



U.S. AIR FORCE

Headquarters Air Combat Command

Adaptive Airpower in the Global War on Terrorism



**Col Michael Longoria
Director, Joint Air/Ground Combat Office
HQ Air Combat Command
June 2005**



Talking Points About Airpower

- **CAS is a Mission not an Airplane**
- **Air/Ground Innovation = High Tech + Low Tech**
- **Distributed Forward Air Control**
- **The Digital and Analog worlds are coming together**
- **CAS is still the hardest thing we do in joint war fighting**
- **General Vessey's challenge to airmen**
- **Shared situational awareness: cockpit to foxhole**
- **Challenges**



CAS is a Mission not an Airplane

- A-10, F-16, F-15E, F-117, B-1, B-2, B-52, AC-130
- F-14, F-18, AV-8
- AH-1, AH-64, AH-6J, MH-53
- All Services and Allies









Air/Ground Innovation: (High Tech + Low Tech) SOF and Airpower





Enduring Freedom “CAS” and Ground-Directed Interdiction

- **Enemy Forces “Taliban” in pockets across Afghanistan**
- **99 to 1 --ratio--(soft) targets compared to fixed (structural)**
- **US friendly disposition minimal (SOF war)**
- **Non-linear, non-contiguous battlefield**
- **Air distances (significant)**
- **Almost no airspace restrictions (in the beginning)**
- **Command and control environment**
 - **Very simple at first**
 - **Increasingly became more complex**
 - **Very restrictive ROE (Restricted Tgt List)**



Karshi-Khanabad

Kabul

Jacobabad

Carriers

**Airpower Buffet:
24/7**

**Interdiction and
Responsive CAS**

Al Jaber

Shaikh Isa

Al Udeid

Al Dhafra

PSAB

Seeb

1370 NM

Thumrait

1155 NM

2,505 NM

Diego Garcia

United States Distance Comparison

Prince Rupert
(Diego Garcia)

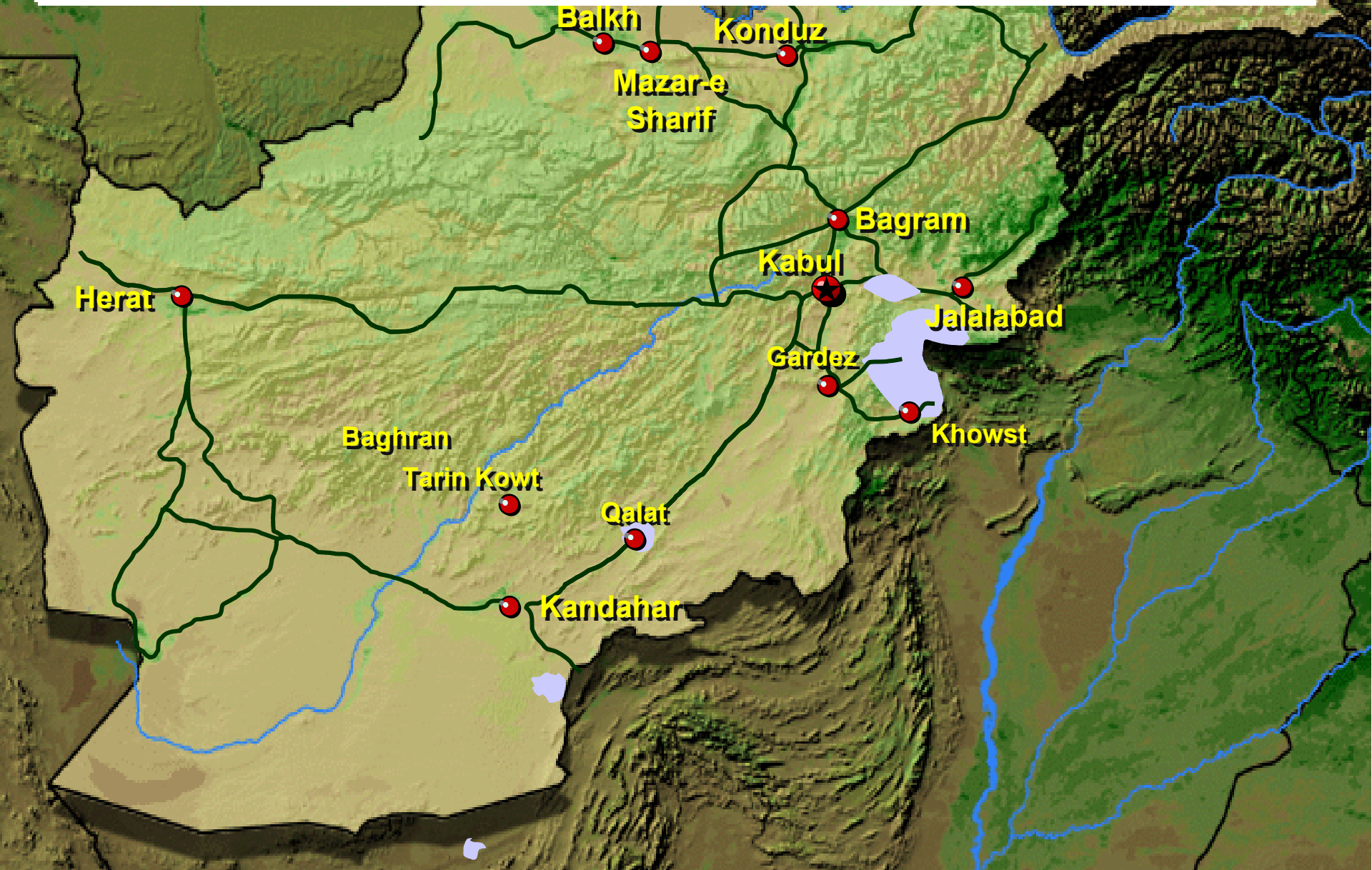
Bangor
(Al Dhafra)

Salt Lake City
(Shaikh Isa)

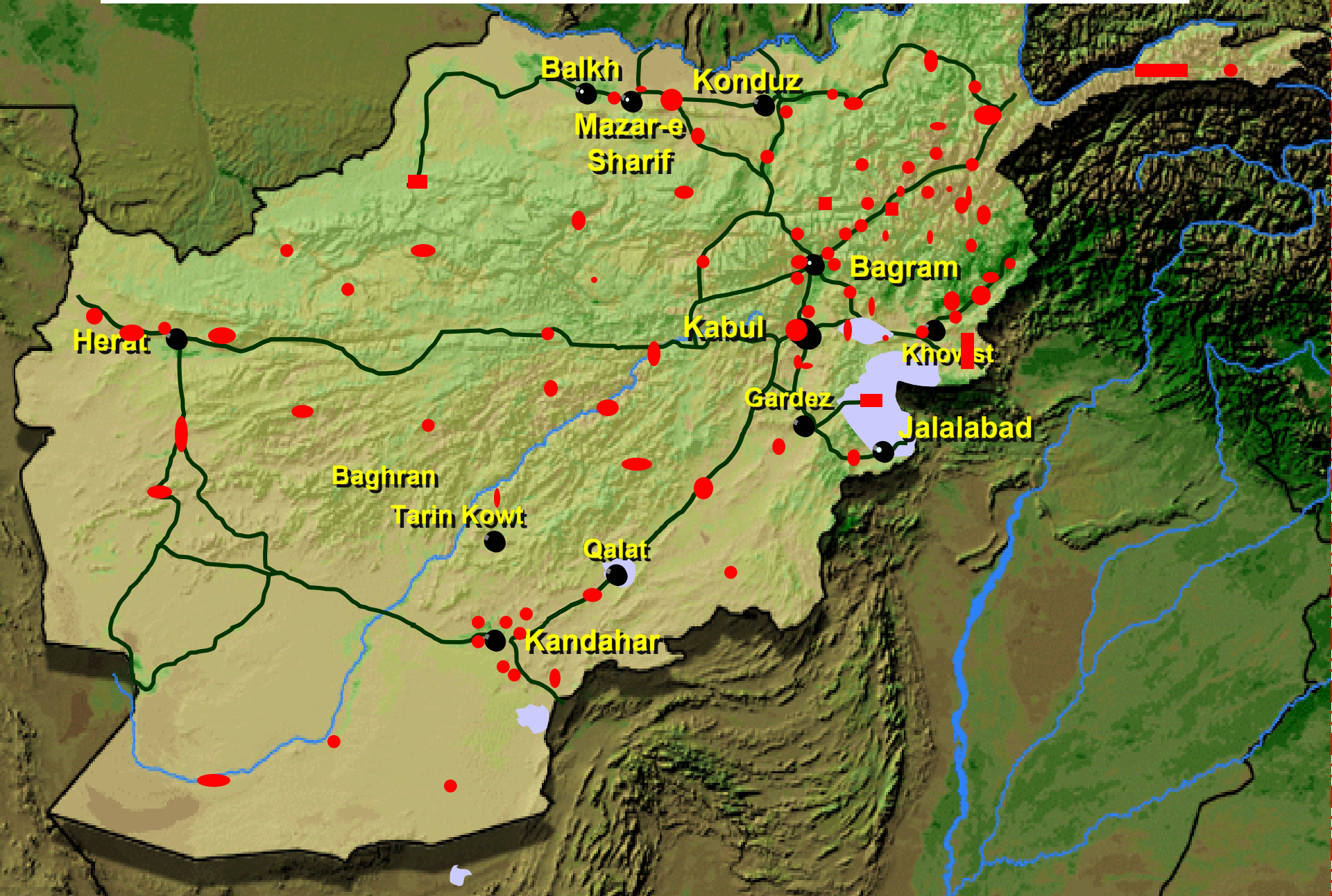
Denver
(Thumrait)

