



INTERNATIONAL ASTRONAUTICAL FEDERATION



REPORT

**4TH INTERNATIONAL MEETING FOR
MEMBERS OF PARLIAMENTS**

Naples, Italy, Sunday 30 September 2012

connecting space people

4th International Meeting for Members of Parliaments

1. Background and Objectives / Introduction

The 4th International Meeting for Members of Parliaments took place on 30 September 2012 in the Renaissance Naples Hotel Mediterraneo, Naples, Italy in conjunction with the 63rd International Astronautical Congress. The subject of this meeting was “Satellite Applications – Tools for Policy Implementation and Verification”.

This meeting, taking place for the fourth time in Naples, Italy after Daejeon (Republic of Korea), Prague (Czech Republic) and Cape Town (South Africa), provides a forum for informal discussions with the international space community (governmental representatives, space agencies, industry, universities, engineers and scientists).

The event offers an opportunity for parliamentarians from governing and non-governing parties to discuss the potential of current and future space technologies to deal with key topics of major and global interest.

2. Programme

The one-day programme offers keynote addresses from three distinguished speakers. Following the presentations, all parliamentarians took the opportunity to make a statement on the developments and plans in their home country and to engage in a discussion with the other participants.

Mrs. Magali Vaissière, ESA Director for Telecommunications and Integrated Applications, presented the Development of Satellite Applications – Potential for Sustainable Services and Economic Growth. Dr. Michael Simpson, Executive Director of Secure World Foundation, gave a lecture on Satellite Data: Policy Tool and Policy Challenge. Gerard Brachet, IAF Vice-President for Relations with international Organisations and developing countries, in the name of Francesco Pisano, UNITAR-UNOSAT Manager presented the Satellite-based Imagery supporting the Management of Disaster and Humanitarian Crisis Situation.

The afternoon session, coordinated by German journalist Uli Bobinger, focussed on a number of discussion points drawn from the morning’s presentations and comments of statements from various country representatives.

The event started and finished by social events where Heads of Space Agencies were also invited. Participants of the International Meeting for Members of Parliaments were also welcomed to participate in the public programme of the 2 first days of the International Astronautical Congress.

3. Participants

16 parliamentarians from 6 countries (China, Estonia, France, Poland, South Africa Thailand)

Karlheinz Kreuzberg	Chair
Berndt Feuerbacher	IAF President
Uli Bobinger	Moderator
G�rard Brachet	Speaker
Michael K. Simpson	Speaker
Magali Vaissiere	Speaker
Bao Weimin	China
Guo Jianning	China
Na Yao	China
Zhang Zhenjun	China
Ene Ergma	Estonia
Bertrand Auban	France
Delphine Gillaizeau-David	France
Boguslaw Wontor	Poland
Beata Zylinska	Poland
Jan Bury	Poland
Piotr Wolanski	Poland
Maciej Urbanowicz	Poland
Stone Phumelele Sizani	South Africa
Nqaba Ngcobo	South Africa
Louise Joan Mariae Fubbs	South Africa
Ninlawan Petchraburanin	Thailand

4. Overview / ideas discussed during the meeting

There is two approaches for the ESA's Advanced Research in Telecommunications Systems (ARTES) programme - one, to maintain and improve competition in European industry; and two, to promote use of satellite technology and in particular problems that affect European Union and society at large. Billions of people around the world now rely on satellite infrastructure every day to communicate, travel, get informed and entertained. 300 billion euro global TV industry was reliant on satellites both to gather and distribute regular programming and, as an example, the summer's London Olympics was watched on TV by around one billion people worldwide. Satellites are an integral part of telephony and internet services, emergency services, utilities, the financial markets and banking, and data centres - all rely on precise timing and information received via satellite.

Satellites are also critical in support of rescue and relief efforts in disaster situations, where terrestrial mobile networks can quickly become overloaded, and are used in precision agriculture, trading and fishing policies, as well as weather forecasting and resources monitoring satellites

Most everyday users are not even aware that they are making use of satellite technology which is very complex. Satellite applications should be seen as "a factor of growth" to support economic growth around the world.

Potential market for satellite-based communications applications and services is estimated to be 30 times larger than the costs of developing a satellite and infrastructure. Satellite broadcasting is a

major industry in its own right, and a major downstream enabler also allowed development of many opportunities to create additional businesses. There is a direct link between this and economic growth. If the penetration of broadband in your country increases there will be a direct impact in terms of the increase in the GDP of that country.

