

ANNUAL REPORT OF THE DIRECTOR
FOR FISCAL YEAR 1976 - 1977

It is with a sense of honor that I present to you my fourth Annual Report as your Director.

In my report this year rather than giving you only the account of our activities of the past year, I wish also to describe accomplishments in different areas of our operation and state our goals for the future.

DATA PROCESSING

Accomplishment: Major computerization. Our data processing procedures have been tremendously improved, and much that we were formerly doing mechanically or manually is now done by the computer. (See Robert S. Hill's article on our data processing in Journ. A.A.V.S.O., Vol. 6, p. 12.)

The master-mind in the creation of our new computer programs for sorting, merging, and plotting data has been Richard Strazdas. I extend our deep appreciation and thanks to him for this achievement.

Goal: Publication of Reports 38 and 39. Due to high demands from astronomers for our recent data, I have put a priority on processing and publishing the data from September 1974 to June 1977 (1000 days). We have started to compile these 500,000 observations. Most of the data have been validated and more than half have been sorted and merged. Our goal for next year is to publish Reports 38 and 39, which will contain light curves and data on over 1000 variables in our program. We are working hard to meet this goal.

SPECIAL REQUESTS

Accomplishment: Meeting the demands of a record-high number of special requests. This year we received about 25% more special requests for our data, from astronomers in the fields of spectroscopy, infrared, ultraviolet, radio and high energy astronomy, in the United States, Brazil, Canada, England, Germany, Netherlands, Poland, South Africa, and U.S.S.R. In order to save space, I have, once more, decided to categorize the requests, share the highlights with you, and give a complete alphabetical listing at the end of my report.

We received 50 requests, concerning:

- a) long period and semiregular variables
- b) dwarf novae: SS Cyg, CN Ori, AY Lyr, SU Uma
- c) Z Cam stars: S Cam, AH Her, RX And, SY Cnc
- d) symbiotic variables: Z And, AG Dra, CI Cyg
- e) R CrB type variables: R CrB, U Aqr, RY Sgr, SU Tau
- f) recent novae: particularly NQ Vul (Nova Vul 1976)
- g) recurrent novae: T CrB, RS Oph
- h) the RV Tau variable: AC Her
- i) Photoelectric observations: X Per and V389 Cyg for which Howard Landis and Howard Louth, respectively, provided valuable data.

The majority of the requests were for long period and semiregular variables. Our light curves are particularly important to spectroscopists and radio astronomers who wish to determine the phases of these for planning and analyzing observations.

Our data on long period and semiregular variables were used in scientific research for the following purposes:

1. Determination of brightness and phase for correlation with observations in the radio, ultraviolet, visual, and infrared regions of the electromagnetic spectrum.
2. Estimation of projected brightness of long period and semiregular variables for jet-flight and satellite observing programs.
3. Studies in change of period.

Requests for data on dwarf novae, Z Cam and symbiotic stars were for the following purposes:

1. Correlation of visual data with spectroscopic, infrared, ultraviolet, and polarimetric observations.
2. Study of light variation and determination of the frequencies of outbursts and rise-and fall-times.
3. Correlation of behavior of dwarf novae with that of x-ray bursts.

For R CrB variables, it has been an active year. SU Tau recovered from minimum; U Aqr, the questionable R CrB variable went into minimum; R CrB and RY Sgr went into minimum as spotted first by P. Collins. The requests for data on these variables were for correlation with photometric and spectroscopic data.

Requests on novae were mostly for NQ Vul (Nova Vulpecula 1976).

The major request for data on recurrent novae came from Dr. R. Webbink. He is compiling all the observations of T CrB since its first outburst in 1866. He spent ten days at headquarters tallying every observation on T CrB. Dr. Webbink wrote, "It has been a real pleasure to rummage through your attic, as it were. Schmidt's observations going back to 1866 should really put icing on the cake."

Some other remarks by astronomers about our data and AAVSO were:

"We wish to thank the patient and skillful astronomers of the AAVSO for providing the data on SS Cygni" - Brecher, Morrison, Sadun (M.I.T.).

"I would like to thank your organization for its valuable work. Knowing the phase of the dwarf novae was very useful in my infrared work" - P. Szkody (U. of Washington).

"I was quite impressed with the format of Z And, AG Peg and AG Dra. The plots were very effective conveying the general trend of stellar variability, while at the same time giving an estimate of the error bars" - B. Bopp (U. of Toledo).

"Many thanks for your prompt action. I revised my results according to your data and now have a much better paper." - J. Cahn (U. of Illinois).

Goal: A wider distribution and use of AAVSO data through publication of Reports 38 and 39.

ALERT NOTICES:

Accomplishment: A record-high number of Alert Notices was distributed during the fiscal year. These nine Alert Notices provided excellent coverage for the three new novae: NQ Vul, discovered by G.E. Alcock of England on October 21, 1976; Nova Sagittae 1977, discovered by J. Hosty of England on January 7, 1977; and Nova Sagittarii 1977, discovered photographically by Y. Kuwano of Japan on March 27, 1977. Our exceptional coverage of NQ Vul has received many favorable comments from astronomers and has been cited in several astronomical publications.

