



information from imagery

The International Society
for
Photogrammetry
and
Remote Sensing

Organisation and Programme

2008-2012

Organisation and Programme 2008-2012



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FOREWORD

This "Silver Book" has been prepared to provide interested persons with current information concerning the **International Society for Photogrammetry and Remote Sensing**. It contains a brief history of the Society and summary statements regarding objectives, membership, organization, activities, etc. Some of these statements are condensed from the Statutes and Bylaws which govern the operations of the Society. The complete ISPRS Statutes, Bylaws and Awards of the Society are included in Appendix B, as are Society Guidelines.

The current four-year (2008-2012) organisation and programme of the Society are covered in Appendix A. Scientific and technical program activities, responsibilities and officer addresses are listed in summarized form to provide ready reference for interested parties. Since a different group of officers and program leaders manage ISPRS activities during each four-year period, the Appendix A is revised every four years to reflect the current composition of the management group.

Only the English version of the Statutes and Bylaws is included in the Silver Book.

Details in the Silver Book are also available on the ISPRS Home Page on <http://www.isprs.org/>

Chen JUN
Secretary General, 2008-2012

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THE INTERNATIONAL SOCIETY FOR PHOTOGRAMMETRY AND REMOTE SENSING

HISTORICAL BACKGROUND

In 1910, the International Society of Photogrammetry (ISP) was founded under the leadership of its first President, Eduard Dolezal, from Austria. After 70 years of functioning under its original name, the Society changed its name in 1980 to the International Society for Photogrammetry and Remote Sensing (ISPRS) and in 2000 added spatial information sciences to its area of interest.

Photogrammetry and Remote Sensing is the art, science, and technology of obtaining reliable information from noncontact imaging and other sensor systems, about the Earth and its environment, and other physical objects and processes through recording, measuring, analysing and representation.

Spatial Information Science is the art, science, and technology of obtaining reliable spatial, spectral and temporal relationships between physical objects, and of processes for integration with other data for analysis, portrayal and representation, independently of scale.

The term of photogrammetry was first used in published work in 1867 when the art and science of photography itself was still in its infancy. Over the last 80 years the principal application of photogrammetry has been the compilation of maps from aerial photographs. During the most recent decade photogrammetry and remote sensing has provided the primary source data for Geographic Information Systems. There has been in addition a continuing development of applications of photogrammetric close-range techniques to many other fields - engineering, architecture, archaeology, medicine, law, machine vision etc.

Surveillance and environmental imaging and interpretative studies from aircraft and Earth satellites, using sensors which operate in the various parts of the electromagnetic spectrum -ultraviolet, visible, infrared, thermal, and microwave - have come to be called "Remote Sensing". There is no special significance, however, in the degree of "remoteness" of the sensor from the object surveyed, and any form of non-contact observation can be regarded as remote sensing. There is no clear-cut distinction between photogrammetry and remote sensing, and it is for this reason that the Society changed its name in 1980.

Except for interruptions during World Wars I and II, the Society has carried on its activities continuously since its founding. These activities culminate every four years at the International Congress on Photogrammetry and Remote Sensing. The Congress includes the presentation of scientific and technical papers, technical tours, scientific and commercial exhibits, meetings to conduct the business of the Society, and a social program. The locations of the

Congresses from 1910 to 2008, and the planned Congress for 2012, are as follows:

1. 1913 Vienna, Austria
2. 1926 Berlin, Germany
3. 1930 Zurich, Switzerland
4. 1934 Paris, France
5. 1938 Rome, Italy
6. 1948 The Hague, The Netherlands
7. 1952 Washington, DC, USA
8. 1956 Stockholm, Sweden
9. 1960 London, United Kingdom
10. 1964 Lisbon, Portugal
11. 1968 Lausanne, Switzerland
12. 1972 Ottawa, Canada
13. 1976 Helsinki, Finland
14. 1980 Hamburg, F.R. Germany
15. 1984 Rio de Janeiro, Brazil
16. 1988 Kyoto, Japan
17. 1992 Washington, DC, USA
18. 1996 Vienna, Austria
19. 2000 Amsterdam, The Netherlands
20. 2004 Istanbul, Turkey
21. 2008 Beijing, China
22. 2012 Melbourne, Australia

The Presidents of ISP from 1910 to 1980 and of ISPRS from 1980 to 2012 are as follows:

ISP

- | | |
|-----------|----------------------------------|
| 1910-1913 | E. Dolezal, Austria |
| 1913-1926 | E. Dolezal, Austria |
| 1926-1930 | O. Eggert, Germany |
| 1930-1934 | Gen. Perriet, France |
| 1934-1938 | G. Cassinis, Italy |
| 1938-1948 | W. Schermerhorn, The Netherlands |
| 1948-1952 | O.S. Reading, USA |
| 1952-1956 | P. Mogensen, Sweden |
| 1956-1960 | R.L Brown, United Kingdom |
| 1960-1964 | A.P. Clemente, Portugal |
| 1964-1968 | H. Harry, Switzerland |
| 1968-1972 | L. Solaini, Italy |
| 1972-1976 | Samuel G. Gamble, Canada |
| 1976-1980 | Jean Cruset, France |

ISPRS

- | | |
|-----------|---------------------------------|
| 1980-1984 | Frederick J. Doyle, USA |
| 1984-1988 | Gottfried Konecny, F.R. Germany |
| 1988-1992 | Kennert Torlegard, Sweden |
| 1992-1996 | Shunji Murai, Japan |
| 1996-2000 | Lawrence Fritz, USA |
| 2000-2004 | John Trinder, Australia |
| 2004-2008 | Ian Dowman, United Kingdom |
| 2008-2012 | Orhan Altan, Turkey |

OBJECTIVES

The International Society for Photogrammetry and Remote Sensing is a non-governmental organization devoted to the development of international cooperation for the advancement of photogrammetry and remote sensing and their applications. The Society operates without any discrimination on grounds of race, religion, nationality, or political philosophy. The official languages are English, French and German.

The principal activities of the Society are:

1. Stimulating the formation of national or regional Societies of Photogrammetry and Remote Sensing.
2. Initiating and coordinating research in photogrammetry and remote sensing.
3. Holding international Symposia and Congresses at regular intervals.
4. Ensuring worldwide circulation of the records of discussion and the results of research by publication of the *International Archives of Photogrammetry, Remote Sensing and Spatial Information Sciences*.
5. Encouraging the publication and exchange of scientific papers and journals dealing with photogrammetry and remote sensing.

The operations of the Society are governed by Statutes and Bylaws adopted in 1968 and as amended in 1972, 1980, 1984, 1988, 1992, 1996, 2000, 2004 and 2008.

MEMBER TYPES

1. Ordinary Members

A country, or a region thereof having an independent budget, which represents the whole community of photogrammetrists and remote sensing experts in the country or region, may join the Society through a single Member organization, which usually is the National Society for Photogrammetry and Remote Sensing.

2. Associate Members

An organization which represents a community of photogrammetrists, remote sensing experts and/or spatial information system experts in a country, and which has a strong interest in participating in the Society's affairs, and which is not represented by the Ordinary Member organization of the country.

3. Regional Members

A multi-national association of photogrammetry and/or remote sensing organizations established for the purpose of considering issues of common interest, promoting regional cooperation, convening regional conferences etc.

4. Sustaining Members

Individuals, organizations, institutions, or agencies who manufacture or distribute instruments, equipment or supplies, who operate or provide services in the fields of photogrammetry and/or remote sensing and/or GIS, or who are engaged in research and/or education and who contribute to the financial support of the Society.

5. Honorary Members

Individuals whose efforts in photogrammetry and

remote sensing are exceptionally distinguished and who are duly nominated and elected.

6. Fellows

In recognition of sustained, excellent service to the ISPRS and its aims, an individual may be elected as a Fellow of the Society.

Other than Honorary, Fellows and Sustaining Members, individuals are not eligible to become members of ISPRS. An individual usually participates in the activities of the Society through affiliation with one of the Member organizations.

ORGANISATION

The principal elements for directing and managing the Society are the General Assembly, the Council, and the Congress.

1. The **General Assembly** determines the general policy of the Society and is the supreme authority for all decisions. Each Member organization appoints one delegate (with two advisers) to attend the meetings of the General Assembly held during Congresses.
2. The **Council** includes the President, the Congress Director, the First Vice-President, the Second Vice-President, the Secretary General and the Treasurer. The Council is elected by the General Assembly and conducts the normal administrative affairs of the Society in the interval between meetings of the General Assembly in accordance with the Statutes and Bylaws, and the directives of the General Assembly and the Congress. A meeting of the Council is convened at least once each year.
3. The **Congress** consists of all the photogrammetrists and remote sensing specialists present who are affiliated with a Member organization and others who have been invited. The Congress convenes every four years. The Congress site is selected by the General Assembly from proposals made by Members. Arrangements for all activities at the Congress are the responsibility of the Congress Director who is nominated by the Member which hosts the Congress.

TECHNICAL COMMISSIONS

The scientific and technical work of the ISPRS is accomplished by eight **Technical Commissions**. Each Commission is sponsored by a Member organization for the four-year period between Congresses, and responsibility is re-designated by the General Assembly at each Congress based upon proposals submitted by the Members. The direction of a Technical Commission is the responsibility of a President and Secretary, acting with the support of the sponsoring Member, and under the general direction of the Council. Technical Commissions organize Working Groups, and each Commission arranges a Symposium between Congresses, for which it is entirely responsible. The culmination of the Technical Commission's operation is the selection of papers to be presented at the Congress held at the conclusion of the four-year period.

PUBLICATIONS

The publications of ISPRS are in seven categories:

1. The *International Archives of Photogrammetry and Remote Sensing and Spatial Information Sciences* contain the proceedings (Part A) and the scientific and technical presentations (Part B) of each Congress, edited and distributed by the Member organization responsible for the Congress. The scientific and technical presentations at Technical Commission Symposia and Workshops are also published by each of the Commission sponsoring Members, also as volumes of the **Archives**.
2. The *ISPRS Journal of Photogrammetry and Remote Sensing* is the official publication of the Society. It contains scientific and technical articles and reviews in the fields of Photogrammetry, Remote Sensing and Spatial Information Sciences, and as such, endeavors to be a primary channel of communication on the scientific activities of ISPRS, for specialists in all countries working in the many disciplines applying photogrammetry, remote sensing and spatial information sciences.
3. The *ISPRS Highlights* is the official e-bulletin of the Society. It contains such items as the ISPRS Annual Reports, general news of ISPRS activities, event reports of ISPRS sponsored conferences, officers lists, keynote speeches, book, project and technology reviews, minutes of Council and Technical Commission meetings, and calls for papers etc. After March 2006, The ISPRS Highlights has been converted to e-Highlights and distributed by e-mail three times in a year.
4. The *ISPRS Organisation and Programme* (Silver Book) and the annual publication *ISPRS Member List* (Blue Book) are published to provide Members and interested groups a brief description of the current activities and addresses, and the underlying precepts of the Society.
5. The *ISPRS Book Series* in the Photogrammetry, Remote Sensing and Spatial Information Sciences includes high quality scientific papers, usually presented at ISPRS events, after peer-review. It also includes textbooks or translations of textbooks and books on advanced scientific topics that are not directly related to ISPRS events.
6. The *ISPRS Annual Report* contains current information regarding the state of the science and technologies in the fields of photogrammetry, remote sensing, GIS, machine vision, computer vision and other related sciences. From 1993 to 1995 it was published as a separate issue and distributed to organizations and scientific institutions which collaborate or have interest in ISPRS activities. From 1996 onwards it will be contained within ISPRS Highlights and will be distributed widely to members, and organisations and scientific organisations which collaborate with ISPRS.

7. Special circulars and announcements are used to provide information on Congresses, Symposia and other activities of ISPRS.

AWARDS

The International Society for Photogrammetry and Remote Sensing recognizes individual accomplishments through the sponsorship of awards and honours which are granted at each quadrennial ISPRS Congress. Nominations for deserving candidates for awards are welcome and may be made by individuals or organizations at any time, but before the given deadlines. Each nomination must be in written form (e-mail is acceptable) and submitted to an ISPRS Council member. The following is a brief summary of all awards and honours granted by ISPRS. (Year of initial presentation of each award or honor is denoted in parentheses.) The terms of reference for most awards are provided on the ISPRS home page www.isprs.org/documents/awards.html and published in the Silver Book: ISPRS Organisation and Programme.

An *ISPRS Honorary Member* (1926), is elected by the Society in recognition of distinguished services to ISPRS and its aims. There may not be more than ten living Honorary Members of the Society at any given time. Honorary Members have the right to attend meetings of the Society and shall not be called upon to pay registration fees at functions sponsored in the name of ISPRS. (The rules for Honorary Members are under review.)

The *Brock Gold Medal Award* (1956), sponsored by the American Society for Photogrammetry and Remote Sensing, is presented for an outstanding landmark in evolution of the photogrammetry, remote sensing and spatial information sciences. The award consists of a gold medallion. Ordinary Members of ISPRS are encouraged to nominate candidates for the Award. Nominations must be signed by two individuals of different nationalities and also a different nationality from that of the candidate. Nominations should be sent to Secretary General Chen Jun by 1st October 2011.

The *Otto von Gruber Award* (1964), sponsored by the ITC Foundation, is presented to a young (less than 40 years) sole author of a paper of outstanding merit in the photogrammetry, remote sensing and spatial information sciences written in the four year period preceding the Congress. The Award consists of a medal and a monetary grant. Applications may be self nominated and must include three copies of the paper sent to President Orhan Altan by 1st January 2012.

The *U. V. Helava Award* (2000), sponsored by Elsevier Science bv and Leica Geosystems, LLC, consists of a grand prize of SFr. 10,000 and a silver plaque presented to the author(s) of the most outstanding paper published exclusively in the ISPRS International Journal of Photogrammetry and Remote Sensing during the four years preceding the Congress, and three runner-up prizes of a Journal subscription and certificate, presented to the author(s) of the best papers published in each of the other three years preceding the Congress.

The **Gino Cassinis Award (2000)**, sponsored by the Italian Society for Surveying and Photogrammetry (SIFET) is presented to a person who has significantly enhanced the mathematical and statistical foundations of the photogrammetry, remote sensing or spatial information sciences in the four years preceding the Congress. The award consists of SFr. 2,500 and a certificate. Nominations should be submitted to President Orhan Altan by 1st January 2012.

The **Eduard Dolezal Award (1996)**, sponsored by the Austrian Society of Surveying and Geoinformation, is complimentary registration and a limited travel and expense grant for at least one individual, from developing or reform countries, to participate in the ISPRS Congress. Candidates are those who have permanently implemented a practical application of photogrammetry, remote sensing or GIS in an efficient manner or which documents their outstanding success in support of these fields. Applications may be self nominated and should be submitted to Secretary General Chen Jun by 1st December 2011.

The **Schwedfsky Medal (1988)**, sponsored by the German Society for Photogrammetry and Remote Sensing, is presented to persons who have made significant contributions to photogrammetry, remote sensing and spatial information sciences, either through the medium of publication as author or editor, or in another form. The award consists of a medal manufactured in porcelain and a certificate. Nominations for the Medal should be sent to President Orhan Altan by 1st January 2012.

The **Willem Schermerhorn Award (1988)**, sponsored by Geo-Information Netherlands is granted to a person who has most significantly contributed to the activities of a Working Group of the ISPRS during the four year Congress period. The award consists of a certificate. Nominations for the Award should be sent to President Orhan Altan by 1st January 2012.

The **Samuel Gamble Award (1988)**, sponsored by the Canadian Institute of Geomatics, is presented to up to three individuals who have contributed significantly to the development, organization or professional activities of the photogrammetry, remote sensing and spatial information sciences, at the national or international level. The award consists of a certificate. Nominations should be sent to Secretary General Chen Jun by 1st January 2012.

The **President's Honorary Citation (1988)**, is a certificate of recognition presented by the President of ISPRS to a chairperson, co-chairperson or member of a Working Group of each ISPRS Technical Commission. The citation is to recognize special, personal and meritorious contributions to the operation of the relevant Technical Commission's activities and advancement of its interests, during the quadrennial term of the Society. Nominations should be made by the Technical Commission Presidents to President Orhan Altan by 1st January 2012.

The **Wang Zhizhuo Award (2008)**, sponsored by the Chinese Society of Geodesy, Photogrammetry and Cartography (CSGPC) consists of a medal and a monetary grant (SFr. 2,500). It is granted at each quadrennial ISPRS Congress to a person who has made significant achievement or innovation in the spatial information

sciences. Nominations should be sent to President Orhan Altan by 1st January 2012.

The **ISPRS Prizes for Best Papers by Young Authors**, are sponsored by donor organizations and by ISPRS to authors who are less than 35 years old and are the sole author of a high quality paper presented to the Congress. Each prize consists of a certificate and a SFr. 2,500 grant to make it possible for the winner to participate in the Congress. To be eligible, young authors must submit their paper to Congress Director Cliff Ogleby by 1st February 2012.

At the Congress, a total of 16 **Best Poster Papers Awards (1988)** are sponsored by ISPRS. A jury for each of the eight ISPRS Commissions observes the poster presentations and selects the two best Poster Papers from the Commission. The award consists of a gift and certificate from the Congress Director.

At the Congress, the **CATCON Prizes (1996)**, a software Computer Assisted Teaching Contest, will be organized by ISPRS Technical Commission VI and funded by The ISPRS Foundation. The main objective of the contest is to promote the development and dissemination of good, user-friendly software packages, www contents and data sets for computer assisted teaching, which preferably are non-commercial and free. Typically the prizes consist of a Gold Award (SFr. 3,000), Silver Award (SFr. 2,500), and Bronze Award (SFr. 1,500) and a certificate.

The **Karl Kraus Medal (2009)**, is a prize to honour the authorship of excellent textbooks in the scientific fields of Photogrammetry, Remote Sensing, and Spatial Information Sciences. The prize is dedicated to the memory of Professor Karl Kraus, a passionate teacher and author of a number of textbooks.

FINANCES

ISPRS is supported financially from four main sources:

1. Subscriptions

Each Ordinary and Associate Member organization remits annual subscription fees to the Treasurer of ISPRS on a scale broadly related to the number of photogrammetric, remote sensing and spatial information specialists which it represents.

Ordinary Membership is arranged in categories as follows:

Number of Active Specialists	Category	Annual Subscription (Swiss Francs)
Less than 26	1	115
26 - 50	2	230
51 - 150	3	690
151 - 250	4	1150
251 - 400	5	1840
401 - 600	6	2760
601 - 800	7	3680
More than 800	8	5520

Associate Membership is arranged in categories as follows:

Number of Active Specialists	Category	Annual Subscription (Swiss Francs)
Less than 51	1	115
51 - 250	2	690
251 - 600	3	1380
More than 600	4	2760

Member countries propose their own category and may at any time increase their category but may not lower their category without previous approval by the General Assembly.

The annual subscription fee paid by a **Regional Member** shall be CHF 115.

Sustaining Members shall pay an annual subscription fee according to the number of employees in their organisations defined by the five categories as follows:

Category	Fee
A more than 750 employees	3,450 Swiss Francs
B 101 - 750 employees	1,725 Swiss Francs
C 26 - 100 employees	920 Swiss Francs
D 1 - 25 employees	460 Swiss Francs
E Educational Institutes	250 Swiss Francs

2. The Congress is financed by the Member organization of the host country from registration and exhibition fees.
3. Each Technical Commission is financed by its sponsoring Member.
4. A service fee is assessed to the Congress and Symposia for administrative support.

The financial affairs of the Society are monitored by a Financial Commission elected by the General Assembly.

Ordinary Members (88) & Associate Members (10)

ISPRS Ordinary and Associate Members are scientific and/or technical organizations representing geographic areas. Country names with category are listed for the sake of brevity and common usage, and are not intended to carry political or diplomatic implications.

