

**ANNUAL REPORT OF THE DIRECTOR
FOR FISCAL YEAR 1983-1984**

It is my privilege to present to you my eleventh annual report, for the fiscal year 1983-1984. I will cover the various areas of our operations.

DATA MANAGEMENT

I am delighted to report to you a milestone in our observational record. The 5,000,000th observation added to the AAVSO data files was made by Paul Vedrenne, France, who observed BF Cygni and reported his observations in October, 1983.

1. Current Data Processing: We continue to be up to date with the computerization and processing of current incoming observations, using the microcomputer systems at Headquarters and the Digital VAX computers at the Harvard-Smithsonian Center For Astrophysics.

We have also computerized, processed, and included in our data files all observations received from groups of variable star observers worldwide such as the French and the Dutch.

2. Computerization of Archival Data Published From 1911 to 1963: This project is crucial for the security, preservation, accessibility, and scientific investigation of these data. The computerization of the data is continuing at a slow rate, due to lack of funds and therefore a limited staff. We are currently computerizing observations of observers whose last name begins with "C." This is about 20% of the 2,000,000 observations to be computerized.

3. Publication of data: I regret to report that because of lack of funds, very high printing costs, and the demand for data covering more than 3 years, the publication of Reports 39, 40, and 41 has been halted. Instead, we have decided to publish 20-year light curves (from 1963 to 1984), in the form of monographs, one star per monograph. The printing of each monograph will be cheaper, and the 20-year data will provide sufficient information for analysis of the longterm behavior of each star. I am happy to report that the International Astronomical Union has strongly endorsed this project and has granted the AAVSO some funding for publication of the monographs.

4. Maxima and Minima of Long Period Variables from 1950 to 1975: The compilation of data for this project has been completed, and this colossal work will be published once the compiled data have been given a final check.

SPECIAL REQUESTS

Requests for AAVSO data from the astronomical community and others continue to increase. This is a testimony in itself to the importance and the value of our data in variable star research.

This year we have supplied data for a record high number of 162 requests from astronomers and students throughout the United States and abroad. A list of the names of individuals making the requests, with their affiliation and location, is given in Table IV at the end of my report. Figure 1 is a graph of the number of special requests filled each year since 1974.

The list below and also Figure 2 show the types of variable stars for which data were requested.

1. Cataclysmic variables - dwarf novae (38%), novae, recurrent novae, and novalike (12%)
2. Long period variables (18%)
3. Semiregular variables (11%)
4. Symbiotic - Z And type (6%)
5. Cepheids, quasars, and BL Lacertae stars (3%)
6. The Sun (3%)
7. R Coronae Borealis stars (2%)
8. RV Tauri stars (2%)
9. Eclipsing binaries (2%)
10. Irregular variables (2%)
11. Nebular variables (1%)

Categorized below and shown in Figure 3 are the areas in which AAVSO data and services have been used.

1. Data correlation (30%): AAVSO data have been used to correlate photometric and spectroscopic data in the radio, optical, ultraviolet, and x-ray wavelengths obtained with ground-based large telescopes at Kitt Peak, Lick, and McDonald Observatories, the Very Large Array radio telescope, and instruments aboard satellites, such as the European X-Ray Observatory (EXOSAT), International Ultraviolet Explorer (IUE), Voyager, and Infrared Astronomical Satellite (IRAS).

2. Scheduling observing runs and simultaneous monitoring of observing targets (33%): In order to provide this service to the astronomical community, we first ascertain from the astronomers the goal of the observing run and how we can best assist. Next, we study the recent behavior of the target stars and give information on their current behavior to the astronomers involved. We then alert our observers to obtain simultaneous optical coverage during the observing run, and finally, while the observing run is progress, we transmit to the astronomers the information our observers provide daily on the target stars. Needless to say, providing this service requires a great deal of time on our part and depends upon our observers' dedicated participation and their timely information. The AAVSO's contributions to observing runs have been of tremendous scientific value and are greatly appreciated by the many astronomers using this service.

This year we have helped schedule 36 observing runs, mostly with IUE and EXOSAT satellites. We have provided simultaneous data for an additional 20 observing runs mostly with IUE, EXOSAT, and Voyager, and the Very Large Array Telescope.

