

**SPACE**

**Satellites**

**Agreement Between the  
UNITED STATES OF AMERICA  
and OTHER GOVERNMENTS**

Signed at Dromoland Castle,  
Co. Clare (Ireland) June 26, 2004

Entered into force December 12, 2011



NOTE BY THE DEPARTMENT OF STATE

Pursuant to Public Law 89—497, approved July 8, 1966  
(80 Stat. 271; 1 U.S.C. 113)—

“ . . .the Treaties and Other International Acts Series issued under the authority of the Secretary of State shall be competent evidence . . . of the treaties, international agreements other than treaties, and proclamations by the President of such treaties and international agreements other than treaties, as the case may be, therein contained, in all the courts of law and equity and of maritime jurisdiction, and in all the tribunals and public offices of the United States, and of the several States, without any further proof or authentication thereof.”

AGREEMENT  
ON THE PROMOTION, PROVISION AND USE OF GALILEO  
AND GPS SATELLITE-BASED NAVIGATION SYSTEMS  
AND RELATED APPLICATIONS

THE UNITED STATES OF AMERICA,

of the one part,

and

THE KINGDOM OF BELGIUM,

THE CZECH REPUBLIC,

THE KINGDOM OF DENMARK,

THE FEDERAL REPUBLIC OF GERMANY,

THE REPUBLIC OF ESTONIA,

THE HELLENIC REPUBLIC,

THE KINGDOM OF SPAIN,

THE FRENCH REPUBLIC,

IRELAND,

THE ITALIAN REPUBLIC,

THE REPUBLIC OF CYPRUS,

THE REPUBLIC OF LATVIA,

THE REPUBLIC OF LITHUANIA,

THE GRAND DUCHY OF LUXEMBOURG,

THE REPUBLIC OF HUNGARY,

THE REPUBLIC OF MALTA,

THE KINGDOM OF THE NETHERLANDS,

THE REPUBLIC OF AUSTRIA,

THE REPUBLIC OF POLAND,

THE PORTUGUESE REPUBLIC,

THE REPUBLIC OF SLOVENIA,

THE SLOVAK REPUBLIC,

THE REPUBLIC OF FINLAND,

THE KINGDOM OF SWEDEN,

THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND,

CONTRACTING PARTIES to the Treaty establishing THE EUROPEAN COMMUNITY,  
hereinafter referred to as the "Member States", and THE EUROPEAN COMMUNITY,

of the other part,

RECOGNISING that the United States operates a satellite-based navigation system known as the Global Positioning System, a dual use system that provides precision timing, navigation, and position location signals for civil and military purposes,

RECOGNISING that the United States is currently providing the GPS Standard Positioning Service for peaceful civil, commercial, and scientific use on a continuous, worldwide basis, free of direct user fees, and noting that the United States intends to continue providing it, and similar future civil services under the same conditions,

RECOGNISING that the European Community is developing and plans to operate a civil global satellite navigation, timing and positioning system, GALILEO, which would be radio frequency compatible with GPS and interoperable with civil GPS services at the user level,

RECOGNISING that GPS signals are used worldwide for satellite-based navigation services including augmentations,

RECOGNISING that civil GPS and GALILEO, if radio frequency compatible and interoperable at the user level, could increase the number of satellites visible from any location on the Earth and aid accessibility to navigation signals for civil users worldwide,

RECOGNISING that the International Civil Aviation Organisation (ICAO) establishes international standards and recommended practices and other guidance applicable to the use of global satellite-based navigation systems for civil aviation, that the International Maritime Organisation (IMO) establishes international standards and other guidance applicable to the use of global satellite-based navigation systems for maritime navigation, and that the International Telecommunication Union (ITU) establishes multilateral regulations and procedures applicable to the operation of global radio-navigation systems, as well as to other radio communication systems,

DESIRING to provide satellite navigation users and equipment providers with a broader range of services and capabilities, leading to increased user applications, while assuring radio frequency compatibility with systems and equipment already in use,

DESIRING to promote open markets and to facilitate growth in trade with respect to commerce in global navigation and timing goods, value-added services, and augmentations,

CONVINCED of the need to prevent and protect against the misuse of global satellite-based navigation and timing services without unduly disrupting or degrading signals available for civilian uses,

