

UNCLASSIFIED



# Precision Fires Rocket and Missile Systems (PFRMS)



## Precision Strike Summer PEO Forum 7 July 2004



**COL Earnest Harris**  
**PM, PFRMS**



“Balancing Precision Strike for the Joint Force Commander Across Asymmetric Battlefields”

***Precision Fires Rocket and Missile Systems***

PFRMS 1 01 Jul 04

UNCLASSIFIED



UNCLASSIFIED

# Precision Fires Rockets and Missile Systems ARMY TACMS Variants

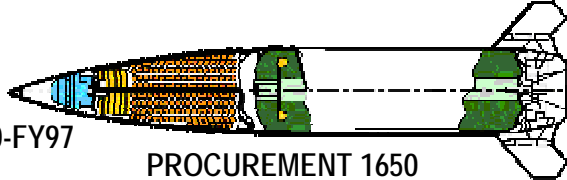


## BLOCK I

- PRODUCTION FY90-FY97
- FIELDED 1990
- CARRIES 950 M74s
- INERTIAL GUIDANCE (MGS)
- RANGE: MIN: 25 KM  
MAX: 165 KM

PROCUREMENT 1650  
PRODUCTION TO DATE 1650  
ON HAND 1126 (includes SRP)  
SHELF LIFE 13-14 Years

**SUSTAINMENT**

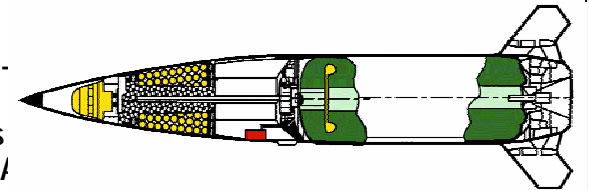


## BLOCK IA

- PRODUCTION FY97-
- FUE FY98
- CARRIES 300 M74s
- GPS AIDED INERTI//
- RANGE MIN: 70 km  
MAX: 300 KM

PROCUREMENT 610  
PRODUCTION TO DATE 610  
ON HAND 531 (includes SRP)  
SHELF LIFE 10 Years

**SUSTAINMENT**

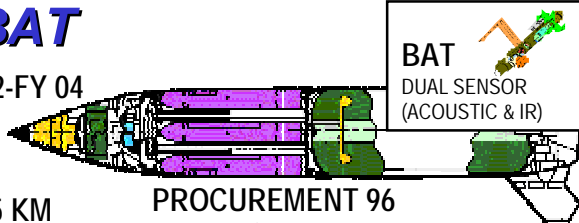


## BLOCK II/BAT

- PRODUCTION FY02-FY 04
- FUE FY02
- CARRIES 13 BATs
- IMGS - II
- RANGE: MIN: 35 KM  
MAX: 145 KM

PROCUREMENT 96  
PRODUCTION TO DATE 77  
ON HAND 70  
SHELF LIFE 10 Years

**SUSTAINMENT**



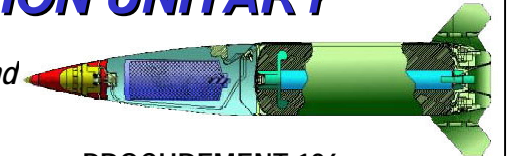
BAT  
DUAL SENSOR  
(ACOUSTIC & IR)

## QUICK REACTION UNITARY

- PRODUCTION FY 01-06
- WDU/18-B Unitary Warhead
- FUE FY01
- IMGS - II
- RANGE: MIN: KM  
MAX: 300 KM

PROCUREMENT 126  
PRODUCTION TO DATE 124  
ON HAND 108 (includes SRP)  
SHELF LIFE 10 Years