The stars for which observers were alerted are as follows:

- a) U Gem and SS Cyg: Dr. B. Warner and P. Feldman wished to be notified of their outbursts, so that specialized observations can be carried on. At the recent I.A.U. Colloquium 42, Dr. Hjelming from National Radio Astronomy Observatory also indicated a wish to be notified of the outbursts.
- b) R And, R Aqr, RX Boo, Y CVn and SS Vir: Simultaneous optical coverage during satellite observations in July, for Dr. R. Russell. The coverage for that month was exceptional, with 21916 observations received at Headquarters.
- c) Several long period variables: Simultaneous optical coverage during jet-flight infrared observations for Dr. L. Smith.
- d) Several dwarf novae: Simultaneous optical coverage during the coming year to assist the x-ray team of California Institute of Technology with the High Energy Astrophysical Observatory (HEAO-1) x-ray experiments. In order to determine the state of the dwarf novae during x-ray observations, F. Cordova and her

colleagues have placed a very special request to our observers to follow the HEAO-1 observing schedule closely. Alert Notices will be sent throughout the year giving the list of variables in the HEAO-1 observing schedule.

During the year astronomers from the University of California, California Institute of Technology, and Massachusetts Institute of Technology have called to ask the present state of several U Gem, Z Cam, and long period variables, and to request simultaneous observations during their observing runs. On those occasions, telephone communication among our observers throughout the USA made it possible for me to relay first-hand information to the astronomers.

I wish to extend thanks to all those who have tried to fulfill the requests of astronomers and who have kept me informed with phone calls and notes, particularly to J. Morgan, K. Sabine, P. Goodwin, R. Annal, E. Mayer, J. Bortle, R. Ariail, E. Oravec, G. Johnson, P. Collins, C. Hurless, G. Kelly, L. Hiatt, D. Rosebrugh, D. Skillman, R. Hill, D. Levy, and S. O'Meara. Special thanks also go to C. Ford and C. Scovill for rapid preparation of charts for the new novae and variable stars of special interest, such as AM Her and HM Sge.

Goal. Continuation of the very successful communication, and reaching more observers with Alert Notices. To fulfill the second part of our goal, I am requesting at least six self-addressed stamped envelopes (SASE) from those who wish to receive the future Alert Notices. The SASE have expedited the mailing of the notices and have lightened the financial load of the association.

INTERNATIONAL COLLABORATION WITH OTHER VARIABLE STAR OBSERVERS

Accomplishment: Growth and development of our collaboration with the variable stars observers' groups abroad. While D. Overbeek is in the USA on sabbatical, the acting Director of the Variable Star Section of the Astronomical Society of South Africa, Jan Hers is carrying on excellently, and we have acquired several enthusiastic and valuable observers.

Tom Cragg, who is now in Australia, is contributing very significantly on southern variables.

Frank Traynor and the members of New South Wales branch of B.A.A. in Australia also contribute valuable data on southern variables.

The work of the Albireo Amateur Astronomy Club of Hungary continues with great enthusiasm. Its Director, Mr. Szentmartoni relayed his thanks that our members had sponsored several of its observers to membership in the AAVSO.

Belgian variable star observers, led by Mr. Van Loo, continue sending large quantities of data.

Mr. Duruy, the honorary General Secretary of French Association of Variable Star Observers transmitted valuable observations.

Several members of the Japanese Astronomical Study Group are among our enthusiastic observers.

Ole Klinting of Astronomisk Selskab continues to send his members' valuable observations on SS Cyg and U Gem.

There is exchange of publications and charts among variable star observers of Skandinavia, Argentins, Italy, and Chile.

Last, but not least, we continue our very fruitful collaboration with the Variable Star Section of the Royal Astronomical Society of New Zealand. Copies of observations of southern stars being sent by their Director, Frank Bateson, have helped to refine the dates of maxima and minima of these stars.

Goal. To continue our international collaboration with other groups.

REQUEST FOR INFORMATION AND NEW MEMBERSHIP

We have sent out 615 AAVSO Information Kits to those people interested in the AAVSO. As a result of these, and talks about

AAVSO by our members in their communities, we have elected 126 new Annual Members and three Sustaining Members. Dennis Bohn, Peter Collins, Edward Ehrhart, and David Weier changed from Annual to Sustaining, and Roy Lee from Life to Sustaining Membership.

This year we were saddened by the loss of the following long-time, devoted members: Curtis Anderson, Charles Brownlee, William Cleaver, Kenneth Chilton, Charles Kratz, Alfonso Oberstatter, John Simpson, Charles Smiley, Harold Webb, and Robert Woolsey.

PUBLICATIONS

We have published Vol. 5, No. 1, and Vol. 5, No. 2 of our Journal. I thank Dr. Charles Whitney for his editorship, Charles Scovil for his time in preparing the materials for publication, and the Editorial Board for their suggestions.

AAVSO Circular: Edited and published monthly by John Bortle, Charles Scovil, and Wayne Lowder, this serves an important role for our observers and astronomers in giving preliminary information on eruptive variables, novae, and other interesting variables. It also helps to reach active observers for more observations on neglected stars. I thank John, Chuck and Wayne for their fine work.

Bulletin 40: The predicted dates of maxima and minima of long period variables for 1977, with extended preliminary predictions through February 1978, were published and have been in great demand by radio astronomers and spectroscopists in scheduling their observations.

