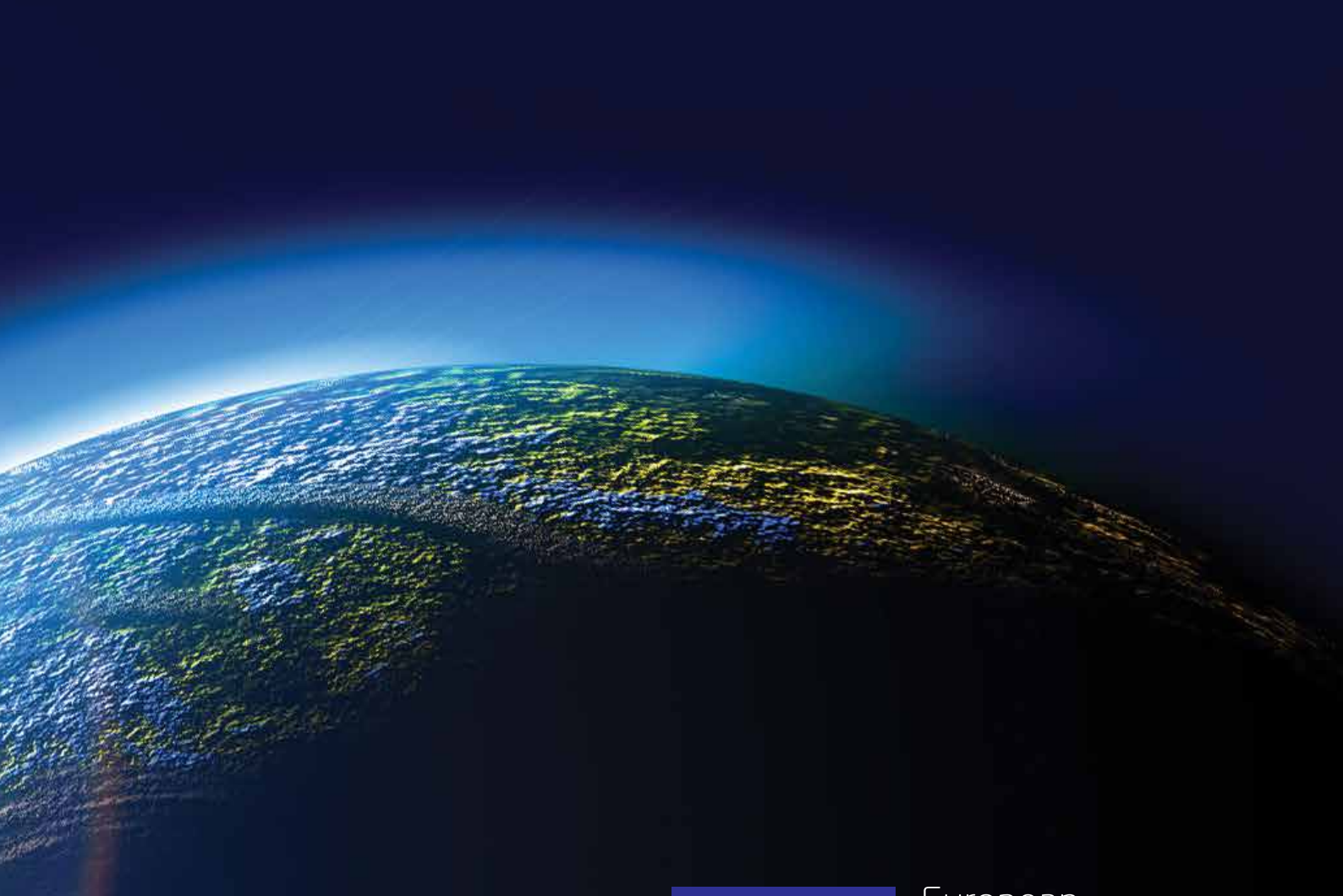
European GNSS Agency

2013 ANNUAL ACTIVITY REPORT



European
Global Navigation
Satellite Systems
Agency

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European GNSS Agency

2013 ANNUAL ACTIVITY REPORT

1. FOREWORD BY THE CHAIR OF THE ADMINISTRATIVE BOARD

This year was a year of consolidation. After a successful move to Prague, the GSA has settled down into its new home. From what people have told me, everyone working there now feels truly at home in the "Golden City".

This year we managed to increase the GSA's human resources in preparation for carrying out new tasks, in particular the provision of EGNOS services as of 1 January 2014.Preparations are also well underway for our planned takeover of the provision of Galileo services, scheduled for 1 January 2017.

The legal basis for this consolidation was provided by the European Commission, the Council and the Parliament. After long and fruitful discussions and an agreement on the Financial Framework 2014-2020, the GNSS Regulation entered into force on 1 January 2014, with the Regulation on Horizon 2020 a few weeks before, on 23 December 2013. At the same time, considerable progress was made in regards to the new GSA Regulation.

Over the course of the year, the market uptake of EGNOS improved considerably. This was heavily influenced by a remarkable number of Member States who decided to use EGNOS in their Civil Aviation. As far as the Galileo programme is concerned, tests have shown that the IOV-Satellites were working well in 2013. Despite a somewhat rocky start, work on the FOC Satellites is now steadily moving ahead.

I am also happy to report that the collaboration between the GSA and ESA has gained further momentum. In addition to improvements in the practical day-to-day operation of the two institutions, EU and ESA Member States discussed the relationship of the two agencies in the relevant Councils. Some work still remains to be done, but bringing Europe's space institutions closer together is an important step forward in terms of ensuring the best use of their respective knowledge and experience.

A personal highlight, of course, was my re-election as Chair of the Administrative Board of the GSA for another term, and I would like to thank the Members of the Board for their continued trust and confidence.

All in all 2013 was a good year, once again showing that a great deal can be achieved when everyone involved works harmoniously together.

Sabine Dannelke
Chair of the GSA Administrative Board

2. FOREWORD BY THE CHAIR OF THE SECURITY ACCREDITATION BOARD

In 2013, the Security Accreditation Board (SAB) continued engaging the Programme management authorities in a detailed and demanding dialogue in a joint effort to improve the overall security management processes and get concrete improvements in terms of security.

During the course of the year, the accredited Galileo infrastructures have evolved from their initial configurations for the first launches into the full In-Orbit Validation configuration. The SAB delivered Galileo In Orbit Validation Start Endorsement (IOVSE) Accreditation in April 2013 for a limited period of time and this accreditation has been renewed three times in order to allow the continued operation of the system in its IOV configuration. It is pleasing to note that several of the significant treatment plans recommended to the Programme as being urgently required in order to reduce the residual risk levels, were adopted and have been implemented. It is worth noting that these results were achieved with limited resources, thanks to the significant efforts of all actors involved.

I would like to take this opportunity to acknowledge the significant commitment of all stakeholders to the success of the Galileo programme, and thank them for their efforts and co-operation whilst at the same time acknowledging that much still remains to be done within the security arena. I must also recognise and applaud the professional competence demonstrated and advice offered by the SAB support team who enable the SAB to take informed, yet difficult, decisions ensuring the security of this important EU asset.

The SAB has renewed most of the Galileo sites authorisation to operate (SATO) and added a few new ones, raising the total number of Galileo sites authorised to operate to 25. They have also delivered 106 interim authorisations to 33 companies in the EU involved in PRS activities. We have also welcomed into the team the long awaited Crypto Distribution Authority (CDA).

A specific security accreditation strategy has been adopted for EGNOS, whose increased use, particularly by European commercial aviation, demands specific security accreditation activities in addition to the existing safety certification; the first activities were initiated during the year as expected.

Significant discussions have taken place during the course of the year between the SAB and the programme regarding the accreditation of the future launches and the plan towards declaring the Galileo early services. These discussions will continue during the forthcoming year as we seek to implement and bed in the new GSA Regulation.

Finally, I would like to thank Michel Iagolnitzer, my predecessor as the Chair of SAB, for his leadership and direction of the SAB during its first couple of years.

Jeremy Blyth
Chair of the Security Accreditation Board of the EU GNSS

3. FOREWORD BY THE EXECUTIVE DIRECTOR

In 2013, an important step forward was made in the development of the "New GSA" with the adoption of European Union Regulation (EU) 1285/2013. The regulation sets out the future responsibilities of the European Global Navigational Satellite System Agency (GSA) and its positioning at the centre of EU GNSS Programmes.

Over the past year, the GSA's human resources expanded significantly, thanks to a budget revision that finally came on-stream in September. This has provided the skills and capacity needed to address many of the immediate responsibilities delegated to us by the European Commission. For example, the Agency awarded the service provision contract for EGNOS (European Geostationary Navigation Overlay Services) in June 2013 and formally activated it as of 1 January 2014. On this same date, responsibility for the overall programme was formally transferred from the Commission, including the support provided by the European Space Agency (ESA), which will be developed within a dedicated working arrangement.

Our enhanced human resources helped us to manage the many Galileo preparatory tasks in the lead up to the January 2017 programme transition to the GSA. Tasks include the active coordination of the "Declaration of Galileo Early Services" – an important first milestone – which is expected to be announced in early 2015. In this context, the successful award in December of a contract for the first pre-operational Public Regulated Service (PRS) receivers should also be mentioned. This will pave the way for the timely development of skills on the industrial side.

The GSA was closely involved with the first call for the Horizon 2020 R&D Programme, which was officially launched in December – prior to the EC GSA Delegation Agreement being finalised and officially signed. This seven-year project foresees a doubling of the budget allocation and promises great potential for the development of applications and services, setting the scene for value creation within EU GNSS Programmes.

As well as these exciting developments, we should not forget the core tasks of the GSA. Many significant achievements were made in 2013. For instance, the technical and administrative secretariat of the Security Accreditation Board (SAB), which was based at our Prague headquarters all year, has been fully engaged to prepare robust security accreditation through accreditation statements and files for all new decisions.

The Galileo Security Monitoring Centre (GSMC) France was accredited according to plan and the GSA team smoothly relocated from Brussels to Saint Germain en Laye on 1 September. It continues to grant GSMC Nucleus agreed performances, paving the way for Galileo to become operational as of the end 2015, as scheduled. Meanwhile, GSMC UK agreements with Hosting Entities were finalised by year's end, confirming our plan to have a fully accredited site by April 2014.

In terms of Market Development, important results were achieved across all sectors, including:

- Civil Aviation: eight new countries are set to either adopt, or have been adopting, EU GNSS solutions (bringing the total number of APV procedures in Europe to 238).
- Maritime: a position paper was developed to define an adoption strategy with the International Maritime Organization (IMO).
- Rail: concrete cooperation was established with the main European stakeholders and an exhaustive cost-benefit analysis performed, with the final aim of reaching a shared vision on user requirements.
- Location-Based Services: an exhaustive market report was developed, including an adoption roadmap. Support was obtained for Galileo testing in urban environments and partnerships were established with key stakeholders.
- Road and Road Tolling: three new countries are set to either adopt or have already adopted EU GNSS solutions for road tolling.

In conclusion, 2013 was a very positive year, thanks in large part to the invaluable synchronization with the GSA Administrative Board and European Commission Services – proving our capacity to deliver concrete results. This, after all, is the best pre-requisite for a positive approach to the challenges ahead.

Carlo des Dorides

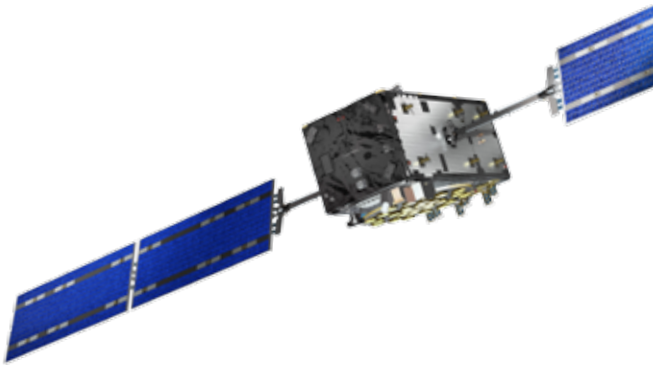
4. CONTENTS

5. THE AGENCY

By developing a new generation of Global Navigation Satellite Systems (GNSS), Europe is opening new doors for industry development, job creation and economic growth. With Europe in the driver's seat, Galileo has the potential to become a cornerstone of the global radio-navigation positioning system of the future.

Given the strategic nature of European satellite positioning and navigation programmes, (which include Galileo and EGNOS) the European GNSS Agency, a European Union Regulatory Agency, was established in 2004. During the reporting period, the Agency was responsible for a range of activities, including:

- Ensuring the security accreditation of the system and the operation of the Galileo Security Monitoring Centres (GSMCs);
- Accomplishing other tasks entrusted to it by the European Commission (EC), such as managing the research and development EU framework programmes for European GNSS applications, promoting satellite navigation applications and services, preparing for the successful commercialisation and exploitation of the systems, aiming for smooth functioning, seamless service provision and high market penetration, and ensuring that the systems' components obtain certification.



Staffed by skilled professionals, who bring relevant experience from both the public and private sectors, the Agency is in a unique position to contribute to one of the most important and ambitious projects ever undertaken by the European Union. The Agency has the motivation and expertise to help ensure that Europe fully accomplishes its GNSS aims and truly reaps the benefits of the EGNOS and Galileo for its citizens.