Ordinary Members

Algeria	(3)
Argentina	(2)
Australia	(5)
Austria	(4)
Bangladesh	(1)
Belgium	(4)
Botswana	(1)
Brazil	(5)
Brunei Darussalam	(1)
Bulgaria	(2)
Burkina Faso	(1)
Cameroon	(1)
Canada	(8)
Chile	(1)
China	(8)
China Taipei	(4)
Colombia	(2)
Croatia	(2)
Cuba	(1)
Cyprus	(2)
Czech Republic	(2)
Denmark	(3)
Egypt	(2)
El Salvador	(3)
Ethiopia	(1)
Finland	(3)
France	(6)
Germany	(8)
Ghana	(1)
Greece	(2)
Hong Kong	(2)
Hungary	(3)
India	(6)
Indonesia	(1)
Iran	(3)
Iraq	(1)
Ireland	(2)
Israel	(3)
Italy	(6)
Japan	(7)
Jordan	(4)
Kenya	(1)
Korea	(2)
Kuwait	(2)
Latvia	(1)
Libya	(1)
Lithuania	(1)
Malawi	(2)
Malaysia	(2)
Mexico	(2)
Mongolia	(1)
Morocco	(3)
Myanmar	(2)
Namibia	(1)
Nepal	(1)
Netherlands	(4)
New Zealand	(2)
Nigeria	(1)
Norway	(3)
Pakistan	(1)
Peru	(1)
Philippines	(1)

Poland	(3)
Portugal	(2)
Qatar	(1)
Romania	(2)
Russian Federation	(8)
Saudi Arabia	(4)
Senegal	(1)
Slovak Republic	(2)
Slovenia	(1)
South Africa	(5)
Spain	(6)
Sri Lanka	(3)
Sweden	(5)
Switzerland	(4)
Syria	(3)
Tanzania	(1)
Thailand	(2)
Turkey	(4)
Ukraine	(3)
United Arab Emirates	(1)
United Kingdom	(6)
Uruguay	(1)
United States	(8)
Venezuela	(2)
Vietnam	(1)
Zimbabwe	(1)

Associate Members

China Taipei	Chinese-Taipei Geoinformatics Society
Colombia	Agustin Codazzi Geographic Institute – Research Center for Remote Sensing
Iran	Iran Space Center
Italy	Associazione Italiana di Telerilevamento – AIT
Korea	Korean Society for Geo-Spatial Info Systems
Korea	Korean Society of Remote Sensing
Morocco	Centre Royal de Teledetection Spatiale
Pakistan	Pakistan Space & Upper Atmosphere Research Commission
Russia	Society for Contributing Development of Photogrammetry & Remote Sensing
Thailand	Geo-Informatics and Space Technology Development Agency

Regional Members (12)

AARS - Asian Association on Remote Sensing
JAPAN

AARSE - African Association of Remote Sensing of Environment
THE NETHERLANDS

OACT - African Association of Cartography & Remote Sensing
ALGERIA

CSSTEAP - Centre for Space Science and Technology Education in Asia and the Pacific
INDIA

CRTEAN - Centre Regional de Teledetection des tats de l'Afrique du Nord
TUNISIA

EARSeL - European Association of Remote Sensing Laboratories
GERMANY

EuroSDR
IRELAND

PAIGH - Pan American Institute of Geography & History Cartography Commission
CHILE

RCMRD - Regional Centre for Mapping of Resources for Development
KENYA

RECTAS - Regional Centre for Training in Aerospace Surveys
NIGERIA

SOPAC - South Pacific Applied Geoscience Commission
FIJI

SELPER - Sociedad de Especialistas Latinoamericanos en Percepcion Remota
COLOMBIA

Sustaining Members (77)

Adam Technology
AUSTRALIA

Aero Asahi Corporation
JAPAN

Agfa-Gevaert N.V.
BELGIUM

Airborne Hydrography AB
SWEDEN

Applanix Corporation
CANADA

Asia Air Survey Co. Ltd.
JAPAN

BAE Systems
USA

Center for Remote Sensing and Mapping Science
USA

COWI A/S
DENMARK

CycloMedia Technology BV
THE NETHERLANDS

DIAR - Politecnico di Milano
ITALY

DSM GeoData Limited
UNITED KINGDOM

Earth Data Analysis Center
USA

e-HD.com
KOREA

Erdem Emi Mapping Information Construction and Transportation Industry Co.
TURKEY

ESRI
USA

ETH Zurich - Institute of Geodesy & Photogrammetry
SWITZERLAND

Eurimage S.P.A.
ITALY

Fac. of Geodesy, Univ. of Architecture, Civil Engineering and Geodesy - Sofia
BULGARIA

Finnmap FM-International Oy
FINLAND

GeoCad 93 Ltdi.
BULGARIA

GEO: CONNEXION Ltd
UNITED KINGDOM

Geocarto International Centre
HONG KONG, CHINA

Geoinformatics
THE NETHERLANDS

GEOMETRAL
PORTUGAL

German Aerospace Centre - DLR Oberpfaffenhofen
GERMANY

GIS Center of Dubai Municipality
UNITED ARAB EMIRATES

GITC BV
THE NETHERLANDS

Global Scan Technologies L.L.C.
UNITED ARAB EMIRATES

Hansa Luftbild
GERMANY

ImageSat International NV
CYPRUS

INFOMAP Novi Grad d.o.o.
BOSNIA-HERZEGOVINA

Infoterra GmbH
GERMANY

INPHO GmbH
GERMANY

Institute for Photogrammetry - University of Stuttgart
GERMANY

Institute of Engineering Surveying and Space Geodesy
UNITED KINGDOM

Instituto Nacional de Pesquisas Espaciais
BRAZIL

INTA SPACETURK INC
TURKEY

Intergraph Corporation
USA

International Center for Remote Sensing of Environment
USA

International Institute for Geo-Information Science and Earth Observation (ITC)
The NETHERLANDS

Istanbul Metropolitan Municipality/ Directorate of Cartography (Mapping)
TURKEY

Istanbul Technical University Division of Photogrammetry
TURKEY

ITU Centre for Satellite Communications and Remote Sensing
TURKEY

Kokusai Kogyo Co. Ltd
JAPAN

Leica GeoSystems AG
SWITZERLAND

Mescioglu Engineering Co.
TURKEY

METU, Department of Geodetic and Geographic Information Technologies
TURKEY

NASA Goddard Space Flight Center
USA

National Remote Sensing Centre
INDIA

Newcastle University, School of Civil Engineering and Geosciences
UNITED KINGDOM

Nnamdi Azikiwe University
NIGERIA

Open Geospatial Consortium
USA

PASCO Corporation
JAPAN

PROSIG CONSULT
ROMANIA

RACURS
RUSSIAN FEDERATION

Ramani Geosystems
KENYA

ScanEx Research and Development Centre
RUSSIAN FEDERATION

SeaGate Institute of Technology
NEPAL

Selcuk University Division of Photogrammetry
TURKEY

SENSON LTD
GEORGIA

Sensor Systems, Inc
USA

SEPRET Ingenieurs Conscils S.A.R.L.
MOROCCO

Siberian State Academy of Geodesy
RUSSIA FEDERATION

SOVINFORMSPUTNIK
RUSSIAN FEDERATION

SPOT Image
FRANCE

Space Technologies Research Institute
TURKEY

Supresoft Inc
CHINA

The Getty Conservation Institute
USA

Topol Software
CZECH REPUBLIC

TRACK'AIR B.V.
THE NETHERLANDS

**UCL, Department of Civil, Environmental and
Geomatic Engineering**
UNITED KINGDOM

**University of Calgary Department of Geomatics
Engineering**
CANADA

**University Teknologi Malaysia, Fakulti Kejuruteraan
Sains**
MALAYSIA

Vexcel Imaging GmbH
AUSTRIA

Virtual Geomatics
USA

**Yildiz Technical University, Division of
Photogrammetry and Remote Sensing**
TURKEY

Honorary Members (8)

Prof. Dr. Friedrich Ackermann
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University of Stuttgart
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D-70174 Stuttgart
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1591 Forest Villa Lane
McLean, VA 22101
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2008-2012

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Commission I – Terms of Reference

- Design and realization of digital aerial and spaceborne missions for Earth observation
- Design, construction, characterization, and installation of imaging and non-imaging sensors (including Optical, IR, SAR, IFSAR, lidar, etc.)
- Standardization of definitions and measurements of sensor parameters
- Integration of imaging and non-imaging sensors with other relevant systems
- Geometric and radiometric properties, quality standards, and factors affecting data quality
- Testing, calibration and evaluation of sensors (including laboratory, in-flight, inter-calibration and test fields)
- Integrated platform guidance, navigation, positioning and orientation
- Data reception and pre-processing
- On-board pre-processing of data and autonomous systems
- Systems and media for recording sensor data, auxiliary data (time, position, attitude, etc.) and film scanners
- Image and non-image data transfer standards

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WG I/1 Terms of Reference

- Coordinate a forum for discussion between the international airborne science communities
- Develop airborne sensor interface format standards in coordination with other working groups to promote maximum sensor portability between aircrafts increasing science yield from the sensors
- Develop airborne satellite data relay systems use for science research programs between aircraft and ground in coordination with other working groups
- Develop an airborne science literature search to identify peer reviewed published papers and citations and make a available in a data base
- Support the regulatory agencies in supporting airborne science sensor certification and approval requirements for Lidar, Dropsonde and electromagnetic spectrum emissions
- Maintain an inventory of the international airborne science capabilities and report annually
- Develop a forum to discuss transnational access system(s) for airborne users
- Support the use of UAS vehicle activity for science observations in civil and restricted airspace on an international basis and engage the ICAO
- Promote the education and outreach on an international basis of airborne based science activity
- Develop a forum to coordinate expert international workshops in categories of airborne science sensors for both Remote Sensing and in situ systems

WG I/2: LIDAR, SAR AND OPTICAL SENSORS FOR AIRBORNE AND SPACEBORNE PLATFORMS

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WG I/2 Terms of Reference

- Evaluation and assessment of systems for processing and integrating SAR, lidar and optical data
- Address challenges in low-frequency spaceborne SAR system design and data processing
- Address challenges and applications of high-resolution spaceborne SAR systems (e.g. TerraSAR-X, Cosmo Skymed)
- Evaluation of Systems for generation DEMs (Resolution I.3)
- Evaluation of Multi-frequency SAR, polarimetric InSAR systems
- Evaluation of Multi-pulse and full-waveform lidar
- Evaluation of Range imaging with array sensor systems
- Data quality and performance validation of SAR, lidar and optical systems
- Liaison with external groups such as CEOS, IGARSS and EuroSDR

WG I/3: MULTI-PLATFORM MULTI-SENSOR INTER-CALIBRATION

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WG I/3 Terms of Reference

- Multi-platform data acquisition and inter-calibration
- Investigate multi-source data quality control and quality assurance methods for land-, air-, and space-borne imaging and ranging systems – collaborate with WG II/4
- Develop workflow guidelines for system calibration (sensors and inter-sensors)
- Collaborate and liaise with EuroSDR (Comm I) in the development of commonly accepted standards procedures for the inter-calibration and testing of Multi-Platform Multi-Sensor systems

WG I/4: GEOMETRIC AND RADIOMETRIC MODELLING OF OPTICAL SPACEBORNE SENSORS

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WG I/4 Terms of Reference

- Geometric/radiometric calibration/evaluation of optical space sensors including laboratory (including long-term stability) and in-flight calibration activities (connections to CEOS working group IVOS)
- Comparison of existing and evolving algorithms for geometrical modelling of optical space images
- Analysis of available direct sensor orientation and modelling changes during satellite lifetime
- Evaluation of line sensors for DEM generation (cooperation with WG VII/2 Digital Elevation Models by Radar)

WG I/5: INTEGRATED SYSTEMS FOR SENSOR GEOREFERENCING AND NAVIGATION

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WG I/5 Terms of Reference

- Algorithmic aspects of direct georeferencing of active and passive sensors used in marine, land, airborne, and spaceborne environments
- Navigation technology and the methods of sensor orientation in urban, indoor and forested environments
- Co-registration of heterogeneous data sets for integrated sensor navigation, orientation and calibration
- Georeferencing by integrated sensor orientation: models and adjustment procedures
- Investigate challenges and implementation issues of real-time georeferencing
- Navigation redundancy, robustness and reliability: impact of system integration
- Standards and protocols in direct georeferencing and sensor orientation

WG I/6: SMALL SATELLITES FOR EARTH OBSERVATION

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WG I/6 Terms of Reference

- User requirements for designing and realizing small satellite missions, including constellations, for Earth observation.
- Inventory of small satellite missions for Earth observation and system performances
- Assessment of the benefits of small satellites compared to other sources of information
- Implementation of a forum for industrial and developing countries to share their results, experiences and recommendations
- Cooperation with other ISPRS WGs in Commissions III, IV and VII

IC WG I/V: UNMANNED VEHICLE SYSTEMS (UVS) FOR MAPPING AND MONITORING APPLICATIONS

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IC WG I/V Terms of Reference

- UVS specific issues related to navigation and position/orientation determination
- UVS platforms & instruments for photogrammetry and remote sensing. especially low-cost, consumer-type
- UVS as a tool for remote sensing instrument prototyping
- UVS as a tool for teaching all aspects of photogrammetry & remote sensing
- Document and compare UVS systems in photogrammetry and remote sensing, in terms of cost, performance, application and quality
- Liaison with Com III, VIII and EuroSDR

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Commission II – Terms of Reference

- Fundamentals of spatial database design, spatial data structures, spatial analysis and geostatistics, spatial querying, spatial reasoning, spatial and temporal Modelling
- Aggregation, generalization, abstraction and rendering of image and vector data
- Spatial decision support systems
- Processing, analysis and Modelling of multi-dimensional geospatial data
- System integration and Modelling aspects for data and geoinformation processing
- Interoperability of heterogeneous spatial information systems
- Semantic and geometric integration of heterogeneous spatial information
- Communication and visualization of spatial data
- Data mining, filtering, retrieval and dissemination
- Spatial data quality and spatial model quality

WG II/1: COGNITION AND MODELLING OF SPACE AND TIME

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WG II/1 Terms of Reference

- Concept and theory of Modelling space and time
- Cognition of space and time
- Spatial and spatio-temporal data models and structures
- Spatial and spatio-temporal topology and relationships
- Spatio-temporal data indexing and query for vector-based spatial data
- Computational geometry for spatio-temporal Modelling

WG II/2: MULTI-SCALE REPRESENTATION OF SPATIAL DATA

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WG II/2 Terms of Reference

- Generalization and abstraction of vector and raster data
- Semantic generalization of data models
- Development of open standard services for generalization operations
- Quality-based generalization: control and evaluation
- Context interpretation: important structures in the data have to be interpreted before they can be generalized
- Development of multiscale and multiple representation analysis tools to exploit the existing hierarchies and relationships especially in the context distributed data, e.g. in geosensor networks
- Generalization of spatio-temporal information
- Multiple representation Modelling, storage and analysis of city models (e.g. CityGML)
- Continuous generalization: incremental streaming of multi-scale data
- Information aggregation from multi-scale spatial data

WG II/3: SPATIAL ANALYSIS AND DATA MINING

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WG II/3 Terms of Reference

- Theory of spatial analysis
- Spatial reasoning processes
- Information discovery in spatial databases
- Spatial analysis models and methods
- Spatial data mining models
- Intelligent computation in spatial analysis
- Spatial analysis and data mining applications

WG II/4: UNCERTAINTY MODELLING AND QUALITY CONTROL FOR SPATIAL DATA

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WG II/4 Terms of Reference

- Understanding uncertainties in spatial data
- Quality control for spatio-temporal data
- Modelling error propagation in spatial analysis
- Presentation of quality information by metadata in GIS
- Quality of spatio-temporal models

WG II/5: MULTIDIMENSIONAL AND MOBILE DATA MODELS

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WG II/5 Terms of Reference

- Data modelling and computational algorithms for multidimensional GIS
- Dynamic GIS with applications, such as for the marine environment
- Methodology and algorithms for dynamic operations in GIS
- Design and development of databases for dynamic and multi-dimensional GIS
- Data model and methods for information representation for GIS on mobile devices
- Collaborate with other communities, such as Location-based Services, computational geometry

WG II/6: GEO-VISUALIZATION AND VIRTUAL REALITY

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WG II/6 Terms of Reference

- Enhanced communication of geographical data, information, and knowledge
- Geovisualization (including the Web)
- Novel methods and tools for exploring geographical decision spaces
- Exploration of tools and techniques for visualizing space and time
- Usability testing of geographical visualization and virtual reality
- Development and application of Immersive and semi-immersive virtual reality
- Enchantment of Geo-communication by Geo-visualization and Virtual Reality

WG II/7: SPATIAL DECISION SUPPORT AND LOCATION-BASED SERVICES

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WG II/7 Terms of Reference

- Theory, concepts, design and development of Spatial Planning Support Systems (SPSS)
- Model integration, component based modelling, Community/participatory modelling (bio-physical and socioeconomic models)
- Theory, concepts, design and development of Spatial Decision Support Systems (SDSS)
- Theory concepts and application of Spatial Multiple Criteria Decision Analysis (SMCDA) in single and group environment
- Theories and concepts of decision supports using vague information
- Design and development of Collaborative Spatial Decision Support Systems, (CSDSS), considering various modelling techniques, and requirements of different user-groups (style, functionality, etc.)
- Theory, concepts, design and development of Integrated Planning and Decision Support Systems (IPDSS)
- Concepts, theory and application of Location Based technology
- Clarifying technical and social principles of location-based services (LBS)
- Designing a prototype of future society based on LBS which will serve as both urban infrastructure and the media

IC WG II/IV: SEMANTIC DATA INTEROPERABILITY AND ONTOLOGY FOR GEOSPATIAL INFORMATION

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IC WG II/IV Terms of Reference

- Assess ontologies and geo-semantics as they relate to the integration and harmonisation of heterogeneous data
- Discuss and develop methods for semantic and geospatial data(base) interoperability
- Continue developments on geo-spatiotemporal knowledge representation
- Focus on data interoperability for applications in Interactive Transportation Systems (ITS)

COMMISSION III – PHOTOGRAMMETRIC COMPUTER VISION AND IMAGE ANALYSIS

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Commission III – Terms of Reference

- Algorithms for geometric analysis of image data regardless of scale
- Geometric analyses of IR, SAR, IFSAR and lidar
- Automated feature and attribute extraction techniques and methodologies from multi-sensor, multi-resolution, multi-spectral, hyperspectral, and multi-temporal imagery
- Fundamental research into image understanding for object detection, recognition, identification and reconstruction
- DEM generation and integration of three-dimensional modelling concepts into image analysis processes
- Integration of spatial information systems and object models for object recognition
- Sensor pose determination (including auxiliary information)
- Projective and multi-view geometry
- Image sequence analysis
- Algorithms for including features in the orientation processes
- Spatial, spectral and temporal properties of natural and human-formed objects

WG III/1: POSE ESTIMATION AND SURFACE RECONSTRUCTION FROM IMAGE AND/OR RANGE DATA

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WG III/1 Terms of Reference

- Investigating different camera models (perspective, projective, generic, non-linear distortions, frame and line sensors)
- Developing robust self-calibration methods (without markers)
- Developing robust orientation methods without markers
- Using different features: points, lines, conics, silhouettes, etc for image calibration/orientation
- Bundle-block adjustment
- Studying multi-view image matching and surface reconstruction techniques
- Studying optimization-based image matching and surface reconstruction techniques
- Studying the combination of images and other sensors (GPS/INS, terrestrial/aerial laser-scanners) for calibration, orientation and surface reconstruction
- Real-time calibration, orientation and surface reconstruction
- Management of huge image blocks
- Comparison and benchmarking of calibration, orientation, and surface reconstruction techniques

WG III/2: 3D POINT CLOUD PROCESSING

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WG III/2 Terms of Reference

- Information extraction from point clouds and surface models
- Registration of point clouds and surface models
- Classification/segmentation of natural and urban areas from point clouds
- Analysis of full-waveform lidar data
- Data management systems
- Feature extraction and 3D modelling
- Quality analysis of the data

WG III/3: IMAGE ANALYSIS FOR INDEXATION AND IMAGE RETRIEVAL

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WG III/3 Terms of Reference

- Information mining in large satellite, aerial and street view image archives
- Satellite, aerial and street-view image indexing and retrieval
- Machine learning and context aware image understanding
- Image semantics and knowledge representation
- Integration of heterogeneous features: textural, spectral and geometrical attributes
- Integration of low and high level features (points, segments, regions, graphs, etc) in the indexation and retrieval processes
- Integration of 3D information and spatial relations between the features
- Multi-resolution image indexing
- Image retrieval for georeferencing and pose estimation
- Management of huge heterogeneous data sets

WG III/4: COMPLEX SCENE ANALYSIS AND 3D RECONSTRUCTION

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WG III/4 Terms of Reference

- Extraction of buildings, roads, vehicles, vegetation, and other objects for the generation and update of high-resolution 3D city models and road databases from aerial, spaceborne and terrestrial data
- Automatic and semi-automatic urban models with various levels of detail
- Interpreting the image data, by itself and together with information from urban GIS data, CAD models, etc.
- Developing analysis tools and models required to integrate information about multiple object classes and their interconnections within complex scenes
- Study of trade-off between geometry and radiometry/texture for visualization
- Efficiency and quality assessment and dependency on the quality of the input data

WG III/5: IMAGE SEQUENCE ANALYSIS

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WG III/5 Terms of Reference

- Studying camera and camera network calibration from image sequences including cameras with non-standard geometry and variable frame rates
- Studying ego-motion determination for navigation, georeferencing and object reconstruction
- Studying detection, reconstruction, classification and tracking of single and multiple objects in image sequences
- Studying event reconstruction from image sequences as well as single and multiple video streams
- Investigating the quality assessment of calibration, orientation and object detection using image sequences
- Benchmarking of calibration, orientation and object detection techniques using image sequences

IC WG III/VII: PATTERN RECOGNITION IN REMOTE SENSING

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IC WG III/VII Terms of Reference

- Statistical and non-statistical methods for pattern recognition
- Pixel-based and object-based methods
- Graphical models (random fields, Bayesian nets) and stochastic grammars
- Scale space methods
- Data fusion
- Quality and uncertainty in pattern recognition
- Benchmarking

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Commission IV - Terms of Reference

- Development, access and management of spatio-temporal databases
- Spatial data infrastructures
- Image-based geospatial databases
- Data libraries, data clearinghouses, data warehouses, distributed archives and access to remote data sources, including metadata and digital data standards
- Web based access, retrieval and dissemination of spatial data, including web-based location-based services
- Integration of spatial information systems and image analysis for database-driven change detection, data capture and updating
- Dynamic spatial information systems, spatial data revision and versioning
- Interfacing 3D models with facility management systems
- Database generation for digital topographic and thematic mapping (including Ortho-images and digital terrain models)
- Digital landscape modelling and visualisation, and large scale urban models
- Global environmental databases and mapping
- Extraterrestrial mapping and spatial information systems
- Analysis of systems and their components for automated and semi-automated digital mapping and geoinformation systems
- Analysis of industry needs and design of systems for production and update of geoinformation

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WG IV/1 Terms of Reference

- Development and management of multi-level (national, regional and global) geospatial databases
- Synchronization of disparate geospatial resources to provide a useful, usable, and enabling framework that can be integrated with environmental and socio-economic data for research, discovery and web services characterized by broad access and “end-to-end” coordination
- Further development of high performance networks and communication technologies for efficient data handling, distributed and federated repositories, human-centred visualization, and applications to improve web-based geospatial services and analysis
- Contribution towards open source principles, metadata and open standards of service, system architectures, and geospatial information
- Cooperation and liaison with international efforts (GEOSS, Digital Earth, UNSDI, INSPIRE and GMES), and organizations (GSDI, WGISS, ICA, OGC, W3C, ISO and EuroSDR)

WG IV/2: AUTOMATIC GEOSPATIAL DATA ACQUISITION AND IMAGE-BASED DATABASES

Chair

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WG IV/2 Terms of Reference

- Research using multi-modal images for dynamic updating of geodatabases linked to sensor networks
- Characteristics of multi-dimensional, multi-scale, spatio-temporal image databases
- Use of innovative methods for creating, accessing, indexing, and analyzing spatio-temporal image databases
- Evaluation and use of semi-automated and automated algorithms for update, change detection and quality control using image-based databases
- Facilitation of the integration of these algorithms into digital photogrammetric and GIS workstations, enterprise and web-based photogrammetric systems
- Collaboration with ISPRS TC II, TCIII, TC IV WGs, IC WG IV/VIII and EuroSDR

WG IV/3: MAPPING FROM HIGH RESOLUTION DATA

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WG IV/3 Terms of Reference

- To investigate the update of topographic vector datasets, digital terrain models, orthoimages and thematic (landcover) datasets from high-resolution satellite and airborne imagery with emphasis on mapping in a production environment
- To assess links between high resolution images and mapping tools, developed through research and their implementation in mapping agencies
- To investigate how synergy may be achieved between the various sensors (high resolution and other), for topographic and thematic mapping
- To determine optimum methodologies for the integration of mapping data with high resolution images, to aid in the extraction of terrain information
- In collaboration with other ISPRS Working Groups, evaluate the information content and accuracy of the new high-resolution sensors
- To contribute to work on standardising the description of raster and vector contents of digital maps

WG IV/4: VIRTUAL GLOBES AND CONTEXT-AWARE VISUALISATION

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WG IV/4 Terms of Reference

- Assessment of remote sensing data for generating and visualizing landscape and models
- Database generation for digital topographic and thematic mapping (including orthoimages and digital terrain models)
- Integration of multi-source and multi-scale data in local and regional landscape modelling and visualization applications
- Application of dynamic models for integrating multi-temporal landscape data sets
- Application and assessment of advanced visualization, virtual reality and multimedia methods for 2-D, 3-D and 4-D mapping tasks in stand-alone, mobile or web-based environments
- Use of virtual globes for geospatial data integration, visualization and analysis
- Assessment of context-aware visualization and analysis of image data and geodatabases

WG IV/5: DISTRIBUTED AND WEB-BASED GEOINFORMATION SERVICES AND APPLICATIONS

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WG IV/5 Terms of Reference

- Development of web-based geospatial data processing, integration, services and applications
- Web-based geospatial information visualization, including raster-based spatial analysis with integration of web-based visualisation systems and web-based spatiotemporal analysis
- Integration of open source solutions and open standards/specifications
- Development of web-based spatial decision support systems, public participation GIS, and disaster management support systems
- Development of mobile and ubiquitous geospatial services and applications with adaptive and context-aware processing and visualisation
- Integration of spatial data in information-mobility services and development of Internet and web-based virtual and collaborative geospatial environments
- Development and applications of web-based multidimensional GIS
- Quality assessment of Internet- and web-based geospatial processes and applications
- Cooperation with related commissions and/or working groups, ICA (Internet and Mapping Commission), WGISS, FIG, etc.

