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From : General Secretariat  
To : Delegations

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Subject : Annual report on the activities of the European Union Satellite Centre 2006

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Delegations will find attached for information the report of the Centre's activities in 2006, as submitted by the Director.



## **EUSC Annual Report 2006**

Approved on 30 March 2007

*(original signed)*

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Frank Asbeck  
Director

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## INTRODUCTION

This document constitutes the Annual Report of the European Union Satellite Centre (EUSC) for the year 2006, in accordance with Article 8 of the Council Joint Action (CJA) of 21 December 2006 and reflects the EUSC Annual Work Programme 2006. It provides a comprehensive view of the Centre's activities during 2006 including all relevant operational, support, development, and administrative functions, as well as the Centre's relations and co-operation with external users and partners.

The Satellite Centre performs its mission under the operational direction of Secretary General/High Representative and the political supervision of the Political and Security Committee. The aims of the Centre include:

- Provision of timely, relevant and accurate geospatial intelligence to ensure sound knowledge base for planning, decision-making and operational use;
- Provision of controlled, easy access to geospatial intelligence databases for stakeholders and authorised users;
- Creation of tailored geospatial intelligence services to meet specific customer needs.

In 2006 the Centre has made a series of advances in different organisational fields. These advances relate internally to the improvement of organisational structure, processes and workforce capabilities by expanding personnel development and recruiting analysts in areas where there was no previous expertise within the Centre. Externally the developments concern improved product and service offering, awareness and strengthening the relationships with users and partners. All of this has had a visible impact on the increase of the operational performance, continually increasing tasking and growing customer satisfaction.

In 2006 the Centre continued to carry out tasks in support to EU crisis management, peacekeeping, humanitarian aid and arms control. In addition the Centre executed a variety of tasks in the field of general surveillance and contingency planning. Due to high impact tasking in relation to support to EU and UN operations the Centre had to re-prioritise ongoing tasking and shift its focus especially in relation to supporting the Member States in crisis management exercises. However, it is encouraging to report that despite of the high pressure under which the Centre has been operating in 2006, all tasking has been completed and products disseminated on time.

2006 was a challenging but rewarding year for the EUSC. The Centre made considerable efforts in the review process of the Council Joint Action on the establishment of the Centre. As an outcome of this process the Council decided to enlarge the Mission of the Centre giving more emphasis to the Centre's role in producing not only analysis, but a variety of products and services in support to CFSP/ESDP. Additionally the Centre's mission was more closely tied to the European Security Strategy defining a framework for the Centre's work. The EU is, and will be in the future, more active in pursuing its strategic goals. This requires also the Centre to continuously adapt and improve as it continues to work towards fulfilling its objectives.

## GUIDING FACTORS

### 1.1. EUSC Mission and Mandate

In 2006 considerable efforts were made by the EUSC in the process of reviewing and updating the Council Joint Action establishing the EU Satellite Centre. The process was initiated by a report from the Secretary General / High Representative Mr. Solana to the Council<sup>1</sup> concerning the operating experience gained since the Centre started as an EU agency. The report focussed on exploring possibilities of improving the Centre's contribution to CFSP/ESDP and potential amendments to the existing Joint Action. The report stipulated that the mandate set for the organisation remained valid, however highlighting the need of introducing an explicit reference to support EU operations and participation in activities such as the Global Monitoring for Environment and Security (GMES), when outlining the Centre's Mission statement.

Acting on the recommendations outlined in the report of the Secretary General / High Representative, the Council worked on further modifying the Joint Action. The Centre was closely involved in this review process by providing inputs and making recommendations for possible amendments. As an outcome, the mission of the Centre was enlarged with references to the European Security Strategy and EU crisis management operations. The amended Joint Action, formally adopted on 21 December 2006, defines the mission of the centre as following:

*"The Centre shall, in coherence with the European Security Strategy, support the decision-making of the European Union in the field of the CFSP, in particular of the ESDP, including European Union crisis management operations, by providing, as appropriate, products resulting from the analysis of satellite imagery and collateral data, including aerial imagery, and related services, in accordance with Articles 3 and 4."*<sup>2</sup>

In this framework during 2006 the Centre continued to work on tasks to support:

- The Council and its bodies;
- Member States;
- The EU Commission;
- Third States, having agreed to the Provisions set out in the Annex to the Joint Action;
- International Organisations (such as the UN, OSCE and NATO).

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<sup>1</sup> Note 12091/06 of 28 July 2006, PESC 761, COSDP 643, SATCEN – Report from the Secretary General / High Representative to the Council on the implementation of the Joint Action on the establishment of a European Union Satellite Centre

<sup>2</sup> Article 2 of the Council Joint Action, 2006/998/CFSP of 21 December 2006, amending Joint Action 2001/555/CFSP on the establishment of a European Union Satellite Centre

## 1.2. Strategic Guidelines

The Satellite Centre carries out its mission to support the CFSP/ESDP following the principles of the European Security Strategy (ESS)<sup>3</sup>, which focuses on the development of the European security environment defining new challenges and identifying key threats facing Europe today<sup>4</sup>. The underlying message of the ESS is that European security challenges are global, and since the EU is a global actor, it needs to share the responsibility for global security. In this context the following strategic objectives were defined as guiding factor for the EUSC in 2006:

- **Growing EU global involvement;** This implies that EUSC expertise must be seen as an integral part of planning and conduct of EU operations, which has encouraged the Centre to focus on strengthening its role as a focal point for regular exchanges with Member State's IMINT communities.
- **Early conflict and threat prevention;** With the EU increasingly focussing its efforts in conflict prevention, also the EUSC has put high priority to tasks regarding providing general surveillance and humanitarian aid related support to the EU.
- **Building a safe and secure neighbourhood for the EU;** Promotion of a ring of well-governed countries around the borders of the EU has brought the focus of EUSC products to areas such as the Western Balkans, Southern Caucasus, Middle-East and North Africa.
- **International order based on multilateralism;** The EUSC has worked towards strengthening its relationship with the UN and focussed on co-operation with NATO.

Because of the global nature of challenges to European Union's security, satellite observation and the resulting imagery and geospatial intelligence (IMINT and GEOINT) were confirmed as a vital and integral part of European Security and Defence Policy. Accurate and timely geospatial intelligence was highly valued as an integral part of decision making in the area of ESDP. The Satellite Centre's expertise in satellite imagery analysis became even better integrated in the process of planning and conduct of operations.

Part of capabilities enhancement of the European Union in 2006 was characterized by improved sharing intelligence among Member States. The EUSC as one of the few operational EU agencies in the field of ESDP acted as a focal point for regular exchanges with Member State 's IMINT communities. This role was proven to help achieve even higher level of efficiency and interoperability for ESDP operations.

Additionally the rapid operational and technical development in the area of geospatial intelligence has had a strong impact on the Centre's efforts to ensure its rapid access to high quality imagery data. The Centre has worked towards continuously developing and enhancing the quality of its products and services and ensuring that customer needs are met. The Centre has continued to work with its customers towards rapid and secure product distribution. As customers must be made aware of the Centre's existence and capabilities, increasing overall awareness about the organisation has remained a high priority for the Centre in 2006.

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<sup>3</sup> 1589/03 of 12 December 2003, "A secure Europe in a Better World"

<sup>4</sup> Key threats identified in the ESS: 1) Terrorism, 2) Proliferation of Weapons of Mass Destruction (WMD), 3) Regional Conflicts, 4) Failed States, 5) Organised Crime

The European Union will be more active in pursuing its strategic objectives. The envisaged development of a strategic culture fostering early, rapid, and when necessary, robust intervention, requires the Centre's adaptation and readiness to these new challenges.

### **1.3. Objectives Set Out in Work Programme 2006**

The EUSC Annual Work Programme for 2006 stipulates that the demand for imagery interpretation services and imagery interpreters will grow. This trend has already been visible in 2006 and was reflected in two ways; the amount of tasking received by the Centre remained high in 2006 and at the same time the nature of task requests developed towards bigger and more complex tasks requiring analysis of several areas of interest. This obviously means that customer expectations towards the Centre and its performance have also grown, which has introduced the need to develop new forms of improved products and services together with easy and speedy access to them through technical means. To fulfil these expectations the Centre has made efforts to enlarge its capacity in the field of imagery interpretation focussing on developments in its human resources, technical infrastructure and internal processes.

During 2006 the Centre worked towards fulfilling the following objectives set out in the EUSC Work Programme 2006:

- To increase product and service value including identification of quality standards and improvement of timeliness, without compromising the usability, completeness or accuracy of the EUSC products and services.<sup>5</sup>
- To ensure timely access to a wide range of data from commercial and non-commercial sources including the improvement of speed of access to satellite data, increase of variety of data sources and optimisation of data budget.<sup>6</sup>
- To continuously review and improve the Centre's links with its users including improvement of user access to products through means of remote access and by strengthening the interoperability between the Centre and Member States' national authorities.<sup>7</sup>
- To ensure data protection and secure communications with users without compromising accessibility and timeliness of distributed information.<sup>8</sup>
- To develop the range of product offering in line with user demand, especially focussing on rapid mapping capabilities and further developing standardisation of geospatial and imagery intelligence products.<sup>9</sup>
- To further develop archive management with the view of better exploiting already existing information stored at the Centre and ensuring rapid access to it.<sup>10</sup>
- To emphasise continuous improvement of co-operation with partner organisations such as the UN, NATO and other EU institutions.<sup>11</sup>

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<sup>5</sup> EUSC-AWP-2006, Chapter 6.3

<sup>6</sup> EUSC-AWP-2006, Chapter 6.2

<sup>7</sup> EUSC-AWP-2006, Chapter 6.4 and 6.6

<sup>8</sup> EUSC-AWP-2006, Chapter 6.9

<sup>9</sup> EUSC-AWP-2006, Chapter 6.3 and 7.3.1.3

<sup>10</sup> EUSC-AWP-2006, Chapter 6.5

<sup>11</sup> EUSC-AWP-2006, Chapter 6.6

## EUSC STRUCTURE

During 2006 considerable efforts were made to review the structure and operational procedures of the organisation in order to achieve greater efficiency in the operational role of the Centre and to ensure that all supporting elements were clearly focussed on the needs of operations execution.<sup>12</sup> As a result a new division was created with the objective to fully focus on operational support functions (not including technical support). Consequently the EUSC organised its activities in four divisions;

1. Operations
2. Operations Support
3. Technical
4. Administration and Personnel

In addition, the organisation is supported by a Finance Section, responsible for financial administration and budgeting and Directorate Office, providing planning and quality development services and overall support to the organisation's management.

