

AN AUTOMATIC SEARCHING AND PUBLISHING SYSTEM ON INTERNET FOR GEO-SPATIAL INFORMATION

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ABSTRACT:

The author has been appointed Editor (<http://www.isprs.org/structure/editors.html>) of International Society for Photogrammetry and Remote Sensing (ISPRS) for 2000-2004. The author is responsible for compiling the Events Calendar (<http://www.isprs.org/calendar.html>), which is published in ISPRS Highlights bulletin and placed on the ISPRS home page (<http://www.isprs.org>). The author has been chairperson of WG VI/4 for 1996-2000, Internet resource for ISPRS, and in that capacity has guided the ISPRS Internet and Web Pages. This Events Calendar was compiled manually by previous editor and contained some incorrect information, or missed some important events. The author has established an automatic system to search and to publish the information of geo-spatial information, photogrammetry, remote sensing, surveying, geomatics, and GIS on the Internet. The Calendar contains a list of all ISPRS and Sister Societies (FIG, ICA, IAG, IHO, IGU, etc.) sponsored and co-sponsored workshops, symposia, tutorials and other meetings. It also contains details of all international and national events on topics related to the activities of geo-spatial information, photogrammetry, remote sensing, geomatics, surveying, mapping, machine vision, image processing and similar areas. The system is using the state-of-the-art technique of searching engine and programming tools for web pages and Internet server. Following software, operating system, programming languages, and programming tools have been used: Microsoft Windows 2000 Server, Microsoft SQL Server 2000, Microsoft .NET Web N-tiers, IIS, Microsoft Office XP, Dynamic HTML, XML/SOAP, JAVA Script, VB Script, CGI, ASP, PHP, Delphi, etc. The purpose for this system is to allow Sister Societies to identify open dates or events, which they may link up with or avoid, conflicting with. This avoidance of conflicting with other events externally and definitely internally is a major responsibility of ISPRS. We publish the calendar to encourage other Sister Societies to do likewise. The system searches for relevant events and identifies events, which will be of interest to ISPRS and to other Sister Societies, automatically. It is important to cover events, which are on the interdisciplinary boundaries of ISPRS so that all Commissions and WGs are aware of who and how they can interface with related Sister Societies. The new events and updated events of geo-spatial Information will be compiled immediately, then up-loaded and published on the Internet to keep it up-to-date. The system can be easily modified as a tool to search and to generate geo-spatial information for environmental and resource management on Internet by changing searching keywords, and therefore will deal with collaborative capacity building, education and training, international co-operation and technology transfer in geomatics for environmental and resource management.

1. FOREWORD

The author has been appointed as one of the Editors of International Society for Photogrammetry and Remote Sensing (ISPRS) (<http://www.isprs.org/structure/editors.html>) for 2000-2004. The author will be responsible for compiling the Events Calendar (<http://www.isprs.org/calendar.html>) (Chen, 2001b), which will be published in ISPRS Highlights and placed on the ISPRS home page (<http://www.isprs.org>). The author has been chairperson of WG VI/4 for 1996-2000 (Chen, 2000), Internet resource for ISPRS, and in that capacity has guided the ISPRS Internet and Web Pages (Chen, 1998, 1999a, 1999b, 1999c, 1999d). This Events Calendar was compiled manually by previous editor and contained some incorrect information, or missed some important events. The author has established an automatic system to search and to publish the information of spatial information, photogrammetry, remote sensing, and GIS on the Internet as well as on the ISPRS Highlights (Chen, 2001a).

2. APPOINTMENT

The author has been appointed Event Calendar Editor of ISPRS for 2000-2004. The author will be responsible for compiling the Events Calendar, which will be published in ISPRS

Highlights and placed on the ISPRS home page. The author teaches photogrammetry in China Institute of Technology, Taipei, Taiwan and has been Chairperson of WG VI/4, Internet resource for ISPRS, 1996-2000, and in that capacity has drafted the Guidelines for the ISPRS Web Pages.

