

A P P E N D I X

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20. COMMISSION DES POSITIONS ET DES MOUVEMENTS DES PETITES PLANETES, DES COMETES ET DES SATELLITES (POSITIONS AND MOTIONS OF MINOR PLANETS, COMETS AND SATELLITES)

PRESIDENT: B. G. Marsden

VICE-PRÉSIDENT: G. Sitarski

COMITE D'ORGANISATION: F. K. Edmondson, S. Ferraz-Mello, P. Herget, E. I. Kazimirchak-Polonskaya, L. Kresák, W. H. Robertson, E. Roemer J. Schubart, G. E. Taylor

MEMBRES: Abalakin V. K., Aksnes K., Arend S. J. V., Babadzhanov P. B., Batrakov Yu. V., Bielicki M., Borsenberger-Bec A., Bruwer J. A., Burns J. A., Calame O., Candy M. P., Cristescu C., Cunningham L. E., Debehogne H., Delsemme A. H., De Pascual M., Dirikis M. A., Dunham D. W., Dvorak R., Evdokimov Yu. V., Everhart E., Franklin F. A., Froeschlé C., Galibina I. V., Garfinkel B., Gehrels T., Giclas H. L., Gilmore A. C., Harrington R. S., Hirose H., Itzigsohn M., Kiang T., Klemola A. R., Klepczynski W. J., Kohoutek L., Kovalevsky J., Kozai Y., Lieske J. H., Lindblad B. A., McCrosky R. E., Michkovitch V. V., Milet B., Mintz-Blanco B., Morando B., Mulholland J. D., Nacozy P. E., Orlov A. A., Oterma L., Pascu D., Pittich E., Popović B., Porter J. G., Protitch M. B., Rasmusen H. Q., Sagnier J. L., Schmitt A., Scholl H., Schrutka G., Sekanina Z., Shelus P. J., Shtejns K. A., Sinclair A. T., Strobél W., Sultanov G. F., Tomita Ko., Torroja J. M., Van Houten C.J., Van Houten-Groeneveld I., Vsekhsvyatskij S. K., West R. M., Whipple F. L., Wild P., Wilkins G. A., Williams J. G., Yakhontova-Samojlova N., Yeomans D. K., Zadunaisky P. E.

21. COMMISSION DE LA LUMIERE DU CIEL NOCTURNE (THE LIGHT OF THE NIGHT SKY)

PRÉSIDENT: R. Dumont

VICE-PRÉSIDENT: H. Tanabe

COMITÉ D'ORGANISATION: A. S. Asaad, R. H. Giese, C. Leinert, Yu.L. Trutse,  
G. Weill, J. L. Weinberg, R. D. WolstencroftMEMBRES: Anderson K., Angione R., Banos C. J., Bates D. R., Blackwell D. E.,  
Blamont J. E., Chamberlain J. W., Cook A. F., Dachs J., Divari N. B.,  
Dufay M., Dunkelmann L., Fracassini M., Galperin G. I., Greenberg J. M.,  
Harwit M., Haug U., Henry R. C., Huruhata M., Hunten D. M., James J. F.,  
Jarrett A. H., Kaplan J., Karandikar R. V., Karyagina Z. V., Kastler A.,  
Knaflich H. B., Kordylewski K., Koutchmy S., Kulkarni P. V., Leinert C.,  
Levasseur A. C., Link F., Mattila K., Megrelishvilli T. G., Mukai T.,  
Neuzil L., Ney E. P., Nicolet M., Pearse R. W. B., Pfleiderer J.,  
Pitz E., Roach F. E., Robley R., Roosen R. G., Rozhkovskij D. A.,  
Sanchez-Martinez F., Saxena P. P., Schmidt Th., Sharov A. S.,  
Soberman R. K., Sparrow J. G., Steiger W. R., van Allen J. A.,  
van de Hulst H. C., Wallace L. V., Weniger S., Witt A. N.22. COMMISSION DES MÉTÉORES ET DE LA POUSSIÈRE INTERPLANÉTAIRE (METEORS AND  
INTERPLANETARY DUST)

PRESIDENT: I. Halliday

VICE-PRESIDENT: W. G. Elford

COMITÉ D'ORGANISATION: H. Fechtig, C. L. Hemenway, K. N. Kramer,  
B. A. Lindblad, B. A. McIntosh, Z. Sekanina, A. N. Simonenko, J. ŠtohlMEMBRES: Abbott W. N., Anders E., Babadzhanyan P. B., Belkovich O. I.,  
Brownlee D. E., Ceplecha Z., Cook A. F., Davies J. G., Davis J.,  
Elford W. G., Ellyett C. D., Fedynsky V. V., Fireman E. L., Giese R. H.,  
Guth V., Hajduk A., Halliday I., Harvey G. A., Hawkins G. S., Hey J. S.,  
Hirose H., Hodge P. W., Hoppe J. A., Hughes D. W., Jacchia L.,  
Javnel' A. A., Jennison R. C., Kaiser T. R., Kashcheev B. L., Katasev L.A.,  
Keay C. S. L., Kizilirmak A., Kostylev K. V., Kresák L., Kresáková M.,  
Krinov E. L., Kvíz Z., Lebedinets V. N., Levin B. J., Lovell B.,  
McCrosky R. E., McDonnell J. A. M., Millman P. M., Nazarova T. N.,  
O'Keefe J. A., Opik E. J., Padevět V., Plavcová Z., Porubčan V.,  
Rajchl J., Roosen R. G., Russell J. A., Saho C. Y., Šimek M.,  
Soberman R. K., Southworth R. B., Tomita K., Verniani F. F., Wetherill  
G. W., Whipple F. L., Wood J. A.

24. COMMISSION D'ASTROMÉTRIE PHOTOGRAPHIQUE (PHOTOGRAPHIC ASTROMETRY)

PRÉSIDENT: C. A. Murray

VICE-PRÉSIDENT: H. K. Eichhorn

COMITÉ D'ORGANISATION: Ch. de Vegt, L. W. Frederick, W. Gliese,  
R. S. Harrington, P. Lacroute, H. I. Potter, W. van AltenaMEMBRES: Abhyankar K. D., Blaauw A., Bouigue R., Brosche P., Churms J.,  
Clube S. V. M., Crézé M., Delhaye J., Deutsch A. N., Dieckvoss W.,  
Dommanget J., Elsmore B., Fatchikhin N. V., Firneis M. G.,  
Fracastoro M. G., Franz O. G., Gallouet L., Gatewood G., Giclas H. L.,  
Goyal A. N., Haas J., Heintz W. D., Herget P., Hershey J. L., Hill G.,  
Hoffleit E. D., Ianna P. A., Jones B. F., Jones D. H. P., Klemola A. R.,  
Klock B. L., Lapushka K. K., Latypov A. A., Lavdovskij V. V.,  
Lippincott S. L., Lozinskij A. M., Luyten W. J., Ménessier M. O.,  
Meurers J., Morgan W. W., Nicholson W., O'Connell J. K., Oja T.,  
Onegina A. B., Podobed V. V., Prochazka F. V., Quijano L., Robertson W.H.,  
Roemer E., Sanders W. L., Schilt J., Stoy R. H., Strand K. Aa.,  
Thomas D. V., Upgren A., Valbousquet A., van de Kamp P., Vasilevskis S.,  
Wagman N. E., Wesselink A. J., Wood H. W.25. COMMISSION DE PHOTOMETRIE ET DE POLARIMETRIE STELLAIRES  
(STELLAR PHOTOMETRY AND POLARIMETRY)

PRÉSIDENT: M. F. McCarthy

VICE-PRÉSIDENT: J. A. Graham

COMITÉ D'ORGANISATION: A. Behr, G. V. Coyne, A. Feinstein, P. W. Hill,  
A. R. Hyland, T. Markkanen, K. Osawa, F. G. Rufener, W. Schoneich,  
V. Straizys, J. Tinbergen.MEMBRES: Argue A. N., Bahng J. D. R., Becker W., Bigay J. H., Bok B. J.,  
Borgman J., Breger M., Bruck H. A., Chis G., Chugajnov P. F., Cousins  
A. W. J., Crawford D. L., Dachs J., Eelsalu H. T., Fernie J. D., Fitch W.S.,  
Gallouet L., Gehrels T., Golay M., Goy G., Gutierrez-Moreno A.,  
Haffner H., Hardie R. H., Hauck B., Hiltner A., Holmberg E.B., Irwin J. B.  
Jerzykiewicz M., Johnson H. L., Joshi S. C., Kron G. E., Landolt A. U.,  
Lasker B., Lockwood G. W., Masani A., Mayer P., Mendoza V. E. E.,  
Mianes P., Mitchell R. I., Moreno H., Morris S. C., Muller A. B.,  
Mumford G. S., Nikonov V. B., Notni P., Perry C. L., Roslund C., Rybka E.,  
Sarma M. B. K., Schmidt H., Shawl S. J., Smyth M. J., Steinlin U. W.,  
Stock J., Stroheimer W., Todoran I., Tolbert C. R., Ulrich B., Ureche V.,  
Velghe A. G., Wallenquist A. A. E., Walraven T., Wesselink A. J.,  
Willstrop R. V., Young A. T.

26. COMMISSION DES ETOILES DOUBLES (DOUBLE STARS)

PRESIDENT: P. Muller

VICE-PRESIDENT: O. G. Franz

COMITE D'ORGANISATION: A. Batten, M. Fracastoro, R. Harrington,  
S. Lippincott, C. WorleyMEMBRES: Abt. H., Arend S., Baize P., Cester B., Couteau P., Da Silva A. V.,  
Deutsch A. N., Djurkovic P. M., Dommanget J., Dunham D. W., Finsen W. S.,  
Freitas-Mourao R. R., Geyer E., Hadjidemetriou J. D., Heintz W. D.,  
Hershey J. L., Hidajat B., Holden F., Johnson M. C., Kiselev A. A.,  
Kulikovskiy P. G., Luyten W. J., Meyer C., Poveda A., Rakos K. D.,  
Scarfe C. D., Strand K. Aa., The P. S., van de Kamp P., Walker R. L.,  
Wieth-Knudsen N. P.27. COMMISSION DES ETOILES VARIABLES (VARIABLE STARS)

PRESIDENT: J. Smak

VICE-PRESIDENT: J. D. Fernie

COMITE D'ORGANISATION: N. Baker, M. Breger, A. N. Cox, M. F. Feast,  
H. Gursky, W. E. Kunkel, W. WenzelMEMBRES: Aizenman M. L., Alania I. F., Andrews A. D., Arkhipova V. P.,  
Ashbrook J., Bakos G. A., Barnes T. G., Bath G. T., Balazs-Detre J.,  
Bateson F. M., Bertaud Ch., Bessell M. S., Bhatnagar P. L., Bond H. E.,  
Boulon J., Boyarchuk A. A., Butler C. J., Chavira E., Cherepashchuk A. M.,  
Chis G., Christy R. F., Chugainov P. F., de Kock R. P., Demers S.,  
Dickens R. J., Efremov Yu. N., Edwards P. J., Eskioglu A. N., Evans D. S.,  
Fitch W. S., Friedjung M., Frolov M. S., Gahn G., Gaposchkin S.,  
Gascoigne S. C. B., Gershberg R. E., Geyer E. H., Godoli G., Gorbatsky V.G  
Graham J., Hall D. S., Hansen C. J., Haro G., Harwood M., Heidmann N.,  
Heiser A., Herbig G. H., Herr R. B., Hesser J. E., Heyden F. J.,  
Hoffleit E. D., Houk N., Huffer C. M., Huruhata M., Hutchings J. B.,  
Iben I., Jarzabowski T., Jones A. F., Kippenhahn R., Kholopov P. N.,  
Kopylov I. M., Kordylewski K., Kraft R. P., Krzemiński W., Kuhi L. V.,  
Kukarkin B. V., Kumsishvili J. I., Kwee K. K., Landolt A. U., Ledoux P.,  
Lesh J. R., Leung K. C., Lockwood G. W., Lortet-Zuckermann M. C.,  
Lud L. S., McNamara D. H., Maffei P., Mannino G., Masuni A., Mavridis L.N  
Mayall M. W., Miller W. J., Milone L. A., Mirzoyan L. V., Moffett T. J.,  
Morguleff N., Mumford G. S., Murdin P. G., Neff J. S., Nicolov N. S.,  
O'Connell D. J. K., Odgers G. J., Oosterhoff P. T., Opolski A.,  
Osawa K., Oskanyan V., Payne-Gaposchkin C. H., Peltier L. C., Percy J. R.,  
Piotrowski S. L., Plaut L., Popova M., Rakos K. D., Renson P., Richter G.,



Rodgers A. W., Romano G., Rosino L., Sarma M. B. K., Sawyer Hogg H. B., Schoembs R., Shobbrook R. R., Sinval S. D., Smeyers P., Smith Harlan J., Starrfield S., Stepień K., Strohmeier W., Swope H. H., Szeidle B., Takeuti M., Tammann G. A., Tsesevich V. P., Tempesti P., Terzan A., Tijn A., Dije H. R. E., Tremko J., Usher P. D., Vandekerkhove E., van Agt S., van Genderen A. M., van Hoof A., Vogt N., Wachmann A. A., Walker M. F., Wallerstein G., Walraven T., Warner B., Wehlau A., Wesselink A. J., Wilson L. A., Wright F. W.