This unique service of the AAVSO is highly recognized, acknowledged, and increasingly sought after each year. Here I have the pleasure of sharing with you excerpts from letters from astronomers testifying to the service that the AAVSO provides.

Dr. Michael Bode, University of Manchester, England, wrote:

"The AAVSO is invaluable to the whole astronomical community. It provides a service unequalled by any other group in the world, and complements the work of the professional astronomer who is limited to sites available and relatively short telescope allocations.... The AAVSO has several times recently provided me with data on the visual behavior of variable stars being observed at other wavelengths by satellite or ground-based facilities.... In one classic case recently we obtained precise simultaneous observations of the dwarf nova SU UMA

with EXOSAT, IUE, and IRAS. Although several large ground-based observatories were prepared to make optical observations they were all 'clouded out.' The only point in this part of the spectrum was obtained by an AAVSO member.... This is only one example of the many occasions that the AAVSO has provided invaluable assistance."

Drs. France Cordova and John Middleditch, Los Alamos National Laboratory, and Keith Mason, Mullard Space Science Laboratory, England, wrote:

"In the past five years the Space Astronomy and Astrophysics Group at Los Alamos, together with the Mullard Space Science Laboratory, University of London, have formed many fruitful collaborations with the AAVSO, resulting in the publication of 23 scientific papers. The AAVSO data were used to augment high energy x-ray and ultraviolet satellite data and were essential to the conclusions drawn in these papers."

Drs. Cordova, Middleditch, and Mason then enumerated a few of the astrophysics research projects that they have collaborated on with the AAVSO and described how the AAVSO helped them in their investigations using HEAO-1, HEAO-2, IUE, and EXOSAT satellites. These are summarized below:

1. The AAVSO helped in the first detection of x-ray emission from a few members of each cataclysmic variable subclass using HEAO-1.
2. The AAVSO helped in the first detection of soft x-ray pulsation from astrophysical sources, such as dwarf novae.
3. The AAVSO helped in obtaining the first multicolor spectra of dwarf novae.
4. The AAVSO helped in the discovery that the UV outburst is delayed with respect to the optical, using the IUE satellite.
5. The AAVSO monitoring of over 70 cataclysmic variables during HEAO-2 observing runs helped to discover that 70% of these stars give off x-ray emission. This information was vital in testing theories for the high energy emission in these compact systems.
6. The AAVSO continues to provide assistance to this group which is continuing to observe with EXOSAT - the only satellite presently operating in the soft x-ray regime.

"...The AAVSO light curves of outbursts used together with x-ray, EUV, and UV data will shed light on the nature and origin of the outbursts."

Dr. Jim Pringle, University of Cambridge, England, wrote:

"Since 1979...we have attempted to observe dwarf novae simultaneously at optical wavelengths using ground-based observatories and ultraviolet wavelengths using the IUE satellite. The success we have had could not have been achieved without the helpful and sustained cooperation of AAVSO."

Dr. Alan Kiplinger, NASA Goddard Space Flight Center, wrote:

"...The AAVSO directed the 100 meter dish [of the radio telescope] in West Germany to SU UMa in outburst [for us to obtain] the only radio detection of a dwarf nova thus far. You also directed my VLA observations whose analysis is in progress.... I would never

have observed YZ Cnc in outburst with the IUE if it had not been for your records and keen perception that the system was in a rare superoutburst while I was on the telescope. For all of the above I am deeply appreciative."

Dr. Paula Szkody, University of Washington, wrote:

"I have found the AAVSO is extremely important in the planning and execution of observations at large telescopes and with satellites at x-ray and UV wavelengths. The IUE satellite typically takes one hour to set up on a new object.... I cannot afford satellite time to move to an object at wrong outburst state.... This is prevented by notification from AAVSO network."

Dr. Geoffrey Bath, University of Oxford, England, wrote:

"...AAVSO has played a major role in helping professional astronomers to push back the frontiers and gain understanding of accretion disk physics, stellar stability, and a whole range of time-varying processes in the stars."

