

Air Force VS Army Concepts for UAV Employment

The Army and the Air Force have significantly different concepts for employment of Unmanned Aerial Systems (UAS), and can deliver significantly different deployed combat power for a given force structure. The Army's existing Sky Warrior Program will deliver 132 MQ-1C air vehicles (and 77 ground stations). Using this as a baseline for comparison, each Service has indicated if it owned these 132 UAVS, it would retain 12 for initial operator training and assign the remaining 120 to operational units. From there the models rapidly diverge.

The Army CONOPS is based on their current force structure planning model called Army Forces Generation (ARFORGEN). It assumes one third of their forces will be deployed in combat operations, while the remaining two thirds are at home station split between "available" status, and post deployment "reset" status. Their approach enables them to sustain 12 CAPs steady state or 21 CAPs during surge operations.

The Air Force uses a remote, split operations concept to employ its UAVs. Under this approach, the Air Force flies the UAVs from home station via satellite links. It only maintains a small deployed footprint at consolidated operating locations to launch, recover and maintain its aircraft. This approach has many advantages over the Army AFORGEN model. First, it does not require reconstitution of the UAVs at home station, enabling deployment of the vast majority of its force structure. Second, the majority of the personnel operate from home station and require no reconstitution following deployments. Finally, consolidation at the forward location enables substantial maintenance efficiencies, allowing the Air Force to field one CAP for every 3 deployed aircraft instead of the 4 aircraft required under the Army model.

By using remote split operations, 85% of the 120 operational UAV would be forward deployed for combat operations. The remaining 15% would support two training CAPs at each operational base. This approach enables the Air Force to deploy up to 34 CAPs in steady state operations and 40 CAPs during surge operations.

Using this concept the Air Force is able to deliver almost three times the combat power from the same force structure in steady state operations and twice the combat power during surge operations by employing remote split operations. The Army will indicate that the Air Force employment concept does not enable integrated operations at the tactical level. This concern neglects the fact that the Air Force integrates Tactical Air Control Parties (TACPs) at the Division, Brigade, and Battalion level, and often lower when supporting Special Operations Forces. These TACPs coordinate directly with the Predator operations center via UHF radios on the aircraft or via satellite communications. They enable direct, responsive, integration of ISR and weapons employment with ground force operations. When this is coupled with the significantly larger deployed force structure and more efficient operations allowed by remote split operations, the TACPs can ensure that the tactical echelons of the ground forces receive significantly more capability than the Army model provides.

Note:

The operational effect of deployed ISR is generally measured in the number of Combat Air Patrols (CAPs) that a given deployed force structure can support. A single CAP represents the capability to sustain one air vehicle airborne in support of a given objective for an indefinite period of time.

	Army AFORGEN Model	AF Remote Split Operations
Total Force Structure	132 UAVs, 77 Ground Stations	132 UAVs, 77 Ground Stations
Initial Operator Training	12 UAVs	12 UAVs
Operational Forces	120 UAVs	120 UAVs
Basing	10 Army Posts (1 per Division)	3 AF Bases
	12 UAVs per Division	40 UAVs per Base
Unit Training	3 Divisions= 36 "Ready" UAVs	6 UAVs per Base = 18 UAVs
Non Deployable	3 Divisions= 36 "Reset" UAVs	None
Deployment	4 Divisions= 48 "Deployed" UAVs	34 UAV's per Base = 102 UAV's
CAP Requirements	4 Air Vehicles per CAP	3 Air Vehicles per CAP
Steady State Deployment	48 UAVs - Deployed Only	102 UAVs
	12 CAPs	34 CAPs
Surge Deployments	48+36=72 (Deployed plus Ready)	102+18=120 (addition of Training)
	21 CAPs	40 CAPs
Manpower	~1,400	~1,100
Cost	TBD	~ \$1.6B

MQ-1 PREDATOR
157 - # A/C Produced

**** NOT AVAILABLE**

57 - Attritted (Includes Mishaps and Combat Losses) 10 - Awaiting Delivery
3 - Owned by US Navy
19 - A/C in Modification, Testing, or Depot Repair
7 - Museum

**** AVAILABLE**

22 - Training Assets (FTU/FTD)
0 -- Committed to Non-CENTCOM Missions
14 - Committed to OEF
20 - Committed to OIF
5 -- Committed to Broader GWOT

MQ-9 REAPER (Includes Pre-Production and Interim Combat Capability Aircraft)
13 -- # A/C Produced

0 -- Destroyed
5 -- A/C in Modification or Testing
2 -- Training Assets
4 -- Committed to GWOT
2 -- Preparing for Deployment