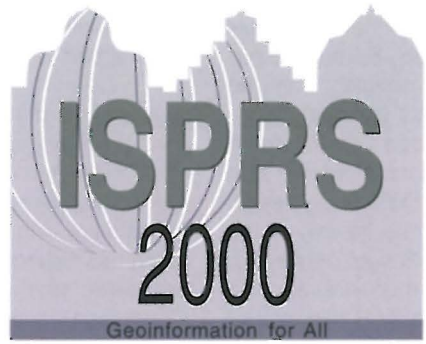


Closing Ceremony

The New ISPRS Logo

Congress Director's Report at Closing Session, by Klaas Jan Beek

Address of Outgoing President, by Lawrence W. Fritz, President ISPRS

Presentation of Chain of Office, by Lawrence W. Fritz, ISPRS President

Address of Incoming President, by John Trinder

John Trinder, ISPRS President Elect, Congratulates Present Congress Director

Address of Incoming ISPRS Congress Director, M. Ohran Altan

Address of Outgoing Congress Director, Klaas Jan Beek

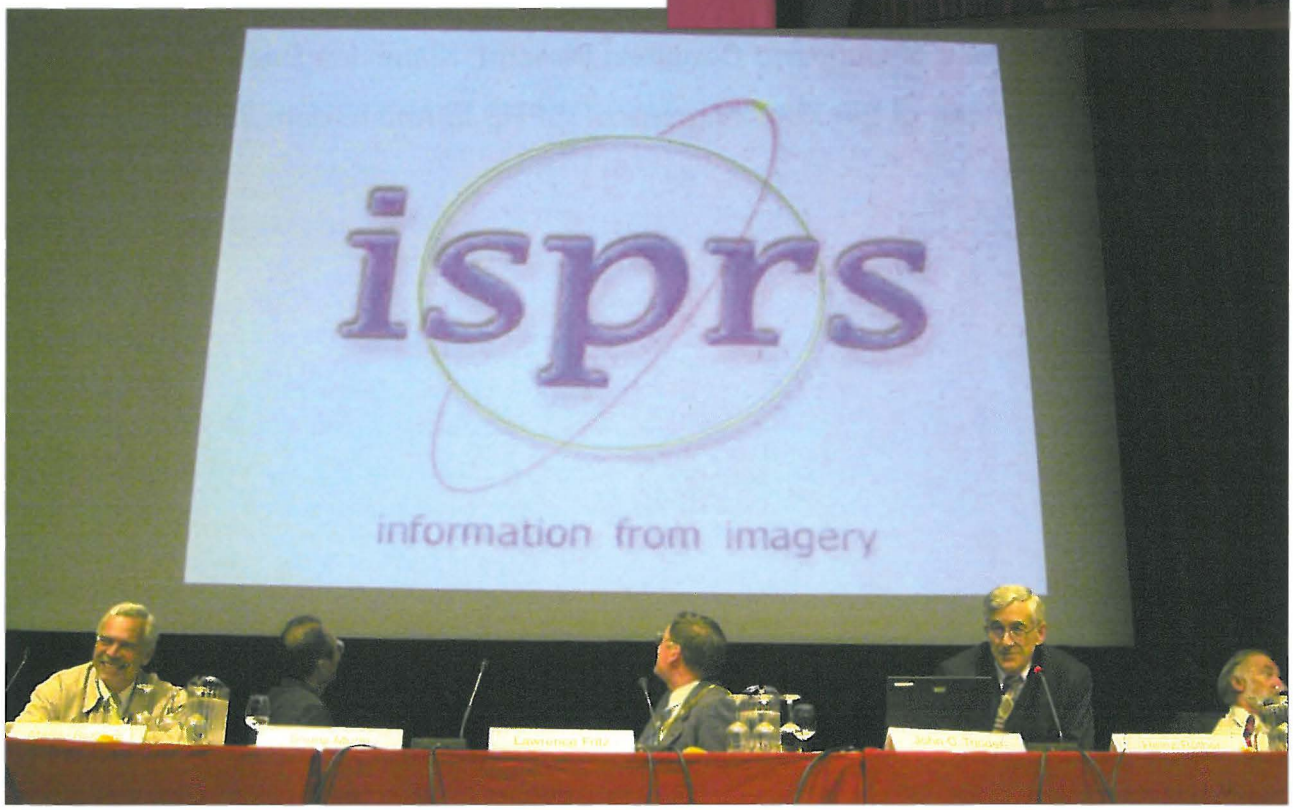
Resolutions of the XIX Congress of ISPRS in Amsterdam 2000

The New ISPRS Logo

The ISPRS Strategic Plan and its goal for enhancing wider public recognition of the Photogrammetry, Remote Sensing and Spatial Information Sciences, coupled with the fast pace of technological advancements in communications, especially via the Internet, convinced Council that it would be appropriate for ISPRS to enhance its profile as it enters the 21st Century. Therefore, an ISPRS logo design contest was initiated "...to better illustrate its role in the global community..." A prize of $500 US was offered for the winning design. Entries were judged on relevance to ISPRS heritage and mission, plus originality, 3-dimensionality, colour and b/w inter-changeability, attractiveness, tastefulness and international relevance. Requirements for entrants were for logo designs to incorporate the letters "ISPRS" and the new descriptive motto for the Society, "Information from Imagery." Entrants were encouraged to make their design suitable for display in colour and yet clearly recognisable when copied and displayed in black and white, and to be easily displayed on the Internet and electronic documents. Ingenuity in providing dynamic characteristics for Internet display was welcome but not essential.

The logo contest was held in early 2000 and 43 outstanding entries were submitted for consideration. The judging for the winning entry was held at the April joint meeting of Council and Commission Presidents. The winning entrant is Mike Kierstead, a graduate of the Centre of Geographic Sciences at Nova Scotia Community College in Canada. As the prize winner, he surrendered all rights to the logo, which is owned exclusively by the ISPRS. This logo is an integral part of the Society's new look for the future.

During the closing ceremonies of the Congress an enhanced dynamic version of the new logo, designed by Prof. Tuan-chih Chen, was displayed on the screen. Congress Director Klaas Jan Beek then had the new ISPRS official flag, with the new logo, unfurled on the stage. With Congress approval indicated by applause, the flag was presented to the Society and handed to the incoming Congress Director, Orhan Altan.



Congress Director's Report at Closing Session

by Klaas Jan Beek

This XIX Congress had a duration of seven days with an additional three days for Tutorials and Workshops preceding the Congress. It was shorter than previous ISPRS Congresses. Another difference compared to earlier Congresses was that the Technical Sessions were based on themes, with much emphasis on broad inter-commission sessions.

The Technical programme was established after the Cie IV Symposium in Wildbad, Germany (Sept. 1998). At the end of 1999, the 1,400 abstracts as received were evaluated and matched with the proposed thematic sessions in consultation with the TCP's and convenors of these sessions. About 10% of the sessions were re-adjusted after receipt of full papers after 1st May 2000, with some communication difficulty between Local Organising Committee (LOC) and TCPs. The LOC appreciates the many positive reactions to the Congress Theme "Geoinformation for All" and its introduction during the Opening Plenary Sessions and exposure during the technical/special sessions.
We hope that, as a result, the 'message' from the user community will have a lasting impact on the activities of the ISPRS, in concurrence with the Strategic Plan presented by President L.W. Fritz.
The Exhibition was a great success! The exhibitors appreciated the compact, one-week programme. The exhibitors emphasised the high level of quality of visitors and excellent interaction. Many new products, giving better insight into technological possibilities in the digital era were introduced. The exhibition also showed a clear tendancy towards integration in the production chain from imaging to information. The Exhibitor Showcases were also well appreciated, both by the exhibitors by the public.

The statistics of the XIX Congress are quite comparable to the XVIII Congress (Vienna). Some statistics of the Amsterdam Congress are given here:

Full Fee Registration	1,290
Reduced Fee Registration	260
Accompanying Persons	170
Day Tickets	400
Archives - Vol. A	150
Archives - Vol. B (hardcopy)	140
Exhibition	1300
Technical Tours	410
Tutorials	130
Workshops	25

In Table 1 you may find information about the number of sessions and their attendance per Commission. A grand total of 109 sessions were realised. Not only the Technical and Intercommission sessions, but also the poster sessions were well attended and appreciated. An average of 58 persons were present during the sessions, which is very motivating.

Cie	Number of Sessions	Total Number of Persons	Average Persons per Session
I	8	589	74
II	14	1,207	86
III	17	1,494	88
IV	20	1,235	62
V	18	731	41
VI	6	305	51
VII	26	762	29
Total	**109**	**6,323**	**58**

We have provided the Abstract Book free to all participants. New was the Congress CD-ROM: it was given to all full participants (1,570 distributed). A supplementary CD-ROM will be distributed after the Congress to all full participants. This CD-ROM will include corrected papers, late papers and a final list of participants. The Congress Web Site (www.itc.nl/~isprs) will include all pictures.

