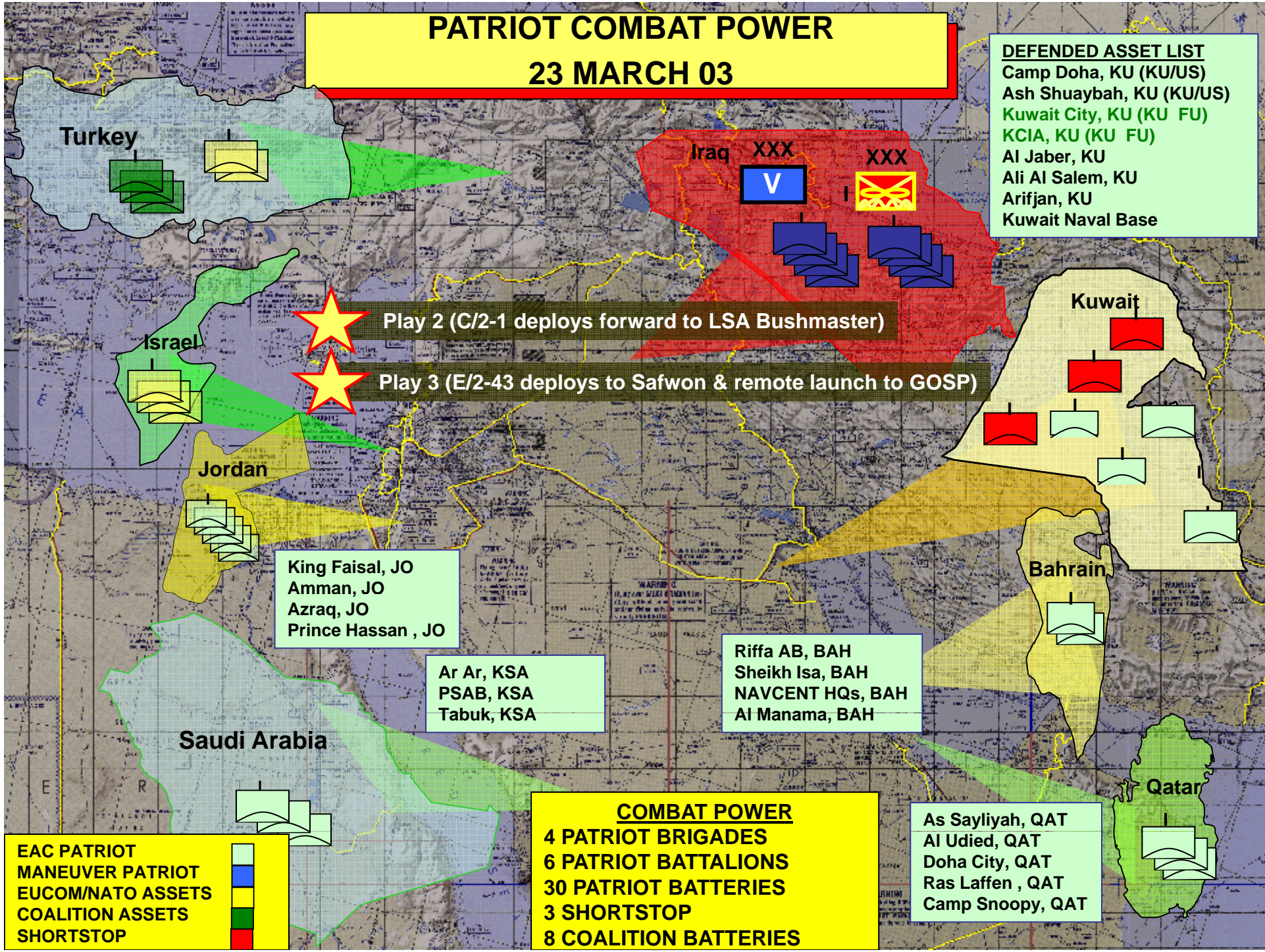
- 4 PATRIOT BRIGADES
- 6 PATRIOT BATTALIONS
- 27 PATRIOT BATTERIES
- 3 SHORTSTOP
- 8 COALITION BATTERIES

- As Sayliyah, QAT
Al Udied, QAT
Doha City, QAT
Ras Laffen, QAT
Camp Snoopy, QAT

PATRIOT COMBAT POWER

23 MARCH 03

- DEFENDED ASSET LIST**
- Camp Doha, KU (KU/US)
 - Ash Shuaybah, KU (KU/US)
 - Kuwait City, KU (KU FU)
 - KCIA, KU (KU FU)
 - Al Jaber, KU
 - Ali Al Salem, KU
 - Arifjan, KU
 - Kuwait Naval Base



★ Play 2 (C/2-1 deploys forward to LSA Bushmaster)

★ Play 3 (E/2-43 deploys to Safwon & remote launch to GOSP)

- King Faisal, JO
Amman, JO
Azraq, JO
Prince Hassan, JO

- Ar Ar, KSA
PSAB, KSA
Tabuk, KSA

- Riffa AB, BAH
Sheikh Isa, BAH
NAVCENT HQs, BAH
Al Manama, BAH

- EAC PATRIOT
MANEUVER PATRIOT
EUCOM/NATO ASSETS
COALITION ASSETS
SHORTSTOP

- COMBAT POWER**
- 4 PATRIOT BRIGADES
 - 6 PATRIOT BATTALIONS
 - 30 PATRIOT BATTERIES
 - 3 SHORTSTOP
 - 8 COALITION BATTERIES

- As Sayliyah, QAT
Al Udied, QAT
Doha City, QAT
Ras Laffen, QAT
Camp Snoopy, QAT

PATRIOT COMBAT POWER FORCE MODULE 2-4/ 28 MARCH 03

- DEFENDED ASSET LIST**
- Camp Doha, KU (KU/US)
 - Ash Shuaybah, KU (KU/US)
 - Kuwait City, KU (KU FU)
 - KCIA, KU (KU FU)
 - Al Jaber, KU
 - Ali Al Salem, KU
 - Arifjan, KU
 - Kuwait Naval Base

★ Play 5 (D/3-43 deploys from QT to KU)

EAC PATRIOT
MANEUVER PATRIOT
EUCOM/NATO ASSETS
COALITION ASSETS
SHORTSTOP

COMBAT POWER

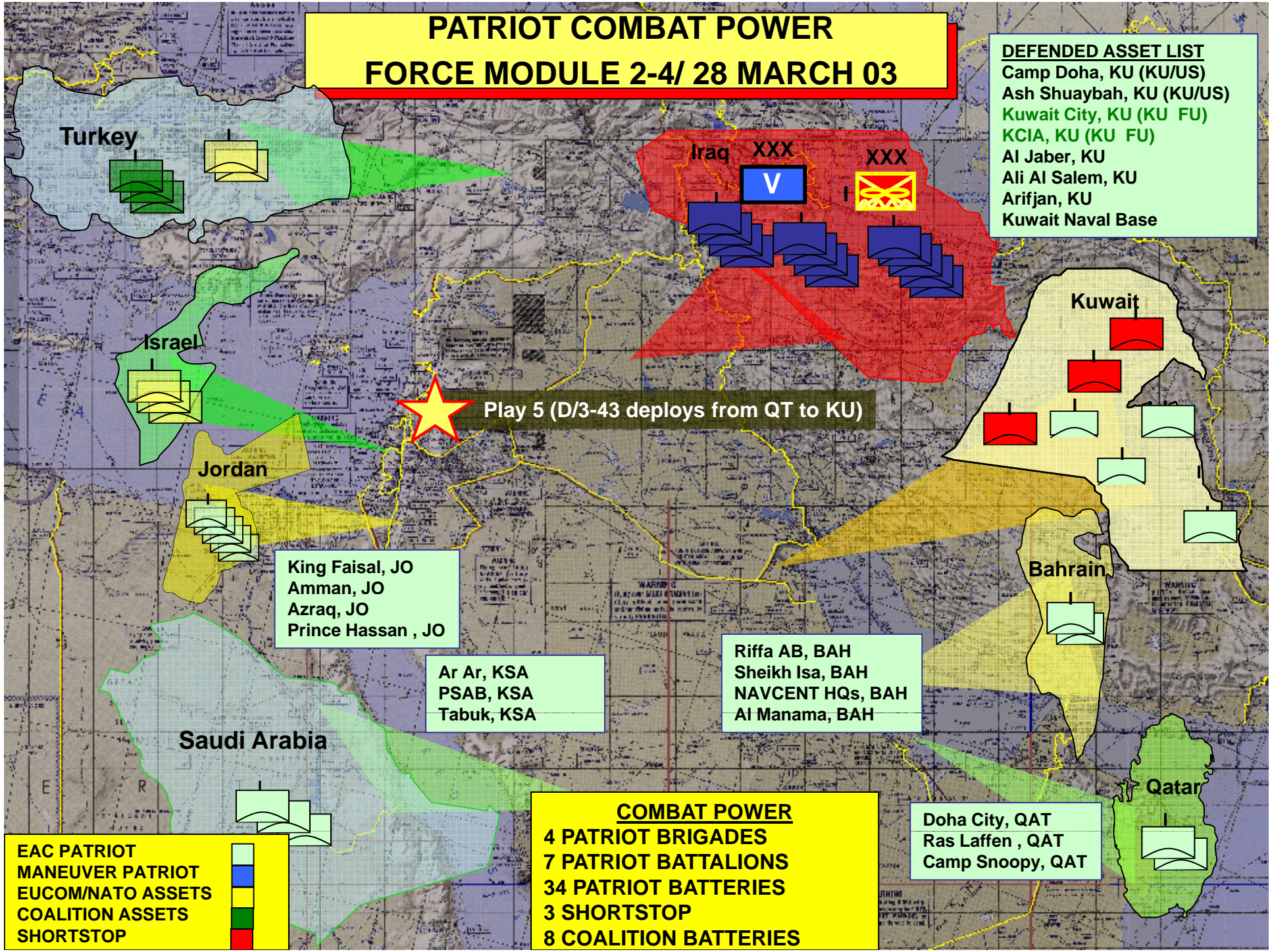
- 4 PATRIOT BRIGADES
- 7 PATRIOT BATTALIONS
- 34 PATRIOT BATTERIES
- 3 SHORTSTOP
- 8 COALITION BATTERIES