28. COMMISSION DES GALAXIES (GALAXIES)

PRESIDENT: B. E. Markarian

VICE-PRESIDENT: B. E. Westerlund

COMITE D'ORGANISATION: H. C. Arp, G. R. Burbidge, R. D. Davies, E. A. Dibaj, K. C. Freeman, J. Heidmann, E. B. Holmberg, M. Peimbert, V. C. Rubin, G. A. Tammann

MEMBRES: Abell G. O., Ables H. D., Alfvén H., Allen R. J. Ambartsumian V.A., Andriillat Y., Arakelian M.A., Ardeberg A. L., Bahcall J. N., Barbieri C., Barbon R., Baum W. A., Bertola F., Bigay J. H., Bok B. J., Bolton J. G., Bondi H., Bonnor W. B., Bottinelli L., Braccisi A., Brecher K., Brosche P., Capaccioli M., Carranza G. J., Chincarini G. L., Contopoulos G., Courtès G., de Vaucouleurs G., Einasto J. E., Ekers R. D., Elvius A. M., Esipov V. F., Evans D. A., Fehrenbach C., Field G. B., Ford W. K., Fraser C. W., Gascoigne S. C. B., Goss W. M., Gougenheim L., Graham J. A., Haro G., Heckmann O., Heesch D.S., Hodge P. W., Hoyle F., Johnson H. M., Kalinkov M., Karachentsev I. D., Kellerman K. I., Kiang T., King I. R., Kopylov I. M., Kundu M. R., Kustaanheimo P., Larson R. B., Layzer D., Lequeux J., Lin C. C., Lindblad P. O., Low F. J., Lynden-Bell D., Lynds B. T., Lynds C. R., McClure R. H., McCrea W. H., Mackay C. D., McVittie G. C., Mark J. W.-K., Mayall N. U., Mills B. Y., Morgan W. W., Narlikar J. V., Neugebauer G., Neyman J., Noonan T. W., Oke J. B., Oleak H., Omer G. C., Oort J. H., Oosterbrock D. E., Pachner J., Pacholczyk A. G., Page T. L., Peimbert M., Pismish de Recillas P., Poveda A., Prendergast K. H., Pronik V. I., Reaves G., Reddish V. C., Richter N., Rindler W., Roberts M. S., Roberts W. W., Robinson I., Rood H. J., Rosino L., Rudnicki K., Sancisi R., Sargent W. L. W., Saslaw W. C., Schmidt M., Schücking E. L., Sciama D. W., Scott E. L., Searle L., Sersic J. L., Setti G., Shakeshaft J. R., Shane C. D., Shen B. S. P., Smith M. G., Spinrad H., Stein W. A., Stibbs D. W. N., Takarada K., Takase B., Tift W. G., Tinsley B., Toomre A., Tovmassian H. M., Treder H. J., Ulrich M. H., Vandekerkhove E., van den Bergh S., van der Kruit P. C., van der Laan H., van Woerden H., Visvanathan N., Vorontsov-Velyaminov B.A., Whitford A. E., Wild P., Williams R. E., Wills B. J., Wilson A. G., Zel'dovich Ya. B.

29. COMMISSION DES SPECTRES STELLAIRES (STELLAR SPECTRA)

PRESIDENT: M. Hack

VICE-PRESIDENT: W. K. Bonsack

COMITE D'ORGANISATION: Y. Andrillat, A. A. Boyarchuk, C. O. R. Jaschek,  
J. Jugaku, R. J. Kovachev, D. C. Morton, J. P. Swings, K. O. Wright

MEMBRES: Abhyankar K. D., Abt H. A., Aller L. H., Andrillat H., Asaad A. S.,  
Aslanov I. A., Bappu M. K. V., Berger J., Bertaud Ch., Bessel M.A.,  
Bidelman W. P., Bloch M., Boesgaard A. M., Boggess A. III, Bouigue R.,  
Boulon J., Buscombe W., Cayrel R., Cayrel-de-Strobel G., Chalonge D.,  
Climenhaga J. L., Code A. D., Conti P.S., Cowley A. P., Cowley C. R.,  
Divan L., Doazan V., Dobronravin P. P., Dolidze M. V., Dunham Jr T.,  
Edmonds Jr. F. N., Evans D. S., Faraggiana R., Feast M. W., Fernandes M. R.,  
Friedjung M., Fringant A. M., Fujita Y., Garrison R. F., Gershberg R. E.,  
Glagolevskij Ju. V., Goldberg L., Gollnow H., Gorbatskij V. G.,  
Gratton L., Gray D. F., Greenstein J. L., Griffin R. E. M., Griffin R. F.,  
Groth H. G., Guthrie B. N. G., Haro G., Heintze J. R. W., Henize K. G.,  
Herbig G. H., Herman R., Houziaux L., Huang Su-Shu, Hyland A. R.,  
Jaschek M., Johnson H. R., Keenan P. C., Khokhlova V. L., King R. B.,  
Kodaira K., Kogure T., Kopylov I. N., Kraft R. P., Labs D., Lambert D. L.,  
Larsson-Leander G., Locanthi D. D., Luud L. S., McNamara D. H.,  
Maitzen H. M., Mannino G., Mel'nikov O.A., Milligan J. E., Morguleff N.,  
Mustel E. R., Myerscough V. P., Nicholls R. W., Nikitin A. A.,  
Nishimura S., Oetken L., Oke J. B., Osawa K., Pagel B. E. J., Parson S. B.,  
Pasinetti L. E., Payne-Gaposchkin C. H., Peat D. W., Pedoussaut A.,  
Peery B. F., Plavec M., Preston G. W. III, Przybylski A., Querci F.,  
Reimers D., Ringuelet A. E., Rodgers A. W., Sahade J., Sanwal N. B.,  
Schild R. E., Seggewiss W., Sinnerstad U., Slettebak A., Smak J.,  
Smolinski J., Snow Th., Stawikowski A., Stecher T. P., Svolopoulos S. N.,  
Swensson J. W., Swings P., Taffara S., Tech T., Thackeray A. D.,  
Thompson G. I., Tsuji T., Underhill A. B., Utsumi K., Vandekerckhove E.,  
Van't Veer C., Viotti R., Voigt H. H., Vreux J. M., Wallerstein G. N.,  
Waterworth M. D., Wehlau W. H., Wellmann P., Wempe J., Wehinger P.,  
Weniger S., Weiss W. W., Williams P. M., Wilson O. C., Wilson R., Wing R.F.,  
Wolff S. C., Wood H. J., Wyckoff S., Wyller A.A., Yamashita Y.

30. COMMISSION DES VITESSES RADIALES (RADIAL VELOCITIES)

PRESIDENT: A. H. Batten

VICE-PRESIDENT: M. Duflot

COMITE D'ORGANISATION: R. F. Griffin, A. G. D. Philip

MEMBRES: Abt H.A., Barbier-Brossat M., Beardsley W. R., Bertiau F. C.,  
Bolton C. T., Bouigue R., Boulon J., Crampton D., De Jonge J. K.,  
De Vaucouleurs G., Edmondson F. K., Eelsalu H. T., Fehrenbach C.,  
Fletcher J. M., Georgelin Y., Gollnow H., Harding G. A., Heintze J. R. W.,

Hill G., Hube D. P., Imbert M., Kraft R. P., Martin M., Maurice E., Mel'nikov O. A., Oetken L., Pédoussat A., Perry C. K., Preston G. W. III, Prévot L., Rebeiro E., Rubin V. C., Sahade J., Serkowski K., Thackeray A. D., Willstrop R. V.

31. COMMISSION DE L'HEURE (TIME)

PRESIDENT: A. Orte

VICE-PRESIDENT: S. Iijima

COMITE D'ORGANISATION: D. J. Belocerkovskij, H. Enslin, B. Guinot, G. Hemmleb, P. Melchior, J. D. Mulholland, C. J. A. Penny, A. M. Sinzi, G. M. R. Winkler

MEMBRES: Abele M. K., Abraham H. J., Benavente J., Bender P. L., Billaud G., Blinov N., Bonanomi J., Brkić Z. M., Caprioli G., Dingle H., Drâmbă G., Fichera E., Fliegel H. F., Gökmen T., Hall R. G., Hers J., Klepczinski W.J Lacombe C. G., Lederle T., Lieske J. H., Markowitz Wm., Matsunami N., McCarthy D. D., Mikhailov A. A., Miyadi M., Morrison L. V., Mueller I. I., Noel F., O'Handley D. A., Opalski W., Pâquet P., Parcelier P., Pavlov N.N. Pensado J., Postoiev A., Proverbio E., Randić L., Sadler D. H., Schuler W., Stoyko A., Shcheglov V. P., Shiryaev A. V., Smith H. M., Takagi S., Torao M., Tsao M., Tsuchiya A., Vicente R. O., Wackernagel H.B. Webrová L., Wieth-Knudsen N. P., Wilkins G. A., Yumi S.

33. COMMISSION DE LA STRUCTURE ET DE LA DYNAMIQUE DU SYSTÈME GALACTIQUE. (THE STRUCTURE AND DYNAMICS OF THE GALACTIC SYSTEM)

PRÉSIDENT: F.J. Kerr

VICE-PRÉSIDENT: G.G. Kuzmin

COMITÉ D'ORGANISATION: D.L. Crawford, J. Einasto, K.C. Freeman, M. Fujimoto, P.O. Lindblad, K.F. Ogorodnikov, L. Perek, R. Wielen

MEMBRES: Aarseth S., Agekjan T.A., Altenhoff W.J., Ambartsumian V.A., Andrie P., Aoki S., Ardeberg A.L., Athanassoula E., Baldwin J.E., Barbanis B., Becker W., Beer A., Bigay J.H., Blaauw A., Blanco V.M., Bok B.J., Boulon J., Burke B.F., Burton W.B., Churchwell E.B., Clube S.V.M., Contopoulos G., Courtès G., Crampton D., Crézé M., Cuperman S., Delhaye J., Dickel H.R., Dickel J.R., Dieter N.H., Drilling J.S., Dzigvashvili R.M., Edmondson F.K., Elsässer H., Elvius T., Fehrenbach Ch., Fenkart R.P., FitzGerald M.P., Fricke W., Genkin I.L., Georgelin Y.M., Georgelin Y.P., Gliese W., Goldreich P., Gomez A.E., Gordon M.A., Gylidenkerne K., Haffner H., Haug U., Hayli A., Heckmann O., Hénon M., Hohl F., Hori G., Hunter C., Innanen K.A., Irwin J.B., Isobe S., Iwaniszewska-Lubienska C., Iwanowska W., Jaschek C.O.R., Johnson H.

M., Jones D.H.P., Kaburaki M., Kalnajs A.J., Kato S., Kharadze E.K., Kholopov P.N., King I.R., Kinman T.D., Klare G., Kukarkin B.V., Kulsrud R., Kurth R., Larson R.B., Lecar M., Lin C.C., Lodén K., Lodén L.O., Lunel M., Luyten W.J., Lynden-Bell D., Lyngå G., McCarthy M.F., McCuskey S.W., MacConnell D.J., MacRae D.A., Maksumov M.N., Malmquist K.G., Mark J.W.K., Marochnik L., Martinet L., Mavridis L.N., Mayor M., Ménessier M.O., Mezger P.G., Miller R. H., Mirzoyan L.V., Miyamoto M., Mohr J.M., Monnett G., Morgan W.W., Münch G., Murray C.A., Nahon F., Neckel Th., Niimi H., Oja T., Ollongren A., Oort J.H., Ostriker J.P., Ovenden M.W., Palmer P.E., Pavlovskaya E.D., Perry C.L., Pesch P., Philip A.G. Davis, Pilowski K., Plaut L., Priester W., Ramberg J.M., Riegel K.W., Roberts W.W., Roman N.G., Rubin V.C., Rybicki G.B., Sandqvist Aa., Sanduleak N., Schilt J., Schmidt H., Schmidt K.H., Schmidt M., Schmidt-Kaler Th., Seggewiss W., Shane W.W., Sharov A.S., Sher D., Shimizu T., Shu F., Simonson S.C., Sletteback A., Spiegel E.A., Steinlin U.W., Stephenson C.B., Stibbs D.W.N., Sturch C., Svolopoulos S.N., Szebehely V., Tammann G.A., Thé Pik Sin, Toomre A., Tosa M., Tsioumis A., Uppgren A.R., Vanderlinden H.L., Vandervoort P.O., Van Hoof A., Van Woerden H., Varsavsky C.M., Velghe A.G., Verschuur G.L., Vetesnik M., Wayman P.A., Weaver H.F., Westerhout G., Westerlund B.E., White R.E., Whiteoak J.B., Wilson Th.L., Woltjer L., Woolley Sir Richard, Yuan C.