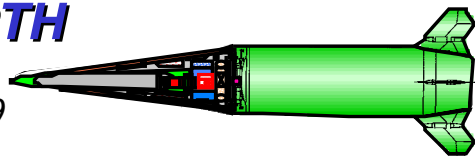
**PRODUCTION**



## BLOCK III EARTH PENETRATOR

- PRODUCTION FY06-FY 09
  - FUE FY08
- LEVERAGE OFF TACMS PENETRATOR DEMO  
PROCUREMENT 180  
SHELF LIFE 10 YEARS

**ACTD**



## FMS

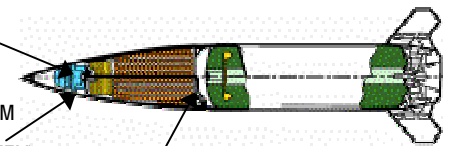
CONFIGURATION SAME AS BLOCK I  
(EXCEPT AS SHOWN)

ADAPTER HARNESS ADDED  
BETWEEN IMGS & WARHEAD  
HARNESS

IMPROVED MISSILE GUIDANCE SYSTEM  
WITHOUT EMBEDDED GPS RECEIVER  
CARD (NO GLOBAL POSITIONING SYSTEM)

WARHEAD ELECTRON BEAM  
WELDED TO SOLID ROCKET  
MOTOR CASE

**PRODUCTION**





UNCLASSIFIED

# Precision Fires Rockets and Missile Systems OIF ATACMS Target Set



| <i>Target</i>                               | <i>Unitary</i> | <i>Block I</i> | <i>Block IA</i> | <i>Total</i> |
|---|----------------|----------------|-----------------|--------------|
| <i>Air Defense / Radar</i>                  |                | 147            | 19              | 166          |
| <i>Artillery</i>                            |                | 128            | 11              | 139          |
| <i>C2 Nodes</i>                             | 13             | 15             | 2               | 30           |
| <i>Mechanized Infantry and Armor</i>        |                | 41             | 29              | 70           |
| <i>Surface-to-Surface Missile Launchers</i> |                | 39             | 6               | 45           |
| <i>Logistics Sites</i>                      | 3              | 3              |                 | 6            |
| <i>Total</i>                                | 16             | 373            | 67              | 456          |



# Precision Fires Rockets and Missile Systems

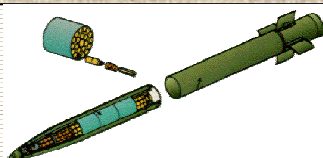
## Tactical Rockets



### BASIC TACTICAL

- PRODUCTION FY80-FY94
- FIELDDED 1983
- CARRIES 644 M77 Submunitions
- UNGUIDED Tactical Rocket
- RANGE: MIN: 10 KM  
MAX: 32 KM

PRODUCTION TO DATE: COMPLETE  
SHELF LIFE 22 YEARS (FY16)

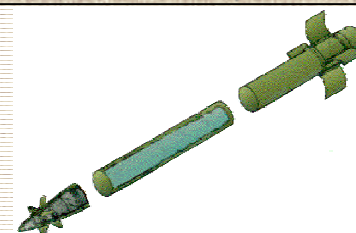


**SUSTAINMENT**

### GMLRS Unitary

- PRODUCTION FY07-FY20
- IOC FY08
- SINGLE 200lb HE WARHEAD
- AIDED BY GPS
- RANGE MIN: 15 KM  
MAX: 60+ KM

PROCUREMENT 42,000  
SHELF LIFE 10 YEARS

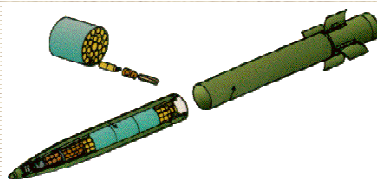


**DEVELOPMENT**

### ER-MLRS

- PRODUCTION FY99-FY00
- FIELDDED 1999
- CARRIES 518 M85 Submunitions
- UNGUIDED Tactical Rocket
- RANGE: MIN: 15 KM  
MAX: 45 KM