- King Faisal, JO
 Amman, JO
 Azraq, JO
 Prince Hassan, JO

- Ar Ar, KSA
 PSAB, KSA
 Tabuk, KSA

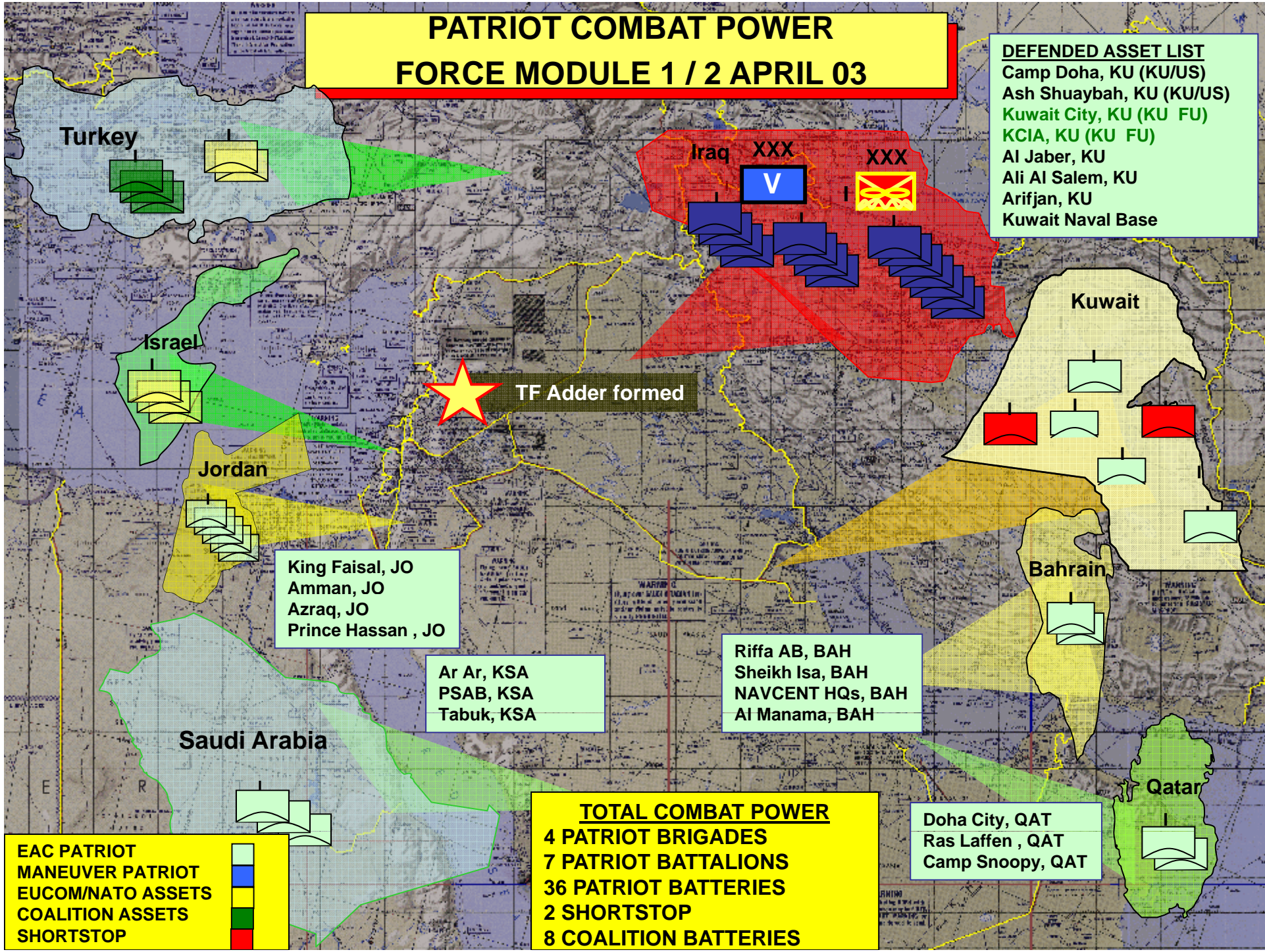
- Riffa AB, BAH
 Sheikh Isa, BAH
 NAVCENT HQs, BAH
 Al Manama, BAH

- Doha City, QAT
 Ras Laffen, QAT
 Camp Snoopy, QAT



PATRIOT COMBAT POWER FORCE MODULE 1 / 2 APRIL 03

- DEFENDED ASSET LIST**
- Camp Doha, KU (KU/US)
 - Ash Shuaybah, KU (KU/US)
 - Kuwait City, KU (KU FU)
 - KCIA, KU (KU FU)
 - Al Jaber, KU
 - Ali Al Salem, KU
 - Arifjan, KU
 - Kuwait Naval Base



- King Faisal, JO
Amman, JO
Azraq, JO
Prince Hassan, JO

- Ar Ar, KSA
PSAB, KSA
Tabuk, KSA

- Riffa AB, BAH
Sheikh Isa, BAH
NAVCENT HQs, BAH
Al Manama, BAH

- Doha City, QAT
Ras Laffen, QAT
Camp Snoopy, QAT

EAC PATRIOT
MANEUVER PATRIOT
EUCOM/NATO ASSETS
COALITION ASSETS
SHORTSTOP

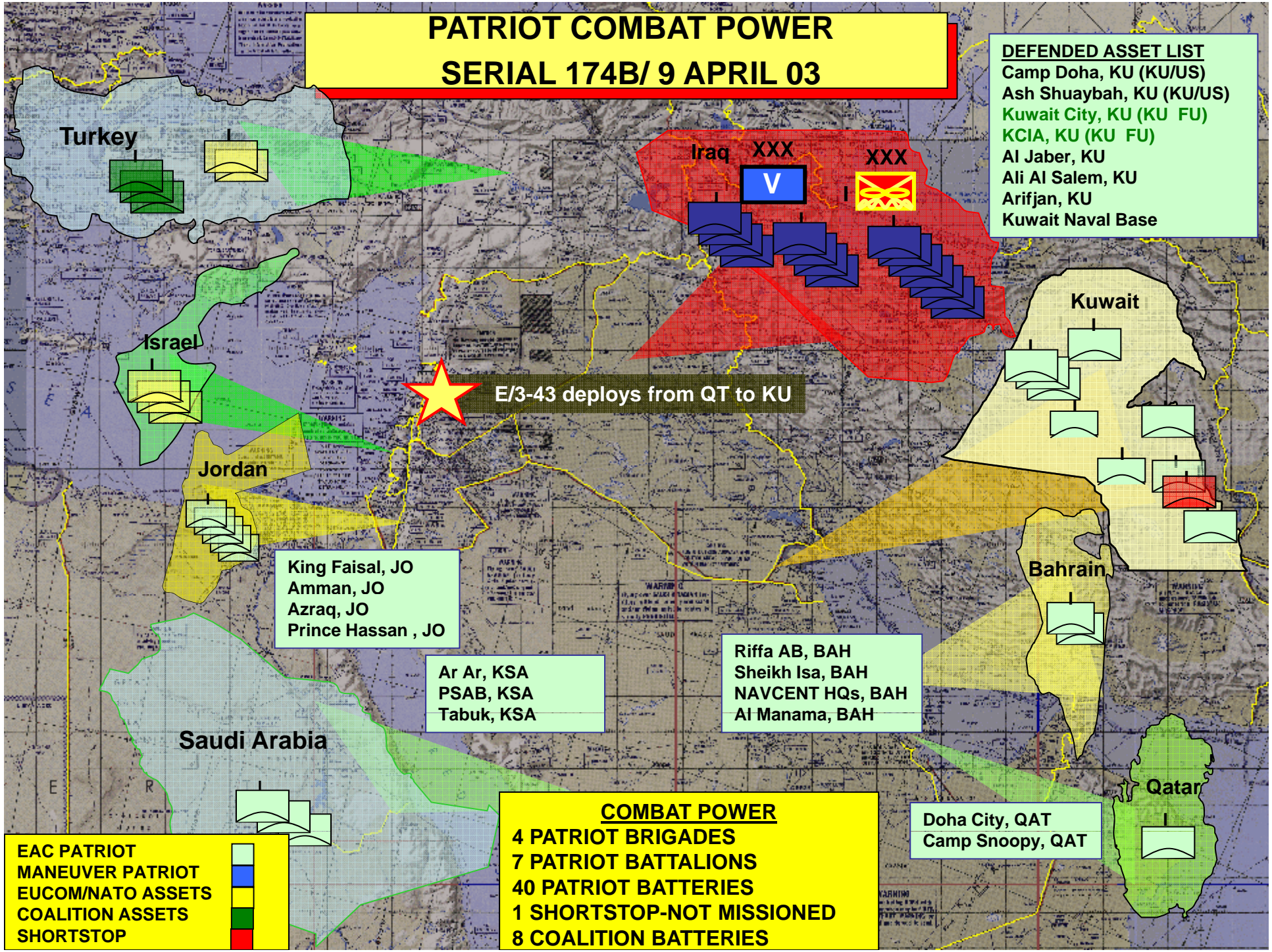
TOTAL COMBAT POWER

- 4 PATRIOT BRIGADES
- 7 PATRIOT BATTALIONS
- 36 PATRIOT BATTERIES
- 2 SHORTSTOP
- 8 COALITION BATTERIES

PATRIOT COMBAT POWER

SERIAL 174B/ 9 APRIL 03

- DEFENDED ASSET LIST**
- Camp Doha, KU (KU/US)
 - Ash Shuaybah, KU (KU/US)
 - Kuwait City, KU (KU FU)
 - KCIA, KU (KU FU)
 - Al Jaber, KU
 - Ali Al Salem, KU
 - Arifjan, KU
 - Kuwait Naval Base



E/3-43 deploys from QT to KU

- Jordan**
- King Faisal, JO
 - Amman, JO
 - Azraq, JO
 - Prince Hassan, JO

- Saudi Arabia**
- Ar Ar, KSA
 - PSAB, KSA
 - Tabuk, KSA

- Bahrain**
- Riffa AB, BAH
 - Sheikh Isa, BAH
 - NAVCENT HQs, BAH
 - Al Manama, BAH

- Qatar**
- Doha City, QAT
 - Camp Snoopy, QAT

EAC PATRIOT (Yellow icon)

MANEUVER PATRIOT (Blue icon)

EUCOM/NATO ASSETS (Green icon)

COALITION ASSETS (Red icon)