Tampa
(Kabul)

Initial Operations had Few Airspace Management Restrictions, But as Operations Progressed...



Airspace Management Became More Complex





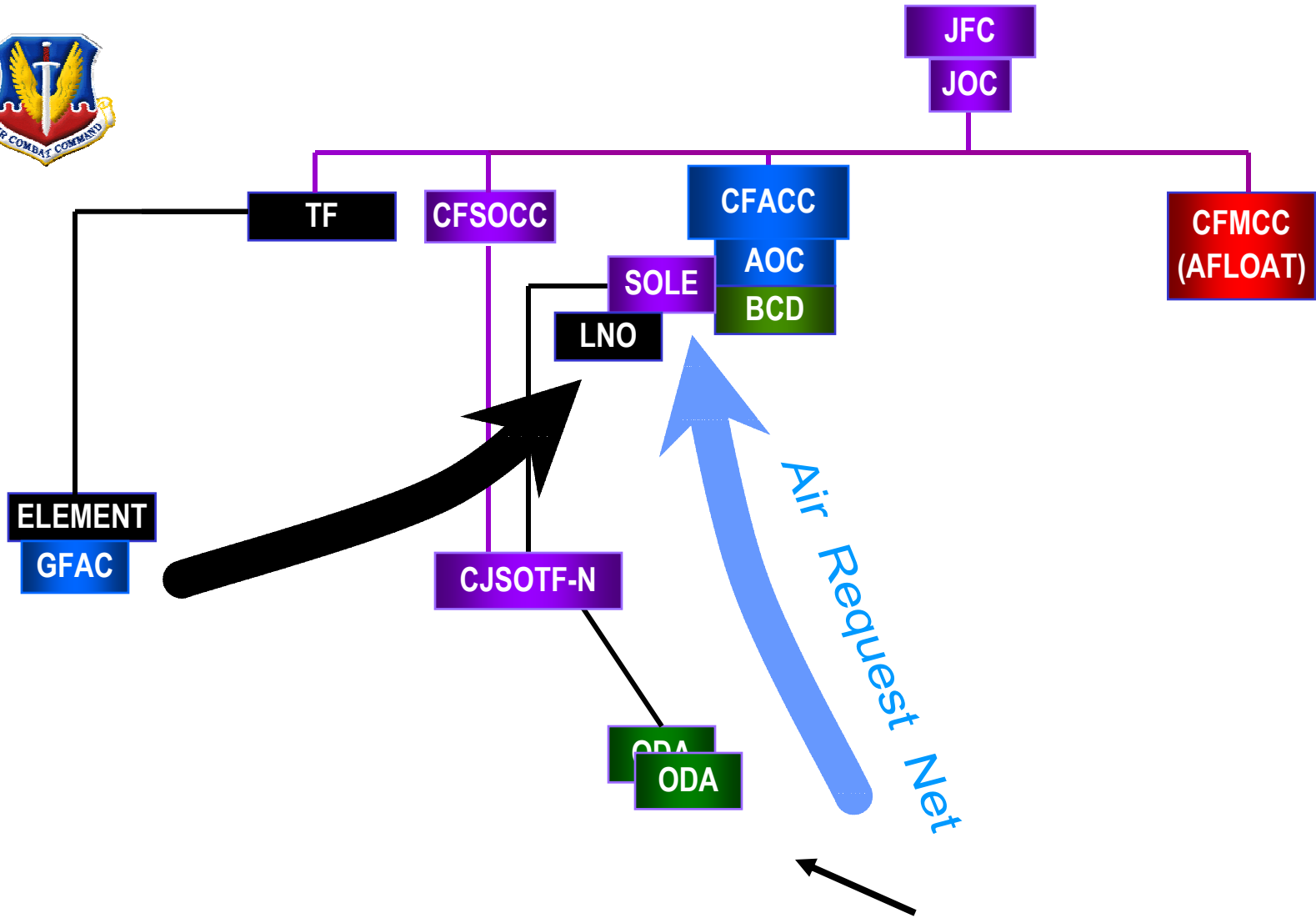
Distributed Forward Air Control

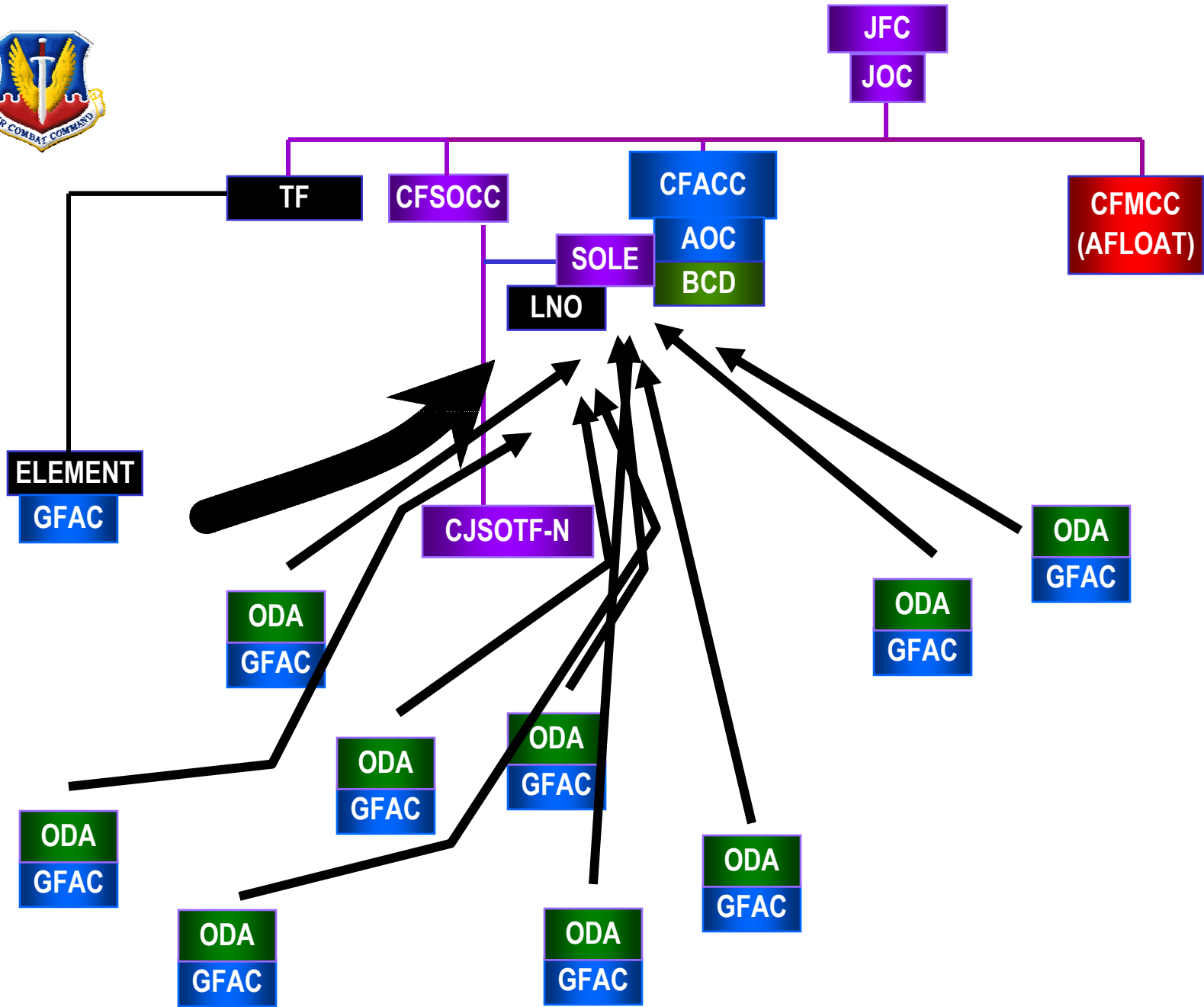
Attached USAF ground forward air controllers with SOF