5.1 EUROPE'S SATELLITE NAVIGATION PROGRAMMES: EGNOS AND GALILEO

Galileo is the future of the European Global Navigation Satellite System (GNSS). In the future, GNSS users in Europe will no longer be dependent upon the US Global Positioning System (GPS) or the Russian GLONASS system for their satellite positioning, navigation and timing needs. While European independence is an important reason for undertaking the Galileo programme, by being interoperable with GPS and other international systems, it will also be a cornerstone of a truly global navigation satellite system that will be under civilian control. With its state-of-the-art technology and full complement of satellites, Galileo will open the door to a new era of higher positioning accuracy, better coverage and reliability, new services and increased resistance to interference.

EGNOS GALILEO

5.2 EGNOS - IT'S THERE: USE IT.

EGNOS (European Geostationary Navigation Overlay Service) is Europe's first concrete venture into satellite navigation. It already delivers valuable services by augmenting and improving GPS signals and retransmitting them to users via geostationary satellites.

EGNOS renders GPS signals suitable for safety-critical applications – such as guiding aircraft during approach or other safety-relevant procedures, or navigating ships through narrow channels – and increases the accuracy of existing satellite positioning services. It also provides a crucial 'integrity message', informing users in the event of problems with the satellite signals.

Along with valuable transport applications, the increased accuracy and reliability of EGNOS also supports users on the ground, for example in precision agriculture and mapping.

5.3 SUPPORTING THE USE OF EGNOS AND GALILEO

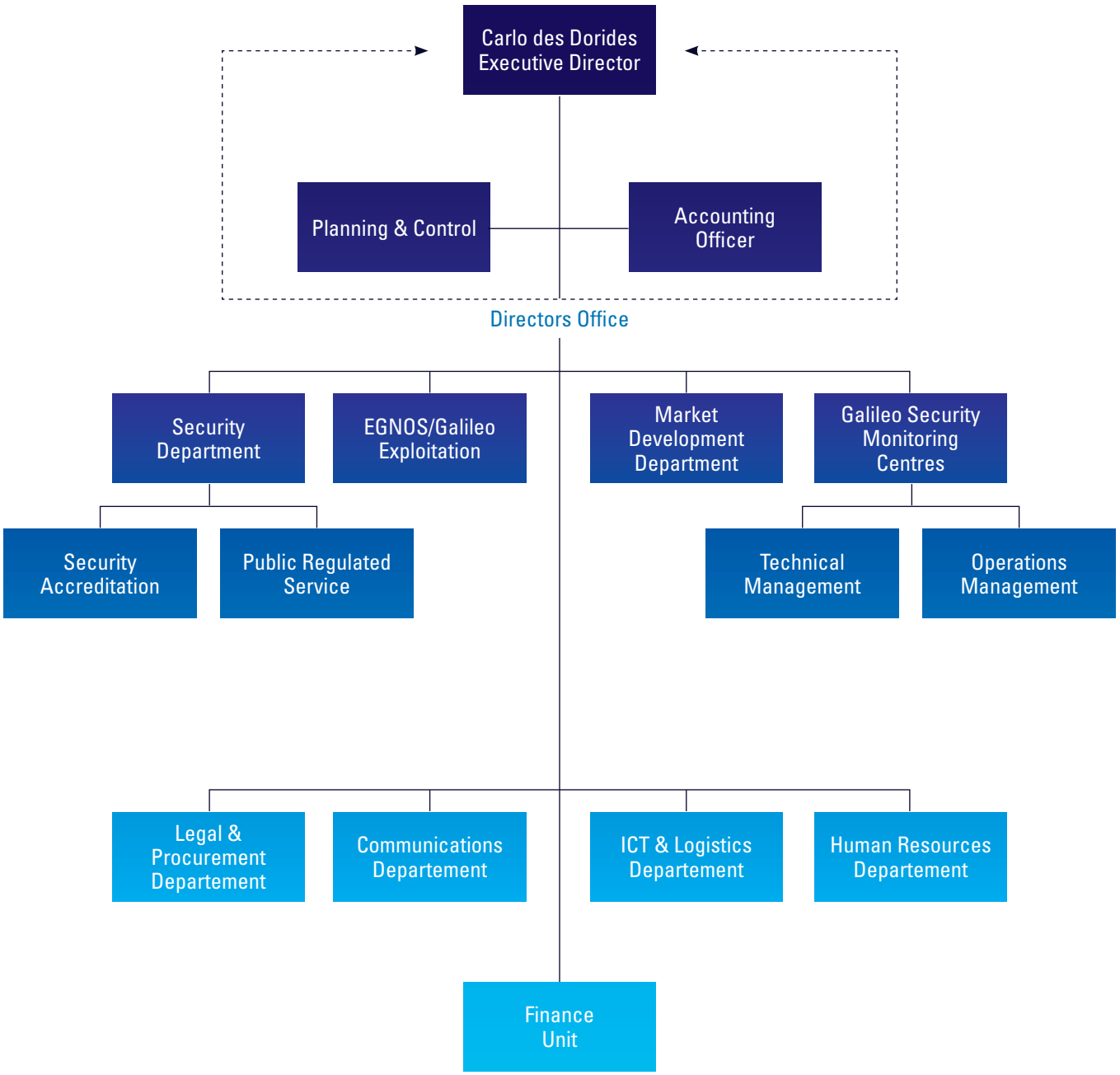
Satellite navigation has made massive inroads in many areas of society, affecting business, public services and consumer behaviour in increasingly profound ways. As well as delivering economic benefits to innovative service providers and related businesses, satellite navigation devices – which are now integrated within a wide variety of transport systems as well as handheld devices like smartphones – have changed the way we manage the mobility, safety and security of people and goods.

The GNSS market, including upstream infrastructure and downstream user applications, has been growing at double-digit rates over the past decade. This growth is expected to accelerate as new satellite systems with superior performance, such as EGNOS and Galileo, become operational and increase the number of applications on offer.

The Agency plays a key role in the development of commercial markets for EGNOS and Galileo services. Today, the Agency's market development activities focus on:

- Marketing of EGNOS to high-potential user sectors (for example, aviation, road and high-precision applications) and promotion to other target markets;
- Managing EU-funded research on innovative satellite navigation applications and technologies;
- Supporting the EC in the preparation of the Galileo exploitation phase;
- Monitoring the GNSS market and forecasting future developments.

6. ORGANISATIONAL STRUCTURE



7. OVERVIEW OF ACTIVITIES IN 2013

The Agency performs both core tasks under Regulation (EU) No 912/2010 and a number of tasks under delegation from the European Commission. The delegated tasks are described in section 288 - Delegated Tasks.

7.1 SECURITY

7.1.1 Security Accreditation

The SAB is the European GNSS Security Accreditation Authority (SAA): all the security accreditation decisions related to the system established under the Galileo Programme are the sole responsibility of the SAB set up inside the Agency as a special body.

The GSA Accreditation Team acts as secretariat to the SAB and plays an important management and coordination role in the framework of the GNSS Security Accreditation Panel (GSAP) for European GNSS Systems and of the European GNSS Crypto Distribution Authority (CDA).

7.1.2 Galileo Security Monitoring Centre

The Agency has a broad mission to prepare itself to become capable to deliver all of its IOC GSMC missions. Four types of activities contributed to that end in 2013:

- The GSMC Nucleus is required in the interim period until the GSMC is fully operational, to provide early security monitoring and reaction capabilities. The Agency took a phased approach to implementing these capabilities.

- The GSMC Organisational Design: The organisation size and capabilities were ramped up, its organisation and processes were organised, and operational validation/ accreditation was obtained.

- Contribution to Operational Equipment Developments: as a future user of Galileo IT operational equipment, the Agency contributed to design specifications and reviews in order to ensure that the GSMC equipment (and the information it can get from or modify into the rest of the system) is appropriate for the long-term missions.

- Hosting Infrastructure Agreement: The Agency ensured the building infrastructure provided by FR/UK is appropriate for the long-term missions and established the long-term relationship agreements to that end.

7.1.3 Support to PRS

There are various missions of the Agency concerning PRS:

- Market preparation;
- Security accreditation of the PRS user segment;

- Tasks defined in accordance with those set out in Article 16 of Regulation (EC) No 683/2008, including the possibility for the Agency to accomplish other activities that may be entrusted to it by the Commission;
- Preparation of the exploitation of the PRS service, in particular through the PRS Pilot Project;
- Operational PRS-related tasks of the GSMC.

7.1.4 Summary of Main Tasks

The tasks listed here are all included in the Agency's Annual Work Programme for 2013; the reference numbers allow for cross-referencing.

A. SECURITY ACCREDITATION

TASK 1.1: SYSTEM LEVEL ACCREDITATION TASKS

The Galileo Accreditation process is strongly linked to the Galileo design, development and deployment process. For each specific Galileo technical milestone, the GSA Accreditation Team has been required to examine the security features of the system (according to the predefined scopes of each milestone) in order to verify the compliance to the security requirements and whether the system is sufficiently secure to allow protectively marked data to be processed by it. This, in practice, means that a decision must be taken to determine if the system is sufficiently secure for Galileo operations.

In order to achieve this objective, the Agency has been required to:

- Perform periodic reviews of the system-level documentation;
- Organise independent security vulnerability analysis and security tests on the system;
- Report the residual security risks of the system through a suitable security risk management process.

In 2013, the following activities were conducted:

- Task 1.1.1: System reviews were carried out, including notably the IOV review. The GSA Security Accreditation Team made an essential contribution to this Galileo Programme review, providing the vast majority of comments.
- Task 1.1.2: Segment and element reviews were carried out, including notably GMS V1.2, Security Operations.

TASK 1.2: LOCAL SITES ACCREDITATION TASKS

Each Galileo site is subject to a specific security accreditation process. The LSAA (Local Security Accreditation Authority) is the centre of the Local Security Accreditation Process as it will perform the liaison at security level between GSA Security Accreditation Team, ESA and the Hosting Entity.

For the case of European Sites, the LSAA is the relevant National Security Authority (NSA), or any other representative authority officially appointed by the NSA, for the country where the Site is located.

In the case of non-European Sites, the LSAA performing the Site Accreditation Inspections is the Agency.

The local site security accreditation process requires two different types of activities in two different steps:

- the review of the local site security documentation;
- the inspection of the site.

The information gathered in each local site accreditation process is used to evaluate the security risks affecting the system and feeds the system-level residual security risk register. Based on the results of the site accreditation process, the SAA releases the authorisation to operate the specific site.

In 2013, the following activities were conducted:

- Task 1.2.1: 25 Sites certificates were issued or renewed, after a review of the corresponding site accreditation documentation and where necessary an on-site visit.

TASK 1.3: SECURITY COMPONENT LEVEL ACCREDITATION TASKS

Components implementing security functions in the system are subject to specific evaluation and certification processes (Crypto evaluation, TEMPEST evaluation, Common Criteria Evaluation and Certification). Although specific and accredited national centres perform this type of activity, the GSA Security Accreditation Team has an important role as well.

The documentation defining the security requirement (Security Targets) for these components was reviewed and linked to the system-level security objectives.

The evaluation and certification process was followed. Information was shared with the national centres performing the evaluation of the components in order to align the security objectives to the system security needs.

The information gathered in each component evaluation and certification process was used to evaluate the security risks affecting the system and fed the system-level residual security risk register.

The GSA Security Accreditation Team has also the task of following the second evaluation activities.

In 2013, the following activities were conducted:

- Task 1.3.1: Component certificates for ATL3 have been monitored and reports were made to GSAP and SAB accordingly.
- Task 1.3.2: The reviews of the component, first and second evaluation, have been monitored and reports were made to GSAP and SAB accordingly.

TASK 1.4: USER SEGMENT ACCREDITATION TASKS

The accreditation tasks related to the User Segment are to be defined, in particular based on the PRS Access Policy set out by the Council, in a related Security Accreditation Strategy.

The Security Accreditation Strategy for the PRS User Segment (US SAS) was initially drafted by the GSA Security Accreditation Team in 2012 and further matured in 2013 through the GSAP and the SAB. Due to the withdrawal of the Delegated Decision establishing the Common Minimum Standards (CMS), the adoption of such a strategy could not be achieved in 2013 and is postponed.

An interim regime has been put in place to allow for the SAB authorisation of PRS manufacturers pending the entry into force of the CMS and the SAS. On this basis, 106 interim authorisations were issued in 2013 to 33 companies in the EU.

TASK 1.5: GSAP MANAGEMENT TASKS

The primary mission of the GNSS Security Accreditation Panel (GSAP) is to elaborate comprehensive Galileo Security Accreditation Reports (SARs) to be submitted for examination and assessment before accreditation statements are issued and approved by the Security Accreditation Authority.

The Panel prepares the Galileo Security Accreditation Reports based on the outcomes of the specific Security Accreditation Tasks described hereafter, instructs any specific demand of the SAA and performs the relevant security analysis.

In 2013, the following activities were conducted with regard to the Chairmanship, technical secretariat and organisational secretariat: 9 GSAP meetings were organised the year 2013, including 7 regular GSAP meetings plus two specific GSAP Formation 4 meetings.

TASK 1.6: CDA/FKC MANAGEMENT TASKS[1]

The setup of the Crypto Distribution Authority (CDA) is a new task for the Agency under the accreditation activities. The CDA was set up in 2011 by the SAB. The Flight Key Cell (FKC) activities represent a part of the set of the CDA's activities, limited by the satellite launch campaigns.

The scope of the CDA covers all tasks, in order to supervise or perform the accounting, the secure handling, the storage and the distribution of all the European GNSS COMSEC material in the frame of the Galileo development and validation, deployment and operational phases.

2013 was a year of transition focusing on building the necessary capacity. A dedicated section has been established in 2013 within the Agency's Security Department and two staff members were recruited, thus enabling this activity

1 Operational Tasks are described in the chapter dedicated to the GSMC.

TASK 1.7: SAB MANAGEMENT TASKS

Interactions between the GSAP and the SAB are guaranteed by the GSAP chair's periodical reports.

