

## ***SURVEY REVIEW* CUMULATIVE INDEX**

### **Volumes 1-35**

### **T-Z**

- (t -T) Correction of the Lambert No. 2 (Conical Orthomorphic) Projection. The. K. M. Papworth. **56**, 68
- Land Tenure and the Kibanja System in Bunyoro, Uganda Protectorate, 1931. Enquiry into. **7**, 14
- T.M. co-ordinates. Transforming conic conformal to. B. Shmutter. **201**, 130
- Tables to Seconds. Interpolating from. B. Goussinsky. **49**, 134
- Tables. Goussinsky's. A Commentary on. G. H. Menzies. **118**, 374
- Tabular Azimuth. M. R. C. Nanson. **39**, 13
- Tacheometer. Some Experiments with a Zeiss- Bosshardt Direct-reading. F. J. Salmon. **26**, 213
- Tacheometers by Zeiss. Two electronic. H. Leitz. **156**, 258
- Tacheometers. A note on the status of self-reducing. J. Sneddon. **205**, 321
- Tacheometric Surveying and the use of the Differential Slide Rule. N. B. Favell. **29**, 413
- Tacheometry with an ordinary Theodolite. Hints on. S. E. Evans. **30**, 467
- Tacheometry. Graduation of Staves for. by "Even Angle" or "Height of Instrument" Methods. S. E. Evans. **90**, 185
- Tacheometry. Precision. with the Vertical Subtense Bar Applied to Topographical Surveying. M. Geisler. **134**, 374
- Tachymat TC1600. Laboratory testing of a Wild. J. M. Rüeger and X. Peng. **239**, 9
- Tait, G. B.* A Proposed Method of Solution of the Position Line Problem. **107**, 220
- Tait, G. B.* Identification of Stars by Learners. **116**, 277
- Tait, G. B.* Solution of the Position Line Problem: A Further Development of the "Rate of Change of Latitude Method". **109**, 310
- Tait, G. B.* Use of the M.S.F. Standard Frequency Radio Time Signals in Astro-Survey Work. **126**, 374
- Taiwan for Detecting Remained Non-Random Effects. Application of Statistical Techniques to the First Order Levelling Network of. Rongshin Hsu. **259**, 316
- Taiwan. A Geocentric Reference System in. C.C. Chang and C. L. Tseng. **273**, 195
- Tan, C. K. and Clarke, F. L.* Application of Graph Theory to the Ordering of Large Survey Networks. **235**, 195
- Tandy, M. O'C.* The Survey of India Height Indicator. **16**, 71
- Tanganyika Territory. The Transverse Mercator Projector and its Application to. W. A. Erritt. **21**, 417
- Tanganyika Territory, 1938. Report of Survey Division. W. Horsfield. **33**, 169
- Tanganyika Territory. Triangulation in. H. P. Rowe. **9**, 171
- Tanganyika. Preliminary Report on Primary Levelling in. R. D. Donnison. **130**, 186
- Tanganyika. Primary Levelling in. G. R. Dyus. **136**, 61
- Tao Benzao and Zhao Shaorong.* Optimal Design of Monitoring Networks with Prior Deformation Information. **258**, 231
- Tape and Disc Recording Machines. The Application of. to Field Astronomy and an Observational Method Arising Therefrom. A. L. Allan. **133**, 305
- Tape Suspension. in Base Measurement. The General Theory of. M. Hotine. **31**, 2
- Tape Temperatures on the Measurement of the Wankie and Sabi Geodetic Bases, Southern Rhodesia (1953). Determination of. J. E. S. Bradford. **91**, 210

- Tapes. Steel. Surveying. Standardisation of. J. S. Clark and L. O. C. Johnson. **81**, 118
- Tape-slide sequences for teaching surveying. The use of. F. R. Shaw. **192**, 80
- Tarczy-Hornoch, A.* Further Simplification in the Adjustment of Trilateration by using Auxiliary Systems of Co-ordinates. **144**, 80
- Tarczy-Hornoch, A.* Notes on the Adjustment of Trilateration. **134**, 363; **135**, 14
- Tarczy-Hornoch, A.* Determination of Azimuth and Latitude from observations of a Single Unknown Star by a New Method. **99**, 212
- Tarczy-Hornoch, A.* Further Remarks on Least Squares Adjustment of Linear Dimensions in a Geodetic Quadrilateral. **122**, 178
- Tarczy-Hornoch, A.* Markscheiderische Studien. (W.R.L.). **132**, 291
- Tarczy-Hornoch, A.* Remarks on the Least Squares Adjustment of Linear Dimensions in a Geodetic Quadrilateral. **111**, 22
- Targa, G. and Vettori, A.* Two Methods for finding the Geographic Latitude of the Ellipsoid (Numerical Solution by Microcomputers or Pocket Calculators). **262**, 560
- Target for industrial metrology. A new survey. P. F. Green. **181**, 319
- Tate, E. A.* The role of the survey department in the community and its influence on the profession. **168**, 51
- Tavistock Theodolite. The New Geodetic. E. W. Taylor. **43**, 258
- Tavistock Theodolite. The New Geodetic. J. L. Rannie and W. M. Dennis. **45**, 393  
**46**, 458
- Taylor, D.* Notes on Names for the New Map of Dominica, West Indies. **127**, 11
- Taylor, E. W. and Linn J.* The Surveyor's Level Yesterday and Today. **2**, 61
- Taylor, E. W.* The Art of Original Circular Dividing. **49**, 99
- Taylor, E. W.* The effects of Eccentricity and Misplaced Indices of Divided Circles. **38**, 466
- Taylor, E. W.* Testing a Theodolite for Accuracy. **40**, 69
- Taylor, E. W.* The Evolution of the Dividing Engine. **52**, 226
- Taylor, E. W.* The New Geodetic Tavistock Theodolite. **43**, 258
- Taylor, E. W.* The Surveyor's Telescope. **39**, 2; **41**, 175
- Taylor, E. W.* The Coincidence Reading Geodetic Tavistock Theodolite. **101**, 298
- Taylor, G. (with Parker, D. and Dauncey, D.).* The Structured Concept: Realising the World. **253**, 396
- Taylor, G. and Parker, D.* The 'S' in GIS. **246**, 465
- Taylor, G.* Point in Polygon Test. **254**, 479
- Taylor, W. R.* The Re-measurement of the Lough Foyle Base Line, Northern Ireland. **126**, 339
- TC1600. Laboratory Testing of a Wild Tachymat. J. M. Rüeger and X. Peng. **239**, 9
- Teachers of Surveying, December, 1964. Meeting of. **137**, 141
- Teachers of Surveying, December, 1965. Meeting of. R. G. Bird. **141**, 327
- Teachers of Surveying. Meeting of. D. J. Hodges. **148**, 277
- Teachers of Surveying. Meeting, December 21-22, 1968. J. R. Smith. **151**, 53
- Teaching surveying. The use of tape-slide sequences for. F. R. Shaw. **192**, 80
- Teaching the Fair Sex to Draw Maps. H. S. L. Winterbotham. **47**, 30
- Teaching. A quarter century of land survey. E. H. Thompson. **170**, 157
- Technique for Setting Out. A. A. J. Rusk and R. E. C. Griffiths. **98**, 146
- Teixeira de Queiroz, F.* On the General Theory of the Least Squares Problem. **139**, 214
- Telescope. The Surveyor's. E. W. Taylor. **39**, 2; **41**, 175
- Telescopes anallactic or otherwise. J. E. Jackson. **176**, 51
- Telescopes. Defects of Surveying. A. L. Higgins. **55**, 18
- Telioni, V. (with Balodimos, D.-D. and Georgopoulos, G.).* Kinematic Adjustments of a Levelling Control Network. **253**, 405

- Tellurometer Lengths. The Weighting of in Relation to Observed Angles. H. F. Rainsford. **126**, 360
- Tellurometer MA 200 for Vibrational Measurement of Flexible Structures. A Preliminary Assessment of the. T. J. M. Kennie, C. M. Howard and S. P. Horkan. **232**, 67
- Tellurometer MA 100-a survey with the. Matti Jaakkola. **159**, 29
- Tellurometer Measurements. A Method for Reducing Ground Swing on. J. Kelsey. **112**, 8
- Tellurometer Radiations. The Establishment of Control by. P. F. Dale. **147**, 206
- Tellurometer Symposium-30th July-3rd August, 1962, The First. R. Bill. **127**, 45
- Tellurometer System of Distance Measurement. R.G.S. Discussion on the, **107**, 227
- Tellurometer System of Distance Measurement. The. T. L. Wadley. **105**, 100; **106**, 146
- Tellurometer Traverses. An Inexpensive Tower for. A. S. Macdonald. **121**, 129
- Tellurometer Traversing. Precise. A. G. Bomford. **117**, 316
- Tellurometer Work. Various Aspects of the Computation of. J. L. Dixon. **133**, 323
- Tellurometer. An Inexpensive Tower for. A. S. Macdonald. **121**, 129
- Tellurometer. First Order Traversing with the. G. J. Humphries and H. H. Brazier. **109**, 290
- Temperature dependence during electro-magnetic distance measurements. Some considerations on the. A. Badellas and P. Savaidis. **198**, 368
- Temperature effects in hydrostatic levelling. J. Sneddon. **174**, 361
- Temperature Errors in Precise Traversing. N. O. Clappison. **62**, 297
- Temperature Measurement and Surface Chaining for Cadastral Purposes. W. L. Dickson. **96**, 65
- Temperature Measurement in E.D.M. The use of Thermistors for. M. R. Richards. **143**, 43
- Temperature of Geodetic Surveying Tapes. Measurement of. J. S. Clark and L. O. C. Johnson. **89**, 110
- Temperatures. Tape. Determination of. on the Measurement of the Wankie and Sabi Geodetic Bases, Southern Rhodesia (1953). J. E. S. Bradford. **91**, 210
- Tensor. On the analysis of geodetic networks for the determination of the incremental strain. F. K. Brunner. **192**, 56
- Terrestrial Altimetry. Notes on. D. R. Crone. **122**, 160
- Terrestrial and space network. Britdoc. A geodetic. V. Ashkenazi, W. J. Preiss and B. Anderson. **209**, 117
- Terrestrial Networks in Hong Kong. A Model for the Transformation between Satellite and. E. Mok. **244**, 344
- Terrestrial Refraction. Trigonometrical Heights and the Coefficient of. B. L. Gulatee. **83**, 224
- Terrestrial Superficies. G. T. M. **45**, 408
- Tertiary Triangulation. Is it Overdone ? W. W. Williams. **88**, 86
- Test for the Reliability of Trigonometrical Observations, A. A. J. Morley **41**, 154
- Test Geoid Computations in Peninsular Malaysia. S. Ses and J. Gilliland. **278**, 523
- Test of Auto-Collimation, A. W. M. Dennis. **41**, 151
- Test Range for Calibration and Classification of Geodetic Instruments. N. P. Netto and H. Erwes. **267**, 331
- Test Slab of the Laboratory of Reinforced Concrete Structures of the University of Thessaloniki. Measurements for the Construction of the. A. Badellas, G. Penelis and P. Savaidis. **238**, 404
- Testing a Theodolite for Accuracy. E. W. Taylor. **40**, 69
- Testing the Digital Level Wild-NA 2000 in Laboratory and Field Conditions. O. Arabatzi, G. Mavrellis and D. Stathas. **248**, 99

