



# Airline use of FANS for Global Aircraft Tracking

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**SITA**

Create success. Together

# Agenda



**Responding quickly to an industry challenge**



**SITA's unique solution: Airline Global Aircraft Tracking**

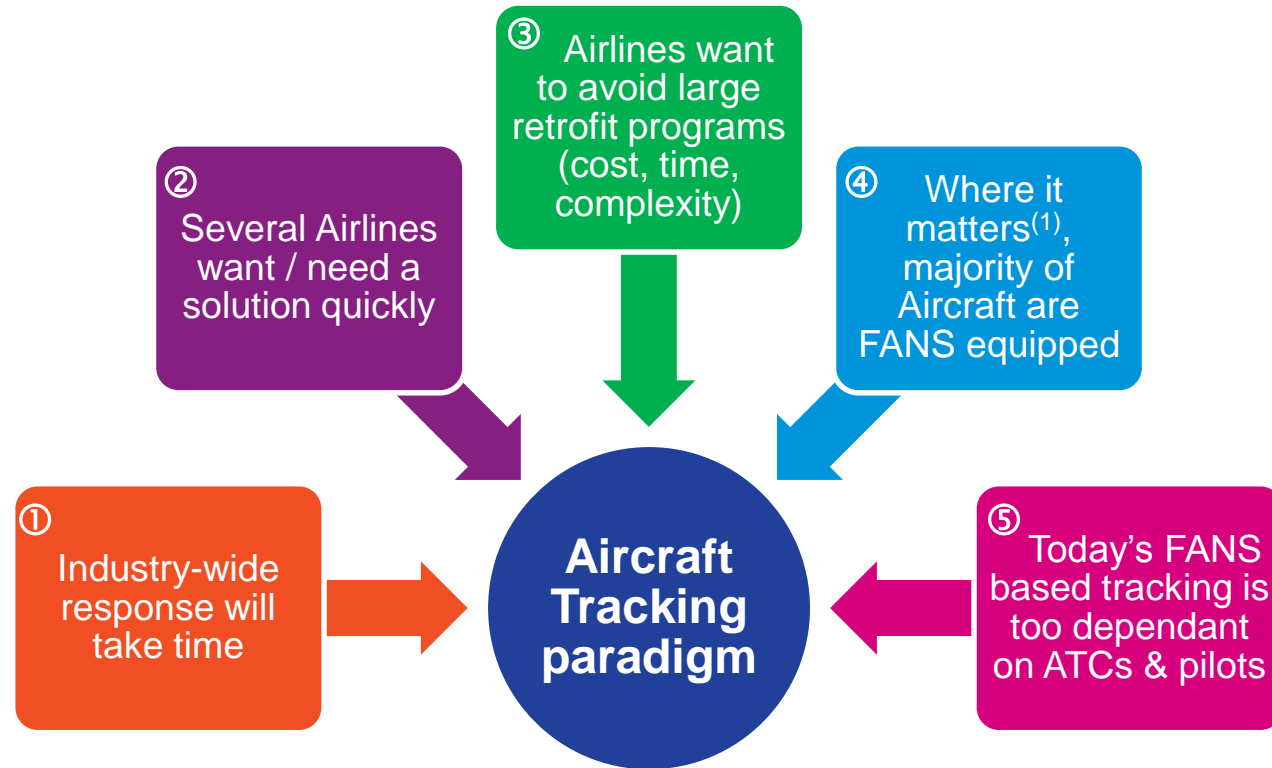


**Working with Inmarsat on a fast implementation**

**SITA**

Create success. Together

# Responding quickly to an industry challenge



**FANS equipped aircraft can be much better leveraged to bring a quick, simple and affordable solution to Airlines**

*(1) Oceanic routes outside of radar coverage*



# **SITA's unique solution: Airline Global Aircraft Tracking**

# Airline Global Aircraft Tracking

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**Airlines** can get global aircraft tracking by using **ATC system interfaces** to FANS-1/A avionics installed in long haul aircraft

