Passenger communications on board now & in the future

Background

- SITA is airline and airline industry owned and managed co-operative
- Neutral, not for profit, apolitical
- Airlines asked us to look into airborne GSM :
  - Customers are demanding seamless connectivity
  - New boarding procedures require it
- OnAir is a JV between SITA and Airbus to address these demands
    - Roaming Voice & data
    - Short &long-haul
    - Airbus & Boeing aircraft
  - Offering roaming (GSM visited network) services for passengers
  - Passengers billed by home operator, as for roaming today

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International framework

- Aviation law based on the Chicago Convention (1944)
  - The aviation system revolves around mutual recognition of the State of registry
  - The State of registry is the regulatory body with ultimate sovereignty and control over the aircraft and for licensing (Art 30)
  - Resolution A29-19 (1990) of the ICAO General Assembly requires a license of the State of registry only for passenger communications
  - Dual licensing obligation is contrary to international obligations
- US carriers
  - License/Certification issued by the US FAA & FCC
  - US aircraft overflying other regions do not require dual licensing
  - Continuity of service/regulatory oversight is guaranteed

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The Proposed Framework

- Proposed Regional Framework
  - Regional approach matches global flying patterns
  - Working with relevant regional bodies
- Framework covers
  - Mutual recognition of licenses by State of Registration
  - Provided that there is no harmful interference
  - To either

    Avionics

    Terrestrial networks overflown
- Consistent with Chicago Convention 30, Resolution A 29-19 and ITU Regulation 18

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Europe

Europe CEPT

- A draft Framework on the free circulation of Airborne GSM Transceiver Stations and their licensing regime settled
- Mutual recognition of country of registration of aircraft issuing a license
- Number of harmonised parameters detailed in the compatibility report
  - Allocation of 1800 MHz band for pico connectivity
  - Height at which it operates (never below 3000 meters)
- ECC has asked National administrations to approve the framework agreement during the next meeting in March 2006

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Asia/ Middle East

- Asia Pac/APT
  - APT Wireless Forum has finalised the text for the proposed framework
  - Framework is similar to that developed/proposed for Europe
  - Framework is being circulated to member administrations for consultation with respective civil aviation authorities
  - Expected to be approved at next APT Wireless Forum in Jan 2006

- Middle East /GCC
  - Presented the framework to GCC technical bureau
  - GCC is now studying framework language
  - Have recommended wider circulation via Arab League

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Compatibility report in CEPT SE7

- To study the power required for NCU to prevent onboard visibility of terrestrial networks whilst preventing harmful interference
- To define ranges for OBCS and ac-BTS connectivity powers levels assuming use of leaky cable antenna
- Minimum height of service at least 3,000 m above ground
- Sets up maximum 5 carriers (potentially (8*3+7*2)*2 = 76 calls) wide body and 2 carriers (potentially (7*2)*2 =28 calls) narrow body
- Agreed reference values and approach for modelling from GSM and UMTS (3GPP) standards groups
- Active input of mobile network technical groups (GERAN, RAN, 3GPP)
- Expected completion of report for ECC submission February 2006

  Minimum: covering GSM 900, GSM 1800 and UMTS 2GHz
- Includes attendance from Qualcomm, Boeing, Airbus, as well as European regulators and operators

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