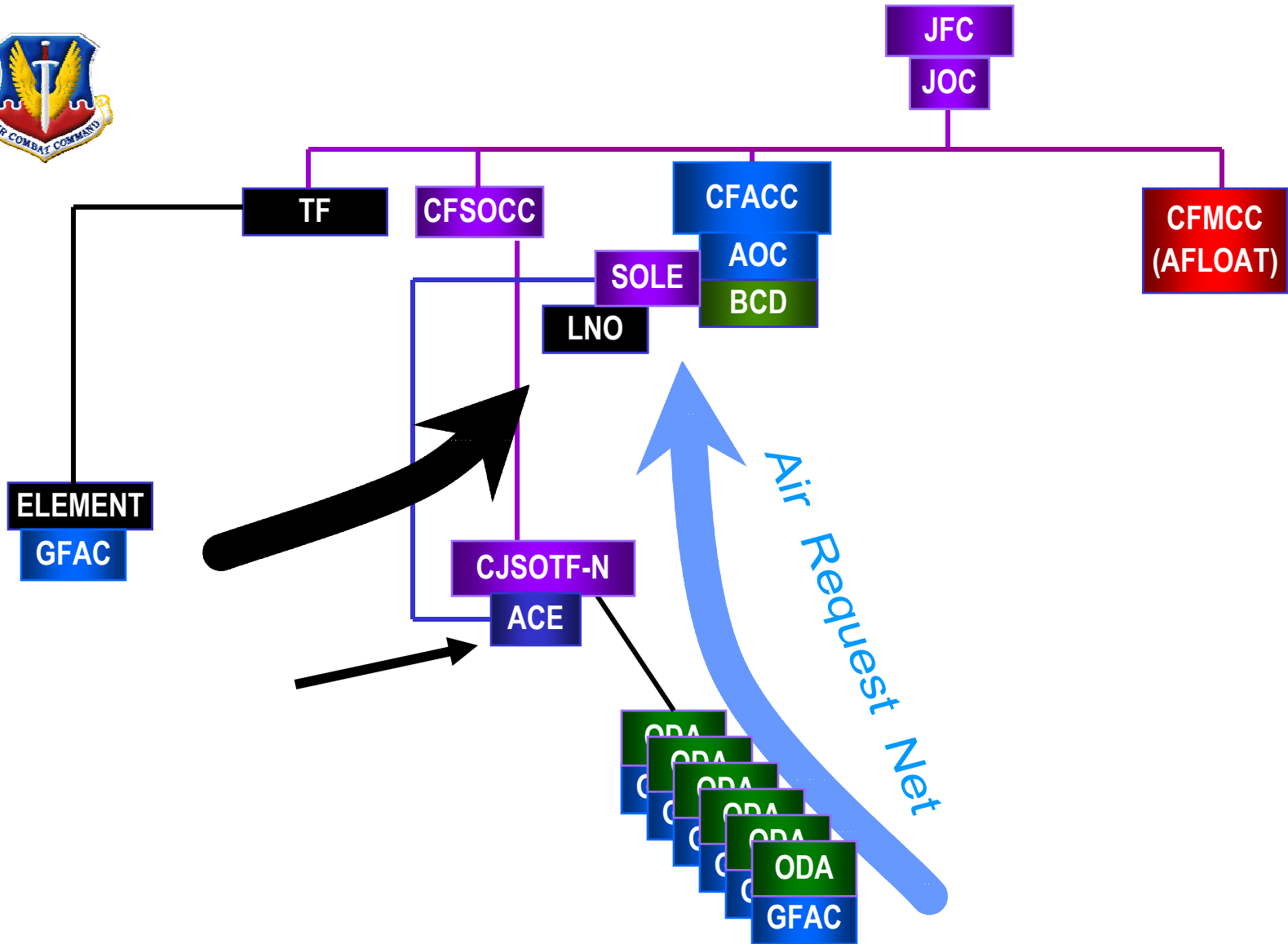
Augmented airborne forward air control

Extensive use of JSTARS

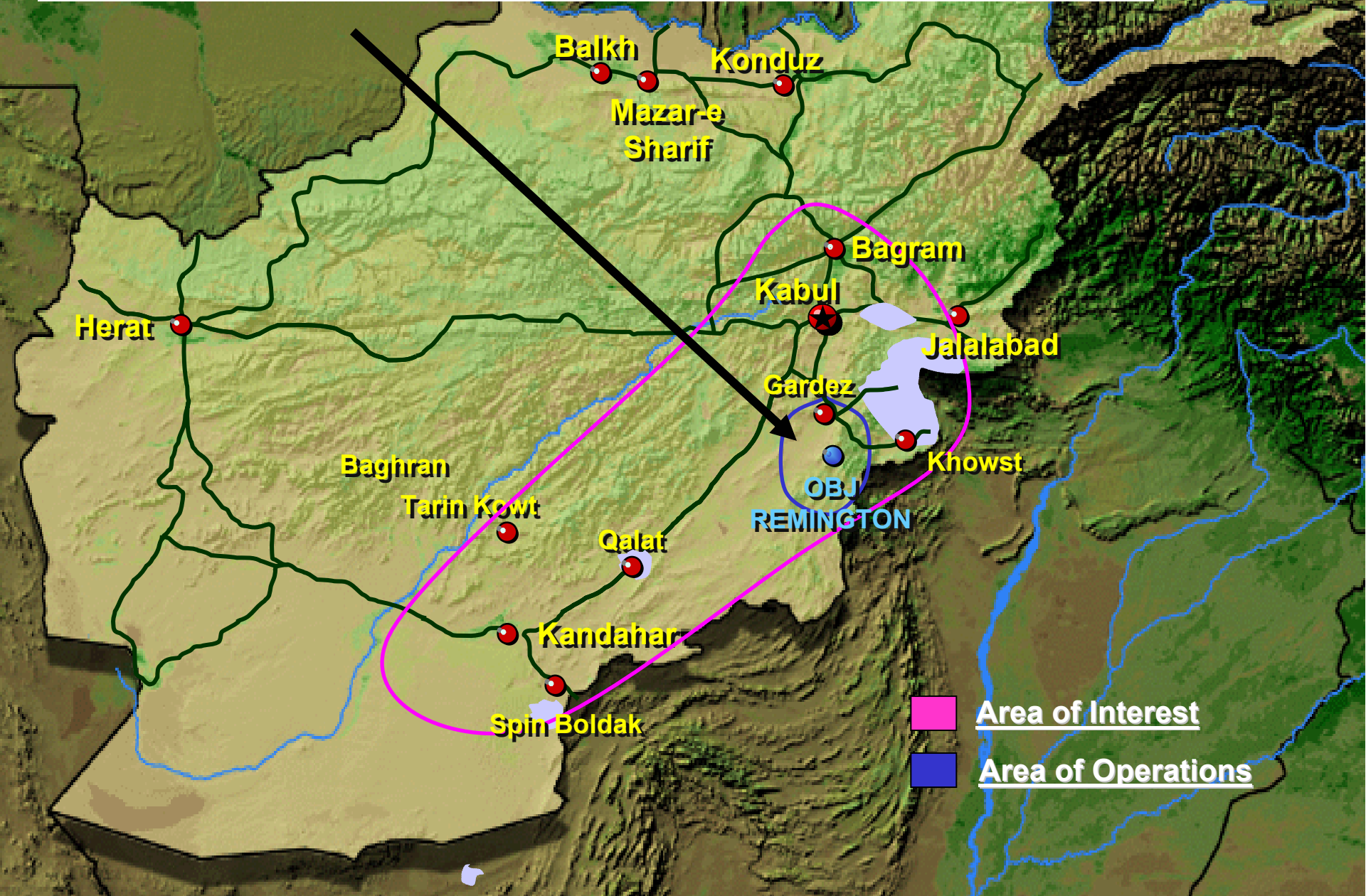
Developed intermediate air control for SOF