WG IV/6: GLOBAL DEM INTEROPERABILITY

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WG IV/6 Terms of Reference

- Review technical progress on global DEM creation which meets the GEO goal of public domain, 30m, freely available data of the entire Earth's land surface and the bathymetry of the Earth's continental shelves
- Discuss and promote best methods for characterising the errors of these DEMs including best practice for validation in the context of GEO guidelines on Cal/Val
- Assess co-registration and data fusion based on error characterisation of multiple DEM data sources
- Discuss issues of standardised formats for DEM data and their map visualisations and display
- Discuss and promote best methods for interoperability through OGC-compliant protocols

WG IV/7: PLANETARY MAPPING AND DATABASES

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WG IV/7 Terms of Reference

- Development of advanced techniques in data acquisition, processing, and analysis pertaining to the mapping of celestial bodies
- Definition or evaluation of reference systems, coordinate systems, map sheet definitions, etc. and their standardization
- Development of spatial information systems to support extraterrestrial exploration and science
- Web based delivery of extraterrestrial map products and GIS data
- Cooperation with related working groups viz. IAU, NASA, ESA, ISRO, JAXA and other space organisations and liaisons with the ICA Commission on Planetary Cartography

WG IV/8: 3D SPATIAL DATA INTEGRATION FOR DISASTER MANAGEMENT AND ENVIRONMENTAL MONITORING

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WG IV/8 Terms of Reference

- 3D data models (geometry, topology, semantics), algorithms and standards for integration of data from different domains (e.g. geology, meteorology, ocean)
- 3D data structures, algorithms and standards for integration of BIM, CAD and GIS models for seamless (indoor/outdoor) navigation and evacuation
- 3D data models for management of geo-sensor data and their integration with other 3D information
- Data models allowing for efficient 3D visualization (including indoor) on different front-ends
- Analysis of 3D disaster management and environmental modelling needs for production and updating of spatial information

IC WG IV/II: GEO-SENSOR NETWORKING AND GEOGRID

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IC WG IV/II Terms of Reference

- Geo-sensor networks including their use in dynamic scenarios
- Investigate efficient ways to visualise and analyse the resulting, sometimes rather unconventional data streams
- Investigate data models for dynamic management, analysis and archiving of sensor data
- In-network computing versus centralized data processing
- Grid computing for geoinformatics
- Collaboration with ISPRS WG IV/5, IV/8

IC WG IV/VIII: UPDATING AND MAINTENANCE OF CORE SPATIAL DATABASES

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IC WG IV/VIII Terms of Reference

- Automated and autonomous processes for imaging data-based updating of core spatial databases
- Development of strategy and processes for efficient maintenance of core spatial databases at the 2.5-D and 3D levels at local, regional and global scales
- Updating process through efficient use of information intelligence embedded within the spatial databases
- Theoretical and operational aspects of incremental updating and versioning of vector and raster core spatial databases
- Automated algorithms for security and commercial-based versioning of core spatial databases
- Study of the special needs for maintaining spatial database subsets for disaster response and recovery efforts and for search and rescue operations
- Collaboration with national mapping agencies for understanding operational needs for updating and maintenance of core databases and other groups, such as EuroSDR, Global Mapping, UNSDI, GSDI and ISPRS WGs

COMMISSION V – CLOSE-RANGE SENSING: ANALYSIS AND APPLICATIONS

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Commission V – Terms of Reference

- Systems and algorithms for real-time imaging, mobile mapping and video processing
- Photogrammetric vision metrology technologies with special consideration of CAD/CAM and spatial information systems
- Integration and fusion of multiple data sources for advanced object extraction and modelling
- Laser scanning for 3-D representation of objects and scenes
- Close-range image sequence analysis procedures
- Vision-based techniques for visualization, simulation, robotics and animation
- Vision metrology systems and industrial applications
- Photogrammetric techniques in biomedical engineering and human motion studies
- Techniques for architectural, archaeological and cultural heritage applications

WG V/1: VISION METROLOGY-BEST PRACTICE, SYSTEMS AND APPLICATIONS

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WG V/1 Terms of Reference

- Performance evaluation including definition of accuracy in vision metrology, best practice and contribution to international standards
- System developments and industrial applications including hybrid systems and colour processing
- Colour processing, recognising that many commercial-off-the-shelf systems incorporate colour sensors
- Camera-controlled robot and machine guidance
- 6DOF measurements (including optical sensor navigation)
- Large volume (sub millimetre capability at object scales of greater than 10 metres)
- Very close range (micrometre capabilities at object scales of less than 1 metre)

WG V/2: CULTURAL HERITAGE DATA ACQUISITION AND PROCESSING

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WG V/2 Terms of Reference

- Development and promotion of measurement techniques, from close range through to satellite, and spatial information systems applicable to cultural heritage
- Integration of measurement techniques supporting the documentation, monitoring and presentational requirements of the archaeology, architecture, conservation and archiving communities
- Development and dissemination of best-practice protocols to aid appropriate application across related cultural heritage fields
- Development and promotion of low-cost, rapid, innovative, automated, commercial and open-source approaches
- Development and promotion of UAV platforms applicable to cultural heritage
- Close co-operation with related disciplines, national / international groups (e.g. CIPA) and other ISPRS working and regional groups

WG V/3: TERRESTRIAL LASER SCANNING AND 3D IMAGING

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WG V/3 Terms of Reference

- Geometric and radiometric sensor modelling and calibration of terrestrial laser scanners
- Automated and robust methods for point cloud registration
- Integration of terrestrial laser scanning and other sensors on static and kinematic platforms (in collaboration with WG V/5 and IC WG V/I)
- Feature extraction, 3D object modelling and scene classification (in collaboration with WG III/2 and WG V/4)
- Processing methods for range cameras and other 3D imaging sensors, in particular range camera image sequences (in collaboration with WG V/5)

WG V/4: IMAGE-BASED AND RANGE-BASED 3D MODELLING

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WG V/4 Terms of Reference

- Stimulate the development of algorithms and software tools for (automated) geometric modelling using different data sources
- Promote integrated processing of point clouds, image and video data for the generation of realistic 3D models usable in virtual environments, animations, games, museums, etc.
- Benchmark the quality of 3D models generated through software tools and create standard datasets
- Consider efficiency and interoperability of models for Virtual Environment applications (e.g. simplification, standards)
- Address special requirements of 3D models for cultural heritage, architecture, engineering, construction (e.g. metric precision, geo-reference, annotation)

WG V/5: IMAGE SENSOR TECHNOLOGY

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WG V/5 Terms of Reference

- Design, characterization, calibration and evaluation of imaging sensors for close range photogrammetry and terrestrial application
- Evaluation of image sensors (CCD, CMOS, IR-Bolometer), thermal systems and time-of-flight based range image sensors
- Evaluation of non-standard imaging principles (panoramic cameras, fisheye systems, catadioptric sensors and other omni-directional vision techniques)
- Geometric and radiometric properties of image data, quality standards, and factors (environmental and others) affecting data quality
- Integrated sensors / sensor fusion (synchronization and metric aspects, alignment of different sensors)
- Multiple camera / multiple sensing systems and solutions for outdoor applications (surveillance and traffic object recognition)

WG V/6: CLOSE RANGE MORPHOLOGICAL MEASUREMENT FOR THE EARTH SCIENCES

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Url: <http://www-staff.lboro.ac.uk/~cvrw5/>

WG V/6 Terms of Reference

- To increase awareness of close-range photogrammetry and laser scanning to enable wider and wiser application within the earth sciences
- Educate and inform “non-geomatic” users of the existence and benefits of involvement with ISPRS
- Identify and promote differing small format camera calibration requirements and approaches, suitable for scales of enquiry relevant for close-range activities
- Develop, and make freely available, ‘best-practice’ guidelines for non-expert users of consumer grade digital cameras (e.g. simplifying “3x3 rules”) and terrestrial laser scanners
- Identify and rank the key qualities of spatial data necessary for numerical simulation and physical modelling

IC WG V/I: LAND-BASED MOBILE MAPPING SYSTEMS

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IC WG V/I Terms of Reference

- Design, development and evaluation of integrated, multi-sensor, land-based mobile mapping systems
- Design and development of real-time data processing algorithms for land-based mobile mapping systems
- Automation of information extraction from land-based mobile imaging and ranging sensor data
- Development of novel applications in transportation infrastructure mapping and assessment, including pavement and asset mapping, emergency response
- Cooperation with ICA, IAG, FIG, and other ISPRS WGs on 3D mobile mapping; image indexing and retrieval; 3D object reconstruction and city modelling; point cloud processing; sensor integration and multiple sensing solutions; and applications in LBS and disaster management

COMMISSION VI – EDUCATION AND OUTREACH

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Commission VI – Terms of Reference

- Promotion of education and training at fundamental, advanced and professional levels
- Promotion of technology transfer, considering account regional needs and resources
- Computer-assisted teaching, training and distance learning
- Innovative techniques for information dissemination on the Internet
- Promotion of youth forum and innovative outreach activities
- Assist the Council in the promotion of ISPRS activities in the regions
- Quality enhancement of content and format of ISPRS publications and Internet home pages

WG VI/1: WEB BASED EDUCATION

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WG VI/1 Terms of Reference

Exchange information and expertise and stimulate the development of tools and methods for web based education and e-learning with emphasis on the following topics:

- The use of open source material
- E-learning methods
- Modern trends: Social software
- Use of web tool for teaching, e.g. Wiki
- Availability of courseware (software) for teaching on the web
- Maintain and update information on education and open source material on ISPRS Website
- Didactical aspects of e-learning
- Modern trends in teaching: blogs, podcast, RSS feeds, social networking, Wiki
- Tools for web based training and education
- Requirements for e-learning

WG VI/2: E-DELIVERY OF EDUCATION SERVICES

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WG VI/2 Terms of Reference

Exchange information and expertise and stimulate the development of e-delivery of educational services with emphasis on the following topics:

- Collection, analysis, dissemination and promotion of material, software and data (hardcopy and/or softcopy) for e-learning including computer assisted teaching and distance learning
- Investigation of the role of e-learning in modern education and training such as material, methodologies and tools
- Assessment and evaluation of highly interactive multimedia material and the transformation of tertiary level courses in remote sensing, photogrammetry and SIS
- Denominate best practice examples
- Collecting of information on distance education courses
- Organization of software contest CATCON for promotion and dissemination of free educational software

WG VI/3: CROSS BORDER EDUCATION 1: FRAMEWORKS FOR CROSS-BORDER EDUCATION

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WG VI/3 Terms of Reference

Exchange information and expertise of institutional and legal aspects of cross-border education with emphasis on the following topics:

- Institutional and legal frameworks
- National and international frameworks
- quality standards and
- credit transfer systems

WG VI/4: CROSS-BORDER EDUCATION 2: JOINT EDUCATIONAL PROGRAMS

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WG VI/4 Terms of Reference

Exchange information and expertise and stimulate the development of cross-border educational services with emphasis on the following topics:

- Inventory & evaluation of joint educational programs (JEPs)
- Classification of existing JEPs
- Development of core curricula & educational modules
- Decentralized delivery chains for educational services
- Capacity building
- Best practices for joint education

WG VI/5: PROMOTION OF THE PROFESSION TO YOUNG PEOPLE

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WG VI/5 Terms of Reference

- Promotion of advances in photogrammetry, remote sensing and spatial information sciences to undergraduate and postgraduate students and young researchers
- Promotion of international cooperation and social cohesion among the youth
- Creation of adequate conditions and platforms for broader and more efficient involvement of youth into ISPRS activities, including financial aspects, facilitating their ISPRS participation and activities, and support by sponsors
- Promotion and support of the Student Consortium (SC)
- In close cooperation with the SC, advice and support in preparing activity plans, organization of summer schools and other activities defined in the ISPRS SC Statutes. Organisation of youth events, where SC has no local support and main responsibility for organising the technical programme of SC activities during Congresses
- Facilitation of the continuity of the SC and provision of an interface to TC VI, Council, other ISPRS TCs and WGs and regional and international organisations, especially sister societies and ISPRS members. Cooperation, especially with the WG VI/6: The Technology Transfer Caravan
- Promotion of international mobility for undergraduate and postgraduate students and young researchers, making also use of international funding capabilities, like EU research programmes, and encouragement of relevant organisations to facilitate international student exchange and training programs at various levels

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Special Interest Group Terms of Reference

- Transfer of knowledge and technology by initiating and organizing seminars, tutorials and workshops with special consideration of the needs of developing countries
- Focus on countries with less favourable opportunities for advanced education, also particularly in Africa and Latin America
- Establishment of links to Balkan countries
- Preparation and delivery of seminars for PhD level summer schools
- Development of teaching material for mobile, caravan-type teaching and training projects
- Initiation and support of e-learning and remote teaching activities with focus on integration of high-tech elements in teaching and training
- Support of events with strong participation of young scientists and students
- Solicitation of support from potential sponsors (system manufacturers, government agencies, NGO/NPOs, foundations etc.) for the projects and activities

COMMISSION VII - THEMATIC PROCESSING, MODELLING AND ANALYSIS OF REMOTELY SENSED DATA

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Commission VII – Terms of Reference

- Relationship between spectral, radiometric and temporal properties of objects and surfaces, their physical and chemical properties and their variations
- Image classification and analysis methodologies
- Analysis of characteristics of multi-spectral, hyperspectral, multi-sensor, microwave and multi-temporal image data for extraction of attribute information
- Methodologies of computer-assisted interpretation and analysis of remotely sensed data
- Validation of data and information using laboratory and in-situ methodologies
- Improving atmospheric modelling for radiometric correction
- Multi-source data fusion and integration techniques
- Modelling of satellite data derived parameters
- Global databases and determination of indicators of change for global modelling, monitoring and sustainable development
- Integration of remote sensing and GIS techniques
- Aerosol and particulate detection and identification

WG VII/1: PHYSICAL MODELLING AND SIGNATURES IN REMOTE SENSING

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WG VII/1 Terms of Reference

- Study the relationship of spectral, directional, temporal, and polarimetric properties of objects, as well as their physical and chemical properties and variations
- Research on advanced quantitative, physical based retrieval of biophysical and biochemical parameters
- Research of methods based on full spectral signatures using assimilation, inversion, and neural networks
- Study spectrodirectional ('the combination of multiple view angles with imaginary spectrometers') data acquisition potential and subsequent retrieval methods

WG VII/2: SAR INTERFEROMETRY

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WG VII/2 Terms of Reference

- Generation and evaluation of DEMs derived by interferometric processing of airborne and space-borne SAR imagery
- Object extraction from InSAR data
- Differential SAR Interferometry and Persistent Scatterer Interferometry
- Ground based SAR Interferometry

WG VII/3: INFORMATION EXTRACTION FROM HYPERSPECTRAL DATA

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WG VII/3 Terms of Reference

- Ground based validation and radiometric calibration of hyperspectral data
- Optical, NIR, SWIR and thermal imaging spectroscopy
- Operationalising and standardising (pre-)processing and methodological approaches
- Atmospheric parameter retrieval and atmospheric corrections
- Data and sensor fusion for improved parameter retrieval (combination with other remote sensing data (lidar, SAR, multi-angular) and a priori information)
- Mixture models for data analysis
- Data compression and band selection algorithms

WG VII/4: METHODS FOR LAND COVER CLASSIFICATION

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WG VII/4 Terms of Reference

- Image classification techniques and new algorithms for the extraction of thematic information including pixel-based classification, object-based classification, and artificial intelligent based classification, and synergism between classification approaches
- Image analysis methodologies for thematic information extraction including context analysis, texture analysis, image segmentation, and other analysis
- Advanced and practical methodologies of Computer Assisted Interpretation (CAI) and analysis of remotely sensed data, including expert systems and knowledge based tools to help the human interpretation of images
- Enhanced methodologies for thematic data extraction using emerging sensor data sources, multiple view sensors and thermal sensors
- New methodologies for classification quality assessment

WG VII/5: METHODS FOR CHANGE DETECTION AND PROCESS MODELLING

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WG VII/5 Terms of Reference

- Analysis of characteristics of multi-temporal data for extraction of attribute information
- Methodologies of computer assisted interpretation and analysis of multi-temporal data
- Temporal pattern recognition and time series analysis and Modelling
- Methodologies for global monitoring, Modelling and prediction
- Methodologies for extracting essential climate variables from long-term satellite observations
- Algorithms and methods for monitoring and tracking changing objects
- Data integration and change detection for updating

WG VII/6: REMOTE SENSING DATA FUSION

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WG VII/6 Terms of Reference

- Automatic registration of images with different sensor, different resolution, and different acquisition mode
- Concept study and methodology development of data fusion at different processing levels, especially at feature and decision level
- Multi-source/multi-sensor data fusion and integration methodologies, such as fusing laser scanning data with images, fusing high-resolution satellite optical imagery with high-resolution SAR imagery, etc.
- Applications of data fusion to feature extraction, object recognition, classification, mapping, disaster monitoring, change detection, etc.
- Information mining from multi-platform, multi-source, multi-scale, spatial-temporal data, e.g. geometric information, topological information, statistical information, etc.

WG VII/7: THEORY AND EXPERIMENTS IN RADAR AND LIDAR

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WG VII/7 Terms of Reference

- Polarimetric radar remote sensing for the retrieval of geophysical parameters
- Full-waveform laser scanning
- Radiometric calibration in radar and lidar remote sensing
- Scaling in radar and lidar remote sensing
- Physical radar and lidar backscatter models
- Experiments using both radar and lidar
- Synergetic use of lidar and radar for retrieval of geophysical parameters
- Multi-temporal radar and lidar remote sensing
- Terrestrial measurements for validation and calibration

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- Forestry, vegetation, agricultural and biodiversity studies and applications;
- Hydrology, oceanography, coastal zone, snow and ice applications;
- Atmospheric and weather studies and applications;
- Geology, pedology and geomorphology studies and applications;
- Monitoring and management of land and water resources;
- Land use, human impact and ecosystem analyses;
- Disaster monitoring, mitigation and damage assessment;
- Hazardous waste and environmental pollution assessment;
- Infrastructure, transportation and communications studies and applications;
- Satellite and aerial remote sensing policies;
- Cooperation with international environmental programs and strategies;
- Earth Observation activities to support sustainable development.

WG VIII/1: DISASTER MANAGEMENT

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WG VIII/1 Terms of Reference

- Generation of vulnerability and hazard zone maps for different type of disasters, such as forest fire, cyclone, floods, drought, volcano eruptions, earthquakes, land slides etc. and identification & assessment of potential risk zones
- Integrate remotely sensed observations and communication strategies with enhanced predictive modelling capabilities for disaster detection, early warning, monitoring, and damage assessment
- Development of disaster management plans for pre, during and post disaster situations and enhance support for early warning systems, emergency events mitigation and decision making
- Collaborate with GEO and take part in GEO task where appropriate

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WG VIII/2 Terms of Reference

- Integrate Earth observations products with enhanced predictive modelling capabilities for early warning and surveillance of environmental impacts on human health in co-operation with other international, national, and regional organizations and activities.
- Participate in the ICSU initiatives including the GeoUnions Health Group and the Science for Health and Well-being (SHWB).
- Take a leadership role in appropriate GEO health tasks in accordance with the 10-year implementation plan.
- Contribute to the ISPRS book series focusing on environmental effects on human health.
- Develop a registry for human health projects and products that use Earth observations and kindred technologies.
- Bridge the Earth observing communities of practice and human health communities of practice by including health professionals in ISPRS sanctioned technical sessions, workshops, and symposia.

