



Introduction to Theater and GREEN FLAG Ops



CAP SUAS Green Flag East & West



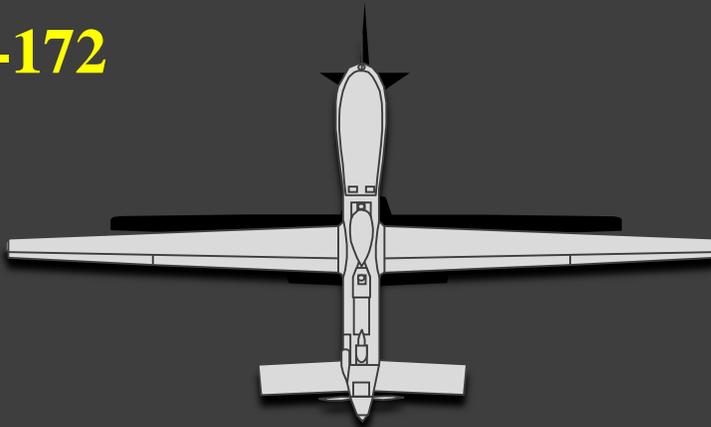


Predator/Reaper Size and Payload

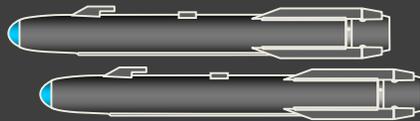


MQ-1

C-172

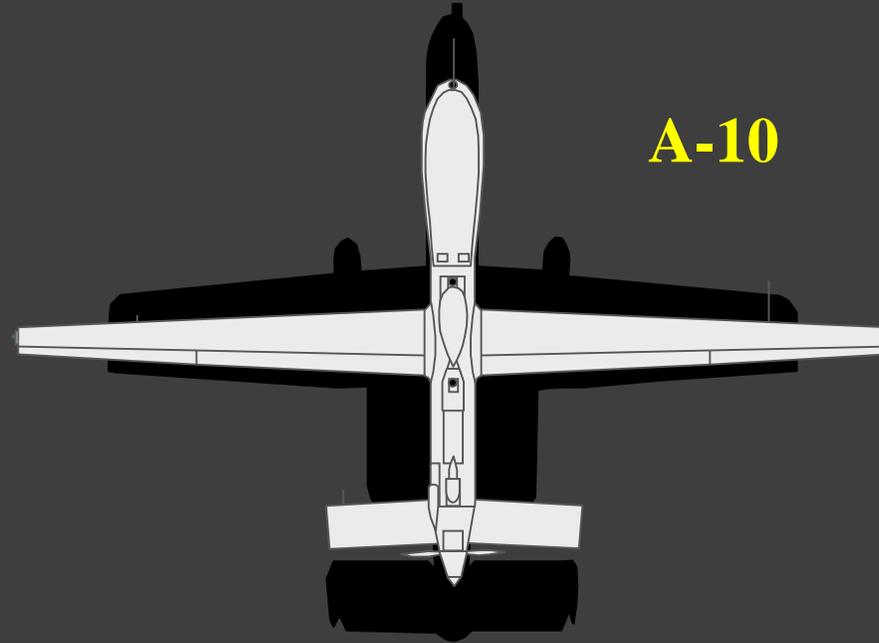


2 x Hellfire

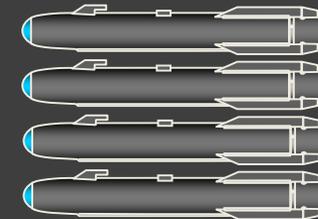
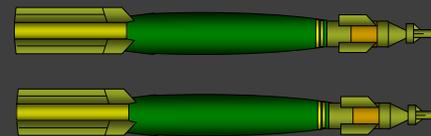