Air Support flowed into and out of 6 x 9 KM box





TF K-Bar

UPPER SHAHI
KOT VALLEY

"DIANE" "EVE" "HEATHER"
"CINDY" "GINGER"

"BETTY"

"AMY"

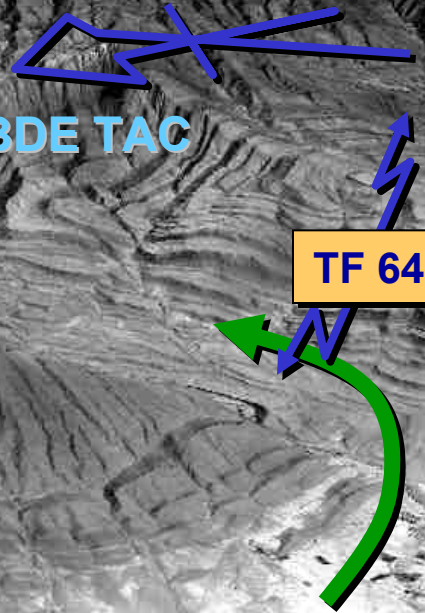
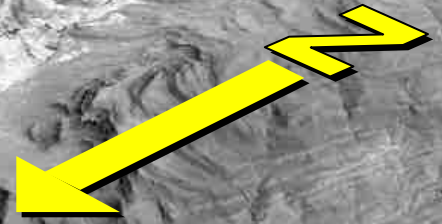
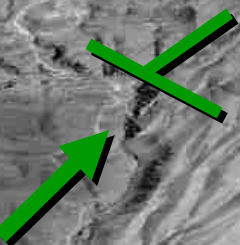
MARZAK
SERKHANKHEL
OBJ REMINGTON
BABUKHEL

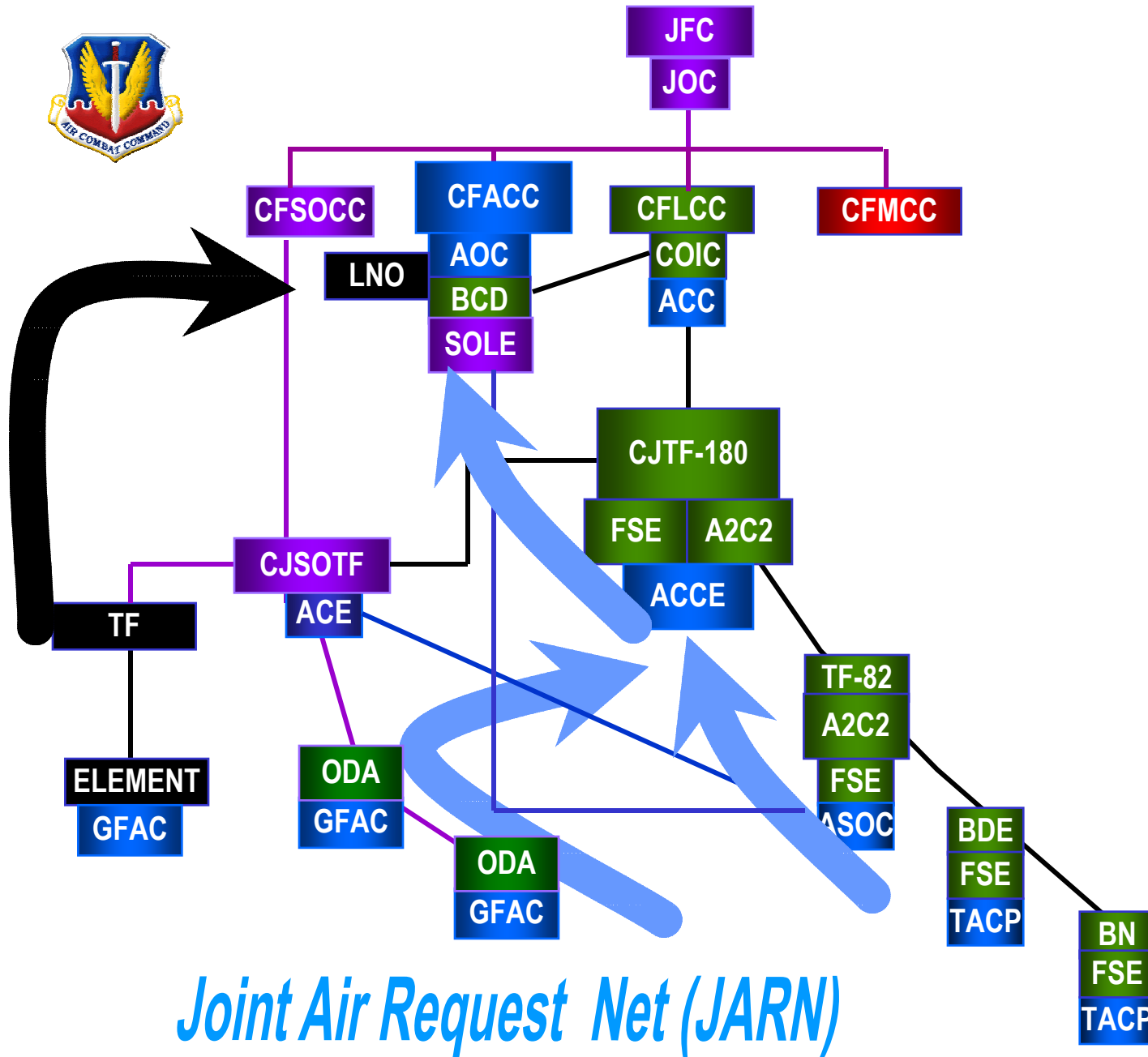
BDE TAC

TF 64

LOWER SHAHI
KOT VALLEY

"THE WHALE"





Joint Air Request Net (JARN)