WG VIII/3: ATMOSPHERE, CLIMATE AND WEATHER

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WG VIII/3 Terms of Reference

- Enhance retrieving and monitoring status and effects of clouds and aerosols.
- Enhance retrieving and monitoring status and effects of atmospheric greenhouse gases, like carbon dioxide, methane, etc.
- Enhance retrieving and monitoring capabilities of atmospheric minor constituents and aerosols both in stratosphere and troposphere.
- Enhance the monitoring capabilities of atmospheric winds.
- Increase the accuracy of atmospheric radiative forcing to contribute to the climate models.
- Increase the knowledge of atmospheric processes to improve the climate models.
- Improve the quality of remote sensing data input to numerical weather forecast system to increase the accuracy of weather forecasting and nowcasting.
- Collaborate with GEO and take part in GEO task where appropriate.

WG VIII/4: WATER

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WG VIII/4 Terms of Reference

- Implement remotely sensed data to monitor and investigate discharge of pollutants into water transportation and storage system for investigating sedimentation in reservoirs and contamination of water resources
- Adopt remotely sensed data for monitoring quality and quantity of water resources
- Integrate remote sensing and GIS data for rainfall runoff modelling
- Enhance the capability of monitoring global rainfall as well as snowfall
- Improve the retrieval of soil moisture and latent heat for better understanding of water and energy cycle
- Collaborate with GEO and take part in GEO task where appropriate

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WG VIII/5 Terms of Reference

- Adopt remote sensing data to non-renewable resource exploration, exploitation and related environmental monitoring, especially energy (hydrocarbons, geothermal and uranium) and minerals (precious, base metals and commercial minerals).
- Further the implementation and integration of higher level remote sensing products tailored for geological and geomorphological mapping, especially publicly available, continental-scale mapping opportunities.
- Help facilitate the development of geological and geomorphological product standards and related error assessment derived from remote sensing data
- Foster technology transfer through the sharing of convincing geological and geomorphological case histories derived from remote sensing data
- Help develop mechanisms that facilitate the uptake of geologic and geomorphologic remote sensing information products into Earth science applications, especially understanding the 3D and 4D (temporal) nature of the solid Earth, such as tectonic activity, hydrocarbon and minerals systems, water catchment modelling and monitoring, soil processes (erosion, acidity, salinity and carbon), and dune systems (with Com.4/2 & 5/6)
- Collaborate with other ICSU GeoUnions; collaborate with GEO and take part in GEO task where appropriate

WG VIII/6: AGRICULTURE, ECOSYSTEMS AND BIO-DIVERSITY

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WG VIII/6 Terms of Reference

- Define protocols and methodologies to efficiently and economically utilize remote sensing inputs to monitor crop production, crop vigor, and stresses for making agricultural decisions
- Development of techniques towards use of remote sensing data and GIS tools for site-specific management of agriculture
- Development of techniques towards use of remote sensing data and GIS tools for monitoring and analyzing human impacts to natural resources
- Improve the knowledge of carbon and nutrient cycles in vegetation
- Enhance the use of active sensors to evaluate and monitor biological and physical processes, which are important in agriculture ecosystems
- Improve the retrieval of crop land and grassland information from remote sensing data through advances in procedures and models for inventorying and monitoring of vegetation resources and biomass
- Study and promote vegetation bio-diversity and sustainable application with respect to the convention of bio-diversity
- Improve regional/global monitoring of mangroves using remote sensing data
- Assess climate change impact on vegetation using Earth observation data and forecasting models
- Integrate remote sensing data, in-situ and other measurements into a GIS domain to monitor and facilitate study and research of wet lands, and monitor spatial and temporal changes in the wet land and processes of wet land degradation
- Implement remote sensing and geospatial methodologies in support of sustainable development in wet lands and wet land resources assessment
- Collaborate with GEO and take part in GEO task where appropriate

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WG VIII/7 Terms of Reference

- Enhance the use of active sensors to evaluate and monitor biological and physical processes, which are important in forest ecosystems. (with Com.1/2)
- Improve the retrieval of forest information from remote sensing data through advances in procedures and models for inventorying and monitoring of forest resources, stocks and biomass.
- Apply remote sensing techniques and GIS tools to support forest management tasks. (with Com. 4/2, 4)
- Improve the knowledge of carbon cycle including NPP and NEP estimates using land remote sensing data
- Collaborate with GEO and take part in GEO task where appropriate

WG VIII/8: LAND

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WG VIII/8 Terms of Reference

- Improve the accuracy of land cover mapping and generate global and regional land cover maps
- Improve the accuracy of land cover change detection and generate global and regional land cover change maps
- Apply improved interpretation and mapping methods for urban, sub-urban and peri-urban land cover in transition to help for better urban planning using remote sensing data
- Monitor urban environment and land cover change for the study of urbanization structure and development processes
- Use remote sensing and GIS for infrastructure development of urban settlements
- Explore, document and monitor natural and cultural heritages (with Com 5)
- Integrate remote sensing data, in-situ measurements and other geospatial data to facilitate research, applications, and monitoring of arid lands, rangelands and soils
- Improve the monitoring of spatial and temporal environmental changes in arid environments and processes of land degradation, desertification, salinization, wind and water erosion, ecohydrology, and biogeochemical cycling
- Implement remote sensing and geospatial methodologies in support of sustainable development in arid lands, land resources assessment and management of arid and dry lands
- Collaborate with organisations such as FAO to improve land use classification schemes
- Collaborate with GEO and take part in GEO task where appropriate

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WG VIII/9 Terms of Reference

- Measure, characterize, understand, and predict, the storage and transport of momentum, heat, water (salinity), and greenhouse gases in the ocean and the surface signatures (temperature, salinity, dynamic topography) of ocean response and the surface forcing (wind stress, fresh water, turbulent and radiative heat flux) from diurnal to decadal time scales, and from coastal to open oceans.
 - Understand ocean's role in the changes and interaction among the biological, chemical, and energy/water cycles in the oceans and their influence on terrestrial and cryospheric changes.
 - Coordinate present and future space missions related to ocean observation, and the calibration, validation, and dissemination of their data.
- Collaborate with GEO and take part in GEO task where appropriate

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WG VIII/10 Terms of Reference

- Improve the retrieval of geophysical parameters relevant to the different elements of the cryosphere.
- Develop strategies and algorithms for assimilating remotely sensed data in models of polar processes.
- Develop long term records and study on-going changes in polar regions.
- Study the changes of ice sheets in Antarctic and Greenland.
- Study the trends and changes of glaciers and glacier lakes.
- Study the trends and changes of sea ice.
- Study the trends and changes of snow cover and snow albedo.
- Monitor the thaw process and changes of permafrost.
- Collaborate with GEO and take part in GEO task where appropriate

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The ISAC has been established to support the Council and the ISPRS General Assembly in identifying and addressing important S&T trends which impact the scope of the ISPRS Commissions and the activities which should be addressed by ISPRS Working Groups. The ISAC is to ensure that ISPRS S&T activities are in proper balance and cover the breadth of the Society's S&T mission.

Terms of Reference

- Identify and prioritize scientific and technological (S&T) trends which will impact the S&T activities of the Society and recommend actions to ISPRS Council.
- Facilitate excellence in scientific research and development and the use of proper and appropriate technology by evaluating and refining S&T Resolutions proposed in advance by ISPRS Member Organizations and Commissions for approval by the quadrennial ISPRS General Assembly.
- Collaborate with the ISPRS Council to formulate Resolutions for ISPRS General Assembly approval which will ensure that ISPRS is at the forefront of the S&T in the photogrammetry, remote sensing and spatial information sciences and covers the full breadth of the Society's mission.
- Review proposed Working Groups Terms of Reference with Council and identify S&T gaps and overlaps and recommend corresponding fills and consolidations.
- Evaluate inputs recommended for changing the overall scope and direction of S&T activities in the Society and advise Council accordingly.
- Suggest collaborative S&T activities with other international societies and intergovernmental bodies to foster cooperation on the inter-disciplinary boundaries.
- Propose worthy candidates for recognition and awards

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The IPAC was established to support Council in addressing important issues relevant to Society affairs with intergovernmental organizations, especially those that relate to ISPRS collaborative activities with various elements of the United Nations, the International Council of Science (ICSU), the Committee on Peaceful Uses of Outer Space (COPUOS), the Committee on Earth Observation Satellites (CEOS), and other similar organizations such as UATI, IUSS, ISO, World Bank, etc.

Terms of Reference

- Identify, coordinate and prioritize policy issues with the ISPRS Council for analysis and public dialog.
- Provide the ISPRS Council with early warning of relevant international policy issues and recommend spokespersons.
- Provide policy advice for and with the ISPRS Council to international organizations in which ISPRS is represented (COPUOS, ICSU, CEOS, UATI, etc.).
- Collaborate with the ISPRS Council to provide policy advice upon requests of international bodies.
- Provide advice to and coordinate inputs of ISPRS Commissions and Working Groups on international policy issues.
- Ensure any advocacy stances are fair and in the best interests of all segments of the ISPRS membership.

IPAC Membership

The IPAC Chair is appointed by Council, with Members selected by the Chair with ratification by Council. Members are selected based on their knowledge of international and national policy and legislative activities related to the mission and objectives of the Society. ISAC Members and activity shall be periodically reviewed by Council and adjusted in collaboration with the Chair. To ensure proper representation, the IPAC Chair will strive to maintain active participation representing both public, private and academic sector perspectives as well as global/regional perspectives on policy issues relevant to the Society.

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Objectives and Activities

The International Committee for Architectural Photogrammetry (CIPA) is one of the international committees of ICOMOS (International Council on Monuments and Sites) and it was established in collaboration with ISPRS (International Society of Photogrammetry and Remote Sensing).

Its main purpose is the improvement of all methods for surveying of cultural monuments and sites, specially by synergy effects gained by the combination of methods under special consideration of photogrammetry with all its aspects, as an important contribution to recording and perceptual monitoring of cultural heritage, to preservation and restoration of any valuable architectural or other cultural monument, object or site, as a support to architectural, archaeological and other art-historical research.

ISPRS and ICOMOS created CIPA because they both believe that a monument can be restored and protected only when it has been fully measured and documented and when its development has been documented again and again, i.e. monitored, also with respect to its environment, and stored in proper heritage information and management systems.

In order to accomplish this mission, CIPA will:

- establish links between architects, historians, archaeologists, conservationists, inventory experts and specialists in photogrammetry and remote sensing, spatial information systems, CAAD, computer graphics and other related fields;
- organise and encourage the dissemination and exchange of ideas, knowledge, experience and the results of research and development (CIPA Expert Groups and CIPA Mailing List);
- establish contacts with and between the relevant institutions and companies which specialise in the execution of photogrammetric surveys or in the manufacture of appropriate systems and instruments (Board of Sustaining Members);
- initiate and organise conferences, symposia, specialised colloquia, workshops, tutorials, practical sessions and specialised courses (CIPA Events);
- initiate and co-ordinate applied research and development activities (CIPA Working Groups);
- undertake the role of scientific and technical expert for specific projects (CIPA Expert Advisory Board);
- organise a network of National and Committee Delegates;
- submit an annual report on its activities to the ICOMOS Bureau (Secretary General) and the ISPRS Council (Secretary General) and publish it in the internet (Annual Reports);
- publish also its Structure, its Statutes and Guidelines in the internet.

INTERNATIONAL COMMITTEE ON REMOTE SENSING OF ENVIRONMENT (ICORSE)

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The ICORSE has been established to foster the use of remote sensing to address priority issues of the environment. ICORSE will convene a biannual conference in alternating years with the ISPRS Commission Symposia. The conference will focus on remote sensing of the environment and will bring together scientists, technologists and environmental users of remotely sensed data. In conformance with ISPRS Guidelines, (a) the conference proceedings will be made available to the ISPRS community as part of the continuing series of the International Archives of The Photogrammetry, Remote Sensing and Spatial Information Sciences (IAPRSSIS), and (b) the committee will provide an annual report on the state of remote sensing of environment for publication in ISPRS Highlights.

Terms of Reference

- Identify issues and topics associated with applications and scientific studies of the environment and enlist leading spokespersons to organize sessions and/or workshops for the biannual International Symposium on Remote Sensing of Environment
- Produce proceedings of the biannual conference and provide an annual written report on the state of remote sensing of environment
- Propose Resolutions to the ISPRS Council regarding remote sensing of environment for approval by the ISPRS General Assembly
- Collaborate closely with ISPRS Commissions to enhance remote sensing activities and coordinate event scheduling through mutual agreement
- Nominate candidates for the Editorial Review Board and encourage submission of worthy papers for publication in the ISPRS Journal of Photogrammetry and Remote Sensing
- Propose worthy candidates for recognition and awards

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Set up by Council under Bylaw VII for the period 2008 – 2012 to co-ordinate ISPRS input to standards organisations.

Terms of Reference

- Analysis of the requirements for standardized image data exchange formats
- Characterization of a universal sensor model
- Development of a metadata standard which includes all necessary sensor parameters within their technical and their application environment
- Cooperation with ISO/Technical Committee 211 (ISO/TC 211) and with the Open Geospatial Consortium (OGC)

ISPRS AD-HOC COMMITTEE “KNOWLEDGE TRANSFER”

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Terms of Reference

- Advising Council on matters requiring extensive experience of ISPRS business
- Supporting the knowledge transfer activities of Technical Commission VI by initiating, organizing and conducting seminars, tutorials and workshops
- Initiating activities for bridging the gap between generations and fostering events to support young scientists and students
- Supporting Technical Commission VI e-learning and remote teaching activities with focus on integration of high-tech elements in education and training processes
- Initiating, coordinating and supporting projects by bringing together users, sponsors and experts as science and technology broker
- Maintaining a sense of tradition and understanding of development within ISPRS by contributing actively to the collection of notes and reports about the history of photogrammetry, remote sensing and GIS

Dates and Locations of Council Meetings and Symposia

2008

July 3-11	Beijing	Congress
July 12	Beijing	Council & Joint Meeting
Oct 11-15	Zurich	Council & Joint Meeting

2009

Mar 7-9	Baltimore	Council Meeting
Sep 2-3	Enschede	Council Meeting 1 st Part
Sep 4-6	Enschede	Joint Meeting
Sep 7-9	Stuttgart	Council Meeting 2 nd Part

2010

Spring		Council Meeting
May 26-28	Hong Kong	Comm II Symposium
June 2-4	Enschede	Comm VI Symposium
June 16-18	Calgary	Comm I Symposium
June 22-24	Newcastle	Comm V Symposium
July 5-7	Vienna	Comm VII Symposium
Aug 9-13	Kyoto	Comm VIII Symposium
Sep 1-3	Paris	Comm III Symposium
Fall		Council & Joint Meeting
Nov 16-18	Orlando	Comm IV Symposium

2011

Spring 2011		Council Meeting
Fall 2011		Council & Joint Meeting

2012

Spring 2012		Council & Joint Meeting
Aug	Melbourne	Council Meeting
Aug 24- Sep 3	Melbourne	Congress

THE XXII INTERNATIONAL CONGRESS OF PHOTOGRAMMETRY AND REMOTE SENSING

‘IMAGING A SUSTAINABLE FUTURE’

**The Melbourne Convention and Exhibition Center (MCEC), Melbourne, Australia
24th August – 3rd September 2012**

PRE-CONGRESS SCHEDULE

Call for papers	January 2011
Deadline for Abstracts	24 October 2011
Deadline for Full Paper (Technical Commissions requiring peer review only)	28 November 2011
Deadline for Full Paper	30 April 2012
Preliminary Programme	May 2012

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APPENDIX B

LEGISLATIVE DOCUMENTS

**INTERNATIONAL SOCIETY FOR PHOTOGRAMMETRY
AND REMOTE SENSING**

STATUTES

INTERNATIONAL SOCIETY FOR PHOTOGRAMMETRY AND REMOTE SENSING

STATUTE I - *Name and Mission*

The International Society for Photogrammetry and Remote Sensing (hereinafter referred to as the Society) which was founded in Vienna, Austria in 1910 as 'Internationale Gesellschaft für Photogrammetrie', is a non-governmental international organization, devoted to the development of international cooperation for the advancement of knowledge, research, development, education and training in the photogrammetry, remote sensing and spatial information sciences, their integration and applications, to contribute to the well-being of humanity and the sustainability of the environment.

STATUTE II - *Definitions*

Photogrammetry and Remote Sensing is the art, science, and technology of obtaining reliable information from non-contact imaging and other sensor systems about the Earth and its environment, and other physical objects and processes through recording, measuring, analyzing and representation.

Spatial Information Science is the art, science, and technology of obtaining reliable spatial, spectral and temporal relationships between physical objects, and of processes for integration with other data for analysis, portrayal and representation, independently of scale.

STATUTE III - *Qualifications*

The Society pursues its aims without any discrimination on grounds of race, religion, nationality, or political philosophy.

STATUTE IV - *Activities*

To achieve its aims, the Society shall:

- (a) facilitate excellence in research and development and the proper use of appropriate technology in the photogrammetry, remote sensing and spatial information sciences, as well as the development of standards;
- (b) initiate and coordinate research in the fields of the photogrammetry, remote sensing and spatial information sciences by creating Technical Commissions and Working Groups concerned with pertinent aspects of the photogrammetry, remote sensing and spatial information sciences;
- (c) convene international Congresses, symposia and other meetings, with lectures, communications, discussions, and as appropriate, tutorials, exhibitions, technical visits, and social events;
- (d) ensure wide international circulation of the results of research and the records of discussion by the publication of The International Archives of the Photogrammetry, Remote Sensing and Spatial

Information Sciences, which shall form the record of Congresses and Symposia, and other scientific meetings of the Society;

- (e) publish and circulate an international journal, a bulletin, and other communications relevant to the interest of the Society and the community at large;
- (f) stimulate the formation of national and regional Societies of the photogrammetry, remote sensing and spatial information sciences and promote exchanges between such Societies;
- (g) encourage interaction of the Society and its members with the community at large, including the publication and exchange of scientific papers and journals by, and among, its national and regional Societies;
- (h) encourage recognition and administer awards to honor the achievements of individuals or groups.
- (i) represent the photogrammetry, remote sensing and spatial information sciences in relevant international forums;
- (j) promote and facilitate education, training, and technology transfer of the photogrammetry, remote sensing and spatial information sciences;
- (k) promote other appropriate actions to enhance the Society's mission.

STATUTE V - *Cooperation with Other International Organizations*

The Society should cooperate with:

- (a) international and regional institutions or organizations concerned with photogrammetry, remote sensing, image analysis, spatial information sciences, land survey, geodesy, cartography, and other relevant disciplines;
- (b) inter-governmental bodies of the United Nations and other relevant, international policy-making organizations.

STATUTE VI - *Membership*

The types of membership in the Society are:

- Ordinary Members
- Associate Members
- Regional Members
- Sustaining Members
- Honorary Members
- Fellows

1. An **Ordinary Member** shall be the single organization of a country, or a geographic region thereof having an independent budget, which should represent the whole community of photogrammetry, remote sensing and spatial information specialists in the country or region.

- (a) An Ordinary Member shall be responsible to the

Society for the proper discharge of all the duties of membership including specifically:

- participating in the scientific work of the Society, including active participation in Working Groups and Commissions;
- prompt payment of Membership subscription fee;
- actively participating in the decisions of the General Assembly;
- appointing Correspondents to the Technical Commissions and registering them with the Secretary General;
- striving to provide equitable national representation for all photogrammetric, remote sensing and spatial information specialists in its country or region;
- serving as national focal point for distribution of ISPRS information to their members;
- submitting periodic reports and news for publication in the Society's bulletin, and producing a quadrennial report for the Congress;
- demonstrating active representation of the whole of their membership in their country or region;
- encouraging interdisciplinary cooperation in scientific and technologic activities, and establishing links with relevant groups;
- forming journals and registering them with the Secretary General.

(b) Normally the Ordinary Member organization of a country shall be a national, formally constituted, representational Society. In the absence of such a Society the Ordinary Member may be:

- an association of societies each having the advancement of the photogrammetry, remote sensing and spatial information sciences among its principal objectives;
- the principal Scientific Academy of a country or its National Research Council;
- or failing these, any other institution or association of institutions whether governmental or non-governmental concerned with the sciences of photogrammetry, remote sensing and spatial information.

(c) Different categories of Ordinary Members shall be established to reflect the use of the photogrammetry, remote sensing and spatial information sciences, and the number of specialists in the organization.

2. An Associate Member shall be an organization which represents a community of photogrammetrists and/or remote sensing specialists and/or spatial information specialists in a country, and which has a strong interest in participating in the Society's affairs, and which is not represented by the Ordinary Member organization of the country.

An Associate Member shall be responsible to the Society for the proper discharge of all the duties of membership including specifically:

- participating in the scientific work of the

Society, including active participation in Working Groups and Commissions;

- prompt payment of Membership subscription fee;
- promoting ISPRS activities;
- participating in the discussions of the General Assembly;
- serving as a focal point for distribution of ISPRS information to their members;
- submitting periodic reports and news for publication in the Society's bulletin;
- stimulating the establishment of appropriate means of communication.

3. A Regional Member shall be a multi-national association of photogrammetry and/or remote sensing and/or spatial information science organizations established for the purpose of considering questions of common interest, promoting regional cooperation, convening regional conferences, etc.

4. Sustaining Members contribute to the financial support of the Society and shall be individuals, organizations, institutions, or agencies who provide hardware, software, systems and/or services, in the fields of photogrammetry and/or remote sensing and/or spatial information, and/or who are engaged in research and/or education and training.

5. Honorary Members. In recognition of distinguished services to the ISPRS and its aims, an individual may be elected an Honorary Member of the Society.

6. Fellows. In recognition of sustained, excellent service to the ISPRS and its aims, an individual may be elected as a Fellow of the Society.

STATUTE VII - *Organization and Administration*

The direction and management of the Society, including the conduct of its technical and scientific program, shall be undertaken through the following components: the Congress, the General Assembly, the Council, the Financial Commission, the Technical Commissions and the Sustaining Members Committee.

STATUTE VIII - *Officers*

1. The Officers of the Society shall be the President of the Society, the other Members of the Council and the Presidents of Technical Commissions.

2. The Officers shall serve from the termination of the Congress at which they are elected or appointed until the completion of the next ensuing Congress.