3. TERMS OF REFERENCE

The ISPRS Events Calendar is published in the quarterly ISPRS bulletin, ISPRS Highlights, and regularly updated on the ISPRS Home Page. The Calendar contains a list of all ISPRS and Sister Societies (FIG, ICA, IAG, IHO, IGU, etc.) sponsored and co-sponsored workshops, symposia, tutorials, conferences, congresses, and other meetings. It also contains details of all international and national events on topics related to the activities of spatial information, photogrammetry, remote sensing, geomatics, surveying, mapping, machine vision, image processing and similar areas.

The Editor – ISPRS Events Calendar will be responsible for updating the entries in the Calendar on a regular basis. The tasks are:

- Provision to the ISPRS Highlights publishers in an agreed format, of an updated Calendar for each quarterly edition of ISPRS Highlights, approximately five weeks before the publication dates of 1 March, 1 June, 1 September and 1 December. The commencing date of the entries in the Calendar will be one month after the publication dates.
- Provision to the ISPRS Web page on an up-to-date basis in an agreed format, updated versions of the Calendar for the ISPRS Home Page.
- Collection of details from ISPRS officers of all ISPRS sponsored and co-sponsored events, including theme of the event, dates, location, contact persons and addresses for publication in the Calendar.
- Collection, from appropriate sources, of details of events on topics related to the areas of activity of ISPRS, including theme of the event, dates, location, contact persons and addresses for publication in the Calendar.
- Maintenance of contact with the ISPRS Secretary General on the status of the events calendar on a monthly basis.

4. PROCEDURES

4.1 Versions

For efficiency, different headings, and to avoid errors in signifying changes, two versions will be created - one for Highlights and another for the Web Page. The Web Page version is maintained constantly as new entries are found by this searching system automatically daily. The Highlights version is created and modified from the final Web Page version created for the months of March, June, September and December.

4.2 Home Page version

This automatic system will make the following procedures daily:

- Cut out obsolete entries.
- Using previous Web Page version, do three "find" and "replace" operations on: "NEW", "UPDATED", bold. The bold headings and "Confirmed by Council" or "Cosponsorship" notations are to be retained in bold. At end of this operation there will be a clean version.
- Search for new entries and updates on Internet. Make all new entries in bold and signify as "NEW". Make updates and signify as "UPDATED", with changed data only in bold. Add ISPRS logo to all ISPRS sponsored events as informed from Secretary General. Secretary General will also inform whether the event has been approved "Confirmed by Council" or is "pending Council approval" or if the event has "Cosponsorship" by ISPRS.
- Publish updated version to Web page.

4.3 Highlights Version

This automatic system will make the following procedures quarterly:

- Change header information to show Web Page site.
- Using current Web Page version, cut out obsolete entries from the previous quarter and current month.

- Send by e-mail to ISPRS Highlights and Council one month before publication month.

4.4 Contents

This automatic system will do the following procedures generally:

- Receive inputs from outside sources. Seek events from trade publication calendars and from Internet searches of relevant organizations (see links below) by this automatic searching system.
- Keep all entries to those having international interest (e.g. international in event title) or from those of ISPRS member organizations (Ordinary, Associate, Regional, Sustaining).
- Do not list user groups unless the organization is an ISPRS Sustaining Member, e.g.. Intergraph, ESRI, ERIM, etc. That helps promote organizations to become ISPRS Sustaining Members.
- Except for ISPRS events, do not list events, which do not have city, country and a phone or e-mail contact address.
- Except for ISPRS events and those of the JBSIS (Joint Board of Sister Societies-ICA, IAG, IHO, FIG, IGU), do not list events, which have pending dates.
- Details- a) Check locations column to verify that the country is in all capital letters; the city is in lower case. b) Check order of dates to ensure earliest dates are first. c) Check that all ISPRS events have a "Confirmed by Council" or "Confirmation pending" notation in the leftmost column. d) Check these items in the event field: make sure ISPRS is before WG; make sure WG is before all WGs in listing; make sure ISPRS WGs are Roman for Commission and Arabic for WG number, e.g.. IV/3; use IC WG for intercommission WGs; put quotation titles on a separate line if space permits; put hyphen before each event if multiple events are in same listing; always seek ways to reduce number of lines; verify www addresses when time permits.
- There should always be in the left column for all ISPRS events either "Confirmed by Council" or "approval pending" or "Cosponsorship Confirmed by Council". The "approval pending" gives ISPRS Council and Technical Commission Presidents an indication of what is being proposed and will help them coordinate events and avoid conflicts.