Iraqi Freedom— A Five Front War



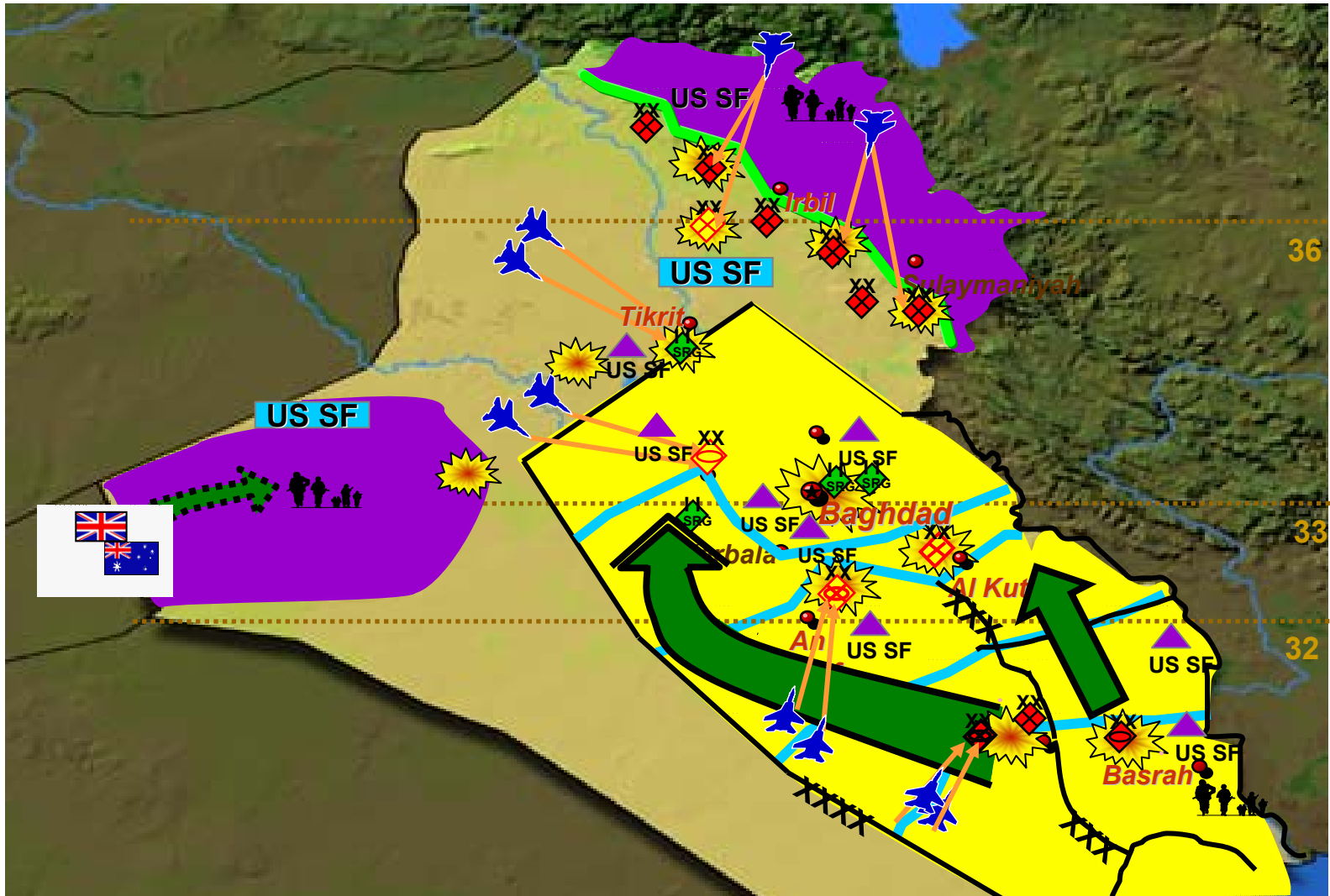
One Team – One Fight

“I don’t want to say that it would be a mistake for the services to engage in service-centric lessons learned. But to some extent I will say it. This was not a war fought by the Army or the Navy or the Air Force...or the Marines. It was a war that’s been fought by joint forces under excellent leadership”

**-- Defense Secretary Donald H. Rumsfeld, Pentagon News Briefing,
April 15, 2003**



Two in the South, the West, North and Urban Baghdad





Digital and Analog Perspectives

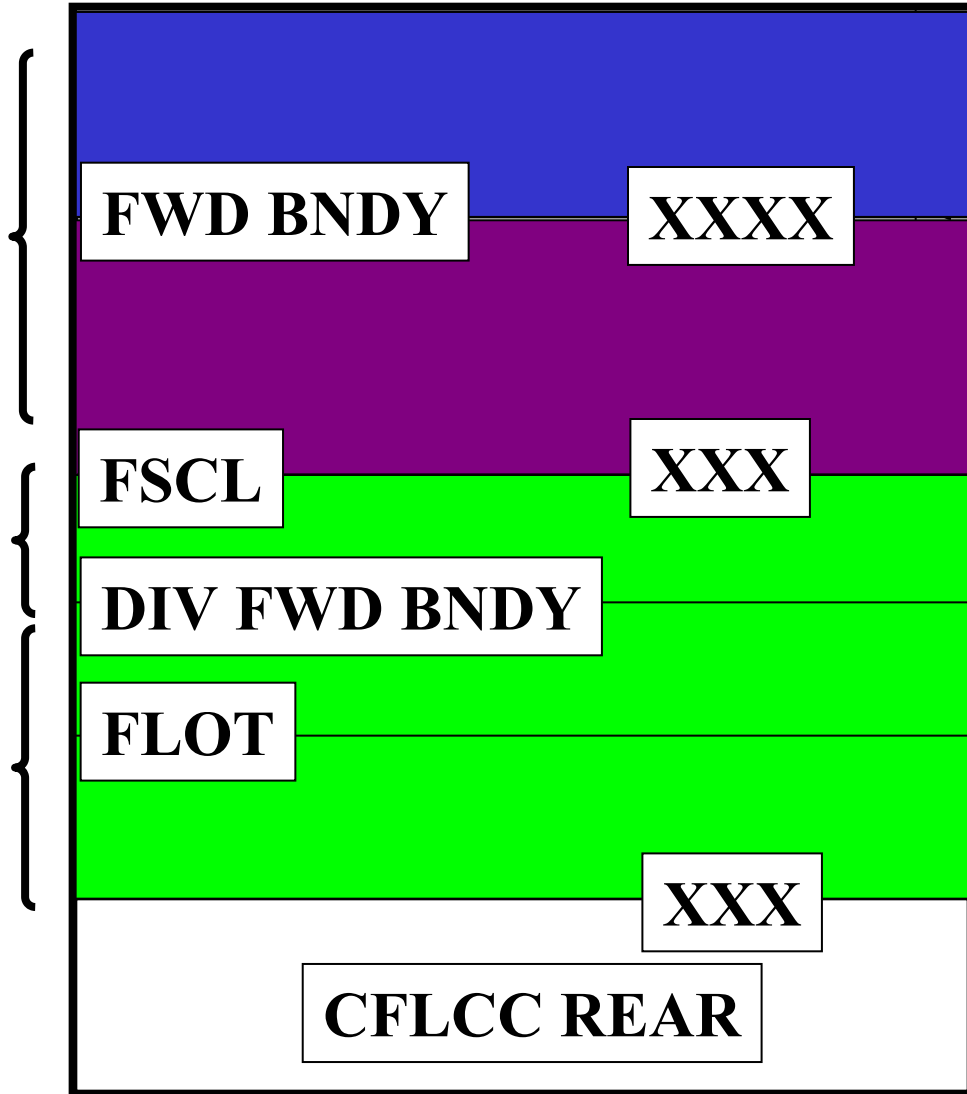


V Corps Ground space Perspective (Analog)