During the SS Cygni campaign this summer, when the onset of outbursts was being closely observed in the ultraviolet with IUE and in the far ultraviolet with Voyager, the immediate notification by AAVSO observers of the start of the outbursts made it possible for astronomers at the University of Arizona and NASA Goddard Space Flight Center to obtain the earliest and one of the best UV spectra of an outburst. This time again there was a lag in the start of ultraviolet outburst. Dr. Ronald Polidan, the principal investigator for this project, extends his appreciation and thanks to AAVSO observers for this major contribution to astronomy.

3. Data Analysis (13%): AAVSO data have been used to analyze the longterm behavior of semiregular and long period variables, dwarf novae, and the sun. Dr. John Percy, University of Toronto, who used AAVSO data to analyze the behavior of rho Cas, wrote:

"I recently became interested in the behavior of rho Cas, one of the most luminous stars known. It appears to undergo both continuous and episodic mass loss which is important in the context of the star's evolution and also the chemical evolution of our galaxy. The star also shows small longterm brightness variations which may be connected with the mechanism which produces the mass loss. To study these brightness variations it would be desirable to have continuous photoelectric photometry over many decades. Such photometry does not exist. Visual observations, however, have been obtained almost continuously for many decades primarily by AAVSO. I have determined that these visual observations are sufficiently numerous and accurate so that they can be grouped into 30-day means whose formal standard errors are only 0.03 magnitudes - almost as accurate as photoelectric photometry. I have thereby used these 30-day means to study the behavior of the star from 1963 to the present. The results were presented at the IAU Colloquium 82 on Cepheid variables. The use of visual observations in this way opens up a number of possible studies of longterm behavior of moderate amplitude variable stars."

4. Reference material (15%): We have provided both general and specific information on the AAVSO and variable stars for articles to be published in magazines such as *Astronomy*, *Deep Sky*, *Sky & Telescope*, and *Science Digest*, in newspapers such as the *Boston Globe*, to be used as reference material for radio programs such as *Star Date* and for scientific books. We also provided reference material for basic variable star research. We had 26 such requests last year.

5. Science projects (4%): We provided information and assisted students involved with classroom and/or science fair projects on variable stars.

6. Setting up special observing programs (5%): We have provided information and assistance to schools and to individuals to set up special observing programs on eclipsing binaries, photoelectric photometry, and the sun.

The AAVSO contributions to variable star research continue to be acknowledged in astronomical literature such as the *Astrophysical Journal* and the *Publications of the Astronomical Society of the Pacific*.

Data from AAVSO observers on the unusual behavior of stars and the discovery of novae continue to be published in the *IAU Circulars*.

In summary, observations submitted by you to the AAVSO play an important and vital role in variable star research.

SUMMARY OF OBSERVATIONS

Our observers' dedication, energy, and enthusiasm continue to amaze us. Regardless of bad weather conditions, light pollution, and busy schedules you keep on observing and reporting record numbers of observations to Headquarters each year.

Figure 4 is a graph of the number of observers and observations for each year since 1974. As this figure indicates, we have reached a record high in the number of observations received. When we initially prepared this graph a year ago, we put the boundary of the graph at 200,000 per year, thinking this would be sufficient for at least a few years - you can see that it is not!

During the fiscal year 1983-1984, we received 214,468 observations from 454 observers. These totals include 99,222 observations from 251 observers in 42 states of the United States and 115,246 observations from 203 observers in 29 countries, including 30,410 observations from the French variable star observers of AFOEV, 15,128 observations from the Hungarian variable star observers, and 13,970 observations from observers in South Africa. These totals also include the 74 adjusted observations of Orion variables, where ten observations are counted as one.

The grand total of observations recorded since the founding of the AAVSO in 1911 is 5,198,449.

Table I lists the number of observers and the total observational contributions from each country for this year. Table II gives the same information for each state in the USA. Table III is an alphabetical list of observers giving each person's observing initials, name, location, annual total of observations, and total of inner sanctum observations (magnitude 13.8 or fainter, and/or "fainter than" 14.0 or fainter).

24 observers reported between 1000 and 2000 observations, 11 between 2000 and 3000, 6 between 3000 and 4000, 3 between 4000 and 5000, and 3 between 5000 and 6000. Edward Halbach sent in 6889 observations, Csaba Mezosi 7095, Michel Verdenet 7774, and Danie Overbeek 11,622.