The LOC has taken the 'Geoinformation for All' slogan into practise. Thanks to the generous support of our sponsors, the Congress financially supported the participation of 83 persons from 35 countries (developing countries, Central and Eastern Europe).
Ladies and gentlemen, we look back upon a different, compact and focused Congress. Thanks for your active and enthusiastic participation.

Address of Outgoing President

by Lawrence W. Fritz, President ISPRS

Distinguished Participants in the XIX ISPRS Congress, Ladies and Gentlemen:

Four years ago, when I accepted the responsibility to serve as President and this gold chain of office was place on my shoulders, I pledged to conscientiously perform the duties to the best of my ability. Wearing this heavy chain of office reminds me of the heavy responsibilities that come with the office. As ISPRS's 18th President, I have found that the human interactions and public relations of the office are the true essence of the position. The Society has a great tradition and heritage, with ambitious goals which have been epitomized by the great personalities such as Dolezal, Schermerhorn and Doyle, and more recently by my mentors, Konecny, Torlegard and Murai. This history makes one humble to follow in their footsteps and proud to help continue the advancement of the goals of the Society.

Today, just as four years ago, I am truly honored to have had the opportunity to serve our Society. Having served previously on Council as Congress Director and as Secretary General, I have recognized that the position of President is more than a position of honor. It comes with responsibilities to represent the Society before national and international organizations, to communicate and interact with its Members and to manage the Society, together with the Council and Commission Presidents. To serve ISPRS honorably requires major dedication to perform the duties of the position and an ability to appreciate the needs and diversity of the Society's Membership and its officials. As your President, I have done my utmost to fulfill these responsibilities.

As the first ISPRS President to be elected from the private sector, one of my perspectives has been to organize the administration and operation of the Society on a more solid footing. This is in recognition of the scientific, technological, economic and social dynamics that are changing the environment of, and the bodies with which, ISPRS interacts and operates. Our Society has grown ever larger and to stay viable and relevant, we must have the ability to change with the times. ISPRS now represents 174 Member bodies, of which 124 are societies and organizations representing nations and regions. We are the international organization and voice of the Photogrammetric, Remote Sensing and Spatial Information Sciences. It is imperative that we strive to achieve our mission and goals within a collegial and democratic environment, yet with firmness of purpose and with the ability to meet them. The General Assembly's adoption here of the Society's Strategic Plan for the 21st Century has set the framework and initiated many of the changes needed to accomplish this. This term, ISPRS has forged significant relationships with all sectors, as is shown by our increased involvement with ICSU, CEOS, UN/OOSA, and industry. This is very rewarding to me and my fellow officers, and for all of our Members.

Our truly international Council has strongly influenced the direction of the Society, with expectations of bringing greater value to the disciplines and professions in which we are all engaged. For me, it has been a wonderful experience to work with a Council team which has been bold, eager and not fearful of challenge, yet sufficiently tempered with values of meaningful tradition. We have accomplished a lot because we all truly believe in the value of ISPRS. Our hope is that our successors will maintain the momentum and continue to strive to enhance the many benefits our Society offers to its Members. An international Society brings unity and synergy to support the greater good for all humankind. ISPRS is an excellent international society.

As we near the end of this Congress, let me express my sincere thanks to my Council colleagues for their diligence and cooperation. The ISPRS Bylaws require that a minimum of three Council members step down from office in order to keep Society leadership vibrant and yet ensure continuity with experience. This term, four of my dear colleagues will leave Council, three after serving for only four years. Departing is our 1st Vice President and very deserving new ISPRS Honorary Member, Shunji Murai. Everyone will attest that Shunji, during his sixteen years on Council, has served our Society with hard work, efficiency, honor and dignity. His Asian perspective has strongly influenced the Society to address the needs of the developing world. We will clearly miss his honest opinions, his wisdom and wit. Shunji, I thank you for sharing your friendship and appreciate the many hardships that you and your caring wife, Taeko, have endured for serving the Society so well.

Klaas Jan Beek has served the Society well as Congress Director. We will miss his ever positive and forward-looking perspectives for keeping the Society relevant. This has been a very successful Congress and we thank you Klaas Jan for your excellent hospitality. Our outgoing Treasurer, Heinz Ruether, has worked very hard in keeping the Society's finances in order and in keeping our African colleagues involved. Heinz, we are pleased and fortunate that you will continue to work with Council as the new Chair of the Financial Commission. I am certain that you will continue to keep us on the positive side of the ledger. And it has been a privilege to have Marcio Barbosa, our very capable 2nd Vice President, bring his ideas and Latin American perspectives to support our team. Marcio, I thank you for your continued support of the Society.

Secretary General John Trinder has worked hard and conscientiously in communicating with our Members and in maintaining the Headquarters of the Society. He has traveled extensively to represent the Society very capably with other organizations and in the South Asian Pacific region. The Society will greatly benefit from his twelve years of experience on Council. John, I am most happy that the General Assembly has elected you to be

our next President. I look forward to a continuation of our very positive and cordial relationship.

To recognize the excellent service that you all have provided the Society during these past four years, I will present you each with an ISPRS plaque of appreciation and some small gifts. It has been a great four years, to work with what are now lifelong friends. They all know that I have been a constant driver, pushing Council to achieve and address goals, some of which have been extremely challenging, and they have responded willingly. Fortunately, all Council is motivated and has strong altruistic feelings for the Society, and for the needs of the developing world. We truly believe in the value of ISPRS and have forged a path down which we hope others will venture often to further enhance the benefits for the Members we serve.

I applaud our Commission Presidents and all of the 45 Working Groups for their cooperation and the excellent scientific activities they have conducted during the past four years. The quality of the Congress technical program here is a testimony to their great work. Similarly, I thank our three Editors, Manos, Andre and Lucas for the outstanding communications they have produced on our behalf.

For all of us who have participated in this Congress, I extend our heartfelt thanks to the Congress Organizing Committee, the Netherlands Society and all those who have made us all feel welcome here and who have contributed to making this 19th ISPRS Congress a success. Thank you Klaas Jan, Technical Program Chair, Martien Molenaar, and all Committee Members, and we extend special appreciation to all your spouses, companions and employers who have shared your time for us.

My travels have been to all continents and, along with Council, I have met with a majority of the Society's Members. I have had many invitations to visit Members, but it was not possible to meet with all. I thank them for their invitations, and I express my appreciation for the wonderful hospitality provided me by those I have been fortunate to visit.

Now, as this chapter in our Society's activities becomes history, I reflect upon more than the tasks that we worked on diligently together. The new and lasting friendships, the opportunity to see and interact with so many cultures, side travels to exotic places, and exciting social events and ventures. I am so lucky and grateful to have experienced these friendships and opportunities while working very hard. I am also most thankful for the support of my employer, Lockheed Martin Corporation, for the help they have given me in pursuing these activities. But above all, I extend my love and utmost appreciation to my wife, Evelyn, who has endured my reverence to the Society, including my many months away from home. Thank you to all my colleagues and friends that made this voyage for me possible.

Presentation of Chain of Office

by Lawrence W. Fritz, ISPRS President

My final duty as President is to transfer the President's Chain of Office to John Trinder.
I have had the privilege of being the 10th President to wear this chain of office.
It is of gold and quite heavy and symbolizes not only the honor of the position
but also the weight of the duties and responsibilities for which the wearer is responsible.

Dear John, it is my pleasure to place this chain upon your shoulders.
I am sure that you will lead our Society into the future with dignity and honor.

Address of Incoming President

by John Trinder

It is with a great sense of honour and responsibility that I accept the position of President of ISPRS for the next four years. I thank the General Assembly for their confidence in voting me into this position.

I have joined the names of former Presidents that I have always had a deep respect for, including Fred Doyle, the indefatigable Gottfried Konecny, Kennert Torlegard, Shunji Murai and Larry Fritz. The General Assembly has bestowed a heavy task on me but I will aim to pursue this task with all of my energy and enthusiasm. However, I will not be able to do this task on my own, and hence I rely very much on my Secretary General, Ian Dowman, and other Council Members, Larry Fritz, Ammatzia Peled, Orhan Altan, and Gerard Bégni.

It is an excellent team, representing a broad cross-section of experts in the photogrammetry, remote sensing and spatial information sciences around the world. I know I can rely on their expertise to continue the task of developing the Society and I look forward to working with them over the next four years. I thank these people for their commitment to ISPRS and sympathise with their partners for the time they will be spending on ISPRS business.

I want to thank the members of the Council with whom I have worked over the last four years. All members have contributed a great deal to the work of the Council and I would like to acknowledge their contribution.

Shunji Murai as First Vice President has, over sixteen years, made an outstanding contribution to the Society, and fully deserves the award of Honorary Member of the Society, an honour that is only ever bestowed on seven people at any one time.