MQ-9

A-10



2 X 500 lb bombs & 4 x Hellfire





Predator/Reaper Capabilities



IR Marker

Multi-Spectral Targeting System



EO & IR Camera

Laser Designator

IR Marker



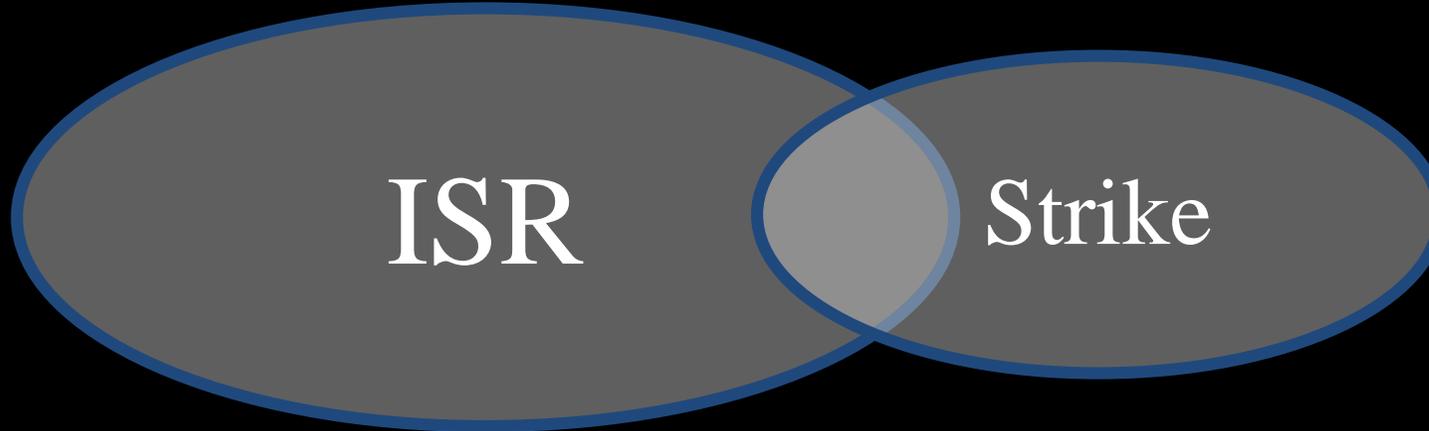
FLIR

FUSED

LLTV



MQ-1/9 Roles and Missions



Intelligence Preparation of the Battlespace

Lines of Communication (LOC)

High-Value Target Stakeouts

Target Acquisition

Close Air Support

Video of surface actions

Air strike coordination

Direct fire support

Interdiction

Force Protection (convoys)