CONVINCED of the need to cooperate so that the benefits of this important technology are fully achieved for all relevant applications,

RECOGNISING that consultations are desirable for the purpose of avoiding or resolving any disputes that may arise under this Agreement, including those relating to the way in which the Parties discharge their respective responsibilities for the obligations within their areas of competence,

HAVE AGREED AS FOLLOWS:

## ARTICLE 1

### Objectives

1. The objective of this Agreement is to provide a framework for cooperation between the Parties in the promotion, provision and use of civil GPS and GALILEO navigation and timing signals and services, value-added services, augmentations, and global navigation and timing goods. The Parties intend to work together, both bilaterally and in multilateral fora, as provided herein, to promote and facilitate the use of these signals, services, and equipment for peaceful civil, commercial, and scientific uses, consistent with and in furtherance of mutual security interests. This Agreement is intended to complement and facilitate agreements in force, or which may be negotiated in the future, between the Parties related to the design and implementation of civil satellite-based navigation and timing signals and services, augmentations, or value-added services.
2. Nothing in this Agreement shall supersede, modify or derogate from standards, procedures, rules, regulations and recommended practices adopted in ICAO, or IMO. The Parties confirm their intent to act in a manner consistent with these bodies' regulatory framework and processes.



3. Nothing in this Agreement shall affect the rights and obligations of the Parties under the Marrakech Agreement Establishing the World Trade Organisation (hereinafter "the WTO Agreements").

## ARTICLE 2

### Definitions

For the purposes of this Agreement, the following definitions shall apply:

- (a) "Augmentation" means civil mechanisms, which provide the users of satellite-based navigation and timing signals with input information, extra to that derived from the main constellation(s) in use, and additional range/pseudo-range inputs or corrections to, or enhancements of, existing pseudo-range inputs. These mechanisms enable users to obtain enhanced performance, such as increased accuracy, availability, integrity, and reliability.
- (b) "Civil satellite-based navigation and timing service" means the civil satellite-based navigation or timing service provided by GPS or GALILEO, including secured governmental service.
- (c) "Civil satellite-based navigation and timing service provider" means any government or other entity that provides civil satellite-based navigation or timing service.
- (d) "Civil satellite-based navigation and timing signals" means the civil satellite-based navigation or timing signals provided by GPS or GALILEO, including secured governmental service signals.

- (e) "Civil satellite-based navigation and timing signals provider" means any government or other entity that supplies GPS and/or GALILEO signals or augmentations.
- (f) "Classified information" means official information that requires protection in the interests of national defense or foreign relations of the Parties, and is classified in accordance with applicable laws and regulations.
- (g) "GALILEO" means an autonomous civil European global satellite-based navigation and timing system under civil control, developed by the European Community, its Member States, the European Space Agency and other entities. GALILEO includes an open service and one or more other services, such as a safety of life, commercial, and a secured governmental service, such as the Public Regulated Service ("PRS"), and any augmentations provided by the European Community, its Member States or other entities.
- (h) "Global navigation and timing equipment" means any civil end user equipment designed to transmit, receive, or process satellite-based navigation and timing signals, to provide value-added services, or to operate with an augmentation.
- (i) "GNSS" means Global Navigation Satellite System.
- (j) "GPS" means the Global Positioning System Standard Positioning Service, an open service, (or future civil services) provided by the United States Government for civil use. GPS is currently provided by the United States in its exercise of governmental authority as it is neither supplied on a commercial basis nor offered in competition with one or more service suppliers. GPS includes any augmentation or improvements to that service provided directly by the United States Government.

- (k) "Intellectual property" shall have the meaning found in Article 2 of the Convention Establishing the World Intellectual Property Organisation, done at Stockholm, 14 July 1967.
- (l) "Interoperability at the user level" is a situation whereby a combined system receiver with a mix of multiple GPS or GALILEO satellites in view can achieve position, navigation and timing solutions at the user level that are equivalent to or better than the position, navigation or timing solutions that could be achieved by either system alone.
- (m) "Measure" means any law, regulation, rule, procedure, decision, administrative action or similar binding action by the Parties at the national or supranational level.
- (n) "Military satellite-based navigation and timing service" means a satellite-based navigation and timing service provided by a Party and specifically designed to meet the needs of defense forces.
- (o) "Radio frequency compatibility" means the assurance that one system will not cause interference that unacceptably degrades the stand-alone service that the other system provides.
- (p) "Secured governmental service" means a secured, restricted access satellite-based navigation and timing service provided by a Party and specifically designed to meet the needs of authorised governmental users.
- (q) "Value-added service" means a downstream service or application, excluding augmentations, that uses civil satellite-based navigation and timing signals or services in a manner intended to provide additional utility or benefit to the user.