Marcio Barbosa, as Second Vice President, has exceptionally heavy responsibilities in INPE in Brazil, yet has fulfilled his responsibilities in the Council in an excellent manner. His contributions in presenting new approaches to the management of ISPRS have been a breath of fresh air and we certainly appreciate his contributions.
Heinz Ruther has made an excellent contribution to the Society as Treasurer and in so doing has ensured that the finances and investments are on a very sound footing. He has also made major contributions to the management of ISPRS affairs.

Larry Fritz has been a tireless worker for ISPRS for at least twelve years, and has made an outstanding contribution as President. He continued, while President, the complete dedication to ISPRS that he demonstrated as Secretary General from 1992-1996. He demonstrated his leadership in his term as President by proposing the Strategy Planning meeting, which has become the basis of the future directions of the Society, as approved by the General Assembly on 20th July. One could almost conclude that he has also been a tough master, if one looks at the approximately 340 action items that have originated from the Council over the last four years. However, I believe we undertook all of these actions willingly with the leadership from Larry, knowing that we were moving the Society in the right direction for the future. I thank Larry very sincerely for his contribution to the future of ISPRS, a contribution that provides the right directions for the next millennium and its next century of existence.

Klaas Jan Beek was the sixth member of the Council. I believe that Klaas Jan, together with the Congress organising team deserve a special word of thanks. The organisation of the Congress is the biggest undertaking by any group in the Society. It requires dedication, hard work, a vast amount of tolerance, adaptability and patience. I believe that Klaas Jan has displayed all of these characteristics. I have enjoyed the Dutch sayings that Klaas Jan used to present to us when things became difficult. They provided us with a measure of rationality and brought us

back to earth. The Netherlands has done an outstanding job at organising this Congress. They have been innovative in bringing their own approach to the Technical Programme, as well as to the overall organisation and the social programme. It has been a pleasure to work with you and your team, as well as Martien Molenaar, Saskia Tempelman and Jan Timmerman. There were many others involved in the organisation of the Congress that I am unable to name.

Klaas Jan, I congratulate you and your team on an outstanding contribution to the work of ISPRS through the organisation of this Congress. It has been a pleasure for all of us to visit your country and experience its many delights. We will particularly remember the social functions, the bike rides and canal trips and the outstanding banquet, a truly wonderful evening. I am sure I am expressing the deepest gratitude of all participants at this Congress for the work that you and your team has done in organising this Congress. Thank you very much. Hartelijk bedankt.

Now, looking ahead, the ISPRS will be led by a new team for the next four years. A Council of six, four of whom are new members, so we will see new, but I am sure constructive views being presented by these people. The General Assembly has elected seven new Technical Commission Presidents from:

TC I - USA, Stanley A. Morain
TC II - China, Chen Jun
TC III - Austria, Franz Leberl
TC IV - Canada, Costas Armenakis
TC V - Greece, Petros Patias
TC VI - Brazil, Tania Maria Sausen
TC VII - India, Rangnath R. Navalgund

The Resolutions approved by the General Assembly define the future directions of the Technical Commissions, the bodies that are responsible for the scientific and technical activities of ISPRS. These resolutions have been defined by the Technical Commissions as one of their last duties at the Congress. I look forward to framing new terms of reference for the Commissions and then working with them in the Commission activities based on these resolutions until 2004.
The Strategic Plan developed by the Council and approved by the General Assembly will define the overall directions of the management, scientific and international co-operation in ISPRS. It will be a challenging task to continue to implement the recommendations of the Strategic Plan. Our achievements in this regard will define the success of the Council over the next four years.

When it was first formed ninety years ago by Eduard Dolezal, the ISP, as it was then named, was a small Society with limited aims. It dealt with the development of photogrammetry and its applications. The Society achieved these task slowly, but very thoroughly. It gained an outstanding reputation as the leading society in the field. As we know, photogrammetry has developed through the analogue to the analytical and now the digital ages. Now that we have entered the digital age, the areas of interest of ISPRS, the photogrammetry, remote sensing and spatial information sciences are not only converging but they are also based on the integration of data and facilities into data processing and analysis systems. Therefore, the new trends in technology in ISPRS will place an emphasis on the integration of these activities.

ISPRS has been very successful in developing its reputation in photogrammetry and this will continue, especially in the areas of digital and close range photogrammetry. However, ISPRS is not the only player in the fields of remote sensing and spatial information sciences and therefore it cannot expect to be the leader in all aspects of these fields. ISPRS therefore has established collaborative agreements with other organisations working in these fields. It will need to continue and expand this collaboration in the future to ensure that it fulfils its mission.

The new ISPRS mission identifies the purpose of its activities as 'contributing to the well-being of humanity and the sustainability of the environment'. These are very ambitious aims but ISPRS certainly has a role to play in the preservation of the environment and the future of the planet. Sustainable Development is becoming an important topic for ISPRS, as well as UN declarations on the environment, such as the Kyoto protocol. ISPRS can and should play a major role in achieving public recognition of its technology as leading-edge science for such important matters. This will be done by collaborating with other organisations that have knowledge of the physical, chemical, biological and environmental aspects of the planet. ISPRS should therefore become more diverse and adaptable to these new demands. These aims must be pursued with vigour over the next four years.

As we depart from Amsterdam for our homes, I trust that all attendees at this Congress have been able to gain new knowledge of the developments of the activities in ISPRS. This Congress will in many ways, I believe, be recognised as the beginning of a new era in ISPRS activities. We have really entered the digital age in photogrammetry. Remote sensing has now entered the high spatial and spectral resolution eras; spatial information systems, now well embedded into ISPRS activities, are making significant progress in inter-operability and hence may be applied in a broad range of undertakings. Integration of these activities is, in addition, well established.

I trust that you will be able to take the knowledge you have gained about many of the new developments that you have seen here back to your workplaces and introduce them where applicable. This will confirm the benefits gained from attending this Congress, from your participating in ISPRS and from ISPRS Membership. More importantly it will assist you in contributing to the preservation of our threatened planet.

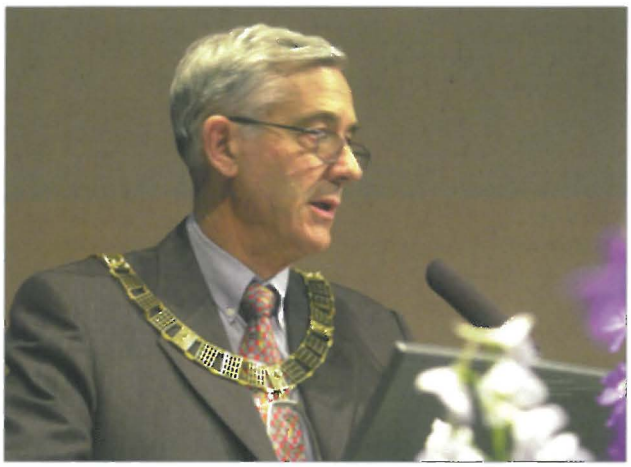
I wish you success in your future work in the photogrammetry, remote sensing and spatial information sciences.

Tot ziens, bon voyage and have a safe trip home. I look forward to seeing you all in Istanbul in 2004.

Thank you.

John Trinder, ISPRS President Elect, Congratulates Present Congress Director

Klaas Jan, I congratulate you and your team on an outstanding contribution to the work of ISPRS through the organisation of this Congress. It has been a pleasure for all of us to visit your country and experience its many delights. We will particularly remember the social functions, the bike rides and canal trips and the outstanding banquet, a truly wonderful evening, and, the Dutch who all speak English. I am sure I am expressing the deepest gratitude of all participants at this Congress for the work that you and your team have done in organising this Congress. Thank you very much. Hartelijk dank!



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Address of Incoming ISPRS Congress Director, M. Ohran Altan

Mr. President, Sir,
Klaas Jan Beek Past Congress Director,
Distinguished Guests,
Friends,

Four years ago, the incoming Congress Director, Klaas Jan Beek, in his acceptance speech extolled the virtues of the three-legged chicken. Coming as I do, from a country famous for its culinary expertise, and being personally quite appreciative of fine cooking, I came to Amsterdam fully intending to taste and enjoy what I expected to be a very succulent dish. I have not been disappointed, I have, as I am sure all of us have at this congress, thoroughly enjoyed the many facets of this congress. Thank you all who have had a role in ensuring such a tremendous success.

We in Turkey have as yet not succeeded in genetically engineering three-legged chicken. But, being aware of the importance of preserving our universe for the coming gen-

erations, our organising committee suggested that we consider as our symbol, the four-leaf clover to symbolise the year 2004. As you know clover is the plant used to cleanse the soil from chemical fertilisers and insecticides.

The four-leafed clover is indeed a rarity, bringing joy and happiness to its finder. So, I invite you all, here and now, to come to Istanbul where you will find your very own four-leaf clover in the form of a well-run, consumer-friendly, thought-provoking and interesting programme.
You have all eaten of the unique three-legged chicken, so come now to the greener pastures of the four-leafed clover in Istanbul.