PROCUREMENT 4,284  
PRODUCTION TO DATE: COMPLETE

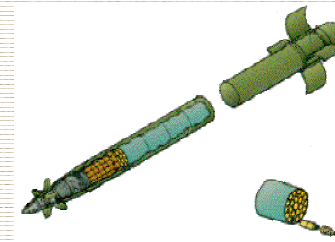


**SUSTAINMENT**

### GMLRS DPICM

- PRODUCTION FY03-FY20
- IOC FY05
- 404 GRENADE SUBMUNITIONS
- AIDED BY GPS
- RANGE MIN: 15 KM  
MAX: 60+ KM

SHELF LIFE 10 YEARS

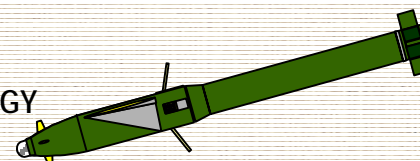


**PRODUCTION**

### GMLRS P3I

- INTEGRATED FCS TECHNOLOGY INTO GMLRS ROCKET
- RANGE: MIN: 15 KM  
MAX: ~100 KM

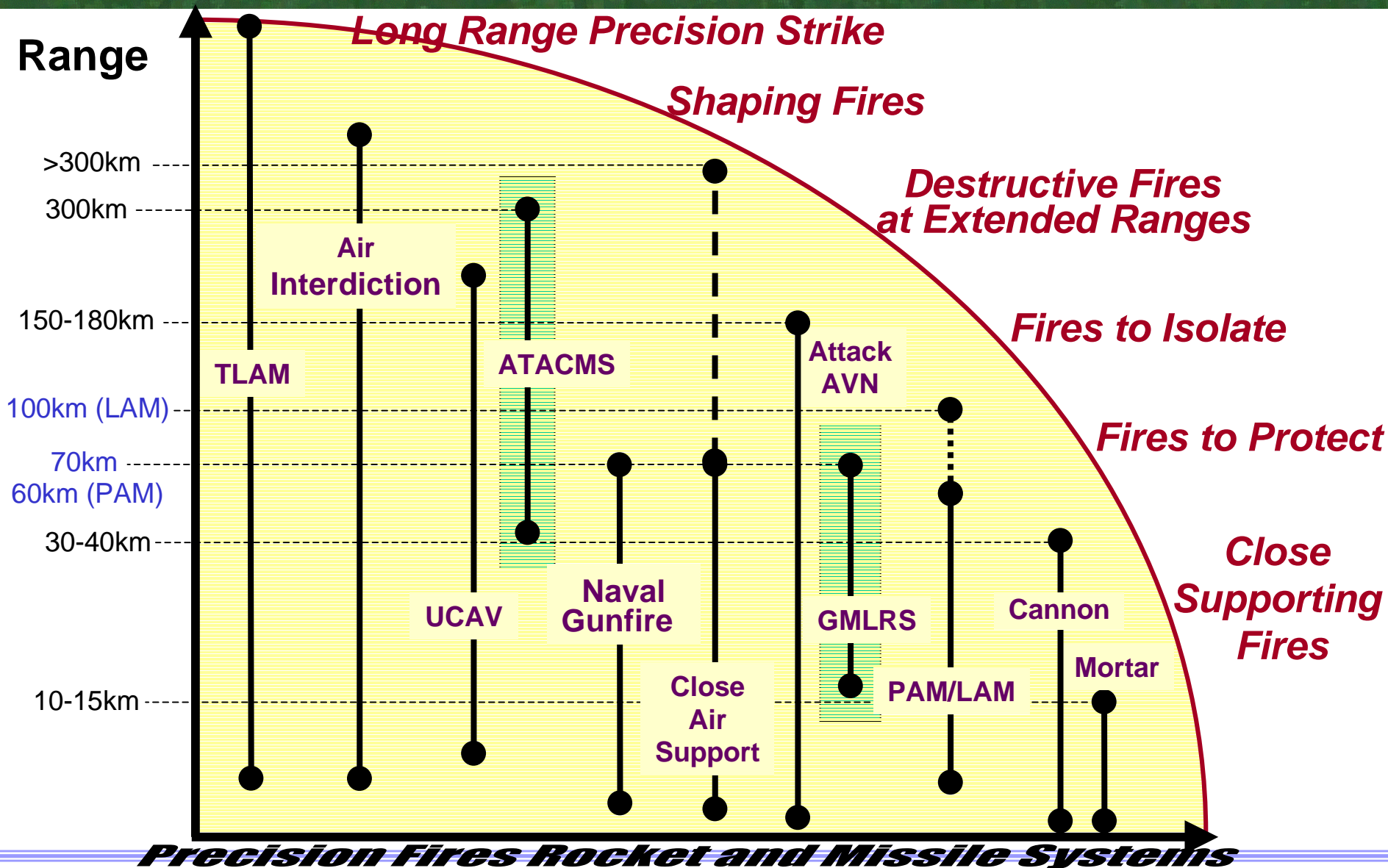
SHELF LIFE 10 Years