4.5 General

The purpose for ISPRS Events Calendar is to allow WGs and Commissions to identify open dates or events, which they may link up with or avoid conflicting with. This avoidance of conflicting with other events externally and definitely internally is a major responsibility of ISPRS. We publish the calendar to encourage others to do likewise.

The margins of the table are set so that the calendar may be published in Highlights without alteration.

Search for relevant events. Identify events, which will be of interest to ISPRS Members and to Members of the JBSIS. It is important to cover events, which are on the interdisciplinary boundaries of ISPRS so that all Commissions and WGs are aware of who and how they can interface with related organizations.

4.6 Searching Technique

The system is using the newest technique of searching engine and programming tools for web pages and Internet server (Lin, 1997). Following software, operating system, programming languages, and programming tools have been used: Microsoft Windows 2000 Server, Microsoft SQL Server 2000, Microsoft .NET Web N-tiers, IIS, Microsoft Office XP, Dynamic HTML, XML/SOAP, JAVA Script, VB Script, CGI, ASP, PHP, Delphi, etc. The flow chart of this system is shown in Figure 1.

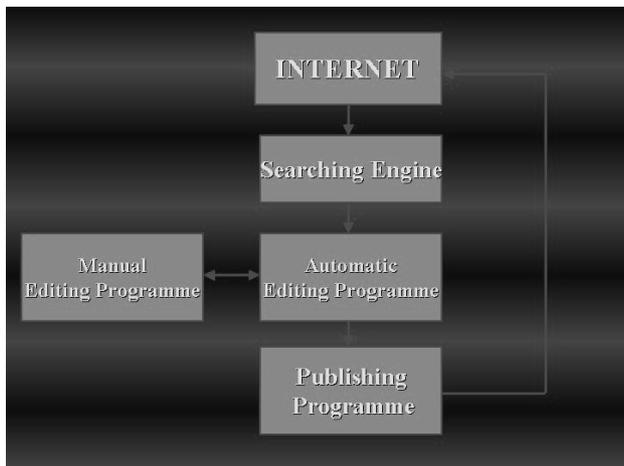


Figure 1. Flow chart of the system

The system searches for relevant events and identifies events, which will be of interest to ISPRS and to other Sister Societies, automatically. It is important to cover events, which are on the interdisciplinary boundaries of ISPRS so that all Commissions and WGs are aware of who and how they can interface with related Sister Societies. The new events and updated events of Spatial Information will be compiled immediately, then uploaded and published on the Internet to keep it up-to-date. The following are some examples of sources:

- <http://www.astronautical.org/conferences/>
- <http://asprs.org/meetings.html>
- <http://www.ceos.org/>
- <http://www.ddl.org/figtree/events/>
- <http://iris.usc.edu/Information/Iris-Conferences.html>
- <http://cospar.itodys.jussieu.fr/Meetings/meetings.htm>
- <http://www.eumetsat.de/en/>
- <http://www.earsel.org/>
- http://www-earsel.cma.fr/earsel_events/
- <http://www.cehu.com.ar/Futuro.htm>
- <http://gcmd.nasa.gov/Confcal/calendar.html>
- <http://www.wmo.ch/web/gcos/meeting.html#y98>
- <http://www.gpsworld.com/calendar.htm>
- <http://www.gfy.ku.dk/~iag/symposia.html>
- <http://www.iafastro.com/>
- <http://www.iasted.com/>
- <http://www.ico-optics.org/contacts.html>
- <http://www.icsu.org/Information/calendar.html>
- <http://www.w3.org/>
- <http://ewh.ieee.org/soc/grss/igarss.html>
- <http://www.ieee.org/conferences/tag/sct1grs.html>
- <http://iufro.boku.ac.at/iufro/meetings/meet.htm>
- <http://www.ceo.org/eventsop.html>
- <http://www.ioccg.org/news.html>
- <http://www.opengis.org/events.htm>
- <http://www.permcom.apgis.gov.au/>

