



International Civil Aviation Organization

WORKING PAPER

LC/33-WP/4-8
17/4/08
(Information Paper)
(English, French and
Spanish only)¹

LEGAL COMMITTEE – 33RD SESSION

(Montréal, 21 April – 2 May 2008)

Agenda Item 4: Consideration of other items on the General Work Programme of the Legal Committee – Consideration, with regard to CNS/ATM systems including GNSS and the regional multinational organisms, of the establishment of a legal framework

A PRACTICAL WAY FORWARD: MODEL FRAMEWORK AGREEMENT FOR THE IMPLEMENTATION, PROVISION, OPERATION AND USE OF A GLOBAL NAVIGATION SATELLITE SYSTEM FOR AIR NAVIGATION PURPOSES

(Presented by the 42 Contracting States, Members of the European Civil Aviation Conference.
This paper has been elaborated and co-ordinated by EUROCONTROL)

1. INTRODUCTION

1.1 The 36th Session of the Assembly (18-28 September 2007), in agreeing to the continuation of ICAO Policies in the Legal Field in Resolution A36-26, addressed in particular at Appendix F “A Practical Way Forward on Legal and Institutional Aspects of Communications, Surveillance/ Air Traffic Management (CNS/ATM) Systems”. Contracting States were invited to consider using regional organisations to develop mechanisms necessary to address any legal and institutional issues which could inhibit the implementation of CNS/ATM and to transmit regional initiatives to the Council. The Secretary General was directed to monitor and as appropriate assist in the development of contractual frameworks on the basis and structure of the model proposed by ECAC Member States and other regional civil aviation commission. Finally, the Council was directed to register such regional initiative, to consider their value and to make them public as soon as possible.

1.2 It is in line with Appendix F of Assembly Resolution A36-26, and the requests of a number of States at the last Assembly, that this information paper is submitted to the Legal Committee. It constitutes the model legal framework developed in Europe for the implementation, provision, operation and use of GNSS for air navigation purposes.

¹ French and Spanish versions provided by EUROCONTROL.

2. THE DEVELOPMENT OF THE MODEL FRAMEWORK

2.1 The current regime regarding satellite-based CNS/ATM does not represent a satisfactory solution for dealing with the legal issues arising from an evolving technology. While annexes to the Chicago Convention (principally Annex 10) have kept pace with technological and operational advances, there is still a lack of a certainty regarding the legal and institutional consequences resulting from such advances.

2.2 The need for a comprehensive legal and institutional framework arises from the implications of global navigation systems, with their multimodal dimensions and multiplicity of stakeholders. States generally wish to understand in particular how their Article 28 Chicago Convention responsibilities work in this environment, the liability issues that arise, and the means by which they can be assured that the system or systems applied are safe and reliable. In a global environment they consider that reliance on domestic laws and procedures is insufficiently robust or effective to deal with the requirements of such systems. Consequently, clarity and legal certainty are key issues that needed to be addressed. It is in this context that the model Framework Agreement (at Appendix A) was developed.

3. CURRENT AND FORESEEN SYSTEMS

3.1 In addition to GPS and GLONASS, several initiatives are under development in order to provide improved navigation services and complement systems. Developments regarding WAAS, EGNOS, GAGAN and GALILEO underline the global nature of GNSS and the need for continued cooperation and complementarities in this field.

3.2 The attached model Framework Agreement reflects, inter alia, the European developments regarding EGNOS and GALILEO. It is submitted to ICAO and to the other States in a generic format, in order to facilitate its implementation in accordance with any specific regional requirements.

4. THE FRAMEWORK AGREEMENT

4.1 The attached model Framework Agreement is not completely new. It was already presented and discussed at the 33rd Assembly, which asked for its completion as an interim step towards the development of a possible Convention. It has now been adapted to reflect the latest developments in the field.