**CONCEPT DEFINITION**



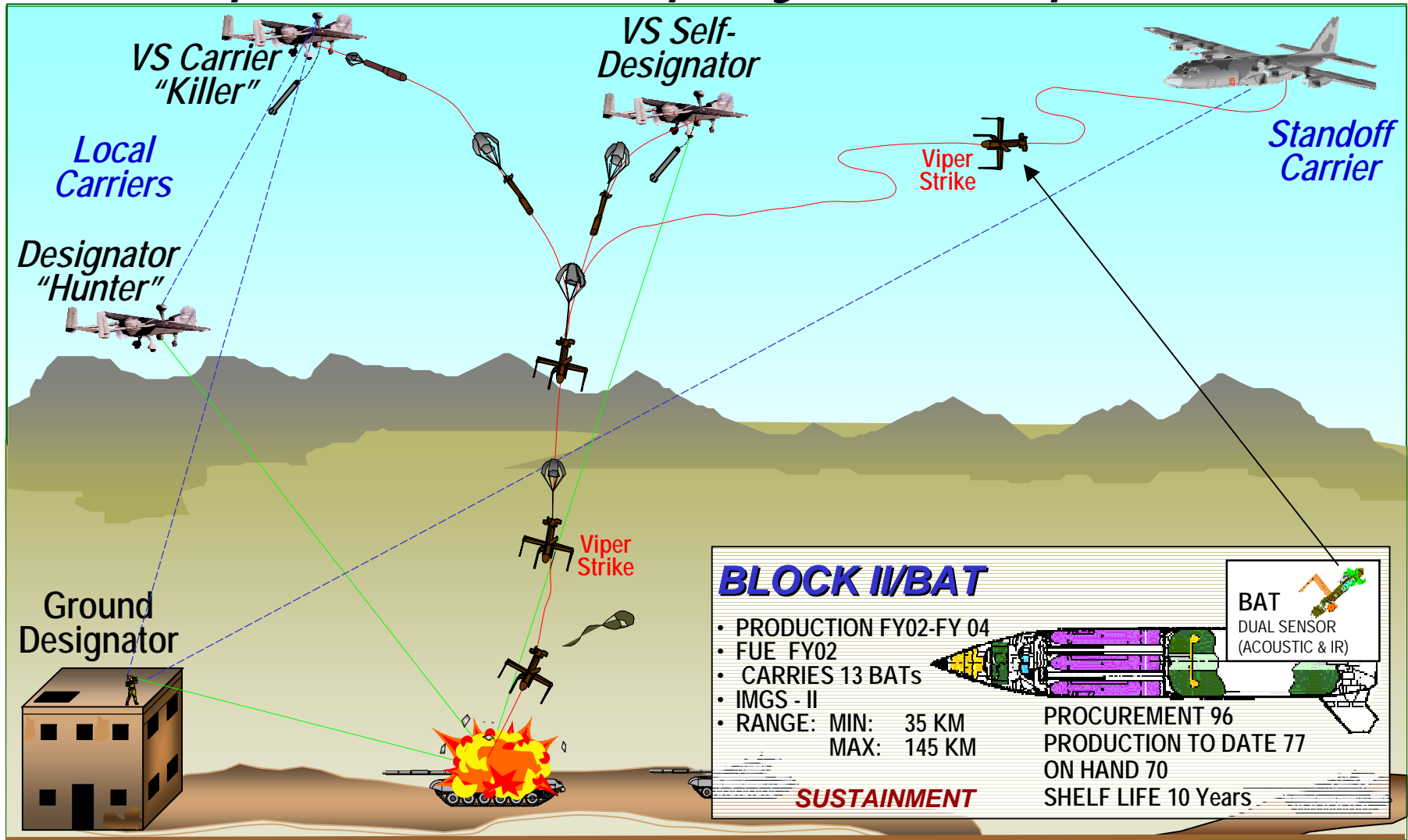
# Joint Fires Capabilities





UNCLASSIFIED

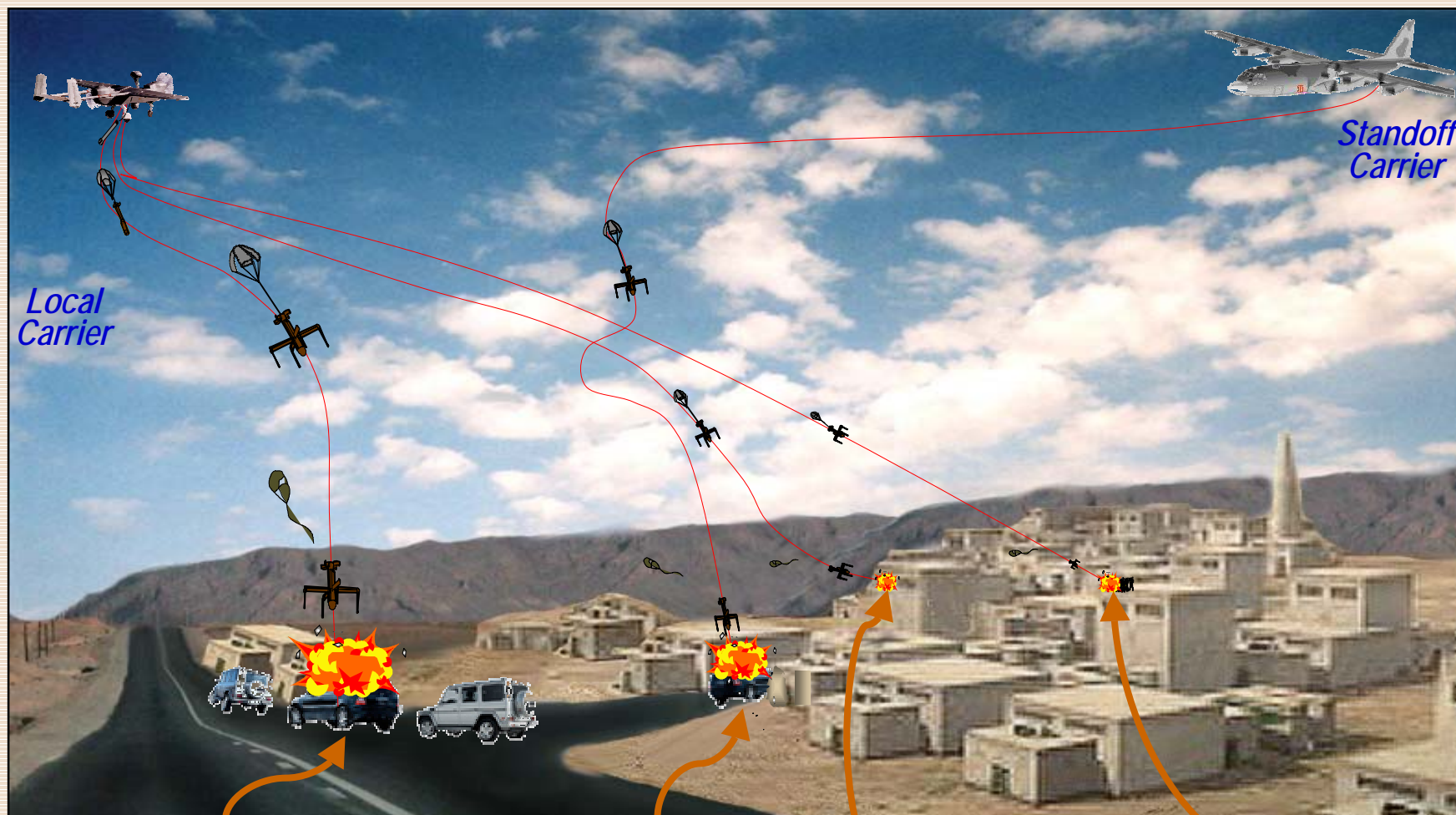
# Precision Fires Rockets and Missile Systems Viper Strike Deployment Options