Combat Search and Rescue



Predator/Reaper Operations



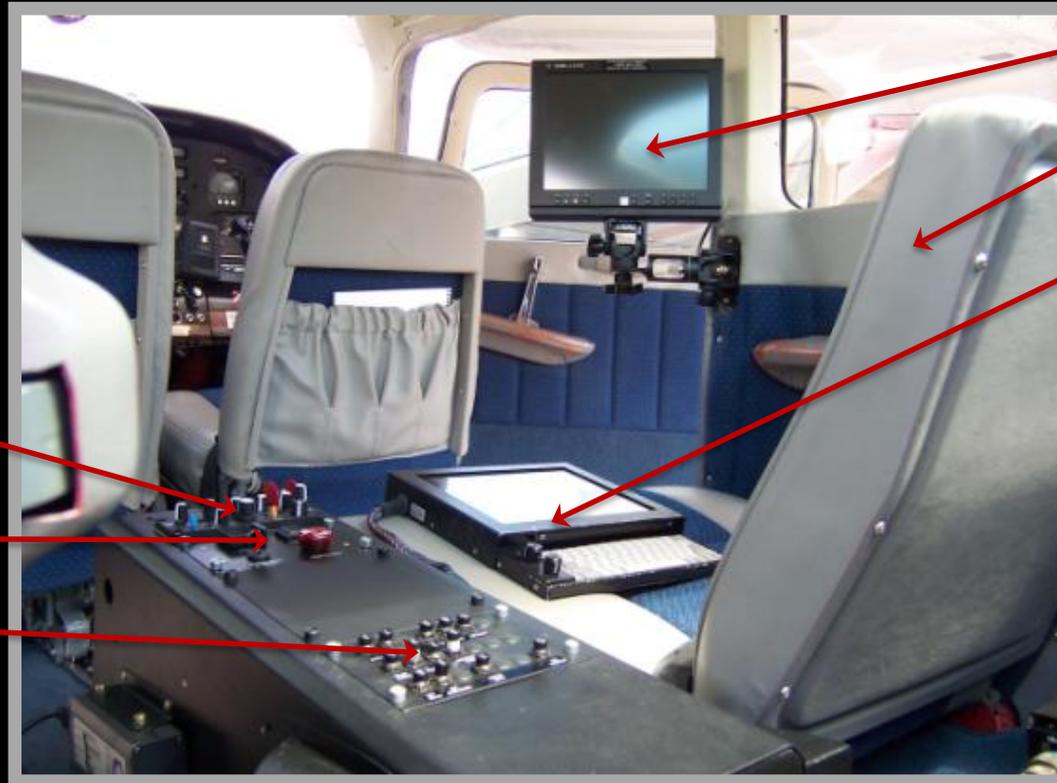


CAP SUAS Green Flag





CAP Crew Set-up SUAS MQ-9



Audio Panel

Laser Panel

Fuse Panel

Operator Display

Operator Seat

Moving Maps



CAP SUAS Imagery



EO Imagery – Fields of View

Wide



Mid

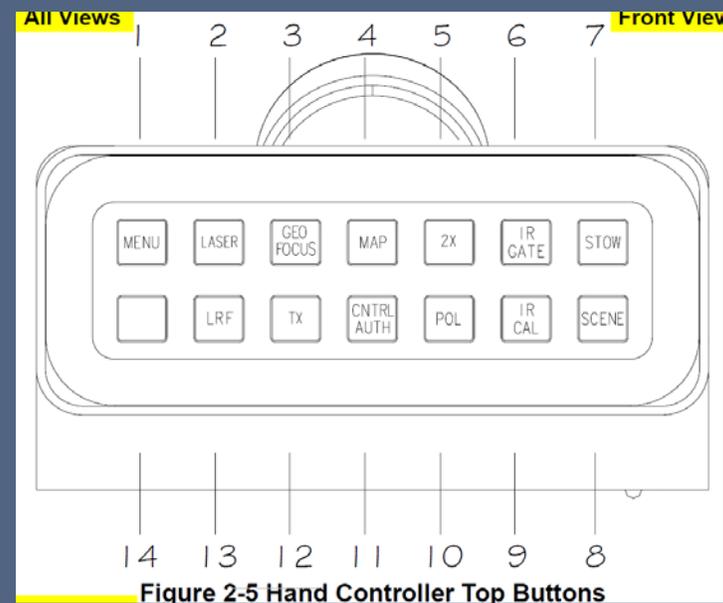
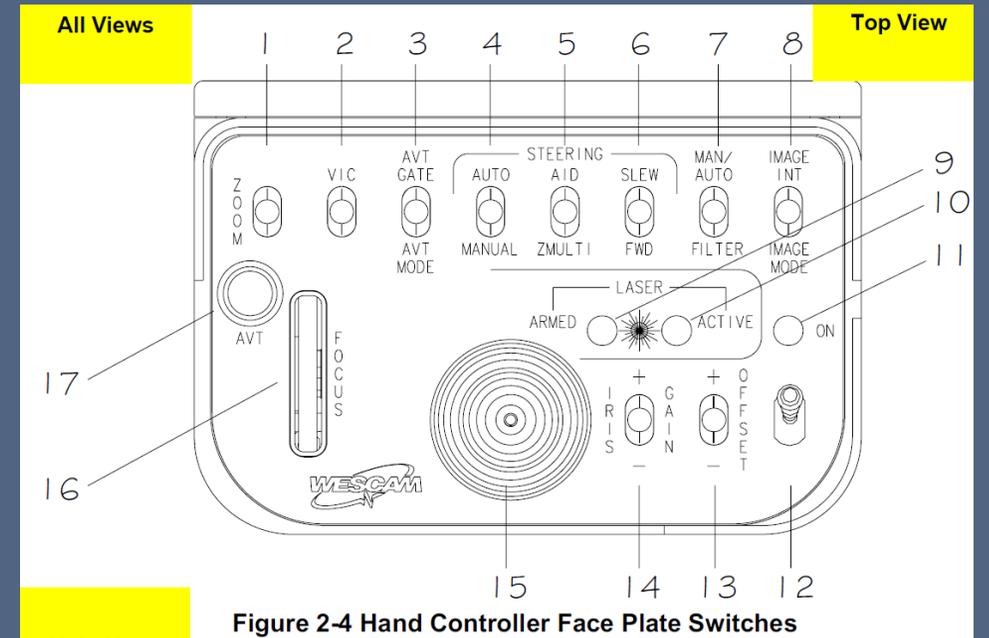
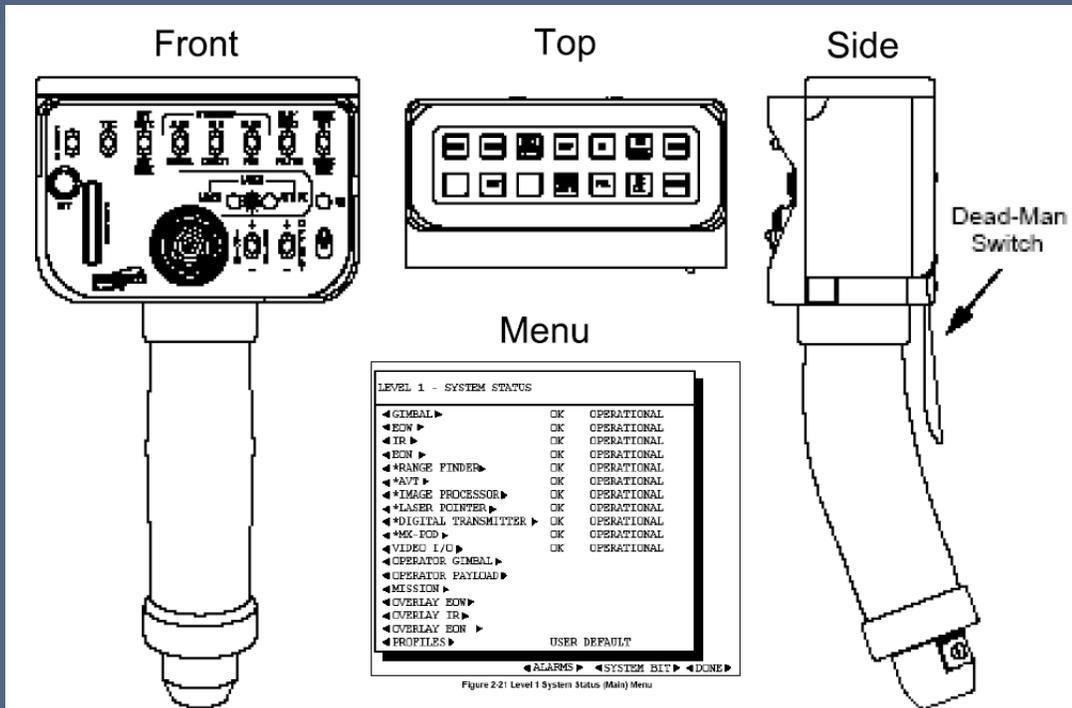


