



International Society for Photogrammetry  
Société Internationale de Photogrammétrie  
Internationale Gesellschaft für Photogrammetrie

XIVth Congress Hamburg 1980  
XIV<sup>e</sup> Congrès Hamburg 1980  
XIV. Kongreß Hamburg 1980

---

INTERNATIONAL ARCHIVES OF PHOTOGRAMMETRY  
ARCHIVES INTERNATIONALES DE PHOTOGRAMMETRIE  
INTERNATIONALES ARCHIV FÜR PHOTOGRAMMETRIE

Volume **XXIII** Part **B 9**  
Volume **XXIII** Tome **B 9**  
Band **XXIII** Teil **B 9**

Commissions **I, II, III, IV**  
Commissions **I, II, III, IV**  
Kommissionen **I, II, III, IV**

SUPPLEMENT  
SUPPLÉMENT  
NACHTRAG

Edited by F. Ackermann, Programmdirektor  
Rédigé par H. Bauer, Wissenschaftliches Sekretariat  
Zusammengestellt von G. Konecny, Kongreßdirektor  
G. Kupfer, Archiv

---

Published by the Committee of the XIVth International Congress for Photogrammetry Hamburg 1980  
Publié par le Comité du XIV<sup>e</sup> Congrès International de Photogrammétrie Hamburg 1980  
Herausgegeben von dem Komitee für den XIV. Internationalen Kongreß für Photogrammetrie Hamburg 1980

Vertrieb: Photogrammetrisches Institut der Universität Bonn, Nußallee 15, D-5300 Bonn 1

COMMISSION I

Primary Data Acquisition

CONTENTS/INHALT/CONTENT	PAGE/SEITE
EMORI, Y., YASUDA, Y., IISAKA, J.	Radiometric Correction of Infra-Red Aerial Color Film 1
HAKKARAINEN, J., ROSENBRUCH, K.-J.	Studies on Image Evaluation Methods and Lens Aberrations 11
HAKKARAINEN, J.	Progress of Optical Properties of an Aerial Lens Type 24
HAKURA, Y.	MOS-1 Project in Japan 35
HALEY, J. C. GLIATTI, E. L.	Evaluating the Performance of Sensor Systems by Simulation 43
MCNEIL, G. T.	Underwater Photogrammetry 52
NAKAJIMA, I., MURAI, S.	Report on Activities of Commission I 1976 - 1980 63
NORTON, C. L.	Image Properties with Environmental Factors 71
OKA, T., YAZAWA, K., INAGAKI, T.	A Simple Method for Correcting the Geo- metric Distortion of Airborn Multispectral Data 88
REYNOLDS, M.	Optical Imaging Instruments for the Remote Sensing Programme of the European Space Agency 98
WELCH, R., SLATER, P. N., TIZIANI, H., TRINDER, J. C.	Report of the Image Quality Working Group 1976 - 1980 109
ZIEMANN, H., LOOSBERG, P., PEKELSKY, J. R.	KC-Technology and Two Possible Applications in Photogrammetry 126
	<u>ABSTRACTS</u> 138
	Abstracts of Papers Announced But Not Received Before Closing Date

COMMISSION II

Instrumentation for Data Reduction

CONTENTS/INHALT/CONTENT	PAGE/SEITE
CADEN, P., GUYON, A., DYMENT, M.	Design Considerations for a High Accuracy Analytical Stereoplotter 146
CHAPUIS, A.J.A.	Le Systeme Kern DSR 1, GP 1 154
CUNIETTI, M., SAIBENE, C., YZERMAN, H.	A Photogrammetric Plotter Designed for Didactic Purposes 163
DERVIZ, V. D.	Modelling of Photogrammetric Measuring Systems 170
DERVIZ, V.D., ZOTOV, G.A., EREMEEV, V.V., ZLOBIN, V.K.	The System of Digital Image Processing: A Tool for Integrated Automation of Map Production 177
DUBUISSON, B.L.Y.	Economie Comparée et Expansion Analytique 182
GRIMM, A., HEIMES, F.-J.	The Steko 1818 for Analytical On-Line Photogrammetry 205
GUIGNARD, J.P.	The ISP SAR Processing Working Group Activities 223
HÄRMÄLÄ, S.	The Activity of the OEEPE 247
HÖHLE, J., SPRENGER, F., LUDWIG, R., JAKOB, A.	Die Graphische Ausgabe am Analytischen Auswertegerät AvioIyt AC 1 Mittels des Neuen Digitalzeichentisches Aviotab TA 2 250
KLAVER, J.	Practical Experiences with the Kern PMG 2 Zoom Point Transfer Instrument and the Kern CPM 1 Comparator Point Marker 260
VIGNERON, C.	Utilisation en Metrologie Industrielle du Stéréorestituteur Analytique TRASTER 275
	<u>ABSTRACTS</u> 301
	Abstracts of Papers Announced But Not Received Before Closing Date