Bulletin 40 A and B: A new format shows schematically the predicted maxima and minima dates given in Bulletin 40. I would like to thank Clinton Ford, for compiling the minima, and Peter and MaryJane Taylor, for compiling the maxima and for typing and preparing Bulletin 40 A + B for publication. They have done an excellent job. We have received many favorable comments on Bulletin 40 A + B, and by combining the two, we have saved money in printing and postage. Predicted dates of maxima was prepared monthly for publication in Sky & Telescope, and annually in the Observing Handbook of R.A. S.C., along with descriptions of variable types and light curve of Z UMa -- the "star of the year."

"Variable Star Notes" were published in the Journal of R.A.S.C. on the peculiarities in AAVSO light curves and the behavior of U Gem and Z Cam type variables during 1976, and the observational data and findings of our Eclipsing Binary Committee on θ^1 Orionis A.

Computerized ephemerides for eclipsing binary stars and RR Lyrae variables were prepared by Donald Livingston and Marvin Baldwin and published.

Solar Bulletin, containing information on sunspot numbers, solar flares and sudden ionospheric disturbances, was prepared by Casper Hossfield, Bruce and Robert Ammons, and published monthly by Carolyn Hurless.

SUMMARY OF OBSERVATIONS

We accomplished to hit another record high this fiscal year receiving 176,659 observations, thus bringing our grand total to 3,921,410 observations. 1883 reports from 378 observers contributed to the above annual total. 104,837 came from 249 observers from USA, and 71,822 from 129 observers in 27 countries.

TABLE I lists the number of observers from each country and their astronomical contributions, TABLE II from each state in the U.S.A., and TABLE III is an alphabetical list of observers, giving observer's initials, name, location, total of their observations, and the Inner Sanctum observations (observations with magnitude estimate $13^m.8$ or fainter, and/or "fainter than" observations of $14^m.0$ and fainter). In the past year, 18 observers made between 1000 and 2000 observations; 10 between 2000 and 3000; D. Dierick, P. Goodwin, C. Hurless, W. Lowder, E. Oravec, M. Smith, and U. Surawski between 3000 and 4000; L. Hiett, E. Mayer, G. Samolyk, and S. Sharpe between 4000 and 5000; U. Hopp, 5083; M. Baldwin, 5071; R. Annal, 5349; and C. Spratt, 6335. Once again, E. Mayer leads the Inner Sanctum observations with 1974 observations. R. Annal

made 1404, and C. Hurless made 587. J. Griese, L. Kalish, H. Landis, H. Louth, T. Renner, K. Sears, D. Sharp, D. Skillman, and R. Tucker contributed photoelectric data. E. Hayden, A.J. Morehouse, C. Scovil, H. Specht, and V. Vacquire contributed photo-visual observations. Considering that during the past year we had one of the coldest winters and a very cloudy summer, the contributions from our observers, is remarkable. I would like to congratulate each of you for your enthusiasm, effort, patience, and perseverance!

PERSONNEL

We have, including myself, four full time persons at Headquarters. Robert S. Hill, who had been with us as part-time Student Assistant, is now my very capable full-time assistant, devoting most of his time to the preparation of Reports 38 and 39. David Drucker, who recently joined our staff, is a participant of Venture Program, which provides challenging jobs to students who take time off from their college education. Mary Thompson is our hard-working secretary.

We have several part-time assistants, namely, Dorothy Haviland who carefully and conscientiously handles the general operations of the office; Jill Gustafson and Sean Dowling, who very capably keypunch and verify the incoming observations on computer cards; Celia Colbert who assists me with very heavy load of correspondence. Jill, Sean, and Celia are participants of Harvard University Work Study Program.

Joan Fisher from M.I.T. was our Margaret Mayall Assistant this summer. She helped in the preparation of the Reports 38 and 39.

Our indispensable part-time assistant, Richard Strazdas, has prepared the computer programs for our present undertakings with the computer.

GIFTS

My sincere thanks to the members who have contributed to the Margaret Mayall Assistantship. Your generous gifts enable us to employ our summer assistants.

Thanks also go to all members who gave beyond their dues and who took a Sustaining Membership. These contributions have helped us with the operations of the office and will help in the publication of Reports 38 and 39.

Special thanks are due to Clinton Ford for his generous support of the AAVSO Variable Star Atlas, and other operations of the association.

Sincere thanks are extended to Margaret and Newton Mayall for their contributions to many activities so important for the association.

ACKNOWLEDGEMENT

We are grateful to Smithsonian Astrophysical Observatory for its support of our computer activities, and to Dr. Owen Gingerich for being our representative and helping to make this support possible. Our special thanks are again extended to Barbara Welther for helping us with our computer problems and her recommendations in data processing and computer funding.

We are grateful to National Oceanic and Atmospheric Administration for supporting the activities of our Solar Division.

Our thanks to the Stamford Museum for making available to Charles Scovil their Observatory facilities for his work in our new chart preparation, the Journal, and the Circular.

Thanks to Unitron Instruments, Inc., for printing our Julian Day Calendar.

Thanks are extended to Margaret Mayall, who gives generously of her time and knowledge, particularly in the preparation of the Extension of The Studies of Long Period Variables.

I thank my husband for his support, understanding and encouragement.

My most sincere thanks, appreciation, and gratitude are extended to you, our officers, committee chairmen, members, and observers who support this association with financial contributions, enthusiastic efforts, and observations.

Let us all set our goals for quality this coming year.

