AIRCELL WINS FCC AUCTION

- AIRCELL AWARDED EXCLUSIVE AIR TO GROUND BROADBAND LICENSE IN JUNE 2006 BY FCC.
- AIRCELL TO USE GROUND BASED “EV-DO” CELL PHONE TECHNOLOGY
- DEBUTING IN EARLY 2008 COVERAGE WILL BE SEAMLESS COAST TO COAST
Coverage - 2008 (3 sector)
How Does the Aircell Network Function?
Increasing Bandwidth: Sectorization (End of 2008)
Increasing Bandwidth: Sectorization (End of 2008)

Each cell site then grows to 6 sectors with demand.

Certain aircraft are closer to other sites, and are handled by another location.
Increasing Bandwidth: Cell Splitting (End of 2010 and Beyond)

Example includes 1,500 installed aircraft
Total system weight of less than 20 pounds, including antenna
Antenna Placement - Falcon 20
PEAK DATA RATES

• 3.1 Mega bits per second (mbps) from the ground to the aircraft uninterrupted coast to coast and border to border.

• 1.8 Mega bits per second (mbps) from the aircraft to the ground giving an experience similar to a DSL connection at home or small office.

AirCell demonstration June 2008, 29.1 Mb file downloaded to the NIFC FTP site in 17 minutes with 6 other users over aircraft’s WIFI network.
AIRBORNE ANTENNA SYSTEM

• Unlike satellite links that use very expensive tracking style antenna Aircell uses a ground based system and only requires a simple fixed antenna on the bottom of the aircraft. Minimum seamless coverage begins at 10,000 feet agl.
SECURITY

• Security levels will be provided equivalent to that found at Wi-Fi hotspots at hotels and coffee houses. AirCell’s air-to-ground wireless link is highly secure using encryption and other techniques to ensure privacy of user data.
ADVANTAGES

1. Fewer takeoffs and landings resulting in less spent fuel per mission and less maintenance.
2. Safer flights due to fewer landings late at night into uncontrolled dark airports.
3. Late night drives to pick up data by Interpreters and Managers eliminated.
4. Less time wasted doing ftp downloads since Data transfer is almost in real time from aircraft.
5. Data arriving at NIROPS web site earlier in the mission day allowing faster processing.
6. Less expensive than satellite based systems.