Thank you Mr. President.

Address of Outgoing Congress Director, Klaas Jan Beek

Ladies and Gentlemen:

A congress director finds himself positioned between two extremes: he is the slave of the Council, but at the same time he is the slave-driver of his Local Organising Committee, while putting also a lot of pressure on many colleagues in the ISPRS organisation.
I should like to use this opportunity to thank in the first place all the participants of this Congress for their enthusiasm and scientific contributions in presentations and debate. I hope that you will take home very good memories and a strengthened sense of solidarity with the world we live in, a world which badly needs your scientific support to cope with so many developmental problems. On spaceship earth there are no passengers, only crew members. With your science you can contribute to the realisation of our challenging congress theme: 'Geoinformation for All'. Nelson Mandela once said that the most important human right in the 21st century will be the right for information. You can contribute to that vision.
I also want to thank all the organisers of this Congress:
Our PCO Congrex: maybe it is because I am getting older, but it keeps amazing me how such an organisation is able to manage a complex project like this, requiring many tailor-made solutions because of our typical ISPRS culture, with such young people, in particular young ladies, who have invested huge amounts of their energy to give you an unforgettable week here in the RAI. The same goes of course for the staff of this RAI Congress Centre and for Rose International, the Agency which organised the Exhibition in grand style.

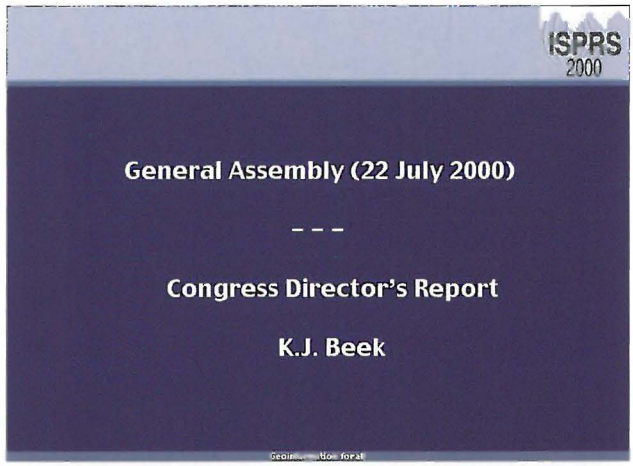
I also want to thank the Editorial Committee of the Daily News, chaired by Johan Boesjes of GITC, keeping you informed about the many things happening during the Congress, including those which you could not always attend because of the many parallel activities. GITC was also responsible for all printed matter and the CD ROMs of the Congress Proceedings.
I thank the Local Scientific Committee chaired by Martien Molenaar, who has just been appointed a the new rector of ITC, which will assure continuity in the close ties between ITC and ISPRS. As you must have noticed, we have introduced a new concept in the programming of the scientific meetings, providing them with more focus and correspondence with the Congress theme, in good co-operation with the Technical Commission Presidents and the Council. I admit that we borrowed this successful concept from an other scientific society with which I have close ties: the International Union of Soil Science (IUSS).
I thank my Local Organising Committee, personified by Saskia Tempelman, who during the past four years managed billions of e-mails and functioned really as the central point of our organisation. But of course also the all other members of our Committee have been very effective, creating an efficient team, also during this Congress when a lot of improvisation and hard work was still required.
I thank our sponsors who helped us to bring about ninety participants from the developing countries to Amsterdam and who also greatly supported us in keeping our Congress Fee at a low level, the high fee was still under 400 US dollars, including the CD ROM of the Proceedings.
I thank all colleagues for their support and friendship, which for me is the most valuable lasting result of organising this Congress, and finally I thank my wife Herma and my children for all their understanding and support during

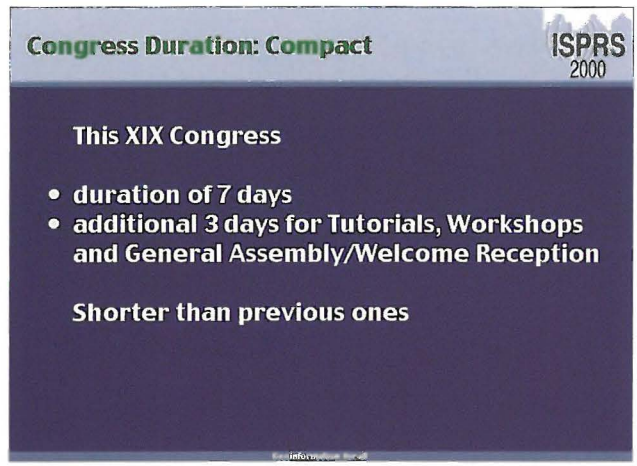
this remarkable episode in my career. While organising this XIXth ISPRS Congress I had the benefit of the good advice of several famous predecessors: Gottfried Konecny, Shunji Murai, Larry Fritz and Karl Kraus. Of course, having famous predecessors can be a mixed blessing: when I was asked to become the Rector of ITC and thus the successor of Schermerhorn and van der Weele, a colleague of mine, A.P.A. Vink, who knew the Institute well, exclaimed that he would not recommend this job even to his worst of enemies. Little did he know what would be involved when becoming an ISPRS Congress Director!

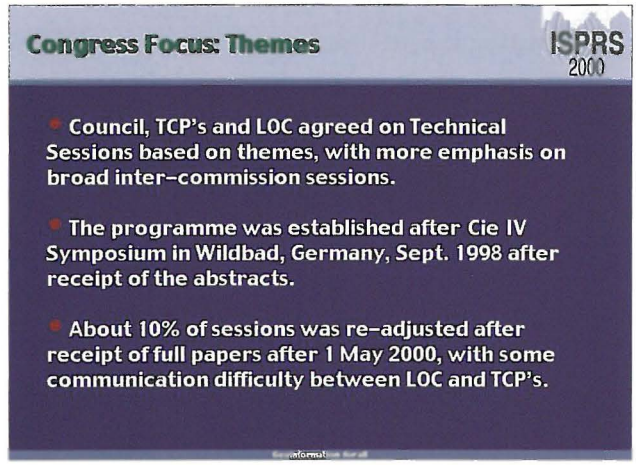
While this is one of these jobs requiring ninety per cent perspiration and ten per cent inspiration, I must also declare my positive overall feeling at the end of this project, mostly because of the wonderful interaction with the many dedicated, intelligent and good humoured colleagues, world wide, with whom I had the opportunity to interact.

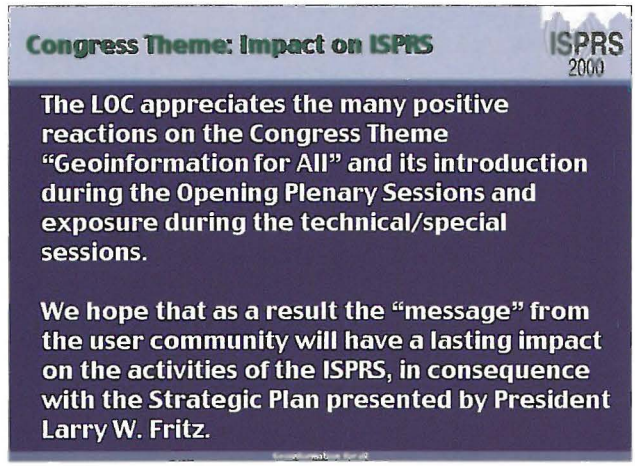
Today we reach the finish of this 'tour de force', such as the cyclists in the Tour de France, who are reaching Paris today, or the finals of a football championship, which, when following up on this metaphor I strongly believe this time The Netherlands did not lose during the penalty shoot outs.

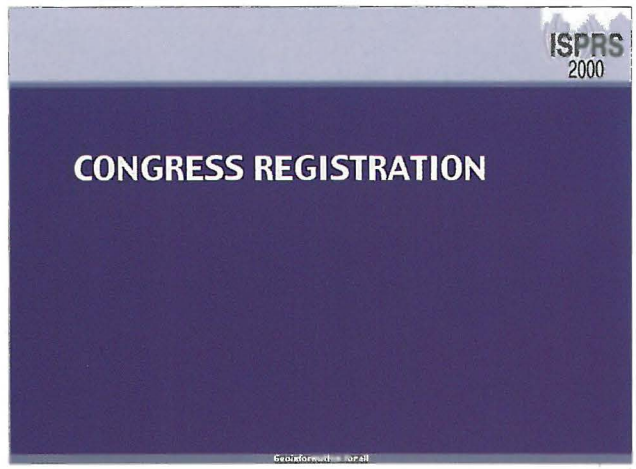
The following statistics can be derived from this Congress:



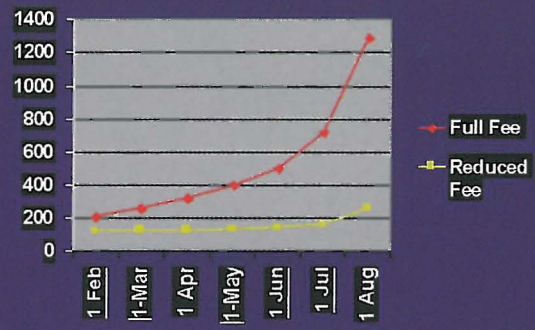








Paid Registrations (time)



Sessions – Nr of Sessions (109)

Cie	IC	TC	TP
I	5	2	1
II	8	4	2
III	6	7	4
IV	7	7	6
V	1	12	5
VI	2	3	1
VII	6	9	11
Total	35	44	30

Registrations: paid – noshow

	Full Fee	Reduced Fee
Nr of Reg.	1394	304
Before	1150	269
On-site	244	35
NoPay-Before	240	60
NoPay-Noshow	100	40
Paid-Noshow	n.a.	n.a.