Respectfully submitted,

Janet Akyüz Mattei

TABLE I - COUNTRIES

Country	No. Observers	Total Obs.	Country	No. Observers	Total Obs.
Argentina	2	149	Ireland	1	7
Australia	6	2246	Italy	5	736
Austria	4	2472	Japan	11	1591
Belgium	5	10649	Mexico	1	74
Brazil	1	195	Norway	1	29
Canada	19	19757	Rhodesia	1	191
Chile	2	295	Romania	1	424
Czechoslovakia	1	442	South Africa	12	1946
Denmark	8	323	Spain	1	70
England	6	1974	Sweden	1	373
France	2	910	Switzerland	1	127
German Dem. Rep.	3	1978	Uruguay	1	80
Greece	3	879	U.S.A.	249	104837
Hungary	14	3647	West Germany	16	20258
			TOTAL	378	176659

TABLE II - UNITED STATES

	No. Observers	Total Obs.		No. Observers	Total Obs.
Alabama (AL)	2	123	New Jersey (NJ)	10	3823
Alaska (AK)	1	7	New Mexico (NM)	5	3122
Arizona (AZ)	4	1672	New York (NY)	15	13971
Arkansas (AR)	2	2227	North Carolina (NC)	3	218
California (CA)	26	11113	North Dakota (ND)	2	588
Colorado (CO)	3	1998	Ohio (OH)	22	13235
Connecticut (CT)	17	3522	Oregon (OR)	2	628
Florida (FL)	6	897	Pennsylvania (PA)	8	2319
Georgia (GA)	4	413	Rhode Island (RI)	1	29
Illinois (IL)	9	1184	South Carolina (SC)	3	2300
Indiana (IN)	6	5684	Tennessee (TN)	4	87
Kansas (KS)	2	307	Texas (TX)	8	1425
Louisiana (LA)	2	3788	Utah (UT)	1	13
Maine (ME)	2	60	Vermont (VT)	1	7
Maryland (MD)	10	1093	Virgin Islands (VI)	1	23
Massachusetts (MA)	20	2893	Virginia (VA)	6	7170
Michigan (MI)	9	2488	Washington (WA)	2	789
Minnesota (MN)	3	127	West Virginia (WV)	2	2733
Missouri (MO)	8	2491	Wisconsin (WI)	14	10043
Nevada (NV)	1	205	TOTAL	249	104837
New Hampshire (NH)	2	20			

TABLE III - AAVSO OBSERVERS 1976-77

AD R.M. Adams, MA	1199-	183	DUR M.V. Duruy, France	871-	75
AH P. Ahnert, Gem.Dem.Rep.	78		ECK C. Eckert, W. Germany	44	
ALG G.S. Aldering, MI	81		EHR E. Ehrhart, CA	116	
AC C.E. Anderson, MN	12		ELL A. Elleringmann, W.Ger.	329	
AJR J.R. Andress, OH	46-	1	ELW S.J. Elwin, Australia	17	
ANN R.J. Annal, CA	5349-	1424	FRW W.B. Farrar, NM	9	
ANE E. Ansbro, Ireland	7		FEA A.M. Ference, PA	9	
ARI R.B. Ariaail, SC	964-	96	FEH F.C. Ferguson, MA	33	
BZI I. Balatinecz, Hungary	66		FER Y.A. Fernandez, Uruguay	80	
BM M. Baldwin, IN	5071		FJL J.L. Ferreria, CA	137	
BBN W. Barbin, PA	160-	8	FET T.I. Fetterman, NJ	268-	22
BSF S.F. Barnhart, OH	3		FIR R. Field, S. Africa	124	
BSR S. Baroni, Italy	11		FIJ J. Fisher, MA	1	
BAY J. Barsby, S. Africa	64		FD C.B. Ford, CT	1384-	423
BB R.S. Bates, MA	85		*SAS F. Fors, Denmark	9	
BAU J. Bauer, W. Germany	1041-	12	FT G. Fortier, Canada	67	
BBA B.B. Beaman, IL	112		FXB B. Fox, Canada	1	
BNJ J. Bennett, S. Africa	2		FR E.E. Friton, MO	174	
BIL G. Bilodeau, CA	83-	33	FUE R. Fuentes, Chile	137	