STATUTE IX - *Congress*

1. The Congress shall consist of all photogrammetry, remote sensing and spatial information specialists in attendance.

2. The Congress shall normally meet every four years.

3. The Congress shall be convened in plenary session at least twice during the course of each Congress.

STATUTE X - *General Assembly*

1. The General Assembly shall be the supreme authority of the Society for all decisions. It shall determine the general policy of the Society.
2. The General Assembly shall consist of the Delegates appointed by the Ordinary Members to represent them, each Ordinary Member being represented by one Delegate.
3. Delegates, Members of Council, Members of the Financial Commission, Honorary Members of the Society, Representatives of the Associate Members and Regional Members, and two Advisors per Delegate shall have the right to attend the meetings of the General Assembly.

STATUTE XI - *Council*

1. The Council shall consist of six individuals:
 - The President of the Society
 - The Director of the Congress
 - The First Vice-President
 - The Secretary General
 - The Second Vice-President
 - The Treasurer
2. The General Assembly may appoint up to three Regional Representatives, from separate regions, to assist Council to coordinate activities in regions not already represented on the Council. The Regional Representatives shall be invited to attend Council Meetings as appropriate.
3. The Council shall conduct the affairs of the Society in the interval between meetings of the General Assembly in accordance with the Statutes and Bylaws and with the decisions and directives of the General Assembly and of Congress.
4. The Council shall be answerable to the General Assembly for management of Society affairs and shall guide the conduct of the General Assembly.
5. The Council shall assist the President to coordinate and guide the activities of the Technical Commissions.
6. Between meetings of the General Assembly the Council may consult Members by correspondence or otherwise.
7. The responsibilities of the members of Council are defined in the Bylaws.

STATUTE XII - *Headquarters*

The headquarters of the Society shall be designated by the Council.

STATUTE XIII - *Technical Commissions*

1. The scientific work of the Society shall be the responsibility of its Technical Commissions and shall be guided by Resolutions approved by the General Assembly.
2. Responsibility for the work of each Technical Commission during the interval between two successive Congresses shall be entrusted by the General Assembly to one of the Ordinary Members or to a number of Ordinary Members who have agreed to collaborate.
3. The work of each Commission should be conducted

by the Commission Board consisting of:

- The Commission President
- The Commission Secretary/ies
- The Working Group Chairpersons
- The Commission Rapporteurs
- Other officers as appointed

STATUTE XIV - *Financial Commission*

1. At each Congress the General Assembly shall elect a Chairperson and two members of a Financial Commission.
2. The role of the Financial Commission shall be advisory and consultative. It shall examine expenditure of all kinds incurred by the Society and suggest to the General Assembly broad lines of financial policy for the Society having regard to its scientific responsibilities.
3. Between Congresses the Financial Commission shall report directly to the Council through the Secretary General at least once a year after the annual balance sheet has been prepared and examined. It shall be present in an advisory capacity at meetings of the General Assembly.

STATUTE XV - *Finances*

1. Each Ordinary Member and Associate Member shall pay annually the subscription fee assigned to its category. The amount of subscription fee for each category shall be determined by the General Assembly and may be altered by the General Assembly only at one of its ordinary meetings held during the course of a Congress.
2. Regional Members and Sustaining Members shall pay an annual subscription fee established by Council.
3. The ISPRS Foundation shall be guided by the Society and maintained as an independent entity devoted solely to support philanthropic activities of the Society.

STATUTE XVI - *Voting*

1. In plenary sessions of the Congress, decisions shall be taken by a show of hands and by a simple majority of votes passed.
2. Voting in the General Assembly shall be conducted as follows:
 - (a) Only Delegates shall have the right to vote.
 - (b) No Delegate shall represent or vote for any Ordinary Member other than his/her own.
 - (c) Voting shall not be by proxy.
 - (d) If the President or any Delegate so requests, the vote shall be taken by secret ballot.
 - (e) Each Delegate shall have a number of votes equal to the category of the Ordinary Member which he/she represents.
 - (f) The adoption of Resolutions concerning admission of new Ordinary Members, Associate Members or Regional Members, cancellation of membership, alteration to the Statutes or the Bylaws, dissolution of the Society or its amalgamation with another international organization, shall require at least three-quarters of the votes cast to be in favor of the Resolution. Decision on all other matters shall be approved by

a simple majority of the votes cast.

- (g) Associate Members and Regional Members shall have observer status in the General Assembly with no voting rights, but with full discussion privileges.
3. Recourse to a vote by correspondence shall only be permitted in exceptional cases. This procedure shall be taken only when the Council considers it necessary to reach a decision without awaiting a meeting of the General Assembly.

STATUTE XVII - Regulations and Directives

The Council shall be entitled to issue provisional Regulations and Directives to provide guidance in transitory situations, and such shall be valid until considered at the next Congress.

STATUTE XVIII - Languages

1. The official languages of the Society shall be English, French and German.
2. The English Text of the present Statutes and Bylaws shall be considered to be the definitive version.

STATUTE XIX - Dissolution and Amalgamation

Only the General Assembly may approve a decision on dissolution of the Society or amalgamation of the society with another international body. An extraordinary meeting must be specially called for that sole purpose. For such an extraordinary meeting three clear calendar months notice shall be given to all Ordinary Members in writing, requesting them to send Delegates thereto.

STATUTE XX - Amendments to Statutes and Bylaws

1. Only the General Assembly has authority to amend the Statutes and Bylaws.
2. The Statutes may be amended under the following conditions:
 - (a) An amendment may be formulated in writing by an Ordinary Member and addressed to the Secretary General not less than 10 months prior to the date fixed for the meeting of the General Assembly at which it is to be considered. Such an amendment shall be supported by at least one other Ordinary Member.
 - (b) Amendments may be formulated by the Council or a committee appointed by the Council. In such a case there shall be no necessity for supporting these amendments by an Ordinary Member.
 - (c) The Secretary General shall inform all Ordinary Members on the proposed amendments at least six months prior to the date fixed for the meeting of the General Assembly at which they are to be considered.
3. The Bylaws may be amended under the following conditions:
 - (a) At least 48 hours must be given Delegates prior to discussing amendments to the Society Bylaws.
 - (b) No Bylaw that contravenes the Statutes shall be valid.

Original Statutes adopted by the General Assembly of the 11th Congress, July 1968, at Lausanne, Switzerland.

Statutes amended by the General Assembly of the 12th Congress, August 1972, at Ottawa, Canada.

Statutes amended by the General Assembly of the 14th Congress, July 1980, at Hamburg, Federal Republic of Germany.

Statutes amended by the General Assembly of the 15th Congress, June 1984, at Rio de Janeiro, Brazil.

Statutes amended by the General Assembly of the 16th Congress, July 1988, at Kyoto Japan.

Statutes amended by the General Assembly of the 18th Congress, July 1996, at Vienna, Austria.

Statutes amended by the General Assembly of the 19th Congress, July 2000, at Amsterdam, The Netherlands.

Statutes amended by the General Assembly of the 20th Congress, July 2004, at Istanbul, Turkey.

Statutes amended by the General Assembly of the 21st Congress, July 2008, at Beijing, China

President: Ian J. Dowman (2004-2008)

Secretary General: M. Orhan Altan (2004-2008)

BYLAWS

INTERNATIONAL SOCIETY FOR PHOTOGRAMMETRY AND REMOTE SENSING

BYLAW I - *Name and Mission*

The short title of the International Society for Photogrammetry and Remote Sensing shall be ISPRS with the motto "Information from Imagery" and these initials and motto shall be used in all the official languages of the Society and on flags, logos, stationery, etc. of the Society and its subordinate bodies.

BYLAW II - *Definitions*

1. The Society's scientific interests shall include the photogrammetry, remote sensing, and spatial information sciences and related disciplines, as well as applications in cartography, geodesy, surveying, natural, Earth and engineering sciences, and environmental monitoring and protection. Further applications include industrial design and manufacturing, architecture and monument preservation, medicine and others.
2. For elective offices, nationality shall be that of the Ordinary Member which nominates the candidate and the candidate shall, at time of election, be a permanent resident of the nation of the Ordinary Member.

BYLAW III - *Qualifications*

The Society subscribes to the declaration adopted in 1958 by the 8th General Assembly of the International Council for Science (ICSU), concerning non-discrimination on the basis of politics, nationality, religion, race, or gender.

BYLAW IV - *Activities*

In addition to the activities in Statute IV the Society may do all other things incidental or conducive to the Society's aims, provided such acts do not contravene the Statutes or Bylaws of the Society or the laws of the country in which they are done, or the general principles to which the Society subscribes.

BYLAW V - *Cooperation With Other International Organizations*

In its policy of cooperation the Society shall support consolidation of international societies committed to the promotion of the united profession of photogrammetry, remote sensing, spatial information sciences, cartography, geodesy, and surveying, as well as affiliation with other relevant international organizations.

BYLAW VI - *Membership*

1. Ordinary Members

- (a) An application for Ordinary Membership in the Society shall be addressed to the Secretary General and be accompanied by a description of the photogrammetric, remote sensing and spatial information science activities in the country or geographic region thereof having an independent

budget, and of the nature of the organization making application, including specifically its statutes, aims, standing in the country, relations with other organizations concerned with the photogrammetry, remote sensing and spatial information sciences, and its administrative and financial structure.

- (b) The application shall state the category in which Ordinary Membership is requested. The category chosen should be broadly related to the number of photogrammetrists and/or remote sensing and/or spatial information specialists represented by the applicant, and the uses made of the photogrammetry, remote sensing and spatial information sciences in the country concerned. The table below indicates the category to which an Ordinary Member should belong.

Number of Active Specialists	Category
less than 26	1
26 to 50	2
51 to 150	3
151 to 250	4
251 to 400	5
401 to 600	6
601 to 800	7
more than 800	8

- (c) The Council shall review each application received and if it estimates that the proposed category is inappropriate, the Secretary General shall return the application. The Secretary General shall report every application received to all Members and shall inform them of the opinion of the Council thereon.
- (d) The admission of an Ordinary Member shall be decided by vote of the General Assembly, or with approval of Council, by a vote by correspondence. The Secretary General shall declare the result of the vote to all Members and to the organization seeking admission.
- (e) An Ordinary Member may at any time raise its category; it may not lower it without the previous assent of the General Assembly.
- (f) To retain its good standing as Ordinary Member requires fulfillment of its responsibilities outlined in the Statutes.
- (g) The cancellation of Ordinary Membership may be declared by the General Assembly:
 - in the case of action manifestly contrary to the interests and objectives of the Society;
 - in the case of repeated default in the payment of subscription fees in spite of a demand for payment which the Treasurer shall send to the

defaulting Ordinary Member at least six months prior to the meeting of the General Assembly.

- (h) An Ordinary Member may resign from the Society by a declaration in writing addressed to the Secretary General. The Council shall act upon the declaration and shall inform all Members as quickly as possible.
- (i) When an Ordinary Member leaves the Society, whether by resignation or by exclusion, it shall thereby forfeit all rights in the Society.

2. Associate Members

- (a) An application for Associate Membership in the Society shall be addressed to the Secretary General and be accompanied by a description of the photogrammetry, remote sensing and spatial information science activities in the country and of the nature of the organization making application, including specifically its statutes, aims, standing in the country, relations with other organizations concerned with photogrammetry, and/or remote sensing, and/or spatial information sciences, and its administrative and financial structure.
- (b) The application shall state the category in which Associate Membership is requested. The category chosen should be broadly related to the number of photogrammetrists and/or remote sensing and/or spatial information specialists represented by the applicant, and the uses made of the photogrammetry, remote sensing and spatial information sciences in the country concerned. The table below indicates the category to which an Associate Member should belong.

Number of Active Specialists		Category
less than 51		1
51 to 250		2
251 to 600		3
more than 600		4

- (c) The Council shall review each application received and shall consult with the Ordinary Member of the country, and the Secretary General shall report every application received to all Members and shall inform them of the opinion of the Council thereon.
- (d) The admission of an Associate Member shall be decided by vote of the General Assembly, or with approval of Council, by a vote by correspondence. The Secretary General shall declare the result of the vote to all Members and to the organization seeking admission.
- (e) An Associate Member can upgrade its membership to Ordinary Member:
 - at any time by uniting or cooperating with the Ordinary Member of its country, or
 - by vote of the General Assembly, after consultation by Council with the Ordinary Member and demonstration by appropriate documentation, of more active participation in areas of study of ISPRS and larger representation of the whole community of specialists in the country, than the current Ordinary Member. The new category will be

determined according to Bylaw VI.1.(b).

- (f) The cancellation of Associate Membership may be declared by the General Assembly:
- (g) in the case of action manifestly contrary to the interests and objectives of the Society;
- (h) in the case of repeated default in the payment of subscription fees in spite of a demand for payment which the Treasurer shall send to the defaulting Associate Member at least six months prior to the meeting of the General Assembly.
- (i) An Associate Member may resign from the Society by a declaration in writing addressed to the Secretary General. The Council shall act upon the declaration and shall inform all Members as quickly as possible.

3. Regional Members

- (a) An application for Regional Membership shall be submitted to the Secretary General and shall include a full listing of the associated organizations, the charter of the Regional Member, and names of current officers.
- (b) The Council shall assure that the charter of the Regional Member conforms to the Statutes and Bylaws of the Society. The Secretary General shall report every application received to all Members and shall inform them of the opinion of the Council.
- (c) The admission of Regional Members shall be decided by vote of the General Assembly, or with approval of Council, by a vote by correspondence.
- (d) The cancellation of Regional Membership may be declared by the General Assembly:
 - in the case of action manifestly contrary to the interests and objectives of the Society;
 - in the case of repeated default in the payment of subscription fees in spite of a demand for payment which the Treasurer shall send to the defaulting Regional Member at least six months prior to the meeting of the General Assembly.

4. Sustaining Members

- (a) An application for Sustaining Membership shall be addressed in writing to the Secretary General and shall include a full statement of the applicant's role in the fields of photogrammetry and/or remote sensing and/or spatial information.
- (b) Council shall consider each application and make the final decision on admission of an applicant.
- (c) Sustaining Members may appoint a committee to represent the exhibitors in the planning and operation of scientific and technical exhibits sponsored by the Society. The recommendations of the Sustaining Members Committee are advisory to the Congress Director.
- (d) The Congress Director of the Society shall convene a Sustaining Members meeting at least once during each Congress.
- (e) Council shall have the authority to cancel Sustaining Membership:
 - in case of action manifestly contrary to the interests and objectives of the Society;
 - in case of repeated default in payment of subscription fees.

5. **Honorary Members**

- (a) There may not be more than ten living Honorary Members of the Society at any given time.
- (b) Honorary Members are elected by the Congress in Plenary Session. A maximum of two Honorary Members may be elected at any Congress.
- (c) Candidates for Honorary Membership may be proposed by any of the Member organizations of the Society. Proposals shall summarize the accomplishments of the candidate and be submitted to the Secretary General at least one year before the next Congress.
- (d) Honorary Members shall be nominated by a 7-member committee appointed by the Council. The committee shall include three honorary members, three members from the three previous Councils plus one current Council member and shall be chaired by the most recent Honorary Member.
- (e) Honorary Members shall have the right to attend all meetings of the Society and its constituent parts except for Council meetings. They shall not be required to pay registration fees for any Society function.

6. **Fellows**

- (a) Candidates shall be nominated by any Member of the Society or by Council. The nomination shall be considered by the Fellows Committee, and recommendations for the award of Fellowship shall be made to the General Assembly which will elect the Fellows.
- (b) The Fellows Committee shall be composed of 5 members from Fellows selected by Council (2), an Honorary Member selected by the Honorary Members (1), and individuals elected by the General Assembly (2). The Committee shall select a Chair from amongst their number. Members of the Fellows Committee are ineligible for nomination.
- (c) The maximum number of Fellows at any one time shall be 30, Excluding those Fellows subsequently elected as Honorary Members. Up to 5 Fellows may be elected in any one General Assembly.

BYLAW VII - Organization and Administration

1. The chairs of the Permanent Committees, the Chair of the Finance Committee, the Editor in Chief of the ISPRS Journal, the Book Series Editor, the ISPRS Webmaster, the Editor of Highlights and the Regional Representatives shall comprise the Advisory Board. The Advisory Board shall meet with Council at least once during the inter Congress period.
2. Committees may be appointed by the Council to report on special topics or to address issues in support of Council. The membership of a Committee shall consist of a Chairperson appointed by the President and additional members shall be selected by the Chairperson with the approval of the President. International representation among Committee Members shall be encouraged. A committee shall be instituted when the Terms of Reference for the Committee have been approved by Council. The term of an Ad-Hoc Committee shall coincide with the inter-congress period.

The term of a Permanent Committee shall be indefinite and may only be dissolved at the end of an inter-Congress period by consensus of the Council. The Chairperson shall prepare a report on Committee activities for presentation to each regular meeting of the General Assembly.

Permanent Committees of the Society are:

- International Committee on Remote Sensing of the Environment (ICORSE)
- International Policy Advisory Committee (IPAC)
- International Science Advisory Committee (ISAC)

BYLAW VIII - Officers

1. The President of the Society, the Second Vice-President, the Secretary General and the Treasurer shall be elected by the General Assembly. Ordinary Members may submit nominations for members of Council to the Secretary General not later than four months prior to the meeting of the General Assembly at the time of a Congress. The Council will review the recommendations and submit nominations to the General Assembly.
2. In order to assist continuity the outgoing President shall be appointed the incoming First Vice-President as of right without election. Should he/she decline the office it shall be offered successively in the following order to:
 - the outgoing Secretary General
 - the outgoing Vice-Presidents in turn, past Presidents excepted
 - the outgoing Treasurer
 - the outgoing Director of the CongressShould all these decline the office, it shall be filled by election by the General Assembly.
3. The Director of the Congress shall be proposed by the Ordinary Member organizing the Congress and shall be confirmed by the General Assembly.
4. The First Vice-President who has been appointed to that office without election and the Director of the Congress may be of any nationality. Of the remaining members of the Council no two shall be of the same nationality.
5. No person shall hold the office of President for two consecutive terms. No person who has held the offices of President and First Vice-President consecutively in that order shall be eligible for a further consecutive term of office as President. The choice of person to become President shall not otherwise be restricted by virtue of any office in the Society which he/she holds or has held in the past.
6. No more than three Council members may remain on Council from one inter-Congress period to the next. An outgoing elected member of Council shall not be eligible for election to any office on the incoming Council other than to that of President of the Society or Secretary General. After the lapse of one inter-congress period he/she shall again become eligible for election to the Council.
7. The Council shall fill by co-option all vacancies occurring through the death or long-term disability of any of its members other than the President. When filling the post of Treasurer by co-option, the Council shall first consult all Ordinary Members, by correspondence or otherwise, and shall take account of the views expressed.

8. No member of Council shall be a member of the Financial Commission.
9. The Presidents of Technical Commissions shall be nominated by the Ordinary Members seeking responsibility for Technical Commissions. The General Assembly selecting the Ordinary Member responsible for a Commission shall confirm the Commission President. In case of necessity a Commission President may be confirmed by the Council.

BYLAW IX - Congress

1. The Congress site shall be selected by the General Assembly from proposals made by Ordinary Members. Such proposals shall include the dates, physical facilities, preliminary financial plans, and the name of the proposed Congress Director.
2. The Ordinary Member organizing the Congress shall sign a contract with the Society and be responsible for ensuring that adequate provisions are made for the Congress. The Ordinary Member shall obtain the necessary financial support for this purpose. The Ordinary Member shall be responsible for financing the Congress, including the preparation and publication of The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences relating to the Congress. For this purpose it shall have the cooperation of the Technical Commissions and of the Council.
3. The activities of the Congress shall be prepared and carried through by a Congress Committee and chaired by the Congress Director. All other members of the Congress Committee shall be appointed by the Ordinary Member organizing the Congress. The Congress Committee shall have the responsibility for organizing the Congress on the administrative and financial levels.
4. Only persons in the following categories may take part in the activities of the Congress:
 - (a) Persons who are associated with a Member and have paid the Congress fee;
 - (b) Honorary Members of the Society;
 - (c) Persons specially invited by the President either on account of their personal standing or as representatives of other scientific organizations. They shall not be required to pay the Congress fee;
 - (d) Persons who have received the general invitation and have paid the Congress fee.
5. Congress meeting in plenary session shall:
 - (a) review the decisions of the General Assembly;
 - (b) witness the award of Medals and other distinctions of the Society;
 - (c) elect the Honorary Members of the Society.
6. The Technical Commissions shall meet during the Congress for the purpose of:
 - (a) reports by the Presidents on activities of the Commissions during the inter-congress period;
 - (b) presentation of technical papers, tutorials and/or poster sessions on topics covered by the Commissions in programmed technical sessions determined by Commission Presidents and the Council;
 - (c) formulation of Resolutions.