Narrow



Very Narrow (Spotter)







Why the CAP SUAS



- **MQ-9 not available for most major exercises due to ongoing combat ops**
- **Desired Effects**
 - **Realistic MQ-9 training for pre-deployment exercises**
 - **Major Exercises: GREEN FLAG, EMERALD WARRIOR, etc.**
 - **NORTHCOM emergency support missions**
- **Key Enablers**
 - **Light ISR aircraft w/ day/night FMV, ROVER downlink and IR marker**
 - **Radio comms with mission base, JTAC, BTN TOC**
 - **Crews trained by ACC to conduct current theater MQ-9 Reaper TTPs**
- **ACC: Use Civilian Contractor or Civil Air Patrol (*Air Force Auxiliary*)**
- **Sequenced Actions**
 - **Concept Development**
 - **Aircraft Procurement and modification (two C-182s and one C-206)**
 - **ACC organize, train and equip surrogate crews via ACC MQ-9 project officer**
 - **Deploy/Employ**



SUAS MQ-9 Requirement



It should always be understood that as a “*SUAS Reaper*” the mission is to establish those operational procedures and practices that allow the supported units to receive realistic training so they can effectively perform their combat mission.





CAP Green Flag Crew Training



CAP GF Reaper Crews Trained On:

CAS Procedures IAW JP 3-09.3 and SPINS

Initial Contact, Fighter Check-In, 9-Line Brief, Missile Strike Execution
Various AGM-114 / GBU 12 weapons effects and launch criteria
Danger Close engagements/requirements, Collateral Damage Estimates (CDE)
All crewmembers are familiar with MQ-9 CAS procedures IAW JP 3-09.3 and SPINS

Operation of radios and direct communication with all ground parties

Radio transmission procedures

Brevity requirements, code words, *knowing exactly what to say and when to say it*
Use of “Ramrod” Authentication Procedures

Sensor equipment systems

Operation familiarization
Tactical utilization of the system (*i.e. knowing the video screen symbology*)
Use of “video repeater” tape recorder system
Sensor systems limitations

Use of relevant maps/charts – especially MGRS

Interpretation/use of mission Intel products (*CONOPS, GRGs, SPINS, Village Diagrams*)

Comprehensive knowledge of the exercise AO



Mission Qualification Training



Mission Qualification Training (MQT):

Conducted at both AEX or VGT - alternating

Must have Form 5 in G1000, IFR Commercial, with preference to Class II Medical complete prior to MQT

MQT Sequence:

Three - five days (20 hours) of academics

Five training flights and a mission checkride

Training and Mission Quals certified by ACC/A3CU (Pred/Reaper Branch)

MQ-9 Surrogate Syllabus approved by ACC/A3CU

CAP instructors train/certify required surrogate crews

75+ crews needed for GFE, GFW, EMERALD WARRIOR, NORTHCOM, etc.