BKN A. Birkner, IL	95		GAE E. Gaertner, W.Germany	306	
BOH D. Böhme, Gem.Dem.Rep.	1340		GAL P. Gal, Hungary	19	
BOD D. Bohn, WI	418-	68	GAJ J.R. Garcia, Argentina	74	
BOI B. Bois, Canada	673		GAA P. Garey, MO	74	
BOB R. Bolster, MD	14		GAP P. Garnavich, MD	209	
BRJ J.E. Bortle, NY	2696-	553	GHO L.H. Ghio, Argentina	75	
BWD R.A. Breslow, CT	14		GCH R.S. Gilchrist, CT	121	
BTB T.C. Bretl, OH	247-	15	GLF F. Glenn, NY	349	
BNK N. Brown, W. Australia	5		GLW W. Glenn, NY	406	
BRT T. Brown, AZ	82		GLG G.W. Gliba, OH	18	
BRY J.T. Bryan, TX	259-	60	GFR R.F. Goff, TX	11	
BUL T. Butler, MO	190		GO K. Gomi, Japan	59	
CDE J. Calder, Canada	27		GOP P.N. Goodwin, LA	3389-	318
CWA W. Campney, Canada	2066-	7	GOR R.A. Gorkin, MN	15	
CJA J.A.S. Campos, S.Africa	177		GRC A.A. Granc, Australia	38	
CAN E.R. Canada, AL	94		GAS E.R. Grasshoff, TX	8	
CAH H. Carney, FL	19-	1	GRI J.W. Griesé, CT	213-	75
CE C.B. Carpenter, CA	38-	28	GA A.S. Grossman, CA	18	
CIT M. Cavagna, Italy	27		*SAS C. Grunnet, Denmark	40	
CNT D. Chantiles, NY	33		GUJ J. Gustafson, MA	1	
CHF R.H. Chase, ME	41		HK E.A. Halbach, WI	453-	41
CRK R.K. Childress, TN	17		HMR R. Ham, CO	1603-	3
CHO D.G. Chouinard, MA	3		HAN J. Hannon, CT	22	
CST G.J. Christensen, OR	403		HRR P. Harrington, CT	144	
CLL S.P. Clancy, NM	48 -	3	HAT P.M. Hartigan, MN	100	
CLK W. Clark, MO	195		HWC C. Hawkins, CA	1	
CEW E.W. Clement, FL	112		HWL W. Hawley, NH	1	
CLB R. Clyde, OH	69		HAY E.R. Hayden, CT	346-	125
COL P.L. Collins, MA	526-	9	HAB R. Hays, IL	17	
CPR I. Cooper, OH	6		HZL L. Hazel, NY	687-	160
COT N. Cort, MA	1		HY A.S. Heasley, OH	10	
CRN D. Cortner, TN	7		HEB M.L. Hebert, IL	6	
CSD D. Costanzo, VA	185		HEI J.L. Heintz, NH	19	
CR T.A. Cragg, Australia	1753-	359	HTZ M. Heitz, NJ	156	
CRA P. Cramb, S. Africa	14		HJN J. Hers, S. Africa	298	
CSO J. Csonka, IN	25		HES C. Hesselstine, WI	185	
CUN D. Cunningham, Canada	204		HEV Z. Hevesi, Hungary	164	
CML M. Cure, Chile	158		HEY B. Heyndrickx, Belgium	1905-	9
CRY J.D. Currie, OH	24		HE F.L. Hiett, VA	4724	
DLT J.E. Dalton, CT	22		HID D.H. Hill, MI	117	
DS J.M.L. da Silva, Brazil	195		HRI R.E. Hill, MI	738	
DV G. Davidson, KS	2		HIL R.L. Hill, NC	142	
DAJ J. Davis, MD	210		HBS R.S. Hill, MA	1	
DCS L. Deicsics, Hungary	79		HIR Y. Hirasawa, Japan	452	
DEA R. DeMartino, CT	93		HIK K. Hirose, Japan	334-	3
DEY J.A. DeYoung, WV	1487-	3	HLC C.H. Holton, ME	19	
DMN D. Dierick, Belgium	4300-	4	HOP U. Hopp, W. Germany	5083	
DRG R. Diethelm, Switz.	127-	7	HOU D. Hough, NJ	42	
DIX J. Dixon, AR	587		HOC C. Houghton, VT	7	
DCH C. Doerr, OH	103		HU W.S. Houston, CT	4	
DUF R.D. Dufur, WA	12		HDA D.M. Hudak, OH	53	