BYLAW X - General Assembly

1. The President shall convene the General Assembly to one or more meetings in the course of every Congress.
2. In the interval between Congresses the President may convene the General Assembly to an extraordinary meeting to discuss a single Resolution that has the support of at least two Ordinary Members. The Resolution in question shall be made available in writing to all Ordinary Members, Associate Members and Regional Members at least three calendar months in advance of the meeting. Whenever called upon in writing by not less than three-quarters of the Members, the President shall convene an extraordinary meeting.
3. Prior to every Congress and prior to every extraordinary meeting of the General Assembly each Ordinary Member shall appoint one Delegate to represent it at the General Assembly. Such appointments shall have no permanency and shall be valid only for the duration of the Congress or of the extraordinary meeting. No member of the Council shall be appointed as a Delegate. Associate Members and Regional Members may appoint Representatives to the General Assembly.
4. Each Ordinary Member Delegate authorized to vote at the General Assembly shall present his/her credentials to the Secretary General on his/her arrival at the Congress or at the extraordinary meeting. The Secretary General shall compile a list of Ordinary Members, their Delegate and two Advisors, their voting rights, their subscription fees paid or in default and shall report thereon in writing to the President. Each Representative of an Associate Member and of a Regional Member shall present his/her credentials to the Secretary General on arrival at the Congress or the extraordinary meeting. The Secretary General shall prepare a list of Associate Members and Regional Members and their Representatives, their subscription fees paid or in default, and shall report thereon in writing to the President.
5. Each Delegate may be accompanied at the General Assembly by not more than two Advisors. Only Delegates shall have the right to vote. An Advisor shall have the right to speak only upon the invitation of his/her own Delegate and with the permission of the President. If the appointed Delegate is unable to serve for any reason, one of the Advisors may serve as Delegate with permission of the President.
6. An Ordinary Member that has not paid its subscription fees up to and including the year before the General Assembly shall have no voting rights at the General Assembly and shall not be entitled to bid for positions on the Council, the Financial Commission, or to host a Technical Commission.
7. Observers may be invited to attend the General Assembly only by the President.
8. The General Assembly shall:
 - (a) review the implementation of directives adopted by the General Assembly and Congress;
 - (b) review the decisions taken by the Council since the last Congress;
 - (c) consider the reports and proposals of the Council and Financial Commission and Committees;
 - (d) define the policy to be pursued by the new Council;
 - (e) decide upon the admission of new Ordinary

Members, Associate Members and Regional Members;

- (f) decide upon the exclusion of Ordinary Members, Associate Members and Regional Members;
 - (g) decide upon the transference of an Ordinary and/or Associate Member from one category to another;
 - (h) determine the value of the subscription unit;
 - (i) elect the President, the elected members of Council and the members of the Financial Commission;
 - (j) choose the Ordinary Member to organize the next Congress;
 - (k) confirm the Congress Director;
 - (l) choose the Ordinary Members and confirm Commission Presidents to be responsible for the Technical Commissions during the next four-year period;
 - (m) amend the Statutes and the Bylaws;
 - (n) approve Resolutions of the Technical Commissions, Members and Committees;
 - (o) ratify Memorandums of Understanding and similar formal agreements with international organizations;
 - (p) elect Fellows of The Society;
 - (q) appoint Regional Representatives
9. All items to be discussed at the General Assembly must be included in a preliminary agenda sent in advance to all Members. A matter or a candidature not appearing on the agenda of the General Assembly shall not be considered by the General Assembly unless, by direction of the Council and through the agency of the Secretary General, the matter has been brought to the notice of all Delegates at least 24 hours before the meeting and unless the General Assembly first pass a formal vote that it be considered.

BYLAW XI - Council

1. The Council shall constantly pursue the general policy of the Society and maintain the Society in a state of continual scientific activity.
2. A Council meeting shall be held at least once during each calendar year. All Council members are expected to participate fully in these meetings and to avoid representation by surrogates or proxy.
3. The Council may prepare Terms of Reference, and issue Guidelines and instructions as necessary to implement the directives of the General Assembly.
4. In exceptional circumstances the Council may act without approval of the General Assembly, and such actions shall be valid until considered at the next meeting of the General Assembly. But all questions relating to exclusion of an Ordinary Member, Associate Member or Regional Member, lowering of the category of an Ordinary Member, value of the unit of subscription, alteration of the Statutes or Bylaws, and dissolution of the Society or its amalgamation with another international organization must be referred to the General Assembly and decisions thereon shall be taken only by the General Assembly.
5. Regional Representation. A maximum of three Regional Representatives may be appointed to assist Council to coordinate activities in regions not adequately represented on the Council. They shall be proposed by Council and be confirmed by the General Assembly. A Regional Representative may not serve in that capacity

for more than two consecutive inter-Congress periods. No Regional Representative shall have the same nationality as any member of the Council. The Regional Representatives shall:

- (a) Liaise with Members and potential members within their region and represent the views of those members on Council.
 - (b) Make best efforts to ensure that at least one ISPRS meeting is held within the region during the inter-Congress period.
 - (c) Encourage members and organisations within their region to support the aims of ISPRS and become Members of ISPRS.
 - (d) Attend national and regional activities within their region and promote the aims and activities of ISPRS.
 - (e) Attend meetings of the Council and Advisory Board when invited.
6. The **President of the Society** shall:
- (a) convene and preside over the plenary sessions of Congress, the General Assembly and the Council; he/she may, however, delegate the Director of the Congress to preside at Congress plenary sessions;
 - (b) coordinate the activities of the Technical Commissions and Working Groups, according to the decisions and intentions of the General Assembly and the Congress;
 - (c) represent the Society in its dealings with national or international institutions or organizations whose activities are of interest to the Society;
 - (d) cooperate with other international organizations concerned with photogrammetry, remote sensing, spatial information science, cartography, geodesy, surveying, and other similar disciplines;
 - (e) communicate to Members:
 - not less than twelve months in advance of the Congress, the date and place of the next meeting of Congress;
 - not less than three months in advance of the Congress, the Agenda of the General Assembly accompanied by an explanation of the purpose and import of the items of Agenda, especially those relating to the admission or exclusion of an Ordinary Member, Associate Member or Regional Member, changes in value of unit of subscription and modifications to the Statutes;
 - not less than one month in advance of the Congress, the names of the Ordinary Members which have proposed to organize the next Congress;
 - not less than one month in advance of the Congress, the names of the Ordinary Members which have proposed to be responsible for each of the Technical Commissions for the next four-year period and the names of their proposed Commission Presidents;
 - (f) inform Members in writing of the decisions taken at extraordinary meetings of the General Assembly.
7. The **Congress Director** shall:
- (a) be Chairperson of the Congress Committee;
 - (b) represent the Ordinary Member responsible for the Congress in all matters relating to its organization;
 - (c) correspond with Ordinary Members, Associate

- Members, Regional Members, Technical Commissions, Working Groups, Committees and the Sustaining Members Committee concerning the scientific and social programs of the Congress;
- (d) report to the Council the measures being taken to previous Congress Director or a representative from the previous Congress Committee shall assure the publication of The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences relating to that Congress and shall be available for consultation on the planning of all matters related to the forthcoming Congress.
8. The **First Vice-President** shall:
- (a) assist the President in his/her duties when called upon by the President to do so;
- (b) act for the President should he/she be prevented by circumstances outside his/her control from fulfilling his/her duties;
- (c) serve as the Chairperson of the Resolutions Committee to coordinate Resolutions from the Technical Commissions, Members and Committees for consideration by the General Assembly;
- (d) coordinate the proper and timely procedures for the awards.
9. The **Second Vice-President** shall:
- (a) assist the President in any manner requested by President;
- (b) fulfill the responsibilities of the First Vice-President should he/she be prevented from acting;
- (c) review, maintain and update the Statutes, Bylaws and Guidelines.
10. The **Secretary General** shall:
- (a) perform the duties of Secretary of the General Assembly, of the Council and of the Congress meeting in plenary session, arrange the meetings of these bodies, and draw and distribute their agenda and minutes at the proper time;
- (b) at the request of the President, represent the Society in its dealings with national or international institutions or organizations whose activities are of interest to the Society;
- (c) deal with the correspondence of the Society and ensure the keeping of the records, and distribute to Members relevant information and communication;
- (d) collate the reports of the Technical Commissions and distribute information concerning the Commissions;
- (e) collaborate with the Congress Committee and the Boards of the Technical Commissions concerning the recording and writing up of all proceedings and concerning the publication of the Archives (contents, presentation, distribution);
- (f) ensure timely preparation and dissemination of Society publications;
- (g) ensure that the decisions taken at Congresses are speedily carried out;
- (h) receive the credentials of Delegates, Advisors and Representatives appointed by Ordinary Members, Associate Members and Regional Members to represent them at the Congress and report in writing to the President on their voting rights.
- (i) coordinate the scheduling of all events of the Society.

11. The **Treasurer** shall:
- (a) complete the accounts for hand over to the new Treasurer within two months of the end of the Congress. The new Treasurer shall replace the outgoing Treasurer on receipt of the final accounts;
- (b) issue annual invoices one month before the upcoming fiscal year in which the fee is due to Ordinary Members, Associate Members, Regional Members, and Sustaining Members and inform them of the proper procedures for remittance of subscription fees. The Treasurer shall send periodic reminders to those in arrears;
- (c) collect the funds of the Society and administer them in accordance with the decisions of the General Assembly and the instructions of the Council;
- (d) keep account of all financial transactions and submit a statement of accounts at the end of each fiscal year to the Financial Commission for audit;
- (e) assemble the complete accounts of the Society for the four-year term at the end of the fiscal year prior to the Congress and submit them to the Financial Commission for audit;
- (f) submit to the Secretary General prior to the meeting of the General Assembly a list of Ordinary Members, Associate Members and Regional Members that have not yet paid their annual subscription fee up to and including the year prior to the General Assembly;
- (g) submit a financial statement to each Council meeting and a summary financial report to the General Assembly.

BYLAW XII - Headquarters

Provided that the Statutes and Bylaws of the Society do not run counter to the laws pertaining to associations in the country where the Secretary General is domiciled, the residence of the Secretary General shall be the headquarters of the Society, except when the Council decides for a more convenient alternative.

BYLAW XIII - Technical Commissions

1. The main tasks of a Technical Commission shall be:
- (a) to follow the technical and scientific progress within its field and report thereon to the Congress;
- (b) to provide initiative in technical and scientific progress, especially by establishing Working Groups, arranging International Symposia, and organizing experiments on research;
- (c) to identify the results of research and development in order to present them for discussion at the Congress;
- (d) to propose actions leading to the promotion and evaluation of the photogrammetry, remote sensing and spatial information sciences, and to assist the Council in defending these proposals to the authorities concerned;
- (e) to assist in international standardization activities in subject matters related to the photogrammetry, remote sensing and spatial information sciences;
- (f) to promote continuing education by organizing tutorials;
- (g) to report to Council on the implementation of their program in accordance with Bylaws and Technical

Resolutions.

- (h) to submit an annual report on its areas of responsibility to the Society. The report should include activities and the state of the science and technology of the Commission and Working Groups.
2. Activities in the photogrammetry, remote sensing and spatial information sciences shall be divided into eight areas of major interest and each area shall be entrusted to a Technical Commission. The areas of responsibility for the Technical Commissions shall be as follows:

Commission I: Image Data Acquisition - Sensors and Platforms

- Design and realization of digital aerial and spaceborne missions for Earth observation;
- Design, construction, characterization, and installation of imaging and non-imaging sensors (including Optical, IR, SAR, IFSAR, LIDAR, etc.);
- Standardization of definitions and measurements of sensor parameters;
- Integration of imaging and non-imaging sensors with other relevant systems;
- Geometric and radiometric properties, quality standards, and factors affecting data quality;
- Test, calibration and evaluation of sensors (including laboratory, in-flight, inter-calibration and test fields);
- Integrated platform guidance, navigation, positioning and orientation;
- Data reception and pre-processing;
- On-board preprocessing of data and autonomous systems;
- Systems and media for recording sensor data, auxiliary data (time, position, attitude, etc.) and film scanners;
- Image and non-image data transfer standards.

Commission II: Theory and Concepts of Spatial Information Science

- Fundamentals of spatial database design, spatial data structures, spatial analysis and geostatistics, spatial querying, spatial reasoning, spatial and temporal modeling;
- Aggregation, generalization, abstraction and rendering of image and vector data;
- Spatial decision support systems;
- Processing, analysis and modeling of multi-dimensional geospatial data;
- System integration and modeling aspects for data and geoinformation processing;
- Interoperability of heterogeneous spatial information systems;
- Semantic and geometric integration of heterogeneous spatial information;
- Communication and visualization of spatial data;
- Data mining, filtering, retrieval and dissemination;
- Spatial data quality and spatial model quality.

Commission III: Photogrammetric Computer Vision and Image Analysis

- Algorithms for geometric analysis of image data

regardless of scale;

- Geometric analyses of IR, SAR, IFSAR and LIDAR;
- Automated feature and attribute extraction techniques and methodologies from multi-sensor, multi-resolution, multi-spectral, hyperspectral, and multi-temporal imagery;
- Fundamental research into image understanding for object detection, recognition, identification and reconstruction;
- DEM generation and integration of three-dimensional modeling concepts into image analysis processes;
- Integration of spatial information systems and object models for object recognition;
- Sensor pose determination (including auxiliary information);
- Projective and multi-view geometry;
- Image sequence analysis;
- Algorithms for including features in the orientation processes;
- Spatial, spectral and temporal properties of natural and human-formed objects.

Commission IV: Geodatabases and Digital Mapping

- Development, access and management of spatio-temporal databases;
- Spatial data infrastructures;
- Image-based geospatial databases;
- Data libraries, data clearinghouses, data warehouses, distributed archives and access to remote data sources, including metadata and digital data standards;
- Web based access, retrieval and dissemination of spatial data, including web-based location-based services;
- Integration of spatial information systems and image analysis for database-driven change detection, data capture and updating;
- Dynamic spatial information systems, spatial data revision and versioning;
- Interfacing 3D models with facility management systems;
- Database generation for digital topographic and thematic mapping (including orthoimages and digital terrain models);
- Digital landscape modeling and visualization, and large scale urban models;
- Global environmental databases and mapping;
- Extraterrestrial mapping and spatial information systems;
- Analysis of systems and their components for automated and semi-automated digital mapping and geoinformation systems;
- Analysis of industry needs and design of systems for production and update of geoinformation.

Commission V: Close-Range Sensing – Analysis and Applications

- Systems and algorithms for real-time imaging, mobile mapping and video processing;
- Photogrammetric vision metrology technologies

- with special consideration of CAD/CAM and spatial information systems;
- Integration and fusion of multiple data sources for advanced object extraction and modeling;
- Laser scanning for 3-D representation of objects and scenes;
- Close-range image sequence analysis procedures;
- Vision-based techniques for visualization, simulation, robotics and animation;
- Vision metrology systems and industrial applications;
- Photogrammetric techniques in biomedical engineering and human motion studies;
- Techniques for architectural, archaeological and cultural heritage applications.

Commission VI: Education and Outreach

- Promotion of education and training at fundamental, advanced and professional levels;
- Promotion of technology transfer, considering account regional needs and resources;
- Computer-assisted teaching, training and distance learning;
- Innovative techniques for information dissemination on the Internet;
- Promotion of youth forum and innovative outreach activities;
- Assist the Council in the promotion of ISPRS activities in the regions;
- Quality enhancement of content and format of ISPRS publications and Internet home pages.

Commission VII: Thematic Processing, Modeling and Analyses of Remotely Sensed Data

- Relationship between spectral, radiometric and temporal properties of objects, their physical and chemical properties and their variations;
- Image classification and analysis methodologies;
- Analysis of characteristics of multi-spectral, hyperspectral, multi-sensor, microwave and multi-temporal image data for extraction of attribute information;
- Methodologies of computer-assisted interpretation and analysis of remotely sensed data;
- Validation of data and information using laboratory and in-situ methodologies;
- Improving atmospheric modeling for radiometric correction;
- Multi-source data fusion and integration techniques;
- Modeling of satellite data derived parameters;
- Global databases and determination of indicators of change for global modeling, monitoring and sustainable development;
- Integration of remote sensing and GIS techniques;
- Aerosol and particulate detection and identification.

Commission VIII: Remote Sensing Applications and Policies

- Forestry, vegetation, agricultural and biodiversity studies and applications;
- Hydrology, oceanography, coastal zone, snow and ice applications;

- Atmospheric and weather studies and applications;
- Geology, pedology and geomorphology studies and applications;
- Monitoring and management of land and water resources;
- Land use, human impact and ecosystem analyses;
- Disaster monitoring, mitigation and damage assessment;
- Hazardous waste and environmental pollution assessment;
- Infrastructure, transportation and communications studies and applications;
- Satellite and aerial remote sensing policies;
- Cooperation with international environmental programs and strategies;
- Earth Observation activities to support sustainable development.

3. An Ordinary Member (or Ordinary Members) seeking responsibility for a Technical Commission shall submit to the Secretary General an application which includes the activities and the name of the proposed Commission President. This application shall be submitted at least four months prior to the commencement date of the Congress.
4. In choosing the Ordinary Member or group of Ordinary Members to be entrusted with the responsibility for the work of a Commission, the General Assembly shall take into consideration all relevant factors, including in particular:
 - the various Ordinary Members willing to undertake the responsibility;
 - the scientific and technical ability available to each candidate;
 - the professional standing and ability of the person proposed as Commission President;
 - the ability and willingness of each Ordinary Member and other organizations in its country to support a Commission;
 - the program of Commission activities proposed by the Ordinary Members and in particular the Working Groups, their chairpersons and the events contemplated.
5. The Ordinary Member (or Ordinary Members) entrusted with a Technical Commission shall assume responsibility for the technical and financial management of the Commission. It shall prepare the Commission and Working Group reports and be responsible for production of the Proceedings of its Symposium for publication in the Archives.
6. A Technical Commission shall be autonomous in scientific matters but the Commission President shall keep the President of the Society and the Council fully and promptly informed of all its activities and the progress of its work. The Presidents of Commissions shall meet with the Council as and when necessary to coordinate the work of the Commissions.
7. Each Commission is expected to organize an International Symposium in the period between two Congresses. Before arranging an International Symposium the Commission shall obtain the consent of the Council. Ordinary Members organizing an

International Symposium shall sign a contract with the Society and be responsible for ensuring that adequate provisions are made for the Symposium. Such Symposia shall be devoted to the field of the Commission and preparation for the ensuing Congress. Two or more Technical Commissions may collaborate to organize a joint Symposium as a single event.

8. The Commission President shall have the right to invite a limited but sufficient number of persons to join the Commission Board as Commission Rapporteurs for a particular field of interest to the Commission. Such Rapporteurs shall be chosen entirely at the President's own discretion, for the special knowledge or facilities they may possess which will enable them to give the assistance desired. They may be invited from any country and international representation shall be encouraged. They need not be Ordinary Member or Associate Member Correspondents but may perform that duty in addition.
9. Each Ordinary Member and Associate Member shall be entitled to appoint one Correspondent to each Commission. It may change its Correspondent or appoint a substitute at any time.
10. The Commission Board shall review the Resolutions approved by the Congress and identify subjects or problems requiring detailed study, trials or experimental research. It shall establish Working Groups to undertake these investigations and it shall ensure that all measures outlined in the Resolutions are covered by Working Group activities. If, in this connection, important divergences of opinion should arise within or between Commissions, the Council shall determine the course of action. The terms of reference and duration of the Working Groups shall be strictly limited and clearly defined by the Commission Board and approved by Council. A subdivision of the field of a Commission into Working Groups acting virtually as independent Commissions shall not be permissible.
11. The Working Group shall consist of:
 - the Chairperson of the Working Group;
 - optionally a Co-Chairperson;
 - a group of specialists chosen by the Chairperson, not in consideration of country but of qualification and commitment;
 - other interested, competent specialists who have indicated a commitment to contribute and participate.
12. A Working Group may be appointed to study a problem pertinent to the fields of more than one Commission. It shall then be called an Inter-Commission Working Group. The President of the initiating Commission shall notify the Council of the intention and reach agreement with the Presidents of other Commissions concerned. The Council shall pronounce on the advisability of setting up such an Inter-Commission Working Group, determine if need be the terms of reference and duration of its mission and designate the Commission which it most concerns and within which it shall make its report. Such a Working Group shall not be permitted to develop gradually into any kind of independent Commission.
13. Each Working Group shall report annually to the Commission President concerned, in addition to

reporting through the appropriate Commission at the Congress. When a Working Group has treated its subject sufficiently for the time being, or has been found to be inactive, the Council shall dissolve the Working Group, normally on the initiative of the Chairperson of the Group or the President of the Commission concerned.

14. At least six months in advance of a Congress, the President of each Technical Commission shall form a committee to prepare Resolutions for the Commission. This Committee shall identify the more important problems requiring solution and submit to Council Resolutions on the work needed to solve them, no later than three months in advance of the Congress.
15. Prior to the Congress, the First Vice-President shall form the Resolutions Committee, which shall coordinate the Resolutions of all Technical Commissions, Members and Committees with regard to practicality, shall ensure that they are set down in suitable standard form and are presented in at least one of the official languages of the Society.
16. During a Congress or Symposium all photogrammetric, remote sensing and spatial information specialists rightfully present shall be free to participate in all activities of a Technical Commission.

BYLAW XIV - *Financial Commission*

1. Each member of the Financial Commission shall be of a different nationality. No member of the Financial Commission shall be of the same nationality as any member of Council. Delegates to the General Assembly shall not be excluded from serving as members of the Financial Commission.
2. The Financial Commission shall advise the Council on all financial matters at any time upon the request of the Council.
3. The outgoing Financial Commission shall continue to serve after the Congress to ensure that the outgoing Treasurer hands over the accounts and funds of the Society to the new Treasurer within two months of the Congress. The new Financial Commission shall replace the outgoing Financial Commission at the same time as the changeover of Treasurers, and report to the Council that the changeover has been satisfactorily accomplished.
4. The Financial Commission shall examine and audit accounts of the Treasurer once every year, and submit its recommendations to the Council.
5. In the event that a member of the Financial Commission becomes unable to continue in office, on the advice of the remaining members of the Commission, the Council may approve a replacement.

BYLAW XV - *Finances*

1. The fiscal year of the Society shall be 1st January to 31st December. All annual subscription fees of Ordinary Members, Associate Members, Regional Members and Sustaining Members shall be paid before the end of the fiscal year.
2. The annual subscription fee paid by an Ordinary or Associate Member shall be defined through the number of units of subscription assigned to its category of Membership in accordance with the following table:

Category	1	2	3	4	5	6	7	8
	Subscription Units							
Ordinary Member	1	2	6	10	16	24	32	48
Associate Member	1	6	12	24				

3. The value of the subscription unit shall be fixed by the General Assembly.
4. The subscription fees of Sustaining Members and Regional Members, established by the Council, shall be ratified by the General Assembly.
5. Bank accounts of the Society shall be held in the names of two persons, namely the President and the Treasurer.
6. Gifts and legacies offered to the Society may be accepted by The ISPRS Foundation Council and ratified by the General Assembly.
7. Finances of the Society shall be controlled as follows:
 - (a) An annual budget for revenues and expenditures for each fiscal year shall be prepared by the Treasurer, examined in detail by the Financial Commission, and passed on to the Council for approval, one month prior to the end of the fiscal year.
 - (b) Recommendations for grants to support philanthropic activities of the Society shall be prepared by the Council and forwarded to the Board of Trustees of the ISPRS Foundation for action.
 - (c) Additional expenditures for routine operations can be approved by the Treasurer. Expenditures for extraordinary items must receive Council's approval.