34. COMMISSION DE LA MATIERE INTERSTELLAIRE ET DES NEBULEUSES PLANETAIRES  
(INTERSTELLAR MATTER AND PLANETARY NEBULAE)

PRESIDENT: G. B. Field

VICE-PRESIDENT: V. Radhakrishnan

ORGANIZING COMMITTEE: L. Higgs, G. S. Khromov, J. Lequeux, B. T. Lynds, M. Morimoto  
D. C. Morton, M. Peimbert, H. van Woerden, B. Zuckerman

MEMBERS: Acker A., Aitken D. K., Akabane K., Aller L. H., Altenhoff W., Andrew B. H., Andriess C. D., Andriolat H., Andriolat Y., Arhipova V. P., Arny T. T., Axford W. I., Baars J. W. M., Baker P., Baldwin J. E., Barrett A. H., Bash F. N., Baudry A., Beckman J., Behr A., Bel N., Bergeron J., Berkhuijsen E. M., Biermann L., Bless R. C., Boggess A., Böhlín R. C., Bok B. J., Borgman J., Braes L. L. E., Brand P. W. J. L., Brück M. T., Burgess A., Burke B. F., Burton W. B., Buscombe W., Bystrova N. V., Capriotti E. R., Carruthers R. G., Caswell J. L., Celnikier L., Cesarsky C., Cesarsky D., Chopinet M., Churchwell W. B., Chvojkova E., Clark B. G., Code A. D., Collin-Souffrin S., Courtès G., Cox D. P., Coyne G. V., Crézé M., Cruvellier P., Cudaback D. D., Cugnon P., Czyzak S. J., Dalgarno A., Davies R. D., de Jong T., Dibaj E. A., Dickel H. R., Dieter N. H., Disney M. J., Divan L., Donn B. D., Dopita, M. A. Dorschner J., Downes D., Drapatz S., Dunham T., Dupree A., Dyson J. E., Elvis A. M., Encrenaz P., Esipov V. F., Falle S. A. E. G., Faulker D. J., Fejes I., Felten J. E., Flower D., Ford H., Friedemann C., Gardner F. F., Gaustad J. E., Gay J., Gehrels T., Georgelin Y., Gerard E., Gilra D. P., Goldreich P., Goldsmith D. W., Goldstein S. J., Goldsworthy F. A., Goldwire H. C., Gordon C. P., Gordon M. A., Gosachinsky I. V., Goss W. M., Greenberg J. M., Grewing M., Grubissich C., Grzedzielski S., Guélin M., Gull T. R., Gurzadjan G. A., Habing H. J., Hall J. S., Hardebeck E. G., Harten R. H., Helles C. E., Helfer H. L., Henize K. G., Herbig G. H., Herzberg G., Hidajat B., Hiltner W. A., Hippelein H. H., Hjellming R. M., Hobbs L. M., Höglund B., Hua E. T., Hughes V. A., Hulsbosch A. N. M., Hummer

D., Hutchings J. B., Irvine W. M., Isobe S., Jenkins E. B., Jennings R. E., Johnson F. M., Johnson H. M., Johnston K. J., Joly F., Jura M., Kaftan-Kassin M. A., Kahn F. D., Kaler J. B., Kamijo F., Kaplan S. A., Kazès I., Kegel W. H., Kerr F. J., Kharadze E. K., Knapp G. R., Ko H. C., Kogure T., Kohoutek L., Komesaroff M. M., Kostyakova E. B., Krishna Swamy K. S., Kundu M. R., Lambrecht H., Lasker B. M., Lee T. J., Leung C. M., Liller W., Lin C. C., Lodén L. O., Lortet-Zuckermann M. C., Louise R., Low F. J., Lutz J., McCray R. A., McGee W. H., McGee R. X., McKee C., McLeod J., McNally D., Maihara T., Manchester R. N., Martel-Chossat M. T., Mathews W. G., Mathewson D. S., Mathis J. S., Mattila K., Meaburn J., Mebold U., Menon T. K., Meszaros P., Mezger P. G., Michel K. W., Miller J. S., Mills B. Y., Morgan D. H., Mouschovias T. P., Münch G., Myers P., Nandy K., Neugebauer G., O'Dell C. R., Okuda H., Oort J. H., Osaki T., Osterbrock D. E., Ozernoj L. M., Palmer P. E., Parker E. N., Pecker J. C., Penston M. V., Penzias A., Perinotto M., Petrosian V., Pöppel W., Pottasch S. R., Price R. M., Pronik I. I., Pskovskij Yu.P., Radhakrishnan V., Raimond E., Reynolds R. J., Riegel K. W., Robbins R. R., Roberts M. S., Roberts W. W., Robinson B. J., Rogers A. E. E., Rohlf K., Rose W. K., Rosino L., Rozhkovskij D. A., Rubin V. C., Rublev S. V., Salpeter E. E., Sancisi R., Sandquist A., Sato F., Sato Y., Savage B., Savedoff M. P., Schalén C., Schatzman E., Scherb F., Scheuer P. A. G., Schmidt K. H., Schmidt Th., Schmidt-Kaler Th., Schwarz U. J., Seaton M. J., Seddon H., Serkowski K., Shah G. A., Shakeshaft J. R., Shane W. W., Shao C. Y., Shapiro M. M., Sharpless S. L., Shaver P. A., Shawl S. J., Shcheglov P. V., Shu F., Shuter W. L. H., Shklovskij I. S., Silk J., Skilling J., Smith M. G., Snow T. P., Sobolev V. V., Sofia S., Solomon P. M., Somerville W. B., Sorochenko R. L., Spitzer L., Stecher T. P., Steigman G., Strom R. G. (Dwingeloo), Strömgren B., Sullivan W. T., Swings J. P., Takakubo K., Tamura S., Terzian Y., Thackeray A. D., Thaddeus P., Thompson A. R., Tolbert C. R., Torres-Peimbert S., Townes C. H., Treanor P. J., Turner B. E., Turner K. C., Ulrich M. H., Unno W., van de Hulst H. C., van den Bout P., van der Laan H., van Horn H. M., Vanysek V., Verschuur G. L., Viswanathan N., von Hoerner S., Vorontsov-Vel'yaminov B. A., Walker G. A. H., Weaver H. F., Webster B. L., Weiler K. W., Wendker H. J., Wentzel D. G., Wesselius P. R., Westerhout G., Weymann R. J., Whiteoak J. B., Wickramasinghe N. C., Williams D., Williams D. A., Williams I. P., Williams R. E., Wilson R. W., Winnberg A., Witt A. N., Wolstencroft R. D., Woltjer L., Woodward P., Woolf N. J., Wright A. E., Wrixon G. T., Wynn Williams G., Yabushita S., York G., Zimmermann H.

35. COMMISSION DE LA CONSTITUTION DES ÉTOILES (STELLAR CONSTITUTION)

PRESIDENT: B. Paczyński

VICE-PRESIDENT: R. J. Tayler

COMITÉ D'ORGANISATION: D. J. Faulkner, P. Giannone, C. Hayashi,  
I. Iben, R. Kippenhahn, A. G. Masevich, G. Ruben, J.-P. Zahn

MEMBRES: Aizenmann M., Anand S. P. S., Arnett W. D., Appenzeller I., Audouze J., Baglin A., Bhatnagar P. L., Biermann L., Bodenheimer P., Böhm K. H., Bondi H., Boury A., Brownlee R. R., Burbidge G. R., Cameron A. G. W., Carson T. R., Castellani V., Castor J. I., Caughlan G.R., Chandrasekhar S., Chevalier C., Chin H. Y., Christy R. F., Cohen J. M., Cowling T. G., Cox A. N., Cox J. P., Davis C. G., Deinzer W., Demarque P. R., Dingsens P. S. A., Djie T. A., Dluzhnevskaya O. B.,

Dziembowski W. A., Eggleton P. P., Eminzade T. A., Epstein I., Ergma E. V., Ezer D., Faulkner J., Forbes J. E., Fowler W. A., Frantzman Yu. L., Fricke K. J., Gabriel M., Gough D. O., Graham E., Hamada I., Hitotuyanagi Z., Hoshi R., Hoyle F., Imschennik V. S., James R. A., Kähler H., King D. S., Kolesnik I. G., Kothari D. S., Kovetz A., Kozłowski M., Köster D., Krook M., Kumar S. S., Kushwaha R., Larson R. B., Latour J., Lauterborn D., Lebovitz N. R., Ledoux P., McCrea W. H., Maeder A., Marx G., Masani A., Mestel L., Meyer-Hofmeister E., Michaud G., Monaghan J. J., Moore D. R., Morris S. C., Moss D. L., Möllenhoff C., Nadyozhin D. K., Nakano T., Nakazawa K., Narita S., Nishida M., Nomoto K., Ohya N., Okamoto I., Osaki Y., Ostriker J.P., Pines D., Plavec M., Popova M. D., Poveda A., Profi jev V. V., Rädler K.-H., Reeves H., Reiz A., Renzini A., Rood R., Rosseland S., Rouse C. A., Roxburgh I., Sakashita S., Sakurai T., Salpeter E. E., Sato K., Savedoff M. P., Schatten K. H., Schatzman E., Schramm D. N., Schwartzschild M., Sears R. S., Sengbusch K. V., Shaviv G., Shibata Y., Smeyers P., Smith R. C., Souffrin P., Sparks H., Spiegel E. A., Starrfield S. S., Stibbs D. W. N., Strittmatter P. A., Strömgren B., Suda K., Sugimoto D., Sweet P. A., Sweigart A. V., Temesvary S., Thomas H.C., Tinsley B. M., Toomre J., Trimble-Weber V. L., Truran J. W., Tuominen I.V., Tuominen J. V., Tutukov A. V., Ichida J., Ulrich R., Uus U., Van der Borcht R., Van Horn H. M., Vardya M. S., Vauclair G., Vilas S. C., Vilhu O., Weigert A., Weiss N. O., Wright G. A. E., Zhevakin S. A., Ziółkowski J.

36. COMMISSION DE LA THEORIE DES ATOMOSPHERES STELLAIRES (THE THEORY OF STELLAR ATMOSPHERES)

PRÉSIDENT: D. Mihalas

VICE-PRÉSIDENT: G. Traving

COMITE D'ORGANISATION: A. G. Hearn, J. T. Jefferies, K. Kodaira, L. V. Kuhl, J. M. Marlborough, B. E. J. Pagel, F. Praderie, A. A. Sagar, M. Vardya

MEMBRES: Abhyankar K. D., Aller L. H., Altrock R. C., Arpigny C., Athay R. G., Auer L. H., Auman J. R., Avrett E. H., Baschek B., Bell R. A., Biermann L., Blanco C., Bless R. C., Boesgaard A., Böhm K. H., Böhm-Vitense E., Busbridge I. W., Carbon D., Carson T. R., Castor J., Cayrel R., Cayrel de Strobel G., Conti P. S., Cowley C. R., Cuny Y., Davis C. G., De Jager C., Delache Ph., Dumont S., Edmonds F. N., Elste G. H. E., Evangelidis E., Faraggiana R., Finn G. D., Fischel D., Foy R., Frisch U., Gail H., Gebbie K. B., Gingerich O., Gökdoğan N., Gordon Ch., Grant I. P., Gray D. F., Greenstein J. L., Grevesse N., Groth H. G., Gussmann E. A., Gustafsson B., Hack M. H., Hardorp J., Heidmann N., Hekela J., Hitotuyanagi Z., Holweger H., Hotinli M., House L. L., Houtgast J., Houziaux L., Huang S. S., Hummer D.G., Hunger K., Hutchings J. R., Ivanov V. V., Johnson H. R., Kalkofen W., Kandel R. S., Khokhlova V. L., Kolesov A. K., Kopylov I. M., Krishna Swamy K. S., Kumar S. S., Kushwaha R. S., Lambert D. L., Linsky J. L., Matsumoto M., Matsushima S., Menzel D., Miyamoto S.,

Mukai S., Müller E. A., Münch G., Mustel E. R., Mutschlecner J. P., Myerscough V. P., Nariai K., Neff J. S., Neven L., Orrall F. Q., Pasinetti L., Pecker J. C., Phillips J. G., Pottasch S. R., Reimers D., Rucinski S., Rybicki G. B., Saito S., Schatzman E. L., Schmalberger D.C., Seaton M. J., Sedlmayr E., Skumanich A., Sitnik G. F., Sobolev V. V., Sobouti Y., Spiegel E.A., Spite M., Stibbs D. W. N., Strom S. E., Strömgren B., Swihart T. L., Thomas R. N., Thompson R. I., Tsuji T., Ueno S., Uesugi A., Underhill A. B., Unno W., Unsöld A., van Regemorter H., van't Veer C., van't Veer F., Wehrse R., Weidemann V., Wellmann P., Wickramasinghe D. T., Wilson P. R., Wright K. O., Wyller A. A., Zirker J.B., Zwann C.