The **Operations Division**, consisting of imagery analysts, forms the main operational core of the organisation. However, the effective task execution requires close co-operation with the **Operations Support Division** for data acquisition, training, assessment of newly emerging earth observation capabilities and projects together with production of the analysis and Geolnt products. The support and expertise provided by the **Technical Division** in delivery of technical systems for data collection and information exchange, together with processing, communicating and delivering the EUSC products to the user community, is essential in successfully carrying out and delivering the Centre's products and meeting customer needs.

In 2006 the Operations Division was sub-divided into four functional expert teams working in the areas of:

1. **Data Preparation**; responsible for translating earth observation data received in digital format from a variety of sensors (e.g. optical, radar or infrared) into a visual image that forms a base for the work of the imagery analysts.
2. **Fast Response**; responsible for executing urgent task requests that require rapid answers from the EUSC, for example in connection to humanitarian aid missions and in the case of natural disasters. The team consists of specialists able to produce an initial response very quickly, with expertise covering a wide range of subjects.
3. **Remote Sensing (RS) and Geographic Information Systems (GIS)**; specialising in remote sensing techniques to extract additional information from the available satellite data, including analysing multispectral imagery to identify different vegetation types or terrain conditions.
4. **Counter-Proliferation**; responsible for analysing installations that are involved, or could be involved in the spread of technologies used in preparing or acquiring the capability to prepare Weapons of Mass Destruction (nuclear, chemical, biological).

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<sup>12</sup> EUSC-AWP-2006, Chapter 7.1.1

Additionally, during 2006 the creation of a fifth team, the Rapid Mapping team, was initiated<sup>13</sup>. The objective was to provide the users with a new service focussing on the Centre's capability of producing a variety of high quality maps within a short period of time. This initiative was based on the increased demand from the users for tailored mapping products requested for particular, usually humanitarian crisis related aid missions. The team is planned to go operational in the beginning of 2007. Preparatory work carried out in 2006 included definition of rapid mapping work procedures, products and user requirements. Two new imagery analysts were recruited in the last quarter of 2006 for the establishment of the new team.

In 2006 the centre continued the work of establishing a EUSC front office in Brussels with implementation foreseen in 2007<sup>14</sup>. In 2006 focus was on the preparation of the physical location of the office and in defining requirements and working procedures for the post. The purpose of the office is to:

- to liaise with DG E VIII, the EUMS and SITCEN as appropriate to provide fast, customised and timely ongoing support;
- to facilitate the information flow between the EUSC and DG E VIII, the EUMS and SITCEN;
- to provide practical and analytical support to the EUSC tasking process.

The figure below illustrates the organisation of the EU Satellite Centre.

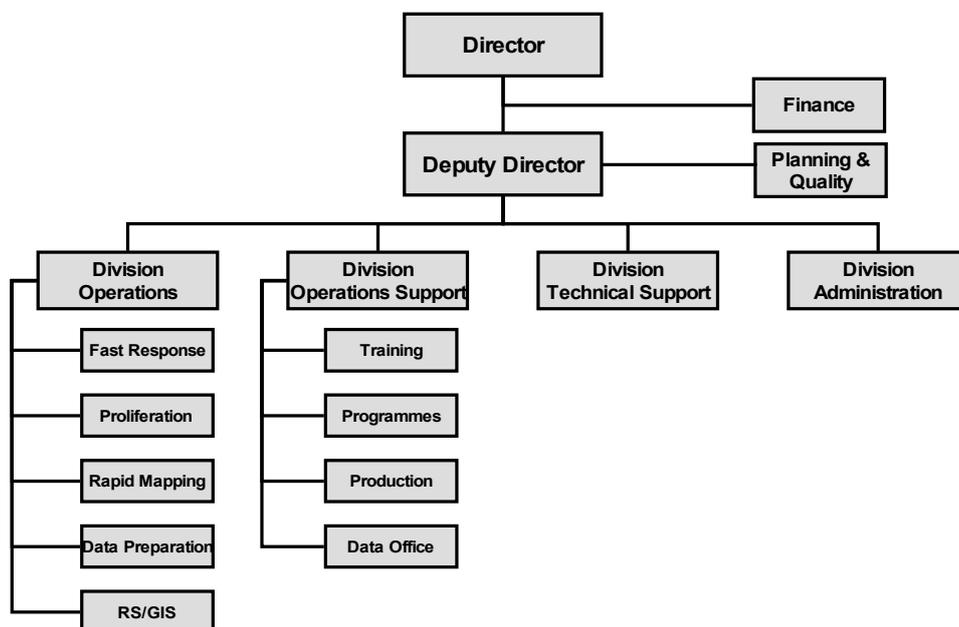


Figure 1: Structure of the EUSC

<sup>13</sup> EUSC-AWP-2006, Chapter 7.1.4

<sup>14</sup> EUSC-AWP-2006, Chapter 7.1.3

In 2006 the Centre worked towards increasing awareness of the organisation and its capabilities, products and services. The main achievement in this domain was the development and implementation of the new EUSC Web page<sup>15</sup>, which went live in December 2006. This work was closely linked to the development of a new corporate design, initiated already in 2005.

## **OPERATIONAL ACTIVITIES**

In 2006 the Satellite Centre focussed its mission towards supporting its users in the prevention and management of the following key threats, as defined by the European Security Strategy (ESS):

- Terrorism;
- State Failure;
- Regional Conflicts;
- Proliferation of Weapons of Mass Destruction (WMD);
- Organised Crime.

### **1.4. Tasking and Product Offering**

In 2006 the Centre dealt with 64 new task requests, which represents a slight increase over tasks executed during 2005. More importantly, the main change regarding new tasking in 2006, compared to previous years, was the strong trend of tasks becoming increasingly bigger including several locations of interest. In 2006 this was the case especially in connection to tasks received in support to EU operations. The trend towards increasingly demanding tasking reflects improved customer awareness of the Centre's capacities and quality of its products.

The Centre carried out tasks in support of the following activities:

- General security surveillance over areas of interest;
- Petersberg type tasks including:
  - Support to humanitarian and rescue tasks;
  - Support to peacekeeping tasks;
  - Tasks of combat forces in crisis management, including peacemaking;
  - Treaty verification.
- Contingency planning;
- Arms and proliferation control (including Weapons of Mass Destruction);
- Support to exercises.

During 2006 the Centre supported EU operations such as EUFOR in Bosnia and Herzegovina. Focus was also in strengthening the Centre's role as an early warning tool facilitating information for early detection and possible prevention of armed conflicts and humanitarian crises. The Centre is continuously providing its support to UN missions. An example of such activity in 2006 was the support provided to peacekeeping and humanitarian operations in the Democratic Republic of Congo<sup>16</sup> and in Sudan.

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<sup>15</sup> [www.eusc.europa.eu](http://www.eusc.europa.eu)

<sup>16</sup> transferred into an EU mission in mid 2006

Majority of the Centre's new tasking in 2006 was Council tasking. The Centre also started new tasks based on evaluation of political situations relevant within the CFSP framework envisaging Member States' interest in products and services in these fields. Peacekeeping related tasking remained a recurring task field also in 2006, hence emphasizing the role of EUFOR and UN as task requesters.

In addition to these 64 new tasks, the Centre continued to work on products that are provided to the users within frequent intervals (monthly to quarterly), mainly related to monitoring of particular areas of interest over a long period of time. These tasks are primarily dealing with counter proliferation and include approximately 25 Locations of Interest.

The following figures provide a breakdown of tasks received by the Centre in 2006:

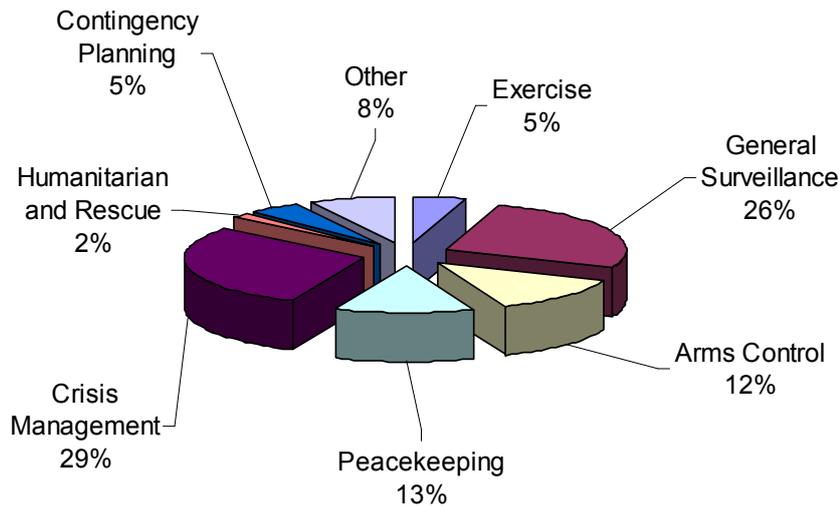


Figure 2: New tasking by type in 2006

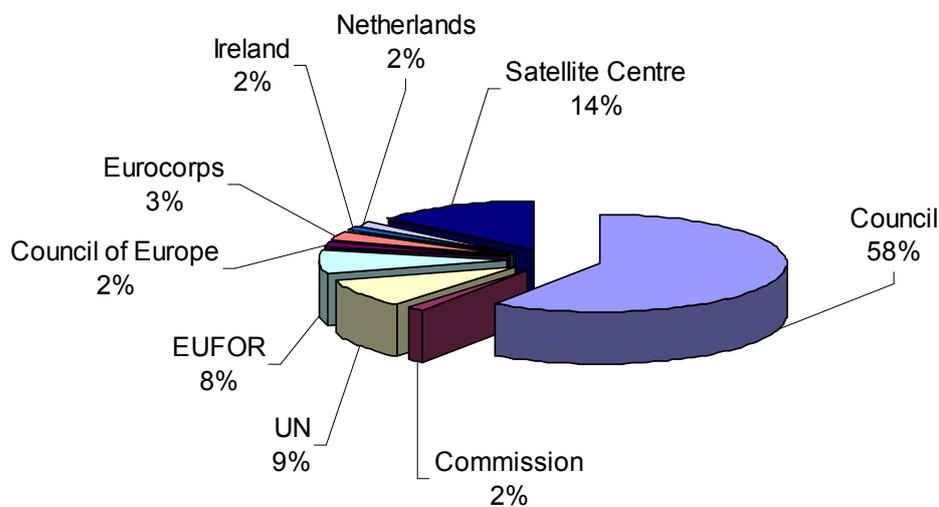


Figure 3: New tasking by requester in 2006

In 2006 the Centre focussed its efforts to developing and offering additional satellite imagery related products and services, such as rapid mapping. Standardisation remained as a priority for the Centre during the year. Based on work done in this field the Centre finalised the development of a data dictionary and implemented a standard way of reporting in 2006, meaning that all products are now produced in vector format. Further work will continue in the field of symbology in close co-operation with other institutions, such as NATO.

During 2006 further work was also carried out to enhance the Centre's on-line services, such as SatCen Earth and Download Central, to increase the speed of product delivery and ease user access to products<sup>17</sup>. In this context emphasis was put on increasing the security of product dissemination. All these developments have supported the evolvement of the Centre's products more towards GeoInt services.

### **1.5. Support to European Union Operations**

During 2006 the Centre continued to provide its direct support to the following EU operations and exercises<sup>18</sup>:

#### EUFOR DR Congo

Political and military instability in the Democratic Republic of Congo resulted in EU intervention in the region in 2006. In February 2006 the European Commission together with the United Nations presented Action Plan for the DR Congo, following which, on 27 April 2006, the European Union initiated its involvement in the region with a Council Joint Action on the EU military operation. The EUFOR operation had the following objectives:

- To support UN-led MONUC to stabilise a situation in case MONUC faced serious difficulties in fulfilling its mandate within its capabilities;
- To contribute to the protection of civilians under imminent threat of physical violence in the areas of deployment and without prejudice to the responsibility of the Government of the DR Congo;
- To contribute to the airport protection in Kinshasa;
- To ensure the security and freedom of movement of personnel as well as the protection of the installations of EUFOR DR Congo;
- To execute operations of limited character in order to extract individuals in danger.

The Centre received its first task request in connection to MONUC DR Congo on 8 February 2006 from the Council (Military Staff). The Centre organised a special Technical Working Group meeting on 1 June 2006 in the framework of preparation to EUFOR DR Congo tasking. The aim was to create a forum for Member States' information exchange at the EUSC to better co-ordinate the work concerning geospatial information and intelligence support for the EUFOR operation.

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<sup>17</sup> EUSC-AWP-2006, Chapter 6.4

<sup>18</sup> EUSC-AWP-2006, Chapter 7.7

The Centre executed the following tasks in support of the EUFOR operation within the period of February to September 2006:

- Update of Kinshasa;
- Geospatial Information over DRC in support to EU Battle Group;
- Support to EUFOR DR Congo;
- DRC Kamina City and Airport;
- Support to EU Operations in DR Congo;
- Support to EUFOR R.D. Congo - deployment of Angolan troops;
- DR Congo Cities and Airports.

During an analysis meeting of the operation, EUFOR operation leaders emphasised their satisfaction with the quality of EUSC analytical products on DR Congo and thanked the EUSC for the GeoInt products which the EU troops in the field found very helpful. The Centre also started to prepare for a Council level assessment of the operation by internally evaluating its role, processes and working methods within the EUFOR DR Congo tasking.

#### Support to EU Actions in the Balkan Region

The decision-making process on the future status of Kosovo has been high on the EU political agenda in 2006. In view of this the Centre worked on two tasks covering various areas in Kosovo and Serbia, in order to support possible future EU actions in the area.

#### EUFOR Althea

In 2006 the Centre continued to support the EU-led Military EUFOR operations in Bosnia and Herzegovina (BiH), by providing products in relation to border monitoring. Due to high priority tasking, such as the EUFOR DR Congo and Lebanon, this task was put temporarily on hold for a few months during 2006. However, the Centre finalised the analysis of the remaining locations of interest by the end of the year.

#### Support to EU actions in Southern Lebanon

The EUSC was tasked at an early stage of the escalation of the crisis in Southern Lebanon. The following products have been produced by the Centre:

- Large area analysis covering Israel, Lebanon, part of Syria and part of Jordan;
- Analysis to support evacuation planning of the city of Beirut with its airport and harbour facilities;
- Support to plan the possible deployment of EU/UN forces in the Lebanon/Israel border region. The Centre provided a DGI product giving topographic information over the requested area as well as battle damage assessment over various locations of interest;
- The EUSC, jointly with the Joint Research Centre (JRC) carried out an extensive assessment of the damage done in Lebanon due to the crisis. Damage of buildings, road network, bridges and general infrastructure was analysed and presented jointly in the format of a report and a DGI product.

## **1.6. Support to EU Institutions and Crisis Management Exercises**

### FRONTEX

In 2006 the Centre issued two briefing notes to FRONTEX. The first consisted of the monitoring of the coast line of Western Africa in order to detect possible ship building infrastructure and any features associated with illegal immigration movements. The second one consisted of a demonstration of ship detection using optical satellite imagery over large areas at sea. These products have been distributed to all EU Member States.

### CME06

The Centre started the preparation for the CME06 exercise, lead by Germany, by producing background documentation and initiating the production of a Digital Geographic Information (DGI) product<sup>19</sup>. However, due to the high impact of the EUFOR DR Congo operation, the Member States involved postponed the execution of this exercise. The groundwork done by the Centre in 2006 will be used for the preparation of exercises to be carried out in 2007.

## **1.7. Support to International Organisations**

### United Nations

In 2006 the Centre finalised the tasks in support of the UN MONUC peacekeeping operations in the DR Congo. The tasking covered in total 10 areas of interest for which the Centre received an important amount of collateral data from MONUC. All unclassified products issued to support EUFOR operations in DR Congo were made available to MONUC and vice versa, thereby maximizing resources and avoiding duplication. This also facilitated interoperability between the two operations. As a continuation of the co-operation with the UN within the area of geospatial intelligence, the Centre continues to cooperate with MONUC in DR Congo. In the view of enhancing interoperability and effective multilateralism, agreements on training and operational support to MONUC are under study.

The EUSC supported also the International Criminal Court (ICC) with analysis of damage assessment in various locations.

### EUROCORPS

The EUROCORPS HQ tasked the Centre in order to give a situational awareness of the situation in the Middle East. Two archive products over Lebanon were provided.

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<sup>19</sup> EUSC-AWP-2006, Chapter 7.7

## 1.8. Support to Humanitarian Aid Missions

The Centre received tasking initiated by the Netherlands in regard to humanitarian aid operation in Surinam as a result of excessive flooding in the area. Because of the dense vegetation and heavy cloud cover in the area, RADAR satellite imagery was seen as the only possible source of information for the planning of the aid mission. The Centre provided products in the form of thematic maps depicting the flooded areas identified on the radar imagery. These maps were distributed both as a hardcopy product and as a softcopy GIS package.

## 1.9. Training

The EUSC conducts specialized training for imagery analysts. Given the broad ranging demand for analysis products and the knowledge and expertise required to fulfil this need, the objective for the Centre's training service is to enable the imagery analysts to deepen and update their knowledge through training. For this purpose, the EUSC is constantly developing educational material, its own knowledge management database systems and various tutorials.

Originally training courses were designed only for the Centre's personnel to provide the imagery analysts with the latest developments and techniques in their field of work and to familiarize the overall staff with EUSC activities and procedures. However, due to the growing interest in the Centre's training services by the Member States, the Centre has opened courses to officially nominated personnel from EU Member States interested in the EUSC training programme.

In 2006 the Centre provided 9 training courses attended in total by 56 external participants from the EU Member States, 28 staff members and 5 experts on secondment. The courses were the following<sup>20</sup>:

- **Initial Training**; offered to EUSC newcomers to familiarize them with the Centre's activities and procedures, including courses on subjects such as digital image processing, satellite and sensor characteristics, EUSC output standards and products together with imagery analysis of different reporting categories. Examples of these are airfields, ports and harbours, lines of communication, industrial installations and surface studies.
- **Interpreting Industrial Installations Using Commercial Satellite Imagery**; a course focussing on the use of commercial satellite images to monitor specific industrial installations. The course provides interpretation guidelines of e.g. oil refineries, water treatment, fertilizer and heavy industries.
- **Interpreting Nuclear Installations Using Commercial Satellite Imagery**; a course focussing on the use of commercial satellite images to monitor the status of nuclear facilities. The course provides interpretation guidelines of nuclear facilities and includes the functional description of the Nuclear Fuel Cycle (NFC).