- Testing the Zeiss Th.3 Theodolite, Subtense Bar and Associated Equipment. I. B. Watt. **128**, 76; **129**, 133
- Tests of retro-reflective materials for electro-optical distance measurements. Some. T. J. M. Kennie. **207**, 3; **208**, 51
- Thailand. A project for upgrading the cadastral system in. P. V. Angus-Leppan and I. P. Williamson. **215**, 2; **216**, 63
- Thailand and Australia co-operate to update Thailand's Land Titles System. H. G. Manning. **245**, 370
- Thailand. Land registration and titling from an economist's perspective: a case study in rural. G. Feder. **226**, 163
- Thapa, K. and Cross, P. A.* The optimal design of levelling networks, **192**, 68
- The 7-Parameter Transformation to a Horizontal Geodetic Datum. B-G. Reit. **268**, 400
- The accuracy of geodetic latitude and height equations. B. R. Bowring. **218**, 202
- The Achievements of Sir George Everest in Geodesy. A. Cook. **238**, 368
- The Amsterdam Ordnance Datum (NAP). A. Waalewijn. **226**, 197
- The application of a statistical technique for identification of outliers in multivariate E.D.M. data. A. G. Badellas and J. D. Doukas. **223**, 13
- The Area under the Geodesic. J. Danielsen. **232**, 61
- The Australian Land Information Council : National Coordination of Land Information Management through a Peak Inter- governmental Council. K. C. Bell. **240**, 71
- The beginning of modern geodesy 250 years ago. J. R. Smith. **225**, 105
- The cadastral map. Notice. **212**, 252
- The cadastral survey requirements of developing countries in the Pacific Region-with particular reference to Fiji. I. P. Williamson. **206**, 355
- The cadastral system in Trinidad. P. Done and M. M. Robertson. **228**, 269
- The Cadastre and Revenue Generation -A Case Study of Bendel State. D. P. C. Osayimwese. **232**, 82
- The Central Projection of the Spheroid and Surface Lines. B. R. Bowring. **265**, 163
- The Chebyshev Adjustment of a geodetic levelling network. M. B. Ebong. **220**, 315
- The Commonwealth Association of Surveying and Land Economy. CASLE-. C. Dann. **269**, 414
- The concept of least count in measurement. D. Jeyanandan. **218**, 196
- The Definition and Adjustment of the Fiji Geodetic Datum- 1986. J. Hannah and J. Maseyk. **231**, 33
- The detailed gravimetric geoid of Kenya. M. K. Gachari and J. G. Olliver. **221**, 365
- The development of survey instrumentation 1790-1980 R. C. Cox. **219**, 28; **220**, 283
- The DVP: A Tool for Extending the Field of the Surveyor's Practice. P. A. Gagnon, J. P. Agnard and C. Nolette. **249**, 159
- The East African Arc. M. Hotine. **216**, 74
- The Editors-G. T. McCaw, J. Clendinning, A. L. Allan, W. M. Barnes. **200**, 97
- The Estimation of Crustal Deformation in the Shanxi Area, China, from the 1996 and 1997 GPS Observations. Q. W. Liu, Y. Q. Chen and Y. X. Li. **275**, 349
- The Excess Propagation Path of Radio Waves: Study of the Influence of the Atmospheric Parameters on its Elevation Dependence. I. M. Ifadis. **243**, 289
- The figure of the earth. A. L. Allan and C. Hudson. **225**, 120
- The Finite Distance Scale Factor Formulae for Transverse Mercator, Decumenal Mercator, and Skew Orthomorphic Grids correct to Fourth Order Terms. J. W. R. Day. **236**, 244
- The First Russian Wire-Measured Baseline Investigated. V. B. Kaptüg, Yu. G. Sokolov, S. G. Vereshchagin and V. A. Garnikyan. **274**, 251
- The formula for finding the ordinary latitude from the isometric latitude. J. W. R. Day. **230**, 383

- The Geoidal Heights of Nigeria. S. I. Agajelu. **235**, 229
- The Geomensor CR204: Baseline test results. A. H. Dodson and P. Fleming. **229**,351
- The Gravitational Attraction of Rectangular Masses. A. C. Ruffhead. **251**, 273
- The height of Mount Everest. P. V. Angus-Leppan. **206**, 367
- The Implementation of the Hartebeesthoek94 Co-ordinate System in South Africa. R. T. Wonnacott. **274**, 243
- The Importance of Accurate Coordination of a Known Station in Precise Relative Positioning. M. C. Breach. **238**, 398
- The International Federation of Surveyors (FIG). J. R. Smith. **269**,417
- The Lagos 11.4km base-line. F. O. A. Egberongbe, O. Fadahunski, F. A. Fajemirokun and T. Parm. **222**, 389
- The Metis Settlements Land Registry in Alberta. A. C. McEwen. **256**, 77
- The naming of the stars. J. H. Reynolds. **218**, 201
- The new definition of the metre. W. F. Price. **219**, 276
- The new hydrographic instrument. Jottings. **209**, 20
- The Nigerian Cadastre: A System Under Pressure? N. Field. **239**, 2
- The Nigerian Standard Gravimeter Calibration Line. I. B. Osazuwa. **245**, 397
- The observation of reciprocal vertical angles at night. A. Johnston. **201**, 113
- The one peg level test. J. W. Wright. **214**, 369
- The other fellow's language. W. P. Smith. **227**, 213
- The place of Mount Everest in history. Sir S. G. Burrard. **214**, 371
- The principle of triple factorisation and its application in land surveying discourse. S. T. Rabismus and Llygad Croes (‡). **200**, 109; **203**, 254
- The principles of theodolite intersection systems. A. L. Allan. **227**, 226
- The Readjustment and Analysis of Zambia's Isoka Primary Network. P. Dare and E. Mutale. **264**, 123
- The Regular Heptagon. A. F. Porter. **245**, 409
- The Reliability of Nigeria's Primary Triangulation Network. A. A. Musa and M. B. Ebong. **256**, 99
- The Role of the Geoid in the Co-ordinate Transformation. Hussein Abd-Elmotaal and Mohammed EI-Tokhey. **263**, 31
- The 'S' in GIS. D. Parker and G. Taylor. **246**, 465
- The series of events model in the analysis of geodetic levelling: A new look at an old problem. E. B. Ebong. **229**, 338
- The six methods of finding north using a suspended gyroscope. T. L. Thomas. **203**, 225; **204**, 257
- The South African Cadastre and Indigenous Land Tenure. C. Fourie and R. Hillerman. **265**, 174
- The Spatial Solution of the First Fundamental Geodetic Problem. R. Gargiulo and A. Vassalo. **268**, 405
- The Status of Geographical Information Systems in Trinidad and Tobago. J. Opadeyi. **252**, 379
- The Status of GPS for Height Determination. A. H. Dodson. **256**, 66
- The story of surveying as told by philately. J. R. Smith. **200**, 85
- The Structured Concept: Realising the World. D. Parker, G. Taylor and D. Dauncey. **253**, 396
- The Survey Review, its history, content and management. J. Wright and A. L. Allan. **202**, 195
- The Survey use of the constraint elimination method for sequential solution of observation equations of free networks. A. Perelmuter. **212**, 243

- The surveyor as land manager with some observations on the Dominion Land Survey (DLS) Grid and Land Management in the Canadian Great Plains. R. D. Revel. **216**, 96
- The Transverse Mercator Projection -A Solution by Complex Numbers. B. R. Bowring. **237**, 325
- The Transverse Mercator Projection -simple but accurate formulae for small computers. W. B. P. Williams. **205**, 307
- The Tubular Brass Scales. L. Pfeifer. **278**, 541
- The Use of Bessel-Spheres for Solution of Problems Related to Geodesics on the Ellipsoid. J. S. Danielsen. **253**, 445
- The Use of Geographic and Map Grid Co-ordinate Systems for Geodetic Network Adjustments. M. R. Shortis and J. W. Seager. **254**, 495
- The Use of Global Positioning System for Primary Survey Control in Nigeria. G. A. Oyeneye, M. A. Macaulay and M. B. Ebong. **240**, 107
- The Use of GPS Data for Improving Local Geoid Determination. N. Ananga and S. Sakurai. **259**, 334
- The use of the graphic chart for the analysis of observations in a gravimetric network. I. B. Osazuwa and D. E. Ajakaiye. **221**, 345
- The determination of the secular movements of the axis of the civic centre at Modena P. Russo. **207**, 21
- Theodolite An Error in the Optical Micrometer of a. D. A. Dyer. **107**, 213
- Theodolite and Short Base. Range Finding with a. S. E. Evans. **92**, 276
- Theodolite errors. M. C. Breach. **214**, 355
- Theodolite dislevelment. Using an automatic index to correct for. J. Jackson. **198**, 360
- Theodolite External Optical Sights. Positioning Accuracy when Using. D. R. Twigg and R. H. Mayo. **260**, 393
- Theodolite intersection systems. The principles of. A. L. Allan. **227**, 226
- Theodolite Mathematical Theory of the Transit. J. Clendinning. **42**, 194 ; **46**, 462
- Theodolite Observations and Target Rifle Shooting. Some Comparisons between. L. M. McBean. **33**, 134
- Theodolite Readings in the Field. The Rejection of. B. C. Haggett. **142**, 381
- Theodolite The Genesis of a. **40**, 105
- Theodolite The New Geodetic Tavistock. E. W. Taylor. **43**, 258
- Theodolite The New Geodetic Tavistock. J. L. Rannie and W. M. Dennis. **45**, 393; **46**, 458
- Theodolite Work. A Portable High Tripod and Platform for. S. E. Evans. **67**, 230
- Theodolite. A New. by Wild. **49**, 137
- Theodolite. Further Notes on Range Finding with a. N. B. Favell. **46**, 488
- Theodolite. Zeiss Th.3. Subtense Bar and Associated Equipment. Testing the. I. B. Watt. **128**, 76; **129**, 133
- Theodolites. A Proposal for a Laboratory Method to Test Digital. D. Stathas. **262**, 553
- Theodolites. Surveying with non-levelled. S. A. Kyle. **207**, 39
- Theoretical Foundation of the Principle of Least Squares, On the. B. Cvetkov. **119**, 36
- Theory. A General, for the Adjustment of a Trilateration Network, G. J. Thornton-Smith. **130**, 173
- Thermistors for Temperature Measurement in E.D.M. The use of. M. R. Richards. **143**, 43
- Thessaloniki. Measurements for the Construction of the Test Slab of the Laboratory of Reinforced Concrete Structures of the University of. A. Badellas, G. Penelis and P. Savaidis. **238**, 404
- Third United Nations cartographic conference for Africa, Addis Ababa October-November 1972. J. W. Wright. **169**, 125