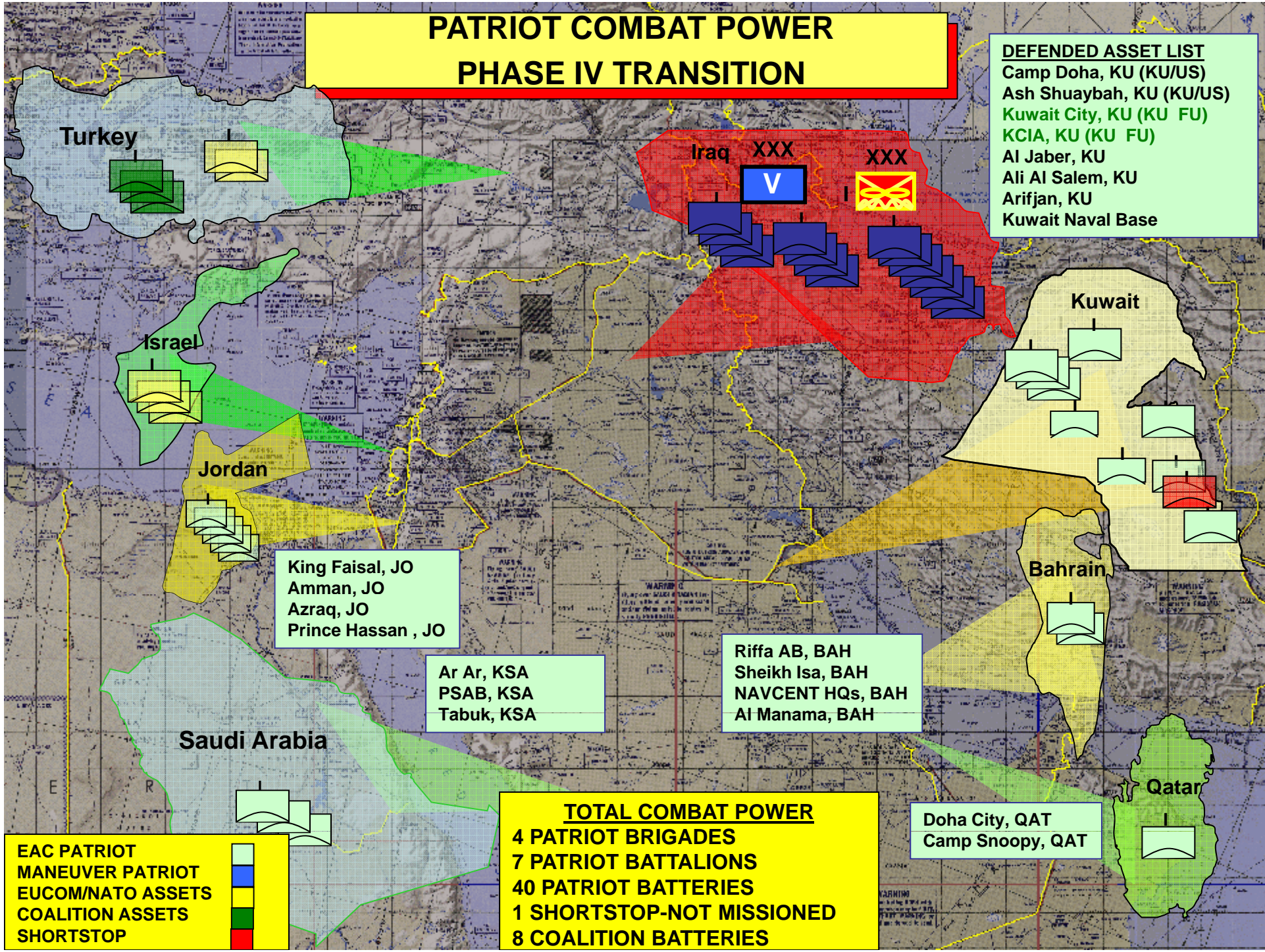
SHORTSTOP (White icon)

COMBAT POWER

- 4 PATRIOT BRIGADES
- 7 PATRIOT BATTALIONS
- 40 PATRIOT BATTERIES
- 1 SHORTSTOP-NOT MISSIONED
- 8 COALITION BATTERIES

PATRIOT COMBAT POWER PHASE IV TRANSITION

- DEFENDED ASSET LIST**
- Camp Doha, KU (KU/US)
 - Ash Shuaybah, KU (KU/US)
 - Kuwait City, KU (KU FU)
 - KCIA, KU (KU FU)
 - Al Jaber, KU
 - Ali Al Salem, KU
 - Arifjan, KU
 - Kuwait Naval Base



- King Faisal, JO
Amman, JO
Azraq, JO
Prince Hassan, JO

- Ar Ar, KSA
PSAB, KSA
Tabuk, KSA

- Riffa AB, BAH
Sheikh Isa, BAH
NAVCENT HQs, BAH
Al Manama, BAH

- Doha City, QAT
Camp Snoopy, QAT

EAC PATRIOT (Yellow icon)
MANEUVER PATRIOT (Blue icon)
EUCOM/NATO ASSETS (Green icon)
COALITION ASSETS (Orange icon)
SHORTSTOP (Red icon)

TOTAL COMBAT POWER

- 4 PATRIOT BRIGADES
- 7 PATRIOT BATTALIONS
- 40 PATRIOT BATTERIES
- 1 SHORTSTOP-NOT MISSIONED
- 8 COALITION BATTERIES

Pre-Hostility SSM Situational Template

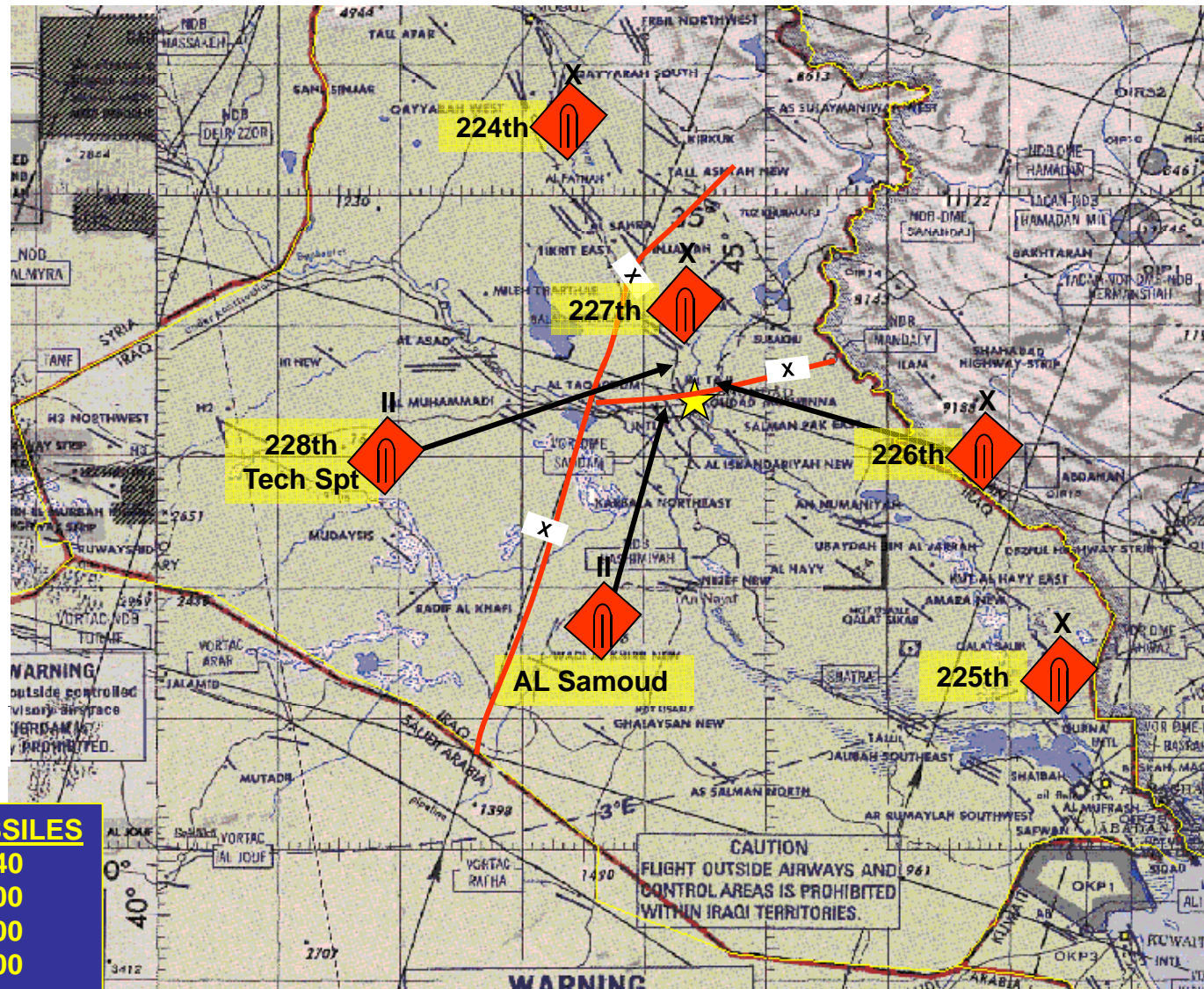
224th BDE (NORTH)
 1 x FROG-7 BN
 2 X ASTROS BN
 1 X ABABIL-100 BTRY (DS)
 1 X ABABIL-50 BTRY (DS)

225th BDE (SOUTH)
 1 X FROG-7 BN
 1 X ASTROS BN
 1 X ABABIL-100 BTRY

226th BDE (DS to RGFC)
 3 X FROG-7 BN

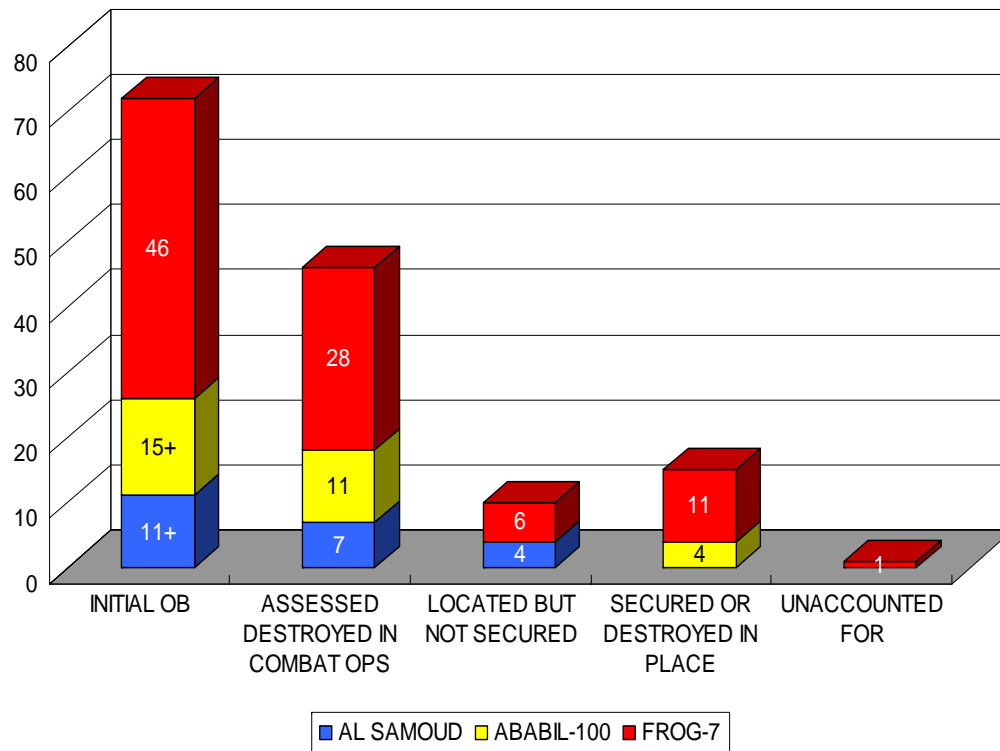
227th BDE (CENTER)
 1 X ASTROS BN
 1 X M-2001 BN
 1 X FROG-7 BN
 1 X ABABIL-100 BTRY
 1 X ABABIL-50 BTRY