Annual ACC SAV and syllabus review

Key Training Content and Governing Documents:

AFI 11-202, AFI 11-2MQ-1 vols 1-3, AFI 11-214, AFI 11-215

J-Fire and Joint Pub 3-09.3

ACC MQ-1 Enabling Concept

Current Theater MQ-9 TTPs

GREEN FLAG SPINS and ROE





CAP SUAS GF Program



- **Cessna 182Q & 206T w/MX-15 Payload**
 - **3 person capacity**
 - **2 Pilots (MC right seat)**
 - **Sensor Operator in back seat**
 - **Three hour VUL time – 4.2 Hrs. Sortie**
- **MX-Pod transmitter sends data from aircraft to ground units (JTACS)**
- **Simulates Reaper system for ACC Green Flag training exercises**





Typical Players

- Fighter Squadrons
- Bombers
- Airlift
- TACPs
 - ASOS
- CAP SUAS
- JSTARS/AWACS
- Army BCTs
- Special Ops





EXERCISE TRAINING OBJECTIVES



Typical Exercise Objectives for Training Audience

- Prepare for upcoming deployments
- Learn and practice urban CAS techniques
- Learn and practice CONOPS for raid support
- Practice high angle strafe vs. static and moving targets
- Employ precision munitions in realistic OEF scenarios





CAP Self Study

(Pre-Mission Planning)



- **GF Mission Analysis and Aircrew Briefs**
 - *Baseline SPINS*
 - *Weekly SPINS and RAMROD*
 - *Grid Reference Guides (GRGs)*
 - *Village Names*
 - *Military Supply Routes (MSRs)*
 - *FOB Locations*
 - *Terrain*
 - *Mission Objectives*
 - *NAIs*
 - *HVI Intel Data*



TOFANI



- Key Structures
- 1-3 Residences
 - 4 Mosque
 - 5 Residences
 - 6 Hospital
 - 7 Bank
 - 8 Gas Station
 - 9 Municipal Building
 - 10 Tribal Elder's House
 - 12 Cafe
 - 15 Mosque
 - 17 Butcher Shop
 - 18 Animal Pen/Barn
 - 20-23 Market
 - 24-25 School
 - 26-27 Market

Tofani
Karlanri
Ali Khel
Tajik Minority
48

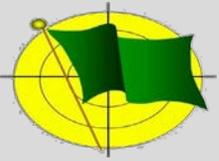


TRIBAL ELDER
Ismael Omar Ali Khel

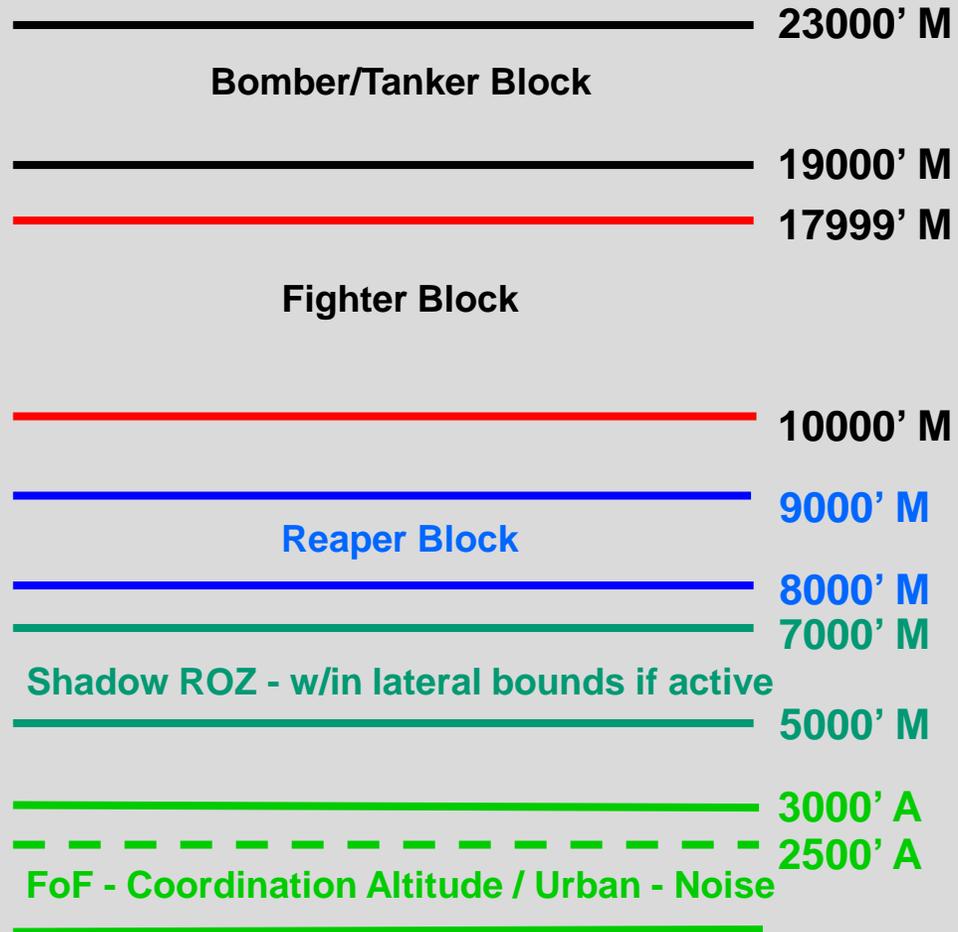
KEY LEADERS:
Police Chief: Jamal Azeem Shukria Panjshiri
Clan Leader: Abbal Junaid Ali Khel
Tajik Clan Leader: Nadim Husni Walid Panjshir
Mullah: Aman Tarjan Ali Khel
ANA Co CDR: Muammer Manal Hashim Bekhit