Attendance of Sessions (per 12:00 22-7)

Cie	Nr Ses	Pax Ses	Average Pax Ses
I	8	589	74
II	14	1207	86
III	17	1494	88
IV	20	1235	62
V	18	731	41
VI	6	305	51
VII	26	762	29
Total	109	6323	58

Statistics Amsterdam and Vienna

	Amsterdam	Vienna
Full Fee	1290	1206
Red. Fee	260	271
Acc. Pers.	170	215
Day Tick.	400	300
Vol. A	150	250
Vol. B (pap)	140	300
Exhibit.	1300	1450
Tech. Tours	410	n.a.
Tutorials	130	n.a.
Workshops	25	n.a.

Overview: Poster Presentations (per 21-7)

CIE	Total	Present	Absent
I	25	21	4
II	43	30	13
III	80	51	29
IV	122	87	35
V	102	79	23
VI	23	17	6
VII	230	148	82
Total	625	433	192

SCIENTIFIC PROGRAMME

IAPRS Archives Sold (per 21-7)

	Total
Part A	116
Part B1	11
Part B2	10
Part B3	15
Part B4	22
Part B5	38
Part B6	7
Part B7	11
Complete set	130

Exhibition

- Exhibitors appreciated the compact, one-week programme
- Exhibitors emphasize high level quality of visitors and excellent interaction
- Exhibitor Showcases were a great success

NEW: Congress CD-ROM

- Produced: 2250
- Distributed: 1570
- Supplemental CD-ROM will be distributed after the Congress, incl.:
  - corrected papers
  - late papers
  - final list of participants

Hotel Accommodation

Communication between Congrex and Participants was not satifactory:

- too late confirmation
- too little information (address details)

Congress Web Site - I

- 31,000 hits since 1 January 1998
- max. at 500 hits/day on 14 July 2000

PUBLICATION and COMMUNICATION

Congress Web Site - II

- will include all pictures taken by our photographers for downloading (approx 600)
- will be maintained until the publishing of Part A
- will be transferred to ISPRS Web Site

NEW: Abstract Book

Abstract Book provided

for free

to all full Participants

Conclusion

A different, compact, focussed Congress.
Thank you for your support.

Note:
The Congress financially supported the participation of 83 persons from developing countries, Central and Eastern Europe.

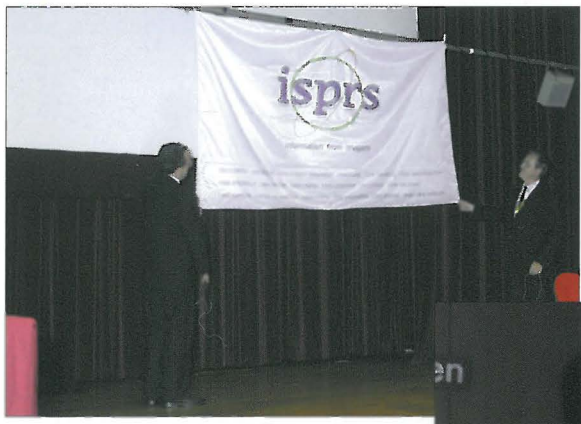
Closing Ceremony
23 July 2000

Klaas Jan and Herma Beek with Evelyn and Larry Fritz

Heinz Ruether, Ammatzia Peled, Orhan Altan and Gerard Begni

Larry Fritz thanking Congress Director Klaas Jan Beek

Larry Fritz congratulate John Trinder



Presenting the new ISPRS logo

New Congress Director Orhan Altan

New ISPRS President John Trinder

Farewell Drink of Council, LOC and Congrex
23 July 2000

Martien Molenaar and Henk Thiadens amidst the Congress ladies

Klaas Jan Beek thanking Abey Jaarsma (Congrex)

John Trinder thanking Saskia Tempelman, secretary of the LOC

Left to right: Marije Wieringa and Rika Strik of Congrex with Jan Timmerman

Saskia Tempelman thanking John Trinder

Resolutions of the XIX Congress of ISPRS in Amsterdam 2000

The Resolutions Committee consisted of the following members

- Shunji Murai, Japan, First Vice President, Chairman
- Bruce Forster, Australia
- Isabelle Veillet, France
- Hans-Peter Bähr, Germany

The Resolutions Committee received 58 draft resolutions from Council, Technical Commissions and Delegates. Some of the proposed resolutions have been modified or edited.

Resolution G.1 Appreciation

The Congress

Noting

- the importance of the Congress for professionals in photogrammetry, remote sensing and spatial information sciences from academia, industry and government

Recognising

- the careful preparation and successful realisation of the Congress

Commends

- the Netherlands Society for Earth Observation and Geoinformatics, its president Professor Martien Molenaar, and Congress Director Klaas Jan Beek and the Congress Committee for excellent work which has resulted in a very successful Congress.

Resolution G.2 Commission Correspondents

The Congress

Noting

- the ineffectiveness of the present system of Commission Correspondents compared with all other working mechanisms of ISPRS

Recognising

- the necessity for effective communication between Technical Commissions, their Working Groups and other bodies within ISPRS on the one hand, and individuals and organisations in member countries and regions on the other hand

Recommends

- that a set of guidelines governing this communication, through the medium of Commission Correspondents, be prepared and promulgated through the ISPRS Orange Book and website.

Resolution G.3 Liaison with International Standard Organisation (ISO)

The Congress

Noting

- that several Technical Commissions of ISPRS liaise with ISO

Recognising

- the need to strengthen standardisation activity within ISPRS

Recommends

- that ISPRS consider active liaison with ISO in appropriate technical committees.

Resolution G.4 Inter-Commission Activities

The Congress

Noting

- the considerable overlap in recommendations from various Commissions

Recognising

- the importance of co-operation between Commissions

Recommends

- that all new Technical Commission Presidents note carefully all recommendations and move to establish dialogue and joint activities where appropriate.

Resolution G.5 Digital Earth Concept

The Congress

Noting

- the increasing availability of digital data about the environment
- the increasing importance of the simultaneous use of multiple geo-spatial datasets to support scientific discovery, operational monitoring and decision-making processes
- the initiative to establish the concept of a Digital Earth which promotes the interoperability of georeferenced digital data resources for decision making, geoinformation management and knowledge evolution in support of global sustainability

Recognising

- that a Digital Earth concept is currently evolving to promote a framework for interoperability for geo-spatial data, accomplished through an international spirit of collaboration and co-operation

Recommends

- the encouragement of strategies to further develop a Digital Earth concept.

Resolution G.6 International Industry Forum

The Congress

Noting

- the overlap of air/space borne commercial Earth observation systems and the inter-relationship with civil and national remote sensing systems
- the need to promote international growth and the economic benefits of air/space borne observations of the Earth
- the need for exchange of policy, technical and market force information between governments and private sector entities to promote complementary versus competing systems

Recognising

- the co-operative advantages of a complementary, integrated Earth observation 'system of systems'
- the expressed need of ISPRS and CEOS for closer coordination of the commercial development of air/space borne Earth observation with all segments of the value-adding and user applications community
- the importance of further encouragement and promotion of industry to develop software, hardware information "manufacturing", engineering and processes for value-added benefits to complex problem-solving

Recommends

- that ISPRS strive to establish an International Industry Forum (IIF) with all segments of the private sector

- that the IIF work within the ISPRS structure to conduct its activities and for closer collaboration with CEOS and the Integrated Global Observing Strategy (IGOS).

Resolutions of Technical Commission I

Resolution I.1 Collaboration with CEOS

The Congress

Noting

- that the Committee on Earth Observation Satellites (CEOS) has accorded Affiliate Membership to ISPRS
- that coordination of EO missions and allied activities (e.g. calibration/validation activities; application activities; EO information services activities; EO education and training activities etc) are the major aims of CEOS and ISPRS and that they could mutually gain by working together

Recognising

- the need to strengthen international coordination of EO missions
- the need to bring together the government and private sector in various EO activities - space, ground and utilisation segments

Recommends that

- ISPRS actively work with CEOS to achieve co-operation and coordination in EO R&D activities
- ISPRS work with CEOS to foster public/private collaboration in EO R&D activities
- ISPRS support and contribute to the EO education and training efforts world-wide and specifically focus on newer technology elements.