4.2 The model Framework Agreement is based on a two-tier approach. On one level, it offers a regulatory agreement dealing with public law matters including certification, liability and arbitration matters. The other level is private contractual arrangements between the various stakeholders in which they would have a very large degree of autonomy subject to certain mandatory elements determined by the regulatory agreement. These mandatory elements would focus on inter alia, compliance with SARPs with regard to continuity, availability, integrity, accuracy, reliability, liability, compulsory risk coverage, recourse to arbitration, waiver of right to invoke sovereign immunity. Harmonisation of these essential parts of the contracts would help achieve a framework where the roles and responsibilities of all players involved are clear to all and where relationships are defined.

4.3 The Framework Agreement being proposed in this paper is not a GNSS Convention. While it includes binding elements, it also creates a flexible and readily available framework to cover all legal and institutional elements related to GNSS at the regional level and harmonises contractual relationships between the parties involved, providing clarity and legal certainty.

5. CONCLUSION

5.1 As indicated above, strong support has been consistently expressed by those who consider that the status quo of the CNS/ATM legal and institutional framework does not provide sufficient answers to the demands and expectations of States and other parties that wish to adequately identify and adopt the GNSS system within a new CNS service. This model for a Framework Agreement aims to provide legal clarity and certainty through the establishment of a legal framework for the entities and persons involved in the implementation, provision, operation and use of GNSS for the purpose of air navigation which regulates the relationships between these entities and persons involved in GNSS activities. It is presented in a generic model format in order for those States concerned to adapt it to the needs and particularities of their respective regions.

APPENDIX

FRAMEWORK AGREEMENT BETWEEN THE GOVERNMENTS OF ----- CONCERNING THE IMPLEMENTATION, PROVISION, OPERATION AND USE OF A GLOBAL NAVIGATION SATELLITE SYSTEM FOR AIR NAVIGATION PURPOSES

1. OBJECTIVES

1.1 The objective of this Agreement is to establish a legal framework for the entities and persons involved in the implementation, provision, operation and use of GNSS for the purpose of air navigation over the territory of Contracting Parties and over the airspace falling under their responsibility, as well as to regulate the relationships between these entities and persons involved in GNSS activities.

1.2 This Agreement aims at ensuring safety, technical and operational accessibility, continuity, availability, integrity, accuracy and reliability of GNSS services world-wide. The Contracting Parties reaffirm their commitments to act in conformity with international law and the principles governing GNSS, in particular the Chicago Convention, its Annexes, the Charter on the Rights and Obligations of States Relating to GNSS Services and the relevant rules applicable to outer space activities.

1.3 This Agreement addresses the conditions under which GNSS services, including signals-in-space, can be safely used for air navigation purposes over the territory of Contracting Parties and over the airspace falling under their responsibility. It also aims at clarifying the obligations of the parties involved.

2. DEFINITIONS

2.1 For the purpose of this Agreement, the terms listed below are used with the following meanings:

Certification: The process which results in a formal attestation by the relevant authority that a specified system and/or provider, element thereof or service complies with pre-determined requirements.

Damage: Loss of life, injury, loss or damage to property [optional: economic loss arisen from loss or damage to property].

GNSS Entity: A public or private body/organisation, or public-private partnership, created for the purpose of managing, or mandated to manage, by means of contractual arrangements, relationships between GNSS system operators and GNSS service providers involved in the operation of a GNSS system for air navigation purposes.

GNSS service: An added value service to support air navigation, based upon signals emitted by a GNSS system.

GNSS service provider: A body/organisation engaged in the activity of providing a GNSS service for air navigation purposes.

GNSS signal: A signal emitted by an element forming part of a GNSS system.

GNSS system: An infrastructure comprising satellites and other space and/or ground based facilities, capable of supporting air navigation based on signals-in-space.

GNSS system element: Any individual component of a GNSS system.

GNSS system operator: A body/organisation engaged in the operation and/or maintenance of a GNSS system or elements thereof.

GNSS user: A body/ organisation, person which uses GNSS signals or GNSS services for air navigation purposes.