228th BN (Tech Spt)
 2 x U/I Al Samoud BN (National)



SYSTEM	LAUNCHERS	MISSILES
Al Hussein	10	40
Al Samoud	11+	200
Ababil-100	15+	200
FROG-7	46	600

Post-Hostility SSM Situation



Iraqi Cruise Missile Threat

UNCLASS



IRAQI CSSC-3 SEER SUCKER

MAX RANGE: (57 NM) 105 KM

CRUISING ALT.:

MOD I: 330, 660, 1000 Feet
MOD II: 100, 165, or 330 Feet

WARHEAD: 1,135 Pounds shaped-charge warhead; capable penetrating 40 to 60 inches of steel on impact

ASSESSMENT: 2-5 Launchers & 88 Missiles



32nd AAMDC

Active Defense

The Iraqi Missile Fight



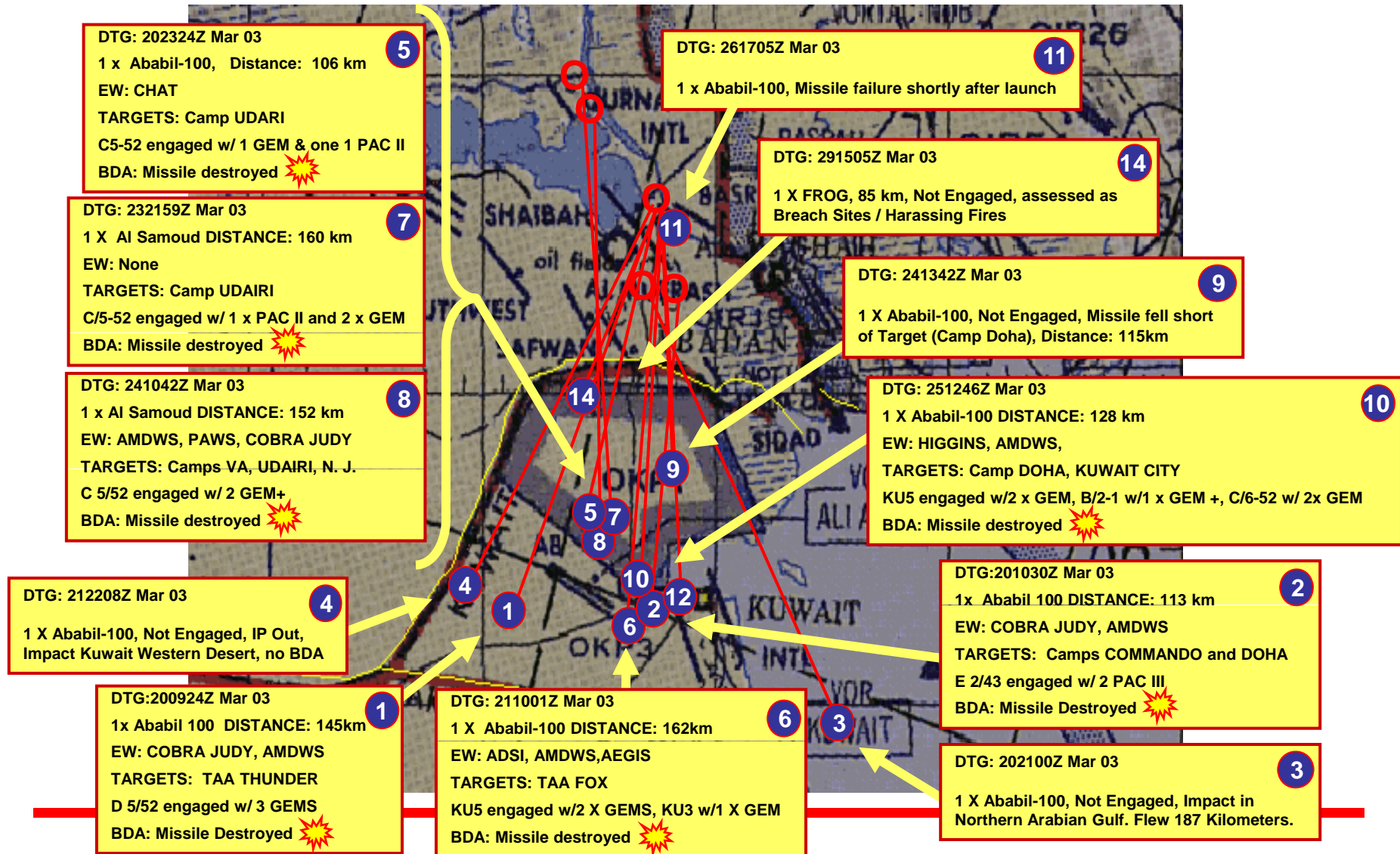
**Coalition Media Center
Camp As Sayliyah, Qatar**

**Media Briefing Support Imagery
28 March 2003**

**Attack on Ababil 100 Surface to
Surface Missile**

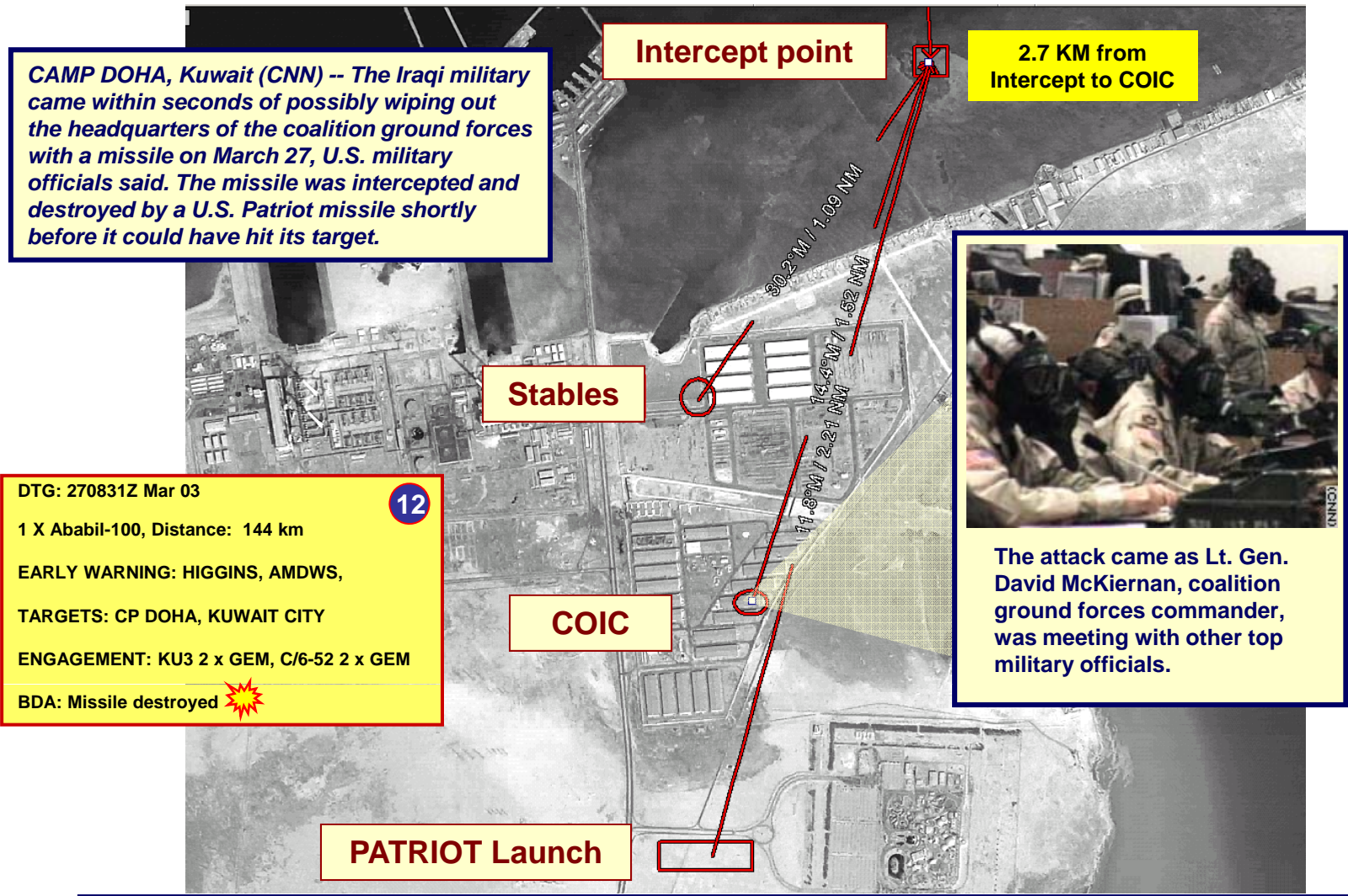
Unclassified

Summary of Launches against Kuwait



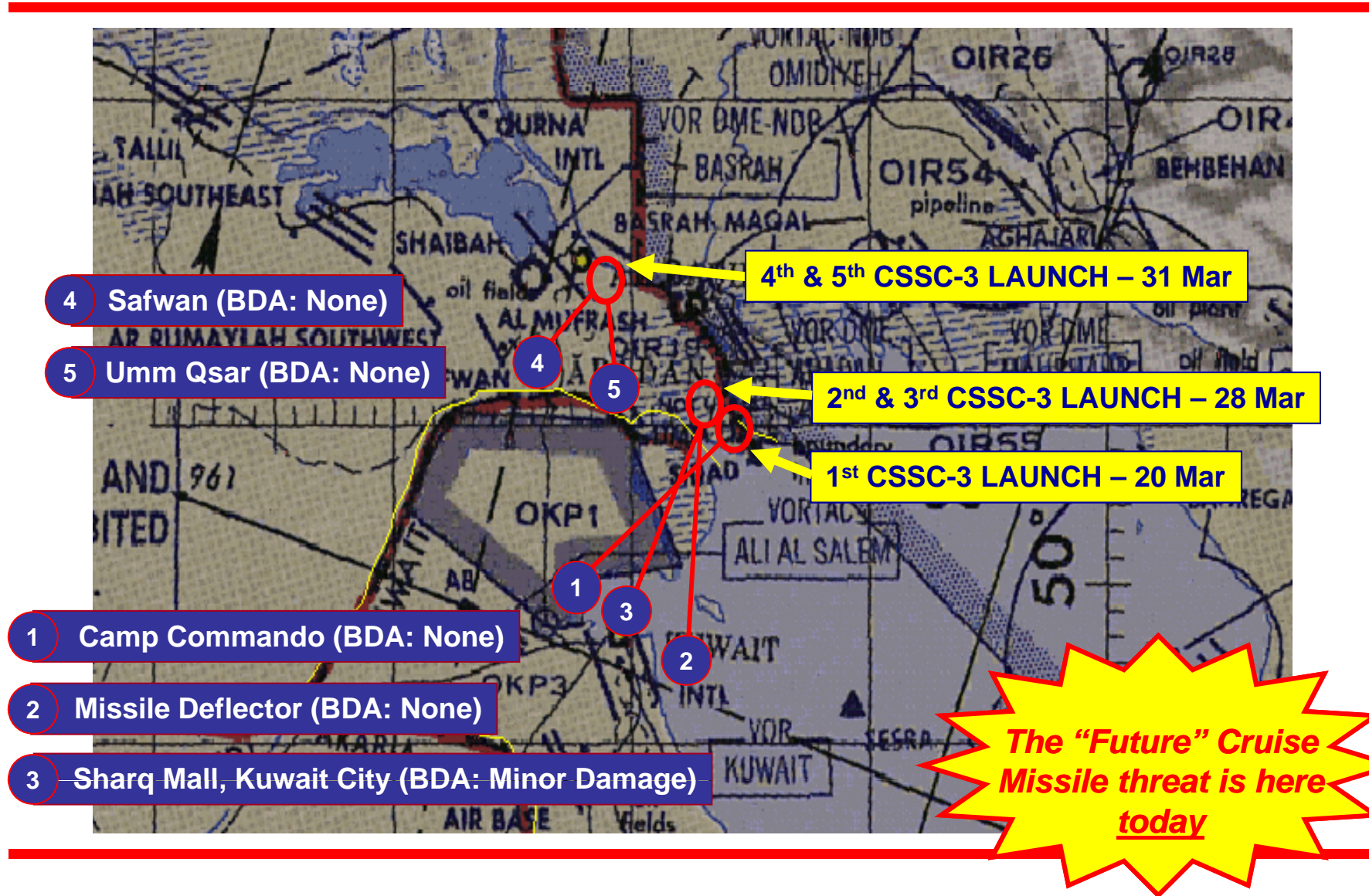
Volley 12 “Saddam's decapitation strike”

