

CONGRESS TIMETABLE	EMPLOI DU TEMPS DU CONGRÈS	ZEITPLAN DES KONGRESSES
CONGRESS INAUGURATION	INAUGURATION DU CONGRÈS	ERÖFFNUNG DES KONGRESSES
SUNDAY, JUNE 17	DIMANCHE, 17 JUN	SÖNNTAG, 17 JUNI
11:00–17:00 Foyer Rio Centro	Registration – Enregistrement – Registrierung	Welcoming Cocktail Cocktail de Bienvenue
18:00–20:00 Auditorium	Opening Ceremony – Cérémonie D'Ouverture Eröffnungsfest	Begrüßung – Cocktail 20:00–22:00
20:00–23:00 Exhib. Hall Pavi. Expos. Austellg. Halle	Exhibits Inaugur. – Inaugur. des expositions Eröffnung der ausstellungen	

CONGRESS TIMETABLE	EMPLOI DU TEMPS DU CONGRÈS	ZEITPLAN DES KONGRESSES
	TECHNICAL – SCIENTIFIC PROGRAM TECHNIQUE – SCIENTIFIQUE PROGRAMME TECHNISCH – WISSENSCHAFTLICHES PROGRAMM	

MONDAY – 18 JUNE 1984

TIME: 09:00–10:30		GENERAL INFORMATION MEETING	ROOM C
TIME: 11:00–12:30	ROOM	CHAIRMAN TOPIC/THEME AUTHOR(S) – (COUNTRY) PAPER TITLE	
	C	I/1 S.1 J. C. Trinder Image Data Quality J. C. Trinder (Australia) Report of Activities of Commission I J. C. Trinder (Austr.) Measures of Data Quality for Photographic, Electro-Optical and SAR Image Systems (invited paper)	
	C	A. F. H. Goetz (USA) The Shuttle Imaging Spectrometer Experiment  G. Begni (France) La Qualité des Images Issue du System Spot et son Contrôle après le Lancement du Satellite  N. Binger and T. Ory (USA) The 1983 Spot Simulation Campaign: Maximizing the Potential of Aerial Image Acquisition	
	D	VII/4 JJ. Ulliman Renewable Resources  P. S. Roy (India) Forest Type Delineation from Space Borne data using Visual and Computer aided Techniques – A Case Study from eastern Himalayas India.  K. M. Green (USA) Monitoring Tropical Forest Ecosystems using remote sensing technology.	

- R. N. Jadhav and A. Narain (India)  
Landsat MSS data Preparation on Forest Working Plan – A Case study in dangs Gujarat and Himachal – Himalayan Region.
- A. T. Joyce and S. A. Sader (USA)  
Relationship Between Forest Clearing Biophysical Factors and Transportation Infrastructure in Tropical and Subtropical Regions.
- E II/MF Z. Jaksic  
S.1 Manufacturer's forum/Photogrammetric Instruments
- A. Colla (Italy)  
O.M.J. Announces a new High-performance, low cost Analytical Stereo-plotter, the AP-5 "Bravo"
- G. Robertson and A. Wyatt (Canada)  
P.A.S.S. 2000/Real-Time Image Processing and Target Recognition System for Photogrammetric Systems.
- D. Hobbie (F.R.G.)  
The Zeiss line of Photogrammetric Systems
- D. Hobbie and H. Rüdener (F.R.G.)  
The Zeiss Planicomp Family; a user Oriented Solution to Practical Requirements
- J. Höhle (Switzerland)  
The Development of the Photogrammetric Digital Plotting Tables at Wild Heerbrugg
- E. Assmus (Switzerland)  
A new Software System for Digital Mapping
- R. A. McLaren and A. R. Berrill (Switzerland)  
Photogrammetric Data Capture: the Intelligent Approach
- K. Klaver (Switzerland)  
The Kern Computer aided Mapping System new Developments
- F VII/6 Huizing  
S.1 Environmental Monitoring
- M. L. N. de Oliveira and M. S. S. Barros (Brazil)  
The use of Photo Interpretation for Socio-Economic Characterization of urban population.
- B. Forster (Australia)  
Temporal Monitoring of a High Density City Using Landsat Data
- C. Foresti, M.L.N. de Oliveira and M. Niero (Brazil)  
The use of Image Registration Technique in Urban Growth Monitoring.
- H V/1 J. W. C. Gates  
S.1 Analytics of Non-Topographical Photogrammetry
- J. W. C. Gates and K. B. Atkinson (U.K.)  
Photogrammetry in Science and Technology: a Report on the Activities of ISPRS Commission V (1980-1984)
- H. M. Karara (USA)  
Analytics of Non-Topographical Photogrammetry: a Report on the Activities of ISPRS WG V/1 (1980-1984)

I. A. Harley (UK)  
Calibration in Close Range Photogrammetry (Invited Paper)

D. C. Brown (USA)  
Unflatness of Plates as a Source of Systematic Error in Close Range  
Photogrammetry (Invited Paper)

13:30–15:00

C

V/1 H. M. Karara  
S.2 Analytics of Non-Topographical  
Photogrammetry

W. Wester-Ebbinghaus (D)  
Mor-Eine Allgemeine Lösung für die Mehrbild Orientierung

E. Kruck (D)  
Bingo: a Program for Bundle Adjustment for Engineering Applications  
– Possibilities, Facilities and Practical Results

J. Jaakkola (SF)  
On the accuracy of Non-Topographic Plotting

J. Pietschner and H. Schulz (GDR)  
Program System TEBIT – Overview and Basic Philosophy

D

VII/4 J. J. Ullman  
Renewable Resources

H. S. Teotia (Brazil)  
Small Scale Landsat Imagery in Detection and Mapping of Gray Brown Alluvial  
Soils, hill Soils and Yellowish Brown Soils over arid and semi-arid part of NW  
India.

E. Nieuwenhuis, et al (pays-bas)  
An exercise in soil survey and land Evaluation Using Digital Processing and  
Image Interpretation.

R. Escadafal (Tunisie)  
Organisation Superficielle et Télédétection des sols de la Région de Tataouine  
(Sud Tunisien)

H. S. Teotia and L. E. Mantovani (Brazil)  
Utilization of Landsat Data for Land Evaluation and Managing Soil  
Resources under Semi-Arid Conditions of North West Brazil.

E

II/MF L. W. Fritz  
S.2 Manufacturer's Forum/Photogrammetric and Remote Sensing Instruments

A. Chapuis (Switzerland)  
The new kern DSR 11 First Order Analytical Plotter Based on Distributed  
Processing

L. Cogan and D. Hunter (Switzerland)  
An Application of the Kern Correlator

C. Vigneron (France)  
Traster Family

K. Szangolies and W. Marckwardt (GDR)  
Development of New Equipment for Photogrammetry by VEB Carl Zeiss Jena  
from 1980 to 1984.

G. Bauer, H. Zahn and J. Rolf (GDR)  
Retification System from Jena

- H. Stiller (USA)  
Quality Services Provided by Precision Photo Laboratory Inc.
- C. Dorn (GDR)  
Interactive Image Processing in Cosmic Remote Exploration with GDR Image Processing in Systems
- F VII/7 H. Ochiai  
S.1 Oceanography and Coastal Zone
- L. Loubersac (France)  
Idées et Interest Relatifs aux Applications de la Télédétection Sattellitaire a L'Ocean Pacifique
- C-C. Chen (R. of China)  
Application Potentials of Nimbus-7 Coastal Zone Color Scanner Remote Sensed Data to Coastal Fisheries
- M. M. Abdon (Brazil)  
Maps of Favorable Areas for Tuna Fishing to the South and Southeast of Brazil Prepared from MSS—2 Satellite Data.
- S. Tassan and B. Sturm (Italy)  
An Algorithm for Sediment Retrieval in Coastal Waters from CZCS data with low Sensitivity to the Atmospheric Correction Uncertainties.
- 15:30—17:00 C V/3 + B I. Newton  
S.1 Recording and Measurement Technology for new Applications-Bioestereometrics
- G. W. Butcher and L. Wright (UK)  
An Application of Holography in Medicine and Dentistry. The Measurement of Reflection Holograms of Plaster Facemasks.
- A.N. Cherny (USSR)  
Solving the Main Photogrammetric Task by a Stereopair of Panoramic X-Ray Pictures
- E. Vozikis, J. V. Baumann and Koenig (CH)  
Use of Photogrammetry in Orthopaedics and Surgery
- S. K. Ghosh and M. Boulianne (CND)  
X-Ray Photogrammetry and Floating Lines in Support of Neurosurgery
- G. Robertson and C. W. Miles (CND)  
Measurement of Ultrasonic Imagery Using a Photogrammetric Method
- D VII/1 G. Hildebrandt  
S.1 Methodology for Enhancement and Thematic Classification of Visible and Infrared Data
- D. Blamont, C. Mering and J-F Parrot (France)  
Numerical Processes for Identification of Landscape Units in Mountainous Areas
- J. C. Cazaux (France)  
Spot Simulation Program
- J. C. Rivereau (France)  
Spot Imagery: Future Products and Potential Applications
- E II/MF W. M. Strome  
S.3 Manufacturer's Forum Remote Sensing Instruments
- J. L. Seligmann (France)  
PINTRAL a Matra Line of Image Processing Terminals for Large Size Imagery

- R. Cederberg (Sweden)  
Processors for Image Analysis
- V. Dubê and M. A. Schindler (Canada)  
ARIES-II Image Analysis System and the new Advanced Image Processing  
Architecture for Thematic Mapper and Spot Data
- M. Nakamura, S. Deguchi, K. Suzuki and T. Harada (Japan)  
Raster-to-Vector Conversion System
- K. Szangolies (GDR)  
The Equipment System of VEB Carl Zeiss Jena for the Remote Sensing of  
the Earth
- B. Grush (Canada)  
Perceptron's Expert Analysis System Interface
- J. R. Bennet, R. A. Deane and D. Okerson (Canada)  
New Generation Integrated Radar Mapping System IRIS
- P. Cannon (USA)  
Image Processing Applications for the ST-100 Array Processor
- F VII/7 H. Ochiai  
S.2 Oceanography and Coastal Zone
- K. Muneyama, I. Asanuma and Y. Sasaki (Japan)  
An Application of NOAA-AVHRR Data for an Oceanic Structure Analysis  
at sea of Okhotsk
- P. Jerzy (Poland)  
Translocation of Surface Mass of Waters in Admiralty Bay King Georges  
Island Arch South Shetland
- S. S. de Godoi and M. R. Stevenson (Brazil)  
Seasonal Oscillations of the Subtropical Convergence Between the Brazil and  
Malvinas Currents Using Oceanographic and MSS-2 Satellite Data
- T. Hosomura, H. Shimoda and T. Sakata (Japan)  
Digital Processing of the Nimbus-7 CZCS in the Adjacent Waters of Japan.
- H VI/2 O. Adekoya  
S.1 Report and History
- J. Hothmer (FRG)  
Report on Commission VI, 1980-1984
- T. Blachut (Canada)  
Report Commission VI/Working-Group 2

TUESDAY – 19 JUNE 1984

- 09:00–10:30 C I/5 R. W. Lorenz  
S.1 Processing and Printing of Aerial Photography
- R. W. Graham (UK), R. W. Lorenz and M. Hassan (NETH)  
Processing of Aerial Photograph (Invited Paper)
- J. Sievers and N. Walter (FRG)  
Processing of Various Aerial Films with a PAKOTONE Processor
- R. W. Lorenz (NETH)  
Comparative Testing of Continuous Processors for Aerial Films