37. COMMISSION DES AMAS STELLAIRES ET DES ASSOCIATIONS (STAR CLUSTERS AND ASSOCIATIONS)

PRESIDENT: S. van den Bergh

VICE-PRESIDENT: G. Lynga

COMITE D'ORGANISATION: T. A. Agekjan, B. Balázs, K. C. Freeman  
I. R. King, C. A. Murray

MEMBRES: Aarseth S., Alksnis A. K., Artiukhina N. M., Barkhatova K. A., Becker W., Bijaoui A., Blaauw A., Bouvier P. B., Breger M., Burkhead M.S., Burnichon M. L., Cannon R. D., Clariá J. J., Cuffey J., Dickens R. J., Dluzhnevskaya Q. B., Efremov Yu. N., Eggen O. J., Einsato J., Feast M. W., Feinstein A., FitzGerald M. P., Gascoigne S. C. B., Golay M., Haffner H., Hassan S. M., Hawarden T. G., Heggie D. C., Hénon M., Hesser J. E., Hills J. G., Iben I., Johnson H. L., Jones D. H. P., Kadla Z., Kholopov P. N., Kron G. E., Larsson-Leander G., Laval A., Lavodovskij V.V., Lodén L. O., Lohmann W., Lynden-Bell D., Maeder A., Menon T. K., Menzies J. W., Meurers J., Moffat A. F. J., Morgan W. W., Osborn W., Philips A. G. D., Pismis de Recillas P., Popova M. D., Poveda A., Reddish V. C., Rosino L., Rountree-Lesh J., Ruprecht J., Salukvadze G.N., Sanders W. L., Sawyer Hogg H. B., Serkowski K., Sharov A., Simoda M., Swope H. H., Terzan A., Thé P. S., Upgren A., van Altena W. F., Vanderlinden H. L., Vogt N., von Hoerner S., Walker G. A. H., Walker M.F., Wallenquist A. A. E., Weaver H. F., White R. E., Wielen R., Woolley R.



38. COMMISSION POUR L'ECHANGE DES ASTRONOMES (EXCHANGE OF ASTRONOMERS)

PRESIDENT: D. A. MacRae

VICE-PRESIDENT: J. Delhaye

COMITÉ D'ORGANISATION: M. K. V. Bappu, G. S. Khromov, A. Reiz,  
P. M. Routly, J. Sahade, F. G. Smith, F. B. Wood

MEMBERS: Abetti G., Alsabti A. W., Bok B. J., Haupt H. F., Keller G.,  
Kourganoff V., Marik M., Mohr J. M., Myamoto S., Okoye S. E.,  
Opolski A., Page T. L., Righini G., Rosseland S., Ruben G., Stoy R. H.,  
Swings P., Teleki G., Tolbert C. R., Wild J. P., Wyatt Jr S. P.

40. COMMISSION DE LA RADIOASTRONOMIE (RADIO ASTRONOMY)

PRÉSIDENT: H. van der Laan

VICE-PRÉSIDENT: G. Swarup

COMITÉ D'ORGANISATION: E. J. Blum, R. Fanti, D. J. McLean, P. G. Mezger,  
A. T. Moffet, H. P. Palmer, Yu. N. Parijskij, B. J. Robinson, B. M.  
Zuckermann

MEMBERS: Ables J. G., Akabane K., Alexander J. K., Allen R. J., Aller H.,  
Altenhoff W. J., Andrew B. H., Argyle P. E., Avignon Y., Baars J. W. M.,  
Baart E. E., Baldwin J. E., Barret A. H., Barrow C., Berge G. L.,  
Berkhuijsen E., Biraud F., Blandford R. D., Bohme A., Boisshot A., Bolton  
J. G., Booth R. S., Bracewell R. N., Braude S. Ya., Broten N. W., Brouw  
W. N., Brown R. H., Browne I. W. A., Burbidge G. R., Burke B. F.,  
Caroubalos C., Carr T. D., Caswell J. L., Ceccarelli M., Christiansen  
W. N., Clark D. H., Clark G. B., Cohen M. H., Cole T., Condon J. J.,  
Conklin E. K., Conway R. G., Cooper B. F. C., Costain C. H., Courtez R. A. J.  
Covington A. E., Croom D. L., Cudaback D. D., Daintree E. G., Davies J. G.,  
Davies R. D., Davis M. M., de Groot T., de Jager G., Delannoy J., Denisse  
J. F., Dennison P. A., Dent W. A., Dickel J. R., Dickel H. R., Dieter N. H.  
Dixon R., Douglas J. N., Downes D., Drake F. D., Dravskikh A. F., Dulk  
G. A., Dyson F. J., Ekers R. D., Elgaroy O., Ellis G. R. A., Elsmore B.,  
Elwert G., Epstein E. E., Erickson W. C., Eriksen A. D., Evans K. D.,  
Ewing M., Fomalont E. B., Foster P. R., Friedman H., Galt J., Gardner F. F.  
Gent H., Ginzburg V. L., Godwire H. C., Gold T., Goldstein S. J., Gonze R.,  
Gordon M. A., Gorgolewski S., Gosachinsky I. V., Goss W. M., Gower J. F. R.  
Grewing M., Guelin M., Gulkis S., Hachenberg O., Haddock F. T., Hagen J. P.  
Hamilton P. A., Hanasz J., Harten R. H., Hartz T. R., Haslam C. G. T.,  
Hazard C., Heeschen D. S., Heidmann J., Heiles C., Hewish A., Hey J. S.,  
Higgs L. A., Hill E. R., Hills R. E., Hirabayashi H., Hjellming R. M.,  
Hoang Binh D., Hobbs R. W., Högbom J. A., Höglund B., Hogg D. E., Hooghoudt  
B. G., Howard W. E., Huchtmeier W. K.-H., Hughes V. A., Ihsanova V. N.,  
Jauncey D. L., Jennison R. C., Johnson D. R., Johnston K., Joly F.,  
Joshi M. N., Kaftan-Kassim M., Kahn F. D., Kai K., Kaifu N., Kakinuma T.,  
Kapahi V. K., Kardashev N. S., Kaufmann P., Kawabata Kin-Aki, Kazes I.,



Kellerman K. I., Kenderdine S., Kerr F. J., Kislyakov A. G., Ko Hsien-Ching, Komesaroff M., Korolkov D. V., Kotelnicov V. A., Kraus J. D., Krishnan T., Kundu M. R., Kuypers J. M. E., Kuzmin A. D., Laffineur M., Lang K. R., Lantos P., Large M. I., Leblanc Y., Lequeux J., Le Squeren A. M., Lilley A. E., Little A. G., Little L. Th., Locke J. L., Longair M. S., Lovell Sir Bernard, Lyne A. G., McAdam W. B., McCulloch P. M., McGee R. X., McKenna-Lawlor S., MacDonald G. H., MacLeod D., MacRae D. A., Manchester R. N., Maran S. P., Matveyenko L. I., Maxwell A., Mayer C. H., Mebold U., Meeks M. L., Menon T. K., Miley G. K., Mills B. Y., Milne D. K., Moriyame F., Morimoto M., Morrison I., Muller C. A., Myers P., Nicolson G. D., Okoye S., Oort J. H., Osterbrock D. E., Pacholczyk A. G., Palmer P., Parker E. A., Parrish A., Pasachoff J. M., Pauliny-Toth I. I. K., Pedlar A., Penzias A. A., Pettengill G. H., Pick-Gutmann M., Ponsonby J. E. B., Pooley G. G., Preuss E., Price R. M., Priestler W., Rabben H. H., Radhakrishnan V., Raimond E., Ramaty R., Gopala Rao U. V., Razin V. A., Readhead A. C. S., Reber G., Ribes R. S., Riegel K. W., Righini G., Roberts J. A., Roberts M. S., Roeder R. C., Roger R. S., Rogers A. E. E., Rogstad D. H., Rohlfs K., Rowson B., Rydbeck O. E. H., Ryle Sir Martin., Ryzhkov N. F., Salomonovitch A. E., Salpeter E. E., Sanamjan V. A., Sato F., Scalise E. Jr., Scheuer P. A. G., Schilizzi R. T., Schmidt M., Schwarz U. J., Scott P. F., Seaquist E. R., Seielstad G. E., Shaffer D., Shakeshaft J. R., Sheridan K. V., Shimmins A. J., Shklovsky J. S., Sholomitsky G. B., Shuter W. L. A., Simon P., Simonson S. C., Slee O. B., Slysh V. I., Smerd S. F., Smith A. G., Smith F. G., Smith H. J., Soboleva N. S., Sofue Y., Sorochenko R. L., Spencer R. E., Sramek R., Stanley G. J., Steinberg J. L., Stewart P., Stone R. G., Strom R. G., Sullivan W. T. III, Swenson G. E. Jr., Tabara H., Takagi K., Takakura T., Tanaka H., Tanaka R., Terzian Y., Thompson A. R., Tlamicha A., Tolbert C. R., Tovmassian G. M., Townes C. H., Tritton K. P., Troitsky V. S., Tsuchiya A., Tsuruta S., Turlo Z., Turner B. E., Turner K. C., Turtle A. J., Ulrich B. T., Demoulin Ulrich M. H., van de Hulst H. C., van den Bout P., van der Kruit P. C., van Nieuwkoop J., van Woerden H., Varsavsky C. M., Véron P., Verschuur G. L., Wade C. M., Wall J. V., Walmsley M. C., Walsh D., Wardle J. F. C., Warwick J. W., Weaver H. F., Wellichew L., Wendker H. J., Westerhout G., Westfold K. C., Whiteoak J. B., Wickramasinghe N. C., Wielebinski R., Wild J. P., Williams D., Willis A. G., Wills B., Wills D., Wilson R. W., Wilson T. L., Wilson W. J., Winnberg A., Winnewisser G., Witzel A., Woltjer L., Zelenzniakov V. V.

41. COMMISSION DE L'HISTOIRE DE L'ASTRONOMIE  
(HISTORY OF ASTRONOMY)

PRESIDENT: J. Dobrzycki

VICE-PRESIDENT: M. A. Hoskin

COMITE D'ORGANISATION: S. M. R. Ansari, O. Gingerich, W. Hartner,  
P. G. Kulikovskij, O. Pedersen

MEMBRES: Abetti G., Argyracos J. G., Ashbrook J., Beer A., Berendzen R.,  
Brunet J. P., Chenakal V. L., Cimino M., Dadić Z., Deeming T. J.,  
Dewhirst D. W., Douglas A. V., Eddy J. A., Eelsalu H., Erpylev N. P.,  
Evans D., Ferrari d'Occhieppo D.K., Filliozat J., Fleckenstein J. O.,

Forbes E., Freiesleben H.C., de Freitas-Mourao R. R., Hawkins G. S., Hayli A., Heggie D., Hirose H., Horský Z., Howse H. D., Jackisch G., Kennedy J. E., Khromov G. S., Kiang T., King H., Kotsakis D., Lang K., Levy J. R., Link F., McKenna-Lawlor S. M. P., Meadows A. H., Merleau-Ponty J., Michel H., Michkovitch V. V., Nakayama S., Norlind W., North J., Omer G. C., Pelseneer J., Petri W., Pogo A., Ronan C. A., Rosen E., Rybka P., Shcheglov V. P., Shukla E. S., Sticker B., Sullivan W., Taton R., Thoren V., Verdet J.-P., Wattenberg D., Whitaker E.A., Whitrow G. J., Wright H., Yabuuti K., Zagar F.

42. COMMISSION DES ÉTOILES DOUBLES SERRÉES (CLOSE BINARY STARS)

PRÉSIDENT: G. Larsson-Leander

VICE-PRÉSIDENT: B. Warner

COMITÉ D'ORGANISATION: A.H. Batten, A.M. Cherepashchuk, M.G. Fracastoro, K. Gyldenkerne, T.J. Herczeg, M. Kitamura, Y. Kondo, M. Plavec, S.D. Sinvhal, J. Smak, E.P.J. van den Heuvel, J.A.J. Whelan

MEMBRES: Abhyankar K.D., Andersen J., Bappu M.K., Bath G.T., Beer A., Binnendijk L., Blitzstein W., Breinhorst R., Broglia P., Brownlee R.R., Budding E., Catalano S., Cester B., Chambliss R.C., Chen K.-Y., Chis G., Cillié G.G., Cowley A.P., Cristaldi S., Dadaev A.N., de Kort J., Doughty N.A., Ebbighausen E.G., Faulkner J., Ferrari d'Occhieppo K., Fracassini M., Fredrick L.W., Frantsman Yu.L., Fresa A., Gaposchkin S., Geyer E.H., Giannone P., Grygar J., Gursky H., Hall D.S., Harmanec P., Hazlehurst J., Heard J.F., Hill G., Hilditch R.W., Hjellming R.M., Horák T., Huang S.-S., Huffer C.M., Hutchings J., Irwin J.B., Jurkevich I., Jaschek C., Kawabata S., Kizilirmak A., Koch R.H., Kopal Z., Kraft R.P., Krat V.A., Kristenson H., Křiváček S., Kruszewski A., Krzeminski W., Kwee K.K., Landolt A.U., Lavrov M.I., Leung K.-Ch., Linnell A.P., Lucy L.B., Magalashvili N.L., Mammano A., Martynov D.Ya., Mauder H., Mayer P., McCluskey G.E., Merrill J.E., Mumford G.S., Nelson B., O'Connell D.J.K., Ovenden M.V., Paczynski B., Piotrowski S., Popovici C., Popper D.M., Purgathofer A., Rahe J., Rakos K.D., Refsdal S., Reuning E.G., Rovithis P., Rucinski S., Sahade J., Scarfe C.D., Schmidt H., Schöffel E.F., Seggewiss W., Semeniuk I., Serkowski K., Shapley M.B., Shulberg A.R., Sobieski S., Strohmeier W., Szafraniec R., Todoran I., Tremko J., Trimble V., Tsessevich V.P., Ureche V., Van Hoof A., Van't Veer F., Vetesnik M., Walter K., Wehlau W.H., Weigert A., Wellmann P., Wesselink A.J., Widorn T., Wilson R.E., Wood D.B., Wood F.B., Wright K.O., Ziółkowski J.

