Satellite Technology

• Multiple providers, extra territorial ownership and control, multi-purpose and multi-modal

• Complex legal and institutional issues
  – operating structure
  – liability
  – certification
  – etc.

• Need for a proper legal framework
ICAO World-wide CNS/ATM Systems Implementation Conference

• Endorsed the central role of ICAO towards the implementation of a long-term global civil GNSS system by developing technical and operational SARPS

• Recognised the importance of regional solutions

• Expressed its support for the adoption of the draft Charter as an Assembly Resolution as an interim solution while advocating further consideration of the development of a draft international convention governing the long-term legal framework.
ICAO 32nd Assembly

• Adoption of the Charter on the Rights and Obligations of States relating to GNSS Services. (Resolution 34/1)

• Adoption of Resolution 34/2, entitled Development and Elaboration of an Appropriate Long-term Legal Framework to Govern the Implementation of GNSS
  – recognises the importance or regional initiatives;
  – start of a Secretariat Study Group
ICAO Charter

Principles to be followed for the implementation and operation of GNSS:

– Safety of international civil aviation;
– Access on a non-discriminatory basis to all States;
– Responsibility of States and sovereignty recognised;
– Continuity, availability, integrity, accuracy and reliability of GNSS services;
– Article 15 of the Chicago Convention;
– Joint services.
ICAO 33rd Assembly

The report of the Legal Commission which was to be adopted by the Plenary contained the following conclusions:

- to carry further work on the legal aspects of CNS/ATM systems as to finalise the concept of a contractual framework for CNS/ATM as an interim framework and provide a path forward its implementation, including the consideration of an international convention, having regard to the following guidance to:

  • be mindful of States’ reliance on others to provide all or part of their CNS/ATM services;
ICAO 33rd Assembly

- Consider carefully the kinds of relationships States should have with providers of services and elements of services; and
- Ensure that States retain full responsibility under the Chicago Convention for services provided on their behalf;
- Include a review of the security aspects and prevention of unlawful interference with CNS/ATM;
- Indicate that further work to be done, including the consideration of an international convention;

- No Assembly Resolution was adopted concerning the legal aspects of CNS/ATM.
GNSS Interface Concept at Regional Level

- Need for an interface between the various actors
- Actors:
  - Global: Primary Signal Provider
  - Regional: Augmentation Signal Providers
    GNSS Service Providers
    User States

- Identified need, at regional level, for an “Entity”, a focal point to ensure the operation of the overall system via the necessary contracts
Contractual Framework

- Contractual Framework: the link for the safe use of air navigation services to the operation of the overall system and its components by a series of contractual arrangements

- Ensure that the overall infrastructure guarantees the delivery of a signal-in-space which satisfies operational requirements (accuracy and reliability, including integrity, availability and continuity of service).
ICAO Secretariat Study Group

- Established further to the 32nd Assembly
- Reported on the viability of a GNSS Institutional Framework
- Mandated to continue the development of the Contractual Framework and a long term Legal Framework for GNSS
Long Term GNSS
Developments in Europe

- GALILEO
- Scenario adopted will have to be in line with the ICAO Global Air Navigation Plan
- Development of a long-term legal framework *i.e.* an International Convention, continues
The liability of States allowing the use of GNSS - Article 28 of the Chicago Convention

- Article 28 provides that States undertake to provide in their territory, airports and air navigation facilities in accordance with ICAO SARPs.
  - State may delegate this provision function to another entity. However, States continue to be responsible under Article 28 regardless of the delegation.

- With the advent of GNSS, part of the air navigation support will no longer be provided by domestic ANS providers; GNSS signal provider will be a foreign entity or an international organisation.
The liability of States allowing the use of GNSS - Article 28 of the Chicago Convention

- On the basis of Article 28, what are the potential civil liabilities of a non-provider State which allows GNSS to be used for the purpose of providing air navigation services?

- Potential Liability of the aviation safety regulator
  - Ultimately liable?
  - Liable only when it has failed to exercise its regulatory and supervisory duties?
  - Not liable if it has formally forbidden the use of GNSS as means of navigation over its territory?
Future CNS/ATM Convention

• Acceptance of:
  – ICAO CNS/ATM policy
  – GNSS Charter
  – SARPs
  – Relevant Conventions
Future Convention

- Service availability e.g. guarantee of continuity, notice of unavailability
- Liability
  - No claim of sovereign immunity allowed
  - Fault based or strict liability?
  - Exemptions
- Compensation
- Compulsory Insurance or International Fund?
- Jurisdiction and recognition of judgements
- Applicable law
- Dispute settlement / arbitration