## ARTICLE 3

### Scope

Except as otherwise provided herein, this Agreement pertains to all measures established by the Parties concerning civil satellite-based navigation and timing signals and signal providers, civil satellite-based navigation and timing services and service providers, augmentations, value-added services and value-added service providers, and global navigation and timing goods.

The provision of military satellite-based navigation and timing services is outside the scope of this Agreement, except as provided in Article 4 as far as radiofrequency compatibility is concerned, Article 11 and in the Annex to this Agreement.

Secured governmental services are outside the scope of Articles 5 and 6, Article 8 paragraph 2, and Article 10, paragraph 3.

## ARTICLE 4

### Interoperability and Radio Frequency Compatibility

1. This Article is applicable to GPS and GALILEO as defined and, as far as radiofrequency compatibility is concerned, to all satellite-based navigation and timing services.

2. The Parties agree that GPS and GALILEO shall be radio frequency compatible. This paragraph shall not apply locally to areas of military operations. The Parties shall not unduly disrupt or degrade signals available for civil use.

3. The Parties also agree that GPS and GALILEO shall be, to the greatest extent possible, interoperable at the non-military user level. In order to achieve this interoperability and facilitate the joint use of the two systems, the Parties agree to realise their geodetic coordinate reference frames as closely as possible to the International Terrestrial Reference System. The Parties also agree to transmit the time offsets between GALILEO and GPS system times in the navigation messages of their respective services, as outlined in the document entitled "GPS/GALILEO Time Offset Preliminary Interface Definition" referred to in the Annex.

4. The Parties agree that the radio frequency compatibility and interoperability working group established pursuant to Article 13 shall continue work already underway with a view toward achieving, inter alia:

- (a) radio frequency compatibility in the modernisation or evolution of either system; (The Parties need to assess further the radiofrequency compatibility of GALILEO and GPS III),
- (b) enhanced signal availability and reliability through complementary system architectures for the benefit of users worldwide.
- (c) interoperability at the non-military user level.

5. To further ensure radio frequency compatibility and non-military service interoperability, the Parties shall ensure that their augmentations meet the requirements of ICAO, IMO and the ITU to which such Parties are bound and such other requirements as the Parties may find mutually acceptable.

6. Nothing in this Agreement shall supersede, modify or derogate from standards, procedures, rules, regulations and recommended practices adopted in the ITU. The Parties confirm their intent to act in a manner consistent with this body's regulatory framework and processes.

## ARTICLE 5

### Standards, Certification, Regulatory Measures, and Mandates

The Parties agree to consult with each other before the establishment of any measures:

- (1) establishing, directly or indirectly (such as through a regional organisation), design or performance standards, certification requirements, licensing requirements, technical regulations or similar requirements applicable to civil satellite-based navigation and timing signals or services, augmentations, value-added services, global navigation and timing equipment, civil satellite-based navigation and timing signals or service providers, or value-added service providers; or

- (2) that have the effect, directly or indirectly, of mandating the use of any civil satellite-based navigation and timing signals or services, value-added service, augmentation, or global navigation and timing equipment within its respective territory (unless the mandating of such use is expressly authorised by ICAO, or IMO).

## ARTICLE 6

### Non-Discrimination and Trade

1. The Parties affirm their non-discriminatory approach with respect to trade in goods and services related to civil satellite-based navigation and timing signals, augmentations, and value-added services.
2. The Parties affirm that measures with respect to goods and services related to civil satellite-based navigation and timing signals or services, augmentations, and value-added services should not be used as a disguised restriction on or an unnecessary obstacle to international trade.
3. The trade and civil applications working group established pursuant to Article 13 shall consider, inter alia, non-discrimination and other trade related issues concerning civil satellite-based navigation and timing signals or services, augmentations, value-added services, and global navigation and timing goods, including the potential for additional commitments in relevant bilateral or multilateral fora.