- <http://www.permcom.apgis.gov.au/related.htm>
- <http://www.oosa.unvienna.org/SAP/sched2000.htm>
- <http://www.spie.org/meetings/calendar/index.cfm?fuseaction=Asia-Pacific>
- <http://www.spie.org/meetings/calendar/index.cfm?fuseaction=TheAmericas>
- <http://www.spie.org/meetings/calendar/index.cfm?fuseaction=Europe>
- <http://spie.org/web/meetings/programs/ae00/invite.html>
- <http://www.ioccg.org/workshop.html>

5. ANNOUNCEMENT

TO: ALL ISPRS ORDINARY MEMBERS, ASSOCIATE MEMBERS, REGIONAL MEMBERS, SUSTAINING MEMBERS, TECHNICAL COMMISSION PRESIDENTS, & WORKING GROUP CHAIRPERSONS; ALL SISTER SOCIETIES

ISPRS EVENTS CALENDAR EDITOR GREATLY APPRECIATES YOUR RESPONSES TO THIS ANNOUNCEMENT

The ISPRS Events Calendar is published in the quarterly ISPRS bulletin, ISPRS Highlights, and regularly updated on the ISPRS Home Page. The Calendar contains a list of all ISPRS and Sister Societies (FIG, ICA, IAG, IHO, IGU, etc.) sponsored and co-sponsored workshops, symposia, tutorials, conferences, congresses, and other meetings. It also contains details of all international and national conferences on topics related to the activities of ISPRS, including those in photogrammetry, remote sensing, spatial information systems, geomatics, surveying, mapping, machine vision, image processing and similar areas.

The purpose for ISPRS is to allow WGs and Commissions to identify open dates or events which they may link up with or avoid conflicting with. This avoidance of conflicting with other events externally and definitely internally is a major responsibility of ISPRS. We publish the calendar to encourage others to do likewise. It is important that we cover events which are on the interdisciplinary boundaries of ISPRS so that our Commissions and WGs are aware of who and how they can interface with related organizations.

The ISPRS Events Calendar Editor respectfully asks all TC Presidents, WG Chairpersons, Members, and sister societies to submit the details of their workshops, symposia, tutorials, conferences, congresses, and meetings:

- 1) Date (maybe open or pending, see above)
- 2) Event
- 3) Web site address
- 4) City, Country
- 5) Contact person, TEL, FAX, & E-mail

Please email or fax the details to:

Professor Tuan-chih Chen (ISPRS Events Calendar Editor)
 13-1, LANE 12, YEN-PING ROAD,
 TAOYUAN 330, TAIWAN
 TEL.+886-3-362-5089 or +886-918-953-197
 FAX: +886-2-2653-9148
 E-mail: profchen@ms13.hinet.net
<http://www.isprs.org/calendar.html>

Thank you very much for your support and your assistance.

