

Emerging Issues for Air Navigation Services

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Is a global / regional framework governing GNSS desirable / necessary?



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skyguide

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Institutional Challenges of GNSS

Multimodal dimension

Global dimension

Certification process and authority

Liability

Financial arrangements

Operational structures

The ICAO Work

- The ICAO LTEP
 - Panel of Technical and Legal Experts, to investigate "*liability, including the allocation of liability among the participants in the GNSS system.*"
 - ICAO, LTEP/Working Group on GNSS Framework Provisions, ICAO Doc. LTEP-WG/II-WP/3 (22-25 April 1997), §5.2.1
 - Is there a Need for an International Convention on GNSS Liability?
 - The ICAO Charter on rights and obligations of States in respect of GNSS
- The 1998 ICAO "Rio Conference"
- The ICAO's 32nd General Assembly(Sept. 1999)
- The ICAO Secretariat Study Group
- The ICAO's 33rd General Assembly(Sept. 2001)
- The ICAO 11th Air Navigation Conference (ANCONF/11, Sept. 2003)

Charter on the rights & obligations of States relating to GNSS services

- Preamble:
 - Reference to Chicago Convention, art. 44
 - Reference to the CNS/ATM plan (ANConf 10)
 - Need for fundamental principles to be observed and established in a Charter
- Resolution:
 - Safety of international aviation of paramount importance
 - Universal access on a non-discriminatory basis
 - Each State to preserve national sovereignty over airspace
 - Continuity, availability, integrity, accuracy and reliability
 - Cooperation towards uniformity of service provision
 - Compatibility of regional programs with global plans
 - Any charge to be compatible with Chicago Convention, art. 15

Implications of Article 28 of the Chicago Convention

- "A state may delegate the provision function to another entity, including a commercial or private operator..." The State "nevertheless remains responsible for setting and maintaining the standards of the services provided and for the quality of services provided..." "Under those circumstances [. . .] the relevant States continue to be responsible under Article 28 of the Chicago Convention, regardless of such delegation."
- "The implementation of GNSS leaves unaffected the responsibility of States under Article 28,...a State using these signals for providing Air Navigation Services remained responsible under Article 28 despite the fact that it did not control such signals."
 - ICAO, Air Navigation Services Economic Panel, Report on financial and related Organisational and Managerial Aspects of Global Navigation Satellite System (GNSS) Provision and Operation, ICAO Doc. 9660 (May 1996), §2.6 and ICAO Secretariat Report, §3.8.1.

Different views...

- The United States believes that the legal framework does offer continued serviceability and urges the Conference to recognize this fact accordingly. During the implementation of CNS/ATM, we have discovered no gaps in the legal framework; that is, we have found no problem that cannot be solved because of defects in the legal or institutional tools available to apply to it. Constraints have proved primarily to be of a technical nature or a matter of the lack of resources and political will, not due to a lack of law... Work on legal issues must not be permitted to delay technical implementation of CNS/ATM. This conference should declare the same proviso.
 - AN-Conf/11-WP/160 presented by the United States

Different views...

- The European Regional Contractual Framework Proposal may well prove to be an effective regional arrangement for the implementation of GNSS in Europe. It is impossible to know its value, however, until it is implemented there and working experience has accumulated. Europe does not need this conference's endorsement to construct its regional legal and institutional arrangements. When it has done so, it should return to ICAO and offer its experience. Contracting States will be in a much better position then to discern whether the European framework might be a suitable model for other regions.
 - AN-Conf/11-WP/160 presented by the United States

Different views...