- R. W. Lorenz and S. Visch (NETH)  
Electronic Contrast Modulation in Printing Aerial Photography with a Modified Concept of Electronic Masking Printer – SCANTRON
- J. A. Horn and J. M. Tugwood (NETH)  
Some investigations into Optimizing Exposure and Processing for Aerial Photography
- J. V. Baccozi, Jr. (USA)  
Effects of Changing the Spectral Sensitization of an Aerial Film to Improve Product Performance
- W. Liekens N. Verychen and H. Van Der Poel (NETH)  
Photographic and Physical Characteristics of new General of Aerial Films Aviphot Pan 150 PE and Avitone Copying Film.
- D VII/5 J. V. Taranik  
S.1 Non-Renewable Resources
- V. K. Verma, C. Prasad and G. S. Rawat (India)  
Study of Alluvial and Talus Fans in Himalaya by Remote Sensing Techniques
- R. A. Chansarkar and V. K. Verma (India)  
Regional Morpho-Geologic Structures in Parts of Himalaya from Landsat Imageries
- O. Kolbl (Switzerland)  
Analyse des Terrains Instables a aide de Photographies Aériennes – Diachroniques
- E V/2 W. Wester-Ebbinghaus  
S-1 Low Altitude Aerial Photography
- W. Wester-Ebbinghaus (D)  
A Report on the Activities of ISPRS Commission V/Working Group 2 (1980-1984)
- J. Heckes (D)  
Überblick über Flugsysteme für Photogrammetrische Luftaufnahmen in Nahbereich – Invited Paper
- K. L. Busewmyer (D)  
Einsatz – und Verwendungsmöglichkeiten von Ferngelenkten Luftschiffen und Ballonen Bei Der Luftbilderstellung
- H. Wanzke (D)  
The Employment of a Hot-Air Ship – for the Stereophotogrammetric documentation of Antique Ruins
- J. Heckes, R. Kotonski and L. Maelshagen (D)  
Ballon-Photogrammetrie über dem Grabungsfeld von Mohenjodaro/Pakistan
- A. Meid and K. U. Hansch (D)  
Ein Praktisches Beispiel zur Nahbereichsluftbild Photogrammetrie
- H II/1 L. W. Fritz  
S.1 Analytical and Hybrid Photogrammetric Instruments
- L. W. Fritz (USA)  
Report on Commission II/Working Group 1; Development Trends in Analytical and Hybrid Instrumentation – Invited Paper
- V. Kratky (Canada)  
Software Simulations of On-Line Analytical System – Invited Paper

- M. C. Van Wijk (Canada)  
Instrumentation for a Cadastral Land Information System – Invited Paper
- G. Konecny (FRG)  
Photogrammetric Data Acquisition for Land Information Systems – Invited Paper
- U. S. Stampa-Wessel, J. Leonhardt and K. Jacobsen (FRG)  
Use of Analytical Stereoplotters for the Establishment of Land Information Systems.
- K. A. Grabmaier (The Netherlands)  
Or-1 Linked with PDP-11 Minicomputer
- L. Xian Ling (China)  
A China-Map Orthophoto Projector (S.P.)
- (S. P. – Papers Submitted only for Publications in the Proceedings)
- G. C. Huurneman and K. Tempfli (The Netherlands)  
Composite Sampling Using a Minicomputer Supported Analog Instrument (SP) (S.P.)
- D. Roman, C. Stanescu, A. Lustig and C. Nasca (Romania)  
Multiuser System in Digital Cartography (S.P.)

11:00–12:30

C

1/5  
S.2

- L. C. Holstein  
Acquisition of Aerial Photography
- R. W. Lorenz (Neth)  
Specifications for Aerial Photography – A Review, Critical Remarks and an Outlook (Invited Paper)
- G. Fulmer (USA)  
Application of Electro-Photography to Remote Sensing (Invited Paper)
- R. W. Lorenz (Neth)  
Assessment of Quality of Aerial Photography
- W. Brindöpke (FRG), M. Jaakkola (Fin.), O. Kobl (Switz.) and P. Noukka (Fin.)  
Optimum Emulsion for Large Scale Mapping
- R. W. Graham (UK), J. Kure and R. E. Reed (Neth)  
Small Format Microlight Surveys

D

V/2  
S.2

- L. Mauelshagen  
Low Altitude Aerial Photography
- M. Kügelken (D)  
Ein Neues RPV für Luftaufnahmen in Nahbereich
- M. F. Bolt and K. B. Atkinson (UK)  
Space Resection of 35 mm Model Aircraft Photography
- M. Kügelken (D)  
Ultraleicht-Flugzeuge als Kameraträger für Luftaufnahmen
- J. Kunkel (D)  
Der Einsatz von Drachen für Luftaufnahmen in Nahbereich (to be presented by J. Heckes)
- T. Oshima, K. Miyashita and A. Cho (Japan)  
Development of Radicon (Radio Control) System Using Model Plane and kit Kite Balloon and some Applications.

- W. Wester-Ebbinghaus  
Business Meeting of V/2 (Commission V/Working Group 2)
- E VII/9 R. A. Welch  
Land Use and Land Cover
- R. A. Welch (USA)  
The Status of Land Use / Cover Mapping from Remote Sensing Problems
- N. Sözen (Turkey)  
The Role of Remote Sensing in Resource Evaluation and Land use Decisions
- M. A. Chico (Argentina)  
Landsat Data for Cartography Land Use
- F VII/4 J. J. Ulliman  
S.3 Renewable Resources
- W. A. Befort and J. J. Ulliman (USA)  
Aerial Photo Interpretation of Forest Habitat Types
- J. M. Sadeghison (Iran)  
Remote Sensing Activities in Iran
- W. B. Cohen and M. D. Ashley (USA)  
Coniferous Regeneration Survey Using Color Infrared Aerial Photography  
R. Hatamura, I. R. Saraiva, H. Aoki, I. S. Mota and L.J.B. Favrin (Brazil)  
Volumetric Estimation of Araucaria Angustifolia by Using Aerial Photographs
- H II/3 F. C. Billingsley  
S.1 Instruments for Analysis of Remotely Sensed Data
- F. C. Billingsley (USA)  
Report of II/3 (Commission II/Working Group 3): Instruments for Analysis  
of Remotely Sensed Data (Invited Paper)
- W. M. Strome, D. G. Goodenough, K. B. Fung and A. J. Baillie (Canada)  
Array Processing Techniques for Image Analysis (Inv. Paper)
- R. Bernstein (USA)  
Advanced Image Processing and Analysis of High Resolution Multispectral  
Data (Invited Paper)
- B. Grush (Canada)  
User Interface and Digital Remote Sensing Analysis (Inv. Paper)
- 13:30–15:00 B General F. J. Doyle  
Assembly  
S.1
- G I/1 Poster Session  
PS-S1 Image Data Quality
- R. Burth and J. J. Saladin (USA)  
Improving Stereoscopic Acuity in Plotter Operations
- H. N. Nagaraja (Sing.)  
A Study Bearing on the Geometric Deformations on the Visual Stereomodel
- G I/3 Poster Session  
PS-S1 Sensor Orientation and Navigation
- R. E. Read (Neth)  
The Aircraft as a Camera



- R. W. Lorenz and H. F. Becker (Neth)  
Recent Improvements in Survey Navigation
- G III/PS Poster Session  
S.1 Mathematical Analysis of Data
- G. H. Ligterink (Neth)  
Aerial Triangulation by Independent Models; the Covariance Matrix of the Observations and their Influence
- S. S. C. Wu (USA)  
Digital Image Processing for Planetary Topographic Mapping
- S. S. C. Wu (USA)  
Current Approaches to the Problem of Side-Looking Radar Mapping
- U. A. Rauhala (USA)  
Integration of Surveying Technologies Using Array Algebra
- G V/PS Poster Session  
S.1 Non-Topographic Photogrammetry
- R. Hüther and L. P. Adams (Za)  
Two Phase Photogrammetry With Displaced Control
- S. S. C. Wu (USA)  
Error Analysis of Mapping Using Facsimile Cameras
- R. A. Munjy (USA)  
A Finite Element Analysis of the Effect of Having Fiducial Marks in Non-Topographic Photogrammetry
- C. S. Fraser (USA)  
Network Design Optimization in Non-Topographic Photogrammetry
- H. G. Bas (Tr)  
Linearization of the Collinearity Equations Without Serial Expansion and its Application to the Space Intersection
- G VI/PS Poster Sessions  
S.1 Economics,  
Professional Aspects,  
Education,  
Periodicals,  
Terminology,  
Bibliography,  
History,  
International Exchange of Information
- D. Rokos (Greece)  
Photogrammetric and Remote Sensing Education and Research in the South Eastern Mediterranean Countries
- O. Ayeni (Nigeria)  
Photogrammetric and Remote Sensing Education In Africa
- H. Bonneval (France)  
Enseignement de la Photogrammétrie et de la Télédétection en France
- T. Oshima (Japan)  
Report on Inventory of Manpower and of Education and Research Facilities in Far East Asian Countries

- Y. Neumyvakin (USSR)  
Training of Specialists for Remote Sensing of Land Resources at Moscow  
Institute of Land Use Planning Engineers
- G. Fraysse (European Community)  
The Approach of the Joint Research Center of the European Communities to  
Applied Research and Education in Remote Sensing
- A. Adamec (Australia)  
Photogrammetry and Remote Sensing-A Review of Training in Australia and  
Oceania
- S. Gosh (Canada)  
Education and Research Facilities in North America
- O. Olujohungbe (Eca-Addis Abada)  
Existing Procedure in Africa Regarding Multilateral and Bilateral Technical  
Cooperation in Cartography Including Remote Sensing
- S. Ihemadu (Nigeria)  
The Problems of Technical Assistance Arrangements
- R. Winter (FRG)  
Professional Education in Digital Remote Sensing in the F. R. of Germany
- J. Bittencourt (Brazil)  
Photogrammetric and Remote Sensing Education in Brazil
- I. Vitorello (Brazil)  
The Role of Education in a National Remote Sensing Program
- Placidino Fagundes (Brazil)  
The Meaning of Cartographic Engineering in Brazil
- H. Steen (FRG)  
Das Luftbild und die Fernerkundung in Rahmen per Ausbildung zum  
Tropentechnologen
- K. Kantezhardt (FRG)  
Education of Surveying Engineers in Land Surveying Offices in the Different  
States of the F. R. Germany
- A. Miller (FRG)  
Significance of Colleges of Applied Sciences for Technology Transfer to Third  
World Countries

15:30-17:00

C

V/1  
S.3

E. Dorrer  
Analytics of Non-Topographical Application

R. R. Chamard (USA)  
The US-Z's Non-Topographical Application

H. Fuchs and F. Leberl (Austria)  
Universal Analytical Plotter Software for Photographs with Perspective  
Geometry (CRISP)