- Thirtieth Meridian, Sir D. Gill and the Geodetic Survey of Africa and the Arc of the J. Calder Wood. **48**, 50
- Thomas, A. E.* Simple Resection. **1**, 31
- Thomas, H. B.* The Surveyor and the Politician: An African Object-lesson. **7**, 28
- Thomas, H. B.* Gordon's Farthest South in Uganda in 1876. **17**, 147
- Thomas, H. B.* Uganda Land and Survey Department, Annual Report, 1938. **34**, 259
- Thomas, R. H.* Survey on moving ice. **157**, 322
- Thomas, T. L.* The six methods of finding north using a suspended gyroscope. **203**, 225; **204**, 257
- Thompson, E. H.* A quarter century of land survey teaching. **170**, 157
- Thompson, E. H.* Least-Square Solutions with a Calculating Machine (Letroy and Daubresse). **20**, 361
- Thompson, E. H.* Cassini-Gauss Transformation, A Direct Method. **18**, 236; **20**, 354
- Thompson, E. H.* The Seven-Lens Air-survey Camera. **26**, 216; **27**, 263
- Thompson, E. H.* The Condition for the Construction of a Conformal Projection. **30**, 480
- Thompson, E. H.* A note on conformal map projections. **175**, 17
- Thompson, E. H.* The Radial Line Assumption. **76**, 268
- Thompson, E. H.* The Ordnance Survey Foot/Metre Conversion Ratio. **84**, 280
- Thompson's Analysis of the Improvement Resulting from the Use of a Reseau in Air Triangulation at the Ordnance Survey. Note on. A. M. Wassef. **81**, 138
- Thomson, D. B. and Vanicek, P.* Note on the reduction of spatial distances to a reference ellipsoid. **173**, 309
- Thorn, A.* An Empirical Investigation of Atmospheric Refraction. **108**, 248
- Thorn, A.* Circum-Meridian Altitudes. **106**, 170
- Thornhill, G. K.* : The Year in Ceylon. 1933, **15**, 23; 1934, **18**, 242; 1935, **22**, 481
- Thornton-Smith, G. J.* A New Transition Curve, **117**, 303
- Thornton-Smith, G. J.* Latitude, Longitude and Azimuth from Two Stars. **97**, 124
- Thornton-Smith, G. J.* A Circum-Almucantar Observation for Azimuth. **112**, 79
- Thornton-Smith, G. J.* A Family of Transition Curves. **120**, 79
- Thornton-Smith, G. J.* A General Theory for the Adjustment of a Triangulation Network. **130**, 173
- Thornton-Smith, G. J.* A Graphical Sidelight on the Adjustment of a Doubly-Braced Quadrilateral of Measured Lines. **124**, 259
- Thornton-Smith, G. J.* A Modification of Bowditch's Rule to preserve the Bearing of the Datum Line in a Closed Traverse. **73**, 111
- Thornton-Smith, G. J.* Adjustment of Measured Angles and Measured Lengths in a Doubly-Braced Quadrilateral. **131**, 236
- Thornton-Smith, G. J.* Almucantar Position Lines. **88**, 77
- Thornton-Smith, G. J.* An Azimuth Observation in the Almucantar. **94**, 362
- Thornton-Smith, G. J.* Azimuth Controlled Almucantar Observations for Position. **109**, 301
- Thornton-Smith, G. J.* Least-squares adjustment of Dissimilar Quantities. **136**, 68
- Thornton-Smith, G. J.* The Curvature Correction in Precise Azimuth Observations Upon a Close Circumpolar Star at any Hour Angle. **80**, 65
- Thornton-Smith, G. J.* The Straight Position Line. **100**, 269
- Thornton-Smith, G. J.* Almost Exact Closed Expressions for Computing all the Elements of the Clothoid Transition Curve. **127**, 35
- Thornton-Smith, G. J.* The Selection of Pole and Condition Equation in the Adjustment of Linear Dimensions in a Geodetic Quadrilateral. **132**, 294
- Thornton-Smith, G. J. and Murphy, B. T.* Least Squares Adjustment of Linear Dimensions of a Geodetic Quadrilateral. **106**, 175

- Three-dimensional Adjustment of Local Geodetic Networks in Engineering Geodesy. T. Ninkov. **234**, 169
- Three-Dimensional Digital Elevation Data Compression Procedure. A, I. M. Gar Al-nabi. **240**, 99
- Three-Dimensional Geodetic Network Model for the Analysis of Localised Earth Deformation. A, S. M. Musyoka and F. W. O. Aduol. **263**, 41
- Three dimensional locational fixation in rapid detail plotting. J. C. Pugh. **204**, 289
- Three-Million-Acre Title Survey. A. J. E. S. Bradford. **22**, 469
- Three-peg adjustment for levelling instruments. P. V. Angus-Leppan. **159**, 9
- Three Years and More of the Rising Sun, or a Colonial Survey Department under a New Master. P. H. Bonnet. **70**, 330
- Thwaite, E. G.* Calibration of Precise Levelling Staffs by a Procedure involving the Random Selection of Intervals. **113**, 109
- Tiberius, C. C. J. M. and Kenselaar, F.* Estimation of the Stochastic Model for GPS Code and Phase Observables. **277**, 441
- Tidal Observations in Ceylon. J. E. Jackson. **20**, 325
- Tilt, Effect of on Position Lines. N. R. Fallon. **103**, 40
- Time. A rigorous solution for azimuth, latitude and longitude from direction and. O. C. Ezenwere. **201**, 141
- Time and Latitude by the Equal Altitude Method with the Theodolite, Determination of: J. E. E. Craster. **2**, 57
- Time Differences (Operative and Computing Methodologies). Latitude by. A. Pugliano, R. Santamaria, S. Troisi and L. Turturici. **245**, 413
- Time in Geodetic Astronomy. A. R. Robbins. **143**, 2
- Time rate of change of altitude and azimuth of the sun. Position and azimuth from the. G. G. Bennett. **198**, 373
- Time Signals. A Note on the Field Reception of. A. R. Robbins. **105**, 111
- Time Signals. M. S. F. Standard Frequency Radio, Uses of the in Astro-Survey Work. G. B. Tait. **126**, 374
- Time. Corrected Azimuth and : Two Stars in the Same "Vertical" Plane. G. T. M. **39**, 41
- Time. Simultaneous Determination of Latitude, Azimuth and, by Observation to a Pair of Stars. V. N. S. Murthy. **111**, 15
- Times, Chronograph. Abstracting. A. L. Allan. **115**, 237
- Timothy Pont and the Mapping of Sixteenth-century Scotland: Survey or Chorography? J. C. Stone. **276**, 418
- Ting, L., Williamson, I. P., Grant, D. and Parker, J. R.* Understanding the Evolution of Land Administration Systems in Some Common Law Countries. **272**, 83
- Title and Subscriptions Rates, E.S.R. Change of. **126**, 338
- Title. Surveys for. A. W. Miller. **28**, 332
- Tobler, W. R.* Some New Equal Area Map Projections. **131**, 240
- Tokmakidis, K. et al.* Determination of Ground Displacements in the Seismic Zone of Volvi, Greece. **266**, 229
- Tomlinson, C.* First impressions of the Zeiss Eldi 2. **182**, 367
- Tomlinson, C.* Irish 1 : 50,000 first series 1978 sheet 9-Ballymena, Lame -a review. **193**, 101
- Tomlinson, C.* The Dark Peak. **169**, 130
- Tonga. Land and Land Law in the Kingdom of. P. Done. **268**, 389
- Topographic Surface onto the Reference Ellipsoid of Revolution in Geocentric Cartesian Co-ordinates. Point Projection of. N. Crocetto. **250**, 233
- Topographic survey to the geodetic co-ordinates of a point. From the. V. Sciarrone and A. Vassallo. **227**, 448
- Topographical Maps. The Accuracy of. D. R. Crone. **88**, 64

Topographical Surveying, Precision Tacheometry with the Vertical Subtense Bar. Applied to. M. Geisler. **134**, 374

Topographical Surveys. Curvature and Refraction. Tables for, N. B. Favell. **52**, 240

Topographical Surveys. Directorate of Colonial Geodetic and. **61**, 271

Topographical Surveys. Some Suggestions for Speeding up Work on. N. B. Favell. **61**, 242; **62**, 295

Total Inverse Solutions for the Geodesic and Great Ellipse. B. R. Bowring. **261**, 461

Towards an Integrated and Imaginative Approach to Practical Exercises in the Education of Geodetic Engineer and Surveyor. A. L. Allan. **234**, 177

Tower for Tellurometer Traverses, An Inexpensive. A. S. Macdonald. **121**, 129

Tower. A New Type of Lightweight Surveying. A. D. Bancroft. **137**, 98

Town Plans. The. H. St J. L. Winterbotham. **29**, 425

Towns and Township Lay-outs in Nigeria, Surveys of. J. Calder Wood. **2**, 50

Townships and Town-planning Lay-outs. Survey and Setting-out of. D. L. Reid and D. R. Meldrum. **13**, 395

Traceability and the Calibration of Satellite Positioning Systems. M. Stewart. M. Tsakiri, D. Martin and T. Forword. **269**, 437

Traditional Land Tenure Issues for L I S in Fiji. M. E. T. Rakai, I. C. Ezigbalike and I. P. Williamson. **258**, 247