## ARTICLE 7

### Open Access to Civil Satellite-based Navigation or Timing Signals

1. Except for reasons of national security, the Parties shall not restrict either use of or access to the positioning, navigation and timing information of their respective open services by end users, including for augmentation. This provision does not preclude the ability to make access to such information by other entities, such as manufacturers of satellite based navigation and timing equipment, subject to non-discriminatory commercial arrangements.
2. The Parties shall endeavour to provide signals intended for safety of life services with the required level of safety as recognised by competent international bodies.

## ARTICLE 8

### Open Access to Information

1. Subject to applicable export controls, the Parties agree to make publicly available on a non-discriminatory basis, sufficient information concerning their respective unencrypted civil satellite-based navigation and timing signals and augmentations, to ensure equal opportunity for persons who seek to use these signals, manufacture equipment to use these signals, or provide value-added services which use these signals. Such information shall include, but not be limited to, signal specifications, including elements such as minimum usage conditions, radio frequency characteristics, and navigation message structure.



2. To the extent that a Party provides civil satellite-based navigation and timing signals or services, augmentation, or value-added service for civil users that is encrypted or otherwise has features that allow the global navigation service provider to deny access, the Party shall, subject to applicable export controls, afford to the other Party's manufacturers of global navigation and timing equipment or augmentation or value-added services providers, on a non-discriminatory basis, access to the information necessary to incorporate such encryption or other similar features into their equipment, through licensing of necessary information or other means at market prices.

## ARTICLE 9

### Intellectual Property

Nothing in this Agreement is intended to affect intellectual property rights related to global satellite-based navigation and timing signals, services or goods.

## ARTICLE 10

### Cost Recovery for Civil Satellite-Based Navigation and Timing Signals

1. The Parties shall each endeavour to provide open service navigation and timing signals without direct fees for end use or for augmentation.

2. To the extent that a Party pursues a system that would be used for charging fees for international aviation or maritime safety of life users, it intends to do so in a manner consistent with ICAO and IMO.

3. The Parties shall consult each other where appropriate on cost recovery policies. The Parties shall encourage practicable steps to ensure transparency and accountability for fees incurred in providing their services.

## ARTICLE 11

### National Security Compatibility and Spectrum Use

1. The Parties shall work together to promote adequate frequency allocations for satellite-based navigation and timing signals, to ensure radio frequency compatibility in spectrum use between each other's signals, to make all practicable efforts to protect each other's signals from interference by the radio frequency emissions of other systems, and to promote harmonised use of spectrum on a global basis, notably at the ITU. The Parties shall cooperate with respect to identifying sources of interference and taking appropriate follow-on actions.

2. The Parties intend to prevent hostile use of satellite-based navigation and timing services while simultaneously preserving services outside areas of hostilities. To this end, their respective satellite based navigation and timing signals shall comply with the National Security Compatibility criteria set forth in the documents entitled "National Security Compatibility Compliance for GPS and GALILEO Signals in the 1559-1610 MHz Band, Part 1, Part 2 and Part 3" (hereinafter "Criteria, Assumption and Methodology Documents"), referenced in the attached Annex, using the methodology and assumptions contained in the Criteria, Assumption and Methodology Documents.

3. The Parties agree that the signal structures specified in the Annex to this Agreement comply with the National Security Compatibility criteria set forth in the Criteria, Assumption and Methodology Documents.

4. In order to maintain and continuously improve the quality and security of services, the systems will need to respond effectively to unforeseen changes in technology, user needs and the spectrum environment. The Parties intend to pursue modernisation and development of their respective systems while maintaining the security and market benefits of compatible and interoperable common civil signals.

5. The Parties shall inform and consult one another on the implementation of the baseline signal structures specified in the Annex. A Party shall notify the other Party in writing through diplomatic channels if it desires in the future to change or add to the baseline signal structures specified and agreed to in the Annex.