Resolution I.2 Standardisation of sensor parameters

The Congress

Noting

- that a number of earth observation sensors with similar capabilities are available and planned by various space agencies/manufacturers
- that users will have to use data from more than one sensor for their specific applications

Recognising

- that such usage requires good understanding of the sensor parameters
- that there is currently no uniform way of specifying sensor parameters

Recommends

- the generation of a common set of parameters to be specified for each camera / sensor in conjunction with manufacturers.

Resolution I.3 Radiometric and geometric calibration

The Congress

Noting

- that the number of high resolution, multispectral and hyper-spectral imaging sensors in space is increasing
- that radiometric calibration of data from these sensors is essential for quantitative environmental and ecological research with multispectral image data
- that data from various sensors has to be used for long-term observations and for change detection
- that various test fields exist or are planned for calibration
- that the accuracy potential of high resolution digital imaging systems in space is better than 10 m and thus appropriate for the production or updating of topographic (image) maps of scale 1:50,000 and larger
- that accurate and reliable geometric calibration parameters of these digital imaging systems are a precondition to taking full advantage of their accuracy potential to produce high quality photogrammetric products, such as DEM, orthoimages, etc.

Recognising

- that natural testsites have been successfully used for calibration of certain sensors
- that high-precision models for radiation transfer through the atmosphere exist
- that the geometric laboratory calibrated parameters need to be confirmed or updated in orbit by inflight calibration methods using large area test-sites with highly accurate ground truth
- that highly accurate geometric calibration of digital imaging systems places high demands on laboratory calibration equipment and that this task is costly and time-consuming
- that varying geometric calibration concepts for different digital imaging systems exist which show different accuracy characteristics

Recommends

- investigations of calibration and intercalibration of all digital imaging space sensors
- that all existing and planned test fields be identified and their spatial, spectral and physical characteristics be inventoried
- that collaboration be established with other bodies studying ground test fields with known spectral reflectance characteristics which can be used for calibration.

Resolution I.4 Wide swath sensors

The Congress

Noting

- that wide swath systems, e.g. SPOT Vegetation, IRS, WiFS, Sea WiFS, MODIS etc, are now available with various spectral and spatial resolutions
- that such systems' responses are subject to bi-directional reflectance factors, sun angle etc. due to the wide swath

Recognising

- that this data could be used to study long-term changes, especially in vegetative cover

Recommends

- studies to understand the effect of viewing geometry on the radiometric accuracy of the products.

Resolution I.5 Sensors for DTM data generation

The Congress

Noting

- that a number of optical systems specifically designed to generate DTMs are planned for the future
- that interferometric SAR has proven its capability to generate DTMs
- that airborne laser systems are operational
- that substantial parts of the world still do not have topographic maps of desired scale and accuracy

Recognising

- that terrain height / slope is an important parameter for many applications

Recommends

- intensification of detailed study on the accuracy and cost-effectiveness of various techniques
- identification of standard sites for inter-comparison and evaluation of different methods.

Resolution I.6 Platform and orientation integration
The Congress
Noting
- the capability of current earth observation systems to provide high resolution images
- the availability of modern technology such as differential GPS and high-precision attitude sensing and orientation systems

Recognising
- the potential use of high-resolution image data in detailed field studies
- the need for high-precision locational accuracy of the data

Recommends
- integration of attitude and position information with data processing software algorithms
- standardisation of data format, referencing systems and data archival and retrieval systems.

Resolution I.7 Electronic database of sensor and platform information
The Congress
Noting
- that there is an increasing number of sensor and platform designs
- that there is a long history of sensor and platform designs for both aerial and satellite systems

Recognising
- the electronic (digital) information about the engineering designs, orbital parameters and sensor characteristics is distributed among many databases and Internet sources
- that globally there is unequal access to sensor and platform information
- that CEOS maintains a database of sensors and platforms

Recommends
- that an electronic, searchable database of sensor and platform information, both retrospective, current and planned that provides equitable and accessible information from an updateable source be promoted to the ISPRS community.

Resolutions of Technical Commission II

Resolution II.1 Real-time systems
The Congress
Noting
- the rapid development of real-time mapping systems and the dependence of such systems on Global Positioning System (GPS) and Inertia Navigation System (INS) techniques

Recognising
- that future development depends on collaboration between experts in a range of technologies

Recommends
- that work continue on real-time mapping technologies with closer links being developed between commissions, especially where GPS/INS is involved.

Resolution II.2 Use of Synthetic Aperture Radar (SAR) data
The Congress
Noting
- that advances have been made in the application of SAR data to topographic mapping, prediction and monitoring of disasters and environmental monitoring

Recognising
- that SAR is still not widely understood or applied
- that algorithms for processing SAR data are not widely available

Recommends
- that increased efforts be made to use SAR data for production of geoinformation and to promote the use of SAR within the spatial information sciences.

Resolution II.3 Digital photogrammetric workstations
The Congress
Noting
- the rapid increase in the use of digital photogrammetric workstations (DPWs) and the increasing maturity of the algorithms used and the software available

Recognising
- that DPWs are likely to be a major tool of spatial information acquisition during the next decade
- the variety and complexity of hardware and software options available and the lack of comprehensive advice on the selection, evaluation and optimum use of these systems

Recommends
- the continued monitoring of developments in digital photogrammetric workstations and the creation of a wide range of tools for feature extraction

Resolution II.4 Procedures and tools for data integration
The Congress
Noting
- the new sources of data becoming available and the rapidly increasing number of applications for which this data might be used

Recognising
- that the combination and integration of such data offers new opportunities for solving problems

Recommends
- that the development of procedures and tools for integration of data from a variety of sensors and databases be addressed, including the use of new data sources such as SAR and Laser Scanning and the increasing use of vector databases, as well as expert systems.

Resolution II.5 Data transfer standards
The Congress
Noting
- the progress made by WGII/7 in collaborating with International Standard Organisation (ISO) and Open GIS Consortium (OGC) during the past four years
- the desire for greater ease of transfer of data

Recognising
- that progress can only be made through international co-operation

Recommends
- continued effort to develop standards for data transfer and collaboration with other organisations that are promoting standards such as ISO, Institute of Electrical and Electronics Engineers (IEEE) and OGC.

Resolution II.6 Integration of information into GIS

The Congress

Noting

- the increasing need for up-to-date geospatial information and the lack of efficient, timely revision of such information in many areas

Recognising

- that multispectral and stereoscopic imagery can provide such information and is becoming increasingly important for use in geographic information systems (GIS)

Recommends

- that the integration of photogrammetric and remote sensing imagery and techniques into GIS for efficient acquisition and revision of geospatial information be strengthened.

Resolution II.7 End-to-end systems

The Congress

Noting

- the much increased use of geospatial information in all areas of public and commercial activity

Recognising

- the need for efficient processing and presentation of such data in a value-added form

Recommends

- the development and validation of end-to-end processing systems for specific applications, making use of a range of imaging systems, a range of components from the spatial information sciences and paying particular attention to techniques for the delivery and presentation of information.

Resolutions of Technical Commission III

Resolution III.1 Surface reconstruction

The Congress

Noting

- the extensive use of automated surface reconstruction for mapping, image rectification and 3D modelling
- the emergence of laser scanning technology as an additional information source about surfaces
- the role of surface reconstruction in the general framework of object recognition and scene analysis

Recognising

- the need for further theoretical investigations into the automatic reconstruction of surfaces, including their segmentation, and of conducting reliability studies

Recommends

- that research be continued on Earth surface reconstruction techniques with emphasis on multiple sensor input.

Resolution III.2 Fusion

The Congress

Noting

- the increasing availability of new sensors and the use of multi-sensor, multi-resolution systems

Recognising

- the need for extending theories and developing algorithms for merging multi-sensor data
- modelling of uncertainty in multi-sensor fusion
- incorporating GIS information to support object recognition
- evaluating the efficiency and performance of multi-sensor fusion

Recommends

- that fusion, at the data, feature and information levels, be promoted.

Resolution III.3 Object modelling

The Congress

Noting

- the importance of modelling 3D objects related to object recognition and image understanding

Recognising

- that further progress in the automatic recognition of objects relies on improved models

Recommends

- that efforts be strengthened in developing generic models of objects, including their geometric, semantic and temporal properties, and interrelationships.

Resolution III.4 Combining classification methods and computer vision

The Congress

Noting

- the increased availability of multi-sensor, multi-spectral and hyper-spectral data

Recognising

- the need for combining traditional classification methods of remote sensing with computer vision approaches for the automatic recognition of objects

Recommends

- that efforts be strengthened in combining classification methodologies and computer vision approaches into a common object recognition framework.