44. COMMISSION DES OBSERVATIONS ASTRONOMIQUES AU-DEHORS DE L'ATMOSPHERE  
TERRESTRE (ASTRONOMICAL OBSERVATIONS FROM OUTSIDE THE TERRESTRIAL ATMOSPHERE)

PRESIDENT: R. M. Bonnet

VICE-PRESIDENT: R. J. Van Duinen

COMITE D'ORGANISATION: L. W. Acton, R. C. Bless, A. D. Code, R. Giacconi,  
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REPORT OF THE EXECUTIVE COMMITTEE  
1973 - 1975

Reproduced from IAU Information Bulletin No. 36 of June 1976 pp. 8.

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INTRODUCTION

This report covers the period from 1 January 1973 to 31 December 1975. The period under report includes the first eight months of the year 1973 (until 21 August) which fell under the responsibility of the former Executive Committee, but it does not include the first eight months of the year 1976, still within the responsibility of the present Executive Committee. An oral report for the period from 1 January to 23 August 1976 will be presented at the XVth General Assembly.

ADMINISTRATIVE MATTERS



*Executive Committee*

The Executive Committee, in its former composition, held its 37th meeting in Sidney during the XVth General Assembly, having had sessions on 19, 20 and 28 August 1973. The meeting was chaired by the President of the Union Prof. B. Strömberg. All members and both advisers were present.

The 38th meeting of the Executive Committee, in its present composition, was held in Sidney on 30 August 1973, under the presidency of Prof. L. Goldberg. All members and both advisers attended the meeting. Further, the Executive Committee held the following meetings:

The 39th meeting at Observatoire de Haute-Provence, Saint Michel l'Observatoire, Forcalquier, France, from 27 to 29 August 1974. Dr P.O. Lindblad, Vice-President, and Prof. C. de Jager, adviser, were excused.

The 40th meeting in Hotel Lagonissi, near Athens, Greece, from 9 to 11 September 1975. Prof. B. Strömberg, adviser, was excused.

*Officers' meetings*

The President of the IAU, the General Secretary accompanied by the Staff, and the Assistant General Secretary (Officers), met as follows: in Thessaloniki, Greece, on 2 and 3 November 1973; in Athens, Greece, on 4 and 5 February 1974; in Paris, France, on 8 May 1974; in Haute Provence, France, on 26 August 1974; in Geneva, Switzerland, on 10 and 11 February 1975; and on Lagonissi, Greece, on 8 September 1975. The President and the General Secretary met in Chicago, U.S.A., on 28 and 29 May 1975.

*Adhering Countries*

The Republic of Korea has adhered to the IAU since 1973 thus bringing the number of Adhering Countries to 47.

*Members of the IAU*

The number of IAU Members was 2509 as on 1 February 1973. A further 689 new Members were admitted at the XVth General Assembly, and 13 Members were deleted from the membership list. The General Secretary was informed of the decease of 58 Members during the period under report. Thus, the IAU had 3127 Members as on 1 April 1976.

*Commissions of the IAU*

The Transactions of the IAU, volume XVII, subtitled Reports on Astronomy 1976, include the reports prepared by each of the 40 Presidents of IAU Commissions, assisted by their Vice-Presidents, Organizing Committees, those responsible for the various Working Groups within the Commissions, and by the Commission members themselves.

The XVth General Assembly formed Commissions No. 49 "The Interplanetary Plasma and the Heliosphere" and No. 50 "Protection of Existing and Potential Observatory Sites", the later as a Committee of the Executive Committee. IAU Commission No. 43 "Astrophysical Plasmas and Magnetohydrodynamics" was abolished by the General Assembly. This brought the number of IAU Commissions to 40.

The General Assembly renamed IAU Commission No. 15 to "Physics of Comets, Minor Planets and Meteorites", IAU Commission No. 22 to "Metors and Interplanetary Dust", IAU Commission No. 25 to "Stellar Photometry and Polarimetry", and IAU Commission No. 42 to "Close Binary Stars".

In view of the untimely decease of Professor K.O. Kiepenheuer, Dr G.A. Newkirk was appointed President ad Interim of IAU Commission No. 10 "Solar Activity", and Dr V. Bumba its Vice-President ad Interim.

Between the General Assemblies, Commissions have co-opted a number of new members from among IAU Members. These co-options have been approved by the Executive Committee and published in the Information Bulletin.

The Executive Committee created, in 1973, a Working Group for Planetary System Nomenclature with the following Task Groups: Lunar Nomenclature, Mercury Nomenclature, Venus Nomenclature, Mars Nomenclature, and Outer Solar System Nomenclature. The composition of the Working Group and of its Task Groups has been published in IAU Information Bulletin No. 33.

Between the General Assemblies, various Commissions organized several Symposia and Colloquia and other projects financially supported by the Union.

## SYMPOSIA

### *IAU Symposia (held between 1 January 1973 and 31 December 1975)*

- IAU Symposium No. 56 "Chromospheric Fine Structure", Surfers' Paradise, Queensland, Australia, 3-7 September 1973
- IAU Symposium No. 57 "Coronal Disturbances", Surfers' Paradise, Queensland, Australia, 7-11 September 1973
- IAU Symposium No. 58 "The Formation and Dynamics of Galaxies", Canberra, Australia, 12-15 August 1973
- IAU Symposium No. 59 "Stellar Instability and Evolution", Mount Stromlo, Canberra, Australia, 16-18 August 1973
- IAU Symposium No. 60 "Galactic Radio Astronomy", Maroochydore, Queensland, Australia, 3-7 September 1973
- IAU Symposium No. 61 "New Problems in Astrometry", Perth, Western Australia, 13-17 August 1973
- IAU Symposium No. 62 "The Stability of the Solar System and of Small Stellar Systems", Warsaw, Poland, 5-8 September 1973
- IAU Symposium No. 63 "Confrontation of Cosmological Theories with Observational Data", Cracow, Poland, 10-12 September 1973
- IAU Symposium No. 64 "Gravitational Radiation and Gravitational Collapse", Warsaw, Poland, 5-8 September 1973
- IAU Symposium No. 65 "Exploration of the Planetary System", Toruń, Poland, 5-8 September 1973
- IAU Symposium No. 66 "Late Stages of Stellar Evolution", Warsaw, Poland, 10-12 September 1973
- IAU Symposium No. 67 "Variable Stars and Stellar Evolution", Moscow, USSR, 29 July-4 August 1974
- IAU Symposium No. 68 co-sponsored by COSPAR "Solar Gamma-, X-, and EUV-Radiation", Buenos Aires, Argentina, 11-14 June 1974
- IAU Symposium No. 69 "Dynamics of Stellar Systems", Besançon, France, 9-13 September 1974
- IAU Symposium No. 70 "Be and Shell Stars", Bass River, Massachusetts, USA, 15-18 September 1975
- IAU Symposium No. 71 "Basic Mechanisms of Solar Activity", Prague, Czechoslovakia, 24-30 August 1975
- IAU Symposium No. 72 "Abundance Effects in Classification", Lausanne, Switzerland, 8-11 July 1975
- IAU Symposium No. 73 "Structure and Evolution of Close Binaries", Cambridge, U.K., 29 July-1 August 1975

### *Symposia with IAU Participation*

IAU/IUHPS Third Joint Symposium "The Astronomy of Copernicus and its Background",

- Torún, Poland, 7 and 8 September 1973  
 IAU/IUGG/IUPAP/URSI/COSPAR/SCOSTEP International Symposium "Solar-Terrestrial Physics", Sao Paulo, Brazil, 17-22 June 1974  
 COSPAR/IUTAM/UAL Symposium "La Dynamique des Satellites", Sao Paulo, Brésil 19-21 juin 1974  
 COSPAR/IAU Symposium "Transient X- and Gamma-Ray Sources", Varna, Bulgaria, 29-31 May 1975  
 IAU/IUHPS Fourth Joint Symposium on the History of Astronomy "The Origins and Achievements of the Royal Greenwich Observatory 1675-1975", Greenwich, U.K., 14-18 July 1975  
 SCOSTEP/COSPAR/IAU/IUGG Workshop on "Flare Build-up Study", Falmouth, Massachusetts, U.S.A., 8-11 September 1975

#### COLLOQUIA

*IAU Colloquia (held between 1 January 1973 and 31 December 1975)*

- IAU Colloquium No. 24 co-sponsored by COSPAR, "Lunar Dynamics and Observational Coordinate Systems", Houston, Texas, U.S.A., 15-17 January 1973  
 IAU Colloquium No. 25 co-sponsored by COSPAR, "Study of Comets", Greenbelt, Maryland, 28 October-1 November 1974  
 IAU Colloquium No. 26 co-sponsored by COSPAR, "Reference Coordinate Systems for Earth Dynamics", Torún, Poland, 26-31 August 1974  
 IAU Colloquium No. 27 "UV- and X-Ray Spectroscopy of Astrophysical and Laboratory Plasmas", Cambridge, Massachusetts, U.S.A., 9-11 September 1974  
 IAU Colloquium No. 28 co-sponsored by COSPAR, "Planetary Satellites", Ithaca, N.Y., U.S.A., 18-21 August 1974  
 IAU Colloquium No. 29 "Multiple Periodic Variable Stars", Budapest, Hungary, 1-5 September 1975  
 IAU Colloquium No. 30 "Jupiter", Tucson, Arizona, U.S.A., 18-23 May 1975  
 IAU Colloquium No. 31 co-sponsored by COSPAR, "Interplanetary Dust and Zodiacal Light", Heidelberg, F.R.G., 10-13 June 1975  
 IAU Colloquium No. 32 "Physics of Ap Stars", Vienna, Austria, 8-10 September 1975  
 IAU Colloquium No. 33 "Observational Parameters and Dynamical Evolution of Multiple Stars", Oaxtepec, Mexico, 13-16 October 1975

#### *Specific Projects of Commissions*

The list of Specific Projects of Commissions as approved by the XVth General Assembly is given, together with the corresponding expenditure, in the report on the financial situation of the IAU (page 19). These projects are continuations of previous projects and thus no further comments are necessary.

#### *Regional Astronomical Meetings held under the auspices of the IAU*

Second European Astronomical Meeting under the Auspices of the IAU, Trieste, Italy, 2-5 September 1974.

Third European Astronomical Meeting under the Auspices of the IAU, "Stars and Galaxies from Observational Points of Views", Tbilisi, Georgia, U.S.S.R., 1-5 July 1975.

#### *Young Astronomers Schools*

Commission No. 46 "Teaching of Astronomy" organized two schools for young astronomers in the period under report.

The school in San Miguel, Argentina, held from 11 May to 7 June 1974, was attended by 60 students, of which 39 were local, 9 from Brazil, 7 from Chile, 2 from Peru, and 1 each from Bolivia, Paraguay and Venezuela. Lectures were given by 20 professors. The curriculum, divided in three courses, included solar plasma physics, the Sun and its environment, and solar energetics.

The school, held in Athens, Greece, from 8 September to 4 October 1975, was attended by 74 students from 16 countries (Bulgaria, Czechoslovakia, Egypt, France, G.F.R., Greece, Hungary, Iraq, Italy, Norway, Poland, Portugal, Spain, Turkey, U.K., Yugoslavia). Lectures were given by 9 invited professors and seminars were held by another 7 eminent scientists. The curriculum included theoretical astronomical lectures and practical courses emphasizing research work with medium-size telescopes.

#### *IAU Publications*

Free distribution of IAU publications to selected institutions of developing countries had to be discontinued for financial reasons. Instead, 14 such institutions were given the opportunity to purchase IAU Symposium volumes, Transactions and Highlights of Astronomy at 30% of their retail price, the remaining 70% having been paid by the Union.

All IAU publications continue to be produced and distributed for the account and at the risk of the publisher, who pays the Union a 5% royalty.

The production and distribution of the IAU Information Bulletin are financed by the Union.

#### *Sales of IAU Publications*

The Transactions of the IAU sold as follows in the period under report:

	Number of copies
Vol. XIII A	46
Vol. XIII B	39
Vol. XIV A	60
Vol. XIV B	66
Vol. XV A	739
Vol. XV B	536

The volumes of Highlights of Astronomy were sold as follows in 1973, 1974 and 1975:

	Number of copies
Highlights I	36
Highlights II	122
Highlights III	364

The sales of IAU Symposium volumes over the same period were:

Symposium volume No. (in number of copies)

32-52	42-70	52-639	62-542
33-29	43-97	53-643	63-702
34-35	44-148	54-548	64-667
35-43	45-140	55-709	65-492
36-32	46-91	56-465	66-558
37-45	47-328	57-467	67-383
38-65	48-358	58-556	68-409
39-57	49-602	59-545	69-388
40-63	50-676	60-525	
41-88	51-631	61-563	

*Information Bulletin*

The Information Bulletin of the IAU was being prepared and edited by the General Secretary and printed, published and distributed by the publishers of the IAU. It appeared twice a year and was sent, free of charge, to IAU Members, Consultants, members of the International Science Writers Association, selected international organizations, and institutions on a special distribution list.