6. Unless a Party voices concerns on the basis of National Security Compatibility, as taken into account in the Criteria, Assumption and Methodology Documents, or on the basis of radio-frequency compatibility, within a time period of three months after its receipt of the notification mentioned in paragraph 5, that Party will not oppose the adoption and implementation of the alternative signal structure specified in the notification. If a Party voices National Security or radio-frequency compatibility concerns within that time period, the Parties shall without delay enter into consultations to verify that the alternative signal structures comply with the National Security Compatibility criteria set forth in the Criteria, Assumption and Methodology Documents and with radio-frequency compatibility, using the respective Assumptions and Methodology documents referred to in the Annex for compatibility analysis.

7. The Parties agree to use the common baseline modulation for the GALILEO Open Service and the future GPS III civil signal (Standard Positioning Service) as described in the Annex. The Parties shall work together without delay toward achieving optimisation of that modulation for their respective systems. If a Party changes or adds to its modulation for the GALILEO Open Service or the future GPS III civil signal, pursuant to the process set forth in paragraphs 5 and 6, the other Party shall not be obliged to change or add to its modulation.

8. The Parties agree to study the means to protect the secured governmental service in the context of national security compatibility, under the working group on security issues established in Article 13, paragraph (2)(d).

## ARTICLE 12

### GPS and GALILEO Search & Rescue Services

A global search and rescue service is planned for both GALILEO and future generations of GPS satellites. The Parties agree that these services shall be radio frequency compatible and to the greatest extent possible, interoperable at the user level. The Parties will cooperate as appropriate on matters related to global search and rescue services for GALILEO and future generations of GPS satellites at the COSPAS-SARSAT Council or at any other mutually agreeable forum.

## ARTICLE 13

### Modalities

1. The Parties shall establish working groups for mutually agreed upon topics. Each working group will include participation, as appropriate, from the competent authorities of the Parties. Third party participation in working groups shall be only by mutual consent of the Parties.
2. The following working groups shall be established pursuant to paragraph 1.
  - (a) A working group on radio frequency compatibility and interoperability for civil satellite-based navigation and timing services.
  - (b) A working group on trade and civil applications.
  - (c) A working group to promote cooperation on the design and development of the next generation of civil satellite-based navigation and timing systems.
  - (d) A working group on security issues relating to GPS and GALILEO, including information exchange on possible applications for secured governmental services, and including interactions between their respective signals. The group shall also work towards defining the details of the notification and consultation procedure referred to in Article 11, as well as possible interfaces.
3. The Parties may establish terms of reference for working groups established pursuant to paragraph 1, as appropriate.

4. All exchanges of information, equipment, technology or other data (including that which is classified), as well as the delivery of services, pursuant to this Agreement shall be subject to all applicable laws and regulations, including export control laws and regulations. All such information, equipment, technology or other data transferred shall be used only for the purposes of this Agreement and shall not be transferred to, or used by, any third country, firm, person, organisation or government without the prior written approval of the originating party.

5. Subject to applicable laws, regulations, and official governmental policies, the Parties agree to handle as expeditiously as possible license applications for the export of goods, information, technology or other data appropriate for the development and implementation of GALILEO or GPS.

6. Classified information relating to the implementation of this Agreement may be exchanged at working groups or otherwise only in accordance with the conditions set forth in paragraph 2 of the Annex to this Agreement.

7. The Parties shall meet as needed, and in principle once a year, to assess the need for working groups, define or modify working group terms of reference, and review working group progress.

## ARTICLE 14

### Follow-up Activities

The Parties intend to commence discussions of a follow-on agreement regarding potential cooperation between their respective independently funded and operated civil satellite-based navigation and timing systems for the period following achievement by GALILEO of initial operational capability. In those discussions the Parties intend to explore various coordination options, such as creating a high-level interface council that would meet once or twice a year to discuss policy issues and future system planning, a small GPS-GALILEO secretariat to share interface data and provide day-to-day coordination, and liaison officers as mutually agreed.

## ARTICLE 15

### Activities in International Fora

To promote and implement the objectives of this Agreement, the Parties shall, as appropriate, cooperate on matters of mutual interest related to civil satellite-based navigation and timing signals and systems, value-added services, and global navigation and timing goods in ICAO, ITU, IMO, WTO and other relevant organisations and fora.

