SATCOM Addresses Mission Critical Needs

- Beyond Line of Sight Communications to keep long range aircraft connected with HQ
- Elite Forces that typically operate where no comms infrastructure exists
- Search and Rescue operations requiring real time coordination
- Transmission of real time video/mission data to shorten HQ decision time
- VIP/Senior Leadership en route mission planning
- Fixed or Roll-on, Roll-off C4ISR communications solution
- Operators seeking an economical and flexible high-speed Satcom system capable of servicing an wide range of aircraft

- Inmarsat Swiftbroadband is a high capacity L-Band data network with global coverage
  - Up to 600-700 kbps per channel
- SBB is flexible service for secure voice and data
  - Video streaming, mission management, C4ISR
  - Compatible with crypto
  - Cockpit Comms (CNS/ATM)
- Competitive Ku networks offer similar services, but lack an integrated global footprint and network
- Ku band is susceptible to cloud/dust fade, and does not offer consistent performance in edge of beam areas
Honeywell’s Expanded SATCOM Product Mix & Portfolio

**Radomes**
- Bombardier Radome
- Dassault Radome
- Gulfstream Radome
- Boeing Radome
- Helicopter & Custom Radomes
- Custom Mounts / STC's

**Antennas**
- AMT-700 / AMT-700G High Gain Antenna
- AMT-50 / AMT-50G High Gain Antenna
- AMT-3800 High Gain Antenna
- AMT-3500 Intermediate Gain Antenna
- C-130 Hatch-Mounted INMARSAT Antenna

**Terminals**
- HD-710 / MCS71XX / MCS7200
- HSD-440 / HSD-400
- System 6/7 SwBB Terminal
- Aspire 200 or HSD-X / Xi SB200, Swift-64 & SwBB
- VIPER Palletized ‘Ro/Ro’ Satcom

**Data Networking Devices**
- CNX-100 Router Gateway
- CNX-200 Router Gateway with Acceleration & Data Compression
- Telephony & Data Networking
- CCU-100/-200 iPBX / aPBX / Router
- CG-710 / CR-710 PBX / Router Gateway / WAP
The Connected Aircraft – Evolving Needs

**Cockpit**
- Broadband for Cockpit (EFB) Applications
- Enhanced Mission
- Operations Communication,
- FOQA, Aircraft Health & Condition Monitoring
- CPDLC
- CNS-ATM

**Cabin**
- ISR
- Secure telephony
- E-mail / Text messages
- Data transfer
- VPN
- Real time Video
- Mobile Command Post
Satellite Connectivity Roadmap

Cockpit

- Inmarsat Aeronautical SBB Launch
- Inmarsat SBB HDR up to 800kbps per channel
- Inmarsat Global Xpress (Ka) Launch
- Inmarsat I-3 End Of Life (Aero H Cabin Voice / FAX / PC DATA) Launch
- Inmarsat Aero I over I-4 Potential Phase Out

Cabin

- Inmarsat Aeronautical SBB Launch
- Inmarsat 4xSBB (3 max for Cabin)
- Safety Services over SBB
- Iridium NEXT Launch
- Inmarsat I-3 End Of Life (Aero H Cockpit Voice/Data) Launch
- Inmarsat Aero I over I-4 Potential Phase Out

Timeline:
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
- 2015
- 2016
- 2017
- 2018
HSD Feature Development

• Upgrade HSD and HSD-X to SBB
  – Provides up to 4 channels of SBB with background (contended) or streaming (guaranteed) service – **Available Now**
  – Add Inmarsat ‘Converge’ to bond SBB streaming channels for a guaranteed high capacity solution **Joint Investigation**

• High Data Rate Bearer (HDR) service bulletin
  – Software service bulletin to add support for higher rate Inmarsat Swiftbroadband channel types to support speeds up to 800kbps per channel **END OF YEAR**

• Incorporate Inmarsat Ka service capability
  – Higher bandwidth solution for Cabin services
  – System status and bite reporting available via HSD to cockpit **Q1/2015**

• Upgrade HSD software to provide safety services over SwiftBroadband
  – Support for higher bandwidth cockpit options in a fully segregated service **2015**
MCS/HSD SBB Backup for Cabin Ka/Ku

- SBB for Cockpit EFB & Safety Services
  - plus growth to ~800kbps/channel via HDR
- SBB backup for cabin Ka
  - Covers Ka/Ku link degradation at lower altitudes and during outages and failures
- Classic Aero Services
- Ka Bite and Status Reporting via SDU

Ultimate Cockpit/Cabin Solution for Capability/Availability
GX Aviation – Honeywell Terminal Solution

Global Coverage
- Optimized for Inmarsat’s new Ka-band GX Aviation Network
- Seamless beam to beam hand off
- Uniform performance from a single network and satellite operator

High Speed Connectivity
- Maximum uplink rate of 40 Mbps (GSB)
- Maximum downlink rate of 4 Mbps (GSB)
- Selectable commercial Global Service Beams (GSB) and High Capacity Military spot beams (HCM)

Complete Solution
- Four LRU integrated system
- Supports either ARNIC 429 or autonomous navigation modes
- Dual-axis mechanical positioned with no scan loss for constant gain regardless of azimuth or elevation angle

Radome + Fuselage Mount Antenna
- 45 cm aperture - Includes mounting plate / adapter

Tail Mount Antenna Replaces Fuselage Mount

KANDU + KRFU Antenna Positioner / Control + Antenna Amplifier

MODMAN Terminal /Modem

Commercial System Ready Q1/2015
Questions?