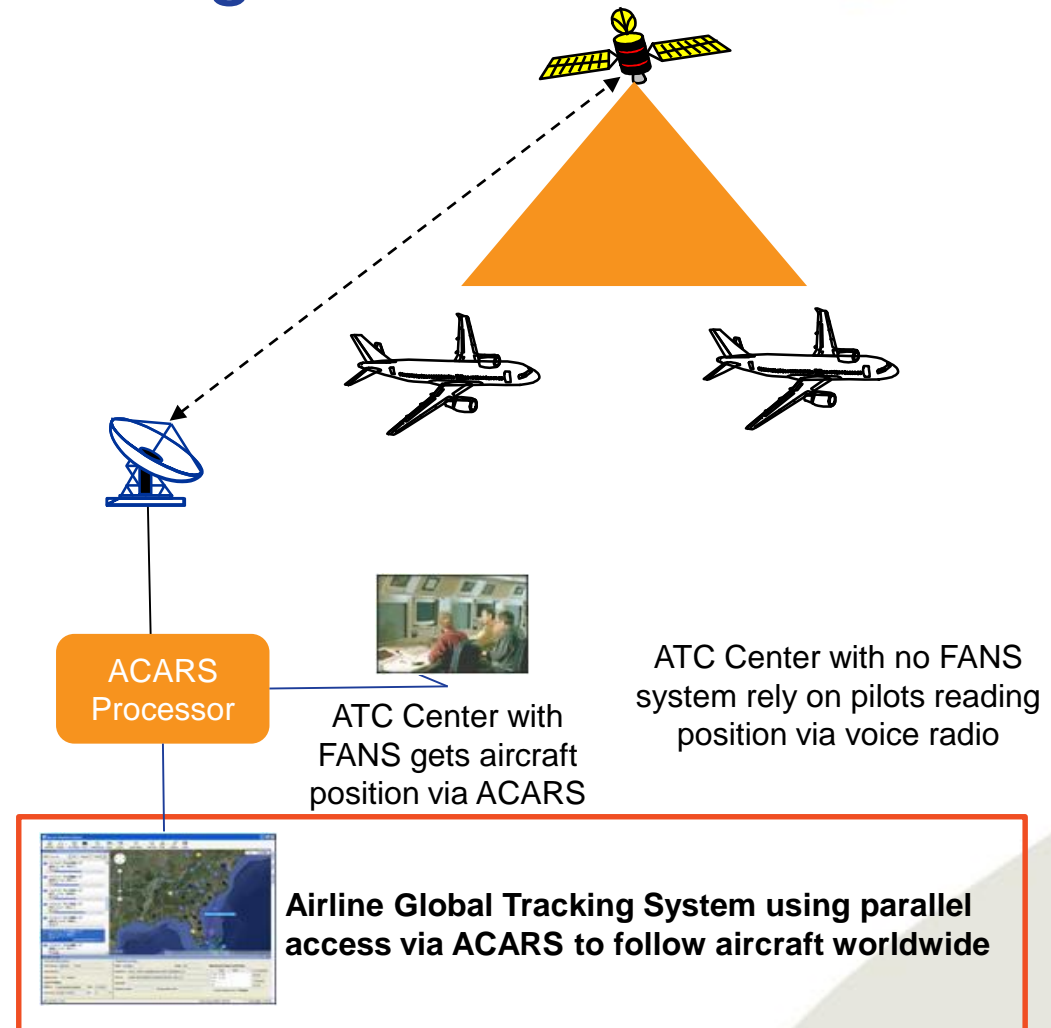
**Airlines have not** upgraded ground systems with special ATC ground system **interface to FANS avionics**

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**SITA can uniquely** merge the AIRCOM ATC system and AIRCOM Server to **provide airline global tracking**

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Airline global tracking will **cover gaps** where **ATC has no FANS systems** and **monitor movements between different ANSP areas**



# Airline access to FANS Surveillance



- ATC definition of FANS surveillance included support for parallel contracts with up to 5 ground systems including one from an airline system
- Airlines have not implemented links to FANS avionics because they use an extra ATC protocol layer over ACARS to handle ATC center addressing & binary data to text conversion
- SITA sells ANSPs a FANS system which has the required interface
- SITA can uniquely add it to AIRCOM Server airline ground system product