## ARTICLE 16

### Funding

Each Party shall bear the costs of fulfilling its respective responsibilities under this Agreement. Obligations of each Party pursuant to this Agreement are subject to the availability of appropriated funds.

## ARTICLE 17

### Consultation and Dispute Resolution

1. Any dispute arising under or related to the terms, interpretation or application of this Agreement shall be resolved by consultation.
2. Representatives of the Council of the European Union and the European Commission, of the one part, and of the United States, of the other part, shall meet as needed for the consultations foreseen in paragraph 1 and in Article 5, Article 10 paragraph 3, and Article 11 paragraphs 5 and 6.
3. Nothing in this Agreement shall affect the Parties' right to recourse to dispute settlement under WTO Agreements.



## ARTICLE 18

### Definition of the Parties

For the purpose of this Agreement, "the Parties" shall mean the European Community or its Member States or the European Community and its Member States, within their respective areas of competence, on the one hand, and the United States, on the other.

## ARTICLE 19

### Responsibility and Liability

1. The Parties shall have responsibility for failure to comply with obligations under this Agreement.
2. If it is unclear whether an obligation under this Agreement is within the competence of either the European Community or its Member States, at the request of the United States, the European Community and its Member States shall provide the necessary information. Failure to provide this information with all due expediency or the provision of contradictory information shall result in joint and several liability.

## ARTICLE 20

### Entry into Force and Termination

1. This Agreement shall enter into force on the date on which the European Community and its Member States and the United States inform the Depository through diplomatic notes that their respective internal procedures necessary for its entry into force have been completed.
2. This Agreement shall be subject to accession by States that become Members of the European Union after the date it is signed by the Parties.
3. Notwithstanding paragraph 1, the Parties agree to provisionally apply this Agreement from the first day of the month following the date on which the Parties have notified each other of the completion of the procedures necessary for this purpose.
4. The European Community shall serve as the Depository for this Agreement.
5. This Agreement shall remain in force for ten years. At least three months before the end of the initial 10-year period, the Parties shall inform each other of their intention whether to extend the Agreement for a period of five years. Thereafter, it shall be extended automatically for additional five-year periods, unless the European Community and its Member States, on the one hand, or the United States, on the other, gives notice to the Depository in writing at least three months prior to the end of any subsequent five-year period, of its intention not to extend the Agreement.

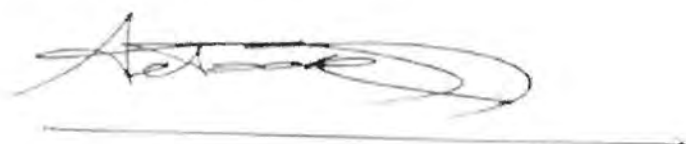
6. This Agreement may only be amended by agreement of the Parties. Any amendment to this Agreement shall be subject to approval by the Parties in accordance with their respective internal procedures.

7. The Parties shall review the implementation of this Agreement in 2008 and, may consider at that time to amend it in accordance with the procedure in paragraph 6.

8. This Agreement may be terminated at any time upon one year's written notice.

Done at Dromoland Castle, Co. Clare, on the twenty-sixth day of June 2004, in duplicate in the Danish, Dutch, English, Finnish, French, German, Greek, Italian, Portuguese, Spanish, Swedish, Czech, Estonian, Hungarian, Latvian, Lithuanian, Maltese, Polish, Slovakian and Slovenian languages. English shall be the authentic language. [\*]

Pour le Royaume de Belgique  
Voor het Koninkrijk België  
Für das Königreich Belgien



Cette signature engage également la Communauté française, la Communauté flamande, la Communauté germanophone, la Région wallonne, la Région flamande et la Région de Bruxelles-Capitale.

Deze handtekening verbindt eveneens de Vlaamse Gemeenschap, de Franse Gemeenschap, de Duitstalige Gemeenschap, het Vlaamse Gewest, het Waalse Gewest en het Brussels Hoofdstedelijk Gewest.

Diese Unterschrift bindet zugleich die Deutschsprachige Gemeinschaft, die Flämische Gemeinschaft, die Französische Gemeinschaft, die Walonische Region, die Flämische Region und die Region Brussel-Hauptstadt.