**CENTCOM
SHAPING**

**CORPS
SHAPING**

**DIV CAS
Type 1/2/3**



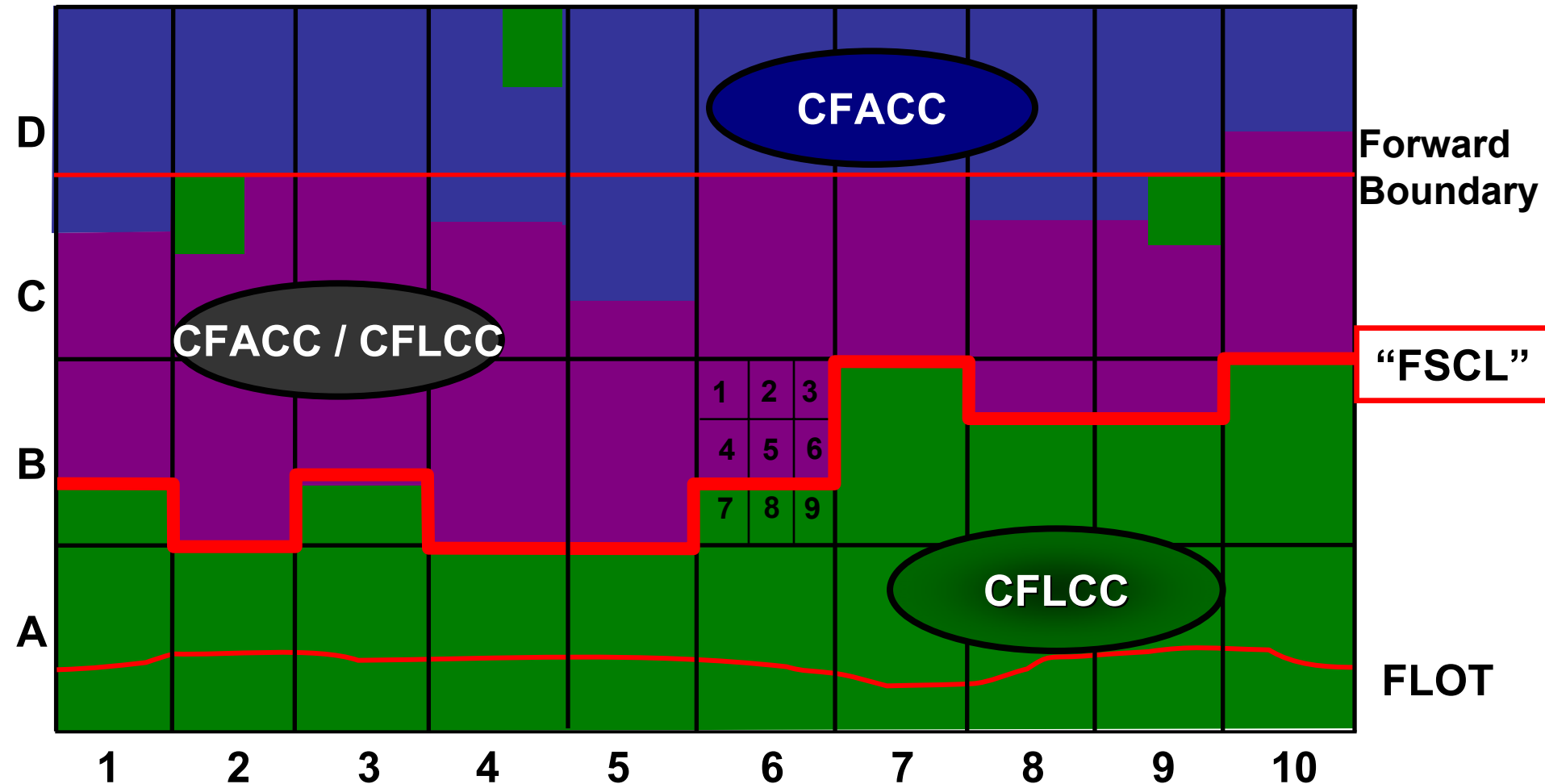
**CENTCOM
EFFECTS**

**CFLCC
EFFECTS**

**CORPS
EFFECTS**

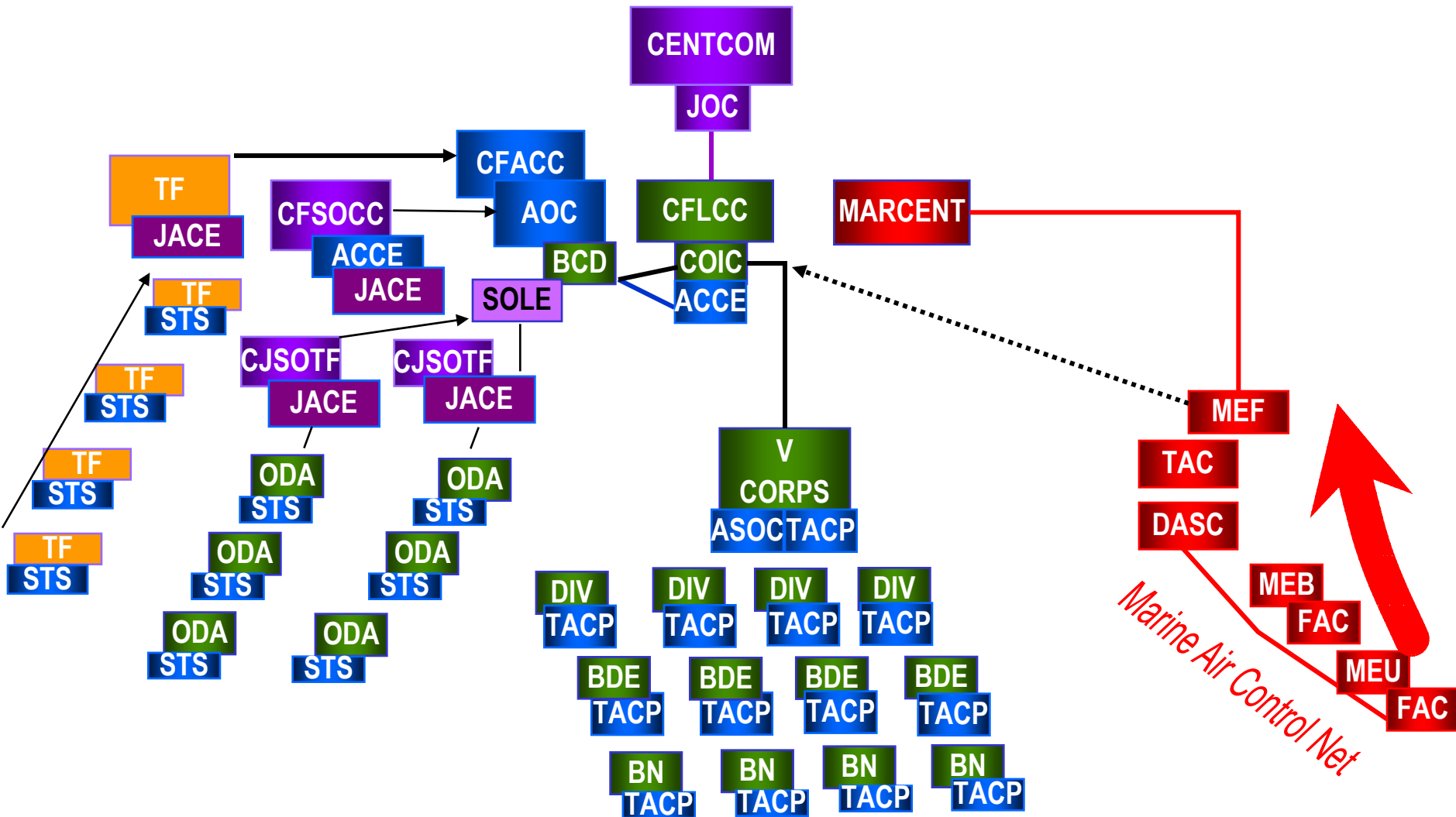


CFACC Battle space Perspective (Digital)