Michel Verdenet sent in the highest number of inner sanctum

observations with 4214, followed by Ernst Mayer with 1615, and Glen Chaple with 1442.

William Barksdale, Ales Dolzan, Paul Kneipp, Arthur Koster, Howard Landis, and Robert Reisenweber sent in photoelectric photometry observations of AAVSO program stars, and Richard Stanton continued to provide photoelectric estimates for comparison stars in several variable star fields.

Walter Feibelman submitted observations of stars in our observing program obtained with the IUE satellite.

My sincere thanks to each of our untiring, dedicated, and enthusiastic observers for their valuable astronomical contributions. Let me say again, each observer's observations, whether one or hundreds, are very much valued and appreciated.

INTERNATIONAL COOPERATION

Our cooperation continues with variable star observer groups worldwide.

Members of the following variable star associations sent in observations to the AAVSO either individually or as a group for inclusion in our data files for processing and publication: Association Française des Observateurs d'Étoiles Variables (France); Astronomical Society of Southern Africa, Variable Star Section; Astronomischer Jugendclub (Austria); Berliner Arbeitsgemeinschaft für Veränderliche Sterne (West Germany); British Astronomical Association, Variable Star Section (England); British Astronomical Association of New South Wales (Australia); Japan Astronomical Study Association; Nederlandse Vereniging Voor Weer-en Sterrenkunde, Werkgroep Veränderlijke Sterren (Netherlands); Norsk Astronomisk Selskap, Variable Stjernegrupper (Norway); Planetario e Observatorio Astronomico do Colegio Estadual do Parana (Brazil); Pleione Vátozócsillag-észlelő Hálózat (Hungary); Royal Astronomical Society of Canada; Scandinavian Astronomisk Selskap; Uniao Brasileira de Astronomia, Variable Star Commission (Brazil); Vereniging Voor Sterrenkunde, Werkgroep Veränderlijke Sterren (Belgium).

Dr. Frank Bateson generously continues to send observations from members of the Variable Star Section of the Royal Astronomical Society of New Zealand for us to use in preparing the annual predictions of maxima and minima of long period variables published in the **AAVSO Bulletin**. Dr. Bateson, as well Mr. Douglas Saw, British Astronomical Association, Variable Star Section, and Mr. Aare Kellomaki, Scandinavian Variable Star Observers, disseminate our predicted dates of maxima and minima to their observers.

We continue to exchange literature with observatories, universities, and other astronomical groups around the world.

This past summer while in London, my husband Mike and I had the opportunity to meet John Isles, the former Director and still very active member of the Variable Star Section of the British Astronomical Association. We had very fruitful discussions on how to strengthen collaboration between the two associations and on the possibility of the AAVSO becoming the variable star data center for the world.

MEETINGS ATTENDED AND TALKS GIVEN ON THE AAVSO

In February I was able to attend the 8th North American Workshop

on Cataclysmic Variables held at Louisiana State University, Baton Rouge, Louisiana, through a consultation grant from Dr. Paula Szkody, University of Washington. The 3-day Workshop covered topics on the origin and evolution of cataclysmic variables, dwarf nova outbursts, accretion disks and boundary layers of the white dwarf component, classical novae, magnetic cataclysmic variables, and the recent results from EXOSAT. At this meeting Dr. Szkody, one of her students, and I presented a poster paper on optical and spectroscopic results of the recent small outburst of the old nova, GK Persei. Throughout the meeting the contributions of the AAVSO to cataclysmic variable research were brought up through many of the acknowledgements from speakers who used our data. As a gesture of appreciation, the next Workshop is scheduled for Seattle, Washington, following the AAVSO Spring Meeting to be held there in June, 1985. This will give our members the opportunity to stay and participate in the Workshop, as well as giving astronomers the chance to come to Seattle earlier to attend our meeting.

In June, I attended the 164th Meeting of the American Astronomical Society held in Baltimore, Maryland. At this meeting I presented a poster paper on the AAVSO and its services. This gave me an opportunity to meet astronomers who were not aware of our various activities. Since the meeting several astronomers have applied for AAVSO membership. One of the highlights of this meeting was a visit to the Space Telescope Science Institute in Baltimore and discussion on the Space Telescope which will be launched in 1986. The AAVSO has been asked to participate actively in the Space Telescope projects as we have done with several other satellites, particularly HEAO-2.

