

# Photogrammetric Engineering

Volume XXIII

MARCH, 1957

Number 1

## CONTENTS

List of Sustaining Members . . . . .	9
Board of Direction and Committee Chairmen . . . . .	15
Coast and Geodetic Survey Sesquicentennial . . . . .	19
Information and Order Form for MANUAL OF PHOTOGRAMMETRY . . . . .	22. 24
Photo and Biography of President Kenneth E. Reynolds . . . . .	29
The Spatial Model Concept of Photogrammetry <i>Charles L. Miller</i> . . . . .	31
Distortion Tolerance Specification for Mapping-Camera Lenses <i>S. J. Friedman</i> . . . . .	39
Automatic Contouring <i>Randall D. Esten</i> . . . . .	49
Terrestrial Photography for Establishing Supplemental Control <i>Stanley M. Borrell</i> . . . . .	58
Applied Photogrammetric Methods in Eastern Venezuela <i>Albert Paul Lang</i> . . . . .	71
A Simplified Method of Locating the Point of Symmetry <i>Francis E. Washer</i> . . . . .	75
Aerial Photographic Interpretation and the Social Structure of the City <i>Norman E. Green</i> . . . . .	89
Review by <i>Matthew M. Witenstein</i> and Comments by <i>Col. Green</i> . . . . .	97
PANEL ON PHOTO INTERPRETATION	
Introduction <i>Donald J. Belcher</i> . . . . .	100
A New Interpretation of the Interpretation Situation <i>Theodore A. Cheney</i> . . . . .	101
Economic Aspects of Aerial Exploration <i>Norman Vincent</i> . . . . .	105
Correlations between Man's Activity and his Environment which may be Analyzed by Photo Interpretation <i>Gordon R. Heath</i> . . . . .	108
The Interpretation of Unidentified Information—A Basic Concept <i>Thomas D. Seymour</i> . . . . .	115

(Continued on page 5)

Entered as second-class matter at the Post Office at Menasha, Wisconsin, under the Act of August 24, 1912. Additional entry as second-class matter at the Post Office at Washington, D. C. Acceptance for mailing at the special rate of postage provided for in section 34.40, paragraph d, P.L.&R.

Published five times a year, during the months of March, April, June, September and December, by the American Society of Photogrammetry. Publication Office 450-458 Ahnaip St., Menasha, Wis. and at Society's Address—1515 Massachusetts Ave., N.W., Washington 5, D. C. The Editor's address is 3523 Raymond St., Chevy Chase 15, Md.

Copyright 1957 by the American Society of Photogrammetry. Reproduction of this issue or any part thereof may be made only after obtaining the specific approval of the Society's Chairman of the Publications Committee.

The Society is not responsible for any statements made or opinions expressed in its Publications.

Subscription Rates—No charge to Society members in good standing; \$6 annually for subscribers in United States and its possessions; and \$6.50 annually, elsewhere, Society pays the postage. Price of individual back numbers—in U. S. and its possessions, \$1.75 per copy for single purchase of 3 or less and \$1.65 per copy, for 4 or more; elsewhere \$1.85 per copy for single purchase of 3 or less and \$1.75 per copy, for 4 or more. Orders for subscriptions or for individual copies should be sent to the Society's address.

Printed in the United States of America

(Continued from page 3)

Development of Aerial Camera Stabilization and Its Effect on Photogrammetry and Photo Interpretation <i>Timothy Trott</i> . . . . .	122
Seasonal Changes of the Agricultural Pattern—A Study in Comparative Airphoto Interpretation <i>Dieter H. Brunnschweiler</i> . . . . .	131
The Pantograph and Its Application to Stereocompilation <i>B. Thomas Hopkins</i> . . . . .	140
A New Method for Analytical Radial Triangulation <i>B. Hallert</i> . . . . .	144
A Preliminary Study of the Influence of Photo Paper Characteristics upon Stereo Image Perceptions <i>Merle P. Meyer</i> . . . . .	149
Remarks on Lens Distortion <i>J. Cruset</i> . . . . .	155
Comments by <i>James Lewis</i> . . . . .	156
A New Team of Projection Printers for Rectifying 9-Inch by 18-Inch High Tilt Photography <i>Victor L. Reddle</i> . . . . .	157
Mapping for the Mid Canada Line <i>Col. C. H. Smith</i> . . . . .	161
Some Aspects of HIRAN-Photogrammetry <i>Dr. Simo H. Laurila</i> . . . . .	166
Use of the Orthophotoscope <i>Russell K. Bean and Morris M. Thompson</i> . . . . .	170
The Diachroscope <i>Hugh T. O'Neill and William J. Nagel</i> . . . . .	180
A Study of the Private Photogrammetric Mapping Activity in the United States <i>C. L. Miller</i> . . . . .	185
A "Ready to View" Holder for Stereoscopic Pairs of Vertical Aerial Photographs <i>Robert J. Hackman</i> . . . . .	189
P. I. News Notes . . . . .	190
Application for Subscription to PHOTOGRAMMETRIC ENGINEERING . . . . .	190
News of the Sections . . . . .	191
News Notes . . . . .	143, 148, 165, 192
News of Photogrammetrists . . . . .	194
Resolving Power . . . . .	195
Advertising in PHOTOGRAMMETRIC ENGINEERING—Rates and Information . . . . .	198
Application for Corporate Membership . . . . .	199
Index to Advertisers . . . . .	7

## AERIAL SURVEY TECHNICIANS

Stereo Instrument Operators • Topographic Draftsmen  
Engineers and Surveyors

WANTED FOR CAREER OPPORTUNITIES IN SOUTHERN CALIFORNIA

Please address inquiries to Box H of this publication.