TABLE III - AAVSO OBSERVERS 1976-77

HUO D.J. Hughes, NV	205		MIM M. Mitchell, CT	27	
HR C.J. Hurlless, OH	3792-	587	MZS A. Mizser, Hungary	400	
ILS J.E. Isles, England	44		MCE E. Mochizuki, Japan	57	
ISH T. Ishihara, Japan	61		MOC C. Molnar, Hungary	244	
ITO M. Ito, Japan	186		MOL J. Molnar, VA	1366	
JCK A. Jackson, OH	6		MOR R.L. Monske, PA	978-	6
JRM M. Jacobs, CA	2		MJ A.C. Montague, MI	1452-	7
*SAS K.K. Jensen, Denmark	3		MAJ A.J. Morehouse, MI	18-	pg
JWR W.R. John, CA	24		MOJ J.E. Morgan, AZ	1516-	63
JOG G.E. Johnson, MD	268-	13	MRR C.S. Morris, MA	378-	25
JT R.B. Johnston, Canada	45		MRE E.H. Morris, AL	29-	19
JRV R.V. Jones, NC	23		MOW W.C. Morrison, Canada	2648	
JOC C. Jorgensen, Canada	1		MUC R. Mulac, OH	750	
KL L. Kalish, CA	85-	PEP	MUA R.A. Mulford, IL	82	
KAI I. Karaszi, Hungary	676		MUN C.R. Munford, England	153	
KLY G.W. Kelley, VA	836-	46	MYE K.J. Myers, IN	143	
KSZ S. Keszthelyi, Hungary	1323		NAM M. Naslund, Sweden	373	
KIR P.E. Kirby, OH	441		NEM C. Nemeth, Hungary	12	
KLK K. Klebert, W.Germany	617		NEW M.V. Newberry, MI	18	
*SAS O. Klinting, Denmark	10		*SAS V.G. Nielsen, Denmark	27	
KS J. Knowles, NY	80		NIK K. Nishimura, Japan	107	
KJM M. Kojiro, Japan	22		NBY J. Nordby, ND	578-	4
KHJ H.J. Koller, Canada	11		OF A. Oberstatter, France	39	
KMA M.A. Komorous, S.Africa	485		OBP P.S. O'Brien, AK	7	
KOP M. Kopinsky, S. Africa	29		OCN S.D. O'Connor, Canada	632	
KCY D. Korycansky, MD	261		*SAS J.Ø. Olesen, Denmark	141	
KOS A. Kosa-Kiss, Romania	424		OME S. O'Meara, MA	1250-	288
KRA R. Kratochwill, Austria	36		ONL R. O'Neill, MD	13	
KRD T.N. Kridlo, PA	37		OPG G.R. Opitz, NY	6	
KIS G. Krisch, W.Germany	1525		OV E.G. Oravec, NY	3753	
KRK K.L. Krisciunas, CA	128		OGJ G.J.C. Ortega, Spain	70	
KRO B. Krobusek, OH	2		OSA A. Ostermann, Austria	131	
KGK K. Krueger, WI	19		OB M.D. Overbeek, NY	622-	26
KRU J. Kruta, Czech.	442		PAR R.H. Patterson, NY	16	
KUH J.L. Kuhns, GA	346-	1	PN A.E. Pearlmutter, MA	306	
KUW T. Kuwabara, Japan	297		PTI N. Peattie, CA	2	
LAM D. Lam, Canada	93		*SAS E. Pedersen, Denmark	4	
LAR R. Lambert, TX	87		P L.C. Peltier, OH	1175-	227
LND H.J. Landis, GA	10-	PEP	PFF G. Pfeiffer, W.Germany	1949	
LGH H.A. Lange, Canada	269		PIK R. Pike, Canada	26	
LMP P. Lemay, Canada	2		PIN J. Pinkham, MA	86	
LRK R. Lentini, MA	23		PRJ R.J. Pivonka, CA	190	
LEV A.J. LeVeque, CA	42		POI E. Poretti, Italy	103	
LVY D.H. Levy, Canada	2366-	3	POK A.K. Porter, England	985-	66
LWC C.W. Lewis, NJ	25		POX M. Poxon, England	513	
LNB G.C. Lindbloom, PA	931		PFJ F.J. Price, NY	27	
LGJ J. Long, MA	16-	3	PRI L.H. Price, SC	682	
LOT H. Louth, WA	777-	PEP	PRG G. Prosser, S.Africa	73	
LX W.M. Lowder, NY	3377		PWH W. Pruitt, VA	52	
LUD R. Ludatschka, W.Germany	54		QES T. Quesinberry, OH	1	
LKS R. Lukas, W. Germany	861-	4	QN C.D. Quinnert, CA	132	
LYR R.F. Lynch, RI	29		RNT C.C. Reinhart, OH	3	
MAA R.C. Maag, MO	52-	3	RNN T. Renner, WI	144-	PEP
MBN A. MacRobert, MA	53		RQ C.L. Ricker, MI	57	
MDD P. Madden, LA	399-	336	RIR R. Rieth, W.Germany	1706	
MCO M. Marcario, CA	2		RIP M. Rippel, NM	20	
MAF G.R. Marshall, S.Africa	54		ROB M. Robertson, IL	6	
MRX H. Marx, W. Germany	1693		ROR D.A. Rodger, Canada	6	
MTM M. Mattei, MA	34-	3	RSS S.T. Roess, IN	69	
MTZ O. Matzek, Austria	120		RB D.W. Rosebrugh, FL	513	
MYR E.H. Mayer, OH	4905-	1947	RR R.E. Royer, CA	34	
MGE G. Mayrofridis, Greece	510		RPH H. Rumball-Petre, CA	42	
MGP P.J. McGuire, CA	7		RML F. Rümmler, Ger.Dem.Rep.	560	
MED K.J. Medway, England	161		RUO D. Ruokonen, WI	1223-	10
MEF J. Menefee, OH	1		SJD J.D. Sabia, PA	90	
MEN P.T. Menoher, CT	49		SAB K.M. Sabine, CA	2062-	3
MHL E.J. Michaels, TX	117		SAI T. Saitoh, Japan	7	
*SAS Ø. Midtskogen, Denmark	89		SKJ J. Saksek, AZ	61	
MLL J. Miller, MD	2		SAH G. Samolyk, WI	4836-	11
MNW W. Mintel, NJ	1		SNL J.G. Sandel, SC	654	

