Iridium Tracking

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Expert Dialogue on Real-time Monitoring of Flight Data

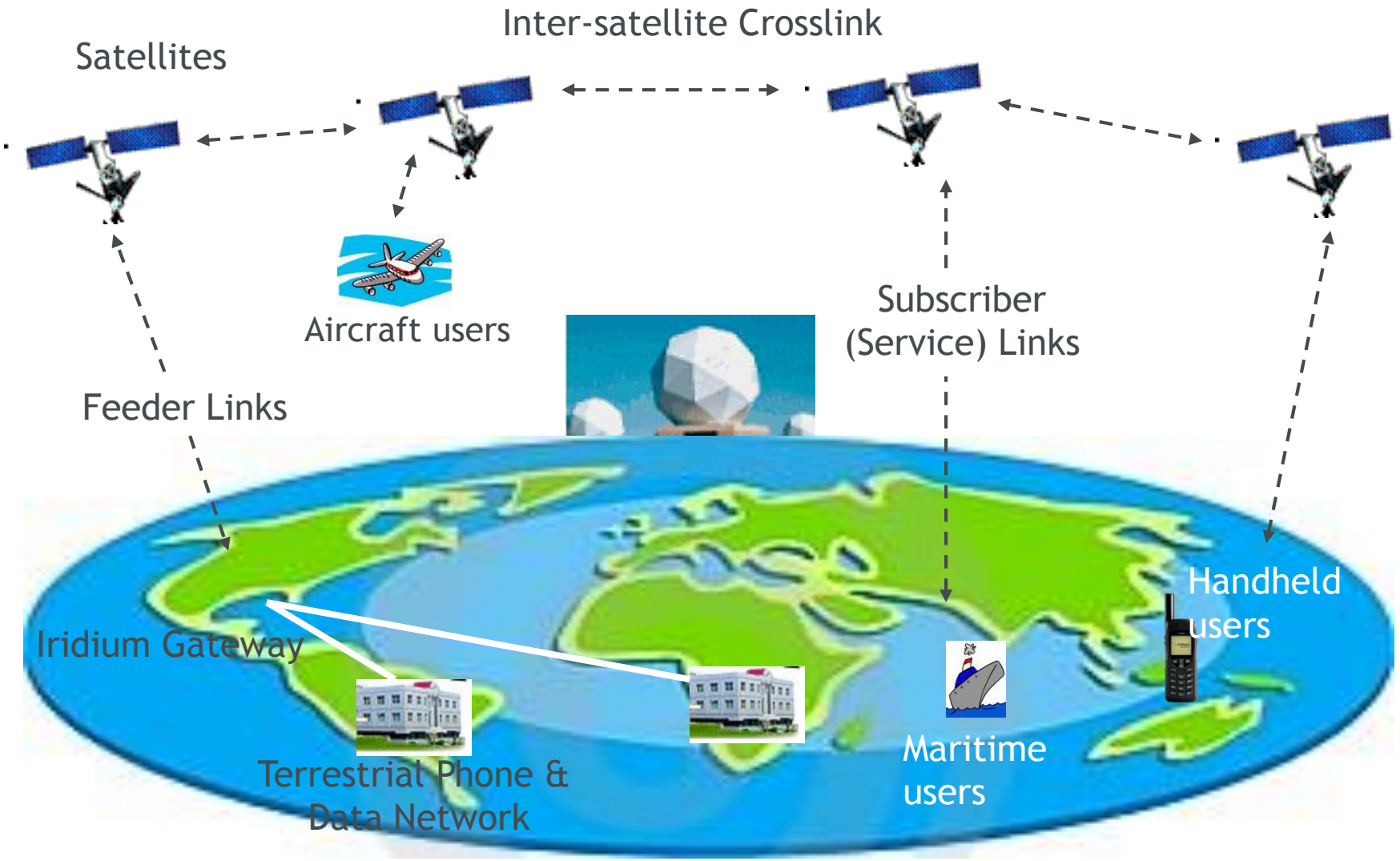
26-27 May 2014, Kuala Lumpur, Malaysia

RELIABLE·CRITICAL·LIFELINES

Introduction

- Iridium: space-based Personal Communication Services (SPCS) system of 66 satellites
- Since 1999, the only communications network to cover 100% of the earth – including the poles
- Markets include maritime, aviation, emergency services, oil and gas exploration, forestry, mining, journalism ...
- Investing over $3bn in NEXT (network upgrade) program
- Iridium to begin launching Iridium NEXT satellites in 2015
- NEXT will expand, enhance Iridium's unique capabilities: more power, higher data speeds, IP technology, full backward compatibility

Summary of Today's Network



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Iridium Aviation Users

- Iridium-based communication solutions are widely adopted by nearly all segments of the aviation industry
- Iridium currently has more than 40,000 aviation subscribers
- The Iridium network supports a broad array of applications including:
  - *ACARS messaging*
  - *FANS 1/A communications*
  - *Flight following/tracking*
  - *Streaming flight data recorder (FDR) information*
- Iridium-based solutions have been adopted by nearly all aircraft manufacturers for line-fit installations

Service You Can Count On

The Iridium network is one of the **most robust communications networks in the world**

- Consistently **performs at 99.9%+ availability**
- *Redundant* network and satellite architecture
- Only commercial satellite network with ***fully functional in-orbit spares***
- Network performance demonstrated to be compliant with ***GOLD RCP240 specifications for FANS and ADS-C***