Theater Air Control Air-Ground System Elements



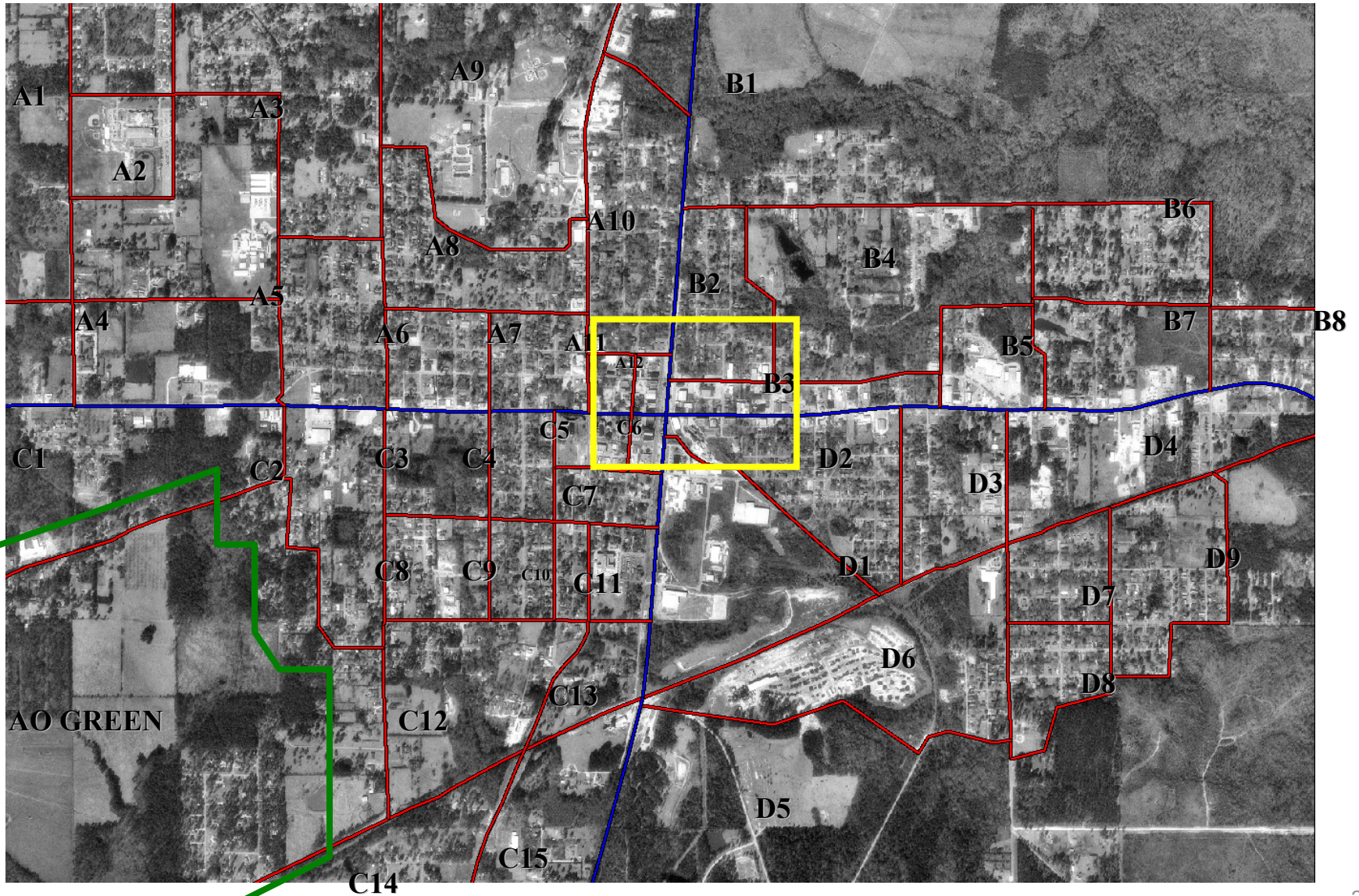


Airpower Effectiveness Across the Range of Combat Environments





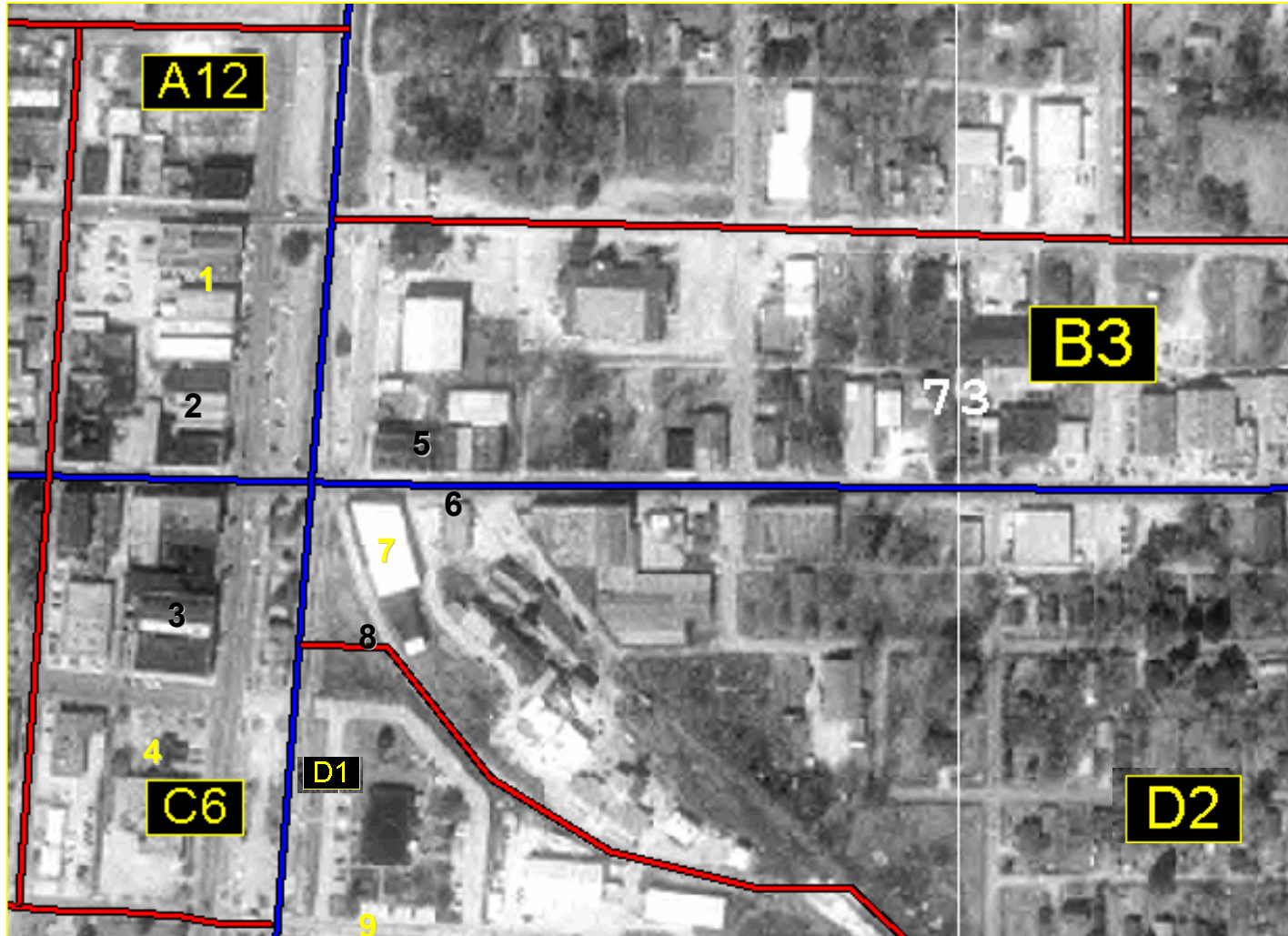
Finding It





Finding It

(blown up imagery of grid box)