The Defense of CFLCC Headquarters



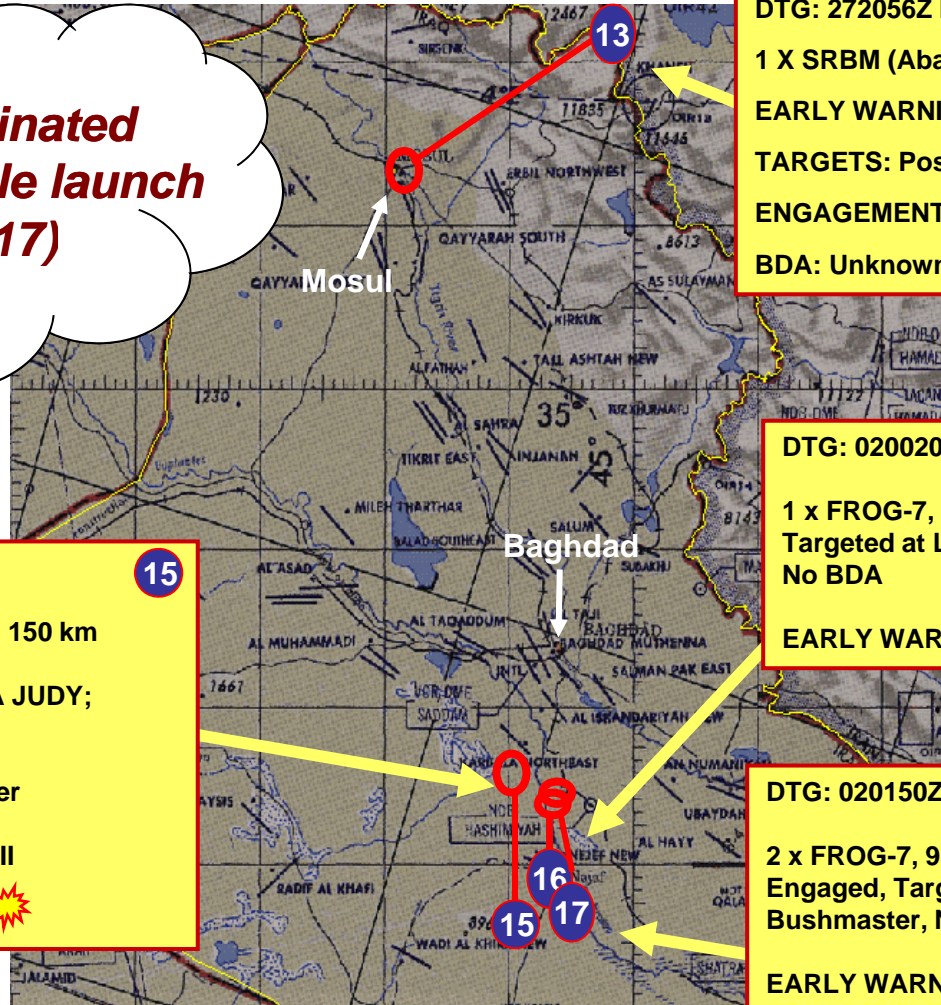
“Stay calm, continue the BUA, and let PATRIOT take care of it.” COMCFLCC

Summary of CSSC-3 Launches



Summary of Launches in Iraq

First coordinated multiple missile launch (Volley 17)



DTG: 272056Z Mar 03 13
 1 X SRBM (Ababil-100 or ER FROG)
 EARLY WARNING: DSP-A, SBIRS
 TARGETS: Possible Badr Corps Camp
 ENGAGEMENT: None
 BDA: Unknown

DTG: 010600Z Apr 03 15
 1 X Al Samoud DISTANCE: 150 km
 EARLY WARNING: COBRA JUDY;
 HIGGINS; TACDAR
 TARGETS: LSA Bushmaster
 C 2/1 engaged w/ 2 x PAC III
 BDA: Missile Destroyed

DTG: 020020Z Apr 03 16
 1 x FROG-7, 63 km, Not Engaged,
 Targeted at LSA Bushmaster, IP Out,
 No BDA
 EARLY WARNING: NONE

DTG: 020150Z Apr 03 17
 2 x FROG-7, 95 km & 75 km, Not
 Engaged, Targeted at LSA
 Bushmaster, No BDA
 EARLY WARNING: GCCS, AMDWS
 KEY TRENDS: First coordinated
 multiple missile launch.

What TAMD Forces Protected

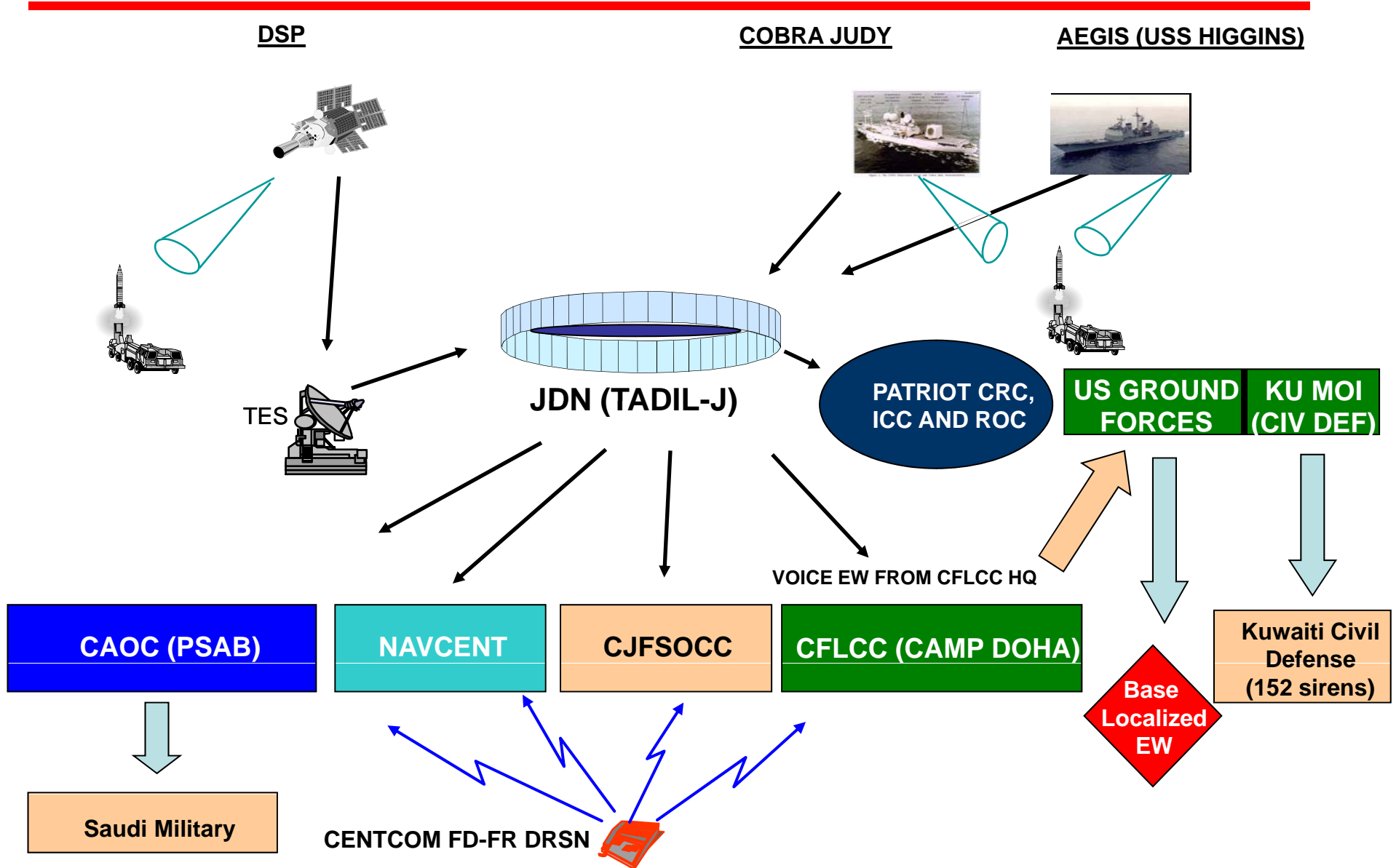
VOLLEY	DTG	LOCATION	WHAT WAS THERE
1	200924ZMAR03	TAA Thunder	101st AAD Aviation Assets - 100+ Helos / 4,000 Soldiers
2	201030ZMAR03	Camp Commando Al Jahra	I MEF / Marine Engineer Group HQ - 4,700 Marines 100,000 Civilians
5	202324ZMAR03	Camp Udairi	11th AHR and Combat Support Hospital - 4,000 Soldiers
6	211001ZMAR03	TAA FOX Al Jahra	1st Forward Service Support Group - 4,500 Marines 100,000 Civilians
7	232159ZMAR03	Camps NJ / NY / PA	101st AAD - 12,000 Soldiers
8	241042ZMAR03	Camps VA / NJ	V CORPS Main / 101st AAD - 8,000 Soldiers
10	251246ZMAR03	Camp Commando	I MEF / Marine Engineer Group HQ - 4,700 Marines
12	270831ZMAR03	Camp Doha	Camp Doha / CFLCC HQ - 8,000
15	010600ZAPR03	LSA Bushmaster	11 AHR, 101st AAD Aviation Assets, V CORPS Log Assets 10,000 Soldiers