*IAU Publication Policy*

The Executive Committee has resolved at its meeting on Lagonissi in September 1975 that all IAU publications will, from the summer of 1976 on, be produced by offset (camera-ready copies) which will considerably reduce their prices.

## RELATIONS TO OTHER ORGANIZATIONS

*IAU Representation*

1. International Council of Scientific Unions (ICSU). The General Secretary attended, together with the former General Secretary Professor C. de Jager, the 2nd meeting of the ICSU General Committee held in Leningrad, U.S.S.R., from 19 to 21 September 1973. He also represented the IAU at the 3rd and 4th meetings of the ICSU General Committee held in Ankara, Turkey, on 20 and 21, and in Istanbul, Turkey, on 27 September 1974, as well as at the 5th meeting of the ICSU General Committee held in Schloss Laxenburg near Vienna, Austria, on 19 and 20 September 1975. The General Secretary represented the Union at the 15 General Assembly of ICSU in Istanbul, Turkey, 23-26 September 1974.

2. ICSU Organizations. The Union participates in the activity of a number of Special and Scientific Committees, and Inter-Union Commissions, formed and sponsored by ICSU. For more details please consult pages 13 onwards of Transactions volume XIIC.

The following list only gives the present state of IAU representation in these organizations.

- (a) Committee on Space Research (COSPAR): C. de Jager, President of COSPAR
- (b) ICSU Abstracting Board (IAB): J.-C. Pecker
- (c) Federation of Astronomical and Geophysical Services (FAGS): H. Enslin, G. Contopoulos
- (d) Inter-Union Committee on Frequency Allocation for Radio Astronomy and Space Science (IUCAF): F.G. Smith and R. Wielebinski. F.G. Smith was succeeded by G. Westerhout in October 1975
- (e) Special Committee on Solar-Terrestrial Physics (SCOSTEP): Z. Svestka
- (f) Scientific Committee on Problems of the Environment (SCOPE): M.F. Walker and J.-C. Pecker
- (g) Committee on the Teaching of Science (CTS): D. McNally
- (h) Committee for Data on Science and Technology (CODATA): G.A. Wilkins
- (i) Inter-Union Commission on Spectroscopy (IUCS): B. Edlén, J.C. Philips and M.J. Seaton.

*Other Organizations*

The Union is represented in the following organizations:

- (a) La Fondation Internationale du Pic-du-Midi: A. Lallemand

- (b) Le Comité Consultatif pour la Définition de la Seconde (CCDS) du Bureau International des Poids et Mesures: Wm. Markowitz
- (c) Le Comité Consultatif pour la Définition du Mètre (CCDM) du Bureau International des Poids et Mesures: A.H. Cook
- (d) Le Comité Consultatif International des Radiocommunications (CCIR): F.G. Smith and H.M. Smith
- (e) European Physical Society (EPS): Edith A. Müller
- (f) Various Services of FAGS  
Bureau International de l'Heure (BIH): H. Enslin and H.M. Smith (B. Guinot is Director of the Bureau)
- (g) Quarterly Bulletin on Solar Activity (QBSA): Organizing Committee of IAU Commission No. 10
- (h) International Ursigrams and World Day Service (IUWDS): F.W. Jäger
- (i) Scientific Ballooning and Radiation Monitoring Organization (SBARMO): L.D. de Feiter (until his untimely death) and P. Simon

## REPORT ON IAU FINANCES

In accord with the policy adopted in 1961, the Executive Committee presents to the General Assembly a "Summarized Account of Receipts and Payments" for the period under report. All accounts are in Swiss francs. They are also given in U.S. dollars converted at the following ICSU conversion rates, treated as exact:

For the year 1973: U.S.\$ = 2.75 Dutch guilders,  
 For the year 1974: U.S.\$ = 2.60 Dutch guilders,  
 For the year 1975: U.S.\$ = 2.67 Dutch guilders = 2.66 Swiss francs.

The conversion rates varying over the three years under report account for the disparities between the closing balances in 1972, 1973 and 1974, and the opening balances in 1973, 1974 and 1975 respectively:

Closing balance	Opening balance	Difference
1972 \$ 69 050.34	1973 \$ 75 774.07	\$ 6 723.73
1973 \$ 107 341.62	1974 \$ 108 205.91	\$ 864.29
1974 \$ 104 667.45	1975 \$ 104 099.42	\$ 568.03

Certain bank operations, such as transfers from one IAU account to the other, and reimbursements, were made at current rates of exchange and thus resulted in exchange differences.

The summarized account has been derived from 10 (4 in 1973, 3 each in 1974 and 1975) accounts of receipts and payments audited and certified as correct by the Unions's professional accountant. These accounts will be available for examination by the Finance Committee at the XVith General Assembly.

## SUMMARIZED ACCOUNT OF RECEIPTS AND PAYMENTS

The statement on the following pages is a simple account of receipts and payments collected for convenience under a few headings. The subsequent explanatory notes provide more detailed information on each item of the accounts.

## REPORT OF THE EXECUTIVE COMMITTEE

SUMMARIZED ACCOUNT OF RECEIPTS AND PAYMENTS (in U.S. Dollars converted into Swiss francs) FOR THE PERIOD 1973-1975

## RECEIPTS

	U.S.Dollars	U.S.Dollars	Swiss Francs
1. Contribution from Adhering Countries			
1973	86 098.58		
1974	83 077.66		
1975	<u>118 382.67</u>	287 558.91	764 906.70
2. Revenue from IAU Publications			
1973	13 528.10		
1974	269.89		
1975	<u>17 892.58</u>	31 690.57	84 296.92
3. Interest			
1973	2 465.79		
1974	5 747.91		
1975	<u>2 839.09</u>	11 052.79	29 400.42
4. Grant from UNESCO Subvention to ICSU			
1973	14 000		
1974	14 130.58		
1975	<u>10 850.00</u>	38 980.58	103 688.34
5. Other Receipts			
1973	74 098.60		
1974	29 119.03		
1975	<u>48 194.14</u>	151 411.77	402 755.31
Total Receipts		<u>520 694.62</u>	<u>1 383 047.69</u>
TOTAL		<u>520 694.62</u>	<u>1 383 047.69</u>

## PAYMENTS

	U.S.Dollars	U.S.Dollars	Swiss Francs
1. Administrative Office			
1973	39 266.01		
1974	37 715.82		
1975	<u>38 885.62</u>	115 867.45	308 207.42
2. Contribution to ICSU			
1973	1 503.07		
1974	2 144.53		
1975	<u>2 076.94</u>	5 724.54	15 227.28
3. Commission Expenses			
1973	253.29		
1974	562.32		
1975	<u>241.55</u>	1 057.16	2 812.04
4. Specific Projects of Commissions Approved by the General Assembly			
4.1 Exchange of Astronomers			
1973	1 291.80		
1974	7 664.23		

1975	<u>7 145.00</u>	16 101.03	42 828.74
4.2 Other Projects			
1973	2 067.01		
1974	4 725.92		
1975	<u>3 810.30</u>	10 603.23	28 204.59
5. General Assembly			
1973 (XV)	43 302.91		
1974 (XV)	281.81		
1975	<u>-</u>	43 584.72	115 935.36
6. IAU Publications			
1973	1 974.53		
1974	10 987.11		
1975	<u>3 218.99</u>	16 180.63	43 040.47
7. Distribution of IAU Publications (free and at reduced price)			
1973	2 723.02		
1974	9 569.71	20 251.01	53 867.69
1975	<u>7 958.28</u>		
8. Executive Committee Meetings			
1973	-		
1974	7 584.14		
1975	<u>8 349.52</u>	15 933.66	42 383.53
9. Officers Meetings			
1973	3 282.14		
1974	4 639.80		
1975	<u>2 335.84</u>	10 257 78	27 285.69
10. IAU Symposia and Colloquia and Cosponsorships of Other Scientific Meetings			
1973	16 235.63		
1974	9 577.17		
1975	<u>10 001.00</u>	<u>35 813.80</u>	<u>95 264.71</u>
11. Inter-Union Commissions			
1973	2 600.00		
1974	2 330.00		
1975	<u>2 800.00</u>	7 730.00	20 561.80
12. Projects Authorized by the Executive Committee			
1973	-		
1974	-		
1975	-		
13. Representation			
1973	567.00		
1974	1 039.57		
1975	<u>818.98</u>	2 425.55	6 451.96
14. Bank Charges			



## REPORT OF THE EXECUTIVE COMMITTEE

1973	134.30		
1974	201.81		
1975	<u>163.49</u>	499.60	1 328.94
15.Young Astronomers Schools			
1973	6 866.52		
1974	8 000.00		
1975	<u>8 000.00</u>	22 866.52	60 824.94
16.Regional Meetings			
1973	-		
1974	2 111.87		
1975	<u>2 245.52</u>	4 357.39	11 590.66
17.Other Payments			
1973	36 556.26		
1974	26 747.72		
1975	<u>87 829.11</u>	151 133.09	402 014.02
Total Payments		<u>480 387.16</u>	1 277 829.84 (5)
Excess of Receipts of Payments		<u>40 307.46</u>	107 217.84 (3)
			68 (8)
TOTAL		<u>520 694.62</u>	<u>1 385 047.69</u>

## BANK ACCOUNTS as on 1 January 1973

	U.S.Dollars	Swiss Francs
Savings Accounts	73 236.13	194 808.10
Current Accounts	<u>75 774.04</u>	<u>201 558.95</u>
TOTAL Balance on IAU Accounts as on 1 January 1973	<u>149 010.17</u>	<u>396 367.05</u>

## BANK ACCOUNTS as on 31 December 1975

	U.S.Dollars	Swiss Francs
Savings Accounts	77 424.37	205 948.82
Current Accounts	<u>116 377.76</u>	<u>309 564.84</u>
TOTAL Balance on IAU Accounts as on 31 December 1975	<u>193 802.13</u>	<u>515 513.66</u>

## Note:

The difference of \$ 296.26 between the amount of \$ 40 307.46 in item "Excess of Receipts over Payments", and the balance of \$ 40 603.72 on the Current Accounts 1973-1975 is due to the changed rate of exchange between U.S.Dollar and Dutch Guilder which was

in 1973: 1 U.S.\$ = 2.75 Dfl.  
 in 1974: 1 U.S.\$ = 2.60 Dfl.  
 in 1975: 1 U.S.\$ = 2.67 Dfl.

Thus the difference in Dfl. Account (AMRO) 1973/1974 = \$ 864.29 U.S.  
 1974/1975 = \$ 568.03

which results in \$ 296.26 U.S.

4. SPECIFIC PROJECTS OF COMMISSIONS

Comm.No.	Project	Allocation in \$ for 1974-75	Paid in 1973 (\$)	Paid in 1974 (\$)	Paid in 1975 (\$)	Total 1973/74 (\$)	Total 1974/75 (\$)	Balance for 1976 from allocations
4.1-38	Exchange of Astronomers	29 000.00	1 291.80	7 664.23	7 145.00	8 956.03	14 809.23	14 190.77
4.2	Other Projects:							
4	Ephemerides	880.00	200.00	293.33	293.33	493.33	586.66	293.34
6	IAU Telegram Bureau	1 980.00	533.34	660.00	660.00	1 193.34	1 320.00	660.00
16	Documentation Meudon	1 870.00	500.00	623.33	623.33	1 123.33	1 246.66	623.34
17	Special Working Group	1 870.00	333.67	623.33	623.33	957.00	1 246.66	623.34
20	Minor Planet Center	2 200.00	-	733.33	733.34	733.33	1 466.67	733.33
27	Catalogue of Variable Stars	3 300.00	-	1 242.60	126.97	1 242.60	1 369.57	1 930.43
	Inf.Bull. Southern Hemisphere	1 650.00	500.00	550.00	550.00	1 050.00	1 100.00	550.00
	TOTAL of 4.2	13 750.00	2 067.01	4 725.92	3 610.30	6 792.93	8 336.22	5 413.78
	TOTAL Projects	42 750.00	3 358.81	12 390.15	10 755.30	15 748.96	23 145.45	19 604.55

*Receipts*

1. Contributions from Adhering Countries. The XVth General Assembly of the IAU, held in Sydney, resolved that the unit of contribution be increased to 1 125 gold francs until 1976. This unit of contribution equaled \$ 438.92 U.S. and 1 329.93 Swiss francs at the time of the General Assembly. On the recommendation of the Finance Committee, the XVth General Assembly also resolved that the currency in which the affairs of the Union should be conducted should be the Swiss franc. The contributions payable by Adhering Countries were therefore collected in Swiss francs from 1974 on.

As on 31 December 1975, the IAU had 47 Adhering Countries paying annually a total of 215 units of contribution. Seventeen countries adhered in category 1, fourteen in category 2, six in category 3, two in category 4, three in category 5, one in category 6, three in category 7, and one in category 8.