I always enjoy giving talks on the AAVSO to inform astronomy enthusiasts about our activities and to attract new members to our Association. This year I gave talks on the AAVSO and variable stars at:

1. St. Paul's School, Concord, New Hampshire.
2. The University of Toronto, Toronto, Canada.
3. A meeting of the Royal Astronomical Society, Toronto, Canada.
4. The Milford High School, Milford, Connecticut.

NEW MEMBERSHIP AND INFORMATION ON THE AAVSO

We have elected 112 new members this year. 108 joined as annual and 4 as sustaining members.

We received 405 requests for information about the AAVSO. Requests came from individuals, schools, colleges, universities, writers, and journalists. My sincere thanks to our members who have given talks or have written about the AAVSO. This publicity has helped to draw new members to the Association.

PUBLICATIONS

The following were published during the fiscal year:

The Journal of the AAVSO, Volume 12, No. 2; Volume 13, No. 1, edited by Charles A. Whitney, prepared by Elizabeth O. Waagen and Janet C. MacLennan.

AAVSO Bulletin 47 - Predicted Dates of Maxima and Minima of Long Period Variables for 1984, prepared by Janet A. Mattei.

AAVSO Bulletin 47 Supplement - Schematic representation of the data in Bulletin 47, compiled by Peter O. Taylor and Josefa M. Manella.

AAVSO Circular, Numbers 156 to 168, edited and published by John E. Bortle and Charles E. Scovil.

AAVSO Alert Notices, Numbers 59 to 68, prepared by Janet A. Mattei.

Ephemerides of Eclipsing Binary and RR Lyrae Stars for 1984, prepared by Peter O. Taylor, Josefa M. Manella, and Marvin E. Baldwin.

AAVSO Photoelectric Photometry Newsletter, Volume 4, Numbers 2, 3, 4, and Volume 5, Number 1, edited by John R. Percy.

AAVSO Solar Bulletin, Volume 39, Numbers 10 - 12 and Volume 40, Numbers 1 - 8, edited by Peter O. Taylor with assistance from Bruce I. Wingate.

The predicted maxima dates of bright long period variables for 1984, an ephemeris of a few easy-to-observe stars, and a short article on V Bootis were published by Janet A. Mattei in the *Observers's Handbook* of the Royal Astronomical Society of Canada.

Monthly predictions of maxima and minima dates of bright long period variables were published by Janet A. Mattei in *Sky & Telescope* magazine.

The contributions of the following members toward AAVSO publications is acknowledged with thanks:

Marvin E. Baldwin, John E. Bortle, Janet C. MacLennan, Josefa M. Manella, John R. Percy, Charles E. Scovil, Peter O. Taylor, Elizabeth O. Waagen, Charles A. Whitney, and Bruce I. Wingate.

PERSONNEL AT HEADQUARTERS

As your Director, I am very fortunate to have the high quality staff at Headquarters. We work as a team and do the best we can to get the work done efficiently. The staff at Headquarters consists of five full-time (including myself) and three part-time employees. My sincere thanks to my technical assistant Elizabeth O. Waagen, our administrative assistant and correspondence secretary Janet C. MacLennan, our general secretary Dorothy Haviland, our computer programmer (hired through the Margaret Mayall Assistanship) Charles M. Jones, our data entry operators Barbara Silva and Bethune Kelly, our general assistant Margarita Tapia Vargas, and our volunteer assistant Katherine Hazen.

ACKNOWLEDGEMENTS

Our special thanks to the Harvard-Smithsonian Center For Astrophysics (CFA) for the financial support in the form of a computer time grant. We thank Professor Owen Gingerich for making this grant possible, and Barbara Welther for her suggestions and help with computer time funding. We also extend our thanks to the Director of the CFA, Professor Irwin I. Shapiro, for his support of AAVSO's use of

the CFA's computer, and to Dr. James Conklin, Director of CFA Computation Facility, and his staff for their assistance with our computer needs.

We thank the National Oceanic and Atmospheric Administration (NOAA) for their financial support of the activities of our Solar Division.