32nd AAMDC

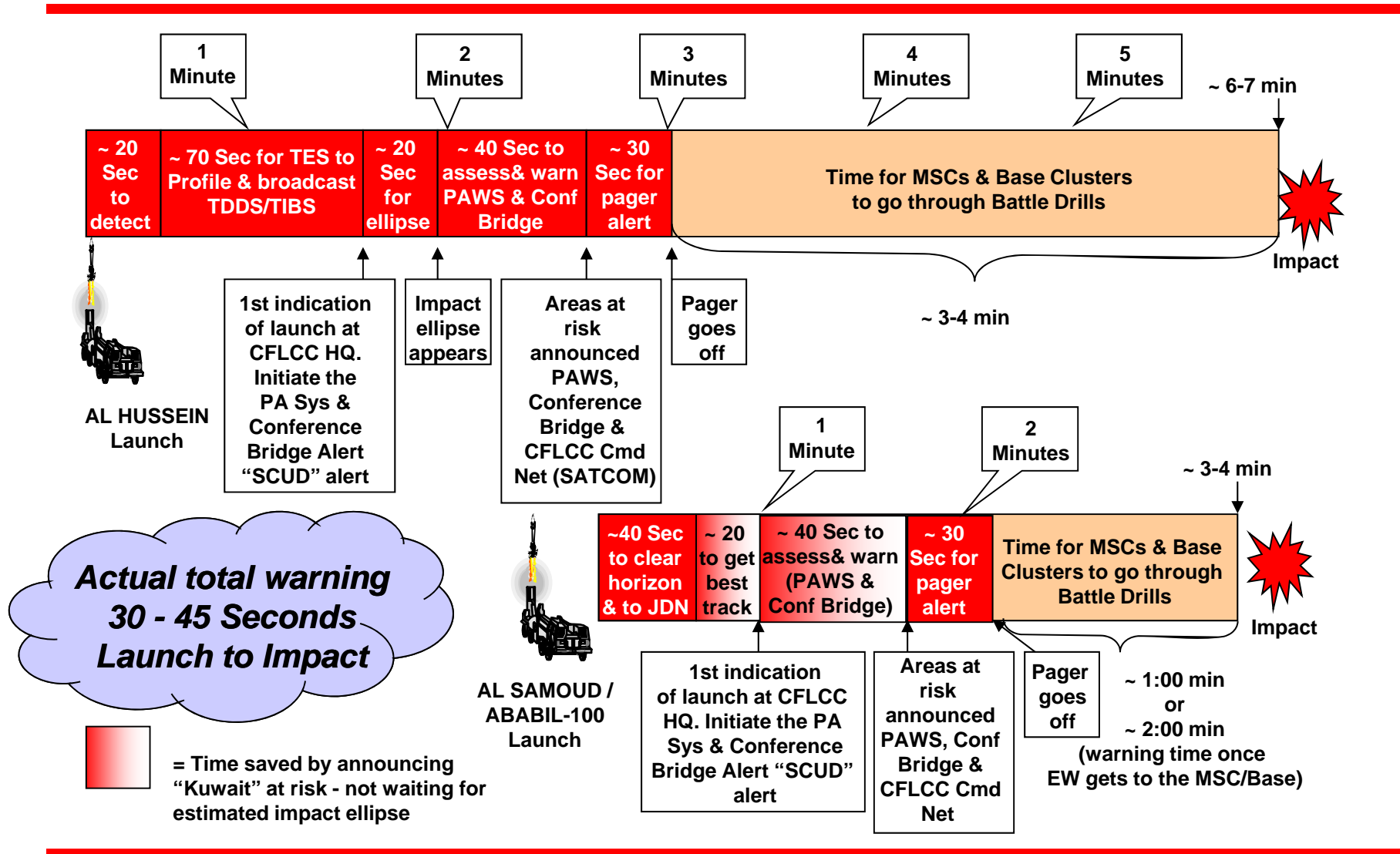
The Digital Battlefield

Early Warning & Situational Understanding

Early Warning



Estimated Launch to Impact Timeline



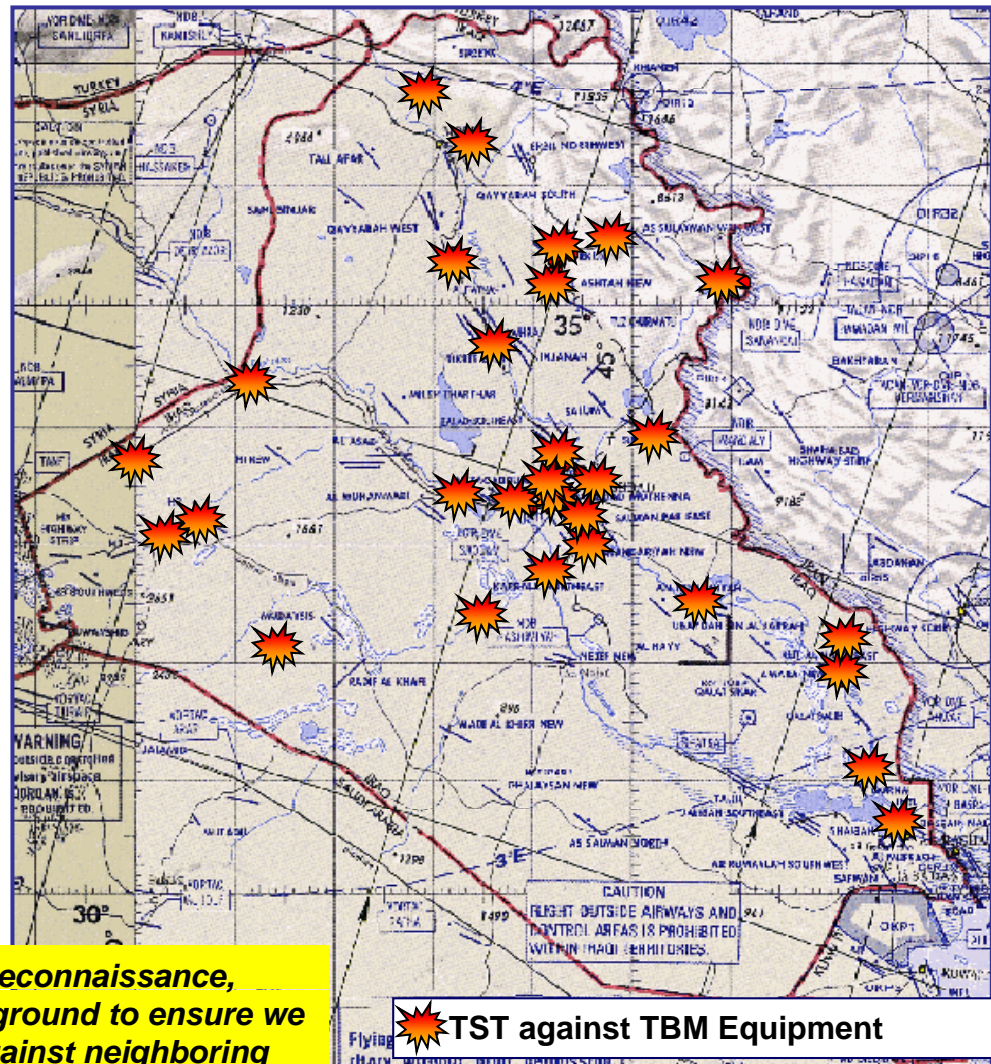
32nd AAMDC

Engagement Operations

First ever successful Counter-TBM Operation

OIF Counter-TBM Fight

- 32nd fully integrated with CFACC as part of the Counter-TBM Team (C-TBM)
- C-TBM team's analysis and collection resulted in 30 of the 61 TSTs against TBM equipment / Others were located by national agencies or targets of opportunity
- Combined Theater C-TBM attack operations credited with destroying 76% of assessed launchers
- C-TBM team designated as the OIF authority for all TBM collection, targeting, and BDA
- Disrupted the Iraqi TBM campaign plan by destroying 3 launchers prior to initiation of combat



"We are positioned in Western Iraq with aircraft, reconnaissance, surveillance and ground platforms and people on the ground to ensure we can contain any missile strikes attempted by Iraq against neighboring countries," Joint Chiefs of Staff Chairman General Richard Myers

32nd AAMDC

**CAMP DOHA
AIR DEFENSE**

Operation DIRTY SKIES

Situation

➤ **CENTCOM Message 292057Z Nov 02**

In light of recent terrorist attacks, commanders are directed to maintain a vigilant posture to respond to terrorist threats. This message provides commanders with specific direction and guidance concerning self defense which remain in effect throughout the CENTCOM AOR, and additional actions to be taken to enhance air defense measures...

...I expect all units to lean forward and set a vigilant posture. All units will maintain a high profile posture that clearly indicates readiness, willingness, and ability to respond decisively to any indication of hostile intent or interference with our operations...

➤ **Terrorist attacks using aircraft, including ultralites and paragliders, are possible**

Ultralite



Small Civilian Aircraft



Paraglider



Camp Doha Stinger Defense

- **Mission:** CFLCC establishes Short Range Air Defense (SHORAD) for Camp Doha in order to defeat air breathing threats.
- **Intent:** Conduct air defense operations to safeguard a critical CENTCOM C2 node, personnel, and combat power against asymmetric / terrorist threats and to integrate SHORAD into existing host nation and CFACC defensive counter-air (DCA) operations.
- **Key tasks:**
 - Establish clear C2 for Stinger engagement
 - Establish passive defense measures for Camp Doha
 - All soldiers and leaders clearly understand ROE
 - Airspace De-confliction
 - Conduct rehearsals
- **Avenger Platoon:** 1-3 ADA (JAN-FEB), 2-44 ADA (MAR)
 - Formed two Stinger Teams
 - “Demonstrated” using Avengers & FOX Section
- Established ROZ over Camp Doha
- Based on experience from Clear Skies



*The Avenger “demonstrations”
proved to be a very effective
deterrent*



1-3 ADA



- Organic to the 3d Infantry Division (MECH), Fort Stewart, Ga.
- 513 Soldiers assigned, 513 soldiers came home!
- Assigned Missions during Operation Iraqi Freedom:
 - Short Range Air Defense and Early Warning
 - Division Rear Area/LOC Security, Screened 3ID SW Flank during assault into Baghdad
 - Emplaced and Secured forward deployed PATRIOT batteries
 - Secured the Baghdad International Airport
 - Conducted Civil Military Operations in Abu Ghurayb (held first local democratic elections in post war Iraq, established local government and public services, conducted Combined raids and destroyed terrorist cells with Abu Ghurayb Police)

Combat Medals earned by the soldiers of 1-3 ADA:

Enemy BDA:

- Destroyed 5 x T-72 Tanks
 - Destroyed 80 (+) Technical Vehicles
 - Destroyed 400 (+) Dismounted Infantry
 - Dozens of AAA pieces
 - Captured 10 POWs
 - Captured 14th BDE, Medina Div HQ
 - Captured 300 (+) armored vehicles
- 2 x Silver Star Medals
 - 4 x Bronze Star Medals (Valor)
 - 45 x Bronze Star Medals
 - 28 x Army Commendation Medals (Valor)
 - 1 x Purple Heart Medal, 2 pending



2-44 ADA

Air Assault!