BYLAW XVI - Voting

1. A quorum for convening a General Assembly shall require that the Ordinary Member delegates representing fifty percent (50%) of the total sum of eligible votes be present at the commencement of the General Assembly at which the voting is taking place.
2. When a vote by correspondence is taken in respect of admission of a new Ordinary Member, Associate Member or Regional Member, voting papers shall be sent electronically or by airmail to every Ordinary Member eligible to vote with the final date for the return of the vote set at three months after the mailing. All ballots not returned by the time limit set will be recorded as considered to be favorable votes. A decision to admit the applicant a new Ordinary Member, Associate Member or Regional Member shall be declared after the time limit set has expired, provided that three-quarters of the votes cast are in favor of admission.

3. Members who raise their category at a General Assembly shall receive voting rights at the higher category if they have paid their annual membership subscription fee at the higher category for the fiscal year of the General Assembly.

BYLAW XVII - Regulations and Directives

1. The decisions of the Plenary Session of a Congress and the decisions of the General Assembly shall be made known to Members and Technical Commissions of the Society without delay.
2. Except where specified otherwise a quorum of fifty percent (50%) of the total sum of eligible votes at the commencement of the General Assembly at which voting is taking place, shall be required for decisions at the General Assembly.
3. Decisions taken by the Council shall be promptly communicated to Members by the Secretary General.
4. *Conflict of Interest.* All individuals acting on behalf of ISPRS, whether they are on the Council, Technical Commission Presidents, Working Group officers, ISPRS Committee members, awards jury members or other individuals appointed by ISPRS to act on its behalf, shall disclose to the Council any duality of interest or possible conflict of interest, whenever the duality or conflict pertains to a matter for which this individual is required to make a decision. The Council shall decide on whether the individual can take part in further discussion or vote on the item where conflict occurs, or whether the individual should be replaced.

BYLAW XVIII - Languages

During a Congress, or a Symposium of a Technical Commission, the host Ordinary Member may offer, entirely at its own expense, translation to the language of the host country.

BYLAW XIX - Dissolution or Amalgamation

In the instance of dissolution of the Society the funds shall be donated to a recognized international charitable organization selected by the Council and the Financial Commission. The records of the dissolution shall be deposited with the organization that has assumed responsibility for *Archives*.

BYLAW XX - Amendments to Statutes and Bylaws

Amendments to Statutes and Bylaws shall take effect at the times set by the General Assembly.

Original Bylaws adopted by the General Assembly of the 11th Congress, July 1968, at Lausanne, Switzerland.

Bylaws amended by the General Assembly of the 12th Congress, August 1972, at Ottawa, Canada.

Bylaws amended by the General Assembly of the 14th Congress, July 1980, at Hamburg, Federal Republic of Germany.

Bylaws amended by the General Assembly of the 15th Congress, June 1984, at Rio de Janeiro, Brazil.

Bylaws amended by the General Assembly of the 16th Congress, July 1988, at Kyoto, Japan.

Bylaws amended by the General Assembly of the 17th Congress, August 1992, at Washington, D.C., USA.

Bylaws amended by the General Assembly of the 18th Congress, July 1996, at Vienna, Austria.

Bylaws amended by the General Assembly of the 19th Congress, July 2000, at Amsterdam, The Netherlands.

Bylaws amended by the General Assembly of the 20th Congress, July 2004, at Istanbul, Turkey.

Bylaws amended by the General Assembly of the 21st Congress, July 2008, at Beijing, China

President: Ian J. Dowman (2004-2008)

Secretary General: M. Orhan Altan (2004-2008)

ISPRS AWARDS POLICY

In recognition of the value and prestige associated with ISPRS Awards, in 1998 the Council developed the following ISPRS Awards Policy, which was ratified by the ISPRS General Assembly in Amsterdam and revised in 2009.

1. ISPRS Awards shall recognize outstanding contributions and achievements by an individual or individuals in the pursuit of, or for a major realization of, the objectives of ISPRS.
2. The Terms of Reference of ISPRS Awards shall be in accordance with the Statutes and Bylaws of the Society.
3. The Terms of Reference of ISPRS Awards shall be specified in written form in the English language.
4. The Terms of Reference and background shall be communicated to ISPRS members through official documents of the Society (Silver Book, WWW Page).
5. ISPRS Council shall appoint an Awards Nomination Committee which will ensure that the Awards are well publicized and that at least two nominations are received for each Award for submission to the jury for each Award. The Nomination Committee may make nominations themselves.
6. All new ISPRS Awards shall consist of a reward of substantial monetary value, or an item of high intrinsic value (a minimum of Swiss francs 2,500 or equivalent), together with a certificate or plaque of recognition.
7. In order to establish a new long-term award (for a minimum of 12 years), the sponsoring organization shall make a commitment for a minimum period of support of 12 years in the formal proposal for the award to the President of ISPRS, for approval by Council.
8. The funding and preparation of ISPRS Awards shall be provided by the sponsoring organization(s) and delivered to the Congress Director and Treasurer, after the Awardee(s) have been identified.
9. Each new ISPRS Award shall be granted for a specific purpose, which shall not overlap significantly the purpose of another ISPRS Award.
10. Presentations of ISPRS Awards shall be made at an appropriate event, preferably a plenary session, General Assembly of the Congress, or Gala Dinner.
11. Amendment to the Terms of Reference of an ISPRS Award shall require agreement of Council with the Award sponsor. The sponsor shall then prepare the amended Terms of Reference in final form as specified in paragraph 2, for Council approval.
12. It is expected that the recipient will attend the Congress to receive the award.

ISPRS AWARDS NOMINATION DEADLINES

Brock Gold Medal Award: to the Secretary General by 1st October 2011.

The Otto von Gruber Award: to the President by 1st January 2012.

The Schwedefsky Medal: to the President by 1st January 2012.

The Willem Schermerhorn Award: to the President by 1st January 2012.

The Samuel Gamble Award: to the Secretary General by 1st January 2012.

The Eduard Dolezal Award: to the President by 1st December 2011.

The U.V. Helava Award: will not require a formal submission.

The Gino Cassinis Award: to the President by 1st January 2012.

The Wang Zhizhuo Award: to the President by 1st January 2012.

The President's Honorary Citation: to the President by TCPs by 1st January 2012.

Best Papers submitted by Young Authors, to the Congress Director by 1st February 2012.

AWARDS NOMINATION COMMITTEE

Terms of Reference

1. The Awards Nomination Committee shall be appointed by Council and shall include 2 Council Members (SG and 1VP), 2 Honorary Members, The Editor in Chief of the Journal and 2 other persons. The ISPRS First Vice President will chair the Committee.
2. The Committee shall, in cooperation with the Secretary General, ensure that information about the ISPRS Awards is widely disseminated amongst Members, academic institutions and other organisations involved the photogrammetry, remote sensing and spatial information sciences.
3. The Committee shall canvass Members, academic institutions and other organisations involved in the photogrammetry, remote sensing and spatial information sciences in an endeavour to ensure that all deserving candidates are considered for nomination for each Award, and that nominations are made for all awards. Nominations may be made by the Committee.
4. The Committee shall ensure that appropriate biographical information is compiled on each nominee, and made available for consideration by the jury for each Award.

THE BROCK GOLD MEDAL AWARD

Preamble

The periodic Award of a gold medal was instituted in 1952 by the ISP to encourage the advancement of photogrammetry. The funds for the provision of medals were given in memory of Arthur and Norman Brock. On 22nd May, 1954 and 25th March, 1955, the Council of the ISP adopted unanimously certain rules governing the Award of the medal and further resolved that those rules should remain in force until altered by the unanimous vote of the Council which provision is still valid. On 8th May 1957 and on 20 April 1999, the Council considered alterations to the rules and subsequently by correspondence agreed by unanimous vote to alter them and rewrite them as follows:

Rules governing the award

1. The medal shall be known as the Brock Gold Medal Award and shall be awarded at the sole discretion of the Council of the ISPRS in accordance with the following rules.
2. The person to whom the Award is to be made shall be selected irrespective of nationality and solely in respect of contribution to the accomplishment to be signalized by the Award.
3. The medal shall be awarded only in respect of an outstanding landmark in the evolution of the photogrammetry, remote sensing and spatial information sciences, which shall be a proven contribution to these sciences and technologies of whatever form, whether a major completed project or program, some fundamentally new equipment, system or fundamentally new technique, or other new departure.
4. The landmark in the evolution of the photogrammetry, remote sensing and spatial information sciences to be thus signalized by the Award of the medal shall have proven its worth as a contribution to the advancement of these fields at least two years prior to the Congress at which the Award is to be made and in general not more than some twelve years prior to the Congress.
5. Recommendations for the Award of the medal shall be made in accordance with the following rules:
 - a. The Council shall, two years prior to each Congress, invite the member societies to submit recommendations for recipients of the Award.
 - b. Every recommendation for the Award shall be made by two individuals who adhere to the ISPRS through any of the forms of membership and who are neither of the same nationality as their candidate nor of the same nationality as one another.
 - c. Recommendations shall be in respect of an individual and not of a group of individuals nor of any organization or commercial firm. However, as many advances in the photogrammetry, remote sensing and spatial information sciences, and in the execution of projects and programs, may be largely due to team work, it shall be allowable to recommend the leader or the leading spirit of a team of workers, or such person as the team itself may think has made the most important or outstanding or fundamental contribution to their work.
6. Every recommendation shall be made in writing to the President of the ISPRS and shall be accompanied by documentation and an explanation of the grounds of the recommendation that shall be sufficiently full to enable the Council to evaluate them.
7. The nominators may consult organizations or individuals of the country in which their candidate has been working, who are involved in the photogrammetry, remote sensing and spatial information sciences, and if they do so, they must include in their documentation the advice they have received.
8. Recommendations shall be made only during the period between the close of one Congress and nine months before the opening of the next.
9. All recommendations made prior to one Congress shall lapse at the conclusion of that Congress, whether or not any medal was awarded at it. It is permissible to revive a recommendation that has lapsed by making a fresh recommendation.
10. The selection of the person to receive the medal shall be made by the Council in accordance with the following rules:
 - a. Any member of the Council who has been recommended for the Award shall not, while their name remains one that can still be considered, take part in the proceedings of selection or be counted as a member of Council for the purpose of calculating the proportion of votes cast under this rule.
 - b. Nine months before each Congress the Council shall begin to consider all recommendations received to date, and may at the same time consider the merits of the work of any other person (except a member of Council) that the Council itself deems worthy of consideration for the Award. The Council shall complete its consideration and reach its conclusion in sufficient time to permit the preparation of the medal and its presentation at the Congress.
 - c. The Council may use whatever procedure it thinks fit to reach its conclusions, provided a final selection is made by vote. In such voting a Councilor of the same nationality as a candidate not yet eliminated shall have no vote and a candidate to be successful must receive the votes of not less than two thirds of those entitled to vote. Votes may be cast in person or by post.
11. The Council shall normally expect to Award one medal at each Congress. It may abstain from awarding a medal at any particular Congress, in which case it may award an additional medal at the Congress next following but not later.
12. The name of the recipient of the medal shall be announced at the Congress, and the medal shall, whenever practicable, be presented in person at the Congress by the President.

9. The medal shall not be awarded posthumously, other than in the exceptional event of the candidate dying after having been selected for the Award, in which case the Council shall decide whether to award the medal posthumously or not at all or to some other candidate.
10. A trust fund shall be established by the American Society for Photogrammetry and Remote Sensing for the provision of the Brock Award medals. The terms of the trust deed and any modifications thereof shall

be subject to the approval of the American Society for Photogrammetry and Remote Sensing and by the Council of the ISPRS; it shall contain provisions for the safeguarding of the capital value of the assets and for all accrued interest to be used in the provision of medals. Trustees shall be appointed by the President of the American Society for Photogrammetry and Remote Sensing, which Society shall be responsible to report biennially to the Council of the ISPRS for the proper conduct of the affairs of the trust.

THE OTTO VON GRUBER AWARD

Preamble

On the initiative of Dr. Ir. W. Schermerhorn, the Board of the ITC Foundation decided on 26th September 1961 to set aside funds for the assignment of a periodic award in memory of Otto von Gruber. The award will be made in accordance with the following amended regulations which have been approved by the Board of Governors of the ITC Foundation and the Council of The International Society for Photogrammetry and Remote Sensing.

Regulations

Article 1

The Award shall be known as the Otto von Gruber Award and consist of a medal and a monetary grant. It will be made every four years to the author of a paper of outstanding merit in the photogrammetry, remote sensing and spatial information sciences. *A person may be given the Award only once.*

Article 2

An applicant for the Award must meet the following requirements:

- a. The paper shall be written within the four years immediately preceding the year of the Congress of the International Society for Photogrammetry and Remote Sensing (ISPRS) at which the Award is to be presented.
- b. The applicant should not be older than 40 years on the opening day of the Congress and should have an academic degree in one of the disciplines relevant for scientific fields of ISPRS.

Article 3

An applicant for the Award shall submit the paper to the President of the ISPRS at least six months before the opening of the Congress. The paper may be written in any language, but must be submitted to the President in one of the official languages of ISPRS. A copy of the application shall be sent to the Board of ITC Foundation.

Article 4

A jury of individuals shall appraise the papers submitted to the President and, on the basis of a majority vote of the jury members, select the best paper, the author of which shall be the recipient of the Award. The jury shall be composed as follows:

- a. The President of ISPRS (who will have no vote except in the event of a tied vote);
- b. Three qualified individuals designated before each Award by the following authorities:
 1. The Council of the Deutsche Gesellschaft für Photogrammetrie und Fernerkundung (DGPF).
 2. The Council of the United Kingdom Remote Sensing and Photogrammetry Society (RSPSoc).
 3. The Rector of the International Institute for Geo-Information Science and Earth Observation (ITC).
- c. If two of the jury members mentioned in paragraph b. wish to increase the number of members of the jury, the President of the ISPRS and the previous incumbent of the office each shall name a supplementary member who shall be of nationalities different from each other and different from German and British.

Article 5

The jury is free to decide:

- a. that the Award be made to a person who has not submitted an application provided that the requirements stated in Article 2 are complied with;
- b. that no Award be made when, in its judgement, there is no paper of sufficient merit;
- c. that two Awards be made at one Congress when, in its judgement, the papers of two candidates are of equal merit.

Article 6

The decision of the jury is final.

Article 7

The result of the jury's decision shall be announced at a Plenary Session of the Congress and the Award shall then, whenever practicable, be presented to the recipient in person by the Secretary General or the President.

Article 8

In case any translation of the above regulations gives rise to ambiguity, the English text will be decisive.

Amendments approved by the Board of Governors of the ITC Foundation on 23rd January, 1986 and the ISPRS Council on 16th April, 1987.

Further amendments approved by the ITC Foundation, the UK RSPSoc and ISPRS Council on 17 June 2004

THE U.V. HELAVA AWARD

Preamble

The publisher of the *ISPRS Journal of Photogrammetry and Remote Sensing* (herein referred to as 'the Journal'), Elsevier B.V., and Leica Geosystems GIS & Mapping, LLC, have agreed to jointly present "The U.V. Helava Award"* to encourage and stimulate submission of high quality scientific papers by individual authors or groups to the Journal, to promote and advertise the Journal, and to honour the outstanding contributions of Dr. Uuno V. Helava to research and development in Photogrammetry and Remote Sensing. The award will be made in accordance with the following regulations.

Article 1

The award, which consists of a plaque and a grant of SFr. 10,000, will be presented every four years to the author(s) of an outstanding paper on one of the topics included in the scope of the Journal. The recipient(s) of the U.V. Helava Award shall receive the award only once.

Article 2

Candidates for the award shall be authors of a paper written in English, and published exclusively in the Journal during the four year period from 1 January of a Congress year, to 31 December of the year prior to the next Congress (referred herein as 'the evaluation period'). For multiple authored papers, the grant shall be split equally among the authors; only one plaque will be given.

Article 3

A five member jury, comprising experts of high scientific standing, whose expertise covers the main topics included in the scope of the Journal, shall be proposed by the Editor-in-Chief of the Journal and approved by the ISPRS Council. Jury members shall be designated by ISPRS

Council at its last meeting of the year prior to the Congress, for the four year evaluation period of the award. The Editor-in-Chief of the Journal shall serve as secretary of the jury, without voting rights.

Article 4

The Jury shall select the best paper published in the Journal for each year of the evaluation period (referred to herein as 'best papers'). The author(s) of the best papers shall be announced annually in the Journal, *ISPRS Highlights* and ISPRS WEB site. Individuals may receive recognition as authors of best papers more than once. At the end of the four year evaluation period, the Jury shall select the most outstanding paper of the four best papers of the evaluation period, for receipt of the U.V. Helava Award. The authors of the three runner-up best papers shall receive a certificate and a one-year free subscription to the Journal.

Article 5

Members of the Jury and the Editor-in-Chief shall not be eligible to receive the U.V. Helava Award or 'best paper' award.

Article 6

The Award shall be presented to the recipient(s) by the President of ISPRS and a representative of each sponsor at a plenary session of the Congress.

*The name "U.V. Helava" is used with kind permission from Mrs. Inkeri Helava and Dr. Heikki Helava

Amendments approved by the Award Sponsors and ISPRS Council on 5 April 2004.

THE GINO CASSINIS AWARD

In 1999, the Italian Society for Surveying and Photogrammetry (SIFET) proposed to honour the work of Professor Gino Cassinis in ISPRS in teaching and research in photogrammetry for 40 years, and provides ISPRS with further opportunities to recognise the major scientific achievements of scientists working on ISPRS activities. All ISPRS Members are encouraged to consider appropriate candidates for this new Award who have significantly enhanced the mathematical and statistical foundations of the photogrammetry, remote sensing or spatial information sciences in the 4 years preceding the Congress.

The scientific work of Professor Gino Cassinis enhanced the mathematical and statistical foundations of the surveying and mapping disciplines. He served as President of ISPRS from 1934 - 1938, Congress Director of the 5th ISPRS Congress (Rome, 1938), and as President of ISPRS Technical Commissions for four terms. Furthermore he was elected as an Honorary Member of ISPRS. The Gino

Cassinis Award, valued at SFr. 2,500, was offered for the first time in Amsterdam in July 2000

Regulations

Article 1

The Award shall be known as The Gino Cassinis Award and shall normally be granted at each Congress of the International Society for Photogrammetry and Remote Sensing (ISPRS).

Article 2

The Gino Cassinis Award shall consist of a certificate and SFr. 2,500, from the Italian Society for Surveying and Photogrammetry. Presentation shall be made at an appropriate event, preferably a plenary session or General Assembly of the Congress.

Article 3

The recipient shall be a person who has significantly enhanced the mathematical and statistical foundations of the photogrammetry, remote sensing or spatial information

sciences in the 4 years preceding the Congress. All nominations shall be supported by appropriate documentary evidence of the candidates work.

Article 4

Nominations for The Gino Cassinis Award shall reach the President of ISPRS not later than 6 months prior to the Congress at which it will be presented. Candidates may not self-nominate.

Article 5

The Jury of The Gino Cassinis Award shall consist of:

- The President of ISPRS (Chair of Jury)
- The Secretary General of ISPRS
- The President of SIFET or its nominee.

The Jury shall decide no later than 4 months before the ISPRS Congress. The decision shall be made by simple majority. The Jury may decide not to present an Award. The decision of the Jury shall be final.

Article 6

No Members of ISPRS Council or the Jury shall be eligible to receive the Award.

THE EDUARD DOLEZAL AWARD

Preamble

In memory of Prof. Dr. Eduard Dolezal, the Austrian Society for Surveying and Geoinformation in 1992 has established an award which will be presented according to the following regulations on the occasion of the Congress of the International Society for Photogrammetry and Remote Sensing, beginning with the 18th Congress in Vienna.

Prof. Dr. Eduard Dolezal was born the son of a weaver on 2 March 1862 in Budwitz, Moravia, studied mathematics and physics in Vienna and in 1889 became a teacher of mathematics at the Technical Secondary School in Sarajevo, Bosnia. In 1905 he was offered a chair in practical geometry at the Technical University in Vienna. Three years later, in 1908, he was elected president of the University.

As early as 1896 he wrote a paper about "The Application of Photography to Practical Measuring Tasks". On 5 May 1907 he founded the Austrian and on 4 July 1910 the International Society for Photogrammetry. He served as first president of ISP until 1926. Dolezal founded the International Archives for Photogrammetry and edited the first six volumes (1908 - 1923). He also organized the first International Congress for Photogrammetry (24 to 26 September 1913) in Vienna. He died, showered with honors, on 7 July 1955 in Baden near Vienna.

Those who knew Dolezal always spoke highly of his social awareness, his visions, and his methodical work, all of which aimed at international cooperation. Thus it is fitting that this award named after the founding father of ISP(RS) should acknowledge these qualities. The Eduard Dolezal Award specifically encourages activities which, in a well organized way, permanently and effectively promote the photogrammetry, remote sensing and spatial information sciences. His social awareness will be emphasized by considering only candidates from developing and reform countries.

Regulations

Article 1

The Eduard Dolezal Award is a grant for furtherance aimed to assist individuals or representatives of institutions

from developing or reform countries to participate in the ISPRS Congress.

Article 2

The Eduard Dolezal Award consists of a certificate provided to ISPRS by the Austrian Society for Surveying and Geoinformation, complimentary registration provided by the respective Congress organizer, and a limited travel and expense grant from the Eduard Dolezal Fund. The grant is to cover travel and residence expenses for at least one participant to attend the Congress. In the case of short distance journeys, multiple grants may be awarded.

Article 3

The Austrian Society for Surveying and Geoinformation shall serve as trustee to the Eduard Dolezal Fund. The amount of grant funds available for distribution will be communicated to ISPRS Secretary General nine months before each ISPRS Congress.

Article 4

Applications or nominations must include all the particulars noted in Article 5 and must be filed with ISPRS Secretary General no later than seven months before the beginning of an ISPRS Congress.

Article 5

Candidates for the Eduard Dolezal Award must meet the following requirements:

1. They shall have completed their studies in one of the branches represented by the ISPRS Commissions, with the foundation of their education in the subjects covered by the photogrammetry, remote sensing, and spatial information sciences.
2. They must present documentary evidence which demonstrates that they have permanently implemented a practical application of photogrammetry, remote sensing or GIS in an efficient manner; or which documents their outstanding success in a field that supports the photogrammetry, remote sensing and spatial information sciences.
3. They must be citizens of a developing or reform country.