Atmospherics:

- Provincial capital with limited govt reach to rest of province
- Town includes many former Taliban members
- No violence against Tajik minority
- Increased TB Influence w clan leaders (reduced Sec, no GIROA spt)



Airspace Deconfliction



- **Guidance in ATO/ACO/SPINS**
- **Maintain two-way comm with Polk Approach at all times**
- **Weather**
 - Adjust as necessary for Wx
 - Coord w/JTAC, Wolfman, other players
 - Wolfman can work lower coord altitude
- **Fighters below 10K if:**
 - In contact with JTAC
 - Coordinated with Wolfman and deconflicted with Reaper
- **If in doubt**
 - Polk Approach for traffic



Controlled Scenarios



- Operation Crush (recent GFE example)
 - Out of scenario training event
 - Integration of dissimilar aircraft ops
 - Pred to fighter moving tgt talk-on to buddy lase
 - Not seen in everyday FoF scenarios





Operational TEMPO FY17



Ten Rotations 12 to 15 Days per Rotation

GF West:

- **345 Flight Training Hours, 216 Range Support Flight Hours.**
- **141 Range Support Sorties**
- **40 Cancellations due to WX, MX, or Cancellation by Range supervisor; 71%**
- **Aircrew and Staff Man-hours 1,960 per rotation**



Operational TEMPO FY17



Eight Rotations 12 to 15 Days per Rotation

GF East:

94 Flight Training Hours, 298 Range Support Flight Hours.

- **221 Range Support Sorties**
- **20 Sortie Cancellations due to WX, MX, or Cancellation by Range Supervisor; 91%**
- **Aircrew and Staff Man-hours 1,260 per rotation**



Operational TEMPO FY17



Two Rotations 10 Days per Rotation

GF University:

110 Flight Training Hours

11 New Crew Members for Sensor Operator

**Seven Upgrades to Second or Third Crew Seat
Qualification.**

Aircrew and Staff on Roster = 75



FY17 Lessons Learned



- CAP SUAS, Acting as White Cell Force, Will Become Larger Factor in Army's Development of Products, Spins, and ATO.
- The Mission Report Developed by CAP Crews Following Each Sortie are Closely Reviewed By Army and Air Force JTACs.
- CAP SUAS Will Have Increasing Role in Management of Area MOA in Concert With the AF and FAA.
- Not All CAP Participants Are Aware of the Amount of Training and Involvement Required of the Green Flag Program.



FY18 Expectations



- CAP SUAS Participation in Green Flag Will Increase Due to Increasing Demand on Air Force Active Units. Expecting Average Rotation to 15 Days of Range Support Verses 10 Days
- Increased Crew Training/ Upgrades to Meet the TTPs Required of USAF
- Increase in the Demand for Service from Other Units and Agencies
- CAP SUAS Role as Trainers will Increase. Therefore, CAP GF Crew will Need to be Better Trained.

Any Questions?



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