Training African Surveyors in Uganda. P. C. Bindon. **80**, 79

Training of African Surveyors in Nigeria. The. O. E. Eyo. **52**, 254

Training of Technical Assistants in Malaya. C. Noble. **25**, 140

Transceivers on electromagnetic distance measurements. Effects of. G. S. Nash. **187**, 213

Transformation Factors, The Application of to the Adjustment of Air Photographs Covering Narrow Land Areas and Coast Lines. W. E. Browne. **73**, 119

Transformation from local to UTM co-ordinates. E. F. Lucas. **183**, 42

Transformation from spatial to geographical co-ordinates. B. R. Bowring. **181**, 323

Transformation of Co-ordinate Data for the New South African Datum -a Pilot Study. C. L. Merry and J. F. Whittal. **268**, 379

Transformation of Co-ordinates between Geodetic Systems. T. Vincenty. **137**, 128

Transformation of Geodetic and Isometric Latitude by Numerical Integration. H. Lichtenegger. **236**, 294

Transformation. Conformal, of a Network of Triangulation. The. D. R. Hendrikz. **85**, 319

Transformation. Computation of the foot-point latitude in co-ordinate. A. C. Edoga. **202**, 192

Transformations between the Lambert Conformal and the Gauss. Krueger (Transverse Mercator) Projections. J. T. Fang. **74**, 181

Transformations. Conformal. by Double Interpolation. A. J. Morley. **52**, 245

Transformations. Rigorous. T. M. Short. **250**, 244

Transformations. Rigorous Error Propagation Under Conditions of Biased. Three-Dimensional. Orthogonal. T. M. Short. **250**, 244

Transforming conic conformal to T.M. co-ordinates. B. Shmutter. **201**, 130

Transit method Determination of the position of the null line of gyroscope oscillations using the. Z. G. Popovic. **213**, 303

Transit Theodolite. Mathematical Theory of the. J. Clendinning. **42**, 194 ; **46**, 462

Transition Curve Design. Highway. A. G. Tyson. **75**, 206; **76**, 261; **77**, 315

Transition Curve. A New. G. J. Thornton-Smith. **117**, 303

Transition Curve. Clothoid, Almost Exact Closed Expressions for Computing all the Elements of the. G. J. Thornton-Smith. **127**, 35

Transition Curve. Parabola as. R. B. McVilly. **149**, 305

Transition Curves. A Family of. G. J. Thornton-Smith. **120**, 79

Transition. A Curve of. G. T. M. **37**, 434

Translocation. Heights above the geoid for mapping control by Doppler. M. C. Breach and P. Maye. **230**, 363

Transvaal-Southern Rhodesia Geodetic Connexion, The. J. E. S. Bradford. **30**, 457

Transverse Mercator Projection. A Critical Examination. G. T. M. **35**, 285

Transverse Mercator Arc-to-Chord and Finite Distance Scale Factor Formulae. A. G. Bomford. **125**, 318

Transverse Mercator co-ordinates. Conversions between geographical and. N. J. Field. **195**, 228

Transverse Mercator Equations obtained from a Spherical Basis. B. R. Bowring. **233**, 125

Transverse Mercator Formulae. J. C. B. Redfearn. **69**, 318

Transverse Mercator Grid (Clarke 1880 spheroid). A zone to zone transformation for the. J. G. Olliver. **199**, 36

Transverse Mercator Maps. Marginal Scales of Latitude and Longitude on. L. P. Lee. **60**, 220

Transverse Mercator Projection -A Solution by Complex Numbers. The. B. R. Bowring. **237**, 325

Transverse Mercator Projection of the Entire Spheroid. The. L. P. Lee. **123**, 208

Transverse Mercator Projection of the Spheroid Alternative to the Gauss-Krüger Form. A. L. P. Lee. **87**, 12

Transverse Mercator Projection of the Spheroid, The. L. P. Lee. **58**, 42

Transverse Mercator Projection of the Whole Spheroid, Scale and Convergence on the. L. P. Lee. **127**, 49

Transverse Mercator Projection-simple but accurate formulae for small computers. The. W. B. P. Williams. **205**, 307

Transverse Mercator Projection. Minor Triangulation on the. H. F. Rainsford. **60**, 221

Transverse Mercator Projection. The Conversion of Co-ordinates from the Cassini to the. C. Conn. **116**, 274

Transverse Mercator Projection, The, and its Application to Tanganyika Territory: W.A. Erritt. **21**, 417

Transverse Mercator Projection. The. G. T. M. **27**, 273

Transverse Mercator Projection. Transformation of Rectangular Co-ordinates on the. W. A. Erritt, **32**, 85

Transverse Mercator Projection. A simple geometrical approximation. R. J. Ord-Smith. **216**, 51

Transverse Mercator projection. J. E. Jackson. **188**, 278

Transverse Mercator systems. Simple algorithms for calculation of scale factors for. H. W. Stoughton. **206**, 386

Transverse Mercator. Decumenal Mercator. and Skew Orthomorphic Grids correct to Fourth Order Terms. The Finite Distance Scale Factor Formulae for. J. W. R. Day. **236**, 244

Traverse Adjustment and a Modification. Bowditch. Notes. G. T. M. **31**, 36

Traverse Adjustment and a Modification. Bowditch. G. T. M. **29**, 417; **30**, 482

Traverse Adjustment. Why not Least Squares? H. L. P. Jolly. **28**, 339 .

Traverse Adjustment. Why not Least Squares? A. J. Morley. **30**, 481

Traverse Angles. A Method of Booking and Reducing. A. J. Rusk. **104**, 79

Traverse Computations. Checking. B. Goussinsky. **49**, 129

Traverse distortions of some adjustment methods. Absolute. G. Obenson. **177**, 130

Traverse Errors. The Effect of Altitude on: J. E. Jackson. **12**, 330

Traverse Nets. The Adjustment of. H. Biesheuvel. **79**, 24

Traverse Network Adjustments Part I. Vertical Angle Networks. C. W. B. King. **144**, 83  
 Traverse Network Adjustments Part II. Horizontal Angle Networks. **145**, 132  
 Traverse network. Adjustment of a. H. Papo and A. Peled. **184**, 82  
 Traverse network. Processing and adjustment of a. U. Ethrog and B. Shmutter. **203**, 236  
 Traverse Networks. A Note on the Adjustment of. R. Gwilliam. **114**, 182  
 Traverse Networks. Adjustment of. H. C. Brown. **120**, 84  
 Traverse networks. A method for overcoming some problems of ill-conditioned matrices in rigorous re-adjustment of. U. Ethrog. **215**, 33  
 Traverse Observations. Another Method of Finding a Gross Angular Error in. B. Goussinsky. **42**, 216  
 Traverse Reduction with an Electronic Digital Computer. J. M. Bennett and H. Cotton. **97**, 111  
 Traverse Tables. Note on a Method of Interpolation from. to Correct for Single Second. of Bearing. J. Clendinning. **4**, 157  
 Traverse, A Chance Correction of a. G. T. M. **23**, 41  
 Traverse. computations. Rational autocheck formulae for. A. Sanyaolu. **155**, 238  
 Traverse. Least Squares adjustment of a. R. G. Bird. **155**, 218  
 Traverse. Non-Iterative Geodetic. M. I. Ozone. **240**, 81  
 Traverses - and other things. H. L. P. Jolly. **32**, 94  
 Traverses adjusted by Bowditch rule and by least squares, a comparison of the precision of. P. B. Jones. **164**, 253  
 Traverses in the Gold Coast, Cadastral. A. V. Lawes. **58**, 138  
 Traverses Some Notes on the Adjustment of. B. Goussinsky. **60**, 227  
 Traverses. Compensation of, where Lengths only are Corrected. A. E. Young, **43**, 270  
 Traverses. First-Order in Ceylon. J. E. Jackson. **44**, 322  
 Traverses. Geodetic. on the Transverse Mercator Projection. The Least Squares Adjustment of Geodetic Figures in which both Angles and Sides have been Measured and of. E. T. Homewood. **124**, 248; **125**, 290  
 Traverses. Geodetic. The Least Squares Adjustment of. B. T. Murphy. **112**, 66  
 Traverses. Minor Control. in Rough Country. A Simple Form of Catenary Apparatus for. J. W. Wright. **70**, 344  
 Traverses. Semi-Precise. The Adjustment of. B. Chiat. **115**, 230  
 Traversing in Anthill Country. A. D. Hamilton. **32**, 92  
 Traversing in Tropical Africa. Theodolite. H. F. Rainsford. **37**, 410  
 Traversing to Geodetic Levelling Accuracies as used in a Geophysical Monitoring Scheme. Practical EDM Height. R. J. Hibbert. **246**, 434  
 Traversing with Subtense Bar. Notes on. Z. M. Michalski. **93**, 311  
 Traversing with Theodolite and Chain. N. O. Clappison. **41**, 156  
 Traversing. First-Order with the Tellurometer. G. J. Humphries and H. H. Brazier. **109**, 290  
 Traversing. Precise Tellurometer. A. G. Bomford. **117**, 316  
 Traversing. Routine Cadastral. G. T. M. **36**, 368  
 Traversing. Temperature Errors in Precise. N. O. Clappison. **62**, 297  
 Trends in Cartographic Techniques. Recent. I. E. Sleep. **104**, 73  
 Trials of a Surveyor-Modern Version. John B. Alexander. **87**, 39  
 Triangle. Astronomical. Notes on the. W. Maré. **103**, 35  
 Triangle. Solution of Problem in the Subdivision of a. W. T. Neill. **10**, 201  
 Triangle. The Stereographic Solution of the Spherical. A. J. Potter. **10**, 226  
 Triangle. The Stereographic Solution of the Spherical. G. H. Savage. **13**, 407  
 Triangle. The Stereographic Solution of the Spherical. T. H. Corfield. **12**, 345

Triangles on a Spherical Earth, A Tangent Solution of. G. T. M. **20**, 358

Triangulation Adjustment by Directions. G. R. Dyus. **123**, 226

Triangulation Adjustment. Electric Analogue for. Hsuan-Loh Su. **111**, 30; **114**, 173

Triangulation Adjustment-Angles or Directions? H. F. Rainsford. **141**, 329

Triangulation. Air. at the Ordnance Survey. Note on Thompson's Analysis of the Improvement Resulting from the Use of a Reseau in. A. M. Wassef. **81**, 138

Triangulation. Air. Local Errors in Relation to Analytical Methods of. A. M. Wassef. **84**, 252