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<sup>20</sup> EUSC-AWP-2006, Chapter 7.2.2  
For 2006 Training Calendar please see Annex I

- **Advanced Course on the Use of Commercial Satellite Imagery for Interpreting Nuclear Installations;** designed as a continuation of the basic NFC course focussing on investigating the capacity and limitations of using optical commercial satellite imagery to analyse and monitor nuclear installations. Special emphasis is put on the role of collateral data when analysing particularly complex installations and how to make best use of high resolution, multi-temporal and multi-sensor remotely sensed data.
- **Imagery Intelligence for Decision-Makers;** a course providing an introductory overview of Imagery Intelligence (ImInt) for decision-makers, managers and potential users of the EUSC who need to familiarise themselves with the basic principles of ImInt and the activities and capabilities of the Centre, including topics such as basic concepts and principles of ImInt, satellite systems and remotely sensed imagery, EUSC tasking cycle and practical examples of tasking (mapping, monitoring, support of operations etc.).

The EUSC training programme also includes activities such as attendance at symposia and conferences together with site visits to installations and in-house refresher courses/workshops. The latter are normally presented by the personnel of the Centre's Training Section or by invited speakers, consultants or lecturers.

### 1.10. Earth Observation Programmes

New earth observation capabilities and systems are emerging as the number of uses for earth observation data expands. Initiatives such as the Global Monitoring for Environment and Security (GMES), funded by the European Commission and the European Space Agency, are encouraging new developments in this area. To fulfil the updated mission of the EUSC which includes a special reference to the GMES, the Centre has dedicated special earth observation project teams for the co-ordination of the Centre's involvement in the Earth Observation Programmes. These teams are composed of specialists who can assess the utility of these developments and identify those areas that can improve the effectiveness of the EUSC in fulfilling its mission.<sup>21</sup>

#### Global Monitoring for Environment and Security (GMES Programme)

GMES is an EU-led initiative adopted by the EU Head of States at the Gothenburg EU Summit in 2001. The main aim of the programme is to develop an operational and autonomous European capability for GMES based on a sound cost/benefit assessment<sup>22</sup>. The Commission will manage actions for identifying and developing services relying both, on in-situ and remote sensing data and the European space Agency (ESA) will implement the space component. The Centre has a key role in the security dimension of the GMES, as the programme focusses on integrating already existing capacities to its framework. The EUSC is the EU operational tool working in the field of CFSP of relevance for the GMES security dimension. The Centre has actively participating in the GMES working groups since 2004 with the aim of:

- Providing inputs into the programme at management level (e.g. through the GMES Advisory Council);
- Improving awareness of existing and operational capabilities for CFSP support in the EU framework (e.g. the EUSC);

<sup>21</sup> EUSC-AWP-2006, Chapter 7.8

<sup>22</sup> Council resolution 2001/C 350/02 of November 2001

- Co-operating with the European Defence Agency (EDA) and the Council Secretariat DG E VIII, EUMS and SITCEN in understanding CFSP / ESDP needs and the Council involvement in GMES.

In this context the Centre prepared with the ISS, DG E VII and with the support of EUMS, SITCEN, EDA and JHA a seminar on the security dimension of GMES to be held in the beginning of 2007.

As the Security dimension of GMES is becoming more and more important the Centre is currently participating in several GMES projects in order to develop new pilot services for GMES in the security domain (for example on border control). Example of EUSC products realised in the framework of such projects in 2006 was the support provided to FRONTEX addressing the illegal entry of persons to the EU through the Canary Islands by boat from the African coast.

At the end of 2006 the Centre has also dedicated efforts to establish preliminary contacts with other GMES stakeholders concerning the potential participation to the 7th Framework Programme (FP7) through new projects in particular related to the "fast track" Emergency Core Service and Information Services for Security related activities. The 7th Framework Programme was adopted by the Council on 18 December 2006 and entered into force on 1 January 2007.

#### Land and Sea Integrated Monitoring for European Security (LIMES)

The LIMES project, established within the GMES programme, has as goal to define and develop prototype information services, based on satellite technology, in order to support management at EU and global level in the following policy areas:

- Organisation and distribution of humanitarian aid and reconstruction;
- Surveillance of the EU borders (land and sea);
- Surveillance and protection of maritime transport for sensitive cargo;
- Protection against emerging security threats (e.g. terrorism, illegal trafficking and proliferation of weapons of mass destruction).

The services developed by LIMES will support the building up of a common cooperation framework between the major EU research and operational actors on Security Management. The EUSC plays an important role in this project as it is involved in many activities related to the development of pre-operational services. Within this frame cooperation will take place between the EUSC and the Joint Research Centre in areas such as maritime security and counter proliferation<sup>23</sup>.

#### Building Operational Sustainable Services for GMES (BOSS4GMES)

The BOSS4GMES projects started on 1 December 2006. Co-funded by the European Commission and the BOSS4GMES consortium, the BOSS4GMES project will address for the first time the long-sustainability of GMES and the preparation of the transition from research and development to operational exploitation. The EUSC will participate in this project as it develops further in 2007, in particular in the area of the development of pre-operational services for Emergency Response and in the analysis of existing EU Operational Centres.

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<sup>23</sup> EUSC-AWP-2006, Chapter 7.8

### Global Monitoring of Security and Stability (GMOSS)

Within the framework of the GMOSS programme in 2006 the EUSC contributed to the GNEX06 exercise together with 15 participants amongst others the Joint Research Centre (JRC), Centre National d'Etudes Spatiales (CNES) and Deutsches Zentrum für Luft und Raum Fahrt (DLR). The exercise consisted of a simulation of a nuclear accident in a power plant located in Switzerland. The Centre's contribution to this exercise consisted of DGI products over the contaminated area and detailed analysis of the power plant<sup>24</sup>.

In 2006 the following security research activities were conducted within this project:

- Vulnerability assessment and threat analysis in the Iraqi pipeline network as well as oil and gas installations;
- Consequence analysis to the oil industry personnel and nearby population along the pipeline network;
- The role of insiders in the pipeline attacks;
- Development of an alarm system to pipeline sabotage based on hotspot detection (Seviri, Modis sensors);
- Socio-economic impact on the short/long term interruptions in oil and gas flow;
- Environmental impact of the pipeline attacks.

The work above has generated an important methodology to georeference security events related to explosion and fires by using hotspots (Modis, Seviri, AATSR). This methodology has been tested in other regional conflicts such as Lebanon and it will be tested further in other task of interest to EUSC such as Darfur.

### Telecommunications Advance Networks for GMES Operations (TANGO)

The main technological innovations of the TANGO project are the use of earth observation data relay by the geostationary Artemis platform together with the integration of telecommunications services. The Centre has a leading role in the maritime surveillance and evacuation scenarios that have been proposed in the framework of this project<sup>25</sup>. The Centre will greatly benefit from the use of the state of the art sensors used in maritime surveillance, such as the Automatic identification System (AIS) when executing tasks in relation to maritime surveillance.

### Advanced Space Technologies to Support Security Operations (ASTRO+)

The ASTRO+ project, finalized in March 2006, focussed on showing the potential of using space-based assets to support EU Security operations with the objectives to:

- Demonstrate to users the unique advantages of space in specific situations and to propose a structured and effective access to the EU resources providing timely response to security;
- Contribute to establish a network of users, institutions, industry and research to enhance European competitiveness.

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<sup>24</sup> EUSC-AWP-2006, Chapter 7.8

<sup>25</sup> EUSC-AWP-2006, Chapter 7.8

The EU Satellite Centre played a central role as the geospatial intelligence provider for the Situation Centre created for the ASTRO+ final exercise held in February 2006 in Poland.

### **1.11. Technical Development**

In 2006 the Technical Division continued its work in providing the Centre and its users with secure and effective technical systems, communication and data transfer networks and other IT services. The main focus during the year was in enhancing the Centre's network-enabled capabilities by putting emphasis on developing on-line services, such as SatCen Earth and Download Central. The Division continued its work towards further improving the Centre's ICT infrastructure, including migrating all of the Centre's client platforms from UNIX to Windows XP in the Operational IT System.

#### EUSC Reference Facility

During 2006, the hardware to run Web Feature Services (WFS) of the Reference Facility was chosen, installed and implemented<sup>26</sup>. Two new servers were acquired in order to move toward a services based architecture instead of the existing file-based one. Different software solutions, such as Web Server, ORACLE BPEL, Oracle Application Server, Ionic software and Kernel 1 Reference Facility were also implemented and installed.

#### InfoSec and Secure Communications

Crypto management was performed according to the Crypto Plans applicable to the various cryptographic devices in use at EUSC. Recent archive data was put on-line for the use of the Operations Division.

The Centre attended the meetings organised by the GSC Security Office (Infosec) in Brussels and liaised with the responsible bodies of the Council Secretariat and National Security Authorities, such as NSA Spain.

Concerning work in the field of secure communications, the Satcen link was upgraded in 2006. Following the works in the secure communications room, a meeting was organised with NSA Spain to prepare the accreditation of the Satcen link up to CONFIDENTIEL UE.

#### Improvements of Information Communication Technology Infrastructures and Tools

In the framework of the Operational Information Technology System (OITS), focus was on the following activities in 2006:

- Installation of Reference Facility servers for implementation of Kernel 1;
- Preparation of the integration of the PC's in OITS;
- PC selection campaign;
- Purchase of 22 workstations;
- Installation of a new layout of the Operations Room;
- Daily technical support to users.

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<sup>26</sup> EUSC-AWP-2006, Chapter 7.3.2.5

In regard to OITS Client benchmark, a preliminary study in 2005 guided the Centre to a selection of workstations suitable as OITS clients. During 2006, the workstations were installed, implemented and tested by Analysis Division.

Concerning work carried out in the framework of the Centre's Intranet and Internet services development<sup>27</sup> the following was completed in 2006:

Intranet:

- Installation of the new central Intranet server and successful migration to the new server;
- Procurement and installation of new PCs and printers;
- Procurement of informatics consumables;
- Routine administration and support to users.