TABLE III - AAVSO OBSERVERS 1976-77

SJY J. Santa, MI	4		SZG B. Szegedi, Hungary	108	
SRN T.M. Sarna, IL	475-	6	SZC B. Szentmartoni, Hungary	266	
SCC J.D. Scarl, NJ	9		TB D. Taboada, Mexico	74	
SCK B. Schaefer, CO	42		TNV V. Tangney, WI	8	
SFC C. Schaffer, UT	13		TLA M.D. Taylor, England	118	
SMJ J.F. Scholl, NY	2146		THM J.V. Thomas, TN	1	
SCE C.E. Scovill, CT	969-	381 pg	TME M.E. Thompson, CO	353	
SEK K.G. Sears, NJ	21-PEP		TIM I.M. Torreira, CT	21	
SEG G. Sercombe, FL	42		TFN F.N. Traynor, Australia	92	
SDA D. Sharpe, FL	192-PEP		TRR D. Trommer, W.Germany	895	
SHS S.B. Sharpe, Canada	4285-	92	TUB V. Tuboly, Hungary	25	
SWY T.L. Shaw, WI	1		TUK R. Tucker, TN	62-PEP	
SHB C. Sherrod, AR	1640-	15	TUC C. Turk, S. Africa	4	
SOA O. Shigehisa, Japan	9		TYS R.L. Tyson, NY	290	
SRC R. Shinkfield, Australia	341		UND E. Underhay, CA	218-	1
SKL K. Simmons, FL	19		VAQ V. Vacquier, CA	97-	2 pg
SIN R. Sinnott, MA	4		VAD S. Vadasz, Hungary	190	
SKD D. Skillman, MD	13-PEP		VNL F.R. Van Loo, Belgium	998-	1
SKN C.R. Skinner, NJ	287		VMT T. Vanmunster, Belgium	556	
SMN A. Smith, NY	72-	4	VIN J.V. Vincent, Rhodesia	191-	1
SHA H.A. Smith, CT	34		VIR P. Virag, Hungary	75	
SJ J.R. Smith, TX	414-	73	VLJ J. Volhard, WI	529-	4
SLD L.D. Smith, NM	12		VOL W. Vollmann, Austria	2185-	28
STL M.B. Smith, NM	3033		WTH T.H.N. Wales, MA	85	
SOU R.C. Southwick, WA	225		WLL H.J. Walls, TX	149	
SH H. Specht, CT	20 pg		WRN R. Warden, PA	88-	3
SPC C.S. Spell, GA	54		WNR R.G. Warren, IN	3	
SLF L.F. Spieth, CA	76		WRG R.G. Watson, IN	375-	4
SPO J. Spongsveen, Norway	29		WBB W.V. Webb, OH	826	
SC C. Spratt, Canada	6335-	102	WER R.J. Weber, KS	305-	7
SPI P.A. Stahl, V.I.	23		WED G. Wedemayer, WI	1254-	4
SJR T.D. Stanley, GA	3		WEI D.D. Weier, WI	505-	68
STR R.H. Stanton, CA	81-	64	WEF F. West, CT	39	
STI P.C. Steffey, CA	2122		WTC J. Wetsch, ND	10	
SHY H.M. Steinbach, W. Ger.	504		WIJ D.J. Williams, NC	53	
SZH H.J. Stelzer, IL	60		WLM T.R. Williams, TX	380-	3
SET C. Stephan, OH	754-	1	WLP P. Wils, Belgium	2890-	3
STF G. Stephanopoulos, Greece	50		WJA J.A. Wilson, MO	606	
SWT R.J. Stewart, NJ	19		WLN K.D. Wilson, NY	33	
STQ N. Stoicidis, Greece	319		WSN T.W. Wilson, WV	1246-	61
STG G. Stone, MA	6		WNB B. Wingate, NJ	2995-	4
SRI R. Stovall, MO	1		WWR W. Winkler, MD	5	
SYR R. Strazdas, MA	1		WBS R.L. Wobus, WI	212	
SMU M. Stucker, CA	25		WFJ F. Wright, AZ	13	
SUN M. Sulkanen, MI	3		WRI I.B. Wright, VA	7	
SUL C.E. Sullivan, MD	98-	2	YON R.R. Young, PA	26	
SUR U. Surawski, W. Germany	3640		ZAN N. Zaccaria, Italy	112	
SUS D. Sussmann, W. Germany	11		ZAF J. Zaffi, Italy	483	
SVN P. Sventek, IL	331		ZT R. Zit, WI	256-	31

*SAS - Scandinavian Astronomisk Selskab

LIST OF SPECIAL REQUESTS
DURING FISCAL YEAR 1976-77

- 1977JAVSO....6
- Ake, T., Case Western Reserve U. AAVSO light curves on 27 long period and semiregular variables for brightness and phase determination for spectroscopic data.
- Alksnis, A. K., Riga Astrophysical Obs., USSR. AAVSO light curves from 1963 to 1976 on 18 Mira type carbon stars for correlation with spectroscopic observations.
- Arnold, C., U. of Michigan. AAVSO light curves of RS Oph from 1967 to present for correlation with spectroscopic data for Ph.D. thesis.
- Baird, S., U. of Washington. AAVSO light curves of AC Her from 1973 to 1975 for spectroscopic correlation in Ph.D. thesis.
- Bechis, K., U. of Massachusetts. AAVSO light curves of 12 long period, semiregular, and irregular variables for correlation with radio observations.
- Bopp, B., U. of Toledo. AAVSO light curves of symbiotic stars - Z And, AG Peg, AG Dra for correlation with spectroscopic data.
- Brecher, K., Morrison, P., Sadun, A., Mass. Inst. of Tech. AAVSO light curves and data on SS Cyg from 1974 to 1976 for correlation of behavior in x-ray bursters and dwarf novae.
- Cahn, J., U. of Illinois. AAVSO light curves of 14 long period variables for phase determination of data for paper to go into Astrophysical Journal.
- Chaknis, M., High School. Sunspot data for science project.
- Chen, P., Case Western Reserve U. AAVSO light curve of RT Cygni to correlate with polarization observations.
- Cinerman, M., Cal. Inst. of Tech. AAVSO light curves of W Hya, U Ori, R Aql, and VY CMa for correlation with radio observations.
- Cordova, F., Cal. Inst. of Tech. AAVSO charts and data on SV Sge, UV Cas, DZ And, and V348 Sgr to be used with photometric and spectroscopic observations.
- Cox, G., U. of Kent, England. AAVSO light curves of S Per, VY CMa, R LMi, W Hya, RX Boo, RS Vir, S CrB, U Her, VX Sgr and R Aql for correlation with radio observations.
- Crabtree, F., U. of Toronto, Canada. Up to date information on the present minimum of R CrB.
- Dacchs, J., Bochum U. of W. Germany. AAVSO light curves of α Ori and μ Cep from 1976 to present.
- Dickinson, D., Center for Astrophysics, Harvard U. Phase determination of Y Cas, R Aur, Z Pup, RR Sco, RT Aql, and UX Cyg for radio observations.
- Eccles, M., U. of Victoria, Canada. AAVSO light curves of ρ Cas for the investigation of its possibility of being a binary system.
- Gilra, D. P., U. of Groningen, Netherlands. AAVSO light curve of \circ Cet for correlation with UV data.
- Grudzinska, S., N. Copernicus U., Poland. AAVSO light curve of \circ Cet from 1963 to present.
- Kiplinger, A., U. of Texas. AAVSO light curves of SS Cyg and Z Cam for research project.
- Landolt, A., Louisiana State U. Brightness of SU Tau for correlation with photoelectric data.
- Lepine, J. D., CNPQ, Brazil. AAVSO light curves of W Hya to compare phase and amplitude of optical and radio variations.
- Margon, B., U. of California. AAVSO data on SS Cyg, AE Aqr, Z Cha and VW Hyi for scientific paper on Apollo Soyuz experiment.
- MacAlister, H., Kitt Peak Obs. Brightness of α Ori on 4 Dec. 1964, to correlate with a photographic brightening.
- Mason, K. O., U. College, England. Photoelectric data provided by H. Landis, and AAVSO light curve of X Per to correlate with x-ray observations.