Triangulation along the North Shore of the Gulf of St Lawrence. Report on the Primary. N. J. Ogilvie. **45**, 386

Triangulation and traverse in Nigeria. Primary. N. J. Field. **185**, 109

Triangulation Beacons and the Wild Theodolite. D. L. Leach. **12**, 335

Triangulation by the Direction (Graphical) Method. G. H. Halliday. **125**, 310

Triangulation by the Direction Method. A. P. Atkinson. **110**, 364; **111**, 6

Triangulation by the Direction Method. J. R. Dixon. **114**, 155

Triangulation by the Direction Method-A Further Note. **119**, 18

Triangulation by the Direction Method-A Further Note. H. S. Williams. **119**, 18

Triangulation Computation. A General Check for a. B. Cvetkov. **108**, 278

Triangulation Extension for Control of Plane-table Work. H. F. Rainsford. **23**, 44

Triangulation Figures. Implicit Condition Equations in the Adjustment of. B. Goussinsky. **61**, 264

Triangulation Horizontal Angles in. Some Practical Suggestions Regarding their Observation and Adjustment. J. H. Cole. **87**, 36

Triangulation in Tanganyika Territory. H. P. Rowe. **9**, 171

Triangulation Least Squares Adjustments of. Directions versus Angles. H. F. Rainsford. **87**, 31

Triangulation Least Squares Adjustments of. H. Biesheuvel. **84**, 274

Triangulation Net, The Number of Conditional Equations Required for the Adjustment of a. B. Cvetkov. **103**, 24

Triangulation Network. The Reliability of Nigeria's Primary. A. A. Musa and M. B. Ebong. **256**, 99

Triangulation network. Using GPS to control a. V. Ashkenazi, T. Moore, M. E. Napier and C. de la Fuente. **228**, 287

Triangulation of Cultivation Overlooked by High Ground. The. J. W. Wright. **95**, 2; **96**, 50

Triangulation of Sarawak. The Primary. W. Harnack. **42**, 206

Triangulation of South Africa. Adjustment of. the Secondary. D. R. Hendrikz. **29**, 430; **30**, 470

Triangulation on the Transverse Mercator Projection. Minor. H. F. Rainsford. **60**, 221

Triangulation on the Transverse Mercator Projection. The Fixation of Minor. W. A. Erritt. **30**, 462

Triangulation Stations. Recovery of. J. E. R. Ross. **14**, 499

Triangulation Tertiary. Is it Overdone? W. W. Williams. **88**, 86

Triangulation. The Conformal Transformation of a Network of. D. R. Hendrikz. **85**, 319

Triangulation. A New Method for the Adjustment of a Network of. G. B. Lauf. **79**, 19

Triangulation. Aerial Reconnaissance for. J. L. Rannie, **53**, 266

Triangulation. Aerial, A Simplified Analytical Method for the Adjustment of. R. T. Owen. **91**, 227

Triangulation. Bearings versus Angles. A. J. Morley. **54**, 311

Triangulation. Least-Square Adjustment. Of. Directions versus Angles. H. F. Rainsford. **78**, 353  
 Triangulation. Minor. H. St J .L. Winterbotham. **24**, 66  
 Triangulation. of the British Isles, Azimuth Computation in the Old Principal. H. L. P. Jolly. **53**, 271  
 Triangulation. Precision of, in Relation to Length of Side. A. J. Morley. **50**,156  
 Triangulation. The Earliest Geodetic. A. J. Potter. **3**, 100  
 Triangulation, The Reduction of Angles and Station Adjustments. H. F Rainsford. **67**, 209  
 Triangulation. Beacon Hill, Bulford. a monument of the principal. H. G. Welfare. **194**, 147  
 Triangulation. Least Squares Adjustment of. Directions versus Angles. T . Vincenty. **129**, 139  
 Triangulation. Middle East frontiers. J. H. Mankin. **183**, 28  
 Triangulation. Ping pong. R. H. Begg. **167**, 36  
 Triangulations. Connection of India, Siam and Malaya. B. L. Gulatee. **74**, 175  
 Triaxial Ellipsoid. A Projection for a. The Generalised Stereographic Projection. J. A. Weightman. **120**, 69  
 Triaxial ellipsoid. Conformal mapping of the. J. P. Snyder. **217**, 130  
 Triaxial Number Facilities on Calculator or Computer. A Design for. B. R. Bowring. **239**, 34  
 Triaxial numbers with applications to geodesy. B. R. Bowring. **222**, 399  
 Tribute to the Directorate of Overseas Surveys 1946-1983. A personal. A. S. Macdonald. **211**, 193  
 Tridimensional adjustment with inner constraints in small control networks. A. G. Camacho. **230**, 371  
 Trigonometric Heights and Refraction. H. F. Rainsford. **98**, 164  
 Trigonometrical heighting. An empirical method for refraction modelling in. V. Ashkenazi and P. D. Howard. **213**, 311  
 Trigonometrical Heights and the Coefficients of Terrestrial Refraction. B. L. Gulatee. **83**, 224  
 Trigonometrical Heights. The Weighting of Differences of. H. F. Rainsford. **131**, 228  
 Trigonometrical Levelling across the Inland Ice in North Greenland. W. S. B. Paterson and C. G. M. Slesser. **100**, 252  
 Trigonometrical Levelling. R. J. Cornish. **119**, 27; **155**, 230  
 Trigonometrical Levels. The Adjustment of. and Evaluation of Coefficient of Refraction. A. J. Morley. **23**, 16  
 Trigonometrical Observations. A Test for the Reliability of. A. J. Morley. **34**, 226; **41**, 154  
 Trigonometrical series. Approximate polynomials of. R. G. Bird. **170**, 165  
 Trigonometrical Survey of Southern Rhodesia. B. Schierhout. **27**, 267  
 Trigonometrical Survey. A Simple Proposition in. and its Uses. H. L. P. Jolly. **39**, 22 ; **41**, 130  
 Trigonometrical Upset. A. G. T. M. **3**, 127; **4**, 192  
 Trilateration Adjustment of -using length ratios. P. V. Angus-Leppan. **166**,355  
 Trilateration Adjustment. The Use of Concluded Lengths in. B. T . Murphy. **118**, 369  
 Trilateration and Mixed Figures. Use of the Area in formation of the Condition Equations for. A. Sabbah. **142**, 361  
 Trilateration Figure. Adjustment of a. by Frame Structure Analogue. Leung Kui-Wai. **123**, 218  
 Trilateration nets in three dimensions. Small. N. F. Danial. **216**,75  
 Trilateration nets with fixed points. Adjustment of plane. N. F. Danial. **197**, 313

- Trilateration Nets. Analogue Computer for Calculating and Adjusting. H. G. Jerie. **126**, 351
- Trilateration Network. A General Theory for the Adjustment of a. G. J. Thornton-Smith. **130**, 173
- Trilateration networks observed in pairs. The adjustment of. K. A. Atia. **181**, 328
- Trilateration. A simple adjustment for a simple case of. K. D. Robertson. **196**, 264
- Trilateration. Notes on the Adjustment of. A. Tarczy-Hornoch. **134**, 363; **135**, 14
- Trilateration. Semi Graphic Adjustment and. B. Chiat. **130**, 157
- Trilateration. The use of atmospheric models with. K. D. Robertson. **186**, 179
- Trimetrogon Photographs in the Anglo- Egyptian Sudan. Reconnaissance Mapping from. J. W. Wright. **79**, 2
- Trimetrogon Photographs, Planimetric Map Compilation with. (C. R. H.). **121**, 139
- Trinder, J. C. (with Rizos, C., Pollard, J. R. and Brunner, F. K.)*. Surveying Education: Curriculum Development at the University of New South Wales. **247**, 2
- Trinidad and Tobago. The Status of Geo-graphical Information Systems in. J. Opadeyi. **252**, 379
- Trinidad and Tobago. Brief Report on the Survey Work from 1 Jan. to 31 Mar. 1937. J. W. Macgillivray. **27**, 299
- Trinidad and Tobago. Brief Report on the Survey Work in 1936. J. W. Macgillivray. **28**, 354
- Trinidad. Old Regulations in. J. W. Macgillivray. **21**, 396
- Trinidad. The Use of the Magnetic Needle on Surveys in. J. W. Macgillivray. **10**, 238
- Trinidad. The cadastral system in. P. Done and M. M. Robertson. **228**, 269
- Triple factorisation and its application in land surveying discourse. The principle of. S. T. Rabismus and Llygad Croes (†). **200**, 109; **203**, 254
- Triple Resection. An Example. G. T. M. **42**, 216
- Tripod and Platform for Theodolite Work. A Portable High. S. E. Evans. **67**, 230
- Trisection. The Euclidean Problem on Trisecting a Random Angle and Proof of Impossibility. A. F. Porter. **241**, 167
- Tristan d' Acunha Group. The Islands of the. A. L. Jackson. **13**, 391
- Troisi, S. and Turturici, L.* Comparison of methodologies for the calculation of latitude by means of the astrolabe. **220**, 322
- Troisi, S. and Turturici, L.* Non-Current Ephemeris for Approximated Calculations. **233**, 135
- Troisi, S., (with Pugliano, A., Santamaria, R. and Turturici, L.)*. Latitude by Time Differences (Operative and Computing Methodologies). **245**, 413
- Tsakiri, M. (with Stewart, M. et al)*. Traceability and the Calibration of Satellite Positioning Systems. **269**, 437
- Tseng, C. L. and Chang C.C.* A Geocentric Reference System in Taiwan. **273**, 195
- Tubular Brass Scales. The. L. Pfeifer. **278**, 541
- Tunnels. Lateral Refraction in. A. Johnston. **242**, 201
- Turturici, L. (with Pugliano, A., Santamaria, R., and Troisi, S.)*. Latitude by Time Differences (Operative and Computing Methodologies). **245**, 413
- Turturici, L. and Troisi, S.* Non-Current Ephemeris for Approximated Calculations. **233**, 135
- Turturici, L. and Troisi, S.* Comparison of methodologies for the calculation of latitude by means of the astrolabe. **220**, 322
- Twigg, D. R. and Maya, R. H.* Positioning Accuracy when Using Theodolite External Optical Sights. **260**, 393
- Twigg, D. R.* Area Computations using Shape Functions. **251**, 293
- Twigg, D. R.* OSGB36/WGS84 Co-ordinate Transformations. **275**, 292
- Twigg, D. R.* Volume Computations using Shape Functions. **255**, 2