Internet:

- Liaison with the Internet Service Provider for the activation of the new E3 line (34 Mbitps) and the replacement of the shadow backup radio line;
- Implementation of a new mail server granting EUSC staff access to their emails from outside the Centre through web mail;
- Migration to the new Internet mail server;
- Migration to eusc.europa.eu;
- Installation and acceptance tests of the new Backup Library;
- Migration of the clients PC to Windows operating system;
- Implementation of a new server for printers;
- Implementation of a new FTP server for products distribution to non MS users and Institutions such as the UN;
- Implementation of the new EUSC web site, allowing Content Management (CMS).

Certain hardware and other equipment had become obsolete during 2006, such as the machines used by GMOSS team. Therefore two new workstations were installed and configured to use by the team. The first phase of the Reference Facility implementation obliged the Centre to provide physical space to store data (satellite images mainly), so a cheap solution was agreed and two Lacies Ethernet disks (2Tb each) were installed in the network.

### IT Development Projects

In 2006 Kernel 1 of the Reference Facility was developed in GADnet and migration to OITS started by integrating two servers into OITS. Previously no backup system was present in GADnet, which meant that in 2006 the work to implement hardware and software was done from scratch. However, this project is still growing as new functionalities and tasks have been assigned to GADnet. With the transformation of ERMapper and Mr SID from node-locked configuration to a floating one, a significant bottleneck has been eliminated concerning availability of the software. Now all the users, from any workstation in the Centre, can access this software.

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<sup>27</sup> EUSC-AWP-2006, Chapters 7.4 and 7.1.2.4

Regarding developments in the field of EU OPS WAN project, the following activities were carried out in 2006<sup>28</sup>:

- Completion of definition, procurement and installation of the red hardware and software;
- Installation of one rack in the secure communications room with the geospatial server that will host the classified version of Satcen Earth data, and acquisition of a fusion machine;
- Completion of cabling for a consultation PC in the operations room;
- Participation to the prototyping phase with Brussels and Postdam;
- Preparation in the accreditation of the EUSC node.

Additionally, the following activities were carried out under the framework of the Centre's IT development projects<sup>29</sup>:

- HMA (Heterogeneous Mission Accessibility), in operation at ESA level, including the chaining of the catalogue search and ordering capability through HMA and a delivery means is being investigated with ESA.
- The DDS (Data Dissemination System) infrastructure at EUSC, which was fine-tuned and the link tested and approved by ESA-ESRIN- Frascati.
- The VSGS prototype done in collaboration with Swedish Space Corporation was successfully concluded.
- Development and deployment of a flexitime system (phase 1) under requirements of the Administration and Personnel Division. Additionally, definition of technical requirements of phase 2 was completed.

## **1.12. Operational Support Activities**

A new Operations Support Division was established in 2006 in order to increase the effectiveness of the operational work of the Centre by concentrating supporting activities, such as data collection and management, training and production of the Centre's outputs under one Division. The Division also manages the Centre's participation in earth observation projects.

### Imagery Acquisition

The Data Section, primarily responsible for locating and acquiring suitable imagery or other data and information from commercial or non-commercial sources for the use of the imagery analysts, continued to manage the Centre's data acquisition in 2006. Focus was on maintaining and updating archives and databases of EUSC products and imagery, geomatics and collateral data, together with monitoring the development of the new earth observation satellite system projects. Additionally, tasks carried out during the year included<sup>30</sup>:

- Contribution to the HMA project;
- Setting up a new satellite communication system in collaboration with ESA,<sup>31</sup>
- Testing of the new EROS B satellite system for operational use;

<sup>28</sup> EUSC-AWP-2006, Chapter 6.6

<sup>29</sup> EUSC-AWP-2006, Chapter 7.1.2.2

<sup>30</sup> EUSC-AWP-2006, Chapters 6.2 and 6.5

<sup>31</sup> EUSC-AWP-2006, Chapter 7.3.2.1

- Renewal and amending of contracts with the main providers, in order to optimise the data budget.

In 2006 the budget for purchase of data has been very similar to the previous years. However, in 2006 there was an increase in acquisition of high/very high resolution imagery, which put pressure to the Centre's data budget.

### Production

The Production Section, responsible for the production of the final hard-copy and electronic products of the Centre, has experienced continuous increase in the amount and diversity of the workload in line with the growing demand for the Centre's products. In 2006 the unit carried out a total of 396 production requests including dossiers, reports, studies, briefing notes and Digital Geographic Information (DGI). All requests were responded to and delivered with no delays. In addition to standard production activities, the unit carried out production of posters, photographic compositions, CD-ROMs and DVDs and provided photographic training for the imagery analysts. The acquisition of the automatic CD/DVD wrapping machine contributed significantly to the delivery of the Centres electronic products in a more professional and confidential way.

In December 2006 the unit celebrated the production of the copy number 50000 produced since 1993. The below figure illustrates the breakdown of dossiers, studies, reports and briefing notes produced by the Centre in 2006.

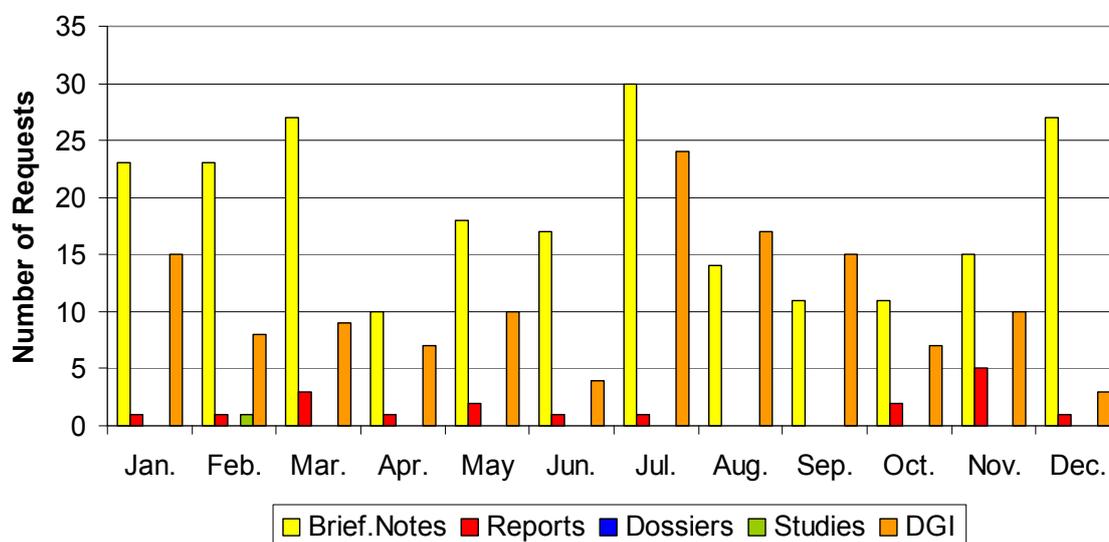


Figure 4: EUSC production in 2006

## IMPORTANT MEETINGS AND VISITS

### 1.13. User Meetings

In 2006 the Centre organised three Expert User Forum meetings taking place on 27 January, 2 June and 27 October. The Centre gave the Member States' participants an overview of ongoing activities and current tasking of the Centre and briefed them on any significant developments concerning projects, technological developments and organisational issues.

Two Technical Working Group meetings were held on 26 January and 26 October 2006 focussing on issues connected to data and products together with new requirements for EU geospatial intelligence. Additionally a special Technical Working Group meeting was held in 1 June 2006 in the framework of preparation to EUFOR DR Congo tasking. The objective was to establish an overview and to reach an agreement on MS contributions to aid EUSC task execution. The aim was to create a forum for MS information exchange at the EUSC to better co-ordinate the work concerning geospatial information and intelligence support for the EUFOR operation. The Centre and several Member States presented their current work and possibilities to support the operation. The fact that the MS should use the EUSC as a point of contact in EUFOR operation related information exchange was emphasised during the meeting.

The Centre is currently working to develop the concept of the User Forum towards a tool to gather user feedback especially emphasising user expectations towards EUSC products, requirements and usefulness of the Centre's products and services.<sup>32</sup>

#### **1.14. Visits to the Centre**

The Political and Security Committee (PSC), accompanied by the Director General of the EU Military Staff, General Perruche, visited the EUSC on 20 September 2006. During the working programme, the Director of the EUSC, together with the Heads of Divisions briefed the Ambassadors on the current status of tasks that the Centre was working on, organisational and operational setting of the Centre and challenges in the field of providing geospatial intelligence within the context of new ESDP requirements. The PSC Ambassadors were also briefed in greater detail on the working process in the Centre, and were informed about the new on-line services.

The Secretary General / High Representative, Mr. Javier Solana, visited the Centre on 31 October 2006. He was briefed on the work the Centre carries out in the field of Geospatial Intelligence. Special emphasis was on the European Security and Defence Policy and EU crisis management operations. Mr. Solana congratulated the staff of the Centre on their work and stressed the importance of Geospatial Intelligence support to EU operations, such as the EU operation in DR Congo and elsewhere. He underlined that ESDP institutions, like EUSC, must be even further integrated into EU crisis management operations in the future. The SG/ HR also took interest in the new developments and services that the Centre will offer, as well as in the role of the EUSC within the GMES programme.

On a Finnish/Romanian initiative, Ambassadors of 26 European Union Member States accredited to Spain chose the EU Satellite Centre as the venue for their regular monthly working lunch, which took place on 31 October 2006. The visit, to which Chief of General Staff of Spanish Armed Forces General Félix Roldán Sanz was invited as the guest of honour and as a speaker, included a detailed briefing by Centre's Director on the support the EUSC is giving to ESDP operations. EU Ambassadors also met with imagery analysts and EUSC employees from their respective countries for presentations on the ongoing work at the Centre.