COMMISSION III

Mathematical Analysis of Data

CONTENTS/INHALT/CONTENT	PAGE/SEITE
ACKERMANN, F., BETTIN, R.	An Empirical Accuracy Test on Point Transfer in Aerial Triangulation 302
AYENI, O.O.	Phototriangulation: A Review and a Bibliography 313
BIRARDI, G.	Independent Models with Projection Centers Connected only in Height 358
BIRARDI, G.	Computing and Checking the Projection Centers in Analogical Plotters 368
GENOV, G.I.	Über den Einfluss der Lichtstrahlenre- fraktion auf die Räumlichen Koordinaten der Punkte bei der Auswertung von Stereo- Luftbildpaaren 379
KATZARSKY, I.S.	Analytical Aerial Triangulation in Practice 387
KAZEMZADEH, M.	Interactive Adjustment of Very Large Blocks of Independent Models with Minicomputer and K-Block Program 392
KIENKO, Y.P., MAKARENKO, N.L.	The Space Natural Studies in the USSR 401
KILPELA, E.	Compensation of Systematic Errors of Image and Model Coordinates 407
KILPELA, E., HEIKKILA, J., INKILA, K.	Compensation of Systematic Errors in Bundle Adjustment 428
MEHL, W.	Automatic Noise Removal and Contour Mapping on Low Gradient Imagery 436
MULDER, N.J.	A View on Digital Image Processing 445
NASU, M., SHIMAMOTO, K., KANO, H., FUCHIMOTO, M.	Digital Differential Rectification of Air- Borne MSS Data for Geothermal Mapping 454
	<u>ABSTRACTS</u> 471
	Abstracts of Papers Announced But Not Received Before Closing Date

## COMMISSION IV

## Topographic and Cartographic Applications

CONTENTS/INHALT/CONTENT	PAGE/SEITE
BENGTSSON, T., JØRGENSEN, L.T.	An Automized Small Scale Mapping Project 485
BLAIS, J.A.R., VANDERLIET, A.D.	Optimization in Resource Mapping in Western Canada 503
DATTA, M.M.	Map Revision in Developing Countries 510
DI THIENE, C., MONTI, C., TORSELLO, B.P.	Technical Integrations and Special Representations for a Very Large Scale Cartography on Ancient Cities Applied to the Survey of the Main Square at Montagnana Padova (Italy) 518
DI THIENE, C., MONTI, C., TORSELLO, B.P.	Numeric and Automatic Maps for the Cataloguing of Artistic and Historic Urban Heritage 527
EBNER, H., HOFMANN-WELLENHOF, B., REISS, P., STEIDLER, F.	HIFI - A Minicomputer Programm Package for Height Interpolation by Finite Elements 532
FRIEDL, J., OTEPKA, G.	Spezielle Einsatzbeispiele Moderner Hard- und Softwarekomponenten im Vermessungswesen 546
GARCIA, A.A.	Policies and Cartographic Achievements in a Mexican Geographic Organization 557
GOETZ, A.F.H.	Stereosat: A Global Digital Stereo Imaging Mission 563
KÖLBL, O., PRADERVAND, J.C.	Interactive Digital Stereo Plotting for the Renovation of the Cadastral Survey 571
KRAUS, K.	Recent Trends of the Production of Orthophotos and Stereoorthophotos 581
LIAO, D.T.N., HSIEH, J.H.	Orthophoto Mapping and other Photogrammetric Activities in Taiwan, Republic of China 591
LINDERS, J.G.	Georeferenced Date Base Design 599

MARTIKAINEN, M.,  
POHJOLA, P.,  
VEHKAPERÄ, H.                      Monika, A Minicomputer Based Interactive  
Large Scale Mapping System                      611

NEISECKE, O.                      Vergleich Terrestrischer und Photogram-  
metrisch gewonnener Lagenetze                      619

ABSTRACTS                      631

Abstracts of Papers Announced But Not  
Received Before Closing Date