- Middleditch, J., U. of California. Up to date data on the behavior of UX Uma, SY Cnc, Z Cam, and AH Her to be used in the observing run for high resolution spectroscopy.
- Millman, P., Hertzberg Inst. of Astrophysics, Canada. Brightness of UU Aur on January 1976 for calibration of meteor spectrograms.
- Morris, S., St. Mary's U., Canada. AAVSO light curves and charts of δ Cep, μ Cep, RX Lep, and W Ori, for correlation with photographic photometry data.
- Mumford, G., Tufts U. AAVSO light curves of CN Ori.
- Ney, E.P., U. of Minnesota. AAVSO light curves of NQ Vul for correlating with infrared data. Request made through J. Bortle.
- Olthoff, J.A., U. of Illinois. AAVSO data on R CrB to be used in research project.
- Pasachoff, J., Williams College. AAVSO light curves on V1500 Cyg.
- Patterson, J., U. of Texas. AAVSO light curves of KT Per, Z Cam, SY Cnc, AH Her, SS Cyg, RX And, CN Ori, EM Cyg, and VZ Aqr.
- Russell, R., U. of California. Projected magnitudes of Y CVn, SS Vir, RX Boo, R And, and R Aqr for satellite tracking.
- _____. Projected magnitudes of R Aql and V CrB.
- Sanner, F., Kitt Peak Obs. Observed data and brightness of maximum of χ Cyg in July 1976 for correlation with spectroscopic data.
- Shaw, S., U. of Kansas. Optical behavior of o Cet in July and August 1975 for correlation with UV satellite observations.
- Smith, L., Grumman Aerospace Corporation. Projected brightness of R Leo, R Hya, o Cet, and S CrB during scheduled jet flight observations.
- _____. Light curves of R Leo, R Hya, o Cet, and S CrB for correlation with infrared data.
- _____. Projected magnitudes of U Ori, R Leo, S CrB, R Aql, V Cyg, o Cet, U Her, and VX Sgr during another scheduled jet flight observations.
- Strecker, D. W., N.A.S.A. AAVSO light curves of R Cas, and R Leo.
- Szkody, P., U. of Washington. AAVSO light curves of RX And, TZ Per, V616 Mon, Z Cam, AB Dra, CI Cyg, V1500 Cyg, BF Cyg, CH Cyg, P Cyg, AE Aqr, AG Peg, EZ Peg, and Z And for determination of phases to correlate with infrared observations.
- _____. Further, recent data on CI Cyg, V Sge, SS Cyg, AE Aql, RX And, AH Her, and UX Uma for the determination of phases to correlate infrared and polarimetric observations.
- Timm, K. P., B.A.V., W. Germany. AAVSO light curve of R Aql to determine period shortening.
- Warner, B., U. of Capetown, South Africa. AAVSO light curves of AY Lyr, and SU UMa to determine frequencies and rise and fall times of outbursts.
- Webbink, R., U. of Illinois. All of AAVSO light curves and listings of observations of T CrB.
- White, J. D., Aerospace Corporation. Bulletins 40 and 40 A+B and AAVSO light curves of o Cet, S Per, U Ori, VY CMa, R Leo, W Hya, RX Boo, U Her, VX Sgr, R Aql, R Cyg, and R Cas for determination of phases to correlate radio observations.
- Willson, L. A., Iowa State U. AAVSO light curves of 23 long period variables for brightness and phase determination to correlate spectroscopic observations.
- Wolf, B., U. of Heidelberg, W. Germany. AAVSO light curve of NQ Vul to correlate with spectroscopic data.
- Wyckoff, S., Royal Greenwich Observatory, England. Assessment and AAVSO light curves of R Cyg during its recent light cycle to be used for correlation with spectroscopic observations.