C. Meglone and L. G. Gillen (USA)  
Use of the MACO 35/70 in Close-Range Photogrammetry

H. Fuchs (Austria)  
Ultra-Close Range Non-Metric Camera Set-Up on an Analytical Plotter

D

VI/10  
S.1

T. Oshima  
Standards for Education

- A. Adamec (Australia)  
Report on WG- VI/10 (Commission VI/Working Group 10) Discussions
- E VII/5 J. V. Taranik  
S.2 Non-Renewable Resources
- J. V. Taranik (USA)  
Summary of Significant Results in the Remote Sensing for Non-Renewable Resources, 180-1984 Report of VII/5 (Commission VII/Working Group 5)
- J. Chorowicz and F. Medina (France)  
Carte Géologique Téléanalitique du Haut Atlas Occidental (Marco),  
Comparaison Avec les Données Geophysiques et de Forages
- B. Cervelle, A. Bothorel, P. Bouchet, G. Tamain and J. Chorowicz (France)  
Application of the Remote Sensing to the Characterization of Some Mineral (iron, nickel, copper) in Arid Regions of Marocco
- J. P. Ford (USA)  
Geological Mapping from Spaceborne Radar Images in Heavily Vegetated Tropical Environments
- F VII/9 R. A. Welch  
Land Use and Land Cover
- A. Boud (Canada)  
Remote Sensing and Information Systems
- M. D. Griffith (Jamaica)  
An Integrated Remote Sensing and Geographical Information System: the Jamaican Example
- R. Burtch (USA)  
The Role of the Cadastre in a Geographic Information System
- H IV/7 K. Lester  
S.1 Map Revision
- K. Lester (South Africa)  
Revision of the National Map Series of South Africa
- K. Kraus (Austria)  
Map Revision Using Stereo-Orthophotos
- A. Ostman (Sweden)  
Revision of Base Maps & a Survey of Procedures and Problems
- J. Drummond (Netherlands)  
Environmental Monitoring and Map Revision Using Integrated Landsat and Digital Cartographic Data Sets
- WEDNESDAY – 20 JUNE 1984
- 09:00–10:30 C VII/5 J. V. Taranik  
S.3 Non-Renewable Resources
- R. W. Birnie and R. T. Holcomb (USA)  
Remote Infrared Thermal Surveys – A Method of Monitoring Active Volcanism at Mt. St. Helens – Washington State
- G. Gess, A. Marie, C. Lallemand and P. Dutartre (France)  
Télé-détection et Anomalies de Subsurface en Bresse (France)

- I. Vitorello and R. A. F. (Brazil)  
Multiseasonal Variable in Digital Image Enhancements for Geological Applications
- I. Vitorello, M. D. Monteiro and W. R. Paradella (Brazil)  
Lithological Discrimination by Digital Processing: A Case Study in Serra do Ramalho – Bahia
- E VII/7 H. Ochiai  
S.3 Oceanography and Coastal Zone
- H. Ochiai (Japan)  
Monitoring of Sea Surface Phenomena in Coastal Area by Remote Sensing
- I. V. Muralikrishna (India)  
Study of Large Scale Tidal Vortices Through Remote Sensing
- T. Thorén (Sweden)  
Applications of Remote Sensing Techniques to Oceanography and Sea Ice
- F IV/2 G. C. Agarwal  
S.1 Mapping Technology and Applications for Developing Countries
- R. Bustamante (Mexico), F. Lopez (USA)  
Landsat Mosaic of the Mexican Republic
- J. Ogunlami (Nigeria)  
Status and Future of Topographic and Large Scale Township Mapping in Nigeria
- O. Hofmann (FRG)  
The Application of Digital Photogrammetric System DPS to Photogrammetry and Remote Sensing
- A. Adamec (Australia)  
Computer Mapping with Dated Equipment
- Chi Ming (China)  
Application of Photogrammetry to the Survey in Geophysical and Geochemical Exploration in China
- De Amorim Costa (Brazil)  
Agrarian Cadaster; Comparison Among Three Different Methods of Surveying for this Purpose
- H V/1 C. S. Fraser  
S.4 Analytics of Non-Topographical Photogrammetry
- C. S. Fraser (USA)  
Multiple Exposure in Non-Metric Camera Applications
- A. Gruen (USA)  
Processing of Amateur Photographs
- F. Müller and M. Stephani (D)  
Efficient Consideration of Geodetic Observations and Object Information in Bundle Adjustments
- T. Norbech (N)  
General Relative Orientation and General Spatial Resection in Numerical Photogrammetry

11:00–12:30

- C
- V/3 M. C. Van Wijk  
S.2 Recording and Measurement Technology for new Application/Non-Conventional Imaging Systems
- M. C. Van Wijk (Canada)  
A Report on the Activities of ISPRS WG V/3 (1980-1984)
- R. J. Pryputniewicz  
High Precision Hologrammetry for Quantitative Analysis of Structural Deformations
- E. Vozikis and N. Douzinas (Ch)  
Results of an Attempt to Carry out Photogrammetric Restitution of Photomacrographs
- M. S. Elghazali (KWT)  
System Calibration of Scanning Electron Microscopes
- Z. Wishaby (ET)  
Simple Procedure to Refine Ultrasonic Imageries Obtained by an Oscilloscope Camera
- D
- VII/6 Huizing  
S.2 Environmental Monitoring
- S. S. Kumar and K. S. Babu (India)  
Selection of Optimum Combination from Different Forms of Aerial and Satellite Data for Ground Water Studies in Indian Gondwana and Crystalline Environments
- E. Amadesi, G. Casalicchio and G. Vianello (Italy)  
Methodology of Environmental Research for new Settlements in the Eastern Sulawesi (Indonesia)
- C. M. V. Binagui, A. B. Viola and W. G. Brooner (Argentina)  
Landsat Monitoring of Temporal Hydrological Variations and Actual Land Use on Laguna Yema Area (Formosa Province – Arg.)
- M. Ashworth, T. R. E. Childley and W. G. Collins (UK)  
Visual Analysis of Digital Images for Studies in Water Resources
- E
- IV/8 R. Chamard  
S.1 Digital Applications for Cartography and Remote Sensing
- L. Molner (Austria), A. Kostly (FRG)  
User Interface Module Comprising Both Menu and Command Language Techniques – As Applied RN Photogrammetric Program Systems
- A. Adamec, O. Slade (Australia)  
Computer-Assisted Generalization
- R. Ruotsalainen (Finland)  
Experience With the Photogrammetric Map Compilation as Part of a Digital Mapping System
- W. Valentine, R. Boler (USA)  
Status of Large Scale Digital Topographic Mapping in North America
- M. Caprioli (Italy)  
Application of Direct Digitalization on Stereoplotting Instruments for Original Mapping Systems
- O. Kolbl (Switzerland)  
Interactive Digital Stereoplotting

- G. Oesterhelt (USA)  
Automated Scanning and Digitizing of Multilayered Cartographic Map Information
- H V/1 S. Murai  
S.5 Analytics of Non-Topographical Photogrammetry
- H. M. Karara and L-C. Chen (USA)  
Optimization of Non-Metric Analytical Close-Range Photogrammetric Networks
- S. Murai, R. Matsuoka and T. Okuda (Japan)  
A Study on Analytical Calibration for Non-Metric Camera and Accuracy of three Dimensional Measurement
- H. M. Karara/Chairman  
Business Meeting of V/1 (Commission V/Working Group 1)
- 13:30–15:00 C III E. Kilpelä  
S.1 Presentation of Commission III Activities
- E. Kilpelä (Finland)  
Report on the Activities of Commission III – 1980-1984
- F. Ackerman (FRG)  
Working Group 1: Identification and Elimination of Gross and Systematic Errors
- V. Kratky (Canada)  
Working Group 2: On-Line Photogrammetric Triangulation
- K. Torlegard (Sweden)  
Working Group 3: Mathematical Aspects of Digital Terrain Information
- E. M. Mikhail (USA)  
Working Group 4: Mathematical Aspects of Image Registration, Rectification and Enhancement
- F. Leberl (Austria)  
Mathematical Pattern Recognition and Image Analysis
- D VI/9 + 11 A. Brandenberger  
S.1 Symbols for publications (Papers on Education)
- J. Pietschner (GDR)  
Report on WG VI-9 (Commission VI – Working Group 9)
- W. Zhizhou (China)  
Feasibility for Establishing an Educational System of Surveying and Mapping on a High Academic Level for the Region of Southeast Asia
- C. Paresi (Neth)  
Individualized Training Packages, an ITC Contribution for Improvement of Photogrammetric Operator and Technician Training System
- B. Forster (Australia)  
A Masters Degree Program in Remote Sensing
- E VII/1 G. Hildebrandt  
S.2 Methodology for Enhancement and Thematic Classification of Visible and Infrared Data
- Y. P. Kienko (USSR)  
Remote Sensing for the Natural Studies

- F. Quiel (FRG)  
Trends and Developments in Thematic Classification of Multispectral Data
- G. Saint (France)  
Research Orientations for use of Future Satellite Remote Sensing Systems
- F VII/4 J. J. Ulliman  
S.4 Renewable Resources
- G. H. Griffiths and W. G. Collins (UK)  
Monitoring Semi-Arid Rangeland Vegetation in Northern Kenya from Landsat Digital Data
- L. J. B. Fravrin (Brazil)  
Quantitative Analysis of the Vegetation Cover Alteration in the "Município de Campos do Jordão"
- T. E. Beaumont (UK)  
Utilization of Landsat Satellite Data for District Agricultural Development Planning in the Southern Region of Sudan
- H V/3 S. F. El-Hakim  
S.3 Recording and Measurement Technology for new Applications: Optical Systems
- J. M. Burch and C. Forno (UK)  
Progress with the NPL Centrax System for Precision Photogrammetry
- I. T. Antipov and A. I. Kivaev (USSR)  
Application of Panoramic Photographs in Close-Range Photogrammetry
- H. J. Hellmeier (D)  
The Use of Fisheye Lenses in Close Range Photogrammetry
- S. Oldfield (UK)  
The Effect of Field Angle on the Position of the Outer Perspective Center
- M. C. Van Wijk  
Business Meeting of WG V/3 (Commission V/Working Group 3)
- 15:30–17:00 C III/1 F. Ackermann  
S.1 Detection of Gross Errors in Aerial Triangulation
- W. Förstner (FRG)  
Report on Phase 2 of the Test on Gross Error Detection of ISP WG III/1 and OEEPE
- P. Frederiksen, K. Kubik and W. Weng (Denmark)  
Oh, Blunders! (Invited Paper)
- L. Colombo and L. Mussio (Italy)  
Experimental Classification of Gross Errors in Aerial Block Triangulation by Independent Models
- H. Klein and W. Förstner (FRG)  
Realization of Automatic Error Detection in the Block Adjustment Program PAT-M-43 Using Robust Estimators
- D VI/1 + 7 S. Ghosh  
S.1 Inventory of Manpower
- A. Brandenberger (Canada)  
Report on WG-VI-1 (Commission VI/Working Group 1) Discussion

J. Hothmer  
Technical Cooperation for Development

J. Hothmer (FRG)  
Report on WG VI-7  
Discussion

- E VII/6 Huizing  
S.3 Environmental Monitoring
- W. G. Collins and P. Collier (UK)  
Monitoring With the AID of Aerial Photography, the Natural Environment  
of a New Town
- H. Aoki, I. R. Saraiva, J. R. dos Santos and P. Hernandez Filho (Brazil)  
Wild Areas Monitoring Using Landsat Data
- C. G. Horis Grumazescu and G. S. S. Stanculescu (Romania)  
Remote Sensing Techniques for the Assessment and Surveillance of Water  
Resources on the Romanian Territory
- F VII/1 G. Hildebrandt  
S.3 Methodology for Enhancement and Thematic Classification of Visible and Infrared  
Data
- V. Zsilinsky and K. Dusan (Canada)  
The Capabilities of Color Infrared Film as a Negative
- J. J. Ulliman and M. L. Hoppus (USA)  
Scale Determination on Vertical Aerial Photographs
- E. Csaplovics (Austria)  
A Practical Application of Color Infrared (IR) Image Interpretation: the  
Classification of the Reed of Lake Neusiedl (Austria)
- H. Mohl and R. Schwebel (FRG)  
The Zeiss Stereocord: Many Applications in Measurement and Interpretation
- H V/4 I. Newton  
S.1 Photogrammetry for Industrial Construction and Mensuration
- R. A. Baldwin (UK)  
An Underwater Photogrammetric Measurement System for Structural  
Inspection
- A. Gutu, E. Olteanu, R. Radulescu and S. Scafaru (Romania)  
Photogrammetric Study on the Ship Model Gyration Movement Monitoring  
in Gyration Wet Docks
- K. Reichenbach (D)  
Terrestrial Photogrammetric Surveying of a Large Scale Excavator
- J. Juhl and O. Brande-Lavridsen (DK)  
A Photogrammetric Survey of a Drilling Platform of a 10 m Diameter Radio  
Antenna
- S. Oldfield (UK)  
Photogrammetric Determination of the Form