- Two Continents, One Meridian, Two Visionaries, One Goal. A. Macdonald. **275**, 307
- Two electronic tacheometers by Zeiss. H. Leitz. **156**, 258
- Two Methods for finding the Geographic Latitude of the Ellipsoid (Numerical Solution by Microcomputers or Pocket Calculators). G. Targa and A. Vettori. **262**, 560
- Two Methods of forming Condition Equations for Linear Measurements. A. L. Allan and J. R. Hollwey. **136**, 77
- Two New Self-Aligning Levels. F. B. R. Hogg and J. A. Armstrong. **111**, 2
- Two Short Notes on Field Astronomy: (A) Azimuth Setting and (B) Longitude by Transits. N. R. Fallon. **104**, 89
- Two Voyages to Antarctica with the Australian National Antarctic Research Expeditions, 1961 and 1962. D'A. T. Gale. **131**, 221; **132**, 260
- Two-colour EDM instrument Part II: electronic principles. Georan I, a compact. R. H. Bradsell. **179**, 219
- Two-colour EDM instrument. Part I: basic principles. Georan I, a compact. G. Shipley. **179**, 210
- Two-Point Problem. Notes on the Analytical Solution of the. Leung Kui-Wai. **110**, 344
- Tyranny of Survey Regulations. The. P. Hartog. **121**, 132
- Tyson, A. G. Highway Transition Curve Design. **75**, 206; **76**, 261; **77**, 315
- U.K. cadastral plans and the law-the significance of Lee v. Barrey. M. M. Barrett. **205**, 327
- Uganda in 1876. Gordon's Farthest South in. H. B. Thomas. **17**, 147
- Uganda Mailo System. The. J. G. Strickland. **21**, 422; **22**, 460
- Uganda Protectorate. The Year 1930 in. B. T. Watts. **4**, 183
- Uganda. Training of African Surveyors in. P. C. Bindon. **80**, 79
- Uganda, 1938. Land and Survey Department. H. B. Thomas. **34**, 259
- Unbiased estimation of variance-covariance components in condition adjustment with special emphasis on computational efficiency. L. E. Sjoberg. **215**, 15
- Uncontrolled Mapping from Air Photographs. R. W. Pring. **84**, 278
- Under Five Sovereigns or Military Surveys for the Last Fifty Years. H. S. L. Winterbotham. **40**, 93
- Underground cadastre, with special reference to Greater London. Comments on proposals for establishing an. P. C. Sherwood. **181**, 316
- Underground Excavations. Light Sectioning of. A. Wetherelt and A. J. Beer. **256**, 87
- Understanding the Evolution of Land Administration Systems in Some Common Law Countries. L. Ting, I. P. Williamson, D. Grant and J. R. Parker. **272**, 83
- Underwater position-fixing by acoustics. Some methods for. Leung Kui-Wai and Lam Chi-Hung. **154**, 183
- Union of Geodesy and Geophysics, 1948. The International. J. De Graaff-Hunter. **72**, 50
- Union of Geodesy and Geophysics, Sixth General Assembly. N. G. Huntly. **23**, 54
- Union of Geodesy and Geophysics, South and East Africa and the International. H. St J. L. Winterbotham. **26**, 230
- Union of Geodesy and Geophysics. The Washington Conference of the. J. E. R. Ross. **36**, 345
- Union of South Africa. Irrigation Projects in the. N. B. Favell. **67**, 205
- Union. International. of Geodesy and Geophysics. The XIth General Assembly of the. J. De Graaff-Hunter. **110**, 338

Unique Algorithm for the Calculation of Geodetic Distances with the Solution of the First Fundamental Geodetic Problem. A. Vassalo and A. Secci. **255**, 50

United States Coast and Geodetic Survey. The. Its Work and Products. R. F. A. Studts. **81**, 98; **82**, 146

Units of Length and Area. G. T. M. **40**, 85 ; **44**, 339

Units of length and their relation to areas in cadastral surveys. W. K. Wilton. **217**, 149

Units. Linear. Old and New. G. T. M. **34**, 236

Universal Transverse Mercator Grid (Clarke 1880 spheroid). A zone to zone transformation method for the. J. G. Olliver. **199**, 36

University Surveying Instruction at the. A. Stephenson. **91**, 217

University Aspect of Professional Training in Surveying. Modern Influences on the. C. A. Hart. **69**, 282

University College London. MSc in Geodesy. **225**, 159

University Education for Surveyors. On. J. E. Alberda. **234**, 160

University of New South Wales. Surveying Education: Curriculum Development at the. F. K. Brunner, J. C. Trinder, C. Rizos and J. R. Pollard. **247**, 2

University of Nigeria, Nsukka (UNN). An Overview of the Surveying Curriculum at. U. G. O. Okafor. **244**, 333

University of Nottingham, The. Survey Camp. K. T. Peattie. **94**, 376

University of Oxford, M.Sc. in Geodesy. **163**, 234

University of Thessaloniki. Measurements for the Construction of the Test Slab of the Laboratory of Reinforced Concrete Structures of the. A. Badellas, G. Penelis and P. Savaidis. **238**, 404

University Surveying Instruction at the. P. N. Ray. **89**, 104

Unknown star-a new solution. Azimuth and latitude determination by observations of an. A. Vassallo. **209**, 109

Use of a Photo-Electric Cell for Impersonal Longitude Observations. W. D. Rushworth. **114**, 150

Use of Air Photographs by the Ordnance Survey. The. R. A. Gardiner. **76**, 242

Use of an Electrical Analogue in Adjusting Triangulation Problems. A. M. Sabbah. **146**, 173

Use of Bessel-Spheres for Solution of Problems Related to Geodesics on the Ellipsoid. The. J. S. Danielsen. **253**, 445

Use of Concluded Lengths in Trilateral Adjustment. The. B. T. Murphy. **118**, 369

Use of Geographic and Map Grid Co-ordinate Systems for Geodetic Network Adjustments. The. M. R. Shortis and J. W. Seager. **254**, 495

Use of Global Positioning System for Primary Survey Control in Nigeria. The. G. A. Oyeneye, M. A. Macaulay and M. B. Ebong. **240**, 107

Use of GPS Data for Improving Local Geoid Determination. The. N. Ananga and S. Sakurai. **259**, 334

Use of line pairs in trilateration and traverse. Kenneth D. Robertson. **165**, 290

Use of Sensitive Pressure Devices in Surveying. The. D. O'Connor. **103**, 6; **104**, 50; **105**, 114; **106**, 160; **107**, 194

Use of Survey Sections in Operations. C. E. Melville-Richards. **50**, 162

Use of the Area in Formation of the Condition Equations for Trilateration and Mixed Figures. A. Sabbah. **142**, 361

Use of the constraint elimination method for sequential solution of observation equations of free networks. A. Perelmutter. **212**, 243

Use of the graphic chart for the analysis of observations in a gravimetric network. The. I. B. Osazuwa and D. E. Ajakaiye. **221**, 345

Uses of the M. S. F. Standard Frequency Radio Time Signals in Astro-Survey Work. G. B. Tait. **126**, 374

- Using GPS to control a triangulation network. V. Ashkenazi, T. Moore, M. E. Napier and C. de la Fuente. **228**, 287
- Using Software to Generate Survey Plans. H. A. Nandalal. **253**, 431
- UTM co-ordinates. Transformation from local to. E. F. Lucas. **183**, 42
- Validation and Rejection Criteria for Integer Least-Squares Estimation. Shawowei Han and C. Rizos. **260**, 375
- Valstad, T.* Construction of the Games Arenas for the 1994 Winter Olympics in Norway. **255**, 31
- Vanicek, P. and Thomson, D. B.* Note on the reduction of spatial distances to a reference ellipsoid. **173**, 309
- Variance Component Estimation for Recursive Least Squares Adjustments. Hui Qin, Xiaoli Ding, Minghai Jia and Jason Chao. **272**, 11
- Variation of Refraction with elevation angle in an arid climate. M. S. Brown. **158**, 366
- Vassallo, A. and Buonocore, B.* Geometrical quadrature of a normal section. **215**, 25
- Vassallo, A. and Gargiulo, R.* The Spatial Solution of the First Fundamental Geodetic Problem. **268**, 405
- Vassallo, A. and Sciarrone, V.* Spherical Polygon with Direct Determination of Vertices Geodetic Co-ordinates. **233**, 109
- Vassallo, A. and Sciarrone, V.* From the topographic survey to the geodetic co-ordinates of a point. **227**, 248
- Vassallo, A.* Azimuth and latitude determination by observations of an unknown star-a new solution. **209**, 109
- Vassallo, A., and Buonocore, B.* Astronomical Determination of Azimuth and Latitude by observation of Two Unknown Stars without Time Measurement and Knowledge of Astronomy. **242**, 233
- Vassallo, A. and Secci, A.* Unique Algorithm for the Calculation of Geodetic Distances with the Solution of the First Fundamental Geodetic Problem. **255**, 50
- VEB Carl Zeiss Jena. The Geomat range of surveying instruments from. M. A. R. Cooper. **168**, 85
- Vereshchagin, S. G. (with Kaptüg, V. B., Sokolov, Yu. G. and Garnikyan, V. A.)* The First Russian Wire-Measured Baseline Investigated. **274**, 251
- Verheijen, P. J. T. and Ajakaiye, D. E.* A gravimeter calibration line, Nigeria. **190**, 373
- Verhoef, R. M. E. and de Reus, R. M.* On the Estimation of Polynomial Breakpoints in the Subsidence of the Groningen Gasfield. **255**, 17
- Vertical angle measurements. Refraction effects on. A. H. Dodson and M. Zaher. **217**, 169
- Vertical Angle Networks. Traverse Network Adjustments Part I. C. W. B. King. **144**, 83
- Vertical angles at night. The observation of reciprocal. A. Johnston. **201**, 113
- Vertical Angles. Examples of Curvature and Refraction Corrections to. S. E. Evans. **91**, 231
- Vertical. Astronomic determinations of deflection of the. V. Achilli, P. Baldi and S. Zerbini. **208**, 75
- Vertical. Deviation of the. A. R. Robbins. **79**, 28
- Vertical Deviation of the. Discussion. **80**, 69
- Vertical Movements of Levelling Bench Marks in Northern Israel. N. Ananga. **239**, 25
- Vertical Photographs. Near. The Rand Method of Heighting from. D. R. Crone. **82**, 163; **83**, 205
- Vertical reference line. Karyplummet. a. K. A. Rylance. **204**, 295
- Vertical refraction on very short lines. H. H. M. Rogers, **199**, 32
- Vertical refraction on long and short lines. H. H. M. Rogers. **183**, 25

