NDIA Conference
November 4th, 2008
ISR Innovations and UAV Task Force Directorate

November 2008
He’s armed and dangerous
And now he’s an actual “Intel Guy”
Yoda of Predator

Tazar AB Hungary 1996

Kandahar AB Afghanistan 2008

A2-U’s Expertise:
We’ve done it longer than anyone else.
We built many of the capabilities.
Our personnel are flying it today.

**And Snake can still fit into a Flight Suit**
A2-U in the AOR

June 2001 – August 2008

7500 Plus Days TDY

(And Other Interesting Places)
MQ-1 Predator
Reaches 440,000 hours

4000 + Weekly Combat Hours
28 Combat CAPS
MQ-9 Reaper 30,000 hours

Over 400 Combat hours a week
MQ-1/MQ-9 Comparison

MQ-1
- C-172 Size
- 2 x Hellfire

MQ-9
- A-10 Size
- 2 X 500 lb bombs
- &
- 4 x Hellfire
Smart reach back UAV Operations

Total Force Operations
Active Duty, Reserve, National Guard, Special Operations, United Kingdom
6 - Stateside operations centers
5 - Launch and recovery units in theater

Over 1000 personnel flying Combat Operations not in harms way
ANG MQ-1 Organization

- 119 Wing Fargo
- 147 RW Ellington Field
- 163 RW March ARB
- 232 OS Creech AFB
- 214 RG Davis-Monthan
- 432nd WG Associate
- 147 RW Ellington Field

ANG Unit
Air National Guard Total Force Transformation

• Convert BRAC units to new UAVs Mission
• Maintaining years of Aircrew experience
  (F-4, F-15, F-16, F-117, A-10, B-52, C-5, C-17, C-21, C-130, KC-135, & AH-64)
• From a high time of 5000+ hours to an average of over 1500 hours
• Minimum training for High Combat Experience
• Maintaining extensive Maintenance, Logistics, Training, Intel Support, and Facilities to the new mission at a minimum cost

Bottom line: Flying, armed UAV’s is not simple
13 ½ years and 450 K hours lesson learned
Predator Combat Growth

Air Force MQ-1B Predator Combat Air Patrols

- 2004 = 5
- 2005 = 8
- 2006 = 11
- 2007 = 18
- 2008 = 31 (Planned)

520% Increase in 4 years!
<table>
<thead>
<tr>
<th>Weapon</th>
<th>Year</th>
<th>Duration</th>
</tr>
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<tbody>
<tr>
<td>Laser Designator</td>
<td>Kosovo</td>
<td>38 Days</td>
</tr>
<tr>
<td>Hellfire</td>
<td>2001</td>
<td>61 Days</td>
</tr>
<tr>
<td>Remote Split Ops</td>
<td>2001</td>
<td>5 Days</td>
</tr>
<tr>
<td>Stinger</td>
<td>2002</td>
<td>91 Days</td>
</tr>
<tr>
<td>ROVER</td>
<td>2002</td>
<td>4 Days</td>
</tr>
<tr>
<td>Hellfire Sleeve</td>
<td>2002</td>
<td>21 Days</td>
</tr>
<tr>
<td>GBU-12</td>
<td>2003</td>
<td>9 Months</td>
</tr>
<tr>
<td>Link-16/SADL</td>
<td>2004</td>
<td>8 Months</td>
</tr>
</tbody>
</table>

FalconView Multi-Predator Tool, Super Splitter, Cursor on Target, UAS Mission Information System, Blue Force Tracking, Civil Air Tracks, ISR Information Services, Wing/Squadron C2, Predictive Control Displays, Predator FalconView enhancements . . .
ROVER
Full Motion Video directly to the Warfighter

Predator
SNIPER Pod
Litening Pod
P3
Raven
Pioneer
Pointer
AC-130
Shadow
Hunter
Fire Scout
Scathe View
ROVER Big Picture

FalconView Maps + Imagery

PSS-SOF Precision Targeting

ROVER
ROVER
Revolutionizes the Battlefield

Over 14 NATO and ISAF countries use ROVER

- UK         France         Australia         Germany
- Norway     New Zealand    Canada          Portugal
- Italy      Spain          Sweden         Belgium Netherlands

85% of CAS mission done with ROVER in OIF
Fielded ROVERs

ROVER I: (Pred to AC-130)
Total Delivery – 20

ROVER II: (Aircraft to JTAC)
Total Delivery 147

ROVER III – Multi-band receiver C/L/KU
Total Delivery 2331

ROVER IV
Total Delivered 1169

ROVER 4200

ROVER Recycling Program Upgrade
ROVER 3’s to ROVER 4’s only $7K
ROVER 5 Test Sep 08

- Full Encryption
- 4 pounds
- John Madden
- Full production Nov 08
OEF Coalition Warfare
38 Nations in ISAF
All members must have the same maps and imagery
A2-U Afghanistan
Eagle Express

- 145 Laptops computers with NATO releasable maps and imagery on FalconView
  - Six Regional Commands
  - Provided FV training
Enhanced Combat Situational Awareness

It’s not the number of UAV’s that are in the sky, it’s how you get the data to the lowest tactical level
Increasing Connectivity – the “glue” that provides SA to the operator

FalconView

Predator/Reaper — PSS-SOF — NRT Intel/BFT

Pred Wx Tool — CoT Link16 — IAS

U-2/MOBSTR — ROVER — WARP - Imagery

Google Earth

Even used on Air Force One!
ROVER & FalconView Support

Fire Fighter (Don Green) embedded with A2-U Team

FalconView Training for State Fire Chief
IKONOS

SPOT-5

SPOT-4

SPOT-2

Nellis AFB

Resolution: 20 meter
Revisit Time: 2-3 Days
Imagery: EO Panchromatic & Multispectral
Times: 1000-1400
License: Title 50

Myanmar

Malaysia

Zamboanga, RP

Chinese Airfield

Iran

Honolulu International

Taiwan

Myanmar

Malaysia

Nellis AFB

Big Island, Hawaii
Smithsonian NASM
Dedication 23 Apr 2008

16 Sep 01 thru 25 Jul 03
Combat Sorties 196
Combat Hours 2606

1st Hellfire Test 16 Jan 01
1st Hellfire Combat Shot 07 Oct 01
USAF Way Ahead

• Support Today’s Fight
  – Increase Combat CAPs
  – Increase MQ-9 Reaper Deployments
• Continue Innovation and Rapid Fielding
• Improve Full Motion Video to the Warfighter
• Improve Interoperability of Multiple Systems
• Next Generation MQ-X
Questions???