Resolution III.5 Performance and reliability of algorithms

The Congress

Noting

- the diversity of algorithms in photogrammetry, remote sensing and computer vision developed for the purpose of feature extraction and object recognition

Recognising

- the need for assessing the performance, reliability and availability of algorithms

Recommends

- that procedures for evaluating algorithms and for developing suitable test datasets be intensified and formulated.

Resolution III.6 Image understanding / object recognition

The Congress

Noting

- the importance of theoretical and conceptual investigations in object recognition and image understanding

Recognising

- that despite major efforts and good progress achieved from 1996 to 2000 there remain considerable gaps in the theory for automation of feature extraction and recognition

Recommends

- that investigations in object recognition and image understanding be intensified, particularly in the areas of modelling and knowledge engineering
- that co-operation with researchers in computer vision and cognitive science also be intensified.

Resolution III.7 Features as entities in orientation processes

The Congress

Noting

- that features play an important role in digital photogrammetry and computer vision

Recognising

- that algorithms for the basic image orientation processes are predominantly point-based

Recommends

- that current mathematical models be extended to include features as entities in the image orientation processes.

Resolutions of Technical Commission IV

Resolution IV.1 Design of large and distributed spatial databases

The Congress

Noting

- that large spatial databases are established in an increasingly distributed environment to assist in decision-making processes

Recognising

- that an efficient collaboration with the Spatial Data Handling (SDH) experts group of the International Geographic Union (IGU) has been initiated

Recommends

- that the collaboration with SDH organisers be continued and strengthened
- that research, developments and applications in the design of large and distributed spatial databases be continued.

Resolution IV.2 Spatial database revision and consistency

The Congress

Noting

- that value-added services and decision-making processes depend highly on revised and consistent spatial databases

Recognising

- that photogrammetry and remote sensing have further potential for database revision
- the term 'consistency' is used to include geometrical, topologically and thematic consistency

Recommends

- that the work on spatial database revision and consistency checking be continued and strengthened.

Resolution IV.3 Multiscale, aggregation and generalisation of spatial databases

The Congress

Noting

- the need for spatial data aggregation and generalisation by linking existing spatial database that represent the same locations at different scales
- that currently databases exist without any links between them

Recognising

- that besides ISPRS, the International Cartographic Association (ICA) and IGU/SDH are also active in this field, especially in the area of generalisation

Recommends

- that ISPRS continue and strengthen the efforts in developing aggregation and generalisation methods and co-operate with other international societies, particularly ICA, to deliver adequate algorithms to create multiple representations of spatial data.

Resolution IV.4 Generation of core spatial databases

The Congress

Noting

- the increasing need for core spatial databases to be used and accessed for various applications (e.g. cadastre, topographic mapping, 3D city models, computer-aided facility management)

Recognising

- the contributions of ISPRS Commissions to large scale and topographic databases, to the provision of 3D city models and to Computer Aided Facility Management

Recommends

- that the work on the generation of core spatial databases using multi-source data be continued and strengthened
- to combine outdoor and indoor locations of built features and facilities in one data stream.

Resolution IV.5 3D modelling, visualisation and animation

The Congress

Noting

- an increasing need for fully 3D mapping, especially in urban areas, supplementing existing DTM databases, providing virtual walks through photorealistic scenes on stand-alone platforms and on the Internet

Recognising

- the rapid progress made in this field
- that interfaces for linking outdoor and indoor space are still missing

Recommends

- that further contributions be encouraged to research, development and application in this field, especially to link 3D city models with Computer Facility Management Systems.

Resolution IV.6 Dynamic modelling

The Congress

Noting

- that spatio-temporal databases are on the verge of containing vector and image data

Recognising

- that fewer efforts have been made in the recent past, especially to integrate temporal models (kinematic, dynamic) into spatial databases

Recommends

- that ISPRS strengthen research in this field to profit more from timely sensed image data.

Resolution IV.7 Data fusion for spatial information systems (Laser scanning, InSAR, stereo, high-resolution satellite imagery, GIS data)

The Congress

Noting

- the growth in spatial datasets produced by complementary sensors and data collection systems, and therefore the need for data fusion algorithms for high quality feature extraction for geometric and thematic mapping applications

Recognising
- a lack in combining multi-source image data and existing GIS data for deriving high quality mapping products and the need for using high resolution satellite imagery together with other complementary datasets to supplement the contents of spatial information systems

Recommends
- that research, development and application in data fusion be further stimulated.

Resolution IV.8 Spatial data quality

The Congress
Noting
- that spatial data quality is a major issue

Recognising
- the progress made in the deriving of vector data and thematic attributes from imagery

Recommends
- the further stimulation of research describing data quality measures and their implementation and integration into spatial databases and GIS analysis.

Resolution IV.9 Inter-operability

The Congress
Noting
- that web-based mapping processes access several databases at different locations, and therefore there is a need for inter-operable open spatial information systems to integrate data and algorithms

Recognising
- the efforts of industry and state authorities towards creating standards for an open platform for data and methods exchange, e.g. OGC and the ISO TC 211

Recommends
- co-operation with institutions involved in spatial data standardisation.

Resolution IV.10 Metadata and clearing-houses

The Congress
Noting
- that spatial data clearing-houses have evolved worldwide and are initialing and improving the access to all types of high quality spatial data of all types, making metadata for data description necessary

Recognising
- ISPRS is a source of knowledge for spatial data and its corresponding metadata

Recommends
- that ISPRS contribute to the awareness, promotion and use of spatial data clearing-houses.

Resolutions of Technical Commission V

Resolution V.1 Automation for vision metrology

The Congress
Noting
- the importance of automation in all phases of the close-range vision process, in particular real-time three dimensional measurement via machine vision

Recognising
- the need for new developments in algorithms and procedures for automated sensor orientation and solutions
- the necessity of performance evaluation in theoretical and practical aspects

Recommends
- that stand-alone measurement systems integrating one or more imaging sensors and CAD/CAM, along with innovations in laser scanning and projected light systems for off-line and on-line vision metrology, be further studied
- that target and feature extraction with special consideration of the multi-image correspondence problem be developed.

Resolution V.2 Scene modelling for visualisation and virtual reality (VR)

The Congress
Noting
- the growing demand for the creation of real-world object and site models for visualisation and virtual environment applications

Recognising
- the necessity for new developments in 3D modelling and knowledge-assisted 3D scene reconstruction
- the need for integration of computer graphics and VR technology with close-range vision techniques

Recommends
- that automatic image analysis techniques to extract models of objects and scenes for applications in visualisation and virtual reality be further developed
- that mechanisms be implemented for co-operation between ISPRS Commission V, computer graphics and computer vision groups.

Resolution V.3 Human motion and medical image analysis

The Congress
Noting
- the growing demand for medical imaging, medical VR, human motion studies, expression analysis and sports formulation analysis

Recognising
- the need for automated image understanding and real-time imaging systems in these areas
- the necessity for involvement of photogrammetrists in these research fields
- the need for more interaction between related scientific communities

Recommends
- that research and development in techniques and systems for medical imaging, human motion studies, expression analysis and sports analysis be continued and strengthened
- that Commission V intensify co-operation and collaboration with the communities of medical/biomedical engineering, sports science and human/apparel engineering.

Resolution V.4 Integration of image analysis and spatial information systems for applications in cultural heritage

The Congress
Noting
- the growing demand for applications of close-range vision techniques and spatial information systems for recording, mapping, 3D modelling and visualisation of

structures of architectural significance and objects of importance to the cultural heritage

Recognising
- the need for innovative technologies for imaging, data processing, modelling, visualisation, archiving and information management, including Internet techniques
- the need for integration of computer graphics with close-range vision techniques for digital archives or VR museums

Recommends
- further development of integrating of close-range vision techniques and spatial information systems for 3D reconstruction and documentation of monuments and buildings for cultural heritage
- the increased use of advanced, low-cost and rapid techniques in documentation and monitoring of the cultural heritage
- development of standard procedures and products in co-operation with related disciplines (e.g. urban planning or facility management)
- close co-operation with CIPA.

Resolution V. 5 Image sequence analysis

The Congress

Noting
- the potential for, and growing importance of, temporal analysis, time-constrained solutions and dynamic analysis
- the variety of systems and applications, including mobile mapping, robot vision, machine vision, medical imaging, autonomous navigation, motion analysis, deformation analysis and data capture for virtual reality

Recognising
- the need for real-time image processing involving sensor fusion in the integration of image data with navigation sensor data
- the need for the development of algorithms and associated computational processes for image sequence analysis

Recommends
- that investigations of these topics be promoted, in close co-operation with Commission III and researchers, for example in engineering and computer vision
- that investigations into algorithmic aspects and the development of computational systems for applications with special emphasis on time constrained solutions be conducted.