6. EDUCATIONAL RESOURCES OF ISPRS

Another example of the application that may use this system is the ISPRS educational page (<http://www.isprs.org/links/tutorial.html>). It tries to collect the wide gamma of educational material and software for Photogrammetry, Remote Sensing and GIS available on the Internet. It is not a complete list yet, but some pointers are listed about:

- *Free software*, in particular from CATCON, the Computer Assisted Teaching contest organised by WG VI/2 (<http://www.commission6.isprs.org/wg2/>). The main objective of the CATCON contest is to promote the development and dissemination of multimedia products, educational information and simulation packages for computer assisted teaching. In general, material submitted by contestants should be non-commercial and provided free of charge for not-for-profit use.
- *Education, training, research and fellowship opportunities in Remote Sensing, GIS and its applications*. It is an educational Directory (<http://www.ltid.inpe.br/dsr/tania/Rsdir/>) that has been developed in the period 1996-2000 as a task of ISPRS TCVI/WG1 on education and as part of the ISPRS Educational Opportunities Program. It is a first attempt to providing a comprehensive directory of education and training services in the remote sensing and spatial information sciences. The Directory was developed from an original document prepared some years ago by the UN Office of Outer Space Affairs in Vienna. In this directory it is possible to get information from all members states that are involved in Space Science. The information contained in this directory for each institution includes its areas of specialisation, the educational and research programmes offered, the facilities available, the prerequisite qualifications, financial information, fellowship opportunities and opportunities for international cooperation. This Directory is necessarily incomplete because of the difficulty in obtaining accurate and timely information about all education institutions around the world in a range of languages. Therefore education institutions are encouraged to provide their new or updated details of education and training programs in the remote sensing and spatial information sciences.
- *Tutorials* in Photogrammetry, Remote Sensing and GIS
- *News* about satellite missions and launches
- *Glossaries and Acronyms* used in Remote Sensing, GIS, Radar and Cartography
- *Journals* of Photogrammetry, Geodesy and Remote Sensing
- *Presentation and Proceeding* of ISPRS Workshops, Symposium or Congresses

Working Group VI/1 (<http://www.commission6.isprs.org/wg1/>) provides a bigger database of education-related links, including training opportunities, online publications and journals, continuing education courses, educational institutions, free software, missions and instruments information.

7. CONCLUSION

The author has established an automatic system to search and to publish the information of geo-spatial information, photogrammetry, remote sensing, surveying, geomatics, and GIS on the Internet. Appendix A shows an example of the result from this system.

This system can be easily modified as a tool to search and to generate geo-spatial information for environmental and resource management on Internet by changing searching keywords, and therefore will deal with collaborative capacity building, education and training, international co-operation and technology transfer in geomatics for environmental and resource management. Appendix B shows an example generated by the author for the ISPRS Ordinary Member Cameroon (http://www.geocities.com/isprs_cameroon).