Thirty one countries had paid their dues before 31 December 1975, and further eight countries remitted their contributions until 1 April 1976. One Adhering Country owes its dues to the IAU for 5 years, one country for 3 years, two countries for 2 years, and four countries for 1 year, or part.

2. Revenue from publications. The bulk of the receipts consisted of royalties from the Reidel Publishing Company for volumes sold. Minor payments came in from institutions of developing countries for publications sold to them at reduced price, from Academic Press Ltd. (London) for sales of publications, and from University Microfilms Ltd. in the form of royalties for sales of "Bibliography of Astronomy 1881-1889".

The yearly average of budgeted receipts from publications is \$ 5 500, that is \$ 11 000 from 1974, 1975. The excess of \$ 7 162.47 is due to exceptionally good sales which were not foreseen at the time the budget was set up. For example, the price of \$ 80.50 for Transactions XVA was considered prohibitive, and yet 739 copies were sold in the course of 1973, 1975.

3. Interest on accounts. The amount of \$ 11 052.97 are interest on the U.S. dollars account at the Amsterdam-Rotterdam-Bank, Utrecht, which was opened in 1973, when the Union's savings in the U.S.A. were transferred to the Netherlands. However, the interest on this account dropped to 3% in 1975, so that \$ 40 000 were retransferred from it to two one-year deposits of \$ 20 000 each at two U.S. savings banks. The IAU has, in addition, a savings account in Dutch guilders at the Amsterdam-Rotterdam Bank. The total interest earned on these three savings accounts from 1973 to 1975 is \$ 6 988.45. This amount is not shown in the summarized account, but appears, itemized, in the synopses of the IAU accounts as on 31 December of the years in question. Thus, the total interest earned over the period under report is \$ 18 041.

4. Grant from UNESCO subvention to ICSU. Detailed accounts of the expenditure of this grant are submitted to UNESCO, through ICSU, every year. The distribution of the grant is left to the discretion of the IAU within the permitted UNESCO categories.

The allocation was \$ 14 000 in 1973. In 1974, the allocation of \$ 12 000 was increased by \$ 2 000 to \$ 14 000. In 1975 the allocation of \$ 12 000 was not increased. The loss of \$ 1 020.42 is due to exchange differences.

5. Other receipts. The entries under this heading include internal bank transfers, transient items, reimbursements, etc. The following is an analysis of the amounts of \$ 74 098.60, \$ 29 119.03 and \$ 48 149.14 for the years 1973, 1974 and 1975 respectively:

*Other receipts in 1973*

	U.S.\$
Transfer of balance on the IAU account opened on the occasion of the XVth General Assembly in Sydney, refund of unspent grant towards Symposium 61, and exchange gain	4 119.27
Transfer of balance on closed savings account at the Chemical Bank, New York	22 194.07

	U.S.\$
Transfer of balance on closed savings account at the American Savings Bank	22 600.98
Transfer of DFL. 61.033,70, equivalent to the closing balance on the savings account at the Chemical Bank, to a newly opened U.S.dollars account at the Amsterdam-Rotterdam Bank	21 175.45
Contribution of COSPAR to General Secretary's trip to the U.S.S.R. and Australia	664.15
Refund by Wagon-Lits of price for 3 cancelled air tickets to Sydney	2 294.18
Refund by Presidents of Commissions of unused travel grants to the General Assembly in Sydney	784.95
Transfer to Petty-Cash Utrecht	207.20
Refund of unused part of Symposium travel grant	54.85
Rectified erroneous debit	<u>3.50</u>
TOTAL	74 098.60

*Other receipts in 1974*

	U.S.\$
Refunds of unspent grants	3 013.73
Erroneous credits	<u>26 105.30</u>
TOTAL	29 119.03

*Other receipts in 1975*

	U.S.\$
Erroneous credits	46 149.89
Rectification of erroneous debits	1 679.22
Refunds of unused grants	360.00
Untraceable receipt	<u>5.03</u>
TOTAL	48 194.14

Recapitulation:	U.S.\$
Other receipts in 1973	74 098.60
1974	29 119.03
1975	<u>48 194.14</u>
TOTAL	151 411.77

Clearly, the bulk of this sum consists of internal bank transfers and erroneous credits which are balanced by corresponding payments and rectifications, and cannot therefore be regarded as effective receipts.

*Payments*

The headings have been numbered to correspond to those of the budget approved by the XVth General Assembly.

1. Administrative Office. The expenses of the administrative office include salaries, social security and pension payments of the Staff of the IAU Secretariat, expenditure for secretarial help, stationery, removal costs, etc. It should be noted that thanks to the generosity of the Astronomical Institute in Utrecht, the Kitt Peak National Observatory and the Universities of Thessaloniki and Athens, the Union paid no rental, had the free use of communication facilities, and only spent a negligible sum on stationery. The Greek Ministry of Culture and Science, and the University of Thessaloniki and Athens, paid a total of more than U.S.\$ 9 000 yearly for salaries of two secretaries, postage, telegrams, etc.

2. Subscriptions to ICSU. The annual dues of the IAU to ICSU amounted to 2.5% of the income from contributions from Adhering Countries for the year preceding

payment.

3. Commission expenses. An amount of \$ 741.50 was paid to Commission No. 50 within the framework of its site testing programme. \$ 315.61 are travel grants.

4. Projects of Commissions

4.1 Exchange of Astronomers, and 4.2 Other projects. Details of the allocations made by the XVth General Assembly are given on page 50 of IAU Transactions, volume XVB, for 1974-1976, and on page 56 of IAU Transaction, volume XIVB for 1973. Actual payments were listed in the present Report. In addition \$ 200 were paid as a contribution towards the publication of Bibliography and Program Notes by Commission No. 42.

The balances of \$ 14 190.77, \$ 1 930.43 and \$ 550.00 in favour of Commissions Nos. 38, 27, and the Information Bulletin for the Southern Hemisphere respectively may, but need not be spent in 1976.

5. General Assembly. For details please see the 1973 accounts (account at Chemical Bank, 2 accounts at Amsterdam-Rotterdam Bank) and the 1974 accounts at the Chemical Bank and Amsterdam-Rotterdam Bank (DFL.).

The sum of \$ 43 584.72 is by \$ 2 584.72 higher than the budgetary estimate of the XIVth General Assembly, but by \$ 5 915.28 lower than approved by the XVth General Assembly for the year 1973. It includes travel and living expenses of the members of the Executive Committee, travel grants to Presidents of Commissions, young astronomers' grants, local expenses in Sydney, etc.

6. IAU Publications. The IAU only financed the production and distribution of the Information Bulletin. The Transactions and Symposium volumes were financed by the publisher. The payments under this heading were as follows:

in 1973

	U.S.\$
D. Reidel Publishing Company, Dordrecht, Holland	
postage for Information Bulletin No. 30 in U.S.A.	141.49
printing and distribution of Information Bulletin No.28	<u>1 833.04</u>
Total	<u>1 974.53</u>

in 1974

D. Reidel	
printing and distribution of Information Bulletin No.31	2 900.44
printing and distribution of Information Bulletin Nos.29, 30, 32	6 602.05
printing and distribution of Agenda and Report of Executive Committee to the XVth General Assembly	<u>1 484.62</u>
Total	<u>10 987.11</u>

in 1975

D. Reidel	
printing and distribution of Information Bulletin No.33	<u>3 218.99</u>
Grand total for 1973-1975	<u>16 180.63</u>

7. Symposium volumes for developing countries. This item actually covers purchases by the IAU of its own publications to be distributed as courtesy copies to members of the Executive Committee and members of the Scientific Organizing Committees of Symposia, and sold at reduced price to selected institutions of some developing countries. Expenditure was as follows over the period under report:

Courtesy copies		Copies for institutions of developing countries
	\$	\$
1973	1 280.49	1 442.53
1974	3 839.92	5 729.79
1975	<u>3 333.04</u>	<u>4 625.24</u>
Total	<u>8 453.45</u>	<u>11 797.56</u>
Recapitulation:		\$
For copies to institutions of developing countries		11 797.56
For courtesy copies		<u>8 453.45</u>
Total 1973-1975		<u>20 251.01</u>

8. Executive Committee meetings. The costs of the 37th and 38th meetings of the Executive Committee are included in the costs of the XVth General Assembly, item 4.

The amount of \$ 7 584.14 as costs of the 39th meeting of the Executive Committee gives the following net expenses:

\$ 7 584.14 withdrawn from accounts
<u>\$ 145.00 reimbursed as unused</u>
\$ 7 439.14 net expenses.

The total net expenses for the 39th and 40th meetings of the Executive Committee only exceed by about 2% the amount foreseen in the approved budget.

9. Officers' meetings. The sequence of the figures \$ 3 282.14 for 1973, \$ 4 639.80 for 1974, and \$ 2 335.84 for 1975 shows the special effort in 1975 to keep expenses as low as possible, in spite of the large travel distances involved. This resulted in the total sum of \$ 10 257.78 for the 3 years under report.

10. Symposia and Colloquia, sponsored meetings included. The figure of \$ 16 235.63 represents expenses incurred with IAU Symposia Nos. 56 through 64, IAU Colloquia Nos. 18 and 23, and the IAU/IUHPS Symposium in Torún. \$ 215.00 were paid for the translation of 8 Russian papers presented at the Kepler Symposium in Leningrad, 1971.

\$ 9 577.17 were spent on travel grants to IAU Symposia Nos. 65, 67, 68 and 69, IAU Colloquia Nos. 25 through 28, and the International Symposium on Solar-Terrestrial Physics held in Sao Paulo.

The sum of \$ 10 001 covers travel grants to participants in IAU Symposia No. 70 through 73, IAU Colloquia Nos. 29, 30, 32 and 33, and contribution to the COSPAR/IAU Symposium in Varna and the IUHPS/IAU Symposium in Greenwich.

11. Inter-Union Commissions. The amount of \$ 7 730.00 consists of annual contributions to IUCAF, SCOSTEP, ICSU-AB and ICSU-CTS. In 1973 \$ 100 were paid to IUCM.

12. Projects authorized by the Executive Committee. No such projects were organized in the period under report.

13. Representation. The sum of \$ 2 425.55 was spent for travel grants to IAU representatives on IUCM in 1973, on EPS, IUCM and ICSU-AB, and for a framed document in 1974, and at the Third Regional Meeting in Tbilisi, and the FAGS Council in 1975.

14. Bank charges. They are well within the budget.

15. Young Astronomers Schools. The budgets approved for 1973 and 1974-76 allowed for \$ 23 100 for Young Astronomers Schools. The actual amount of \$ 22 866.52 spent is well within the budget. The Executive Committee resolved that no such school would be held in 1976.

16. Regional meetings. The Regional Astronomical Meetings held in 1974 and 1975 only cost \$ 4 357.39 while the budgetary estimate was \$ 5 500. No Regional meeting will be held in 1976.

17. Other payments. Reference is made to the comment of heading 6 under Receipts. The following is an analysis of the amounts of \$ 36 556.26, \$ 26 747.72 and \$ 87 829.11 for the years 1973, 1974 and 1975 respectively:

1973	U.S.\$
Transfer to U.S.Dollars account at the Amsterdam-Rotterdam Bank	22 394.00
Transfer to Petty Cash Utrecht	207.20
Transfer from Sydney account	3 251.33
Travel and removal expenses	10 008.26
Insurance	136.36
Penalty interest	181.82
Refund of erroneous payment	373.79
Erroneous debit	<u>3.50</u>
	Total
	<u>36 556.26</u>
1974	
Travel expenses	642.42
Rectification of erroneous credits	<u>26 105.30</u>
	Total
	<u>26 747.72</u>
1975	
Transfer to savings accounts	40 000.00
Rectification of erroneous credits	46 149.89
Erroneous debits	<u>1 679.22</u>
	Total
	87 829.11
Recapitulation:	U.S.\$
Other expenses in 1973	36 556.26
1974	26 747.72
1975	<u>87 829.11</u>
Total 1973-'75	151 133.09

Note: Item 17 "Refund to Reserves" of the approved budget for 1974-1976 does not come into consideration, as it was not necessary to have recourse to the reserves in 1973.

*Audit for the Accounts 1973-1976*

Messieurs,

Conformément à la mission que vous avez bien voulu nous confier, nous vous présentons le résultat de notre examen des comptes de l'UNION ASTRONOMIQUE INTERNATIONALE pour la période du 1er janvier 1973 au 31 décembre 1975.

L'examen notamment, a porté sur les documents suivants:

- comptes des recettes et dépenses pour l'année 1973, vérifiés par nous-mêmes
- comptes des recettes et dépenses pour l'année 1974, vérifiés par nous-mêmes
- comptes des recettes et dépenses pour l'année 1975, vérifiés par nous-mêmes
- comptes des recettes et dépenses et situation des comptes bancaires pour la période de trois ans: 1973, 1974 et 1975.

Les comptes ont été comparés avec les cahiers de comptes reçus et pièces comptables diverses.