THURSDAY – 21 JUNE 1984

09:00–10:30 C II/3 W. M. Strome  
S.2 Instruments for Analysis of Remote Sensed Data



- S. Chandrasekhar (India)  
Parallel and Array Processing for Image (Invited Paper)
- T. Oshima, K. Miyashita, S. Tanaka (Japan) and J. Jusaka (USA)  
A Remote Sensing Data Processing System Using a Microcomputer and its  
Analysis Example (Invited Paper)
- M. Uehara (Japan)  
Interactive Image Processing System Using a General Purpose Computer
- E. E. Derenyi and R. Yazdani (Canada)  
Spatial Information Processing in Digital Image Analysis System
- D I/S.S. R. Welch (S.S.)  
S.1 Satellite Systems for Observation and Mapping of the Earth
- F. J. Doyle (USA)  
Photographic Systems for Space
- C. Honvault (France)  
The Earth Observation Satellite Programs Planned by ESA
- G. Brachet (France)  
Spot, a New Generation of Land Remote Sensing Satellites
- W. Webb and W. Watt (USA)  
Landsat-5; Description and Preliminary Assessment
- E VII/8 R. O. Ramseier  
Ice and Snow
- L. Kolondra (Poland)  
The Recording and Determination of Vectors of Movements on the Hans  
Glacier/Spitsbergen/Surfaces and Extension of its Front
- S. Krzysztow (Poland)  
Aerial Photographs Interpretation of Ice Cover in the Southern Part of  
Szczecin Bay
- A. M. Cowan and K. A. Ulbricht (FRG)  
Satellite Imagery on Ice Eddy Dynamics
- A. K. Bagchi (Nigeria)  
Snow Cover and the Open Patches
- F VII/5 J. V. Taranik  
S.4 Non-Renewable Resources
- H. W. Linke (FRG)  
Photogeological Interpretation of the Gulf of Suez Area
- J. K. Liu (R. of China)  
  
Two Newly-Discovered Tectonic Patterns in Taiwan Region, the Circular  
Pattern and the NeW-SE Shear Pattern – as Interpreted From Small Scale  
Remote Sensing Images
- B. V. Peshwa and V. S. Kale (India)  
Geological Interpretation on Bhaskara-II (I.S.R.O.) Imageries: a Comparative  
Study of the Results Using Landsat Imageries and Aerial Photographs
- E. Riva (Italy)  
Photogeology of P. D. R. of Yemen Coast

- H III/1 E. M. Mikhail  
S.2 The Status of Mathematical Models for Photogrammetric Point Determination
- M. Molenaar (Neth)  
The Present Status of the Theory for Evaluation of the Quality of Photogrammetric Point Determination (Invited Paper)
- R. Schroth (FRG)  
An Extended Mathematical Model for Aerial Triangulation
- K. Jacobsen (FRG)  
Analysis of Remaining Systematic Image Errors
- O. Kölbl (Switzerland)  
Vergleichende Aerotriangulation
- 11:00–12:30 C II/2 B. Makarovic  
S.1 Automated Photogrammetric Instruments and Systems
- B. Makarovic (Neth)  
Report of Working Group II/1: Automatic Equipment and Systems (Invited Paper)
- Z. Jaksic (Canada)  
Photogrammetric Processes and Systems (Invited Paper)
- G. L. Hobrough and T. B. Hobrough (Canada)  
Stereo Correlation for Large Scale Photogrammetry (Invited Paper)
- J. Albertz and G. Koenig (FRG)  
A Digital Stereophotogrammetric System (Invited Paper)
- Submitted Papers (S.P.) Accepted Only for Publication in the Proceedings
- B. Makarovic (Neth)  
On Performance of Digital Off-Line Systems for Automatic Production of DTM Data (S.P.)
- B. Kunji (Neth)  
Experiments in Digital Processing of Photogrammetric Images (S.P.)
- L. Azzarelli, A. E. Baj and M. Chimenti (Italy)  
Preprocessing Procedures for Automatic Plotting in Photogrammetry (S.P.)
- A. E. Baj, P. L. Casalini, S. Lombardi and A. Tonazzini (Italy)  
Automatic Measurement of Plate Coordinates for Automatic Plotting (S.P.)
- E VII/10 H. Rib  
S.1 Remote Sensing in Engineering Project and Industrial Processes
- Z. Bau-Xie (P. R. China)  
Application of Remote Sensing Imaging Interpretation to Railway Preliminary Survey in China
- WV Wei-Shun (P. R. China)  
The Application of Aerophotogrammetric Method in the Reconnaissance Survey and Design of Railway
- J. M. Hubertz (USA)  
Application of Remote Sensing Techniques to the Study of Coastal Engineering Problems
- H. Taherkia, J. Morton and G. Collins (UK)  
Scope Stability in Mountainous Roads in Iran. A Case for Remote Sensing?

- F VII/3 G. Guyot  
S.1 Spectral Signatures of Objects
- E. M. L. de M. Novo (Brazil)  
Evaluation of Solar Angle Variation Over Digital Processing of Landsat Imagery.
- A. Rusu and G. Chitea (Romania)  
Remote Sensing and the Three Spectral Signatures
- J. J. Verdesio, J. S. M. Neto, L. J. C. Branco, R. L. Gomide (Brazil)  
Spectral Reflectance as Estimate of Wheat Lai in Tropical Savana
- H. T. Wang and L. Y. Chen (R. of China)  
Monte Carlo Simulation of the Bidirectional Reflectant Distribution Function
- H III O. Kölbl  
S.2 General Papers/Aerial Triangulation, Programs and Experiences
- H. Salmenperä (Finland)  
A Multipurpose System for the Processing of Geometric Observations Adapted to Different Computer Installations
- J. E. Juliá (Argentina)  
A General Rigorous Method for Block Adjustment with Models in Mini and Microcomputers
- J. B. de Andrade, F. A. Rosier and M. A. A. Olivas (Brazil)  
Very Large Aerial Block Triangulation (VLBA-11)
- P. G. Schwarz and E. M. J. Vaessen (Neth)  
FOTEF: Experiences with Data Snooping in Photogrammetric Production
- W. Faig and O. Atilola (Canada)  
Aerotriangulation Using Data from Analog Plotters
- 13:30–15:00 B General Assembly  
S.2 F. J. Doyle F. J. Doyle
- C II/SS J. C. Trinder (S.S.)  
S.2 Satellite Systems for Observation and Mapping of the Earth
- S. Murai and T. Sakata (Japan)  
Earth Observation Satellite Projects in Japan
- K. Raney (Canada)  
The Canadian Radarsat Program
- G. Joseph and P. D. Bhavsar (India)  
Activities at Indian Space Research Organization (ISRO)
- A. Hoeke and M. Irsyam  
Tropical Earth Resources Satellite (TERS)
- G I/4 Poster Session  
PS-S.2 Remote Sensing from Space
- B. Cabrieres, A. Cariou and G. Ponce (France)  
Principles de Realisation de la Couverture D'Une Zone Geographique par le Satellite Spot

- Ph. Hebert and B. Rouge (France)  
Mosaïques Numeriques D'Image
- E. S. Meredith and G. M. Weill (USA)  
Fixed Mode Versus Targeted Modes of Operation: Testing Two Strategies for Spot Data Acquisition over the Conterminous United States
- K. Kaczynski and A. Nowosielski (Poland)  
A System for Remote Sensing Investigations Carried out Synchronously with Passing of the Satellite
- G III/PS Poster Session  
S.2 Mathematical Analysis of Data
- T. Sarjakoski (Finland)  
On Sparse Matrix Techniques for Computation of Weight Coefficient Matrices
- T. Sarjakoski (Finland)  
Efficient Method for Selecting Additional Parameters of Block Adjustment
- R. Larsson (Sweden)  
An Efficient Algorithm for the Computation of the Inverse in Bundle Adjustment Systems
- Sh. Wang (China, Taipei)  
Influence of Control Point Errors on the Adjustment Coordinates of Photogrammetric Blocks
- G V/PS Poster Session/Non-Topographic  
S.2 Photogrammetry
- L. P. Adams and J. D. Pos (ZA)  
Have Height Measurements in Model Harbors Using Close Range Photogrammetry
- B. Szczechowski and J. Orzechowski (Poland)  
The Photogrammetric Measurements of Sea Surface
- L. G. Welham (ZA)  
The Development of an Underwater Measuring Capability Using Photogrammetric Techniques
- M. O. Altan (TR)  
Accuracy Study of Photogrammetric Deformation Measurements at a Test Field
- X. Yang (P. R. of China)  
The Parameters of Convergent Photographs for Close Range Photogrammetry and their Applications
- C. Zhu and X. Yang (P. R. of China)  
The Optimum Configuration of the Convergent Case of Close Range Photogrammetry
- G VII/6 Poster Session  
PS-S.2 Environmental Monitoring
- J. B. Baker and J. E. Drummond (Neth)  
Environmental Monitoring and Map Revision Using Integrated Landsat and Digital Cartographic Data Sets
- M. A. Mohammad (Egypt)  
Detection of Changes in the River Nile Using Landsat – MSS Digital Imagery

15:30–17:00	C	II/4 S.1	<p>L. Marelli Instruments for Preprocessing, Storage, and Dissemination of Remotely Sensed Data</p> <p>L. Marelli (Italy) Report on Working Group II/4: Instruments for Preprocessing Storage and Dissemination of Remotely Sensed Data (Invited Paper)</p> <p>J. J. Quann (USA) Architecture of Computing Systems Used for Processing of Remotely Sensed Data (Invited Paper)</p> <p>B. Clark (USA), L. Fusco (Italy) and J. Murphy (Canada) Comparison of TM Ground Stations: Similarities and Differences in Image Products (Invited Paper)</p> <p>K. Tsuchiya (Japan) Remote Sensing, Sensor Performance Assessment: Instrumentation, Methods and Results (Invited Paper)</p> <p>S. P. Pereira (Brazil) The New Brazilian Landsat 415 Station (Invited Paper)</p> <p>Ph. Couillard (France) Preprocessing of Spot Data at the two Central Ground Stations (Invited Paper)</p> <p>B. Clark (USA) and L. Fusco (Italy) Landsat Digital Data Quality Control Standards (Invited Paper)</p> <p>Y. Yamamoto (Japan) Landsat TM Processing System AT EDC (Submitted Paper Accepted Only for Publication in the Proceedings)</p>
	D	III/SSG. S.3	<p>Konecny (S.S.) Satellite Systems for Observation and Mapping of the Earth</p> <p>J. Wellman Solid State Detector Arrays for Remote Sensing of the Earth</p> <p>I. Dowman Instrumentation for Topographic Mapping from Satellite Data</p> <p>L. Fritz Analytical Instrumentation to Derive Metric Data from the Large Format Camera (LFC)</p> <p>M. Schroeder Flight Performance of the Spacelab Metric Camera Equipment</p>
	E	VII/4 S.5	<p>J. J. Ulliman Renewable Resources</p> <p>V. I. Sukchikch (USSR) Study and Cartography of Forests on the Base of Space Data Application</p> <p>T. Oshima, S. Takeuchi and A. Rikimaru (Japan) Environmental Evaluation of Forest Tree Vitality from Remotely Sensed Airborne MSS Data</p> <p>A. T. Joyce and S. A. Sader (USA) Remote Sensing of Forest Dynamics in Tropical Regions</p>
	H	VI/8 S.1	<p>C. Paresi Promotion of Education</p>