Resolution V.6 Vision and animation

The Congress

Noting
- the increasing demand for image-based animation in many applications in sports, medicine, biomechanics, security, the movie and TV industry, videogames, environmental simulation and interface technology

Recognising
- the need for involvement of photogrammetrists in this area
- the potential for close-range vision techniques to be utilised in animation technology

Recommends
- the development of image-based techniques for use in live figure and environment generation tasks
- the study of methods and technologies to support the interaction of real and virtual objects and actors
- that collaboration with the computer vision and animation communities be intensified.

Resolution V. 7 Integration of ground-based vision techniques with aerial/space images

The Congress

Noting
- that the importance of integration of ground-based vision techniques with those of aerial and space imagery will inevitably increase for applications such as city modelling, urban and traffic planning, and environmental monitoring

Recognising
- the need to utilise high-resolution satellite images or aerial images in an integrated fashion with ground-based imagery

Recommends
- that new models and techniques for close-range and aerial/space image integration be developed in co-operation with Commission III and IV, with a focus on aspects such as the combination of data from various sources, object extraction techniques, 3D modelling and texture mapping.

Resolutions of Technical Commission VI

Resolution VI.1 The Internet for ISPRS

The Congress

Noting
- that the Internet and the World Wide Web provide a super-highway for information access and transfer
- the potential of the Internet as a support for research
- the relevance of Internet search engines for information retrieval and sharing

Recognising
- the need for guidelines and recommendations regarding appropriate formats for Internet Web pages
- the benefits of integrating the ISPRS journal, ISPRS Highlights, member reports, ISPRS web pages, commission and working group reports and newsletters, other relevant ISPRS publications and links to the web pages of education and research institutions, governmental institutions and private companies
- that the Internet infrastructure has not yet become totally available in developing countries

Recommends
- the investigation of the optimal use of the Internet for the benefit of the ISPRS community.

Resolution VI.2 Education for the developing world

The Congress

Noting
- the relevance of training and education for the ongoing development of photogrammetry, remote sensing and geo-information, especially in the developing world
- the benefits of, and the need for, education networking and sharing of expertise and resources in the developing world

Recognising
- the lack of communication between educational institutions and individual educators in the developing world

Recommends
- that Commission VI, in co-operation with regional members of ISPRS and all sister societies, endeavour to organise workshops for education in the developing world.

Resolution VI.3 Updating the ISPRS education database
The Congress
Noting
- the growing concern regarding the lack of information on education and training institutions world-wide
- that Commission VI has prepared an initial database on institutions of education and training

Recognising
- the relevance of communication between educators from different institutions and different parts of the world
- the need to make information on educational facilities available to members of the ISPRS community and the general public

Recommends
- that the ISPRS database of education and training courses and institutions be maintained and updated at least annually.

Resolution VI.4 Computer Assisted Teaching and Learning (CAT/L)
The Congress
Noting
- that CAT/L systems offer new opportunities and benefits for education and training processes

Recognising
- the increased interest in the potential of information technology as a tool for the support of education and training, both for on site and remote learning

Recommends
- that the evaluation of existing, and the development of new, concepts in CAT/L and distance learning be addressed
- that public domain educational software and web pages be designed and developed
- that available software and web pages be publicly disseminated at marginal cost
- that the CAT Contest (CATCON) be continued.

Resolution VI.5 Technology transfer to and within the developing world
The Congress
Noting
- the shortage of qualified professional staff in the developing world as a result of limited resources against the background of rapidly developing technology

Recognising
- the need to enhance the theoretical, practical and management skills of individuals from the developing world
- the relevance of quality of service with the increased globalisation of professional activities

Recommends
- that opportunities for technology transfer to and within the developing world be further investigated and expanded
- that such technology transfer be initiated, encouraged and/or supported in co-operation with sister societies and international/regional organisations.

Resolution of Technical Commission VII

Resolution VII.1 Spectral signature research
The Congress
Noting
- the rapid development in spatial and spectral sensing technology

Recognising
- that spectral sensing research is essential for the use of remote sensing data

Recommends
- that research on spectral signature, especially in the areas of hyper-spectral and microwave sensing, be continued
- co-operation with institutions maintaining databases on spectral signatures
- co-operation with the International Symposium on Spectral Sensing Research (ISSSR) and other international conferences on Physical Measurements and Spectral Signatures in Remote Sensing.

Resolutions VII.2 Standardisation for methodology of computer-aided interpretation
The Congress
Noting
- the increased importance of data accessibility of computer-aided interpretation and analysis of sensor data in setting up and using global databases in a standard form

Recognising
- the increasing demand for sharing information, especially in the emerging countries, and the need for unified guidance to ensure comprehensive data collection and use at the local, regional and global levels

Recommends
- establishing quality measures for evaluation and validation of the output of remote sensing procedures
- collaboration with CEOS Calibration and Validation Working Group (CVWG).

Resolution VII.3 Crop monitoring, yield estimation and policy issues
The Congress
Noting
- the substantial economic benefit of using remotely sensed data in agriculture to ensure food security and rural development
- that remote sensing has been shown to be an effective operational tool in many countries

Recognising
- the achievements and proven technologies in the field of operational use in crop monitoring, yield estimation and facilitating agricultural policy implementation

Recommends
- refinement of current modelling methodologies for improvement of the operational use in crop monitoring, yield estimation and facilitating agricultural policy implementation using remote sensing and GIS technologies.

Resolution VII.4 Integrated monitoring systems
The Congress
Noting
- that advances have been made in geospatial and telecommunication technology

Recognising
- the synergy of integrating remote sensing data, in-situ measurements and other data in a GIS has significant advantages both in technical and economical sense, as well as for interdisciplinary co-operation, especially in integrated water and other natural resources management

Recommends
- that integrating remote sensing data, in-situ measurements and other data in a GIS be encouraged for monitoring, modelling and management of the environment and resources.

Resolution VII.5 Disaster management

The Congress
Noting
- that remote sensing, GIS, satellite positioning and space communication have become effective tools for disaster monitoring, mitigation and assessment

Recognising
- that disaster management has been recognised as an urgent issue in the recommendations of UNISPACE III

Recommends
- the development and applications of appropriate tools and methodologies for disaster management using remote sensing and GIS technologies
- co-operation with various partners IGOS/CEOS etc.

Resolution VII.6 Generation and use of global databases

The Congress
Noting
- the increasing availability of global databases, data gathering methodology and the wide variety of remote sensing data sources and world-wide emerging infrastructures

Recognising
- that future developments need close co-operation in the field of global monitoring and modelling
- that UNISPACE III supports world-wide actions related to Agenda 21 at the local, regional and global level, in close co-operation with international scientific organisations and the appropriate institutions of the United Nations

Recommends
- the development of methodologies for generation and quality evaluation of global databases for global studies in co-operation with Commission IV
- compilation of existing and planned location and quality of global databases
- development of algorithms for monitoring of global change
- evolving strategies for assimilating remotely sensed data into global models.

Resolution VII.7 Supporting implementation of international policies and treaties

The Congress
Noting
- the increased political and societal significance of international policies and treaties, such as the Kyoto Protocol

Recognising
- the need for objective, reliable, economical and timely implementation of the related international policies and treaties
- investigations and development of thematic mapping using remote sensing data at national and international levels

Recommends
- investigation into, and development of, vegetation (especially forest), soil and other thematic mapping and use of remote sensing data at national and international levels, with a focus on carbon fixing and desertification
- coordination with the International Global change Atmospheric Chemistry (IGAC) Programme
- the establishment of a Task Force to coordinate ISPRS contribution to studies in the application of remote sensing for international policies and treaties.

Resolution VII.8 Urban management

The Congress
Noting
- that rapid and unplanned urbanisation is a problem world-wide

Recognising
- the impact of growing urbanisation, increasing density of population and transmigration from rural to urban areas, as well as the impact on environment associated with pollution and global change, and the benefits of remotely sensed data in monitoring its impact

Recommends
- provision of scientific and technological support
- for actions as recommended by the HABITAT II Conference
- for documentation, conservation, management and permanent control of Natural Heritage and Cultural Landscapes in co-operation with UNESCO/ICOMOS/CIPA
- for actions to monitor land use and land cover transformation, with special emphasis on urban growth.

Resolution VII.9 Imaging segment of information infrastructure

The Congress
Noting
- imaging represents an inevitable part of geospatial information

Recognising
- the growing need for, and ongoing activities in, the establishment of an interoperable geospatial information infrastructure at the national, regional and global level to support assessments of environmental degradation, monitoring and modelling of global change and resource management

Recommends
- that ISPRS represent the imaging sector using the synergy with its integration with GIS, satellite positioning and space communication in the national, regional and global spatial data infrastructure, especially in applications of remote sensing and GIS for environmental studies and resource management.

Approved by the ISPRS General Assembly
22nd July 2000
Amsterdam, The Netherlands