When specific accreditation milestone decisions are at stake, specific accreditation reports are prepared by the GSAP and submitted to the SAB for their evaluation and endorsement. This process is carefully followed and managed. Decisions taken by the SAB may be different from what the GSAP might have recommended in the first instance. This is because the GSAP participants will make recommendations based on technical evidences related to the security risks affecting the system. Different considerations might be made at SAB level whereas other constraints might be taken into account (e.g. program budget and schedule) that might require different decisions to be taken.

This means that the GSA Accreditation Team supports not only the technical security accreditation tasks in the framework of the GSAP, but also provides the necessary support to bodies like the SAB in its role of SAA.

This, in turn, implies the need of a general planning and schedule of the entire accreditation process involving several entities. The GSAP shall adapt its work plan to the technical milestones organized by ESA. On the other hand, the SAB shall be organized in a consistent way to attain the security accreditation decisions in line with the general program schedule.

In 2013, the following activities were conducted:

- Task 1.7.1 Security endorsement for the first launch and operation of IOC spacecraft: preliminary accreditation activities were conducted based on the available documentation for Launch 3 (which was postponed beyond 2013). A draft report was presented to SAB in June 2013.
- Task 1.7.2 Security endorsement for the second launch and operation of IOC spacecraft: Launch 4 being postponed beyond 2013, related accreditation activities have not started.
- Task 1.7.3 Security endorsement for the third launch and operation of IOC spacecraft; Launch 5 being postponed beyond 2013-2014, related accreditation activities have not started.
- Task 1.7.4 Technical secretariat and organizational secretariat of SAB meetings: Five SAB meetings were held in the year 2013.

B. GSMC

TASK 2.1: GSMC NUCLEUS ACTIVITIES

As of the first launch of the operational satellites, the Commission considered the partial implementation of GSMC functionality as necessary. In this context, the Agency established the GSMC nucleus to guarantee some GSMC functions, with reduced scope and objectives, until the GSMCs are deployed and operational.

To this end, throughout 2013 the Agency continued the operations of the GSMC nucleus with a year round 24/7 on-call roster to ensure continuity. This was achieved with a level of unavailability lower than 5% over the entire year. Furthermore, the Agency also prepared the GSMC security monitoring and reaction capabilities for the Galileo early services in 2014 and started security incident reporting, based on information provided by the Programme. Responsibility of providing access to PRS keys for PRS Pilot Member States was transferred to ESA, in line with EC request stated in the PRS Implementation Plan.

By mid-2013, the Agency established COMSEC procedures for both GSMC sites and an account number signed. While the Agency planned to centralise accounting and shipment tracking of COMSEC material, this has been delayed pending the establishment of these rules and processes following the recruitment of the CDA Chair. The same applies to technical support in the definition of the crypto maintenance policy and to other general operational CDA tasks.

Preparatory activities relating to changes required for the OHB satellites were done but no launch support was performed since the launches planned for 2013 were cancelled. The Agency had planned specific operational FKC tasks for each launch campaign but these too were not performed, except an update of the FKC Key Management Operational Procedures, the chairmanship of the FKC meetings and a security visit done in Kourou in June 2013 in line with the preparation of L3.

TASK 2.2: INITIAL SITE HOSTING OPERATIONS

After the initial site acceptance and security accreditation, the Agency started using the site infrastructure while the operational equipment and the administrative and security equipment was installed, tested and accredited. This was a step towards the full site acceptance and accreditation.

In both France and the UK, the Agency contributed to the establishment of the Hosting Agreements, between itself, the Commission, and respectively France and UK. Following an alignment meeting in May between the Commission, ESA and itself, the Agency took formal charge of the delivery of the sites hosting.

The French GSMC site achieved the 'Delivery Review Board' on December 05, 2013, authorising therefore the deployment of the GSF equipment within the GSMC/FR premises.

In the UK site, progress was made toward similar milestones. However, it was agreed with the Commission and with ESA that achieving this milestone could be completed in 2014 without affecting the program.

The following main activities were procured:

- Guarding services (France);
- UK Space Agency implementing arrangement;
- France occupier's charges and services;
- NATS UK occupier's charges;
- Provisional cleaning services;
- GEPSA facility management (France);
- WAN connectivity;
- SECTRA Tigers;
- Data processing;
- Furniture.

TASK 2.3: GSMC ORGANISATIONAL DESIGN

Building the GSMC organisation is the primary task (in effort and importance) throughout the 2012-2014 horizons. Activities gradually ramped-up in parallel with the delivery period of the building infrastructure (Q2 2013) and of the operational equipment (end 2013-2014).

The design of these was synchronized with the work package 2 provider (under control of ESA) and to a lesser extent with the Galileo system operator (Work package 6 under control of ESA).

The Agency successfully moved its GSMC members of staff from Belgium to France in September 2013 as planned.

The overall GSMC project was managed using monthly coordination meetings with the relevant stakeholders which led to the update of the risk register as required throughout the year. The design of the operational, technical and administrative procedures was completed as planned by September 2013. The draft emergency recovery procedures, the business continuity plan and the rules and procedures for shift working, shift allowances, on-call procedures were finalised by the end of the year as planned.

Main activities achieved internally were the following:

- Task 2.3.1 Move of GSMC staff from Brussels (Belgium) to Saint Germain en Laye (France);
- Task 2.3.3 Management of GSMC project;
- Task 2.3.4 Support to the GSA PRS team on the preparation of PRS service provision.

TASK 2.6: HOSTING INFRASTRUCTURE AGREEMENT

The GSMC sites (Saint Germain en Laye and Swanwick) were secured and accredited by the Local SAA in November 2013.

C. GSA SECURITY INFRASTRUCTURE MANAGEMENT

The GSA administrative network and the security equipment were installed, tested and accredited by the end of 2013. The accreditation of the secured network between various sites is still pending.

F. RELOCATION OF GSMC TO FRANCE AND THE UNITED KINGDOM

TASK 6: FINALISE ALL THE CONTRACTS AND AGREEMENTS REQUIRED TO OPERATE THE GSMC SITES

Required analysing the hosting/lease agreements reached with FR and UK authorities, identify the elements under the Agency's responsibility, prepare a procurement plan and organize the appropriate procedures to cover the remaining services or needs for equipment.

This status of this task is included in the status for task 2.2 (above)

TASK 7: DEPLOY THE NECESSARY ICT AND LOGISTICS INFRASTRUCTURE IN BOTH SITES

Required the preparation of a detailed technical project, its adaptation to the actual budgetary situation and the operational requirements of the GSMC and then procurement of the equipment and the subsequent engineering work.

This status of this task is included in the status for task 2.2 (above)

TASK 8: ESTABLISH EFFICIENT COMMUNICATION WITH THE AGENCY HQ IN PRAGUE FROM BOTH SITES

Following the setup of the ICT infrastructure in the GSMC, the need to establish secure and reliable communication channels with the Prague HQ and with the other GSA sites has been confirmed.

7.2 MARKET DEVELOPMENT

The Agency's activities in the field of market development focus on market entry and business development actions, in line with different exploitation scenarios of the Commercial Service.

7.2.1 Contribution to the Preparation of System Commercialisation

The European GNSS programmes will benefit both industry and society. The Agency has contributed to the market take-up of GNSS systems in order to achieve maximum benefit from the systems. This role has been divided into three main fields of activity:

- Foster and support the progress of European GNSS systems:
  - EGNOS, which reached full operational capability through the declaration of availability of the EGNOS Open Service on 1 October 2009 and the declaration of Safety-of-Life service on 2 March 2011.
  - Galileo Early Services, which are expected to be declared in early 2015. This implies the need to prepare market entry for Galileo.
- Understand the potential and main trends of the GNSS market, i.e. assess the environment in which satellite navigation applications can develop, including downstream markets, assess the various options for improving the dynamics of the market and make suitable recommendations to the Commission;
- Contribute to the development of the market with actions to encourage the take-up of European GNSS services, leveraging FP7 application projects with a particular focus on supporting small and medium enterprises (SMEs) and promotional initiatives.

7.2.2 Tasks during 2013

The tasks listed here are all included in the Agency's Annual Work Programme for 2013; the reference numbers allow for cross-referencing.

TASK 1: EGNOS USER DEVELOPMENT IN AVIATION

The Agency developed an action plan for EGNOS adoption in Aviation, targeting procedure publications, avionics installation and certification and pilot qualification. This task focused on implementation of this plan.

The action plan defined the activities to undertake in order to accelerate the adoption of ICAO recommendation of achieving 100% APV coverage in Europe by 2016. A desktop analysis was already performed by the Agency to identify the potential for EGNOS uptake for all airports in Europe, in order to give guidance when contacting decision makers. The desktop analysis helps to achieve the 2 main objectives for procedure roll-out acceleration:

- The 1st procedure in each country is essential for learning purposes and for clearing all admin obstacles with regards to the publication thereof;
- The total number of procedures is important to convince operators and private pilots to invest in an SBAS equipage on board their aircraft.

This task was completed by the end of the reporting period as per schedule with the following notable results:

- By the end of 2013, 174 EGNOS-based procedures (LPV and LPV Baro) were operational in Europe in 99 airports;
- Twenty-three countries were involved in procedure implementation at various maturity levels. The Agency supported the implementation of the first LPV procedure in seven countries;
- Fifteen operators were supported to upgrade their fleet to use EGNOS capabilities;
- Several PinS procedures were tested, raising the interest of Helicopter Emergency and Medical Services operators who acknowledge the safety benefits provided by EGNOS to land also in poor weather conditions and at night.

TASK 2: E-GNSS USER DEVELOPMENT IN ROAD TRANSPORT

Road is a priority user market for GNSS adoption in Europe. Over the reporting period, the Agency implemented a roadmap for long-term adoption of E-GNSS in road pricing. This faced limited delay due to ASECAP internal management changes but was completed by year-end despite this. As a result of this implementation, the Agency is now formally involved as an advisor to the Regional European Electronic Toll Service-TEN project in 2014 under the leadership of DG MOVE.

The Agency also implemented an entry plan related to e-call; three leading manufacturers have now proposed Galileo and EGNOS ready products. Furthermore, the Agency provided essential support to the Commission, which issued a regulation proposal that mandates EGNOS and Galileo compatibility for all manufacturers.

Finally, the Agency implemented an entry plan on Advanced Driver Assistance Systems and has started the process to engage manufacturers.

7.3 GENERAL ADMINISTRATION

7.3.1 Information Systems and Information Technology

The ICT and Logistics team invested a lot of effort into the improvements and stabilization of IT systems delivered in a very short time frame during the relocation to Prague in 2012. The technical platform has clearly improved and is ready to host a growing number of applications and services to be developed in the coming years. The ICT systems were fully extended to the new GSMC sites. The GSMC sites now have a working environment identical to the Prague HQ. Thanks to the WAN technology, audio and video communications do not trigger any additional costs.

The GSA Logistics service extensively supported the setup of the GSMC and operated as a procurement agent for the GSMC. The team also organized physical removals between the sites in Brussels, Prague, Saint-Germain and Swanwick.

The Agency closed its offices in Brussels and all material and equipment moved either to Prague or to the GSMC sites.

It is to be noted that the project for development of a DMS system to distribute PRS documentation to Member States was abandoned after a reassessment of the needs. This project did not consume any funds.

7.3.2 Communications

In 2013, GSA Communications focussed on the following main objectives:

- Continue EGNOS Promotion;
- Strengthen PRS Awareness-building;
- Strengthen GSA Corporate Communications;
- Support Galileo-related Communications.

To accomplish these objectives, GSA Communications activities in 2013 focussed on the following activities:

1. EGNOS Market Communications and promotion actions that aimed to build on the positive steps taken to date in this domain and focus on building greater awareness and confidence leading to more uptake of EGNOS amongst more users and new sectors.

2. PRS awareness-building communications actions that helped to explain and demonstrate the system and help support the process of preparing the market and the industry to be able to positively exploit the service when it becomes available.

3. Corporate Communications actions aimed at repositioning and rebuilding a solid image for the Agency, especially given its new responsibilities, new regulation and new headquarters in Prague.

4. Awareness and confidence building for Galileo, in cooperation with the European Commission.

In the area of EGNOS Market Communication and Promotion, activities were undertaken that were designed to:

- Raise the overall positive awareness of the existence and high performance of EGNOS and its benefits as a confidence-building measure for European GNSS in general;
- Position EGNOS as a successful step in the evolution of European GNSS;
- Increase the awareness and understanding of EGNOS as a useful feature/enabling technology for application developers requiring more precise and reliable PNT information;
- Raise awareness of the results of EU GNSS Framework Programme Research, and how it supports the growth of GNSS-powered business in Europe in general, and target industry sectors in particular. Sector-specific objectives included:

    - Aviation: To increase the awareness, credibility, support and acceptance of the benefits that EGNOS has for aviation in Europe, encouraging its uptake by the community

    - Road: Increase awareness of and interest in what EGNOS can bring to road applications to support adoption in the sector. (focus on Road User Charging (RUC), eCall, Advanced Driver Assistance Services (ADAS), Pay Per Use Insurance (PPUI)

    - High Precision: Increase awareness of and encourage adoption of EGNOS, as well as EDAS, by organisations relying on high precision information (focus on precision agriculture, mapping, GIS).

    - Maritime: Begin to raise awareness of EGNOS in the sector as well as introduce and explore the potential benefits it can offer initial segments of the market (focus on commercial and leisure coastal and inland waterway navigation).

To accomplish this, the following tasks were implemented:

Identity and Branding

- The GSA continued to expand the use and uptake of the EGNOS mark and branding, using the 'EGNOS. It's there, use it.' campaign umbrella.