S. Gosh (Canada)

Report on WG VI-8 (Commission VI— Working Group 8): Promotion of  
Photogrammetry and Remote Sensing Education Discussion

FRIDAY – 22 JUNE 1984

09:00–10:30

C

III/3  
S.1

K. Torlegard  
Mathematical Aspects of Digital Terrain Information

M. B. Faintich (USA)

State-of-the-Art and Future Needs for Development of Digital Terrain  
Models (Invited Paper)

P. Frederiksen, O. Jacobi and K. Kubic (Denmark)  
Terrain Classification (Invited Paper)

G. Gross (France)  
Digital Terrain Models – Conspicuous Elements

D

VI/12  
S.2

G. Konecny  
Professional Strategy

D. Fernando (Sri Lanka)

Report on Emphasis Field of VI-12 (Commission VI – Working Group 12)  
Discussion

E

VII/7  
S.4

H. Ochiai  
Oceanography and Coastal Zone

S. Khorram and H. M. Cheshire (USA)  
Remote Sensing of Wildlife Habitats in a Coastal Environment

R. Regrain and J. Rudele (France)  
Téledétection Landsat et Aménagement en Picardie (France): Le Littoral au  
Nord de la Somme

G. Konecny, E. D-Moller, M. Ehlers, D. Kolouch and P. Lohmann (FRG)  
Methods and Possibilities of Remote Sensing in Coastal Areas

S. Krzysztof (Poland)  
Attempt of Analysis of Oil Spills in Port Waters of Szczecin, Based on Aerial  
Photographs

F

VII/4  
S.6

J. J. Ulliman  
Renewable Resources

G. V. de Assunção, M. A. Moreira and R. A. Novaes (Brazil)  
Irrigated Rice Area Estimation Using Remote Sensing Techniques

G. J. Erthal, F. R. D. Veloso and N. D. A. Mascarenhas (Brazil)  
A System of Translation Image Registration for Crop Forecasting

M. A. Moreira, S. C. Chen and G. T. Batista (Brazil)  
Sampling System for Wheat (*Triticum Aestivum* L) Area Estimation Using  
Digital Landsat MSS Data and Aerial Photographs

H

II/2  
S.2

U. V. Helava  
Automated Photogrammetric Instruments And Systems

T. O. Binford (USA)  
Intelligent System for Stereo-Mapping (Invited Paper)

M. M. Allam (Canada)  
The Status of the ISPRS Correlation Test (Invited Paper)

D. Pare (FRG)  
Final Report on the Raster Correlator Development (Invited Paper)

R. R. Real (Canada)  
A System for Digital Processing of Dinamic Imagery (Inv. Paper)

Submitted Papers Accepted Only for Publication

M. M. Allam (Canada)  
Status and Future Potential of Automated Photogrammetric Systems

B. Makarovic (Neth)  
Automatic Production of DTM Data by Digital Off-Line Techniques

E. Gulch (FRG)  
Geometric Calibration of Two CCD Cameras Used for Digital Image  
Correlation on the Planicomp C-100

11:00–12:30

C

I/2  
S.1

C. L. Norton  
Camera Calibration and the Environment

H. Ziemann (Canada)  
Comparison of Camera Calibration Procedures (Inv. Paper)

J. Hakkarainen (Finland)  
Geometric Estability of Aerial Cameras (Inv. Paper)

H. Ziemann (Canada)  
On the Estability of Lenses for Aerial Mapping Photography

T. Hirai and S. Yagi (Japan)  
Total System for Evaluating Aerial Cameras

G. Voss and U. Zeth (DDR)  
The LMK Aerial Camera System

D

II/4  
S.2

J. J. Quann  
Instruments for Preprocessing, Storage, and Dissemination of Remotely Sensed  
Data

F. E. Guertin, R. Simard and D. Friedmann (Canada)  
Multiple Sensor Geocoded Products (Invited Paper)

J. Lyon (USA)  
The U. S. TM Processing System (Invited Paper)

D. Stanley and K. Green (UK)  
Near Real Time Distribution of Digital Remote Sensing Data (I.P.)

W. Webb and W. Watt (USA)  
The Landsat-5 System: Description and Preliminary Assessment (I.P.)

P. G. Thome (USA)  
The Value of Remote Sensing and GIS Technologies to Improving Agriculture  
Information Systems (Invited Paper)

Submitted Papers Accepted Only for Publication:

D. Gray Australia  
The Australian Landsat Station

J. CL. Degrave (Neth)  
Compression of Image Data from Remote Sensing Satellites

- E VII/3 G. Guyot  
S.2 Spectral Signatures of Objects
- G. Guyot (France)  
Main Conclusions of the Activities of the Commission VII/Working Group 3  
between 1980 and 1984
- F. Becker (France)  
Main Contributions of the WG VII-3 to Remote Sensing in the Thermal  
Infrared Bands
- Le Toan and E. P. W. Attema (France)  
Microwave Remote Sensing: Main Contributions of the Working Group  
"Spectral Signatures of Objects in Remote Sensing" – WG VII-3
- F VII/7 H. Ochiai  
S.5 Oceanography and Coastal Zone
- J. Lu and W. Cheng (R. of China)  
The Estuarine Processes of the Tatu River Taichung-by Remotely Sensed  
Data Analysis
- F. Blasco, F. Lavenu, G. Begni and Y. Kerr (France)  
Etude de la Mangrove au Bangladesh à L'Aide de Simulations Spot et de  
Verités Terrain
- H. Karszenbaum, V. Klemas, D. A. Gagliardini and T. Legeckis (Argentine)  
Seasonal Changes and Temperatures Distribution in the Region of Interaction  
of La Plata River and Ocean
- P. Lohmann (FRG)  
Thermal Mapping of Coastal Waters
- H III/3 H. Ebner  
S.2 Accuracy of Digital Elevation Models
- K. Torlegard, A. Östman and R. Lindgren (Sweden)  
A Comparative Test of Photogrammetrically Sampled Digital Elevation  
Models
- P. Frederiksen, O. Jacobi and K. Kubik (Denmark)  
Accuracy Prediction for Digital Elevation Models
- J. S. Bethel and E. M. Mikhail (USA)  
Terrain Surface Approximation and Online Quality Assessment
- F. Ammannati, B. Betti and L. Mussio (Italy)  
Statistical Analysis of Relevant Terrain Features Through Digital Elevation  
Models
- C IV/3 R. Batson  
S.1 Mapping From Space Borne Imagery
- R. Saunders (USA)  
Venus Radar Mapper 1988 Mission
- R. Ondrejka (USA)  
Cartographic and Thematic Mapping Potential and Procedures for the  
Space Shuttle Large Format Camera (LFC)
- A. Colvocoresses (USA)  
Status and Future of Satellite Image Mapping



- G. Camara-Neto (Brazil)  
Ann Integrated System for Geometric Connection of Landsat MSS Imagery
- R. Goldstein (USA)  
Topography by Interferometric Radar
- R. Batson (USA)  
Status and Future of American Extraterrestrial Mapping Programs
- Y. Tjuflin (USSR)  
Remote Sensing for Mapping Planets
- D VII/SS S. Murai (S.S.)  
S. 4 Satellite Systems for Observation ATD Mapping of the Earth
- G. Konecny (FRG)  
Results of the Photogrammetric Camera Mission on Spacelab I
- J. Bodechtel and D. Neisser  
The Moms Experimental on STS-7 and STS-11
- A. Goetz and B. Rock  
Imaging Spectrometry: Results in Remote Identification of Vegetation  
Species and Minerals
- R. Welch  
Mapping from Satellite Image Data in the 1980's
- E V/3 M. C. Van Wijk  
S.4 Recording and Measurement Technology for new Applications/Real Time Systems  
and Computer Vision
- Digital Image Processing – DIP
- H. Haggren (SF)  
New Vistas for Industrial Photogrammetry (Inv. Paper)
- S. F. El-Hakim (Canada)  
Photogrammetric Vision System for Robots
- R. R. Real (Canada)  
Digital Processing of Dynamic Moiré Imagery as an aid in Scoliosis Screening
- H. F. L. Pinkney (Canada)  
An Integrated Systems Approach with Raster Scan Sensors for Industrial  
Robotic Control
- H. S. Mehta (Ind)  
Digital Image Processing in the Study of Structural Behavior of Cement  
Concrete
- F VII/11 P. A. Murtha  
S.1 Vegetation Damage in Agriculture and Forestry
- A. A. Disperati and D. S. Tozzini (Brazil)  
Mapping the Extent and Intensity of Forest Fire in a Reforestation Area  
Using Landsat-3 MSS Data and 35 mm Oblique Aerial Photographs
- J. Robinson (USA)  
Fire from Space: a System Framework for Monitoring Global Biomass  
Burning Using Stallite Remote Sensing
- I. Ohnuki, Y. Awaya and H. Sawada (Japan)  
Landsat Data for Practical Deforestation Detection – A Test Case

- H            I/2    W. Tayman  
               S.2    Camera Calibration and the Environment
- C. L. Norton and H. Ziemann (Canada)  
                   Report on Activities of Working Group 1/2
- C. L. Norton and L. C. Peck (USA)  
                   Images and Geometry Effects of Operational Environments on Aerial  
                   Cameras (Invited Paper)
- H. K. Meier (FRG)  
                   Progress in Improving Performance on Zeiss Aerial Cameras
- J. B. de Andrade (Brazil)  
                   The Brazilian Experience on Camera Calibration
- G. Voss and U. Zeth (DDR)  
                   Some Aspects of Forward Motion Compensation in an Aerial Camera
- 15:30–17:00    C            IV/SS    F. J. Doyle (S.S.)  
                   S.5    Satellite Systems for Observation and Mapping of the Earth
- A. Colvocoresses  
                   Acquisition and Processing of Space Data for Mapping Purposes
- A. Baudoin and J. C. Lummaux (France)  
                   Analytical Systems for Spot Products
- Panel: Satellite Systems for Observation and Mapping of the Earth: Colvocoresses,  
                   Konecny, Murai, Brachet, Honvault and Welch
- E            VII/11    P. A. Murtha  
               S.2    Vegetation Damage in Agriculture and Forestry
- P. A. Murtha (Canada)  
                   Report of the Working Group on Vegetation Damage (WG VII/11)
- G. Hildrbrandt (FRG)  
                   Methodological Aspects of Country Wide Inventory and Monitoring of Forest  
                   Diseases in Germany
- W. M. Ciesla (USA)  
                   Demonstration of Panoramic Aerial Photography for Mapping Hardwood  
                   Defoliation Over a multistate Area of the Northeastern United States
- H            Joint    H. Ziemann  
               Session System and Self-Calibration  
               I/2  
               III/1    A. K. I. Torlegard (Sweden)  
               V/I        Multimodels Increase Accuracy – Summary of an Experiment
- S. S. Nehkin (USSR)  
                   Test Object Photographs for Experimental Estimation of Aerial Survey  
                   Camera and Photos by Field Calibration
- G. Kupfer (FRG)  
                   Full System Calibration in Aerial Photogrammetry Results and Prospects
- H. Ziemann and S. F. El-Hakim (Canada)  
                   The Interrelationship Between Calibration Parameters Determined by System  
                   Calibration and Self-Calibration

MONDAY – 25 JUNE 1984

09:00–10:30

C

V/4  
S.2

L. P. Adams  
Photogrammetry for Industrial Construction and Mensuration

L. P. Adams (ZA)  
A Report on the Activities of ISPRS V/4 (1980-1984)

E. Kruck and B. P. Wrobel (D)  
High Precision Survey of Cooling Towers at Any Height by Analytical  
Photogrammetry

P. A. E. Stewart (UK)  
Photogrammetry for the Non-Invasive Measurement of Void Fraction and  
Velocity in two Phase Flow