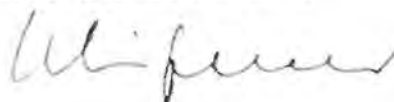
Za Českou republiku




På Kongeriget Danmarks vegne



Für die Bundesrepublik Deutschland



Eesti Vabariigi nimel



Για την Ελληνική Δημοκρατία



Por el Reino de España



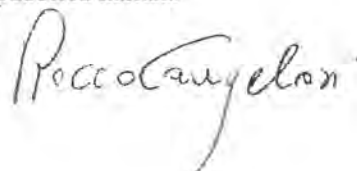
Pour la République française



Thar cheann Na hÉireann  
For Ireland



Per la Repubblica italiana



Για την Κυπριακή Δημοκρατία,

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Latvijas Republikas vārdā

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Lietuvos Respublikos vardu

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Pour le Grand-Duché de Luxembourg

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A Magyar Köztársaság részéről

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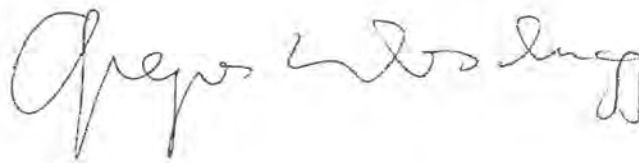
Għar-Repubblika ta' Malta



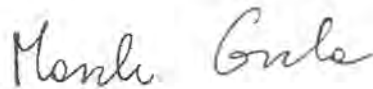
Voor het Koninkrijk der Nederlanden



Für die Republik Österreich



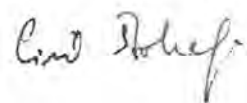
W imieniu Rzeczypospolitej Polskiej



Pela República Portuguesa



Za Republiko Slovenijo



Za Slovenskú republiku



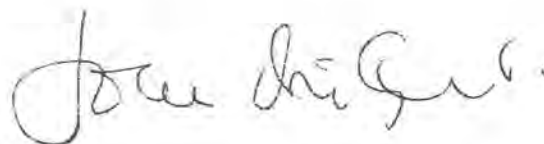
Suomen tasavallan puolesta



För Konungariket Sverige



For the United Kingdom of Great Britain and Northern Ireland





Por la Comunidad Europea  
Za Evropské společenství  
For Det Europæiske Fællesskab  
Für die Europäische Gemeinschaft  
Euroopa Ühenduse nimel  
Για την Ευρωπαϊκή Κοινότητα  
For the European Community  
Pour la Communauté européenne  
Per la Comunità europea  
Eiropas Kopienas vārdā  
Europos bendrijos vardu  
az Európai Közösség részéről  
Għall-Komunità Ewropea  
Voor de Europese Gemeenschap  
W imieniu Wspólnoty Europejskiej  
Pela Comunidade Europeia  
Za Európske spoločenstvo  
za Evropsko skupnost  
Euroopan yhteisön puolesta  
På Europeiska gemenskapens vägnar



For the United States of America



GPS AND GALILEO SIGNAL STRUCTURES

(I) For reasons of National Security Compatibility, avoidance of unacceptable radio-frequency interference, and suitability of GNSS performance, the Parties agree to the baseline signal structures described below:

- The GALILEO secured governmental service in the 1559-1610 MHz band using a Binary Offset Carrier (BOC) cosine phased modulation with a 15.345 MHz sub-carrier frequency and a code rate of 2.5575 mega-chips per second (Mcps) centred at 1575.42 MHz (cosine phased BOC (15, 2.5)), and a signal power as specified in the document, referred to below, entitled "Reference Assumptions for GPS/GALILEO Compatibility Analyses."
- The GALILEO signal structures used for any or all other services, including the Open Service (OS), Safety-of-Life service (SoL), and Commercial Service (CS), in the 1559-1610 MHz band using a Binary Offset Carrier (BOC) modulation with a 1.023 MHz sub-carrier frequency and a code rate of 1.023 mega-chips per second (Mcps) (BOC (1,1)) centred at 1575.42 MHz, and a signal power as specified in the document, referred to below, entitled "Reference Assumptions for GPS/GALILEO Compatibility Analyses."
- The GPS signal structure in the 1559-1610 MHz band, centred at 1575.42 MHz, will be a Binary Phase Shift Key (BPSK) modulation with a code rate of 1.023 Mcps; a BPSK modulation with a code rate of 10.23 Mcps; and a BOC modulation with a 10.23 MHz sub-carrier frequency and a code rate of 5.115 Mcps, and a signal power as specified in the document, referred to below, entitled "Reference Assumptions for GPS/GALILEO Compatibility Analyses." In the future, a BOC (1, 1) modulation centred at 1575.42 MHz will be added to this signal structure.