Publications, Advertising and Video

- A new brochure and video showing the benefits that EGNOS offers for maritime applications was developed and distributed at relevant conferences, events and meetings, and via Internet channels.
- EGNOS sector-specific brochures for aviation, mapping and agriculture were updated.
- Full-page EGNOS for Aviation magazine advertising was updated and placed in 2 conference-related aviation media.

Internet and Social Media

- On-going timely update of the EGNOS Portal (www.EGNOS-portal.eu) with EGNOS news, success stories and project results. 84 news stories were added to the site in 2013.
- A new section was added on the GSA Website highlights Horizon 2020.
- 198 Tweets and 58 Facebook post were made in 2013 to support EGNOS.

Direct Marketing

- 2 'EGNOS Portal Newsletters' and an introductory e-announcement mailing on Horizon 2020 were published and distributed to a subscriber list of over 20,000.

Media Relations

The Agency distributed the following EGNOS-related Press Releases in 2013, which were picked up in relevant media:

- 6 November 2013: Sports tool wins 2013 GSA EGNOS Prize.
- 26 June 2013: Long-term stability for EGNOS secured.

Events

EGNOS was exhibited at the following events in 2013:

Promoting EGNOS for Aviation:

- World ATM Congress, Madrid – EGNOS stand and workshop at the event's 1st edition.
- Aero Friedrichshafen – EGNOS stand and sponsorship at the largest general aviation event in Europe.
- European Helicopter Show, Hradec Králové – First EGNOS stand at a Helicopter event
- EBACE, Geneva – EGNOS stand at the main European Business Aviation event.
- European Regions Airline Association (ERA) 2013 General Assembly, Salzburg – EGNOS stand and presentation.

Promoting EGNOS for Agriculture:

- SIMA, Paris – EGNOS presence with 'Farming by Satellite' Prize at the world's leading agriculture event.
- Agritechnica, Hannover – EGNOS stand with Claas at the leading international exhibition for agricultural machinery and equipment exhibitors.

Promoting EGNOS for Mapping:

- Intergeo 2013, Essen – EGNOS stand at world's largest event for geodesy, geo-information and land management.

Promoting EGNOS for Road:

- Tenth Annual Road User Charging Conference, Brussels – EGNOS stand and presentation.
- ASECAP DAYS 2013, Dubrovnik – EGNOS stand, sponsorship and presentation at the annual event of the European Association of Operators of Toll Road Infrastructures.
- ITS Europe, Dublin – EGNOS exhibition within the European Commission stand at the 9th European ITS Congress.

In the area of PRS awareness-building, activities were undertaken that were designed to:

- Stimulate interest and enhance knowledge of PRS and PRS pilot projects among potential participants.
- Increase understanding of the future PRS service, how it will work, and why it is needed.
- Raise awareness of why and how potential users, as well as related industry, should start preparing for PRS.

Publication

- The PRS brochure was updated and distributed via relevant channels.

Internet

- Two news stories on the PRS were added to the GSA Web site.

Events

- Critical Communications World, Paris – Stand and workshop raising the awareness of the PRS to the Professional Mobile Radio (PMR) market

In the area of GSA Corporate Communications, activities were undertaken that were designed to:

- Define and clarify the role and responsibilities of the 'new' European GNSS Agency'.
- Raise positive awareness of the Agency, its activities and achievements.

Identity and Branding

- GSA graphic identity was extended to new agency Headquarters signage and décor.

Publications

- The GSA Corporate leaflet was updated and distributed through relevant channels.

Internet and Social Media

- Sixty-eight news stories were added to the GSA website (www.gsa.europa.eu) in 2013.
- 52 Tweets and 25 Facebook post were made in 2013 to support EGNOS.

Media Relations

The following GSA-related Press Release was distributed in 2013 and picked up in relevant media:

15 October 2013: *The GSA Market Report promises success for GNSS*

Events

- 5th Conference on Space Policy, Brussels – GSA stand and speech;
- High level Roundtable: GSA the tool to implement the Galileo satellite navigation system ('Galileo 2.0'), Brussels – roundtable and exhibition at the European Parliament;
- The GSA organised visits for several important stakeholders to its new Headquarters in 2013, including European Commission President Barroso and DG Enterprise & Industry Director-General Calleja.

In the area of Galileo Exploitation-related Communications, activities were undertaken that were designed to:

- Support the European Commission in raising awareness and confidence of the exploitation phase of Galileo, in support of the initial steps taken in 2013.

Internet

On-going GSC website maintenance and update.

Media Relations

The following related Press Release was distributed by the GSA in 2013 and picked up in relevant media:

14 May 2013: *The European GNSS Service Centre helps users access data.*

Events

Inauguration of the GSC, Madrid

THE ROLE OF GSA COMMUNICATIONS IN LARGE COLLABORATIVE INITIATIVES

THE 2013 EUROPEAN SATELLITE NAVIGATION COMPETITION (ESNC)

2013 was the sixth year that the European GNSS Agency (GSA) was a Partner in the ESNC or 'Galileo Masters' and offered a special topic prize for the most innovative application using EGNOS. This year's winner was a concept to monitor field sports in real-time - 'Project JOHAN' - and will enable assessment of players' performances and the development of new tactics based on players' capabilities. The idea employs tiny wearable GNSS receivers and uses EGNOS to ensure accuracy and reliability.

2013 EUROPEAN SPACE SOLUTIONS

For the second year in a row, the GSA led the organisation of the European Space Solutions conference, from 5-7 November 2013 in Munich, Germany, in conjunction with the European Commission. The conference brought together business and the public sector with users and developers of space-based solutions. The event featured over 1,000 registered participants, five dedicated user-led half-day seminars, 10 complementary workshops and side events, the European Space Expo, and a range of business support and financing opportunities.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8. DELEGATED TASKS

There are various delegation agreements in place to cater for specific activities. The list below shows which delegation agreements were in force in 2013.

1. The Public Regulated Service (PRS) delegation agreement, signed in 2011;

2. The EC-GSA Working Arrangement on Security[2];

3. The Exploitation Delegation Agreement, signed in 2012:
   - Tasks related to Programme Exploitation;
   - Tasks related to the Action Plan on GNSS Applications;
   - Tasks related to Communications Activities;
   - Tasks related developing the Public Regulated Service (PRS) and related security activities.

4. The FP-7 delegation agreement, signed in 2011.

8.1 THE PRS DELEGATION AGREEMENT

There are various missions of the Agency concerning PRS:

- Tasks defined in accordance with those set out in Article 16 of Regulation (EC) No 683/2008, including the possibility for the Agency to accomplish other activities that may be entrusted to it by the Commission, in particular:

  - Preparation of the exploitation of the PRS service, in particular through the PRS Pilot Project;
  - Procurement of pre-operational PRS receivers.

- Operational PRS-related tasks of the GSMC: the PRS user segment will require the timely availability of the GSMC. While the operation of the GSMC is an Agency mission, the preparation thereof requires the following related activities:

  - Operational engineering: the Agency shall prepare all the operational products for the GSMC and for the POC-P facility deployed at the GSMC sites and the related interactions with stakeholders (the European Commission and the Member States). Within the timeframe of this delegation agreement, French and UK local site operating procedures were built to enable the Commission (via ESA and industry) to deploy the GSMC operational equipment by the end of 2013. The Agency drafted operating procedures for such equipment to enable testing thereof from 2014 onwards.
  - Technical and administrative engineering: the Agency shall:
    - Ensure that, once the GSMC is ready (target date 2015), it will be compliant with all relevant requirements of the Galileo programme (e.g. operational and security) and its mission. This task is meant to complement the procurement of Galileo operational equipment managed by the Commission through a delegation to ESA and the procurement of the France and UK hosting entities initiated by the Commission, which the Agency will continue under this delegation agreement and according to a France/UK/Commission/Agency agreement under negotiation (the 'Hosting Agreement»).

2 As defined in the "Agreement in the form of Exchange of Letters on a Working Arrangement for the execution of security related tasks of the European GNSS programmes between the European Commission and the European GNSS Agency", Ref. ENTR/GP2 AN/am Ares (2010)1087450 dated 28 January 2011.

- Review the technical specifications of the Galileo operational equipment (CDR and follow-up preparation of installation and testing plans); follow-up the delivery of the France and the UK site; negotiate the relevant launch procurements with France and the UK (as will be further clarified in the Hosting Agreement) as well as any missing equipment, software or licences from ESA, France or UK deliveries. For the avoidance of doubt, the Commission will continue to verify the France/UK site infrastructure compliances, or as currently delegated to ESA.

The tasks listed here are all included in the Agency's Annual Work Programme for 2013; the reference numbers allow for cross-referencing.

TASK 2.1: GSMC NUCLEUS ACTIVITIES (DELEGATED PART)

As of the first launch of the operational satellites, the Commission considered the partial implementation of GSMC functionality as necessary. In this context, the Agency established the GSMC nucleus to guarantee some GSMC functions, with reduced scope and objectives, until the GSMCs are deployed and operational.

Main activities procured, using delegated budget were the following:

- Task 2.1.02: Prepare the GSMC security monitoring and reaction capabilities for the early services in 2014.

TASK 2.3: GSMC ORGANISATIONAL DESIGN (DELEGATED PART)

Building the GSMC organisation was the primary task (in effort and importance) throughout the 2012-2014 horizons. Activities gradually ramped-up in parallel with the delivery period of the building infrastructure (Q2 2013) and of the operational equipment (end 2013-2014).

The design of these was synchronized with the work package 2 provider (under control of ESA) and to a lesser extent with the Galileo system operator (work package 6 under control of ESA).

The Agency successfully moved its GSMC members of staff from Belgium to France in September 2013 as planned.

The overall GSMC project was managed using monthly coordination meetings with the relevant stakeholders, which led to the update of the risk register as required throughout the year. The design of the operational, technical and administrative procedures was completed as planned by September 2013. The draft emergency recovery procedures, the business continuity plan and the rules and procedures for shift working, shift allowances, on-call procedures were finalised by the end of the year as planned.

Main activities procured were the following:

- Task 2.3.2: Design of the operational, technical and administrative procedures.

TASK 2.4: EC-GSA WORKING ARRANGEMENT ON GSMC[3]

In order to ensure the performance of these activities and optimize the interaction with the European Commission, a number of support tasks were undertaken by the Agency during 2013. These were:

- Responding in time to any EC request, for review of documentation produced by the Galileo Programme under the IOV, IOC and FOC phases linked to the GSF.
- Participation as observer to the Program Change Control Board, Program Management Meetings and, depending on the agenda, to the Quarterly Project Meetings.
- Support the definition and update of the GMSC risk register under the responsibility of the EC, as required by events.
- Participate in the monitoring of the GSF (GSMC & POC-P) infrastructure development and deployment in order to prepare the recruitment, training and deployment on sites of the staff in charge of operating the Galileo Security Centre.

Follow-up the GSF technical definition and procurement undertaken by ESA in order to develop the knowledge and expertise associated to its future role of operator for the Galileo Security Monitoring Centre and for contributing to the qualification of the GSF when requested by the Galileo Programme.

3 As defined in the "Agreement in the form of Exchange of Letters on a Working Arrangement for the execution of security related tasks of the European GNSS programmes between the European Commission and the European GNSS Agency", Ref. ENTR/GP2 AN/am Ares (2010)1087450 dated 28 January 2011.

TASK 4.1: PRS PILOT PROJECTS

Activities to be performed by the agency on PRS Pilot project support are defined in the EC-GSA Working Arrangement on PRS Pilot Project[4] and in the 2011 Delegation agreement on PRS[5].

As detailed in this delegation agreement, the Agency managed the fundamental first step of the PRS Pilot Project, i.e. the PIONEER2 (or P3RS2) project for the procurement of a set of pre-operative PRS receivers. In 2012, the Agency launched a contract to procure at least 20 PRS pre-operational user receivers to be used in the frame of the PRS Pilot Projects by no later than end of 2014/early 2015. The procurement and field-testing of these pre-operational PRS receivers contributes to the preparation of future generations of PRS receivers and security modules.

The allocated budget for this procurement is 11 M€. The contract was signed in Q4 of 2013, for a duration of three years following the successful completion of the negotiation phase, the award of the framework contract and the selection process for the specific contract. The Agency also was responsible for managing the documentation received during all phases of this project and supported the management and coordination of the entire evaluation.

Regarding the preparation for Test Activities, the Agency has actively collaborated with the Commission in the elaboration, coordination and evaluation of the *Call for Engagement of interested MS in PRS demonstrators.* In 2013, the Agency was designated the point of reference for PRS Stakeholders (the Commission, Member States, ESA, EU agencies and industry) in the upcoming PRS Demonstrator Phase II (Pilot Projects) of the Galileo Programme.

The Agency also provided support to the Commission as follows:

- The elaboration of the final evaluation reports for the PRS Pilot Project (P3RS1): The Agency also supported the Commission in the elaboration of the Call for Engagement (CfE) of interested MS in PRS Pilot Projects.
- The definition and drafting of the Common Minimum Standards: The Agency attended all working group meetings and provided secretariat support throughout the year.

Additionally, the Agency provided technical, secretarial and logistical support to the PRS working group (WG-PRS) on PRS pilot projects which met five times during the year.

8.2 THE EC-GSA WORKING ARRANGEMENT ON SECURITY

TASK 1.8: EC-GSA WORKING ARRANGEMENT ON SECURITY[6]

In order to ensure the performance of these activities and optimize the interaction with the European Commission, the following activities fall within the responsibilities of the Agency under this working arrangement:

- Task 1.8.1: Participation in programmes reviews under the IOV and FOC contracts was ensured.
- Task 1.8.2: The Agency has not been invited to participate to the Program Change Control Board, the Program Management Meetings and, depending on the agenda, to the Quarterly Project Meetings.