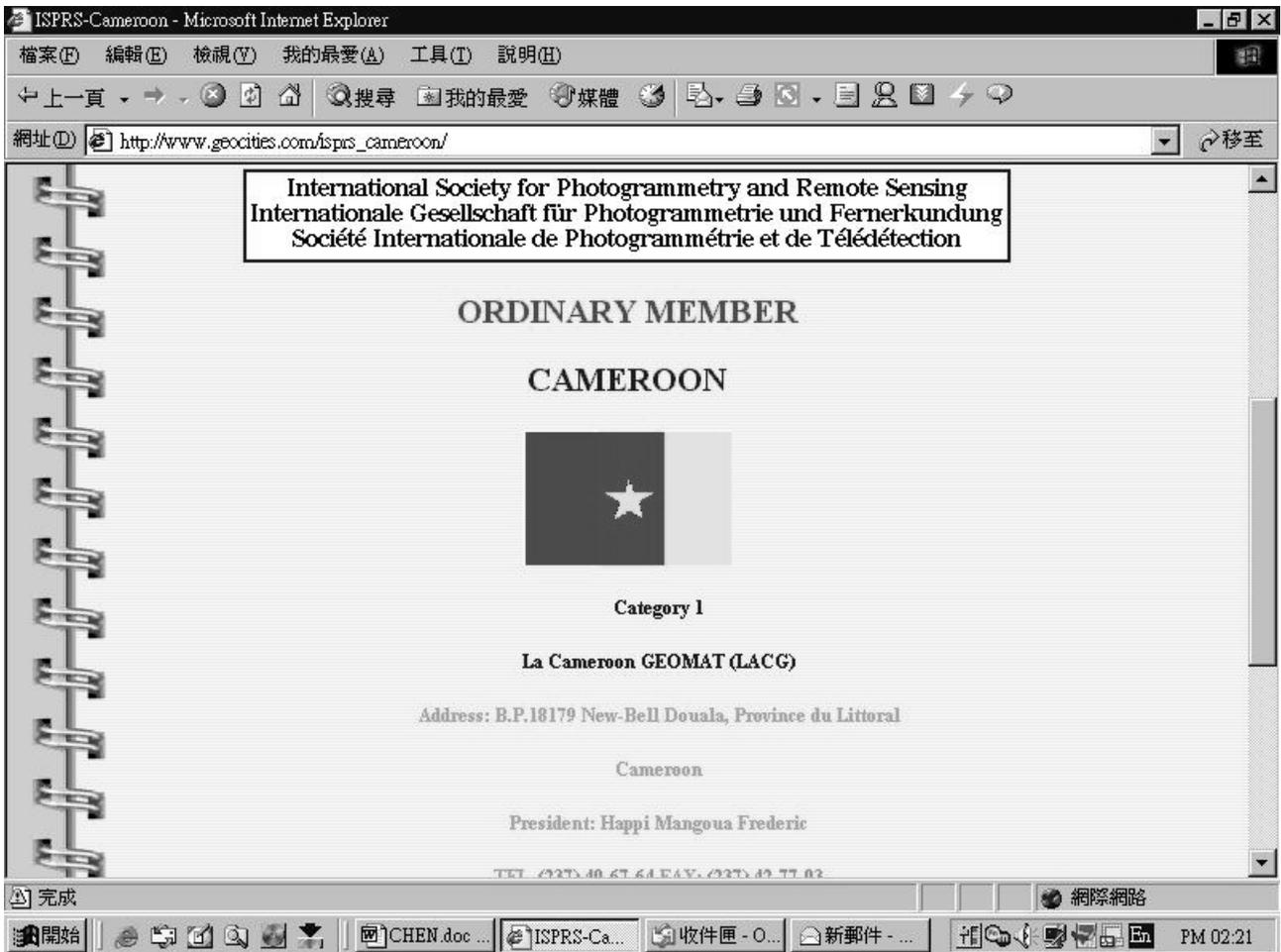
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APPENDICES

Appendix A shows an example generated by the author for the ISPRS Ordinary Member Cameroon (http://www.geocities.com/isprs_cameroon). Appendix B is a part of the result of the Automatic Searching and Publishing System for Spatial Information.