- Organic to the 101st Airborne Division (Air Assault), Fort Campbell, KY
- 480 Assigned and currently operating in Iraq
- Assigned missions during Operation Iraqi Freedom:
 - Short-range Air Defense and Early Warning
 - A BTRY conducted ground combat operations with 1 BCT in An Najaf, Iraq
 - C BTRY conducted air defense of DIV FARPs and ground combat operations with 3 BCT in Al Hillah, Iskandria, Baghdad, and Tal Afar Air Field.
 - D BTRY conducted air defense of DIV AAs, LOC security (HWY 1 & 8, 300km), Forward Passage of Lines between 4th ID and 101st ABN DIV, cache collection, ASP security and new Iraqi army training in Mosul, Iraq.
 - HHB conducted DREAR security, BN FM retrans, LOC security (HWY 1 & 8), EOD operations and new Iraqi army training in Mosul, Iraq.
- BN Currently conducting Civil Affairs operations in Dahuk, Iraq and Irbil, Iraq.
- Anticipated redeployment in February 2004





1-44 ADA



- Organic to the 4th Infantry Division (MECH), Ft. Hood, Texas & Ft. Carson, Colorado
- Assigned Missions during Operation Iraqi Freedom
 - Battalion HQ's provided Command and Control for TAA Ironhorse just South of Baghdad in Iskendariyah.
 - Secured Taji Airfield in North Baghdad after 1BCT attack and Linebacker platoon helped defeat enemy counterattack.
 - Secured Al Sahra airfield and provided lone heavy combat power in North Tikrit
 - Secured Saddam Hussein's Presidential Palace in downtown Tikrit to allow establishment of the 4th ID Headquarters.



1-44 ADA



- C/1-44 ADA completed the longest continuous mechanized movement of the entire war by moving all 10 Linebackers 700 miles from Kuwait through Baghdad and to Tikrit with no break downs in combat power.
- Avengers screened Iranian border in effort to deter militants from crossing into Iraq.
- Participated in the disarmament of the MEK militia in Eastern Iraq.
- Conducted numerous raids and ambushes in support of division operations to destroy remnant Ba'ath Party sympathizers.
- Participated in humanitarian operations in Iskendariyah and Tikrit.
- Continues today to conduct operations in support of Operation Iraqi Freedom in Northern Iraq.



SECURING TIKRIT PRESIDENTIAL PALACE



Elements of 1-44 ADA secured the Presidential Palace in Tikrit to allow the Division HQ's to be established at the palace. The air defense elements guarding the palace have successfully defended palace multiple times from small arms, RPG, and mortar attacks from noncompliant forces.

32nd AAMDC

**Operation Iraqi Freedom
Lessons & Observations**

Final Thoughts

Proven....

- **You will fight as you train**
 - **Patriot is lethal**
 - **Non-contiguous battlefield exposes us all**
 - **There is no difference between SHORAD AND HIMAD.. but the equipment. The fundamental tasks to guarantee freedom of maneuver are the same**
 - **There is no difference between EAC and Corps Patriot; all must be trained under one standard**
 - **Basic fundamentals carry the fight; again**
-

LESSONS/OBSERVATIONS (-)

Joint Deficiencies

- C4I Lacking – Internal and external voice & data capability -- Controlling Authority to shooter links**
 - Voice over TADIL-J / Link 16
 - Voice to airborne controller
 - Theater Air Defense net

 - Impacts of dense joint / coalition battlespace → EMI → Spurious tracks, IFF**
 - Training, Doctrine, Material Solutions

 - Space based warning not effective for SRBMs**
-

LESSONS/OBSERVATIONS (-)

Systems Deficiencies

- SRBMs more challenging – non-contiguous battlefield requires 360° coverage**
- Interoperability via Link 16 to Battery Level**

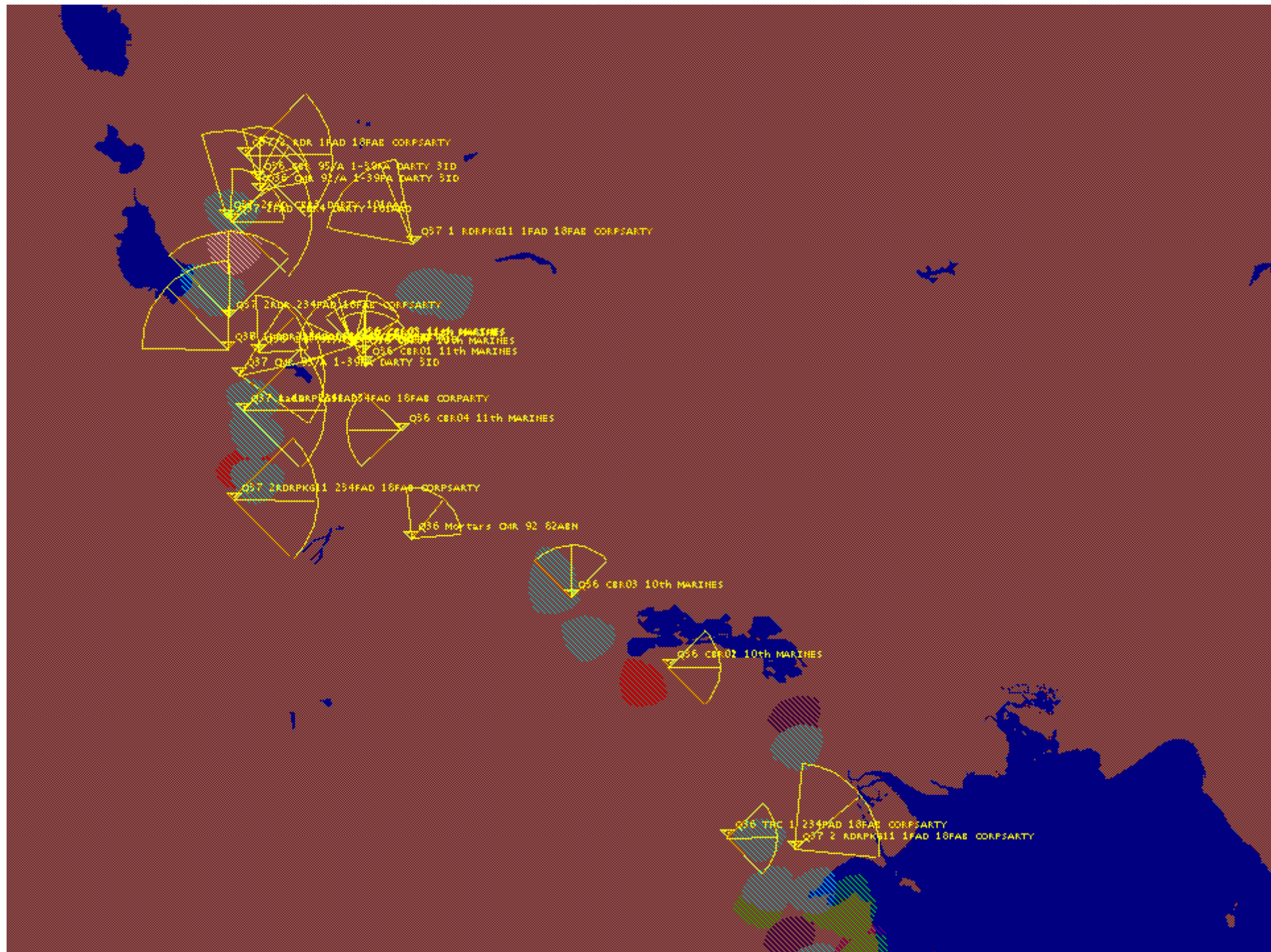
Operational Deficiencies

- ✓ Need revised Tactical SOP for Patriot Crews w/ focus on engagement operations**
- EAD / EAC unit training to include CSS training**
 - Operations on non-contiguous battlefield**
 - Resourcing of CSS units**
- PATRIOT organization**
 - 4 Btry vs. 5 Btry battalion**
 - PAC II in PAC III Task Force**

✓ Completed Action

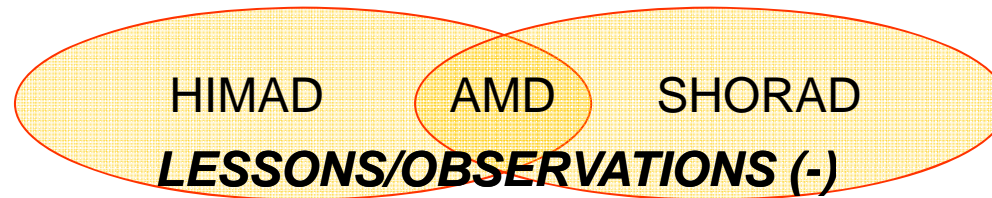
The “Way Ahead”

- **OIF validated the inherently “Joint Nature” of Theater Missile Operations**
 - **Joint Exercise/ Experiments enhance combat readiness (RS, UFL, IL, CJTFEX (JCIET))**
 - **“CTC Like” training opportunity required for AMD forces**
 - **C2 limitations pose greatest risk now and in the future**
 - **Enhance capabilities to counter the evolving threat**
 - **Theater-level air defense command required**
 - **Today- 32d AAMDC with Joint Responsibilities**
 - **Tomorrow- Standing Integrated Missile Defense JTF**
-



ONGOING CULTURAL CHANGE

- JOINT / COALITION
- TECHNICAL
- TSOP ORIENTED
- SWA ROTATION FOCUS
- MISSILE DEFENDER FIRST; THEN SOLDIER
- LETHAL; BEST IN THE WORLD



- COMBINED ARMS
- TACTICAL
- MDMP/TROOP LEADING ORIENTED
- CTC FOCUS
- SOLDIER FIRST; THEN AIR DEFENDER
- OVERMATCHED BY CURRENT THREAT

WARRIOR ETHOS
JOINT/COALITION/
COMBINED ARMS
TECHNICAL &
TACTICAL
COMPETENCE
SOLDIERS FIRST;
PROFESSIONAL AMD
FORCE

AMD LESSONS LEARNED (+)

Joint Operations

- Joint (AEGIS) early warning and situational awareness w/ Link 16
- Role as DAADC w/ CFACC – Counter-TBM team (Attack Operations), AADP
- Role as TAAMDCOORD w/ CFLCC-Operations w/ V Corps, I MEF
- Operational Force Protection