- Vertical Subtense Bar, Precision Tacheometry with the. Applied to Topographical Surveying. M. Geisler. **134**, 374
- Vertical-angle refraction modelling with a double target. A. P. Pilditch. **225**, 145
- Vertical's deflection in geodetic networks. Computation of local anomalies of the. V. Achilli and P. Baldi. **205**, 327
- Vertices Geodetic Co-ordinates. Spherical Polygon with Direct Determination of. V. Sciarrone and A. Vassallo. **233**, 109
- Very long baseline interferometry: an introduction and geodetic applications. V. Ashkenazi and D. McLintock. **204**, 279
- Vettori, A. and Targa, G.* Two Methods for finding the Geographic Latitude of the Ellipsoid (Numerical Solution by Microcomputers or Pocket Calculators). **262**, 560
- Vibrational Measurement of Flexible Structures. A Preliminary Assessment of the Tellurometer MA 200 for. T. J. M. Kennie, C. M. Howard and S. P. Horkan. **232**, 67
- Vibrations. Instability of precise geodetic instruments caused by ground. P. Schramm. **221**, 351
- Vincenty, T.* Resection for Azimuths between Non-Intervisible Stations. **132**, 286
- Vincenty, T.* Direct and inverse solutions of geodesics on the ellipsoid with application of nested equations. **176**, 88
- Vincenty, T.* The meridional distance problem for desk computers. **161**, 136
- Vincenty, T.* A note on the reduction of measured distances to the ellipsoid. **175**, 40
- Vincenty, T.* Checks and Short Cuts in the Computation of the Sum of Squares of Numbers. **137**, 125
- Vincenty, T.* Closed equations for the solution of intersection on the ellipsoid. **189**, 291
- Vincenty, T.* Desk top computers: resection. **168**, 80
- Vincenty, T.* Least Squares Adjustment of Triangulation, Directions versus Angles. **129**, 139
- Vincenty, T.* Methods of adjusting relative lateration networks. **193**, 103
- Vincenty, T.* The use of the relative lateration method for reducing errors in length measurements. **189**, 295
- Vincenty, T.* The scale problem in adjustments of linear measurements. **154**, 164
- Vincenty, T.* Transformation of Co-ordinates between Geodetic Systems. **137**, 128
- Volume Computations using Shape Functions. D. R. Twigg. **255**, 2
- Volumes computed from Triangulated Irregular Networks. Accuracy and Precision of. M. R. Shortis and P. G. Joyce. **245**, 377
- Voyages to Antarctica with the Australian National Antarctic Research Expeditions, 1961 and 1962. Two. D'A. T. Gale. **131**, 221; **132**, 260
- Vucetic, N., Petrovic, S., Francula N. and Lapaine, M.* Conversion of Angular Quantities. **237**, 354
- Waalewijn, A.* The Amsterdam Ordnance Datum (NAP). **226**, 197
- Waalewijn, A.* Hydrostatic Levelling in the Netherlands. **131**, 212 **132**, 267
- Wadley, T. L.* The Tellurometer System of Distance Measurement. **105**, 100; **106**, 146
- Wageningen EDM symposium May 1977. D. W. Proctor. **188**, 263
- Wager, A. C. (with Doake, C. S. M., Paren, J. G., and Walton, J. L. W.).* Survey reduction for glacier movement studies. **196**, 251
- Wakefield, R. C.* Notes on the Fixing of Astronomical Positions. **24**, 79
- Wallace and Tiernan Altimeters. Field Tests with near Moshi. Tanganyika. P. Hartog. **113**, 117
- Walton, J. L. W. (with Wager, A. C., Doake, C. S. M. and Paren, J. G.).* Survey reduction for glacier movement studies. **196**, 251
- Walton, J. L. W.* Resection on moving ice. **191**, 33
- Wande, F. O.* Transverse Mercator Projection. **254**, 518

- Wankie and Sabi Geodetic Bases, Southern Rhodesia (1953). Determination of Tape Temperatures on the. J. E. S. Bradford. **91**, 210
- War and Post War. Geodetic Work in India-. B. L. Gulatee. **77**, 302
- War. Survey in the Great. M. N. MacLeod. **4**, 151; **5**, 207; **6**, 253
- War. World. 1939-1945. Southern Rhodesian Military Surveyors in the. J. E. S. Bradford. **62**, 282
- Warner, J. The Application of Radar to Surveying. **78**, 338
- Warren, D. E. By whose standards?. **187**, 195
- Warren, D. E. Colonial and overseas surveyors. **200**, 97
- Warren, H. A. The Adjustment of Levels by Relaxation Methods. **33**, 163
- Warren, H. A. Adjustment of a Traverse by Relaxation. **34**, 228
- Wassef, A. M. A method for the Determination of the Distortions of the Image formed by a Multiplex Projector. **87**, 26
- Wassef, A. M. Interpretation and Adequacy of Commonly Given Information about the Instrumental Precision of Air Survey Equipment. **88**, 71
- Wassef, A. M. Note on Thompson's Analysis of the Improvement Resulting from the Use of a Reseau in Air Triangulation at the Ordnance Survey. **81**, 138
- Wassef, A. M. Local Errors in Relation to Analytical Methods of Air Triangulation. **84**, 252
- Water Lines on Admiralty Charts.: A. L. Jackson. **22**, 459
- Watson, D. Highlights of Shrivenham. **166**, 379
- Watson, W. C. and Marsh, F. W. Photogrammetric Mapping in South Africa. **91**, 222
- Watt, I. B. Testing the Zeiss Th.3 Theodolite, Subtense Bar and Associated Equipment, **128**, 76; **129**, 133
- Watterson, G. and Bellamy, C. Least squares adjustment of networks. **156**, 250
- Watts ST300 series microptic theodolite. J. R. Hollwey. **166**, 385
- Watts, B. T. The Year 1930 in Uganda Protectorate. **4**, 183
- Watts, B. T. Measuring the World Record Air Speed. **105**, 127
- Wegener's Hypothesis, The Geodetic Evidence Concerning. H. A. Stamers Smith. **65**, 90; **66**, 148
- Weighted mean of correlated data. Direct mean versus. L. Sjöberg. **199**, 3
- Weighting of Differences of Trigonometrical Heights. The. H. F. Rainsford. **131**, 228
- Weighting of Dissimilar Quantities. The Adjustment and. H. Biesheuvel. **126**, 347
- Weighting of Tellurometer Lengths in Relation to Observed Angles. The. H. F. Rainsford. **126**, 360
- Weightman, J. A. A Projection for a Triaxial Ellipsoid. The Generalised Stereographic Projection. **120**, 69
- Weightman, J. A. A Proof of the Cholesky Method of Solution of Normal Equations. **113**, 139
- Weightman, J. A. Distorting a Network to Fit Control Points: An Alternative Expression for the Schols Adjustment. **86**, 372
- Weightman, J. A. Evaluating the Distortion Involved in the .Readjustment of a Network The Schols Adjustment as a Possible Criterion. **89**, 130
- Weightman, J. A. Internationale Streckenmesskurse in München. **105**, 143
- Weights for geopotential numbers in adjustment computations. S. Subramaniam. **202**, 244
- Weights for least squares adjustments in levelling networks. M. B. Ebong. **226**, 175
- Weiping Sun. A New Method for Localisation of Gross Errors. **252**, 344
- Welfare, H. G. Beacon Hill, Bulford. a monument of the principal triangulation. **194**, 147
- Welsch, W. A review of the adjustment of free networks. **194**, 167

- Westminster Abbey: Photogrammetric Recording and Survey Control. Henry VII's. L. D Blank and A. L. Allan. **270**,531
- Wetherelt, A. and Beer, A. J.* Light Sectioning of Underground Excavations. **256**, 87
- Wetherelt, A., Beer, A. J. and Russ, K. D.* Development of a Low-Cost, Laser-Based System for Three-Dimensional Void Visualisation. **272**, 74
- What is ISI and why is it important? J. H. Chandler. **277**, 505
- Wheeler, R. P.* The 1/1250 Re-Survey of Great Britain. **68**, 234
- White, B. M.* The place of survey in land registration. **167**, 3
- White, L. A.* General Theory for Horizontal Angle Observations in Astronomy. **141**, 316; **142**, 346
- White, L. A.* Least squares model for differential scale factor adjustment. **169**, 115
- Whittal, J. F. (with Merry, C. L.).* Transformation of Co-ordinate Data for the New South African Datum -a Pilot Study. **268**,379
- Whittington, I. F. G.* A history of the survey and mapping of Norway, **197**, 291
- Wider application of hydrostatic levelling. J. Sneddon. **191**, 23
- Wiggins, W. D. C.* Mapping Mount Kenya, **94**. 338
- Wild Theodolite, Triangulation Beacons and the : D. L. Leach. **12**, 335
- Wild DI 10 Distomat infra-red distancer and its underlying principles. G. J. Strasser. **154**, 173
- Wild DI-10 distomat-a digest of users' reports. E. C. Aspland. **166**, 368
- Wild GPS System 2000. Studies of the GPS Technique on Engineering Surveying Applications using the. E. Mok and Jansen So. **256**, 115
- Wild Precision Theodolites. Improving the Performance of: J. L. Rannie and W. M. Dennis. **15**, 2
- Wild Tachymat TC 1600. Laboratory Testing of a. J. M. Rüeger and X. Peng. **239**,9
- Wild Theodolites. Observing with the Zeiss and. J. G. W. Leipoldt. **26**, 206
- Wild. A New Theodolite by. **49**, 137
- Wild. Henry. and Development in the Design and Construction of Modern Geodetic Instruments. Henry Wild, Jnr. **113**, 140
- Wild. T. 2. Adjustment of the Optical Plummet of the. L. Berlin. **142**, 356
- Wild. Interfacing Kern and. P. R. Wood. **184**, 78
- Wild-NA 2000 in Laboratory and Field Conditions. Testing the Digital Level. O. Arabatzi, G. Mavrellis and D. Stathas. **248**, 99
- Wild's Contribution to the Development of Modern Survey Instruments. G. J. Strasser. **140**, 263
- Wilkinson, P.* Heights on Kilimanjaro. **95**,32
- Williams, D. C.* A theory of the curvature correction in electromagnetic distance measurement. **178**, 166
- Williams, E. B. and Rusk, A. J.* Note on the Evans Resection Method. **95**, 36
- Williams, H. S. and G. E. Belling.* The Reduction of Gyrotheodolite Observations. **146**, 184
- Williams, H. S.* A critical review of the practical use of the gyrotheodolite. **190**, 339
- Williams, H. S.* Nomographic Treatment of the Cassini-Soldner Projection Correction Terms. **124**, 266
- Williams, V. A. and Brazier, H. H.* The Adjustment of a Block of Aerial triangulation Evaluated with the Wild A5. **95**, 22
- Williams, W. B. P.* The Transverse Mercator Projection-simple but accurate formulae for small computers. **205**, 307
- Williams, W. W.* The Ideal Distance for Precise levelling. **5**, 214
- Williams, W. W.* Approximate Azimuths by Rate of Change of Altitude of Star. **86**, 384
- Williams, W. W.* Tertiary Triangulation. Is it Overdone ? **88**, 86