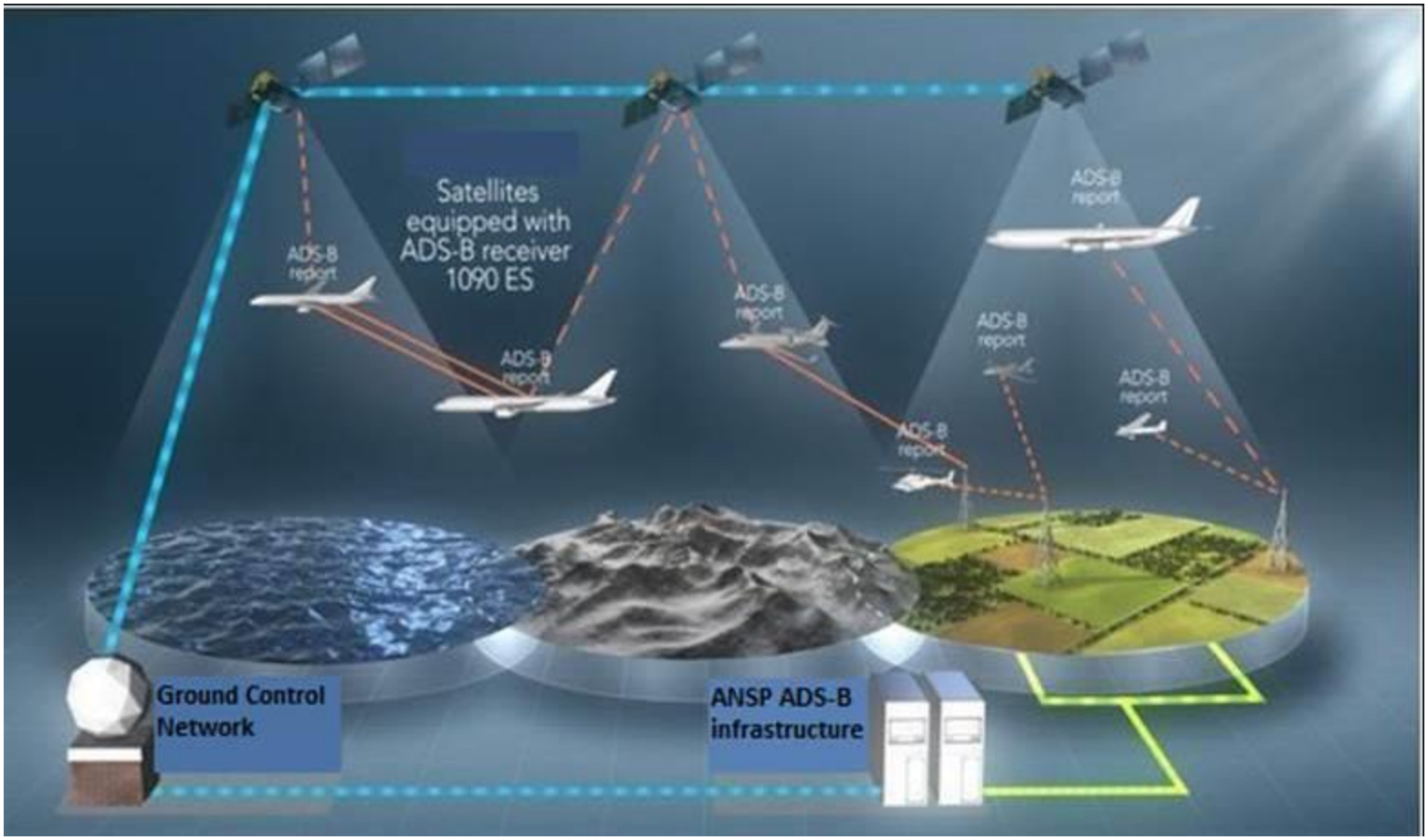
ADS-B Today

- Air-to-air and air-to-ground operation at 1090 MHz
- ADS-B data available to air traffic control (ATC) where terrestrial infrastructure exists
- Coverage is limited when ground stations are not widely installed
- ADS-B data not available in oceanic, polar, remote areas, but…
- …a proven airborne surveillance technology and the future standard for ATC surveillance

ADS-B Via Satellite

- Space-based ADS-B can fill surveillance GAPS
- ADS-B signals from aircraft available for reception by satellites
- Space-borne ADS-B receivers onboard a global satellite constellation would greatly expand coverage
- ADS-B coverage over Oceanic, Polar and remote areas
- ADS-B data available to Air Traffic Management
- Airlines in most cases are already or being equipped with ADS-B transponders due to regional mandates

Architecture Concept



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Expanded ADS-B Coverage / Data Availability

Would…

- Expands surveillance beyond the reach of ground based systems to cover the entire globe without additional aircraft equipage.
- Enhances safety through near real-time surveillance
- Enables more efficient aircraft routing in oceanic and remote airspace it can significantly reducing flight times, fuel burn and greenhouse gas emissions.
- Provides near real-time, pole-to-pole, global tracking of aircraft for safety.

Aireon

- Partnership of air navigation service providers, equipment manufacturer/integrators and Iridium – full near real-time surveillance capability to begin in 2017
- Placing ADS-B receivers on Iridium satellites
  - Collects same signals from aircraft (no new aircraft equipment)
  - Provides 100% global coverage - including oceans and poles
  - Extends benefits of ADS-B to inter-continental routes
  - Significant efficiency benefit to airlines through reduced fuel burn
  - Benefits environment by allowing for more direct routing

Next Steps?

- Aviation community should take advantage of existing innovations technologies able to extend the reach of flight tracking and monitoring capabilities.
- Communiqué should endorse urgent actions to enable reasonable solutions.
- ITU and ICAO should identify actions that can make a real difference in flight safety without delay.

Thank you

QUESTIONS?