AIRPOWER – THE KILL CHAIN

■ **ISSUE: SNIPER TAKING TOLL ON U.S. FORCES IN NAJAF; MARINE MGYSGT KILLED MINUTES EARLIER**

■ **BACKGROUND: DENSE URBAN ENVIRONMENT, COLLATERAL DAMAGE LIMITED OPTIONS**

■ **ACTION: RAVAGE 30 ENGAGED SNIPER WITH ONE HELLFIRE**

■ **IMPACT: F2T2EA FROM A SINGLE PLATFORM**



RAVAGE 30



**Sniper in Second Floor Window
HELLFIRE Laser-Guided Missile**





AIRPOWER – PERSISTENT

- **ISSUE: PERSISTENT SURVEILLANCE LOCATES ZARQAWI ASSOCIATES**

- **BACKGROUND: PREDATOR PROVIDES ABILITY TO MAINTAIN CONSTANT SURVEILLANCE**

- **ACTION: RAPID RETARGETING – REVISED DMPI PASSED IN-FLIGHT TO STRIKE EAGLES; TGT STRUCK 3 MINS LATER**

- **IMPACT: ~12 TERRORISTS KIA; INITIATED SERIES OF STRIKES ON AMZ NETWORK IN FALLUJAH**







Airpower Effectiveness Across the Range of Combat Environments

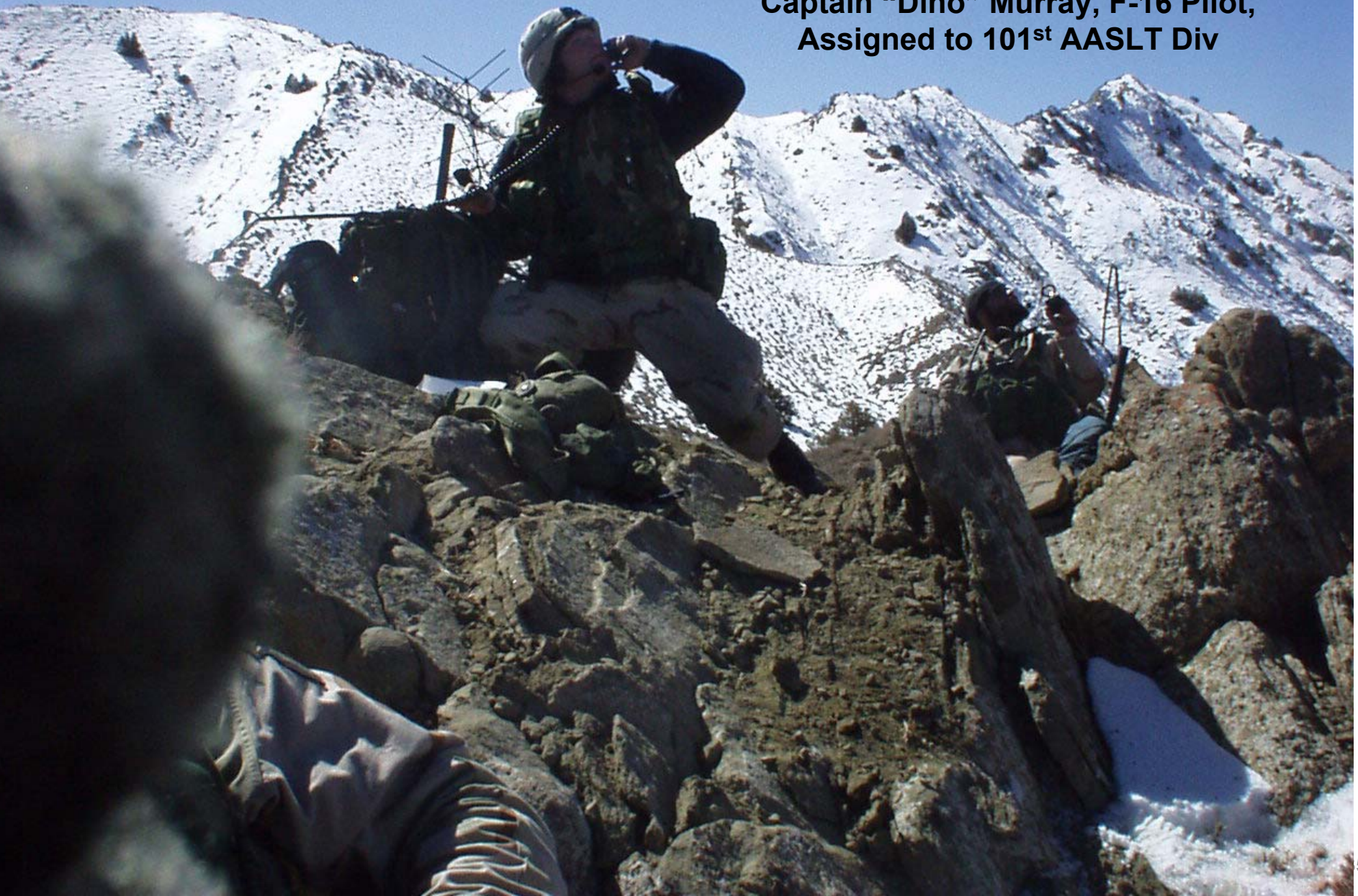




The Forward Air Controller



**Captain “Dino” Murray, F-16 Pilot,
Assigned to 101st AASLT Div**





Advances and Innovations: New Tech/Low Tech



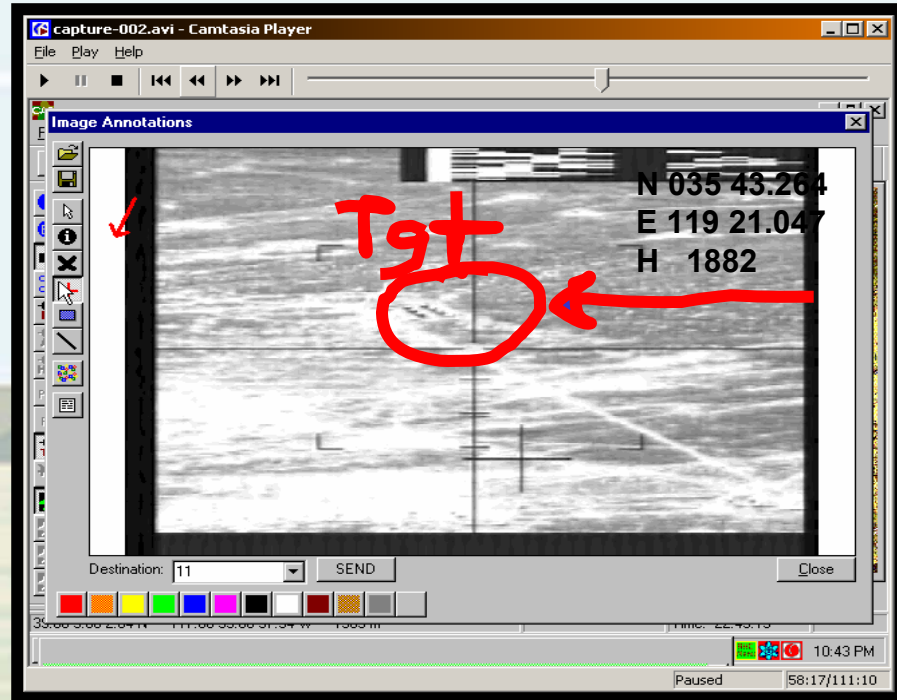


“John Madden” Video Imagery

**A-10
Kneebord**



**JTAC
TACP-CASS
&
ROVER**



1. JTAC views video
2. JTAC “captures” still image
3. JTAC “marks up” image



“John Madden” Video Imagery

**A-10
Kneeboard
&
VMF Equipped Aircraft
(F/A-18 & JSF)**



**JTAC
TACP-CASS
&
ROVER**

FalconView - Phase 0 Release (Expires August 04, 2002) - LIMITED DISTRIBUTION - k...

File Edit View Map Overlay Tools Options Favorites Help

TOOLS

Electronic Kneeboard Pilot “opens” marked image

N 035 43.264
E 119 21.047
H 1882

Tgt





Future of Air /Ground Collaboration





Light Infantry Battalion





Airborne Battalion





Mech/Armor





Stryker Brigade





Special Forces TACP





Ranger TACP





Challenges

Airspace

Future Aircraft

Combat ID

Frequency Bandwidth

Urban Enemy Asymmetric Advantage



U.S. AIR FORCE