In addition to the above, the Agency can provide technical assistance to the European Commission with the following tasks:

- Task 1.8.3: The Agency has not been invited to maintain the SSRS and other security requirements under a DOORS database for security accreditation purposes.
- Task 1.8.4: The Agency has not been invited to maintain Support the EC in updating the Galileo SSRS and other security requirements, as required.
- Task 1.8.5: Support to the EC in updating the GNSS (Galileo and EGNOS) security threats and vulnerabilities analysis and risk assessment was ensured.
- Task 1.8.6: Support to the EC in establishing relevant EGNOS security-related requirements was ensured via the contribution to the review of EGNOS documentation launched by the Programme.
- Task 1.8.7: Updates to the security accreditation risk register were made, as required by events.
- Task 1.8.9: Updates to the plan of needed program decisions to facilitate security accreditation decision were made, as required by events.
- Task 1.8.10: Report to the CPM of the main issues/findings after each review.

4 As defined in the "Agreement in the form of Exchange of Letters on a Working Arrangement for the execution of security related tasks of the European GNSS programmes between the European Commission and the European GNSS Agency", Ref. ENTR/GP2 AN/am Ares (2010)1087450 dated 28 January 2011.

5 Delegation agreement between the European Union and the European GNSS Agency on the development of a standalone first generation PRS receiver within the frame of the PRS Pilot Project and the implementation of preparatory activities related to the setting up of the Galileo Security Monitoring Centre, ENTR/GPI/Ares 808130, 9 Sept. 2011.

6 As defined in the "Agreement in the form of Exchange of Letters on a Working Arrangement for the execution of security related tasks of the European GNSS programmes between the European Commission and the European GNSS Agency", Ref. ENTR/GP2 AN/am Ares (2010)1087450 dated 28 January 2011.

TASK 1.9: SUPPORT TO THE EUROPEAN COMMISSION

In 2013, the following activities were conducted:

- Task 1.9.1: The Agency has not been invited to assist the EC by making proposals for the evolution of the SSRS3.9, based on an update of the Galileo Threat and Vulnerabilities study.
- Task 1.9.2: The Agency has not been invited to assist the EC in any audit and inspection of PRS Manufacturer and Competent PRS Authorities.

TASK 2.5: CONTRIBUTION TO OPERATIONAL EQUIPMENT DEVELOPMENTS

The Agency responded in time to Commission requests for review of documentation produced by the Galileo Programme linked to the GSF as required. It also participated as Member to the Programme Change Control Board (PCCB).

TASK 4.2: PRS USER SEGMENT

EC-GSA Working Arrangement on PRS User Segment

The EC-GSA Working Arrangement on PRS User Segment[7] includes the following tasks within the responsibilities of the Agency under this working arrangement:

- Budget implementation tasks that may be delegated by the Commission. None were delegated during the reporting period.
- Presentation of the results of the ARMOURS, ULTRA and DETECTOR projects at the WG-PRS.
- The development of a concept study of a low-cost PRS receiver: This was partially covered by a specific work package and further activities are expected to be completed in 2014.
- The development of a PRS technological roadmap, trials and the development of facilities and other documents supporting PRS adoption: These were endorsed by the WG-PRS and presented to the GNSS Security Board.

EC-GSA Delegation Agreement on the preparation of the exploitation phase of the European GNSS

The technical annex to this agreement specified the following activities:

- Preparatory tasks for the exploitation of EGNOS and Galileo 2012-2013.
- Activities related to developing the PRS and related security Activities.

Additionally the PRS Implementation plan[9] and PRS Decision 1104/2011[10] enforced in November 2011 require new tasks from the Agency with the PRS User Segment, Competent PRS Authorities and End Users.

However, the Commission did not receive in 2013 any request from member States and other specific PRS participants on these specific tasks.

TASK 5.1: EC-GSA WORKING ARRANGEMENT ON GNSS SECURITY BOARD AND ASSOCIATED WORKING GROUPS

In order to ensure the performance of these activities and optimize the interaction with the European Commission, under the EC-GSA Working Arrangement[11] on GNSS Security Board and associated Working Groups, the Agency was requested to participate in relevant working groups.

In addition to the above, the Agency provided Chiasmus keys to the Commission when requested.

7 As defined in the "Agreement in the form of Exchange of Letters on a Working Arrangement for the execution of security related tasks of the European GNSS programmes between the European Commission and the European GNSS Agency", Ref. ENTR/GP2 AN/am Ares (2010)1087450 dated 28 January 2011.

8 Part relevant for PRS, see also chapter on GSMC.

9 Galileo Public Regulated Service Implementation Plan, EC-PRSIP Issue 1.1, 18 September 2012.

10 Decision No 1104/2011/EU of the European Parliament and of the Council of 25 October 2011 on the rules for access to the public regulated service provided by the global navigation satellite system established under the Galileo programme, 1104/2011 (enforced on 5/11/2011), 25 October 2011.

11 As defined in the "Agreement in the form of Exchange of Letters on a Working Arrangement for the execution of security related tasks of the European GNSS programmes between the European Commission and the European GNSS Agency", Ref. ENTR/GP2 AN/am Ares (2010)1087450 dated 28 January 2011.

8.3 THE EXPLOITATION DELEGATION AGREEMENT

8.3.1 Tasks related to Programme Exploitation

8.3.1.1 EGNOS Exploitation Preparation

ESP Preparation Activities

The EGNOS Service Provider contract was awarded to ESSP and the transition to the ESSP-2013 contract from the ESSP-2009 contract successfully arranged, including an initial service provision phase to 30 April 2014. The consistency between the ESP contract and the planned EC-GSA Delegation Agreement (signed in 2014) was not confirmed in 2013, nor were the assumptions that the Agency necessarily took concerning in particular liabilities, financial commitments, management processes and the safety case process.

Preparation of EGNOS Operational Exploitation

The EGNOS exploitation team was staffed with eight new staff during 2013, including three formerly Commission staff. It was agreed to establish an Agency Bureau de Liaison in Toulouse.

The development of the future EGNOS governance arrangements progressed during the 4th quarter of 2013, but no conclusions were reached concerning the future delegation agreement, the technical annex and the Programme Management Plan (PMP). The Agency has started work on the GSA-ESA Working Arrangement and has held one initial discussion with ESA.

The EC-GSA EGNOS exploitation handover process was undertaken and well developed in 2013, although outstanding issues remain related to Geo-transponders and mission aspects. The Agency plans to close these issues in 2014 linked to the signature of the new Delegation Agreement.

The Agency contributed actively to the further definition of an appropriate approach to security and accreditation for EGNOS and remains concerned with respect to the treatment of EGNOS stations in third countries, in particular for EGNOS V3.

The Agency developed the proposed agreement with EUROCONTROL and initiated a concept of having Member States providing it with technical assistance for EGNOS performance (SPMS).

GSA Executive Director, Carlo des Dorides and Eurocontrol Director General, Frank Brenner signing the cooperation agreement.

Deliverables

- Presentations to GNSS Programme Committee;
- EGNOS Service Performance Member State Support note;
- ESP draft award decision;
- EGNOS Exploitation Handover Organisation Note.

Activities Related To EGNOS Infrastructure Acceptance

The Agency participated actively in Commission-led EGNOS technical activities. It also participated actively in the ESA EGEP V3 System Requirements Reviews with Astrium and Thales. The Agency provided other inputs to the EGEP V3 activity including the first version of the EGNOS V3 operations cost model requirements and V2 operations cost benchmark document.

Deliverables

- EGNOS V3 Operations Cost Model Requirements & V2 Summary Operations Costs Benchmark Report; 4 December 2013.

Activities Related To EGNOS Data Access Service (EDAS)

The Agency contributed to the EC EDAS deployment report and made a proposal for the EDAS roadmap.

Deliverables

- GSA EDAS Roadmap draft EGNOS-GSA-EXP-RPT-002

8.3.1.2 Galileo Exploitation Preparation

In 2013, the Agency continued to lead and coordinate the work of the Commission-ESA-Agency Galileo Early Services Task Force, with new Terms of Reference that were agreed at the beginning of the year.

An overall master schedule for the achievement of the declaration of early services in Q4 2014 was launched in the first part of the year. A first release of considered schedule incorporating inputs from Commission, ESA and the Agency was proposed to the Task Force during the summer alongside a policy for its regular update. Related activities were put on hold in the third quarter pending confirmation of the approach for Early Services with respect to the OHB satellites launch schedule. Finally, a major re-planning exercise was performed by the end of the year taking into account the new launch schedule provided by ESA with the third launch in June 2014, the fourth in October 2014 and the fifth in December 2014. The validation phase was planned to start in April 2014 with initial validation activities and the final service validation with six satellites is still planned to be completed in September/October 2014. This re-planning was reviewed by the Task Force, which concluded that the objectives of having the Early Services ready by Q4 2014 should still be met if no further delay occurs.

The Agency continued to contribute to on-going discussions with the Commission concerning the future Delegation Agreement and the Long Term Plan budget allocations as well as roles and responsibilities for the period 2014-2020.

The Agency identified the support it would require from ESA for undertaking the anticipated set of delegated tasks. Nevertheless, with the EGNOS overall governance model being modified by the end of the year following iterations with Member States, it is expected that there will be further changes on Galileo for the phase to start in 2017, which partially prevent fruitful discussions to take place with ESA regarding Working Arrangements.

On an operational point of view, the scope of the Operations Concept Review (OCR) was confirmed. With the re-planning, it was decided that it will be applied only to the FOC and not for ES but it nevertheless will be prepared with the support of the ES Task Force.

A Preliminary Change Implementation Proposal (PCIP) related to the Early Service implementation (Phase 1) and validation (Phase 2), proposed by ESA, was approved by the Commission, but significant deviations from the baseline occurred during the year. ESA Change Requests to industry were approved by EC/GSA for work package (WP) 1 (system support) including for service accreditation matters, WP6 (operations) and the Galileo System Evaluation Equipment (GALSEE). ESA system activities were accordingly mostly performed internally, with the nominal WP1 involvement.

The final change proposal from Spaceopal (WP6, Operations) was received in November and finally approved by ESA and EC at beginning of December. The WP6 ES kick-off was scheduled for the 14 January 2014.

As a way forward with respect to the SAR Validation Test Bench upgrade procurement, it was agreed that the SAR VTB is discontinued.

The FOC TGVF development continued with the Orbit Determination and time Synchronisation (ODTS) Validation Facility kick-off and Operations Readiness Review on 9 October, the Design Review on 28 November and the first Quarterly Operations Review in December.

The GALSEE activities were kicked-off with Thales Alenia Space, Italy at the beginning of October.

The security accreditation issue was addressed by the Task Force and regular presentations were made in the GSAP and SAB regarding the Early Services.

Concerning combined receiver testing, 11 companies provided responses to the request, covering a large part of the market of mass-market and professional receivers. Testing support will be offered for both mass-market (ESA) and professional receivers (JRC).

Immediately following Parliamentary approval of the draft amending Budget 2013 in September 2013, job offer proposals were made for a total of 6 new GSA Galileo Exploitation staff, 5 staffs being already recruited (1 in October and 4 in December) and 1 being planned to start in January 2014. The recruitment process for the Validation Engineer was ongoing as of 31 December 2013. Further, the vacancy notice for the GSC Supervisor position was re-issued in December 2013 and 2 vacancy notices were planned to be released in January 2014 (for the GRC Supervisor and the Evolution Engineer). Activities were started to update the ESA co-location agreement to accommodate the move to Prague and to finalise a Non-Disclosure Agreement for GSA internal documentation.

Regarding the Galileo Reference Centre (GRC), the Early Services Task Force supported the Commission during Q1 2013 in the preparation of the GRC Mission Requirement Definition Study ITT data package for the GRC Nucleus and Full GRC. In July 2013, the procurement approach was changed and it was agreed that ESA would undertake phase A/B and GSA phase C/D procurement.

The kick-off of the ESA GRC definition phase took place the 17th of October 2013 with attendance of ESA/EC/GSA. The GRC mission statement, main objectives, schedule, and deliverables were identified and agreed.

EC implemented a GRC Expert group in order to coordinate potential contribution from Member States to the Galileo performances monitoring. The kick-off meeting took place on 26 November 2013 with GSA attendance (Exploitation and GSMC departments). With the arrival of the new staff in October, the Agency started to identify inputs for the GRC definition activities led by ESA.

In parallel, the Commission led the negotiation activities with the Dutch authorities to establishing a GRC Hosting agreement.

Regarding Commercial Service (CS), the Early Services Task Force supported the Commission during the year in considering the feasibility of the system upgrades necessary to provide authentication and high accuracy services. The CS Demonstrator contract was also awarded to GMV (Spain).

Concerning the GNSS Service Centre (GSC), a visit to the GSC site in Madrid took place on 30 January 2013, and the Agency contributed to on-going discussions between the Commission and Spain concerning the GSC hosting arrangements. A way forward with respect to the GSC operations & hosting services tender was agreed with the Commission. This allowed the GSC v1 ITT to be released in June 2013 and the reception and evaluation of proposals (infrastructure, operations & hosting services) were completed in the second part of the year. The Commission completed the inter-service consultation for the Agency hosting agreement and the GSC hosting agreement with Spain was completed for signature in early 2014.