- (2) The classified assumptions and methodology used to determine the National Security Compatibility criteria, and the criteria themselves, are contained in the following documents: National Security Compatibility Compliance for GPS and GALILEO Signals in the 1559-1610 MHz Band, Part 1, Part 2 and Part 3, (hereinafter, "Part 1," "Part 2," and "Part 3," respectively) dated 9 June 2004, including any future amendments, changes or modifications to these documents as mutually agreed in accordance with paragraph 6.a. of this Annex. Access to Part 1, Part 2 and Part 3 shall be only by the United States and those Member States that are a party to a General Security of Military Information Agreement (hereinafter "GSOMIA") or a General Security of Information Agreement (hereinafter "GSOIA") with the United States, which shall apply to the access, maintenance, use and release of these classified documents. Should an applicable agreement regarding security of information between the European Community and the United States be concluded in the future, it shall govern the access, maintenance, use and release of Part 1, Part 2 and Part 3. For the time being, representatives of the European Commission and staff members of the GALILEO Joint Undertaking and European Space Agency shall be granted oral and visual access to Part 2 for the purposes of implementation of and compliance with this Agreement, on the basis of an established security clearance with a Member State that has a GSOMIA or GSOIA with the United States, in accordance with the national security procedures and laws of the Member State, and with the GSOMIA or GSOIA with the United States. Representatives of the European Commission and staff members of the GALILEO Joint Undertaking and European Space Agency shall be granted access to Part 1 and Part 3 in accordance with applicable security rules. The classified information shall at all times be protected and handled only in facilities with an appropriate facility security clearance in accordance with the applicable security procedures, laws and the GSOMIA or GSOIA.

- (3) Assumptions for radio frequency signal compatibility analyses are contained in the following document: "Reference Assumptions for GPS/GALILEO Compatibility Analyses", 9 June 2004 including any future amendments, changes or modifications to this document as mutually agreed by the Parties.
- (4) Methodology for radio frequency compatibility analysis is contained in the following document: "Models and Methodology for GPS/GALILEO Radio Frequency Compatibility Analyses", dated 18 June 2004, including any future amendments, changes or modifications to this document as mutually agreed by the Parties.
- (5) The provision of the time offsets between GALILEO and GPS system time in the navigation messages of their respective services is outlined in the following document: "GPS/GALILEO Time Offset Preliminary Interface Definition" dated 20 March 2003, including any future amendments, changes or modifications to this document as mutually agreed by the Parties.
- (6) (a) Notwithstanding Article 20, paragraph 6, any future amendments, changes or modifications to the documents entitled "National Security Compatibility Compliance for GPS and GALILEO Signals in the 1559-1610 MHz Band, Part 1, Part 2 and Part 3" shall be decided by mutual agreement by a sub-group of the working group established under Article 13, paragraph 2 (d), composed of representatives of the United States on the one hand, and representatives of the European Commission, acting on behalf of the European Community, who have access to these classified documents in accordance with paragraph 2 of this Annex, and representatives of those Member States who have access to these classified documents in accordance with paragraph 2 of this Annex, on the other hand. These decisions shall be binding on the Parties.

- (b) Notwithstanding Article 20, paragraph 6, any future amendments, changes or modification to the following documents shall be adopted by mutual agreement between appropriate representatives of the Parties in the working group established under Article 13, paragraph 2(a), including the United States: "Reference Assumptions for GPS/GALILEO Compatibility Analyses"; "Models and Methodology for GPS/GALILEO Radio Frequency Compatibility Analyses"; "GPS/GALILEO Time Offset Preliminary Interface Definition." These decisions shall be binding on the Parties.