AIRCOM ATC System



ADS-C  
Capability

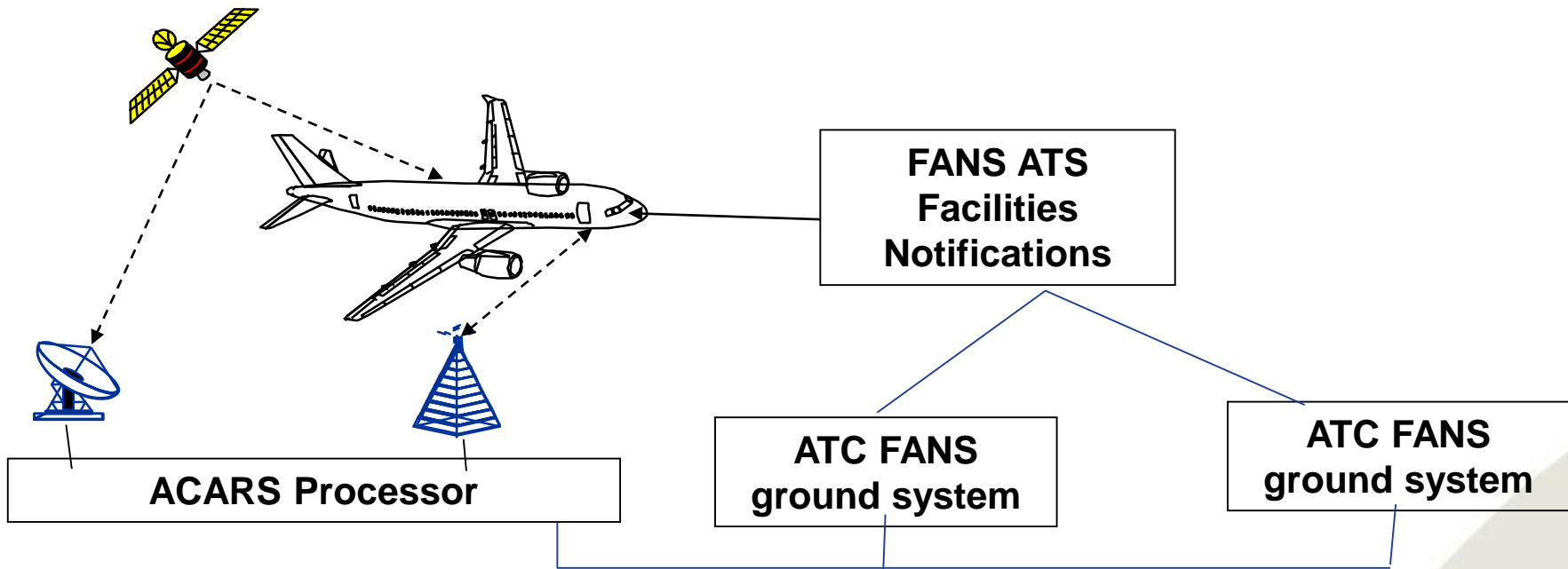


AIRCOM Server  
Airline System

# Airline access to FANS Log-On Status



- Airlines currently have no visibility of their FANS avionics log-on status to ANSPs
  - FANS ATS Facilities Notification (AFN) module manages contact across ACARS with ANSPs
  - ANSP FANS systems send AFN handoff messages to pass aircraft on to the next ANSP
  - SITA can provide airlines with visibility of AFN log on status of the FANS equipped aircraft
  - Airlines will be able to see when aircraft fail to log on top the expected ANSP FANS system