Orbits retrieving data is constrained because Earth Observation (EO) satellites are generally in low Earth. Information cannot always be delivered as often as needed for some uses, particularly if it is required real-time. To get around this Europe is building a communications relay system of three satellites in geostationary orbit that will allow information from EO satellites to be transmitted in real time to the relay and then downloaded immediately to Earth receiving stations. Only three satellites are needed to provide almost 100 per cent global coverage and allow many new real-time applications to be developed.

Moving on to the problem of future air travel safety, ESA is working on a programme that could provide satellite communications for air traffic control. By 2025 our current system will be saturated and safety requirements will force Europe to think about drastic change to air traffic management systems because the London, Paris and Amsterdam corridor is already saturated. This application of satellite technology is not well known yet but it could generate a lot of indirect growth by allowing a greater volume of aircraft to fly safely.

The main areas of focus offered by satellites and space-based systems are:

- planetary defence - we came to realise that if an asteroid was detected to be heading to Earth we would not know how to react
- space sustainability - to continue to be able to access space and allow countries new to space exploration to have unfettered access to space,
- space law and policy - this is point where ideas and space technology and capabilities are applied to human needs, and there is a political decision behind every area of space development,
- and, human and environmental security - this is the point where we spend a great deal of effort to extend awareness of space applications.

The real challenge is to blend together what the technology offers in terms of the workhorses of 10 years' time.

Not a single country represented in the IAF today will be so dominant in the technology in 10 years' time from now that it will not need to make use of other country's technologies.

Some technologies are evolving, such as the use of radar observation from space. The challenge of which kind of sensor to put on a spacecraft is both technical and political. But it is also an opportunity because if a country develops an expertise in any one of the radar bands it can mean that this country could be a valuable partner in a bigger project.

UNOSAT's operational satellite applications arm UNITAR (United National Institute for Training and Research) cover all types of disasters and provide rapid mapping of areas afflicted by emergencies, with tsunamis accounting for approximately four per cent, landslides and earthquakes three per cent but flooding at 29 per cent. A combination of optical and radar imagery is used to provide authorities with information about the extent and developing nature of the problem. Radar imagery - which is not affected by cloud cover or dark - is particularly useful because of the extensive blanket cloud associated with the monsoon season. Satellite systems from around the world have been called into action to support relief efforts in other recent disasters, such as the Japanese earthquake and tsunami of 2011. It is designed to facilitate the collection and distribution of data to areas of need as quickly as possible. One difficulty is that requests for information have to be initiated formally - meaning that aid or disaster relief agencies have to ask for help in any given situation. More work could be done in making systems more user-friendly for teams working in the field, many members of which may not have experience to reading or interpreting data.

Prof Ene Ergma, of Estonia, said: “The topics discussed during the morning are really very important. One thing that many smaller countries like ours don’t understand is the role of space technology. It is not yet really understood how widely we are using it. This is particularly important at Parliamentary level if we want people to give money.”

Dr Nqaba Ngcobo, Chairperson of portfolio committee on science and technology of the Parliament of the Republic of South Africa, and representing the country’s Satellite Education Centre, said they had recognised the growing need to establish a South African National Space Agency (SANSA).

“We have been able to make it an agency that is funded by Parliament and has oversight of South African space affairs,” he said.

Mrs Joanmariae Louise Fubbs, also representing the South African Parliament, explained the problems faced by the country’s agency in dealing with regulatory issues and alignment of resources. She said her country had set up a dedicated facility for the education and training of strategic skills in space-related fields, and was working collaboratively with other countries.

Dr Michael Simpson, expanding on his remarks given during one of the morning presentations, said that space agencies needed to understand that generating remote sensing data was only “half the task”. “The other half is getting data to the people concerned, to the end user. This kind of initiative from the IAF is attempting to close that gap. “We need to press for exchange of information across our national lines and live in an environment of international communication.” Dr Simpson suggested that the future needed countries to be “essential components” of a programme rather than building the whole thing.

5. Conclusion on the meeting

There is an urgent need for more international cooperation, more specific space-related education and training, and for the establishment of regionally based discussion groups. A company doesn’t have to be a space hardware producer for its country to be involved in or use the benefits of space in some way. All of the new huge projects in space can only be achieved through international cooperation with different partners. Everyone can be a unique partner and no one country needs to provide everything. It is commonly understood that we need the next generation to be interested, educated and capable of dealing with the challenges in front of us.

6. Evaluation of the meeting

This meeting was very successful and appreciated by all participants. One significant benefit of this kind of meeting is the cooperative group dynamics which in turn allowed areas such as data sharing to move forward more quickly, and therefore benefit more and more people across the world. It is recommended to carry on this programme for next year, in conjunction with the 64th IAC in Beijing, China.