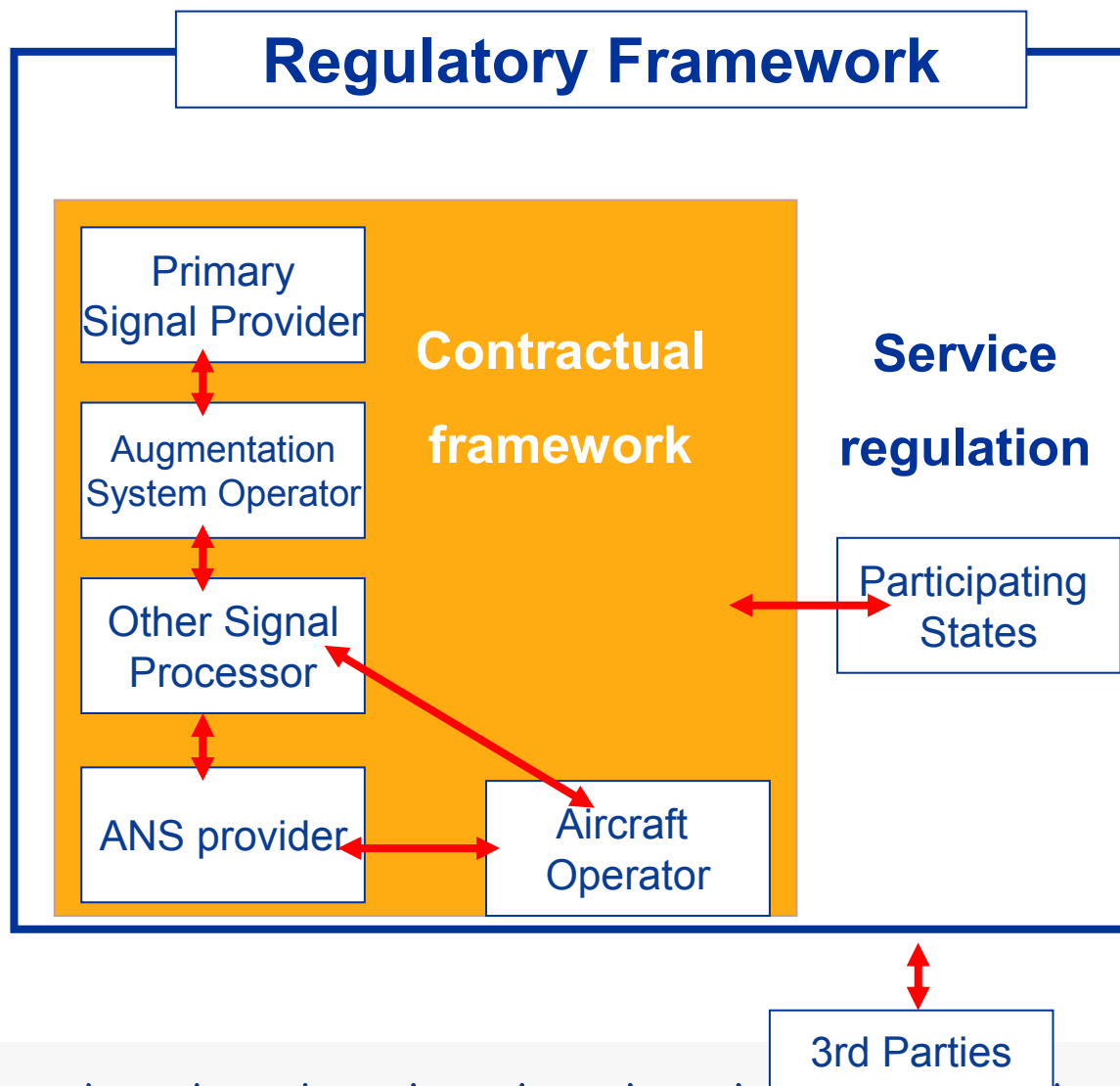
- In making a strong case for an international convention, African States are restating the views of a large constituent of user states who by themselves cannot provide the GNSS services but yet cannot be relieved of their responsibilities under the Chicago Convention. A great number of these States... would have to authorize the use of the system over which they have no control, the only way to secure confidence is by committing both providers and users to accept certain international rights and responsibilities in a form of a binding legal instrument. This binding and enforceable legal instrument should clearly spell out the rights and responsibilities of all parties involved in the GNSS, CNS/ATM services.
- African States invite the conference to support the establishment of a multilateral treaty in the form of an international convention which spells out the rights and obligations of GNSS service providers and users.

— AN-Conf/11-WP/143 presented by the African States

Different views...

- ...most States will not be directly involved in the operation of GNSS systems... Air navigation within their sovereign airspace will consequently rely heavily on facilities beyond their direct control... States will have to ensure in particular that they are able to meet their commitments under Article 28 of the Chicago Convention.
- States need to be satisfied.. that the GNSS signals and services offered within their airspace meet the appropriate performance requirements in terms of integrity, reliability, accuracy and continuity and that their liability is clearly defined. Presently, no comprehensive framework exists that can provide the legal certainty required for States or for industry. In a global environment, reliance on national laws and procedures is not sufficient to deal effectively with the challenge of technological advances.
 - AN-Conf/11-WP/153 Presented by the European Organisation for the Safety of Air Navigation EUROCONTROL, on behalf of its Member States and those of ECAC

The Contractual Approach Framework



Conclusion

- Different regions have different needs
- A global convention appears to be an unrealistic prospect at this stage
- No new international instruments should be developed to cover the present system.
- With a long term perspective, instead of a top down approach, the most pragmatic approach at ICAO level could be a bottom-up one where ICAO and its Member States would note that European States are embarking on the development of institutional arrangements for the implementation of EGNOS/GALILEO and that these arrangements could be used as a source of inspiration for a possible future ICAO institutional framework, when and if appropriate.