J. R. Christensen, O. Jacobi and T. Thorsen (DK)  
A Photogrammetric Method for Establishing the Heeling Angle of a Vessel  
During the test of Transverse Stability

G. E. Powell (USA)  
The Use of Photogrammetry in Manufacture of High Performance Aircraft

D

VII/1  
S.4

G. Hildebrandt  
Methodology for Enhancement and Thematic Classification of Visible and Infrared  
Data

E. D. Moller (FRG)  
Investigation of Some Factors Affecting Digital Multispectral Classification

B. F. T. Rudorff and G. T. Batista (Brazil)  
Factors that Affect Multitemporal Landsat MSS Classification Performance  
of Sugar Cane

A. R. Formaggio, J. R. dos Santos and L. A. V. Dias (Brazil)  
Principal Components Techniques Analysis for Vegetation and Land Use  
Classification

B. Forster (Australia)  
Urban Feature Extraction from Thematic Mapper Data

E

III/2  
S.1

V. Kratky  
Algorithms and Structures in On-Line Photogrammetric Triangulation

A. Gruen (USA)  
Algorithms and Structures of On-Line Photogrammetric Triangulation (Invited  
Paper)

J. A. R. Blais (Canada)  
Optimization of Least-Squares Computations in On-Line Photogrammetry

B. Benciolini, L. Mussio, and L. Surace (Italy)  
Applications of the Incomplete Cholesky Conjugate Gradient Method in  
Block Adjustment

A. A. Elassal (USA)  
On-Line Display of Aerotriangulation Results

F

VII/11  
S.3

P. A. Murtha  
Vegetation Damage in Agriculture and Forestry

G. Kritikos, D. Kübler, J. Dorfel, A. Kadro and B. Koch (FRG)  
Forest Damage Classification Based on Signatures and Cluster Analysis

- P. A. Murtha (Canada)  
Strain Symptom Pattern of Spruce Beetle – Attacked Spruce
- Y. Mukai, H. Watanabe and K. Wakamori (Japan)  
Extraction of Damaged Areas by Pine Weevils Using Landsat Data
- H II/5 J. P. Guignard  
S.1 Equipment for Processing Synthetic Aperture Radar
- R. Okkes (Neth)  
On-Board Sar Processing (Invited Paper)
- J. Gredel (FRG), N. Ito (Japan) and H. Schroeter (FRG)  
Evolution of Digital Ground Sar Processing Systems (Inv. Paper)
- I. G. Cumming, P. George and J. Lim (Canada)  
Architectures for High Speed Sar Processing (Invited Paper)
- S. R. Brooks (U.K.) and S. Bruzzi (Neth)  
Acquisition/Validation/Simulation/Calibration (Inv. Paper)
- A. D. Goldfinger (USA)  
Sar Processing and Image Interpretation (Inv. Paper)
- F. Leberl, G. Domir, J. Raggam (Austria) and M. Kobrick (USA)  
Radargrammetry (Invited Paper)
- 11:00–12:30 C II/1 G. Ducher  
S.2 Analytical and Hybrid Photogrammetric Instruments
- G. Ducher and J. C. Lummaux (France)  
Trends in Othophoto Instrument Development (Invited Paper)
- C. C. Slama (USA)  
Standardization of Analytical Plotter Input, Output and Algorithms (Invited Paper)
- L. H. Perry (USA)  
Analytical Stereoplotters Testing Procedures (Invited Paper)
- L. C. Holstein and L. Berlin (Australia)  
An Evaluation and Test of the Qasco SD-4 Stereodigitizer
- M. Stephani (FRG)  
Analytical Plotters and Simultaneous Processing of Photogrammetric, Geodetic and Object Information
- S. C. Caneparo (Brazil) and H. O Bähr (FRG)  
Restitution of Landsat-MSS Imagery Using an Analytical Plotter of the Federal University in Curitiba/Brazil
- Submitted Papers Accepted Only for Publication in the Proceedings
- S. Dequal (Italy)  
A Program for Simultaneous Relative and Absolute Orientation of Models in the Analytical Plotters
- K. S. Bartsch (Austria)  
Image – Interactive Manipulation of Geographical Elements
- D VII/1 G. Hildebrandt  
S.5 Methodology for Enhancement and Thematic Classification of Visible and Infrared Data

- H. S. Helbig (FRG)  
Image Processing of Multispectral Data
- J. A. Szorenyi (Saudi Arabia)  
Geometric Correction of Landsat MSS Imagery
- N. Oprescu and E. Mandescu (Romania)  
Radiometric Subsatellite Determinations and Determination of Object Indicators With a View to Applying Corrections to Remote Sensing Recordings
- M. Ehlers, E. D. Moller, D. Kolouch and P. Lohman (FRG)  
Non-Recursive Filter Techniques in Digital Processing of Remote Sensing Imagery
- E VII/9 R. A. Welch  
S.3 Land Use and Land Cover
- C. Ormeci (Turkey)  
Klassifizierung von Landsat-Daten für Kleinflächige Gemischte Landnutzungs-  
Untersucht an Hand Der Beispiele Aus Der Turkei
- K. Le Men (France)  
Extration du Parcellaire par Segmentation D'Image: Une Nouvelle Voie pour  
L'Analyse des Images de Satellite à Haute Resolution
- B. Forster (Australia)  
Combining Ancillary and Spectral Data for Urban Applications
- F V/4 R. Hüther  
S.3 Photogrammetry for Industrial Construction and Mensuration
- R. Beyer, H. Ebner and W. Wester-Ebbinghaus (D)  
Numerical Photogrammetry at the Supporting Framework of the Wuppertal  
Suspension Railway (Invited Paper)
- S. F. El-Hakim (Canada)  
Precision Photogrammetry for Microwave Antennae Manufacturing
- P. Boone, M. de Caluwé and D. Van Nifwenburg (B)  
Study of Microdeformations of Concrete by Coherent Optical Techniques
- J. B. de Andrade and F. J. B. Mendonça (Brazil)  
Monitoring Deformations on Structural Elements of Concrete
- M. A. R. Cooper, N. E. Lindsey and D. M. Stirling (UK)  
Monitoring the Three Dimensional Movement of a Large Stone Structure
- H. B. Papo and A. Perelmutter (IL)  
Analysis of Deformation in Photogrammetry by the Velocity Method
- H III/2 A. A. Elassal  
S.2 Operational Aspects of On-Line Photogrammetric Triangulation
- E. Dorrer (FRG)  
Operational Aspects of On-Line Photogrammetric Triangulation (Invited  
Paper)
- V. Kratky (Canada)  
On-Line Triangulation Performance on the NRC Anaplot
- J. Heikkila and E. Kilpelä (Finland)  
Aerial Triangulation by Analytical Plotter

- 13:30–15:00
- C
- V/4  
S.4
- A. K. I. Torlegard  
Photogrammetry for Industrial Construction and Mensuration
- K. Linkwitz (D)  
New Trends in On-Line Photogrammetry and its Application to Mensuration  
(Invited Paper)
- D. C. Brown (USA)  
A Large Format, Microprocessor Controlled Film Camera Optimized for  
Industrial Photogrammetry
- C. H. Bedwell (UK)  
Stereo-Video Photogrammetry
- H. Heister and J. Peipe (D)  
Length Calibration by Close Range Photogrammetry at Large Photo Scale
- T. Oshima, K. Miyashita, I. Yakamoto, S. Horibe and M. Toda (Japan)  
Some Examples of Industrial Application of Close Range Photogrammetry  
in Japan
- D
- VII/4  
S.7
- J. J. Ulliman  
Renewable Resources
- R. N. Jadhav (India)  
Information Needs in Forestry – Scope and Status of Satellite Remote  
Sensing With Special Reference to Indian Conditions
- R. I. Elman, L. A. Kuzenkov and E. D. Bodanski (URSS)  
Man/Machine Interaction During Forest Image Processing
- T. Hame (Finland)  
Interpretation of Deciduous Trees and Shrubs in Conifer Seedling Stand from  
Landsat Imagery
- D. C. L. Lee, P. Hernandez Filho, Y. E. Shimabukuro, O. R. de Assis and  
J. S. Medeiros (Brazil)  
Forest Inventory Using Multistage Sampling with Probability Proportional  
to Size
- E
- I/1  
S.2
- R. Welch  
Image Data Quality
- S. R. Brooks and A. P. Luscombe (UK)  
Synthetic Aperture Radar Image Quality and Measurement (Invited Paper)
- H. Engel, G. Konecny, A. Scheuring, W. Schuhr and J. WV. (FRG)  
Investigations of "Metric Camera" Image Quality
- J. C. Trinder (Australia)  
Potentials of Monocular and Stereoscopic Observations on Aerial Photography
- Panel Discussion: Measures of Image Quality
- F
- IV/Gen.
- E. Vozikis  
General Papers/Analytical Photogrammetry
- T. Bengtsson (Denmark)  
The Upbringing of Analytical Photogrammetry to Meet the Requirements  
of Cartography

- R. Colomba  
Numerical Cadastral Survey
- E. Voizikis (Switzerland)  
Digitally Controlled Rectification
- J. Saile (FRG)  
Graphical Plotting with the Zeiss Planimat System
- A. B. Zutter (Switzerland)  
Maps 300 A Stand-Alone Interactive Graphics Station

- H V/A S.1 R. W. A. Dallas  
Architectural Photogrammetry
- C. F. Giuliani, F. Piccarreta and P. Verduchi (Italia)  
Micro-Relevement du Forum
- P. Waldhäusl, P. Platzer and M. Kandler (A)  
Instant Plans by Polaroid Instant Photography for Archaeology and  
Architecture (Invited Paper)
- E. Patmios (GR)  
Photogrammetric Study of Statues
- A. N. Cherny, L. A. Museus and E. V. Saiko (SU)  
Use of X-Ray Photogrammetry in Archaeology
- A. G. Miller (D)  
Application of Modern Photogrammetric Equipment in Architectural  
Photogrammetry
- H. Kager (A)  
Single Image Stereogrammetry

- 15:30–17:00 C VI/3 S.1 I. Antipov  
Multilingual Dictionary
- G. Linig (FRG)  
Report on WG VI-3: Multilingual Dictionary of Photogrammetry and  
Remote Sensing
- L. I. Daoyi (China)  
Working Status of the Chinese Part of ISPRS-MLD
- C. H. Latache (France)  
Feasibility Study of the French Part of ISPRS-MLD
- S. Paul  
Contribution of France to Remote Sensing Vocabulary  
Discussion
- D I/2 S.3 H. Ziemann  
Camera Calibration
- H. Ziemann (Canada) and W. Tayman (USA)  
ISPRS Recommended Procedures and Specifications for Camera Calibration  
(Invited Paper)
- H. Ziemann (Canada)  
The Determination of Parameters of the Interior Orientation of  
Photogrammetric Cameras – a Bibliography

Panel Discussion:

ISPRS Recommended Procedures and Specifications for Camera Calibration

- E VII/2 K. Richter  
S.1 Methodology for Enhancement and Thematic Classification of Microwave Data
- E. E. Derenyi and A. J. Stuart (Canada)  
Geometric Aspects of Spaceborne Stereo Imaging Radar
- H. Kux and L. V. D. (Brazil)  
Evaluation of Sir-A (Shuttle Imaging Radar) Images from Three Marias Region (Minas Gerais – Brazil) Using Derived Spatial Features and Registration with MSS-Landsat Images
- S. R. J. Axelsson (Sweden)  
Improved Modeling of the Microwave Radiometric Response of Bare Ground
- S. S. C. Wu (USA)  
Mapping from Shuttle Imaging Radar, Sir-B. Experiment
- F IV/3 R. Batson  
S2 Mapping from Space Borne Imagery
- M. Ehlers (FRG)  
The Automatic DISCOR-System for Rectification of Space Borne Imagery as a Basis for Map Production
- H. Steen (FRG)  
Landwirtschaftliche Siedlungsplanung im Rahmen der Entwicklungshilfe am rio Tapajos (Brasilien) Mit Hilfe von Radar-Karten (Radam Projekt)
- H. Engel (FRG)  
Production of Orthophoto Maps from High Resolution Space Photography
- M. E. Davies (USA)  
Geodetic Control for Planetary Mapping
- D. L. B. Jupp and G. R. W. Bisshop (Australia)  
Landsat in Support of Conventional Mapping on the Great Barrier Reef
- P. Planques (France)  
Possibilités D'Utilisation des Images Spot pour la Revision des Cartes Topographiques à Petite Échelle
- H V/4 L. P. Adams  
S.5 Photogrammetry for Industrial Construction and Mensuration
- I. Newton (UK)  
The Current Status of Underwater Photogrammetry (Inv. Paper)
- B. Ostbye (N)  
Photogrammetry on Marine Structures
- M. H. Elfick and J. G. Fryer (AUS)  
Underwater Close Range Photogrammetry
- W. Bakhuizen and C. Strickland (S)  
Practical Experience of Photogrammetry in Offshore Environment
- J. F. Pybouffat et al. (France)  
La Photogrammétrie Sous-Marine et les Systèmes Cercomex 1/10 de mm par 200 mm
- Business Meeting of WG V/84



TUESDAY – 26 JUNE 1984

09:00–10:30

C

V/1  
S.6

I. Hadem  
Analytics of Non-Topographical Photogrammetry

I. Hadem (N)  
Generalized Analytical Relative Orientation in Close-Range Photogrammetry

R. A. Hunt (UK)  
Estimation of Initial Values Before Bundle Adjustment of Close Range Data

P. Waldhäusl and H. Kager (A)  
Metric Restitution of Traffic Accident Scenes from Non-Metric Photographs

K. W. Wong (USA)  
Photogrammetric Measurement of Movements in Tunnel Model Testint

D

II/1  
and  
II/2  
S.3

Z. Jaksic  
(Moderator)  
Joint Panel

Panel Discussion:

“Developments in Analytical, Digital and Automated Systems”

Panel Members: T. O. Binford  
J. B. Case  
L. W. Fritz  
U. V. Helava  
G. Konecny  
B. Makarovic  
C. C. Slama

E

VII/4  
S.8

J. J. Ulliman  
Renewable Resources

C. M. Girard, M. C. Girard, A. Naigele and R. Okio (France)  
Etude de L'Evolution des Paysages Naturels: um Exemple en République  
Populaire du Benin

I. S. da Mota (Brazil)  
Determination of Aerial Photographic Image Patterns of Natural Vegetation  
Cover

H. Haefner (Switzerland)  
Assessment and Monitoring of Renewable Natural Resources – Concepts and  
Applications

M. K. Ridd  
Computer Enhancements of Satellite Data for Commercial Guayule Mapping  
in Mexico

F

VII/1  
S.6

G. Hildebrandt  
Methodology for Enhancement and Thematic Classification of Visible and  
Infrared Data

R. Sollner, R. Marek, H. H. Siebert and R. Schmidt K. (DD)  
Extraction of Textural and Structural Features in Remote Sensing Problems

F. A. Mitsuo and L. V. Dutra (Brazil)  
Evaluation of Entropy and J. M. Distance Criteria as Feature Selection  
Methods Using Spectral and Spatial Features Derived from Landsat Images

			E. Patmios (Greece) Photointerpretation of Landsat Images
			J. A. Mauricio (Brazil) Cloud Cover Impact Analysis on Landsat Data from Brazil
	H	IV/8 S.2	P. Wolf Digital Applications for Cartography and Remote Sensing
			C. Wong Three Dimensional Topographical Data Base
			V. Satharanond New Data Structure
			H. Ebner (FRG) Interpolation by Finite Elements
			A. Ostman (Sweden) Sequential Data Processing for Photogrammetric Acquisition of Digital Elevation Models
			L. Shapiro A. Query Language
			K. Makkonen Dynamic Geodata Base
			P. R. Wold and B. A. Dewitt (USA) Experiences in Automated Generation of DTM's from Aerial Photos
11:00–12:39	C	VI/6 S.1	A. Adamec Periodicals
			J. Hothmer (FRG) Report on WG VI-6; Photogrammetry and Remote Sensing Periodical Discussion
			J. Hothmer (FRG) The Future of Photogrammetria as Official Journal of ISPRS – Discussion
	D	I	J. C. Trinder Business Meeting of Commission I (Primary Data Acquisition)
	E		
	F	II	J. Jaksic Business Meeting of Commission II (Instrumentation for Data Reduction)
	H	V	J. W. Gates Business Meeting of Commission V (Non Topographic Photogrammetry)
13:30–15:00	B		F. J. Doyle General Assembly
	G	II/PS S.3	Poster Sessions Instrumentation for Data Reduction and Analysis
			J. E. Boyd and L. R. Oleson (USA) Configuration, Implementation and Performance Evaluation of a Roll Color-Film Recorder
			F. Boochs (FRG) Geometric Stability of DKM Scanners – Expectation and Reality

- S. Bruzzi (Neth) and D. Corr (UK)  
SAR Calibration from Natural Targets
- M. Ono (Japan)  
Quality of SAR Image Processed by Fixed Point Digital Operation
- Y. Kosaka (Japan)  
SAR Data Processing Using Super Computers
- G III/PS Poster Session  
S.3 Mathematical Analysis of Data
- Y. C. Liao (China, Taipei)  
Untersuchungen über die Automatische Punktübertragung bei der  
Aerotriangulation on Analytischen Auswertegeraeten
- H. Fuchs (Austria)  
Interactive Bundle Adjustment with Metric and Non-Metric Images including  
Terrestrial Observations and Conditions
- W. Kreiling and F. Steidler (Switzerland)  
Aerial Triangulation with Wild System
- R. Kotowski and B. Weber (FRG)  
Ein Verfahren zur On-Line Korrektur Systematischer Fehler
- G IV/PS Poster Session  
S.3
- A. Coblentz, R. Mollard, G. Ignazi and J. C. Pineau (France)  
Étude Biostéréométrique de Gestes par Strobophotogrammétrie Infrarouge
- A. Coblentz, R. Mollard, G. Loopuyt et M. Blaustein (France)  
Conception et Realisation d'une Station de Photogrammétrie Adaptée à  
L'Étude de la Morphologie du Corps Humain
- T. Oshima (Japan)  
Stereomicrograms by a Specially Designed Microscope and Röntgen  
Photogrammetry and Their Practical Application to Medical Engineering
- G. P. Ellis and I. R. Hall (AUS)  
The Use of Computer Graphic and Photogrammetric Methods in the Study  
of Technique Sports
- J. Peipe and K. H. Günther (D)  
A Study of Displacements in a Soil Mechanical Model Test Using  
Motography in the UV-Spectrum
- G VI/PS Poster Session  
S.3
- R. Burch (USA)  
A Photogrammetric Mapping Technology Program
- R. Burch (USA)  
On Photogrammetric Competency Standards for Individuals Completing  
Undergraduate Training
- C. Paresi (Neth)  
The ITC Training Package for Photogrammetric Operators
- I. Muralikrishna (India)  
Remote Sensing Effectiveness and Education for Marine Applications

			I. Nakajima (Japan) General Trend of Remote Sensing Research Activities in Japan
			T. Oshima (Japan) Present Status of Photogrammetry and Remote Sensing Education in Japan
			L. Holstein (Australia) On Restructuring an Undergraduate Course for the 1990's
15:30–17:00	C	V/A S.2	R. W. Dallas Architectural Photogrammetry
			M. Aytac, G. Toz, S. Külür, G. Aydogdu and A. Korkut (TR) Geodetic Versus Photogrammetric Restitution Procedures
			M. Carbonnell (France) Comité Internationale de Photogrammetrie Architecturale (CIPA) Compte-Rendu D'Activité Pour la Periode 1980-1984
			J. P. Saint-Aubin (France) Modèles Mathématiques et Stereomodèles Architecturaux: Construction, Structure et Théorie (Invited Paper)
			C. Monti (Italy) L'Analyse de L'Architecture et les Extensions Cartographiques des Relevements
			K. Biethan, K. Jacobsen and W. Schuhr (D) Analytics of a Historic Single Photo of the Archaeologic Discovery Place of the Hildesheim Silver Treasure
			B. P. Torsello and C. Di Thiene (Italy) Problèmes Cartographiques Inhérents Les Relevements en Matière D'Architecture et des Sites Historiques
			Business Meeting of Applications Group V/A
	D	IV	Roy Mullen Business Meeting of Commission IV: Topographic and Cartographic Applications
	E	II/5 S.2	I. Gredel Equipment for Processing Synthetic Aperture Radar Data
			J. P. Guinard (Neth) Report on Working Group II/5; Instrumentation for SAR Processing – Activities and Critical Areas (Invited Paper)
			R. Okkes (Neth) The Information Content of Radar Images Modeled According to Correlation Properties of the Signal (Invited Paper)
	E	II/5 S.2	J. Gredel Equipment for Processing Synthetic Aperture Radar Data
			S. W. McCandless (USA) Multi-Sensor Techniques (Invited Papers)
			C. Wu (USA) JPL SAR Processor Development in Support of Flight Missions (Invited Paper)
			J. Gredel Conclusions – Proposed Activities of Working Group II/5 for the next four-year Period (Invited Paper)

- F VII M. L. Laidet  
Business Meeting of Commission VII – Interpretation of Data
- H III E. Kilpelä  
Business Meeting of Commission III – Mathematical Analysis of Data

WEDNESDAY – 27 JUNE 1984

TECHNICAL TOURS – SEE PROGRAM FOR TECHNICAL TOURS – TT

THURSDAY – 28 JUNE 1984

09:00–10:30

- C III/1 W. Goeppert  
S.1 Rectification and Registration
- J. Wiesel (FRG)  
Image Rectification and Registration (Invited Paper)
- F. C. Paderes JRF and E. M. Mikhail (USA)  
Retification of Single and Overlapping Frames of Satellite Scanner Imageries
- G. Domik, J. Raggam and F. Leberl (Austria)  
Rectification of Radar Images Using Stereo Derived Height Models and Simulation
- J. B. Lugnani, and F. C. B. Souza (Brazil)  
Control Features – An Alternative Source for Urban Area Control
- D. Kolough (FRG)  
Digital Geometric Rectification of Sonar Images with Interferometric Methods
- D I/M J. C. Trinder  
S.1 Manufaturers Session
- K. Szangolies (DDR)  
The Equipment System of VEB Carl Zeiss Jena for the Remote Sensing of  
of the Earth
- W. Liekens, N. Verycken and H. Van Der Poel (Belgium)  
Aviphot and Avitone Filmes Manufactured by AGFA-GEVAERT
- U. Zeth (DDR)  
Exposure Metering and Control in the LMK Aerial Survey Camera System
- J. Graham (USA)  
Kodak Aerial Photographic Products
- A. Doods (UK)  
Products Marketed by Milligan Electronics
- B. Deffis (France)  
The Thematic Scanner: A New Step Towards Flexible Independent and  
Customized Information Systems
- E VII/3 G. Guyot  
S.3 Spectral Signatures of Objects
- A. J. Chen and C. C. Lin (R. of China)  
Analytical Approach to Treat the Bidirectional Reflectance Distribution  
Function of Rice Crop
- S. R. J. Axelsson (Sweden)  
The Thermal-IR Emissivity of Soils and its Dependence on Porosity, Surface  
Roughness and Soil Moisture Effects