- Williamson, I. P. and Angus-Leppan, P. V.* A project for upgrading the cadastral system in Thailand. **215**, 2; **216**, 63
- Williamson, I. P. (with Rakai, M. E. T. and Ezigbalike, I. C.).* Traditional Land Tenure Issues for L I S in Fiji. **258**, 247
- Williamson, I. P.* Cadastres and land information systems in common law jurisdictions. **217**, 114; **218**, 186
- Williamson, I. P.* The cadastral survey requirements of developing countries in the Pacific Region- with particular reference to Fiji. **206**, 355
- Williamson, I. P. (with Sinon, R. and Agumya, A.).* Cadastral Reform :Lessons from a Small Island State. **267**,311
- Williamson, I. P. (with Ting, L., Grant, D. and Parker, J. R.).* Understanding the Evolution of Land Administration Systems in Some Common Law Countries. **272**, 83
- Willis, J. C. T.* The Air Survey of Jersey. **15**, 5
- Wilson, G. U.* Barometric Determination of Elevation. **118**, 350
- Wilton, W. K.* Units of Length and their Relation to Areas in Cadastral Surveys. **17**, 165
- Windsor, L. M and Ashkenazi. V.* Current thinking on the solutions of large sets of simultaneous linear equations. **159**, 41
- Winter Survey. A. F. H. Peters. **27**, 258
- Winterbotham was Right! L. Pfeifer. **277**,455
- Winterbotham, H. St J. L.* Conferencing. **23**, 12
- Winterbotham, H. St J. L.* Minor Triangulation. **24**, 66
- Winterbotham, H. St. J. L.* Surveys and History. **51**, 186
- Winterbotham, H. St. J. L.* Map-Grids. **20**, 322
- Winterbotham, H. St J. L.* An Old File and a New Arc. **7**, 7
- Winterbotham, H. St. J. L.* Under Five Sovereigns: or Military Surveys for the Last Fifty Years, **40**, 93
- Winterbotham, H. St. J. L.* The Ordnance Survey. **46**, 450
- Winterbotham, H. St J. L.* 15° Years and 150 Meridians. **28**, 322
- Winterbotham, H. St. J. L.* The International Boundaries of Europe. **58**, 133
- Winterbotham, H. St. J. L.* The Ordnance Survey and the Final Report of the Departmental Committee of 1935. **55**, 10
- Winterbotham, H. St J. L.* South and East Africa and the International Union of Geodesy and Geophysics. **26**, 230
- Winterbotham, H. St J. L.* The Town Plans. **29**, 426
- Witte, B. U.* Precise measurement of short distances with electro-optical rangefinders. **186**, 158
- Wittke, H.* Einführung un die Vermessungstechnik. **162**, 189
- Wonnacott, R. T.* The Implementation of the Hartebeesthoek94 Co-ordinate System in South Africa. **274**, 243
- Wood, J. C.* The Survey Framework of Nigeria. **21**, 386; **22**, 450
- Wood, J. C.* Surveys of Towns and Township Lay-outs in Nigeria. **2**, 50
- Wood, J. C.* Sir D. Gill and the Geodetic Survey of South Africa and the Use of the 30th Meridian. **48**, 50
- Wood, J. C.* The Survey Framework of Nigeria. **23**, 2
- Wood, P. R.* Interfacing Kern and Wild. **184**, 78
- Wood, R.* Movement evaluated by monitoring observations-a particular case? **173**, 313
- Worden master gravimeter. Some performance tests on a. E. G. Hellewell. **162**,159
- Work of the Cadastral Survey and Land Record Office, 1932-4. Sir E. M. Dowson and V. L. O. Sheppard. **56**, 4;:
- World Coastline. A Projection of the. B. R. Bowring. **242**, 226

- World Record Air Speed, Measuring the. B. Watts. **105**, 127
- World War. 1939-1945. Southern Rhodesian Military Surveyors in the. J. E. S. Bradford. **62**, 282; **63**, 14
- Worthington, S. Surveying on Lake Rudolf. **5**, 217
- Wright, J. W. and Allan, A. L. The Survey Review, its history, content and management. **202**, 195
- Wright, J. W. A Simple Form of catenary Apparatus for Minor Control Traverses in Rough Country. **70**, 344
- Wright, J. W. Automatic cartography-report on the British Cartographic Society symposium at Southampton September 14th-16th, 1973. **171**, 236
- Wright, J. W. Electronic Distance Measurement in Land Surveying, **140**, 280
- Wright, J. W. Plans and Surveys for the Registration of Title for Flats and Maisonettes in England. **136**, 88
- Wright, J. W. Reconnaissance Mapping from Trimetrogon Photographs in the Anglo-Egyptian Sudan. **79**, 2
- Wright, J. W. Some Effects of Pulley Eccentricity in Base Measuring Apparatus. **74**, 162
- Wright, J. W. The professional surveyor and his Institution. **182**, 347
- Wright, J. W. The Second R.I.C.S. Land Surveyors Conference at Shrivenham, 10-12 April, 1970. **157**, 338
- Wright, J. W. The sixth United Nations cartographic conference for Asia and the Far East; Tehran, October/November 1970. **160**, 84
- Wright, J. W. The Third United Nations cartographic conference for Africa, Addis Ababa October- November 1972. **169**, 125
- Wright, J. W. The Triangulation of Cultivation Overlooked by High Ground. **95**, 2; **96**, 50
- Wright, J. W. The Conference of Commonwealth Survey Officers, 1963. 131, 202; **132**, 250
- Wright, J. W. The one peg level test. **214**, 369
- Wright, W. Formulae for the Adjustment of Survey Errors. **89**, 134
- Wuddah-Martey, E. E. L. Geodetic Azimuth from meridian transits by interpolation. **158**, 376
- Wuddah-Martey, E. E. L. Ashkenazi, V. and Dodson, A. Ho Rigorous adjustment of an EDM traverse on a desk calculator. **165**, 325
- Xiaoli Ding, (with Coleman, R.). Adjustment of Precision Metrology Networks in Three-Dimension. **259**, 305
- Xiaoli Ding, (with Hui Qin, Minghai Jia and Jason Chao). Variance Component Estimation for Recursive Least Squares Adjustments. **272**, 117
- Xu Dao-Yi, Asteriadis, G. and Arabelos, D. Equidistant Ordering of Large Earthquakes in the Aegean and Surrounding Areas. **273**, 204
- Xu Dao-Yi, Zheng Bing-Hua, Zhang Cun-de, G. Asteriadis and D. Arabelos. Equidistance Ordering of Large Earthquakes in North China. **263**, 19
- Yannxi Yang, Yuannan Wen, Jie Xiong and Jizhon Yang. Robust Estimation for a Dynamic Model of the Sea Surface. **271**, 2
- Young, A. E. Compensation of Traverses when Lengths only are Corrected. **43**, 270
- Yuannan Wen (with Yannxi Yang, Jie Xiong and Jizhon Yang). Robust Estimation for a Dynamic Model of the Sea Surface. **271**, 2
- Zaher, M. and Dodson, A. H. Refraction effects on vertical angle measurements. **217**, 169

- Zakrzewski, A. and Rezulski, M.* A computer method for *a priori* investigation of the electro-optical distance meter additive constant error due to infra-red source inhomogeneities. **208**, 63
- Zambezi near Livingstone, Silting and Island Growth in the: D. S. Cleak. **17**, 158
- Zambia's Isoka Primary network. The Readjustment and Analysis of. P. Dare and E. Mutale. **264**, 123
- Zanzibar Protectorate 1935 Annual Report on the Social and Economic Progress of the People. **24**, 125; **25**, 185
- Zanzibar, Direct Use of Air Photographs for Cadastral Purposes in. Sir E. Dowson. **63**, 2
- Zanzibar. Direct Use of Air Photos for Cadastral Purposes in. L. G. Chambers. **71**, 2
- Zeiss and Wild Theodolites, Observing with the. A. G. W. Leipoldt . **26**, 206
- Zeiss Eldi 2. First impressions of the. C. Tomlinson. **182**, 367
- Zeiss Reg Elta 14. Electronic angle measurement using coded elements, with special reference to the. B. J. Gorham. **180**, 271
- Zeiss. Th.3. Theodolite. Subtense Bar and Associated Equipment. Testing the. I. B. Watt. **128**, 76; **129**, 133
- Zeiss-Bosshardt Direct-reading Tacheometer. Some Experiments with. F. J. Salmon. **26**, 213
- Zenith distances. Astrofixes by the method of equal. B. R. Bowring. **196**, 280
- Zerbini, S. (et al)* Astronomic determinations of deflection of the vertical. **208**, 75
- Zero-Epoch Heights and Height Velocities. N. Ananga, R. Coleman and C. Rizos. **251**, 307
- Zhang Cun-De (with Xu Dao-Yi et al).* Equidistance Ordering of Large Earthquakes in North China. **263**, 19
- Zhao Sharong. and Tao Benzao.* Optimal Design of Monitoring Networks with Prior Deformation Information. **258**, 231
- Zheng Bing-Hua (with Xu Dao-Yi et al).* Equidistance Ordering of Large Earthquakes in North China. **263**, 19
- Zimbabwe. Plane Co-ordinate Transformation for. U. G. O. Okafor. **246**, 485
- Zimbabwe's Communal Area Tenure. Communal Family Tenure -An Examination of Scotland' s Crofting and. J. Drummond and D. Goodwin. **270**, 482
- Zone to zone transformation for the Universal Transverse Mercator Grid (Clarke 1880 spheroid). A. J. G. Olliver. **199**, 36
- Zone to zone transformation method for the Universal Transverse Mercator Grid (Clarke 1880 spheroid). A. J. G. Olliver. **199**, 36