Regarding the Search and Rescue services, the Agency participated in the fifth meeting of the SAR Operations Advisory Board in October 2013 to start the preparation of the hand-over of the SAR activities to GSA. The SAR Service validation was discussed during the meeting and the Commission presented a plan announcing a delay in the SGS QAR with respect to the original schedule. The SAR KPI document was drafted by the Commission as an input to SG DSP – presently CNES. The final issue of the document is part of SG DSP contract and was planned to be issued by April 2014.

Concerning the GSMC, an update to the existing GSMC operations statement of work covering the GSMC Nucleus operations for early services was proposed during the reporting period.

Regarding Galileo Infrastructure Acceptance and Galileo System R&D, the Agency participated in the Galileo QPM on 19 March, 30 May 2013, 25 September and in December 2013, as well as IOV review in October 2013. The Agency also contributed to the system development activities with the introduction of a potential new OS Authentication service and the optimization of the INAV message content. The Agency actively contributed to some input studies reviewed during the Galileo INAV and OS Authentication mid-term review held in Brussels, 21 November 2013.

Finally, the Agency supported the Commission by performing a review of the European GNSS Mission Evolution Roadmap document. The support was also extended by attending the E-GNSS Mission Evolution Report (EGMER) Workshop with Member States held 12 December, 2013.

8.3.2 Tasks related to the Action Plan on GNSS Applications

The European Commission issued, on 14 June 2010, an Action Plan on GNSS Applications (APPAP) encompassing 24 measures focusing on the 2010-2013 period. This plan aims to increase the EU share of the satellite navigation (GNSS) global market and to improve the EU's independence in this field (currently 6-7% of EU GDP relies on the American GPS).

The Agency's activities are implemented in close coordination with the Commission's Galileo units.

8.3.2.1 Tasks

TASK 1: IMPLEMENTATION OF APPAP IN PRIORITY USER SEGMENTS

The Agency support the Commission in the implementation of the GNSS APPAP focused on EGNOS and Galileo user segment development through participating in awareness-raising activities in priority segments such as aviation, road transport, agriculture, mapping, and maritime. The Agency finalised adoption roadmaps for all market segments by the second quarter of 2013.

TASK 2: MONITORING THE STATUS OF APPAP EXECUTION

The Agency monitored the status of GNSS APPAP execution on a regular basis. This task was performed in cooperation with an external contractor under the supervision of the Commission.

TASK 2.1: EU SHARE ON GLOBAL GNSS APPLICATION

The Agency's first GNSS Market Monitoring Report (2010) valued the global Core GNSS market in 2008 at €41 billion, and the Enabled GNSS market at €83 billion. The total global GNSS market was therefore valued at €124 billion, and was expected to grow at 11% compound annual growth rate to 2020.

In order to monitor the success of the Application Action Plan (APPAP), measured by progress towards the objective of an increased European market share of the GNSS applications market, it was necessary to have an accurate and regularly updated estimate of the European GNSS market share. Furthermore, to allow refinement of the action plan, it was important to have estimates of the European GNSS market shares for specific sectors.

In the first quarter of 2013, the Agency updated the estimate of the European GNSS market share for specific sectors. This was shared with relevant stakeholders and the Commission.

This task is broken down into the following sub-tasks:

TASK 2.2: KEY PERFORMANCE INDICATORS (KPIs)

The Agency agreed a list of KPIs with the Commission with a view to achieving each of them and providing the Commission with the relevant information by the end of the first quarter 2013. These KPIs are:

- Number of published EGNOS-based LPV procedures in EU airports
- Number of EGNOS Working Agreements signed
- Number of EGNOS-enabled aircraft (including helicopters) retro and forward fitted
- Percentage of EU-28 that meets EGNOS OS specifications
- Percentage of ECAC area that meets EGNOS SOL LPV200 and APV specifications
- Percentage of Top-10 chipset manufacturers offering Galileo products
- Percentage of Top-10 chipset manufacturers offering EGNOS products
- Annual shipments of Galileo enabled receivers per year
- Annual shipments of EGNOS enabled receivers per year
- Penetration of Galileo
- Penetration of EGNOS
- Penetration of EGNOS in Agriculture
- Number of certified EGNOS products
- Identification of whether Galileo and/or EGNOS use is certified for road safety-critical applications
- Identification of whether Galileo use is certified for maritime safety-critical applications
- Number of ships equipped with a Galileo-enabled receiver
- Number of fisheries vessels equipped with a Galileo-enabled receiver

- Number of MEOLUTs installed
- Number of EGNOS-based road charging systems in the EU
- Number of cars and trucks using EGNOS in the EU for road tolling purposes
- Number of tolling service/technology providers who announced EGNOS adoption
- Number of cars and trucks equipped with EGNOS-enabled receivers for navigation purposes
- Number of cars and trucks using EGNOS in the EU for ADAS/safety purposes
- Number of cars and trucks using EGNOS in the EU for fleet management and logistic purposes
- Number of trucks in the EU equipped with EGNOS-enabled digital tachograph
- Number of EGNOS-enabled tractors
- Percentage of CAP certified receiver models that are EGNOS enabled
- Shipments of EGNOS-enabled CAP certified receivers
- Number of EU directives in the Official Journal mentioning GNSS or satellite navigation
- List of legal acts and standards of EU-wide applicability referring to GNSS
- Average cost of an EGNOS chipset for the mass market, when ordered in batches of 100 000
- Average cost of a Galileo E1 chipset for the mass market, when ordered in batches of 100 000
- Average cost of a Galileo E1 chipset for the professional market
- Number of FP-7 proposals combining Galileo and either GMES, GEOSS or SatCom applications
- Number of permanent networks in the EU using Galileo enabled receivers
- Number of receivers using EGNOS for mapping purposes
- Number of smartphone toolkits downloaded from the EGNOS portal.
- Number of messages posted on EU GNSS website forums
- Number of articles published on EU GNSS websites
- Number of SMEs using the voucher scheme
- Number of SMEs active in EU-monitored activities
- Percentage of SMEs active in Commission monitored activities that obtain follow-on funding through ESA or the European Investment Bank
- Venture capital attracted by SMEs producing GNSS applications
- Number of attendees to Galileo specific forum
- Number of regions involved in the Galileo international prize
- Number of applications per year to the Galileo international prize
- Number of proposals for FP-6 and FP-7 calls overtime
- Number of FP-6 and FP-7 projects that reached the commercialisation stage
- Number of FP-6 and FP-7 projects that reached the pre-commercialisation stage

TASK 2.3: ASSESSING THE RESULTS OF R&D WITHIN APPAP

The FP7 R&D programme for GNSS is an essential instrument to increase Europe's market share in GNSS applications and ensure long-term competiveness of the European GNSS industry. Under delegation from EC, the Agency has supervised a portfolio of more than 70 projects with a budget over €80million. In view of the preparation for Horizon2020 and of the 2013 revision of the GNSS Application Action Plan, the Agency performed an assessment of the results of the FP7 calls in terms of economic, environmental and social impact of the programmes.

The Agency completed this task by the second quarter of 2013 including the impact of the FP7 research and development programmes (to date) towards EU Policy objectives based on the results achieved. The impact of these results was shared with the Commission and shows that there is an overall positive impact on the Commission's policy objectives. Recommendations were made, based on this, for Horizon 2020.

TASK 2.4: REPORTING AND IMPACT ASSESSMENT

The Agency supported the Commission in preparation of the APPAP impact assessment starting in the second quarter of 2013 and lasting a whole year. Primarily, the Agency is responsible for analysis of costs and benefits linked to each regulatory option defined in the IA.

TASK 2.5: RECEIVER TECHNOLOGY MONITORING IN INTERACTION WITH RECEIVER AND CHIPSET MANUFACTURERS

The Agency devotes significant resources to analyse GNSS markets and the focus to date has been on business aspects. For this task, the Agency stated its intention to take a more technology-oriented approach and better understand the technological trends that are driving these markets and gather insights to secure Galileo adoption. The Agency completed these tasks with the following results:

The first phase of technology monitoring focused upon GNSS receiver technology and the product roadmaps of GNSS chipset manufacturers and suppliers. This addressed, by necessity, both GNSS and non-GNSS technology elements. As a result of this study, the Agency aimed to directly influence the supply chain between chipset manufacturers and their customers, and thereby accelerate Galileo and EGNOS uptake through an improved understanding of market attitudes and awareness of improved performance and reduced costs. As a result of better understanding the attitudes of these strategic stakeholders and their technology roadmaps, the Agency identified who might form potential EGNOS/Galileo champions, including both chipset manufacturers keen to innovate with EGNOS/Galileo and customers in each market segment that could be influenced in terms of requirements. This work informed parallel activities in each specific market segment.

Assessment of the opportunity for a mass-market dual frequency receiver, with the aim to establish a clear case for investment to receiver manufacturers and unlock a unique opportunity for future uptake of Galileo. A preliminary assessment of potential for dual frequency use was performed focusing on automotive mass market.

This task facilitated the exchange of facts and opinions through the establishment of market specific forums with key industry players and validates assumptions and results of the technology monitoring process. This task was successfully completed and the validation of technology monitoring results was performed during ION GNSS conference in Nashville.

This task will introduce systematic monitoring of the technology monitoring process and help keep the Agency up-to date on the latest developments affecting EGNOS and Galileo uptake and indeed the strategy to promote their continued increase. Technology monitoring cockpit was updated quarterly and monthly digests were delivered.

TASK 2.6: AD-HOC ANALYSIS

The Agency committed to providing ad-hoc analysis upon request of the Commission throughout the reporting period.

TASK 3: ANALYSIS OF EU ACTIVITIES TARGETING SMES

The Agency analyses the operational and strategic aspects of SME support programmes, such as the European Mobile and Mobility Industries Alliance (EMMIA), in order to provide information on GNSS and foster adoption of the systems.

It was agreed with the Commission to cancel this task.

TASK 4: MARKET ANALYSIS AND CUSTOMER SUPPORT FOR INITIAL SERVICES PROVIDED BY GALILEO

This supporting task to EC focused on providing market-related input into the definition of services (such as Commercial Service and PRS), based on desk market research, user feedback, and expert focus groups. The Agency's Market Development Department contributes in the early Galileo OS services and customer support activities with the objective of creating user communities. Another key task was to coordinate the set-up of a web-portal for the Galileo IOV.

TASK 4.1: PROVISION OF MARKET-RELATED INPUTS TO THE DEFINITION OF EARLY SERVICES

The Agency committed to providing relevant market-related inputs to the definition of Galileo Early Services by developing the relevant technical documents, participating in the Early Service task force meetings, reviewing the progress and the production of market related documents and interviewing experts accordingly. The Agency raised IPR issues during these TF meetings.

This task was an on-going task that spread across the entire reporting period and was successfully completed. Of particular note is the market entry strategy for Agriculture which was developed and which will be finalised in the second quarter of 2014. The Agency contracted out the market entry strategy for Surveying in the last quarter of 2013.

TASK 4.2: USER SEGMENT DEVELOPMENT FOR GALILEO PRS SERVICE

The Agency undertook this task to provide market, economic and technical analysis and tools for the PRS. This was accomplished with respect to a key PRS segment (critical Infrastructure) as the other two segments (Defence and PMR) were previously covered during the PACIFIC program.

The relevant market data were updated; the Agency also updated the Market Monitoring Tool to cover the PRS market.

TASK 4.3: SUPPORT TO OS ICD LICENSE AGREEMENT PROCESS SET-UP

The present European GNSS (Galileo) Open Service Signal In Space Interface Control Document (OS SIS ICD) Issue 1 contains the publicly available information on the Galileo Signal In Space. It is intended for use by the Galileo user community and it specifies the interface between the Galileo Space Segment, and the Galileo User Segment.

To complete this task, the Agency:

- Analysed, evaluated the current ICD license agreement content, adapted new processes, and implemented new procedures.
- Evaluated the specifications, including relevant performance indicators and user satisfaction KPIs The Commission decided to amend the ICS licensing process before it is handed over to the Agency and so this step was delayed and is pending completion in 2014.
- Participated in the Mobile World Congress and in ION GNSS and held consultations with receiver manufacturers.

TASK 4.4: OS CUSTOMER MARKETING AND SUPPORT

With the first Galileo satellites in orbit the user community (scientific and industry) begins to implement the Galileo signals in their products. This entailed technical questions on Galileo covering a vast possible range of topics.

The GNSS Service Centre (GSC) in Madrid is the first point of contact as for the initial service provision of Galileo. Processes and procedures for the GSC Nucleus were written and have been deployed. The GSC site is used to communicate the current status of the constellation ensuring stakeholders' involvement as per the publication process. User requests were also handled and dispatched in a timely fashion – the average processing time was 3 days, which surpasses the target processing time of 7 days.

The Agency collected technical information on the Galileo OS to update the relevant technical documents and databases, published documents through the GSC website (following the approval of both the Commission and ESA) and collected user needs and user information through this website.

This task has been successfully completed as of the inauguration in May 2013.

TASK 4.6: SUPPORT FOR EGNOS AND GALILEO MARKET COMMUNICATION

The GNSS Service Centre (GSC) was located in Madrid and is the hub for handling user requests. Apart from these inbound services, the GSC also conducted outbound communication activities towards the different user segments, analysed the results and provided recommendations to match user requirements and system performance.

For this to take place, the Agency collected a target user list and prepared user surveys that will be carried out in 2014. It also interviewed various experts in the domain of professional applications during events like AgriTechnica, GeoSpatial World Forum and the InterGeo conference to support a user-driven service approach. Furthermore, the Agency updated the database of European and national funding opportunities and coordinated activities between stakeholders, especially at the events mentioned previously.