Combined Operations

- Integration of US & Coalition TMD operations: Jordan, Qatar, Bahrain, Turkey, Saudi Arabia, Kuwait, Israel, Dutch, UK
- C2 of Kuwait PATRIOT (46 ADA (KWT) TACON to 11 BDE in Feb 03)
- Host nation early warning

Performance

- PATRIOT lethality proven – 9 of 9- confirmed warhead kills 8 of 9
 - OR Rate for the Patriot force >92% during combat operations
 - Stance and flexibility – Playbook, Shortstop, EAC remissioning, Asymmetric defense
 - Divisional ADA – Combined arms contribution, fight as a battalion, security missions, CMO
-

ACHIEVING THE AMD “STANCE”

TACTICAL

- PATRIOT IS A SECTORED WEAPON; DOES NOT PROVIDE 360 DEGREE COVERAGE
 - NON-CONTIGUOUS BATTLEFIELD INCREASED REQUIRED FIRE UNITS; MULTIPLE PTLs
 - HEAVY TRUCKS STUCK ROUTINELY
 - COMBINED ARMS INTEGRATION (+)DIVISIONAL (-)PATRIOT
 - ASYMMETRICAL THREAT – STINGER OVERMATCHED
- RESULT:** EXPOSURE OF HIGH VALUE ASSETS TO TBMs AND CRUISE MISSILES

OPERATIONAL

- 173RD AIRBORNE REGIMENT MOVED BY AIR TO BASHURE AIRFIELD, NORTH EAST IRAQ; A C-130 ONLY AIRFIELD
 - IRAQ LAUNCHED TWO FROGS TOWARD THEIR LOCATION
 - CENTCOM REQUESTED PATRIOT SUPPORT
 - DUE TO NON-CONTINGUOUS BATTLEFIELD, PATRIOT COULD NOT MOVE OVER LAND TO DEFEND 173RD
 - PATRIOT REQUIRES C-17/C-5
- RESULT:** UNDEFENDED AND EXPOSED FORCES

STRATEGIC

- 17 C5s AND 21 C17s TO MOVE 5 PATRIOT MINIMUM ENGAGEMENT PACKAGES TO JORDAN
 - PATRIOT LAUNCHERS DO NOT FIT ON LOWER DECKS OF ALL SHIPS; MOSTLY WEATHER-DECKS
- RESULT:** LIMITED AIR FRAMES DEVOTED TO MOVE PATRIOT

Pursue AMD-Vision

OIF VALIDATED THE REQUIREMENT FOR MEADS

SITUATIONAL AWARENESS/UNDERSTANDING

VOICE

- PATRIOT IN IRAQ COULD NOT TALK TO TAOC IN KUWAIT
- NO SATCOM
- AWACS CAN'T TALK TO GROUND BASED UNITS

RESULT: NO VOICE LINK BETWEEN BATTALION HQS AND HIGHER AUTHORITY (ID AND ENGAGEMENT)

FIX: MTOE AND JOINT

ACTION: ADAS / 32ND AAMDC

DATA

- SHORTAGE OF HSDIO CARDS RESULTED IN PAC-2 UNITS NOT TRANSMITTING/RECEIVING DATA FROM ICC/TAOC/CRC
- PAC-2 AND PAC-3 INCOMPATABILITY

RESULT: AUTONOMOUS UNITS

FIX: HSDIO CARDS FOR PAC-2 UNITS PATRIOT & MEADS TRANSITION

ACTION: LTPO AND 32ND AAMDC

JDN

- AWACS/CRC DID NOT ALLOW GROUND AND SEA BASED DATA TO BE DISPLAYED

RESULT:

- DIFFERENT AIR PICTURE AT DIFFERENT LEVELS OF COMMAND
- 1ST TIME PATRIOT WAS AWARE OF INCOMING TBM WAS WHEN IT'S RADAR SAW IT

FIX: MAXIMIZES JOINT EFFORTS IN DEFINING THE JDN

ACTION: DCD

ACO/SPINS

- OIF SPINS WERE NOT TIMELY
- UNITS NOT AGGRESSIVE IN RECEIVING ACO/SPINS
- ACMS NOT USED TO ROUTE FRIENDLY AC

RESULT: UNITS OPERATING OFF DIFFERENT DATA

FIX: JOINT TRAINING

ACTION: ADAS/32ND AAMDC/DIV ADA

CHALLENGED AIRSPACE CONTROL

RADAR RELIABILITY

TWT

- MAX LIFE IS 10,000 HRS.
- NO TIMER ON TWT

RESULT: SOLDIER DOESN'T KNOW HOW MANY HOURS ON HIS TWT

RECOMMENDATION:

- 1) ESTABLISH PROCEDURES TO TRACK TWT USE
- 2) ESTABLISH TWT WARM-UP CRITERIA

ACTION: LTPO

COMPRESSOR/DEHYDRATION UNIT

- CURRENTLY REQUIRES SOLDIER W/ STOPWATCH TO TIME ON AND OFF CYCLES FOR AN HOUR TO DETERMINE FMC/NMC

RESULT: PROCEDURE NOT PRACTICAL IN WAR

RECOMMENDATION: EITHER CHANGE WAVE GUIDE PRESSURIZATION SYSTEM OR ADD THIS CHECK INTO BIT (TELLS OPERATER IF CDU IS OVERHEATING)

ACTION: LTPO

CABLES ON THE FRONT-END

- 3 CABLES; NO DIAGNOSTICS
- IF SOLDIER REPLACES ONE CABLE THAT APPEARS TO BE DEFECTIVE – A PROBLEM IS INTRODUCED THAT IS NOT DETECTABLE WITH DIAGNOSTICS

RECOMMENDATION: ESTABLISH LIFE EXPECTANCY ON CABLES, REPLACE ALL 3

ACTION: LTPO

HIGH FAILURE RATES

- RF WINDOWS
- WAVE GUIDE
- EDRS

OFF-SHIP/AIRCRAFT READINESS

TRAINING

AMD STANDARD BEARER

- SOLDIERS 100% RELIANT ON PATRIOT WEAPON SYSTEM
 - NO STANDARD FOR TRAINING PROFICIENCY
 - RECOGNITION OF TECHNICAL/TACTICAL COMPETENCE
- RESULT:** ACROSS THE FORCE THERE ARE VARYING DEGREES OF STANDARDS

FIX:

- 1) INITIATE MASTER GUNNER COURSE
(1ST CLASS 2ND QTR FY04)
- 2) DEVELOP/PUBLISH PATRIOT GUNNERY MANUAL
- 3) DEVELOP AMD TOP GUN PROGRAM
- 4) TRAIN NEW POST-OIF TSOP

ACTION: ADAS / 32ND AAMDC

OPERATOR TRAINING IN AN AMBIGUOUS ENVIRONMENT

- ON-LINE TRAINING MODE/TROOP PROFICIENCY TRAINER DOES NOT PRESENT OPERATOR WITH MISCLASSIFIED OR FALSE TRACKS
- PCOFT – INCAPABLE OF SCRIPTING SPURIOUS TRACKS

FIX:

UPDATE OTM/TPT/PCOFT SOFTWARE

ACTION: LTPO / 32ND AAMDC

PROFESSIONALIZE THE FORCE

TRAINING

FRIENDLY PROTECT

- OPERATORS FOCUS SOLELY ON TBMs; DID NOT WORK ID OF UNKNOWN AIRCRAFT ON SCOPE
- LOST SITUATIONAL AWARENESS OF AIR TRACKS
- AUTONOMOUS OPERATIONS PROCEDURES NOT CLEAR.

RESULT: LOSS OF SITUATIONAL AWARENESS

FIX: TRAIN SCOPE AWARENESS – ALL AIR PLATFORMS.

ACTION: ADAS/32nd AAMDC

PATRIOT GENERAL KNOWLEDGE

- OPERATORS AT ALL LEVELS DIDN'T FULLY UNDERSTAND TABULAR ENTRY VALUES.
- PROCEDURES NOT ESTABLISHED FOR HARMONIZING THE PATRIOT WEAPON IAW METT-TC.

RESULT: OPERATOR NOT ENABLING THE WEAPON SYSTEM.

FIX:

- RE-WRITE TSOP; INCLUDE LINKAGE BETWEEN IPB(DOCTRINAL/SITUATIONAL TEMPLATE) TO TABULAR ENTRIES.
- GROW EXPERTS IN THE FORCE

ACTION: ADAS/32nd AAMDC

PROFESSIONALIZE THE FORCE

BASIC FUNDAMENTALS

SHOOT

- MUST SHOOT INDIVIDUAL AND CREW-SERVED WEAPONS TWICE A YEAR
- CONVOY LFX A MUST
- RING MOUNT READINGS
- IMMEDIATE ACTION DRILLS - SPORTS
- WEAPONS MAINTENANCE
- MUZZLE AWARENESS

MOVE

- CONVOY PROCEDURES
- MANEUVER / COMBINED ARMS
- VEHICLE RECOVERY OPERATIONS
- MTOE REVIEW – PLUGGERS; NVGs
- UP-ARMORED HMMWVs
- FUTURE REQUIREMENTS

COMMUNICATE

- RADIO MAINTENANCE
- FIELD EXPEDIENT ANTENNAS
- URIDIUM PHONES/SATCOM - MTOE
- MEDEVAC/CALL FOR FIRE
- USAF “FIREWALLS” PROHIBITS AMDWS, C2PC, CHAT
- AIRBORNE PLATFORMS; CAN'T TALK TO PATRIOT

FIX – “CTC-LIKE EXPERIENCE”

- COMBINED ARMS/JOINT
- COE/NON-CONTIGUOUS
- TRAINED/COMPETENT OCS AND OPFOR; TBMs, CMs UAVs, ASYMMETRIC THREATS
- LESSONS LEARNED; COMMUNITIES OF PRACTICE
- LEADER DEVELOPMENT – LEADER TRAINING PROGRAM
- UPDATE MTPs AND JOINT DOCTRINE
- LFX – DUST FACILITY/ CONVOY LFX

WARRIOR FOCUS

BLUE ON BLUE

What are we doing now?

D

TSOP RE-WRITE; PATRIOT GUNNERY MANUAL

O

FORMING LEADER DEVELOPMENT BRANCH IN ADAS;
CREATIVE ADAPTIVE, INNOVATIVE LEADERS

T

JTAM COURSE, PATRIOT MASTER GUNNER, TOP GUN, CTC
LIKE EXPERIENCE

M

CLASSIFICATION/TRAINING SOFTWARE IMPROVEMENTS,
FALSE TBM ELIMINATION, OPERATOR DECISION AIDS,
HUMAN/COMPUTER INTERFACE, HIGH FAILURE PARTS

L

ADAS POI CHANGES, TOP GUN, CTC, ONE BRANCH - AMD

P

ADAFCO-NG CONTRIBUTION, WARRANT OFFICERS (MORE
EXPERIENCE) IN THE ECS

F

SPURRIOUS TRACKS INJECTED IN PCOFT SOFTWARE; USE
OF DUST FACILITY