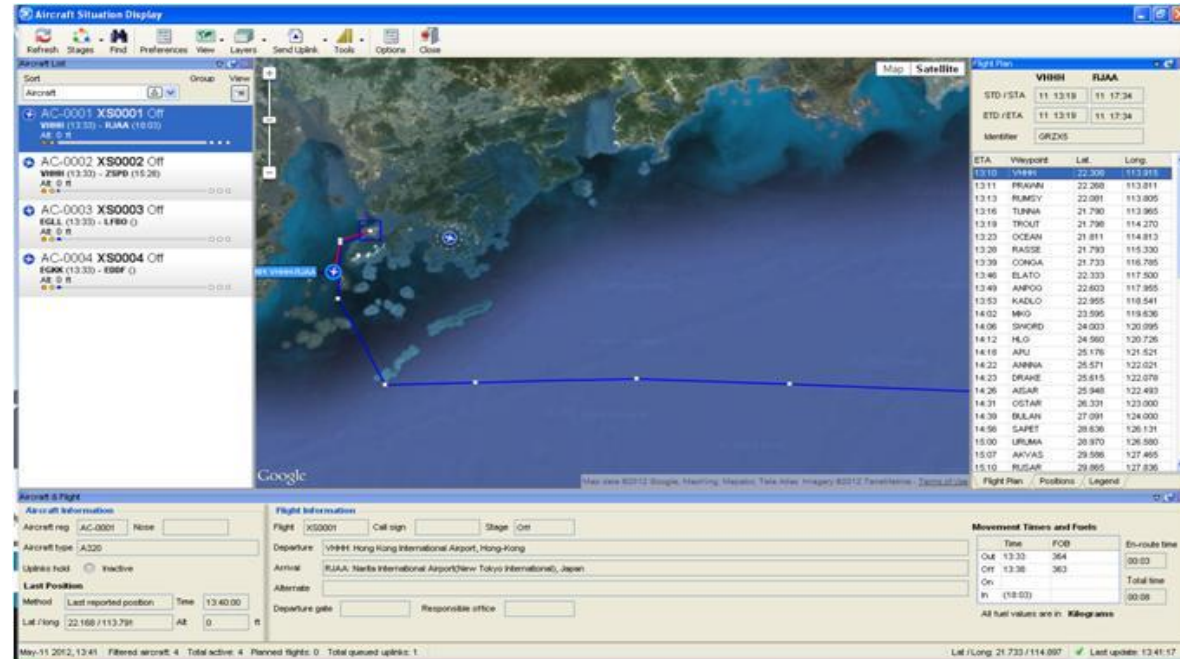




# AIRCOM Server Flight Monitor



- SITA AIRCOM Server flight following uses ATC radar feeds and ACARS message copies to show aircraft on Google Maps
- Airlines will configure new aircraft tracking module to specify reports to be requested from FANS equipped aircraft
- Airlines control of reporting frequency will give control of ACARS usage to avoid excessive costs