Le taux employé pour convertir les U.S. DOLLARS en FRANCS SUISSES a été le suivant d'après les règles comptables du C.I.U.S.:

1 U.S.DOLLAR = 2.66 FRANCS SUISSES

Nous certifions que ces comptes sont en accord complet avec les informations et explications que nous avons demandées pour nous permettre d'effectuer notre examen.

Le compte ci-inclus des recettes et dépenses résumant les compte des années 1973, 1974 et 1975 est la représentation exacte des recettes et dépenses de l'UNION ASTRONOMIQUE INTERNATIONALE pour la période du premier janvier 1973 au trente et un décembre 1975.

A Paris, le 4 février 1975

ROGER BACLE

H.E.C.

Diplômé Expert-Comptable

*Conclusion*

The assets of \$ 193 802.13 U.S. as on 31 December 1975 compare very well with those of \$ 149 010.17 U.S. as on 1 January 1973: the balance is \$ 44 791.96 U.S.

The budget approved by the XVth General Assembly for the years 1973-1976 provided for an expenditure of \$ 351 760 balanced by an income of \$ 353 800 leaving an excess of \$ 2 040 of receipts over payments. This budget compared with the actual receipts and payments of the years 1974 and 1975 gives the balance for the year 1976 as follows:

	Receipts in U.S.\$	Payments in U.S.\$
Budget 1974-1976 as approved by the XVth General Assembly	353 800.00	351 760.00
Actual figures for 1974 and 1975 (adjusted)	-264 490.00	-247 187.00
	<u>89 310.00</u>	<u>104 573.00</u>
Excess of receipts over payments	15 263.00	
Total	104 573.00	

Available for payments in 1976 \$ 15 263.00

The budgetary estimates taking into account the present rate of exchange of US\$ 1 = 2.66 Swiss francs, are as follows for 1976:

*Budget 1976*

Receipts in U.S.Dollars		Payments in U.S.Dollars	
1. Contributions from Adhering Countries	107 500	1. Administrative Office	47 700
2. Revenue from IAU Publications	11 600	2. Contribution to ICSU	2 960
3. Interest on accounts	5 400	3. Commissions expenses	400
4. Grant from UNESCO subvention to ICSU	<u>12 000</u>	4. Projects of Commissions	
Total	136 500	4.1 Exchange of Astronomers	14 191
		4.2 Other Projects	5 414
		5. General Assembly	39 000
		6. IAU Publications	11 000
		7. Free copies to institutions of developing countries	7 000
		8. Executive Committee meeting	0
		9. Officers' meetings	3 300
		10. Symposia and Colloquia	12 000
		11. Contributions to Inter-Union Commissions	2 800



12. Projects approved by the Executive Committee	800
13. Representation	1 500
14. Bank charges	300
15. Young Astronomers' Schools	0
16. Regional meeting	0
Total	<u>148 365</u>
Receipts	136 500
Excess of payments over receipts	11 865
Available from 1975	<u>15 263</u>
Excess of funds available over payments (as reserve)	3 398

Explanatory notes:

*Receipts*

1. The figure of \$ 107 500 has been obtained by multiplying 215 units of contributions by 1 329.93 Swiss francs and dividing the result by 2.66, the rate of exchange of the U.S.Dollar to Swiss francs.

2. The amount of about \$ 5 000 paid by the D. Reidel Publishing Company on royalties before 31 December 1975 only passed the accounts in January 1976. Another \$ 6 600 are expected to be payable as royalties for sales in 1975, and for publications sold to institutions in developing countries.

3. The two savings accounts in the U.S.A. will earn \$ 2 600 of interest, the U.S.Dollars account at the Amsterdam-Rotterdam Bank \$ 1 000, and the savings account in Dutch guilders at the latter \$ 1 800, giving a total of \$ 5 400.

4. The grant from the UNESCO subvention to ICSU has been allocated in the amount of \$ 12 000 for 1976.

*Payments*

1. The figure of \$ 47 700 is the difference between the amount budgeted for 1974-1976 and the one actually paid in 1974, 1975. In addition to the normal payments it will have to cover removal expenses of the office and staff.

2. The contribution to ICSU is 2.5% of the total of contributions paid by Adhering Countries in 1975.

3. The \$ 400 have been set aside for the site-testing programme of Commission No. 50. Not included are the \$ 200 paid towards the publication of Biography and Programme Notes (Commission No. 42).

4. Specific Projects of Commissions: see table 4.

5. General Assembly. The sum of \$ 39 000 is to cover, in the main, the travel and living expenses of the members of the Executive Committee, travel grants to Presidents of Commissions, a hundred grants to young astronomers, travel and living expenses of the staff, local secretarial help and other local expenses, which have considerably increased since 1973, when the amount of \$ 33 000 had been approved by the General Assembly.

6. IAU Publications. The amount of \$ 11 000 represent the costs of Information Bulletin Nos. 34 through 37, and the production and distribution of the Report of the Executive Committee to the XVIth General Assembly.

7. This item includes expenditure for courtesy copies to members of the Executive Committee and members of the Scientific Organizing Committees of Symposia, as well as costs for IAU publications purchased by the IAU for and sold to selected institutions of developing countries at reduced prices.

8. The costs of the 41st and 42nd meetings of the Executive Committee are included in the \$ 39 000 foreseen for the XVIth General Assembly.

9. At least 3 Officers' meetings will be held in 1976. \$ 1 100 for each may turn out to be an underestimate.

10. Symposia and Colloquia. Three symposia and 7 colloquia will be held in 1976. Moreover, the IAU will cosponsor 2 COSPAR meetings. The amount of \$ 12 000 includes a small reserve.

11. Contributions to Inter-Union Commissions. They will be as in 1975.

12. Projects approved by the Executive Committee. \$ 800 is the balance available for such projects.

13. Experience has shown that the amounts foreseen for purposes of representation were inadequate. The sum of \$ 1 500 is not therefore exaggerated.

14. Bank charges are expected to be higher than the yearly average in view of the numerous payments to be made in connection with the General Assembly.

The Finance Committee, to convene during the XVith General Assembly, will be asked to endorse the budgetary estimate for 1976, as proposed above, and to approve a comprehensive budget for the years 1977-1979 to be submitted to the General Assembly.

#### LIST OF DECEASED MEMBERS

The Executive Committee regrets to record the loss by death of the following Members:

ABBOT, C.G. - 17 December 1973  
ASTAPOVICH, J.S. - 1 January 1976  
BOK, P.F. - 19 November 1975  
BOURGEAIS, P.E. - 11 May 1974  
CARROLL, Sir John A. - 2 May 1974  
CESKO, R.P. - 11 March 1974  
CHEBOTAREV, G.A. - 4 August 1975  
CHUDOVICHEVA, N.A. - 3 August 1972  
CLEMENCE, G.M. - 22 November 1974  
COLLINDER, P. - 6 December 1975  
CONDON, E.U. - 26 March 1974  
DAENE, H. - 7 December 1975  
DE FEITER, L.D. - 2 September 1975  
DETRE, L. - 15 October 1974  
DOS SANTOS, A.J. Baptista - 14 July 1973  
FERRARO, V.C.A. - 4 January 1974  
GJELLESTAD, G. - 11 January 1972  
GORSHKOV, P.M. - 30 July 1975  
HARRIS, B.J. - 23 December 1974  
HERRICK, S. - 20 March 1974  
HINDMARSH, W.R. - 29 December 1973  
HOPMANN, J. - 11 October 1975  
HOUCK, T.E. - 1 June 1974  
KALIKHEVICH, N.S. - 9 March 1975  
KIENLE, H. - 15 February 1975  
KIEPENHEUER, K.O. - 23 May 1975  
KNIPE, G.F.G. - 19 December 1973  
KUIPER, G.P. - 23 December 1973  
LINDSAY, E.M. - 27 July 1974  
LINES, A.W. -  
LITTLEFIELD, T.A. - 26 August 1974  
MADWAR, M.R. - 10 December 1973  
MAITRE, V. - 9 December 1975  
MILLER, W.J. - 30 November 1973  
MINKOWSKI, R.L. - 4 January 1976  
MUGGLESTONE, D. - 20 March 1976  
NOVOPASHENNYJ, E.V. - 18 February 1975

OLIVIER, C.P. - 14 August 1975  
 PATON, J. - 26 August 1973  
 PIKEL'NER, S.B. - 19 November 1975  
 RABE, E.K. - 11 July 1974  
 REDMAN, R.O. - 7 March 1975  
 ROSEN, B. - 2 January 1974  
 RUBLEV, S.V. - 10 November 1974  
 SALPETER, E.W. - 6 January 1976  
 SCOTT, F.P. - 1 November 1974  
 SHCHIGOLEV, B.M. - 6 February 1976  
 SMART, W.M. - 17 September 1975  
 SYNTINSKAYA, N.N. - 4 July 1974  
 VAN BIESBROECK, G. - 23 February 1974  
 VAN DEN BOS, W.H. - 30 March 1974  
 VERBAANDERT, M.J. - 4 September 1974  
 VYSSOTSKY, A.N. - 31 December 1973  
 WILDT, R. - 9 January 1976  
 WURM, K. - 16 February 1975  
 YAKOVKIN, N.A. - 18 November 1974  
 ZAGAR, F. - 17 February 1976  
 ZONN, W. - 28 February 1975  
 ZWICKY, F. - 8 February 1974

#### LIST OF IAU PUBLICATIONS

Transactions of the IAU, volume XVA, pp. VIII+762, price \$ 80.50 (Members \$ 53.67).  
 Editor: C. de Jager. Published by D. Reidel Publishing Company, Dordrecht, Holland.

Transactions of the IAU, volume XVB, pp. IX+334, price \$ 39.00 (Members \$ 26.00).  
 Editors: G. Contopoulos and A. Jappel. Published by D. Reidel.

Highlights of Astronomy as presented at the XVth General Assembly and the Extraordinary General Assembly of the IAU, 1973, pp. VII+574, price \$ 65.00 (Members \$ 42.50).  
 Editor: G. Contopoulos. Published by D. Reidel.

#### *IAU Symposium Volumes*

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*IAU Colloquium Volumes*

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- No. 16 "Analytical Procedures for Eclipsing Binary Light Curves". Invited contributions appeared in *Astrophysics and Space Science*.
- No. 17 "L'âge des Etoiles", price Fr.Frs. 50,00. Editors: G. Cayrel de Scrobel and A.M. Delplace. Published by Observatoire de Paris, Meudon.
- No. 18 "Orbital and Physical Parameters of Double Stars". *Journal of the Astronomical Society of Canada*, volume 67, pp. 49-87, April 1973.
- No. 20 "Meridian Astronomy". Detailed report in IAU Symposium volume No. 61 *New Problems in Astrometry*.

- No. 21 "Variable Stars in Globular Clusters and in Related Systems", pp. X+234. Editor: J.D. Fernie.
- No. 24 "Lunar Dynamics and Observational Coordinate System". Editor: M. Moutsoulas. *The Moon* 8, No. 4, 1973.

*Publications by, or on behalf of, IAU Commissions and by Astronomical Services*

- Commission No. 6. IAU (Telegram Bureau) circulars Nos. 2476-2875. Issued by the IAU Central Bureau for Astronomical Telegrams.
- Commission No. 10. Cartes Synoptiques de la Chromosphère Solaire (Volume V, fascicule IV). Prepared by Observatoire de Paris à Meudon.
- Commission No. 16. Newsletter No. 11. Published by the President of Commission.
- Commission No. 19. Monthly Notes of the IPMS Nos. 11 (1972)-10 (1975). Published by the International Polar Motion Service, Mizusawa-shi, Japan.
- Commission No. 24. Astrographic Catalogues. Information regarding the different sections of the Catalogue can be obtained from the Observatories listed in Transactions IAU XIVB, 176, 177, 1971.
- Commission No. 20. Minor Planet Circulars Nos. 3407-3908. Mimeographed circulars issued by the Minor Planet Center, Cincinnati.
- Commission No. 26. Circulaire d'Information Nos. 59-67. President: Miss S.L. Lippincott, Sproul Observatory, Swarthmore College, Swarthmore, Pa., U.S.A.
- Commission No. 27. Information Bulletin on Variable Stars Nos. 753-997. Prepared by Konkoly Observatory, Budapest, Hungary.
- Commission No. 31. Annual Report of the BIH. Published by the Bureau International de l'Heure, Paris, France.
- Commission No. 41. Information Circulars Nos. 22-25. Published by the President of the Commission.
- IAU Information Bulletin Nos. 30-34. Prepared by the General Secretary.

*Other Publications*

- Proceedings of the First European Astronomical Meeting, Athens, 4-9 September 1972, Published by Springer Verlag.
- Volume 1 "Solar Activity and Related Interplanetary and Terrestrial Phenomena". Price 94 DM. Edited by J. Xanthakis.
- Volume 2 "Stars and the Milky Way System". Price 138 DM. Edited by L.N. Mavridis.
- Volume 3 "Galaxies and Relativistic Astrophysics". Price 126 DM. Edited by B. Barbani and J.D. Hadjidemetriou.
- Proceedings of the Second European Astronomical Meeting, Trieste, 2-5 September 1974, in 2 volumes. Price \$ 60 U.S. *Memorie della Società Astronomica Italiana* Vol. XLV, 1975. Edited by L. Gratton.