TASK 6: IMPLEMENTATION TASKS IN THE FIELD OF AVIATION

TASK 6.1: PROMOTION AND FOSTERING OF USE OF EGNOS (IN THE SHORT TERM) AND GALILEO (IN THE MID/LONG TERM) IN ECAC IN COORDINATION WITH GSA AND THE EGNOS SERVICE PROVIDER

The declaration of EGNOS service availability to aviation and the publication of first LPV procedures in Europe showed that all enablers are available to start the operational implementation of EGNOS. The RAISG (former RATF) is a EUROCONTROL group reporting to the NSG that is supporting harmonised implementation of RNAV approaches (including LPVs) in ECAC gathering all involved stakeholders (e.g. ANSPs, NSAs, Aircraft operators, EASA, GSA, ESSP, EC, etc.) EUROCONTROL will keep coordinating with those of the ICAO Paris APV group and the ICAO PBN Go Team.

Lessons learned from RAISG and ICAO meetings, 7th FP projects (e.g. ACCEPTA, Hedge, GIANT 2,..) and the 3 EUROCONTROL projects co funded by TEN-T, show the need for EUROCONTROL to continue to interface with the Agency and to promote and foster the operational use of EGNOS in ECAC.

This task covered the following elements:

- Working groups for ANSPs and operators;
- Analysis of EGNOS-ready operators and approaches performed;
- Analysis of FAA best practices to foster adoption.

A specific contract was launched in December 2013 to support 5 implementation projects in the EU by providing technical ad hoc support and by organising joint workshops with avionics manufacturers. Analysis of the FAA actions to support adoption is also on going.

8.3.3 Tasks related to Communications Activities

8.3.3.1 The European Space Expo

In 2013, the GSA continued its support of European Space Expo, a free interactive exhibition that illustrates the services and applications derived from the European space programmes, including Galileo and EGNOS. The GSA supported the 11 Expo installations in 2013 (Madrid, Budapest, Hannover, Warsaw, Bratislava, Dublin, Rome, Vilnius, Tallinn, Munich and Lisbon) with the production of tailored multi-lingual Expo guides for each installation, plus a wide range of promotional, staffing and organisational support. The GSA was fully responsible for the Budapest, Dublin and Munich editions.

8.3.3.2 The EGNOS Portal

At the request of the Commission, the Agency implemented an EGNOS Applications Development web portal (www.EGNOS-portal.eu). During the reporting period, the Agency maintained this portal and continued to publish topical and relevant news articles on the web portal, which provides information of special interest for investors, developers of new applications and potential users in general. It also furthered the reach of this information by investing in, and deploying use of, social media.

8.3.4 Tasks related to the Public Regulated Service (PRS) and related Security Activities

TASK 2.2: INITIAL SITE HOSTING OPERATIONS (DELEGATED PART)

After the initial site acceptance and security accreditation, the Agency started using the site infrastructure while the operational equipment and the administrative and security equipment was installed, tested and accredited. This was a step towards the full site acceptance and accreditation.

In both France and the UK, the Agency contributed to the establishment of the Hosting Agreements, between itself, the Commission, and respectively France and UK. Following an alignment meeting in May between the Commission, ESA and itself, the Agency took formal charge of the delivery of the sites hosting.

The French GSMC site achieved the 'Delivery Review Board' on December 05, 2013, authorising therefore the deployment of the GSF equipment within the GSMC/FR premises.

In the UK site, progress was made toward similar milestones. However, it was agreed with the Commission and with ESA that achieving this milestone could be completed in 2014 without affecting the program.

Main activities procured were the following:

- Commissioning of GSMC UK
- Commissioning of GSMC FR
- Technical and Security Support in the preparation of GSMC sites documentations

F: RELOCATION OF GSMC TO FRANCE AND THE UNITED KINGDOM

TASK 6: FINALISE ALL THE CONTRACTS AND AGREEMENTS REQUIRED TO OPERATE THE GSMC SITES

Required analysing the hosting/lease agreements reached with FR and UK authorities, identify the elements under the Agency's responsibility, prepare a procurement plan and organize the appropriate procedures to cover the remaining services or needs for equipment.

This status of this task is included in the status for task 2.2 (above)

TASK 7: DEPLOY THE NECESSARY ICT AND LOGISTICS INFRASTRUCTURE IN BOTH SITES

Required the preparation of a detailed technical project, its adaptation to the actual budgetary situation and the operational requirements of the GSMC and then procurement of the equipment and the subsequent engineering work.

This status of this task is included in the status for task 2.2 (in Tasks related to the Public Regulated Service (PRS) and related Security Activities)

TASK 8: ESTABLISH EFFICIENT COMMUNICATION WITH THE AGENCY HQ IN PRAGUE FROM BOTH SITES

Following the setup of the ICT infrastructure in the GSMC, the need to establish secure and reliable communication channels with the Prague HQ and with the other GSA sites has been confirmed.

8.4 THE FP-7 DELEGATION AGREEMENT

The Agency manages FP7 projects on applications and security research and development in accordance with the terms of the delegation made under Article 54(2) (b) of the Financial Regulation and with the working arrangements agreed with the Commission in relation to the PRS applications and to the security related R&D activities.

8.4.1 Tasks

The Agency's involvement in research and development over the reporting period covers the management of FP-7 projects. This is an on-going task that is ending as the projects finalise their work. Below is a list of all projects that the Agency managed under FP-7, grouped by activity.

PROJECTS IN AREA OF EDUCATION AND INNOVATION

1. GNSS Education Network for Universities and Industries (GENIUS)
2. Supporting Education and Training in GNSS (G-TRAIN)
3. Strengthening User Networks for Requirement Investigation and Supporting Entrepreneurship (SUNRISE)
4. GNSS User Forum on Navigation based Innovation for Farmers (UNIFARM)

PROJECTS IN AREA OF INTERNATIONAL ACTIVITIES

5. Awareness in Africa: Disseminating Knowledge on EGNOS and Galileo in Africa to Foster Local and Regional Development (AiA)
6. EGNOS Extension to Eastern Europe: Applications (EEGS2)
7. GNSS for Asia – Support on International Activities (G5AsiA)
8. Growing NAVIS (G-NAVIS)
9. Countering GNSS high Accuracy applications Limitations due to Ionospheric disturbances in BRAzil (CALIBRA)
10. SBAS Awareness and Training for South Africa (SATSA)

PROJECTS IN AREA OF LBS

11. Low Cost and low Energy GNSS-based WIreless Tag for asset Tracking and monitoring (CEWITT)
12. EGNOS and EDAS Enhanced Tracking of Animal Movement and Behaviour (E-TRACK)
13. Galileo Signal Priority (GSP)
14. Setting the path for mass market use of Indoor Galileo Operations (I-GOing)
15. Low cost GNSS attitude and navigation system with inertial MEMS aiding (LOGAM)
16. Pervasive Adoption of gNss Technologies in sEcuRity Application (PANTERA)
17. WalkEGNOS: a social web 2.0 mapping solution generating and leveraging on the brand "EGNOS Powered" (WalkEGNOS)

PROJECTS IN PROFESSIONAL AND SCIENTIFIC APPLICATIONS

18. GPS-EGNOS based Precision Agriculture using unmanned aerial vehicles (FieldCopter)
19. Galileo for Gravity (GAL)
20. GNSS-based Planning system for Agricultural Logistics (GEOPAL)
21. Handheld device with innovative compact antenna for professional GNSS applications (Handheld)
22. POsition-based ServiceS for Utilities Maintenance teams (POSSUM)

PROJECTS IN MARITIME APPLICATIONS

23. Marine Park Enhanced applications baseD on Use of integrated GNSS Services (MEDUSE)
24. COoperative Satellite navigation for MEteo-marine MOdelling and Services (COSMEMOS)

PROJECTS IN ROAD APPLICATIONS

25. Development of a Qualification Procedure for the Usage of Galileo Satellite Receivers for Safety Relevant Applications (QualiSaR)
26. Trusted Multiapplication Receiver for Trucks (TACOT)
27. Detection, Evaluation and Characterisation of Threats to Road applications (DETECTOR)
28. OpenCarData (OCD)
29. JOINT GALILEO OPTIMIZATION AND VANET ENHANCEMENT (GLOVE)
30. A new TAXI application guided by SATellite (TAXISAT)
31. Enhanced (EGNOS/EDAS) Accuracy SYstem with GNSS Outage Bridging Unit (Easy-OBU)
32. Galileo for Interactive Driving (GAIN)

PROJECTS IN AVIATION

33. "Filling the gap" in GNSS Advanced Procedures and oPerations (FillGAP)
34. Helicopter Deploy GNSS in Europe – NEXT (HEDGE NEXT)
35. ACCELERATING EGNOS ADOPTION IN AVIATION (ACCEPTA)
36. Support ad-Hoc to Eastern Region with Pre-operational Actions on GNSS (SHERPA)

PROJECTS IN RAIL

37. Galileo Localization for Railway Operation Innovation (GaLoROI)
38. GNSS-based ATP System for Railway Low Density Lines (GRAIL-2)
39. Satellite based operation and management of local low traffic lines (SATLOC)

PROJECTS IN PRS APPLICATIONS AND SECURITY

TASK 3.3: 7th FRAMEWORK PROGRAMME

The two last FP7 2nd call contracts still active on security and PRS were closed at the beginning of 2013:

- Demonstrator of anti-tampering technologies at receiver level (FORTRESS);
- PRS management simulation tool to support the PRS pre-operational phase (PROPHET).

In the FP7 3rd call, the Agency managed five PRS projects, i.e. one tender (PRS4PMR) and four collaborative projects (ARMOURS, PREMISE, ULTRA, DETECTOR), as detailed hereunder.

- The PRS4PMR tender was published on 28th June 2011. Following a two-step evaluation process, the contract was kicked-off on 30 Apr 2013 and will last 18 months with allocated budget of 900 K€. The SRR is planned to take place in Q2 of 2014.

- ARMOURS (Antenna and Front-end Modules for Public Regulated Service applications) is a Collaborative Project originated by the Call FP7-GALILEO-2011-GSA-1-a. The duration of the contract is 24 months and was kicked-off in January 2012 with an overall requested EC contribution of 832 k€. The Agency attended the ARMOURS mid-term review.

- PREMISE (PRs receivers with EMbedded hardware Intrinsic Security Enhancements) is a Collaborative Project originated by the Call FP7-GALILEO-2011-GSA-1-a. The contract was kicked off in January 2012 with a duration of 24 months, and the overall requested EC contribution was 1461 k€.

- ULTRA stands for "Ultra Low Cost PRS Receiver"; it is a Collaborative Project originated by the Call FP7-GALILEO-2011-GSA-1-a. The contract was kicked off in January 2012 with an overall duration of 20 months, and the overall requested EC contribution was 550 k€.

- DETECTOR is a Collaborative Project with a duration of 21 months, and the overall requested EC contribution was 465 k€. The project finished in October 2013.

During the reporting period, the Agency undertook the management of contracts throughout the year.


A405, M25, M25

9. ANNEXES

9.1 DECLARATION OF ASSURANCE

I, the undersigned, Carlo Des Dorides,
Executive Director of the GSA,

In my capacity as authorising officer,

- Declare that the information contained in this report gives a true and fair view.[12]
- State that I have reasonable assurance that the resources assigned to the activities described in this report have been used for their intended purpose and in accordance with the principles of sound financial management, and that the control procedures put in place give the necessary guarantees concerning the legality and regularity of the underlying transactions.

  This reasonable assurance is based on my own judgement and on the information at my disposal, such as the results of the self-assessment, ex post controls, the work of the internal audit capability, the observations of the Internal Audit Service and the lessons learnt from the reports of the Court of Auditors for years prior to the year of this declaration.
- Confirm that I am not aware of anything not reported here which could harm the interests of the institution.

Prague, 06 November 2014

Carlo des Dorides

12 True and fair in this context means a reliable, complete and correct view on the state of affairs in the service.

9.2 HUMAN AND FINANCIAL RESOURCES

9.2.1 Financial Resources

The Agency's own executed budget in 2013 was EUR 13,973,507 out of a maximum budget of EUR 13,973,518 (100% of budget execution in terms of commitments). In addition to the annual subsidy, in 2013 the Agency managed a 'delegated budget' from the European Commission of EUR 78,025,641 via grant and procurement projects. Of this, 11,549,193 EUR represents an increase in the delegated budget of the May 2012, which comprises tasks for the preparation of EGNOS and Galileo exploitation, PRS development and contribution to APPAP activities.

In terms of budget breakdown, total expenditure on staff costs was EUR 8,583,616; administrative costs amounted to EUR 3,394,900; operational costs amounted to EUR 1,994,991. Details of the budget implementation during 2013 can be found in the Budget Implementation Report 2013, on the Agency's website.

The entire Agency revenue comes from the EU budget. No other sources of funding were foreseen during 2013.

9.2.2 Human Resources

At the end of 2013, the Agency consisted of 112 staff (77 of whom were temporary agents). The Human Resources (HR) department managed to fulfil the recruitment plan completely by the end of the year, substantially increasing the size of the Agency, compared to the end of the previous year.

The Agency staff came from 18 different Member States, namely Belgium, Bulgaria, Czech Republic, Estonia, France, Germany, Greece, Hungary, Italy, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Spain, Sweden and the United Kingdom Many of the applications the Agency received for the more technical positions came from Member States having a long tradition in the aeronautic and space industry. However, the Agency is continuously searching for new ways to spread awareness about its vacancy notices in order to reach potential candidates in all Member States.

The Agency takes great care to avoid any form of discrimination in its recruitment procedures and has managed to achieve some gender balance across all grades. Men make up 67% of the staff and women make up the remaining 33% (mostly in administrative support on lower grades).