A comprehensive list of visits to the Centre in 2006 is attached as Annex II.

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<sup>32</sup> EUSC-AWP-2006, Chapter 7.1.3

## ADMINISTRATION

The Administration and Personnel Division is in charge of the administrative issues of the EUSC, including contact with Spanish authorities such as the Ministry of Foreign Affairs and Ministry of Defence. The Division is also responsible for the overview and the management of the Centre's Human Resources (HR).

In 2006 the Administration and Personnel Division continued to work in the following fields:

- overall personnel management in coordination with the others divisions and sections;
- legal support concerning contracts and agreements with external entities;
- management of incoming and outgoing documents for the Centre including classified and unclassified registry management;
- facilities management;
- physical security management.

Additionally, the following projects were undertaken in 2006:

- HR capacities development including training to staff;
- Management of the pension fund;
- Organisation of duty call officer system;
- Development of the flexi-time system;
- Elaboration of the health and safety plan;
- Improvement of the working environment including enlargement of the operational area of the Centre.

### 1.15. Human Resources

In 2006, the Centre had a total of 73 posts. New recruitment in 2006 totalled 10 filled posts of which 4 had been published in 2005. On 3 June 2006 Mr. Tomaž Lovrenčič took up the post of Deputy Director of the Centre. Additionally two new Heads of Divisions (Operations Support and Administration and Personnel) took up their posts and the Head of Finance Section and The Head of General Services were appointed.

During 2006 six vacancy notices were published for the following posts:

Post	Status
Planning Support Officer	Filled (November 2006)
Training Support Officer	Filled (July 2006)
Image Analyst	Filled (August 2006)
Image Analyst	Filled (October 2006)
Financial Assistant	Filled (November 2006)
Head of General Services	Filled in 2007

Vacancy notices published in 2005 and filled in 2006 were the following:

Post	Status
Deputy Director	Filled (June 2006)
Head of Operations Support Division	Filled (June 2006)
Head of Finance and Budget Section	Filled (June 2006)
Head of Administration and Personnel	Filled (October 2006)

Due to the increasing need in personnel, 8 new temporary staff members were recruited in 2006.<sup>33</sup> Two staff members were contracted under a training agreement.

The EUSC posts were distributed as follows in 2006:

Grade:	HG		A		B		C	
<b>Number of Posts:</b>	HG	1	A7	-	B6	-	C6	-
			A6	-	B5	1	C5	-
			A5	1	B4/5	5	C4	2
			A4	4	B4	3	C3	6
			A3	10	B3/4	11	C2	-
			A1/2	27	B3	1	C1	-
					B2	-		
					B1	1		
<b>Total: 76</b>	<b>1</b>		<b>42</b>		<b>22</b>		<b>8</b>	

### 1.16. Budgetary Development

After examination of the closing accounts and of the auditors' report, the discharge to the Director for the 2005 accounts was given by the Board on 10 July 2006. The Management Board approved the 2006 Budget at its 34<sup>th</sup> meeting on 30 November 2005, for a total amount of EUR 10.557.025. This represented an increase of 3.4%, which had been the estimated inflation rate for Spain. However, the real inflation rate for Spain turned out to be 4.2% for the same period, leading to an actual budget decrease of 0.8%.

The diagram below represents the nominal evolution of the approved Centre's budget (figures in tabs show the approved budget amount).

<sup>33</sup> EUSC-AWP-2006, Chapter 7.1

### EUSC Budgetary Evolution 2002-2006 (nominal)

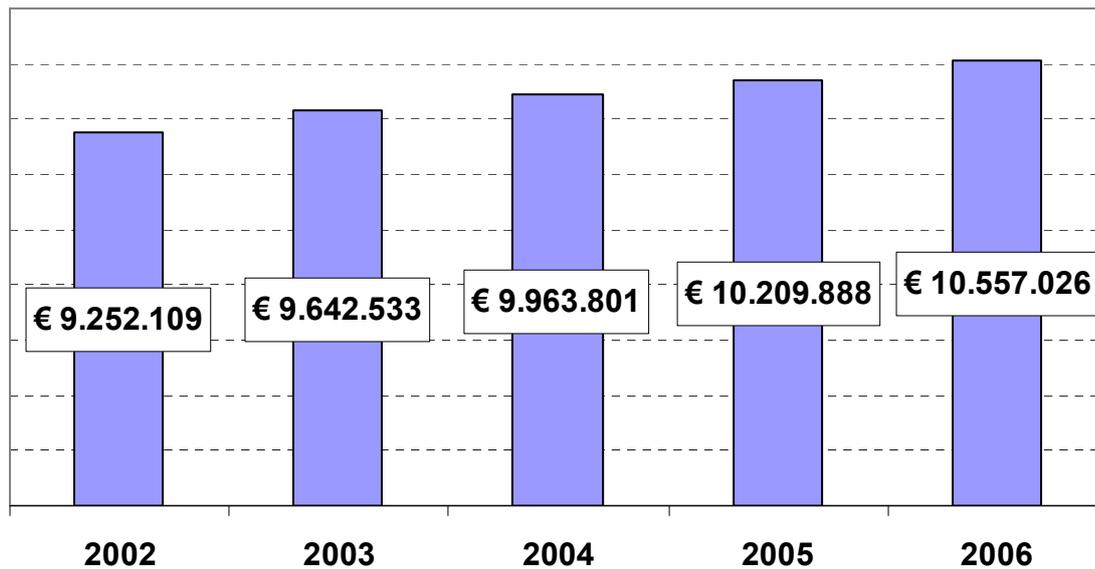
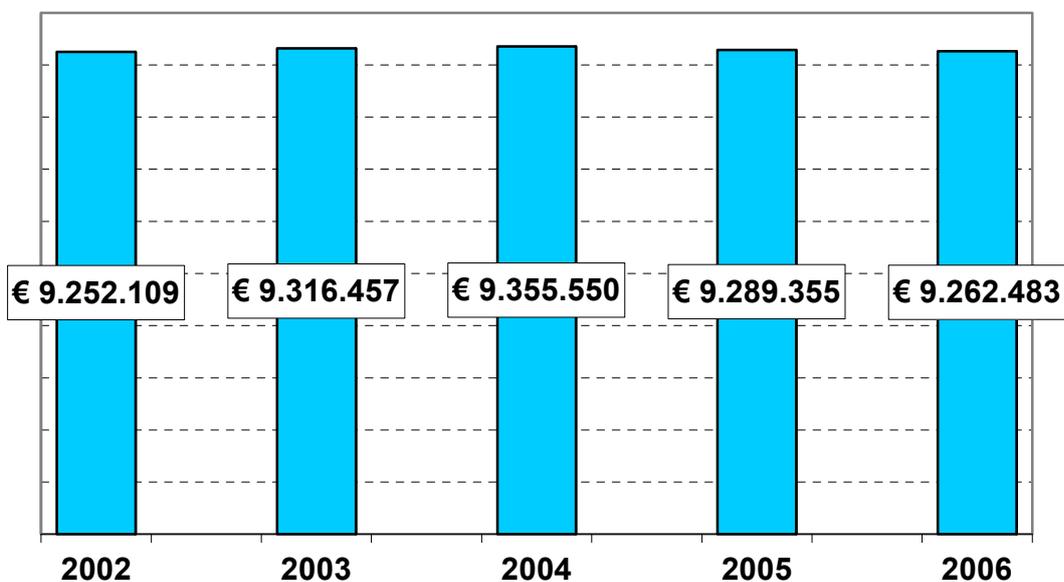


Figure 5: Nominal EUSC budget development from 2002 to 2006

Although the slight overall increases in nominal terms, the real increase of the Centre's budget has remained almost unchanged since the transfer from the WEU into an EU institution. In fact, a decrease in budget has been experienced in the last two years as the final inflation rates were higher than those estimates used for the calculations. This is illustrated in the below graph showing the real EUSC budget development between 2002 and 2006 (figures in tabs show the total amount of the budget in real terms).

### EUSC Budgetary Evolution 2002-2006 (real)



Figure

Figure 6: Real EUSC budget development from 2002 to 2006

The major aspects to be highlighted within the financial year of 2006 year were:

- The creation of three new imagery analyst posts, increasing the whole staff from 70 to 73;
- The credits carried forward to year 2007 amount to EUR 1.720.629, an 18.24% reduction in comparison to the 2005 budget indicating an improvement on the overall financial management;
- 98.25% of calls for funds were attended on time (one country still has pending its 2006 payments but a notification of payment has been received);
- Interest augmented by EUR 91.392,62 (a 26.08% increase in comparison to 2005).

The provisional final surplus for 2006 budget amounts only to EUR 74.108 corresponding to 0.7% of the approved budget.

The Management Board approved the 2007 Budget on 8 November 2006. In December 2006 Denmark announced its intention to increase its contribution from EUR 160.000 to EUR 190.000 for expenses of the Centre not having defence implications.

#### Pensions Budget

The pension budget contribution for 2006 amounted to EUR 731.736 indicating a 21.83% decrease in respect to 2005 budget. For 2006 the number of pensions paid from the pension budget was increased to 5, amounting to EUR 90.981,22. This means a 19.29% increase in comparison with 2005 expenses. Four leaving allowances have also been paid, amounting to EUR 297.567.

Following the payment scheme, started in 2005, Member States fund the pension budget twice a year. The ongoing regularization is nearly completed and there are only two countries left that still have pending payments for a total amount of EUR 86.351. Concerning the call for funds 2006, six countries did not attend the call on time and there are still pending payments for a total amount of EUR 25.776.

Total payments made to the SCAP (Section Commune d'Administration des Pensions ) for services rendered concerning pensions management amount to EUR 7.724, representing a 36% increase in comparison with 2005 payments.