Augmentation system: A GNSS system, the purpose of which is to enhance the accuracy, reliability, continuity and integrity of a primary GNSS signal at a given location/ region.

Primary signal system: A GNSS system, the purpose of which is to produce a primary signal-in-space.

GNSS Signal provider: A body/organisation engaged in the activity of producing a primary signal in space.

3. SOVEREIGNTY

3.1 This Agreement does not affect in any way the complete and exclusive sovereignty of Contracting Parties in respect of the airspace over their territory.

3.2 The Contracting Parties recognise that the implementation, provision, operation and use of GNSS shall neither infringe nor limit State's authority or responsibility in the control of air navigation and the promulgation and enforcement of safety regulations. States' authority shall also be preserved in the co-ordination and control of communications and in the augmentation, as necessary, of satellite-based Air Navigation Services.

4. CONTRACTING PARTIES RESPONSIBILITIES

4.1 Contracting Parties shall define, in accordance with the provisions of this Agreement, the conditions under which a GNSS system or element thereof may be used for air navigation purposes over their territories.

4.2 Contracting Parties may authorise any public, private or public-private organisations, including foreign bodies, to provide GNSS signals or services to support air navigation over their territory, provided these bodies/organisations operate in accordance with the requirements set forth in this Agreement and in accordance with national and international law.

4.3 It remains the responsibility of each Contracting Party to ensure that GNSS signals and services are provided and used over its territory in accordance with the relevant provisions of the International Civil Aviation Convention and Annexes.

4.4 Contracting Parties shall establish appropriate processes:

- a) to ensure that organisations engaged in the implementation, provision, operation and use of a GNSS system or elements thereof, comply with the requirements of this Agreement; and
- b) to ensure that the activities performed by the GNSS Entity established or mandated in accordance with article 5 of this Agreement comply with the requirements of this Agreement.

5. GNSS ENTITY

5.1 An Entity shall be established under this Agreement and will be referred to as the GNSS Entity.

Contracting Parties may mandate an already established organisation or body to undertake the tasks of the GNSS Entity described in this Agreement.

5.2 The GNSS Entity shall have legal personality. It shall enjoy in the territory of its Contracting Parties such legal capacity as may be necessary for the performance of its tasks.

5.3 The GNSS entity shall be charged with facilitating and [managing] [establishing], by means of contractual or other legal arrangements, the relationships between the various GNSS system operators and GNSS service providers falling under the scope of this Agreement.

5.4 The GNSS Entity may be entrusted with, inter alia, the following tasks, upon decision by the Contracting Parties:

- a) specification of GNSS signals and services;
- b) drafting, negotiation, implementation of contractual and service level agreements between the GNSS entity, GNSS system operators and GNSS service providers, in accordance with Article 8 of this Agreement;
- c) Ensuring the supervision / monitoring of the GNSS system operators and service providers by the appropriate authorities;
- c) definition of processes for the allocation of responsibilities among GNSS parties;
- d) management of a compensation GNSS fund if set up in accordance with article 8.2 of this Agreement and applicable international law;
- e) definition of applicable risk coverage requirements; and
- f) ensure appropriate working arrangements with other regional GNSS entities.

6. ROLE OF ICAO

6.1 Contracting Parties recognise the central role of ICAO in co-ordinating the global implementation of GNSS and in particular:

- a) establishment of the SARPs;
- b) collection, processing, management and distribution of relevant aeronautical information pertaining to the GNSS systems and services falling within the scope of this Agreement; and
- c) co-ordination of the activities of the GNSS Entity or body/organisation mandated to undertake its tasks with those of other entities created under similar Agreements and/or with similar functions in other regions.