9.3 DRAFT ANNUAL ACCOUNTS AND FINANCIAL REPORTS

Draft Annual Accounts have been prepared for the 2014 exercise and sent to the European Commission on their due date.

In May 2014, the Court of Auditors audited the 2013 Accounts. After their final remarks, the 2013 Annual Accounts are to be submitted in June 2014 to the Administrative Board for adoption.

9.3.1 Management and Internal Control Systems

Reports on the Agency's management and internal control systems including the summary of number and type of internal audits carried out by the internal auditor, the internal audit capabilities, the recommendations made and the action taken on these recommendations and on the recommendations of previous years are all contained in the reports from the Internal Audit Service:

- Annual Internal Audit Report for 2013 (Ref: Ares(2014)995494 - 31/03/2014)
- Final Audit Report on Human Resources Management in the European GNSS Agency (Ref: Ares(2014)615764 - 07/03/2014)
- GSA Compliance Assessment with ICSs Requirements
- Report on discharge in respect of the implementation of the budget of the European GNSS Agency for the financial year 2012 (Ref: PE521.657v02-00)

9.4 THE ADMINISTRATIVE BOARD

The GSA Administrative Board brings together representatives of the Member States, the European Commission and the European Space Agency. The Administrative Board is responsible for defining the Agency's priorities, establishing the budget and monitoring the Agency's operations.

9.4.1 Composition

Voting Members	European Member States (28 representatives) and European Commission (5 representatives) A detailed list of GSA-AB Members is available on the GSA website.
Non-Voting Members	European Parliament (1 representative), Norway
Observers	European Space Agency (1 representative)
Chair	Ms Sabine Dannelke (Germany)
Deputy Chair	Mr Christian Gaisbauer (Austria)

9.4.2 List of Administrative Board Decisions

The Administrative Board met three times in 2013 in March, June and November. These meetings, numbered 35 through 37, decided upon the following items:

Meeting	Date	Reference	Title
35	21 Mar	GSA-AB- 34-12-11-08-02	Annual Work Programme 2013
35	21 Mar	GSA-AB- 35-13-03-21-05	Updated Rules of Procedure for the Administrative Board
36	27 Jun	GSA-AB- 36-13-06-27-03	Adoption of the Annual Accounts for 2012
36	27 Jun	GSA-AB- 36-13-06-27-02	Decision To Adopt The Annual Activity Report 2012
36	27 Jun	36-13-06-27-04	Updated Rules of Procedure for the Administrative Board
36	27 Jun	GSA-AB- 36-13-06-27-05	Transfer of tasks (new tasks and functions to be entrusted by the EC to the GSA for the implementation and exploitation of the European GNSS systems)
	17 Sep	WP-27	Adoption of an amendment to the Budget 2013

Additionally, the Administrative Board also took four decisions based upon written procedures, namely (numbered 25 to 27):

25	14 Feb	Adoption of carry-over of payment appropriations for Budget 2012
26	22 Mar	Adoption of the draft budget for 2014
27	17 Sep	Adoption of an amendment to the Budget 2013

9.5 THE SECURITY ACCREDITATION BOARD

The GSA Security Accreditation Board (SAB) brings together representatives of the Member States, the European Commission, the High Representative for Foreign Affairs and the Security Policy and the European Space Agency. The SAB is responsible for the security accreditation of the European GNSS systems, i.e. to verify that they are in compliance with the applicable security rules and regulations as established by the Council and the European Commission. The SAB is the sole Security Accreditation Authority of the European GNSS systems and acts independently of the authorities in charge of the programmes.

The general principles for security accreditation, the responsibilities and typical tasks are laid down in Regulation (EU) No 912/2010 under Chapter III.

9.5.1 Composition

Voting Members	European Member States (28 representatives)
Non-Voting Members	European Commission (1 representative) High Representative for Foreign Affairs and the Security Policy (1 representative)
Observers	European Space Agency (1 representative) Norway (1 representative)

The decisions taken by the SAB are classified.

9.6 GSA LEGAL FRAMEWORK (AS OF 31 DECEMBER 2013)

Document	Ref.	Issue - Date
Council Joint Action 2004/552/CFSP of 12 July 2009 and aspects of the operation of the European satellite radio-navigation system affecting the security of the European Union	Joint Action 2004/552/CFSP	12 Jul 2004
Regulation (EC) No 683/2008 of the European Parliament and of the Council of 9 July 2008 on the further implementation of the European satellite navigation programmes (EGNOS and Galileo)	683/2008	9 Jul 2008
Regulation (EU) 912/2010 of the European Parliament and of the Council of 22 September 2010 setting up the European GNSS Agency, repealing Council Regulation (EC) No 1321/2004 on the establishment of structures for the management of the European satellite radio-navigation programmes and amending Regulation (EC) No 683/2008 of the European Parliament and of the Council	912/2010	22 Sep 2010
Council Decision No 2011/292/EU of 31 March 2011 on the security rules for protecting EU classified information	2011/292	31 Mar 2011
Decision No 1104/2011/EU of the European Parliament and of the Council of 25 October 2011 on the rules for access to the Public Regulated Service provided by the Global Navigation Satellite System established under the Galileo programme	1104/2011 (enforced on 5/11/2011)	25 Oct 2011
Regulation (EU, Euratom) No 966/2012 of the European Parliament and of the Council of 25 October 2012 on the financial rules applicable to the general budget of the Union and repealing Council Regulation (EC, Euratom) No 1605/2002 of 25 June 2002	966/2012	25 Oct 2012
Financial Regulations of the GSA adopted by the Administrative Board on 11 October 2005 (GSA-AB-2005-042), as amended by the Administrative Board on 20 November 2008 (GSA-AB-08-11-18-02)	GSA-AB-08- 11-18-02	20 Nov 2002
Commission Delegated Regulation (EU) No 1268/2012 of 29 October 2012 on the rules of application of Regulation (EU, Euratom) No 966/2012 of the European Parliament and of the Council on the financial rules applicable to the general budget of the Union	1268/2012	29 Oct 2012
Implementing rules of the financial regulations adopted by the Administrative Board on 27 October 2006 (GSA-AB-06-10-07-04)	GSA-AB-06 -10-07-04	27 Oct 2006
Regulation No 31 (EEC), 11 (EAEC), laying down the Staff Regulations of Officials and the Conditions of Employment of Other Servants of the European Economic Community and the European Atomic Energy Community	Staff Regulations	As amended (2007)

9.7 LIST OF ACRONYMS

Abbreviation	Definition
ADAS	Advanced Driver Assistance Systems
APPAP	Application Action Plan
ANSP	Air Navigation Service Provider
APV	Approach Procedure with Vertical Guidance
ASECAP	European Association of Tolled Road Infrastructure Operators
ATL	Authorisation To Launch
CAA	Civil Aviation Authority
CAP	Common Agricultural Policy
CDA	Crypto-Distribution Authority
CDR	Critical Design Review
CfE	Call for Engagement
CFSP	Common Foreign and Security Policy
CMS	Common Minimum Standards
CNES	Centre National d'Etudes Spatiales
Commission	European Commission
COMSEC	COMmunication SECurity
CS	Commercial Service
DG	Directorate General
DIGIT	Directorate General for Informatics
DMS	Document Management System
DSP	Digital Signal Processing
EASA	European Aviation Safety Agency
EBACE	European Business Aviation Convention and Exhibition
EC	European Commission
ECAC	European Civil Aviation Conference
EDAS	EGNOS Data Access System
EGEP	E-GNSS Evolution Programme
EGMER	E-GNSS Mission Evolution Report
EGNOS	European Geostationary Navigation Overlay Service
EGNSS	European Global Navigation Satellite System
EMMIA	European Mobile and Mobility Industries Alliance
ERA	European Regional Aviation
ES	Early Services
ESA	European Space Agency
ESNC	European Satellite Navigation Competition
ESP	EGNOS Service Provider
ESSP	European Satellite Services Provider
EU	European Union

Abbreviation	Definition
EURATOM	The European Atomic Energy Community
EUROCONTROL	European Organisation for the Safety of Air Navigation
FAA	Federal Aviation Administration
Financial Regulation	Council Regulation (EC, Euratom) No. 1605/2002 of 25 June 2002 on the Financial Regulation applicable to the general budget of the European Communities, as amended by Council Regulation (EC, Euratom) No. 1995/2006
FKC	Flight Key Cell
FOC	Full Operational Capability
FP6	6th Framework Programme for Research and Technological Development of the European Union
FP7	Seventh Framework Programme for Research and Technological Development of the European Union
FR	France
GALSEE	Galileo System Evaluation Equipment
GDP	Gross Domestic Product
GEOSS	Global Earth Observation System of Systems
GF4	GSAP Formation 4
GIS	Geographical Information System
GLONASS	The Russian Global Navigation Satellite System
GMES	Global Monitoring for Environment and Security
GMS	Ground Mission Segment
GNSS	Global Navigation Satellite System
GNSS Regulation	Regulation (EC) No. 683/2008 of the European Parliament and the Council of 9 July 2008 on the further implementation of the European satellite navigation programmes (EGNOS and Galileo)
GNSS Security Board	The Security Board of the European GNSS Systems, which is composed of one representative of each Member State, selected from among the recognised experts in the field of safety and security, and a representative of the Commission
GPS	Global Positioning System (USA)
GSA	European GNSS Agency
GSA Regulation	Regulation (EU) No 912/2010 of the European Parliament and of the Council of 22 September 2010 setting up the European GNSS Agency, repealing Council Regulation (EC) No 1321/2004 on the establishment of structures for the management of the European satellite radio-navigation programmes and amending Regulation (EC) No 683/2008 of the European Parliament and of the Council
GSAP	Galileo Security Accreditation Panel
GRC	Galileo Reference Centre
GSC	GNSS Service Centre
GSF	Galileo Security Facility

Abbreviation	Definition
GSMC	Galileo Security Monitoring Centre
GSS	Galileo Sensor Station
HQ	Headquarters
HR	Human Resources
IAS	Internal Audit Service of the European Commission
ICAO	International Civil Aviation Organisation
ICS	Internal Control Standards
ICT	Information and Communications Technology
IFR	Instrument Flight Rules
IMO	International Maritime Organization
INAV	INtegration NAVigation
IOC	Initial Operational Capability
ION	Institute of Navigation
IOV	In-Orbit Validation
IOVSE	In- Orbit Validation Start Endorsement
IP	Internet Protocol
IPR	Intellectual Property Rights
ISO	International Standards Organisation
IT	Information Technology
ITS	Intelligent Transport Systems
ITT	Invitation to Tender
Joint Action	Council Joint Action 2004/552/CFSP of 12 July 2004 on aspects of the operation of the European satellite radio-navigation system affecting the security of the European Union
JRC	Joint Research Centre
KPI	Key Performance Indicator
L3	Launch 3
LBS	Location-Based Services
LPV	Localiser Performance with Vertical
LSAA	Local Security Accreditation Authority
MEOLUT	Medium Earth Orbit Local User Terminal
MS	Member State(s)
NATS UK	National Air-Traffic Services (UK)
NET	National Expert Team (working group of the GNSS Security Board)
NGO	Non-Governmental Organisation
NSA	National Security Agency
NSG	Navigation Steering Group
OCR	Operations Concept Review
OIB	Office for Infrastructure and Logistics (Brussels)
OS	The Galileo Open Service
OSRR	Operational Service Readiness Review

Abbreviation	Definition
OS SIS ICD	Open Service Signal In Space Interface Control Document
QAR	Qualification Acceptance Review
PBN	Performance Based Navigation
PCCB	Programme Change Control Board
PCIP	Preliminary Change Implementation Proposal
PinS	Point in Space
PMP	Programme Management Plan
PMR	Professional Mobile Radio
PNT	Positioning, Navigation, and Timing
POC	Point of Contact
POC-P	Point of Contact Platform
PPTI	Participant to PRS Trials in IOV
PPUI	Pay Per Use Insurance
PRA	Preliminary Risk Assessment
PRS	Public Regulated Service
PRS4PMR	Public Regulated Service for Personal Mobile Radio
QPM	Quarterly Progress Meeting
R&D	Research and development
RAISG	RNAV Approach Implementation Sub-Group
RAPUS	Risk Assessment of the PRS User Segment
RID	Review item discrepancy
RNAV	Area Navigation (method for airspace navigation)
RTK	Real-time kinematic
RUC	Road User Charging
SAA	Security Accreditation Authority
SAB	Security Accreditation Board
SAM	Security Accreditation Milestone
SAR	Search And Rescue Security Accreditation Reports
SATO	Sites Authorisation To Operate
SAT PDR	Satellite Preliminary Design Review
SB	Security Board
SBAS	Satellite-Based Augmentation Systems
SC	Specific Contract
SCDR	System Critical Design Review
SecOPS	Security Operations
SG	Secretariat-General
SGS	Science Ground Segment
SIMA	Salon International de la Machine Agricole
SIP	Session Initiation Protocol
SME	Small or Medium Enterprise

Abbreviation	Definition
SoC	Statement of Compliance
SoL	Safety-of-Life
SPMS	Service Provision Member State Support
SSP	System Security Plan
SSRS	System Specific Security Requirements Statement
SSRS-PRS-Rx	System Specific Security Requirements Statement for the PRS Receiver
TGVF	Timing & Geodetic Validation Facility
TF	Task Force
UK	United Kingdom
US	United States (of America)
US SAS	Security Accreditation Strategy for the PRS User Segment
VTB	Verification Test Bed
WAN	Wide-Area Network
WG	Working Group
WG-CMS	Working Group – Common Minimum Standards
WG-NET	Working Group – National Expert Team
WG-PRS	Working Group – Public Regulated Service
WP	Work Package