Remuneration of the pension current account generated EUR 114.152 interest (40.11% increase). On 31 December 2006, the bank accounts presented a positive balance of EUR 5.816.380.

#### Participation in External Projects

In 2006 the EUSC participated in 4 external projects (Astro+, Gmoss, Tango and Mariss) for which EUR 122.946,31 were received. The EUSC also participates in an ESA project (HMA – Heterogeneous Missions Accessibility) for which EUR 101.238,73 were received in 2006.

## QUALITY MANAGEMENT

The Centre established the Quality Assurance Programme to ensure that a comprehensive and streamlined set of internal operational procedures, standards and regulations are kept in place. The programme focuses on monitoring continuously the performance in progressing towards higher levels of excellence and the quality and value of the Centre's product and services. Quality aspects are also emphasised in the Centre's development projects and externally-lead activities.

### The EFQM Improvement Process

The Centre undertook a "path to excellence" adopting the European Foundation for Quality Management (EFQM)<sup>34</sup> model as a methodological framework. The quality improvement process started in 2005 with an external assessment, which included:

- A comprehensive survey performed on all staff members;
- Interviews with key actors;
- Gathering of indicators and evidence;
- Drafting of the EFQM assessment report.

Three teams have been working in the focus areas of communication, processes and people. Improvement initiatives in this framework include:

- a *tableau de bord* to measure the EUSC performance;
- a communication plan;
- implementation of a cost analysis system aligned with budgeting.

In 2006 the Centre set an ambitious objective of achieving the four star level of excellence by 2007. Hence, an improvement action plan is under implementation.

### User Feedback

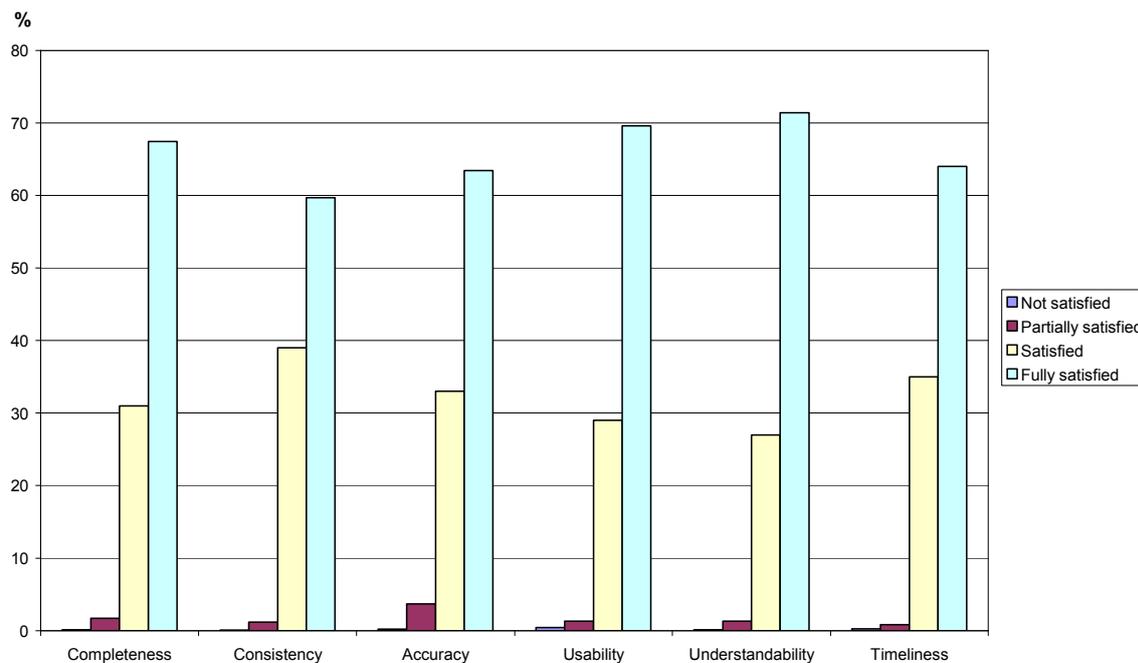
The Centre conducts continuous client surveys to gather user feedback. This practice is aimed at evaluating the quality of the Centre's products and services as perceived by the customers. Quality is measured in terms of completeness, consistency, accuracy, usability, understandability and timeliness.

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<sup>34</sup> EUSC-AWP-2006, Chapter 7.1.6

The European Foundation for Quality Management (EFQM) was founded in 1988 by the Presidents of 14 major European companies, with the endorsement of the European Commission. Since 1992 the EFQM annually assigns the European Quality Award (EQA) for demonstrated excellence in quality management. The EFQM is a non-profit organisation that strives to enhance the effectiveness and efficiency of European organisations by reinforcing the importance of quality in all aspects their activities.

User satisfaction towards EUSC products and services in 2006 is illustrated in the following figure:



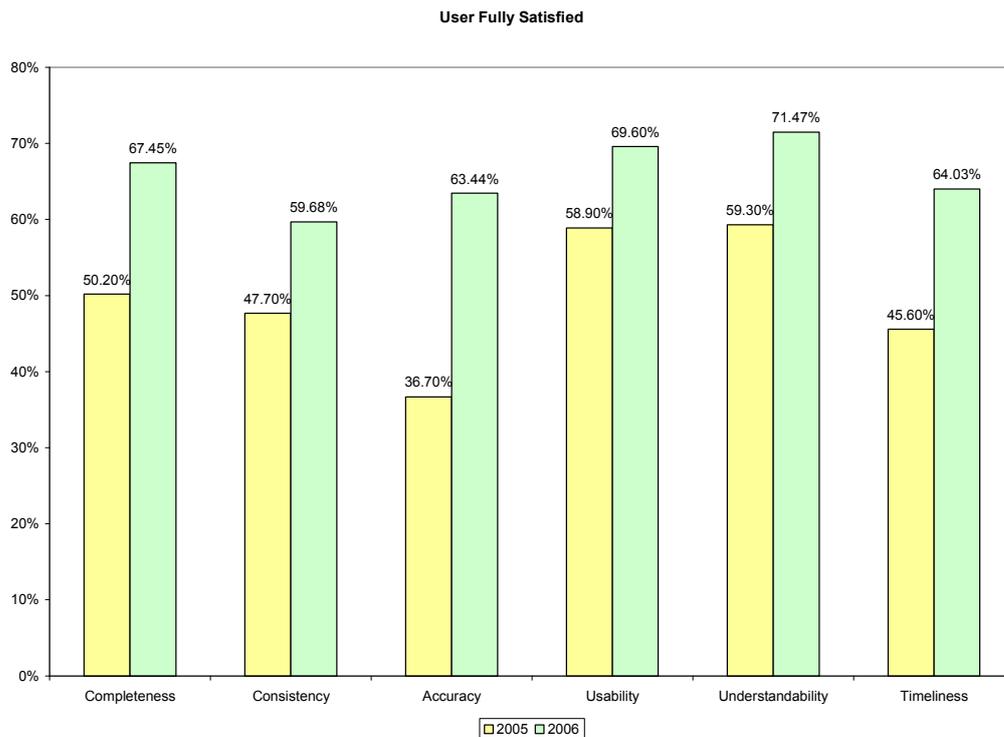
*Figure 7: User satisfaction towards EUSC Products and Services in 2006*

The amount of user feedback has significantly increased in 2006 from 596 to 2173.

The analysis of the trend of the indicators shows that:

- the index of full satisfaction has significantly increased (16.2% average) in all the parameters of product quality;
- the index of satisfaction is between 95 and 100 percent for all the parameters of product quality;
- accuracy and timeliness improved most significantly.

The following table illustrates the trend of the last two years, for answer “user fully satisfied”.



*Figure 8: Increase of user satisfaction towards EUSC products and services from 2005 to 2006 for answer “user fully satisfied”*

The user feedback process is continuously being improved in order to strengthen the participation of users and to include aspects other than quality and value of EUSC products, such as accessibility, communication, flexibility, pro-activeness and state of the art of practice. Benchmarking and comparison will be used as well for the purpose.

## **STRATEGY DEVELOPMENT**

Already in 2005 the Centre initiated the development of a new operational framework, the EUSC Reference Facility, based on standards and concepts used and already implemented at the EU Military Staff (EUMS) and other benchmark organisations, such as NATO and the US National Geospatial-Intelligence Agency (NGA). The aim was to renew the aging operational infrastructure of the Centre with a completely digital workflow which would help increase the Centre’s capabilities. This development initiative was introduced also to better enable the organisation to interoperate with national and international assets and to provide an integrated environment to the imagery analysts allowing better use and management of the vast amount of information processed in house.

The stakeholders of the Centre saw the strategic value of the EUSC Reference Facility due to its impact on the organisation’s outputs and its central role in building closer relationships with other agencies, such as the European Space Agency (ESA) European Commission DG Joint Research Centre (JRC) and DG Enterprise.

The Centre also internally recognized the need for improving its processes as an outcome of an assessment, carried out in 2005 in the framework of the Quality Assurance Programme<sup>35</sup>. Strategy revision was considered essential in this context since a strategy not only sets the framework for the organisation's planning, but also plays an essential role when measuring organisational performance. In addition, the review of the Joint Action, a focus area in 2006, supported the Centre's decision to start the strategy review progress.

The objective set for the strategy development process was to improve the organisation's capacity by simplifying the Centre's processes and minimising production time and costs without compromising the quality of the Centre's products and services. The strategy development process was launched in the autumn of 2006 and will be implemented in four phases, including:

- 1) Completion of a Capability Baseline Study;
- 2) Establishment of a Five Year Strategic Plan;
- 3) Elaboration of a Three Year Capability Development Plan;
- 4) Continuous review of strategic objectives and monitoring of the execution of the implementation plan.