UNCLASSIFIED



# Precision Fires Rockets and Missile Systems Four Critical Viper Strike Capabilities



*Pinpoint & confine damage to a single moving armored vehicle in motorcade*

*Reach into cordoned urban canyons*

*Precise room attack; minimal collateral damage*

*6km sniper for "Golden Shots"*

## ***Precision Fires Rocket and Missile Systems***

PFRMS 7 01 Jul 04

UNCLASSIFIED

UNCLASSIFIED



# Precision Fires Rockets and Missile Systems Carrier Interest in Viper Strike



2 on Hunter

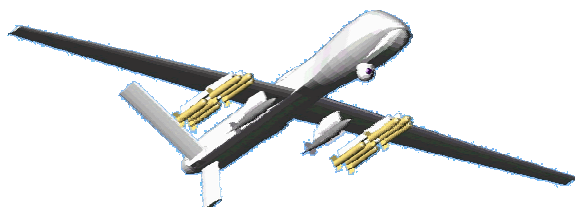
*Additional UCAV Platforms  
Not Shown*



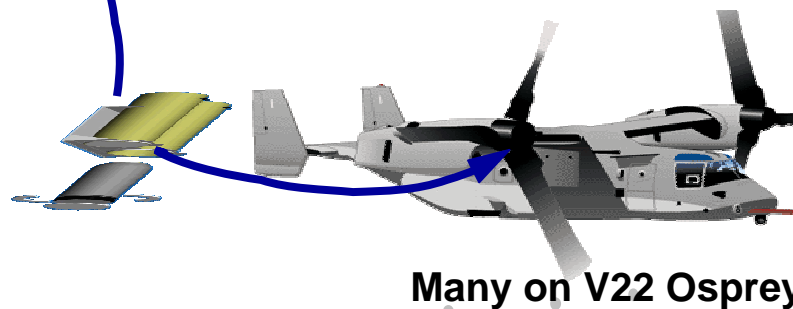
4-6 on Fire Scout



Many on AC-130



4-6 on MQ-1 Predator,  
12-24 on MQ-9 Predator B



Many on V22 Osprey

< 50 lb. Munition for Payload-Constrained, Medium Altitude Delivery





UNCLASSIFIED

# BDA of ATACMS QRU Target



*Target Building Destroyed by QRU Missile in Basrah, Iraq*

***Precision Fires Rocket and Missile Systems***

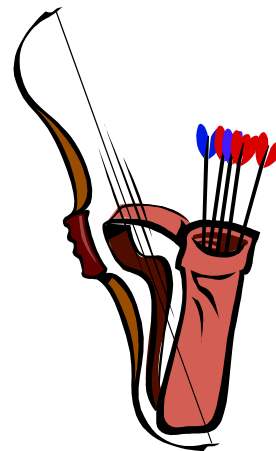


UNCLASSIFIED

# SUMMARY



- PRECISION AT LONG RANGES TO DEAL WITH ASYMMETRIC THREAT
- MULTIPLE EFFECTS
  - Area
  - Point



“Balancing Precision Strike for the Joint Force Commander Across Asymmetric Battlefields”