APPENDIX A. AN EXAMPLE FOR CAMEROON



APPENDIX B. AN EXAMPLE OF THE RESULT FROM THIS SYSTEM

ISPRS EVENTS CALENDAR

21 January 2002 Version

Note: ISPRS Sponsored Events are logo Highlighted

New entries and changes are bold highlighted

For up-to-date updates - visit the ISPRS Web Page www.isprs.org/calendar.html

Send Updates to: Prof. Tuan-chih CHEN

Fax: +886-2-2653-9148

E-mail: profchen@ms13.hinet.net

2002

P = Telephone F = Facsimile E = E-mail tbr = to be resolved WG = Working Group

DATE	EVENT	SITE	CONTACT
26 Feb- 1 Mar 2002 <i>Confirmed by Council</i>	International Workshop on Visualization and Animation of Landscape  WG V/6 www.photogrammetry.ethz.ch/news/events/Call_for_Papers-Kunming2002.html	Kunming, CHINA	Prof.Dr.Armin Gruen (ISPRS WG V/6 Chairman) P: +41-1-633-3038/F: +41-1-633-1101 E: agruen@geod.baug.ethz.ch Prof.Dr.Shunji Murai (ISPRS WG V/6 Co-Chairman) P:+81-3-5452-6406/F:-5452-6408 E: murai@rs.iis.u-tokyo.ac.jp Dr.Kiyoshi Honda (AIT) P: +66-2-524-6149/F: +66-2-524-6147 E: kunming@ait.ac.th
9-14 Mar 2002 "NEW"	EuroConference on Methods to Define Geovisualisation Contents for Users Needs "GEOVISUALISATION" http://www.esf.org/euresco/02/lc02179	Albufeira, PORTUGAL	Dr. J. Hendekovic P: +33 388 76 7135 F: +33 388 36 6987 E: euresco@esf.org
18-22.Mar 2002 "NEW"	International Congress of Geodesy and Cartography http://asovig.nstemp.org http://asovig.org	Caracas, VENEZUELA	Melvin Hoyer E: mhoyer@luz.vc
21-22 Mar 2002 "NEW"	OEEPE/ISPRS Workshop on Spatial Data Quality Management http://www.hgk.mil.tr/oeepe/oeepe.htm	Istanbul, Turkey	Prof. Dr. M. Orhan ALTAN P: +90-212-285 38 10 F: +90-212-285 65 87 Email : oaltan@itu.edu.tr
25-28 Mar 2002 "UPDATED" <i>Confirmed by Council</i>	WG VI/1 Workshop in co-operation with WG VI/3 "Developments and Technology Transfer in Geomatics for Environmental and Resource Management"  http://www.commission6.isprs.org/daressalaam/	Dar es Salaam, TANZANIA	Jana Niederoest P:+41-1-63 36 808/F:+41-1-63 31 101 E: jana@geod.baug.ethz.ch Emmanuel Baltsavias(Chair WG VI/1) E: manos@geod.baug.ethz.ch Ulrike K. Rivett (Chair WG VI/3) P:+27-21-6503574/F:+27-21-6503572 E: ulrike@eng.uct.ac.za
1-5 April 2002 "NEW"	3rd UN/USA Workshop on the Use and Applications of Global Satellite Navigation Systems http://www.oosa.unvienna.org/SAP/act2002/chile_info_e.html	Santiago, CHILE	Ms. Mireille Gerard P/F: +1-202-537-0538 E: mireilleg@starpower.net
8-12 Apr 2002 <i>Confirmed by Council</i>	29th International Symposium on Remote Sensing "Information for Sustainability and Development"  http://www.symposia.org/	Buenos Aires, ARGENTINA	Ana Medico P: +54-11-4394-7120 F: +54-11-4394-2271 E: 29isrse@conae.gov.ar
8-12 Apr 2002 <i>Confirmed by Council</i>	 Council meeting	Buenos Aires, ARGENTINA	Ian Dowman (ISPRS Secretary General) E: idowman@ge.ucl.ac.uk
18-19 Apr 2002	The First International Conference on the State of Remote Sensing Law http://www.olemis.edu/depts/nrsslc (under construction)	Oxford, Mississippi, USA	Ms. Edie King P: +1-662-915-6851 E: eking@olemiss.edu
19-26 Apr 2002	XII FIG Congress & XV General Assembly http://www.ddl.org/figtree/events/washington-2002.htm	Washington, DC USA	Markku Villikka P: +45-3886-1081/F: +45-3886-0252 E: fig@fig.net Mary Clawson/E: Mgclaw@aol.com
25-27 Apr 2002	The First International Workshop on Future Intelligent Earth Observing Satellites http://www.fieos.gmu.edu/	Washington DC, USA	Dr. Guoqing Zhou P:+1-757-683-3619/F:-757-683-5655 E: gzhou@odu.edu
25-27 Apr 2002	5th AGILE Conference on Geographic Information Science "AGILE 2002: TOWARD THE EUROPEAN RESEARCH AREA" http://www.agile-online.org/ http://agile2002.uib.es	Palma de Mallorca, SPAIN	Michael Gould P:+34-964-72 83 17 F: +34-964-72 84 35 E: gould@lsi.uji.es
27 May - 2 June 2002	European Conference on Computer Vision 2002 http://www.itu.dk/events/eccv02/	Copenhagen, DENMARK	Secretariat E: ECCV@congress-consult.com

