

CONTENTS

Papers	Page
THEORETICAL WEIGHTING OF PHOTOGRAMMETRIC EQUATIONS by Charles Kendall Paul	127
ELEVATION CHANGES DUE TO TIDES, LONG BEACH, CALIF. by Dale S. Kunitomi	137
PHOTOGRAMMETRY AND HYDRAULIC SURFACES by Wolfgang Faig	145
ADJUSTING RADIAL SURVEYS by James R. Baker	157
THREE-DIMENSIONAL FORWARD AND INVERSE COMPUTATIONS by William E. Ball, Jr.	167
NONLINEAR LEAST SQUARES ALGORITHM by Mohamed F. Madkour	185
APPLICATIONS OF EXTRATERRESTRIAL SURVEYING AND MAPPING by Robert B. McEwen and David A. Tyler	201
COMPUTER PROGRAM SYSTEM FOR AEROTRIANGULATION by Kam W. Wong and G. Elphingstone	219

(over)

This Journal is published aperiodically by the American Society of Civil Engineers. Publications office is at 345 East 47th Street, New York, N.Y. 10017. Address all ASCE correspondence to the Editorial and General Offices at 345 East 47th Street, New York, N.Y. 10017. Allow six weeks for change of address to become effective. Subscription price is \$6.00 per year with discounts to members and libraries. CO, UP, PO, PP, SU. The Society is not responsible for any statement made or opinion expressed in its publications.

 DISCUSSION

 Proc. Paper 9308

RIGOROUS FORMULAS FOR EFFECTS OF WEIGHT CHANGES, by Mohamed F. Madkour (Nov., 1971).	
errata	235
EXPLICIT APPROACH TO EXTERIOR ORIENTATION, by S. K. Mahajan (Nov., 1971).	
errata	235
ABSOLUTE ORIENTATION OF PHOTOGRAMMETRIC MODEL, by S. K. Mahajan and Vijay Singh (Nov., 1971).	
errata	236
SPACE RESECTION FROM COLLINEARITY CONDITIONS, ^a by Kunwar K. Rampal (Nov., 1971).	
by S. K. Mahajan	236
STATUS REPORT OF SURVEYING AND MAPPING DIVISION, ^a by William A. White (Nov., 1971).	
by Gunther Greulich	237
AERIAL PHOTOGRAPHY FOR WATER RESOURCES STUDIES, ^a by Ralph W. Kiefer and James P. Scherz (Nov., 1971).	
by S. K. Mahajan	239

 TECHNICAL NOTE

 Proc. Paper 9385

INVERSION OF MERCATOR COORDINATES by Erwin Schmid	243
--	-----

^a Discussion period closed for this paper. Any other discussion received during this discussion period will be published in subsequent Journals.