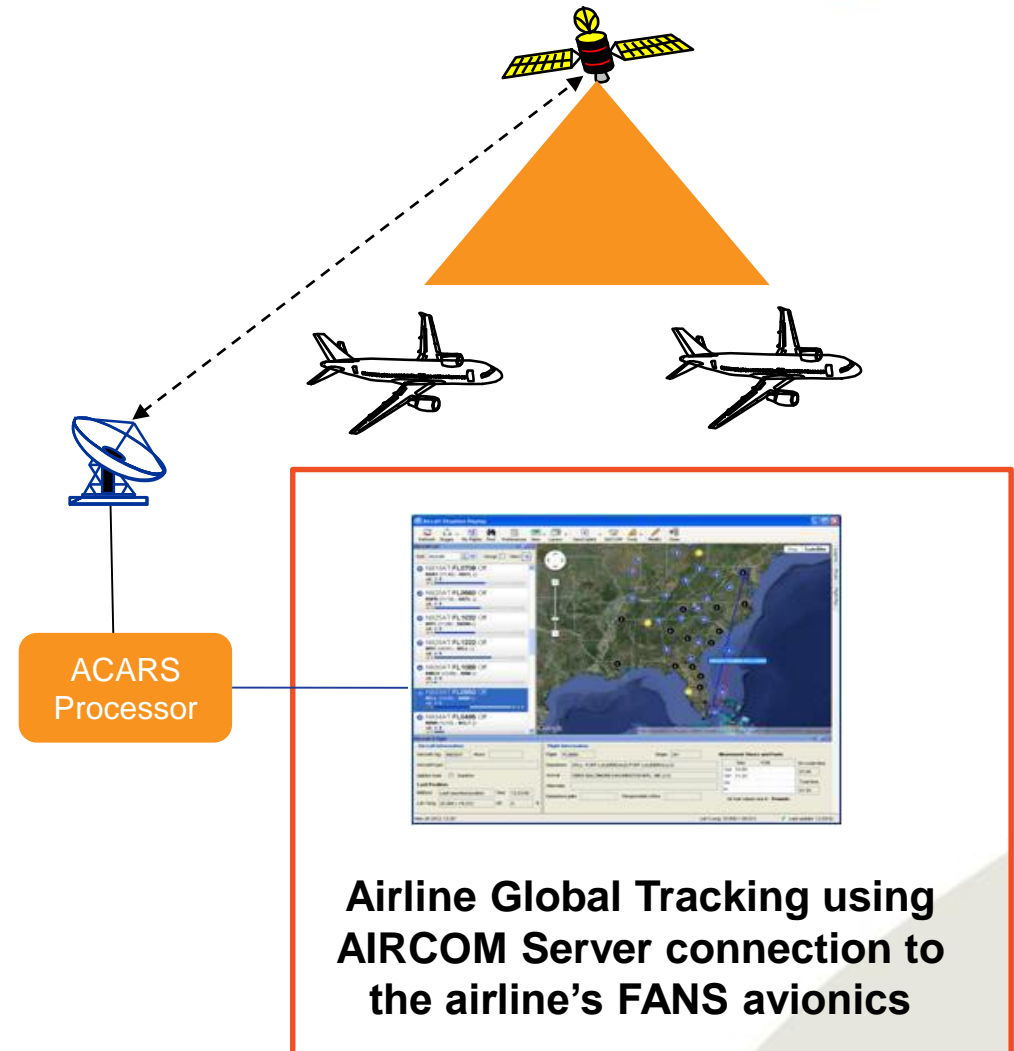


- 80+ airlines use the AIRCOM Server - good platform to give the airline community global aircraft tracking



# SITA ATC & Airline know-how combined

- SITA AIRCOM 25 years of work on ATC data link provides an opportunity to give airlines access to ATC technology
- SITA can enable airlines to unlock the tracking capability they already have in their long haul aircraft avionics
- Airlines will monitor their aircraft better than ATC by continuously tracking across ATC borders





# Working with Inmarsat on a fast implementation

# A 3-step process for a rapid market impact



	Solution refinement	Pilot customers	Beta test customers
Timeline	Next 2 weeks	From June	Within 6 months
Commercial alignment	<ul style="list-style-type: none"> <li>Align on commercial requirements</li> <li>Position vis a vis “free tracking” propositions</li> </ul>	<ul style="list-style-type: none"> <li>Move fast and flexibly</li> <li>Invest on both sides to make it happen and learn what it takes</li> </ul>	<ul style="list-style-type: none"> <li>Apply lessons learnt from pilot engagements</li> <li>Test final commercial packages</li> </ul>
Market alignment	<ul style="list-style-type: none"> <li>Align messages and respective contributions to ICAO / IATA task force</li> </ul>	<ul style="list-style-type: none"> <li>Share interested prospects &amp; align</li> <li>Avoid overlapping engagements / messages</li> </ul>	<ul style="list-style-type: none"> <li>Leverage for SITA / Inmarsat / Airlines benefits</li> </ul>

**Seeking Inmarsat’s support and engagement with SITA**



# Back-up

# ATC Surveillance using FANS/ACARS



- 1980's Air Traffic Control community defined Future Air Navigation System (FANS)
- 1990's Boeing & later Airbus made FANS-1/A avionics standard on long haul aircraft
  - Boeing FANS-1 software in Flight Mgt System, Airbus FANS-A in Air Traffic Services Unit
  - FANS applications: Controller Pilot Data Link Comm & Automatic Dependent Surveillance