The first phase, completion of the Capability Baseline Study, was brought to an end in December 2006. This phase consisted of mapping out the current situation (baseline) of the Centre, especially focussing on the structure of the organisation, processes in place, technologies in use and the way the Centre's different functions have been organised. The methodology for the Capability Baseline Study consisted of information gathering by conducting interviews with key staff members and by requesting relevant customer-furnished information. Input was also compiled from already available EUSC documentation, such as Annual Work Programmes, rules and regulations.

The Capability Baseline Study will serve as a foundation for the work to be carried out in the establishment of the Five Year Strategic Plan. It will outline the organisation's long term strategic objectives setting the framework for the organisation's future development and growth. Following this a gap analysis will be carried out in order to elaborate the strategy implementation plan. It will have a span of 3 years and is closely linked to the organisation's annual planning cycle (elaboration of the Work Programme).

The final stage of the strategy process focuses on the establishment of an internal mechanism that ensures continuous review of long-term objectives and monitoring of the execution of work plans. The Centre considers this essential in its continuous development, journey towards excellence and efforts to bring increased added value to the users of the EUSC.

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<sup>35</sup> EUSC-AR-2005, Chapter 4.10.1

The figure below illustrates how the strategy links with the overall activity and budget planning processes of the organisation.

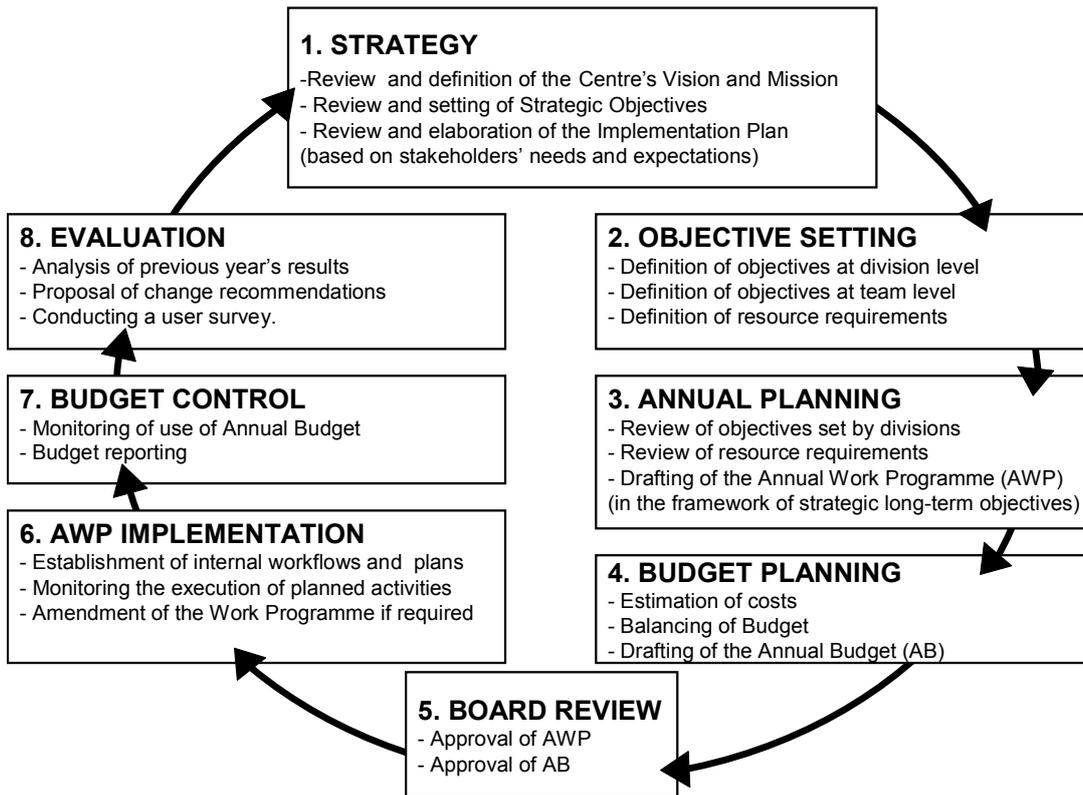
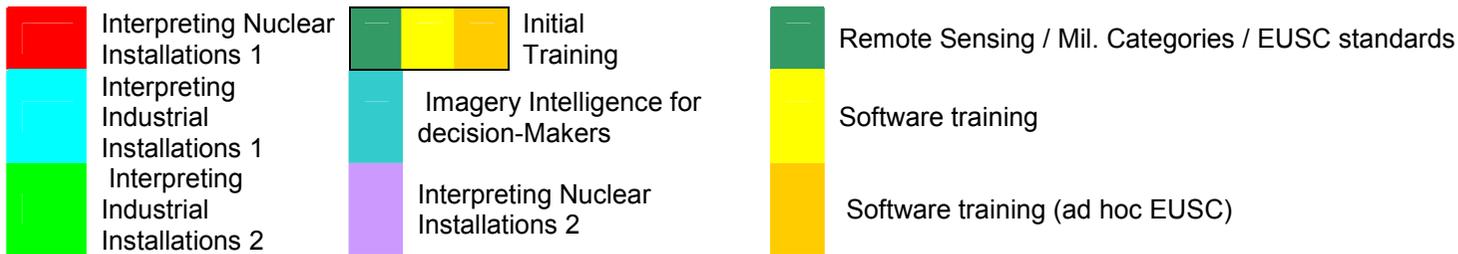


Figure 9: The role of strategy in the EUSC activity and budget planning cycle

# ANNEX I: EUSC Training Calendar 2006

	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M
Jan	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31						
Feb				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28						
Mar				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Apr							1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
May		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31					
Jun				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				
Jul							1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Aug			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				
Sep					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			
Oct	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31						
Nov			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30					
Dec				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			



## ANNEX II: Visits to EUSC in 2006

The following visits were received by the Centre in 2006:

15 - 16 February:	European Defence Agency
20 February:	Infoterra General Directorate Military Survey, Saudi Arabia
27 - 28 February:	European Maritime Safety Agency
8 March:	National Geospatial-Intelligence Agency
13 March:	International Criminal Court
14 March:	European Commission, Madrid Office Director
22 March:	EU Military Staff Intelligence Policy Branch
3 April:	Commission Joint Research Centre
21 April:	Deutsches Zentrum für Luft- und Raumfahrt (DLR), Space Management Earth Observation
5 May:	Technical and Aerospace Committee and Defence Committee of the WEU Assembly
22 May:	Head of the Romanian Intelligence Service
17 May:	Swedish Ambassador and a delegation from the Secretariat of Strategic Planning of the Swedish MoD
22 May:	Joint Air Reconnaissance Intelligence Centre
9 June:	Director General of the EU Commission Joint Research Centre
22 June:	International Charter Representatives
16 June:	Future Chief of Staff of the French Air Force
3 July:	Irish Ambassador
7 July:	Centre for Technological Industrial Development (CDTI), Spain
22 August:	Political Director of Finnish Ministry of Defence
20 September:	Political and Security Committee
23 September:	Romanian Ambassador to Spain
24 October:	UK EUSC Board Member
26 October:	Executive Director of FRONTEX
30 October:	IMAGESAT
31 October:	Secretary General/High Representative, Mr. Javier Solana
31 October:	EU Ambassadors
21 November:	Deutsche Welle
23 November:	Spanish NSA Representatives
30 Nov - 1 Dec:	British Aerospace SOCET Experimentation
12 December:	Bulgarian Chief of Defence
19 December:	EADS

### **ANNEX III: Glossary**

AOI	Area of Interest
ASTRO+	Advanced Space Technologies to Support Security Operations
BiH	Bosnia and Herzegovina
BOSS4GMES	Building Operational Sustainable Services for GMES
CFSP	Common Foreign and Security Policy
CJA	Council Joint Action
DDS	Data Dissemination System
DG E VIII	Directorate-General E - External Economic Relations, Politico-Military Affairs, Defence Aspects
DGI	Digital Geographic Information
DRC	Democratic Republic of Congo
EDA	European Defence agency
EFQM	European Foundation for Quality Management
EMSA	European Maritime Safety Agency
EO	Earth Observation
ESDP	European Security and Defence Policy
ESA	European Space Agency
ESS	European Security Strategy
EU	European Union
EUFOR	European Union Force
EUMS	European Union Military Staff
EU OPS WAN	European Union Operational Wide Area Network
EUSC	European Union Satellite Centre
FP7	7th Framework Programme (for the GMES)
FRONTEX	European Agency for the Management of Operational Cooperation at External Borders of the Member States of the European Union
GeoInt	Geospatial Intelligence
GIS	Geographic Information System
GMES	Global Monitoring for Environment and Security
GMOSS	Global Monitoring for Security and Stability
GSC	General Secretariat of the Council
HMA	Heterogeneous Mission Accessibility
HQ	Headquarter
ICC	International Criminal Court
ICT	Information Communication and Technology
IMINT	Imagery Intelligence
INFOSEC	Information Security
ISS	Institute for Security Studies
JHA	Justice and Home Affairs

JRC	Joint Research Centre
LoI	Location of Interest
LIMES	Land and Sea Integrated Monitoring for European Security
MONUC	Mission de l'Organisation des Nations Unis à la République Démocratique du Congo
NATO	North Atlantic Treaty Organisation
NEO	Non-combatant Evacuation Operation
NFC	Nuclear Fuel Cycle
NGA	National Geospatial Intelligence Agency
NSA	National Security Agency
OITS	Operational Information Technology System
OSCE	Organisation for Security and Cooperation in Europe
PSC	Political and Security Committee
RS	Remote Sensing
SAA	Security Accreditation Authority
SATCEN	Satellite Centre
SCAP	Section Commune d'Administration des Pensions
SG / HR	Secretary-General / High Representative
SITCEN	Joint Situation Centre
TANGO	Telecommunications Advanced Network for GMES Operations
UN	United Nations
WEU	Western European Union
WMD	Weapons of Mass Destruction
WFS	Web Feature Service

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