- Chen Jun (China)  
Application de DTM a L'Amélioration de la Classification des Images en  
Télé-détection
- F VII/9 R. A. Welch  
S.4 Land Use and Land Cover
- N. Kharin (USRR)  
Application of Remote Sensing for Compilation of Nature Conservation  
Maps in the Desert Zone
- J. A. Allan (UK)  
Monitoring Changes in Land Cover in Semi-Arid Regions by Remote Sensing  
Techniques
- A. Babaev (USSR)  
Dynamical Analysis and Prediction of Changes in Natural Environment of  
Desert Using Aerial and Space Photos
- 11:00–12:30 C III/4 E. M. Mikhail  
S.2 Precision, Correction and Targeting in Digital Images  
and  
III/5 W. Förstner (FRG)  
S.1 Quality Assessment of Object Location and Point Transfer Using Digital  
Image Correlation Techniques (Invited Paper)  
Joint  
Meeting
- D. Havelock (Canada)  
Geometric Precision in Digital Images
- M. Nasu, K. Shimamoto and M. Fuchimoto (Japan)  
Finer Registration and Rectification of Airborne MSS Remote Sensing Data  
Using Visual Dynamic Correlation Method and Applications of the Results
- N. D. A. Mascarenhas and J. E. Erthal (Brazil)  
On the Relationship Between Gaussian and Binomial Models for Image  
Registration by Sequential Tests of Hypotheses
- M. Ehlers (FRG)  
On the Probability of Generalized Correlational Functions
- D VI J. Hothmer  
Business Meeting of Commission VI – Economic, Professional Aspects,  
Education, Periodicals, Terminology, Bibliography, History, International  
Exchange of Information
- E I/3 F. Corten  
S.1 Sensor Orientation and Navigation
- F. Corten (Neth)  
Report of Activities of Working Group I/3 – Aerial Photography: Processing,  
Sensor Orientation and Navigation
- F. Corten (Neth)  
Performance and Applications of Navigation Systems and Sensor Orientation  
Systems and Methods (Invited Paper)
- S. de Camp (USA)  
Consideration of Inertial and Other Navigation Systems as they Fulfill the  
exacting requirements of Aerial Survey (Invited Paper)
- R. Keegan (USA)  
Global Positioning and Applications to Photogrammetry

A. Grimm and F. J. Heimes (FRG)  
CPNS – Computer-controlled Photo Navigation System – New Aspects for  
Aerial Surveying

H. K. Sinha (Ind.)  
Application of Sensor Orientation Data in Aerial Triangulation

K. P. Schwarz (Canada), C. S. Fraser (USA) and P. C. Gustafson (Canada)  
Aerotriangulation Without Ground Control

F VII/9 R. A. Welch  
S.5 Land Use and Land Cover

R. F. Gabor, C. Gavor, B. Gyorgy and C. Ferenc (Hungary)  
Remote Sensing Technology Development and Application for Digital  
Landcover Mapping in Hungartt

A. D. Ventura and A. Rampini (Italy)  
Land Observation by Aerial Photographs: Photointerpretation and Automatic  
Classification

B. Novakovski (USSR)  
Photogrammetric Problems of Joint Application of Aerial Space Imagery and  
Cartography Methods for Study of the Natural Resources

M. Albota, M. Dumitrescu and O. Tanovici (Romania)  
Aerial Photography Use in National Land Reserve Monitoring and Conservation

H IV/6 D. Hocking  
S.1 Orthophotography and Photomapping – Production and Quality Control

D. G. Clark (South Africa)  
Orthophoto Mapping: Decade's Experiences

M. Jaakkola and P. Noukka (Finland)  
Cadastral Photomap – A Base for 1:5.000 National Mapping in Finland

H. W. Faust (FRG)  
Methods and Instruments for Photomap Production

Linserbarth

Photomap of Splay

H. Engel (FRG)  
Production of Orthophoto Maps High Resolution Space Photography

G. Ducher (France)  
Préparation d'un essai sur les Ortho et Stéréoorthophotographies à L'OEEPE

13:30–15:00 B General F. J. Doyle  
Assembly

G III/PS Poster Session/Mathematical Analysis of Data

R. Larsson (Sweden)  
Digital Elevation Model Computation Using Fast Poisson Solutions

W. P. Segu (UK)  
An Investigation of the Scope of High Order Polynomial Digital Elevation  
Models

F. Steidler, G. Zumofen and H. Haitzman (Switzerland)  
"CIP" – A Program Package for Interpolation and Plotting of Digital Models

- W. Marckwardt (DDR)  
Interpolation and Smoothing Algorithms for the Automatic Plotting of  
Countour Lines
- W. S. Schneider (Austria)  
Analysis of View-Angle-Dependent Radiometric Distortions in Aircraft  
Remote Sensing Data Using Least Squares Adjustment Techniques
- W. Goepfert (FRG)  
NOAA-7 AVHRR Satellite Image Maps of Antartica
- M. Kaehler and G. Koenig (FRG)  
Radiometrische Bildverarbeitung zur Exstellung Eines Stellitenbild-Mosaiks
- I. Milkus (FRG)  
Geometrische Entzerrung von Satellitenbilddaten zur Herstellung von  
Bildkarten Arider Geoiete

G V/PS Poster Session  
S.4

- M. S. Elghazali (KWT)  
Micro-Range Applications Using SEM and TEM Micrographs
- S. K. Ghosh and M. Adiguzel (Canada)  
Image Rotation vis-a-vis Magnification, a Phenomenon in Electron  
Micrography
- R. J. Pryputniewicz (USA)  
Speckle Metrology: Computer Aided Analysis of three Dimensional  
Deformations
- R. J. Pryputniewicz (USA)  
Time-Average Holography for Quantitative Vibration Analysis
- G. Voss (DDR)  
The UMK System in the year 1984
- R. Preuss (PL)  
Examination of Geometry of the Terrestrial Camera

15:30–17:00

C

III  
General  
Papers

- W. M. Ebbinghaus  
Combined Adjustment of Photogrammetric and Non-Photogrammetric Data
- H. Ebner (FRG)  
Combined Adjustment of Photogrammetric and Non-Photogrammetric Data  
(Invited Paper)
- J. A. R. Blais (Canada)  
The Use of Auxiliary Data in Photogrammetric Block Adjustment of  
Stereomodels
- F. Ackermann (FRG)  
Utilization of Navigation Data for Aerial Triangulation
- S. F. El-Hakim (Canada)  
On the Detection of Gross and Systematic Errors in Combined Adjustments  
of Terrestrial and Photogrammetric Data
- M. Molenaar (Neth)  
The Connection of Aerial Triangulation Blocks: and Ground Control  
Reconsidered



- E            Joint Meeting    F. Leberl  
                  I            DIP  
                  III            Digital Image Processing  
                  IV            D. Hofmann (FRG), P. Nave, H. Ebner  
                  VII            Investigation of the Accuracy of the Digital Photogrammetry System DPS, a  
    Rigid Three Dimensional Compilation Process for Push Broom Imagery
- R. Jean-Soulin and S. Abiteboul  
    Building, Setting and Managing a Multisource Data Base
- S. Murai and R. Shibasaki (Japan)  
    A Study on Simulation of Three Dimensional Measurement with the use of  
    Stereo Linear Array Sensors
- A. Pertl (FRG)  
    A Digital Image Correlation with the Analytical Plotter Planicomp C 100
- R. Larsson (Sweden)  
    Hierarchical Data Structures and Algorithms for Digital Stereoscopic  
    Mensuration
- A. J. Berutti, J. W. Lopes, H. P. Baehr  
    Digital Image Processing at the Cursor

FRIDAY – 29 JUNE 1984

- 09:00–10:30    C            IV/1    H. G. Jerie  
                                  S.1        Cost Models in the Mapping Process
- H. G. Jerie and E. W. Holland (Neth)  
    Cost Models in Photogrammetry
- J. Ogunlami (Nigeria)  
    Toward a More Realistic Application of Cost Models in National Mapping  
    Projects in Developing Countries
- D                VI/6    W. Zhizhou  
                                  S.2
- Papers on the Present State of Periodicals and other Series Publications on  
                                  Photogrammetry and Remote Sensing with an Outlook into the next Decade
- In Africa . . . . . O. Ayeni (Nigeria)  
                                  North America . . . . . M. Thompson (USA)  
                                  Asia . . . . . T. Oshima (Japan)  
                                  W. Europe . . . . . S. Walker (UK)
- G. Fraysse  
    Earsel News, the Bulletin of the European Association of Remote Sensing  
    Laboratories
- Discussion
- E                VII        M. L. Laidet  
                                  Presentation of the General Reports of Activities During 1980-1984 of  
                                  Working Groups VII/1 Through VII/7
- F                V/1        H. M. Karara  
                                  S.7        Analytics of Non-Topographical Photogrammetry

W. Faig (Canada)  
Subsidence Monitoring in Mountainous Terrain: an Example of four  
Dimensional Photogrammetry

C. Armenakis (Canada)  
Deformation Measurements from Aerial Photographs

E. Dorrer (D)  
APL Application Software for Analytical Underwater Photogrammetry

J. W. C. Gates (UK)  
Introduction of ISPRS Commission V for 1984-1988

H III/4 F. C. Billingsley  
and Image Transformation and Analysis  
III/5

R. M. Haralick (USA)  
Image Transformation and Analysis (Invited Paper)

E. D. Möller (FRG)  
Utilization of Ancillary Information for Improvement of Digital Multispectral  
Classification

D. Fritsch (FRG)  
Two-Dimensional Finite Impulse Response (FIR) — Linear Systems in Digital  
Photogrammetry

G. Domik and F. Leberl (Austria)  
Radar Image Simulation and its Application in Image Analysis

11:00–12:30

C II/3 L. Marelli  
II/4 (Moderator)  
II/5  
Joint Instrumentation for Multi-Sensor Product Generation  
Panel

Panel Members:  
F. C. Billingsley J. P. Guignard  
Ph. Couillard J. Murphy  
D. Gray P. G. Thome  
J. Gredel K. Tsuchiya

D VI/4 J. Clark  
S.1 Bibliography of Photogrammetry and Remote Sensing

J. Hotmer (FRG)  
The Information Retrieval System INSPRS-IRS for Literature and Factual  
Data (Report of WG VI/4)

C. H. Latache (France)  
Contribution du GDTA à L'Evolution des bases de Données en Ligne Pour la  
Télédelection

J. Clark (USA)  
Accessing the Resources of the National Technical Information Service

Discussion

E VII M. L. Laidet  
Presentation of the General Reports of Activities During 1980-1984 of Working  
Groups VII/8 Through VII/11

General Discussion

	H	III/5 S.3	F. Leberl Pattern Recognition
			D. M. McKeown and G. E. Lukes (USA) Digital Mapping and Image Understanding (Invited Paper)
			N. J. Mulder and K. Sijmans (Neth) Image Segmentation Using Conditional Rank Order Filtering
			D. Kolouch and M. Ehlers (FRG) Digital Enhancement of Interferometric Sonar Imagery
			A. D. Goldfinger (USA) Tracking Wave Spectral Peaks Using SAR
			S. Gokhman and F. C. Billingsley (USA) Mathematical Modeling of the Attitude Tracker
13:30–15:00	C		J. M. Zarzycki Final Plenary Technical Session
			Panel Composed of Commission Presidents to  Review and Summarize the Significant Progress and Developments of the Past Four Years, as Well as a Projection of Future Trends in Photogrammetry and Remote Sensing.  Order of Presentations: Commission I, Commission II, Commission III, Commission VII, Commission V, Commission VI.  Charman's Summary.
16:00–18:00	C		F. J. Doyle Final Plenary and Closing Ceremony