7. **CONTRACTUAL AGREEMENTS**

7.1 Contracting Parties undertake that the contracts and other legal arrangements entered into in pursuance to this Agreement shall be concluded in conformity the terms of this Agreement and shall contain the following mandatory elements:

- a) compliance with SARPs;
- b) compliance with the Charter with regard to continuity, availability, integrity, accuracy and reliability;
- c) liability provisions in accordance with the provision of article 11 of this Agreement;
- d) compulsory risk coverage;
- e) mandatory recourse to arbitration; and
- f) recognition that State organisations/bodies are subject to the same rules as private parties.

8. **RISK COVERAGE**

8.1 The Contracting Parties shall ensure that GNSS system operators and service providers provide adequate insurance or other risk coverage to compensate for loss or damage that may arise out of malfunction, failure or improper use of GNSS.

8.2 Contracting Parties may set-up a dedicated fund or other appropriate mechanisms to compensate for any loss or damage that may arise from malfunction, failure or improper use of GNSS in the event of a shortfall in the recovery from the body/organisation who is liable.

9. **INCIDENT/ACCIDENT INVESTIGATION**

9.1 Investigations pertaining to air navigation incidents or accidents involving a possible malfunction, failure or improper use of GNSS shall be conducted in accordance with the provisions of Annex 13 to the Chicago Convention. In this regard, system operators shall ensure that signals shall be recorded and retained for the purposes of evidence.

10. **CERTIFICATION**

10.1 Contracting Parties shall ensure that GNSS systems, GNSS service providers and elements including avionics as well as GNSS services shall be certified prior to entry into operation.

10.2 Contracting Parties and their regulators shall ensure, through their established safety management system that GNSS is safe for use. Integrity of the national safety management systems shall be monitored by ICAO [through its Universal Safety Oversight Audit Programme] and appropriate by other regional bodies/organisations.

11. LIABILITY

11.1 In the event of damage arising out of a failure, malfunction or improper use of GNSS, each entity or person involved shall be liable to the extent it has contributed to the occurrence of the loss or damage.

11.2 Contracting Parties and other public parties shall submit themselves to arbitration and be subject to the same rules as private partners.

11.3 In the event that damage can be attributed to a GNSS failure, malfunction or improper use, but cannot clearly be traced to a specific defendant, the defendants involved in the chain of events which resulted in the occurrence of the loss or damage shall be held jointly liable for the entire amount of the loss or damage. Such assessment shall be made by the arbitrators appointed in accordance with Article 12 of this Agreement.

12. ARBITRATION

12.1 Contracting Parties shall ensure that all liability claims are consolidated and brought to arbitration, in accordance with the rules of arbitration established under this Agreement [optional: in accordance with the Optional Rules of the Permanent Court of Arbitration].

12.3 Decisions of the arbitration panel shall be final and binding on the Parties to the arbitration procedure.

13. CONFIDENTIALITY

13.1 Confidential information exchanged in pursuance of this Agreement shall not be disclosed to third parties nor used for commercial purposes, except with the prior written approval of the disclosing Party, and on the conditions agreed between the Contracting Parties.

14. ICAO REGISTRATION

14.1 This Agreement shall be registered with the ICAO Council, in accordance with the provisions of Article 83 of the Chicago Convention.

15. AMENDMENT

15.1 Any proposed amendment to this Agreement shall be subject to the approval of [two-thirds] of its Contracting Parties.

16. ADMISSION OF OTHER PARTIES

16.1 In case another State desires to become a party to this Agreement it shall submit its application to the Contracting Parties. Upon completion of the appropriate consultation, the Contracting Parties will decide on the application.

16.2 Accession of a State to the Agreement shall become effective after an agreed transitional period.

17. TERMINATION

17.1 A Contracting Party may withdraw from this Agreement by sending a written notice to the other Contracting Parties. The termination of this Agreement shall be effective for that Party on the expiry of a period of [1] year from the date of the delivery of the notice to the other Contracting Parties.

17.2 The Contracting Parties shall jointly determine and allocate the cost resulting from the termination for that Party.

18. ENTRY INTO FORCE

18.1 This Agreement shall enter into force at the date of signature.

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