Article 6

If multiple Eduard Dolezal Awards are granted, the winners must be of different citizenships.

Article 7

The jury for the Eduard Dolezal Award shall consist of:

1. The President of ISPRS (head of jury).
2. The Secretary General of ISPRS.
3. The President of the Austrian Society for Surveying and Geoinformation or its delegate to the ISPRS General Assembly.
4. A representative of the United Nations.

The jury shall decide no later than five months before the beginning of an ISPRS Congress. Decisions will be made by a majority. In the case of a tie, the head of jury casts the deciding vote.

Article 8

The Eduard Dolezal Award will be granted on the occasion of the ISPRS Congress by the President of ISPRS jointly with the delegate of the Austrian Society for Surveying and Geoinformation. The founding of ISPRS by Prof. Dr. mult. Eduard Dolezal shall be called to mind during presentation of the Award.

Amendments approved by Austrian Society and ISPRS Council on 21 August 2003

THE SCHWIDEFSKY MEDAL

Preamble

The Deutsche Gesellschaft für Photogrammetrie und Fernerkundung (DGPF) decided to present an award in memory of Prof. Dr. rer. techn. Dr.-Ing. E.h. Kurt Schwidefsky, honorary member of the International Society for Photogrammetry and Remote Sensing (ISPRS), which is called the (Schwidefsky Medal).

This medal will be awarded according to the following conditions:

Article 1

Normally, the medal shall be awarded at each Congress of the International Society for Photogrammetry and Remote Sensing.

Article 2

At any Congress the medal may be awarded to no more than two candidates (at the most).

Article 3

The medal, manufactured in porcelain, will be presented to the recipient together with a certificate issued by the Deutsche Gesellschaft für Photogrammetrie und Fernerkundung.

Article 4

Nominations shall be submitted to the ISPRS President no later than six months prior to the Congress at which it will be presented. Candidates may self nominate.

Article 5

Recipients shall be persons who have made significant contributions to the photogrammetry, remote sensing and spatial information sciences, either through the medium of publication as author or editor, or in another form.

Article 6

The Award is decided on by a selection committee consisting of the President of the Deutsche Gesellschaft für Photogrammetrie und Fernerkundung, the President of ISPRS and the Secretary General of ISPRS.

Article 7

The medal will be awarded at an appropriate event of the Congress.

Bonn, November 1986

Amendments approved by the DGPF and the ISPRS Council on 1 April 2004

THE SCHERMERHORN AWARD

Preamble

In 1988 the "Nederlandse Vereniging voor Fotogrammetrie" instituted the Schermerhorn Award in memory of Prof. Dr. Ir. Willem Schermerhorn for the promotion of international activities in various areas of specialization of the photogrammetry, remote sensing and spatial information sciences.

Article 1

The scientific, technical and professional achievements of ISPRS depend to a very large extent on the results presented by working groups at symposia and congresses. Activities of working groups are the corner-stone of the

functioning of ISPRS. The Schermerhorn Award will recognize contributions on the working group level.

Article 2

The Schermerhorn Award is granted to a member of a working group who, through his/her commitment, has achieved extremely worthwhile and successful scientific meeting(s) of a very high level, gaining sufficient interest (participation by several countries) and good reporting throughout the four year period up to an ISPRS Congress.

Article 3

The Schermerhorn Award shall consist of a plaque and monetary grant of 1,250 SFr provided by the Society “Geo-Information Netherlands.”

Article 4

Normally, the award shall be presented to the winner at each quadrennial Congress of ISPRS.

Article 5

The Jury of five individuals is composed of the President of ISPRS (Chairman), a board member of Geo-Information Netherlands, the Rector of ITC, and a professor in the field of Photogrammetry, Remote Sensing and GIS of Wageningen University and Research Centre, and of Delft University of Technology.

Article 6

Nominations for the Award shall reach the President of ISPRS not later than six months prior to the Congress at which it will be presented. The Jury may itself nominate candidates. Candidates may not be nominated by themselves.

Article 7

The Jury may decide not to present any award. Decisions are made by simple majority vote. In case of a tie, the vote of the Chairman is the decision. The decision of the Jury is final.

Amendments approved by GIN and ISPRS Council in April and ratified by ISPRS GA in July 2004.

THE SAMUEL GAMBLE AWARD

Preamble

In 1984 the Canadian Institute of Geomatics (formerly Surveying and Mapping) resolved to sponsor an award in honour of Dr. Samuel G. Gamble, former President of the International Society for Photogrammetry and Remote Sensing and Director of the 1972 Congress. Establishment of the award was approved by the Council of the International Society for Photogrammetry and Remote Sensing in March 1985. The award is to be granted according to the following regulations:

Regulations

Article 1

The award shall be known as The Samuel Gamble Award, and it will be granted at each Congress of the International Society for Photogrammetry and Remote Sensing (ISPRS).

Article 2

Up to three awards may be made at each ISPRS Congress.

Article 3

Nominations shall be submitted to the ISPRS Secretary General no later than six months prior to the Congress at which it will be presented. Candidates may not self nominate.

Article 4

A recipient of the award shall be a person who, like Dr. Gamble, has contributed significantly to the development, organization or professional activities of the photogrammetry, remote sensing and spatial information sciences, at the national or international level.

Article 5

The award shall consist of a certificate, issued by the Canadian Institute of Geomatics.

Article 6

The recipient(s) of the award shall be selected by a selection board consisting of the President of the Canadian Institute of Geomatics, or his or her nominee, and two individuals appointed by the Council of ISPRS.

Article 7

No member of the Council of ISPRS shall be eligible to receive the award while serving on the Council.

Article 8

The award shall be presented at an appropriate event of the ISPRS Congress.

Amendments approved by the CIG and the ISPRS Council on 5 April 2004

THE WANG ZHIZHUO AWARD

Preamble

The Chinese Society of Geodesy, Photogrammetry and Cartography (CSGPC) decided in 2004 to present a periodic award for encouraging advancement of the spatial information sciences in memory of Prof. Dr. WANG Zhizhuo, initiator of photogrammetry and remote sensing in China, Professor and Honorary President of Wuhan Technical University of Surveying and Mapping, a senior Academician of the Chinese Academy of Science, and

elected Honorary Member of the International Society for Photogrammetry and Remote Sensing (ISPRS) in 1988.

Regulations

Article 1

The award shall be known as The Wang Zhizhuo Award and shall consist of a medal and a monetary grant (SFr. 2,500). It will be granted at each quadrennial ISPRS Congress to a person who has made significant

achievement or innovation in the spatial information sciences.

Article 2

The significant achievement or innovation in the spatial information sciences shall be a proven contribution of whatever form; whether a fundamentally new theory or algorithm, a major completed program or project, some or a fundamentally new application. The value of the achievement or innovation should be proven not less than two years or more than twelve years prior to the Congress at which the award is to be presented.

Article 3

The ISPRS Council shall issue an invitation for nominations of candidates to all Ordinary, Regional and Associate Members two years in advance of each Congress. Nominations are to be submitted in writing to the President of ISPRS at least six months in advance of the Congress and shall be accompanied by documentation describing the

proven contribution in sufficient detail to enable full evaluation by the ISPRS Council. Candidates may not self nominate.

Article 4

The selection of the person to receive the award shall be decided by the ISPRS Council. The ISPRS Council may use whatever procedure it thinks fit to reach its conclusion, provided the final selection is made by unanimous vote.

Article 5

The name of the recipient of the award shall be announced at the Congress, and the award shall be presented to the person at an appropriate event of the Congress by a member of Council of ISPRS and a representative of the CSGPC.

Award approved by the Council and ratified by the General Assembly in Istanbul, July 2004.

THE KARL KRAUS MEDAL

Preamble

The "Karl Kraus Medal" is a prize to honour the authorship of excellent textbooks in the scientific fields of Photogrammetry, Remote Sensing, and Spatial Information Sciences. The prize is dedicated to the memory of Professor Karl Kraus, a passionate teacher and author of a number of textbooks.

Regulations

Article 1

The "Karl Kraus Medal" is awarded to authors of excellent textbooks in the fields of Photogrammetry, Remote Sensing, and Spatial Information Sciences, written in one of the official languages of the ISPRS, and published no more than eight years prior to the commencement of the quadrennial ISPRS Congress at which it is to be presented. On each occasion a maximum of two prizes can be awarded.

Article 2

The prize shall consist of a medal and a certificate.

Article 3

The prize shall normally be awarded at each ISPRS Congress by the President of the ISPRS and a representative from the donating organizations: the German Society of Photogrammetry, Remote Sensing, and

Spatial Information Sciences (DGPF), the Austrian Society of Surveying and Geoinformation (OVG), and the Swiss Society of Photogrammetry, Image Analysis, and Remote Sensing (SGPBF).

Article 4

Nomination of authors of textbooks from an Ordinary Member of the ISPRS, or by authors themselves, together with three copies of the nominated textbook, shall reach the General Secretary of ISPRS not later than six months prior the ISPRS Congress at which it shall be presented.

Article 5

The jury for the prize shall consist of:

1. a person, nominated by ISPRS Council and the President of ISPRS Technical Commission VI, who is responsible for education in one of the areas of activity of ISPRS,
2. the chair of the Student Consortium of ISPRS, and
3. the chair, who shall be nominated by the three donating societies.

Article 6

The jury may consult experts prior making its decision, which shall be final. The jury is free to decide that no prize shall be made if there are no textbooks of sufficient merit.

GUIDELINES

CANDIDATES FOR MEMBERS OF THE COUNCIL

Individuals from any Member organization are eligible for nomination and election to positions on Council, but there are some practical considerations which must be taken into account.

1. Service as a member of the ISPRS Council is considered an honour. That means that it does not provide any salary to the incumbent. It is also a time-consuming function. The President, the Secretary General, and the Congress Director could easily spend full time on the tasks. However, realistically, one quarter to one half time is required by these positions. The two Vice Presidents and the Treasurer find that somewhat less time is required. Potential members of Council must be prepared to make these commitments of time.
2. It is essential that Council Members, particularly the President and Secretary General, are provided with secretarial assistance, preferably multilingual, but as a minimum fluent in one of the official languages of the Society - English, French and German. Experience has shown that about half time help is required. In general it has not been possible for the Society to pay salaries for secretarial assistance. Consequently it is necessary that the Member association or the Council member's employer is prepared to provide this amount of secretarial help.
3. Council members are required to attend a minimum of one Council meeting per year. These will usually rotate between the home locations of the officers. It is also desirable that Council members, particularly

the President, Secretary General and Congress Director attend some or all of the inter-Congress Technical Commission symposia. This means that Council members must be free to undertake international travel.

4. The Society operates on a very limited financial basis. It is therefore very useful if the officer's Member association or employer is prepared to support the international travel expenses required. However, no worthy individual would be rejected as a Council member because of inability to provide his/her own travel expenses.
5. Financial arrangements for the Society's Congress are the total responsibility of the host member. The Congress Director's related expenses for travel, secretarial assistance, communications, etc. should be included in the Congress budget.
6. Annual assessments of Members to the Society are paid in Swiss francs. These funds are during the current administration deposited in a Swiss bank account. It may also be feasible to have a bank account under the name of the Treasurer, and in his/her home location. Because the Society expenditures are international in scope, it is essential that the Treasurer be from a nation having freely convertible currency.

Members planning to nominate Council members should keep these considerations in mind.

MEMBERS PLANNING TO HOST AN ISPRS CONGRESS

Member organizations willing to host a Congress of the International Society for Photogrammetry and Remote Sensing should consider the following items which are looked upon as prerequisite for a successful Congress operation:

1. The Member organization should designate an individual to serve as Congress Director who will have final responsibility for all aspects of the Congress operation. The Congress Director will establish a Congress committee which will organize the technical program, the financial aspects, the secretarial work, the scientific exhibit, the technical tours, the social events, the program for family members, and attend to special tasks such as press relations, travel bureau relations, etc.
2. The Member organization will have complete financial responsibility for all aspects of the Congress organization. The Society does not provide any

funds for this purpose. Although budgeting arrangements will differ from one member to another, it has been customary that one-third of the Congress expenses is met by registration fees for individual participants, one-third by the fees paid by commercial exhibitors, and one-third by government subsidies with a total budget of about 3.5 million Swiss Francs.

3. In order to accommodate the Congress, the following physical facilities are required:
 - a. Hotel accommodation and restaurant facilities for approximately 2,000 persons with access to the meeting facility by public transport.
 - b. One large meeting room for the opening ceremonies and plenary sessions to accommodate approximately 2,000 persons with simultaneous
 - c. At least two meeting rooms for technical sessions with a capacity of approximately 500 persons in each room, and with simultaneous interpretation capability for the official languages of the Society.

- d. One room with capacity of 200 to 300 and simultaneous interpretation for the General Assembly. This room may also be used for technical commissions provided there is no time conflict.
- e. Several smaller meeting rooms without simultaneous interpretation for other technical commission meetings.
- f. A small office for each of the eight Technical Commission presidents and secretaries.
- g. Small meeting rooms or offices to conduct the business of the Council of ISPRS. Typing and copying service for the President and Secretary General.
- h. An exhibit hall to accommodate a net commercial exhibit of about 3000 m².
- i. Exhibit space of about 1000 m² to accommodate scientific exhibits and poster sessions

GUIDELINES FOR HOSTING A TECHNICAL COMMISSION

Ordinary Member organizations willing to host a Technical Commission should consider the following requirements.

1. The responsibilities and the main tasks of a Technical Commission are well defined in Statute XIII and Bylaw XIII of ISPRS.
2. The Member organization will have complete financial responsibility for all expenses incurred by the work of the Commission. Before submitting an application to the Society for a Commission, the Member must ensure that the necessary resources are available.
3. Members wishing to host a Technical Commission for the next four-year period shall submit an application to the Secretary General. It shall contain the name of the proposed Technical Commission President (TCP) and a provisional plan for financial arrangements.
4. The TCP should be able to spend considerable time on Commission work, especially during the months prior to the Symposium and the next Congress. The tasks of the Commission Secretary should be undertaken by a person who can work in close cooperation with the TCP.
5. It is essential that the Commission Board be provided with English speaking secretarial assistance. About 30 percent of the secretary's time will be needed for Commission affairs.
6. Technical Commissions are expected to host a Symposium in the second year between Congresses (See Appendix A.2 "Guidelines for Planning ISPRS Symposia"). The subject matter is to be related to the field of the Commission. When a Symposium is convened in a developing country the topics of other Commissions may be included in the Symposium, if pre-approved by Council. The Member organization must accept full responsibility for the financing of the Symposium. Registration fees may be charged as appropriate. A technical exhibit may be arranged, preferably within the scope of the Commission.
7. An ISPRS surcharge, the level of which will be determined by Council, will be imposed on all registrations at Commission Symposia, to contribute towards the costs of running the Society and introducing new developments.
8. The TCPs must be free to undertake international travel. They will be expected to attend joint meetings with the Council of the Society annually between Congresses. Also it may be necessary to hold Commission Board meetings with Working Group Chairpersons. All travel expenses of the TCP must be financed by the host country.
9. ISPRS Council and Honorary Members, the Chairperson of the Financial Commission and the Editor of the ISPRS Journal are entitled to register at Commission Symposia and Working Group meetings free of charge. It is expected that free accommodation will be provided to Council during the Symposium.
10. One of the Technical Commissions is expected to invite Council and Technical Commission Presidents to Council and Joint Meetings (comprising Council and Technical Commission Presidents and Secretaries) in conjunction with its Symposium. These meetings are normally scheduled for the last Symposium in the year, and have a duration of three to four days. Reports on Symposia, assessment of the performance of the Commissions, and planning for the forthcoming Congress will be important items of consideration at the Joint Meeting.
11. Before the General Assembly of ISPRS decides to allocate a Commission to an Ordinary Member, the proposed TCP shall present to the General Assembly the envisioned scientific and technical program for the Commission for the forthcoming four-year period.
12. The General Assembly will, in its election of Technical Commission hosts, consider the merits and experience demonstrated by the proposed TCP in activities such as having been the Chairperson of a Working Group, author of an invited paper, etc.

13. The proceedings of each Commission Symposium shall be published in the prescribed format as a Part of the Volume of International Archives of Photogrammetry, Remote Sensing and Spatial Information Sciences.
14. The TCPs are asked to support the Editor of the ISPRS Journal, for example, in soliciting technical papers, and serving as a referee of papers.
15. The TCPs are required to prepare an Annual Report as outlined in Appendix B.5, and are to ensure that summary reports of their Commission and WG events are submitted promptly for publication in ISPRS Highlights.
16. Furthermore, the TCPs are responsible for conformance by Working Group Chairpersons to the "Guidelines for Conducting a Working Group".
17. The Technical Commission V President, or a Council designee, will be an ex-officio member of the CIPA Committee, and as such will be required to attend the biannual meetings of the CIPA Committee.
18. Outgoing TCPs should be prepared to attend the post Congress Joint Meeting of Council and incoming TCPs if deemed advantageous to the operations of the Commission.

GUIDELINES FOR CONDUCTING A WORKING GROUP

The President of a Technical Commission (TCP) and the Chairpersons of the Working Groups should consider the following requirements:

1. The TCP shall be fully responsible for organizing the Working Groups and selecting the Chairpersons/Co-Chairpersons taking into consideration for the resolutions which have been approved by the General Assembly.
2. The TCP shall use his/her leadership to guide the Chairpersons/Co-Chairpersons in well defined directions with respect to the terms of reference.
3. The TCP shall suggest that the Chairpersons/Co-Chairpersons select active members of a Working Group after consideration of the talents and achievements of the members and the international balance of the group.
4. The Chairpersons/Co-Chairpersons shall be financially capable of attending the mid-term symposium of the relevant Technical Commission as well as the following Congress to report on Working Group activities.
5. Each WG Chair or Co-Chair shall organize one or more workshops, conferences or tutorials, preferably in odd-numbered years but at least four months from the mid-term symposia between the Congresses, in cooperation with the TCP. The dates for such meetings shall be approved by the Secretary General of the Society.
6. The Chairpersons/Co-Chairpersons shall recommend to the TCP candidates to present invited papers at the mid-term Symposium and/or the Congress.
7. The Chairpersons/Co-Chairpersons shall report annually to the TCP according to Bylaw XIII, 13. In addition, the Chairperson/Co-Chairpersons shall report on the WG activities at the mid-term Symposium and the Congress.
8. The TCP shall review and evaluate the activity of each Working Group and report to the Council annually.
9. The TCP may replace in consultation with the Council, any Chairperson who has not been active and who has not contributed to the work of the Commission.
10. The TCP may reorganize the Working Groups in consultation with Council.
11. The TCP shall communicate with the Ordinary Member correspondents concerning the Working Group activities of the Commission.
12. The TCP shall organize a Resolutions Committee in cooperation with Working Group Chairpersons/Co-Chairpersons and prepare draft scientific and technologic Resolutions for consideration before the last Joint Meeting of TCPs with Council. The Resolutions shall conform to the standard form of the "Guidelines for Proposing ISPRS Resolutions." The TCP shall submit a final draft of Resolutions to the First Vice-President in due time for the Congress.

TERMS OF REFERENCE FOR SUSTAINING MEMBERS

1. Sustaining Members are individuals, organizations, institutions or agencies who manufacture or distribute instruments, equipment or supplies, or who operate or provides services in the fields of photogrammetry, remote sensing and/or GIS, or who are engaged in research and/or education, and who contribute to the financial support of the Society.
2. Sustaining Members shall pay an annual fee according to the invoice from the Treasurer at the beginning of each calendar year. There shall be four categories as follows:

Category

A	more than 750 employees	3,450 Swiss Francs
B	101 - 750 employees	1,725 Swiss Francs
C	26 - 100 employees	920 Swiss Francs
D	1 - 25 employees	460 Swiss Francs
E	Educational Institutes	250 Swiss Francs

Sustaining Members are encouraged to increase their contribution but such additional contributions will not change the category of membership. A Sustaining Member who is more than two years in arrears shall be dropped from the rolls.
3. Applicants for status as Sustaining Members shall file with the Secretary General a written statement (less than 1000 words) describing their photogrammetric and/or remote sensing activities. Applicants shall commit to membership for a minimum of four years. Application shall be approved unless two or more members of Council submit objections in writing. Any such objections shall be forwarded to the applicant who shall have right of rebuttal.
4. The Secretary General will maintain a list of current Sustaining Members and the description of their activities. This information will be printed in appropriate Society publications. A Sustaining Member may revise the description of activities whenever it may be necessary.
5. At an appropriate time near the end of each Congress, the current Congress Director will schedule a meeting of the Sustaining Members to review the exhibit and other congress activities. The current Congress Director or his representative shall preside at this meeting. The incoming Congress Director will be an observer.
6. Approximately two years before each Congress, the Secretary General will schedule and invite to a meeting of the Sustaining Members at an appropriate time and place. A preliminary agenda for the meeting will be attached to the invitation. A member of the ISPRS Council, preferably the Congress Director, shall preside at this meeting. Not less than 8 weeks before this meeting the Congress Director will distribute to the Sustaining Members a written description of the plans for the next Congress.
7. Not less than 4 weeks before the inter-Congress scheduled Meeting, Sustaining Members shall inform the Secretary General in writing of any items they wish included on the agenda and the name of their delegate. Voting by proxy shall be allowed provided it is designated in writing to the Secretary General in advance of the meeting. For the Congress meeting, designation of delegates and proxies may be made during the Congress.
8. At any meeting of the Sustaining Members, the number of votes will be determined by membership category as follows:

Category	A	B	C	D	E
Votes	8	4	2	1	1

In matters related to the Congress, deliberations of Sustaining Members shall be advisory only; the Congress Director has final authority for all Congress plans.
9. Sustaining Members will be provided with a suitable Certificate and shall have the right to indicate in their business and professional publications that they are Sustaining Members of ISPRS.
10. Amendments to these Terms of Reference which do not result in conflict with articles in the Statutes and Bylaws may be adopted by majority vote at any meeting of the Sustaining Members.
11. The Council recommends that the Congress Director provide exhibition space at the Congress Sustaining Members at a discount rate.