Our special thanks to the International Astronomical Union (IAU) for partially funding the publication of our longterm data on cataclysmic variables. This is the first time that the AAVSO has received a grant from the IAU, the most prestigious group representing the worldwide professional astronomical community. In the letter announcing this grant, Dr. Richard West, the General Secretary of the IAU, wrote:

"The Executive Committee [of the IAU] is convinced that this is a most timely and useful project and hopes the IAU contribution towards the expenses will encourage others to support your undertaking."

We thank the Stamford Museum and Nature Center for making available to Charles E. Scovil the facilities of Stamford Observatory for the preparation of new AAVSO charts and the ~~AAVSO Circular~~, and for allowing Charles Scovil and John Griese the use of the 22" telescope for variable star observations and special observing programs.

We thank the University of Toronto for the financial support of the preparation and mailing of the ~~AAVSO Photoelectric Photometry Newsletter~~ by John Percy.

We fondly remember our members Cy and Emily Fernald and acknowledge the continued financial support through the trust fund bequeathed to the AAVSO.

We most gratefully acknowledge the continued financial support of Dr. Clinton B. Ford in computerizing the archival data, and in preparing the data for our new Monograph series.

We sincerely thank our members Keith Danskin, Jim Ellerbe, Dorrit Hoffleit, Carolyn Hurless, and Thomas Williams for their contributions toward the publication of our data on cataclysmic variables; Margaret and Newton Mayall for their contribution to the M. W. Mayall Assistantship, and two Friends of the Association for their contributions.

Our special thanks to Mrs. Katherine Hazen for volunteering her time to help our Headquarters operation.

Our sincere thanks to our member Keith Danskin for his help (whenever he has time between his flights) with our Headquarters activities.

Our sincere thanks to members who have taken Sustaining membership, thus increasing their financial support of the Association, and to members who have made financial contributions to the Margaret W. Mayall Assistantship, the General Fund, and/or the Endowment Fund.

My personal thanks to my husband for his support and good ideas.

My special thanks to our Committee Chairmen, Officers, and

Council members for their contributions of time and wisdom in the operation of the Association.

I would like to conclude my Annual Report with a collage of statements from the letters of astronomers around the world who have used AAVSO data:

"AAVSO observers are amateur astronomers but only in the sense that they are not paid for their astronomical work. Most of them are highly skilled professionals in other fields."

"Members of the AAVSO make discoveries and provide top quality data that cannot be obtained by professional astronomers."

"The AAVSO data base is one of the most important being kept in astronomy today."

"I believe I speak for many professionals around the world who are indebted to the AAVSO for its dedication to variable star observing."

Janet Akyüz Mattei
Director

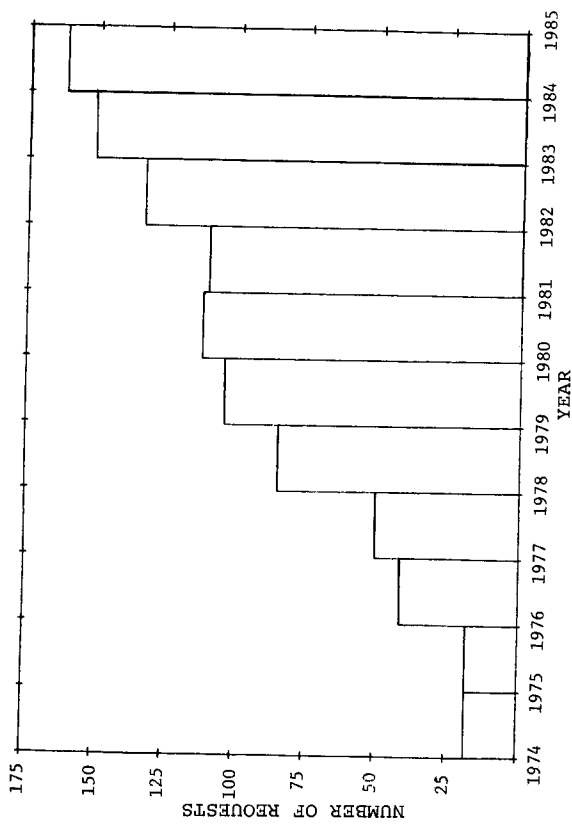


Figure 1. Number of special requests for AAVSO data filled each year since 1974.

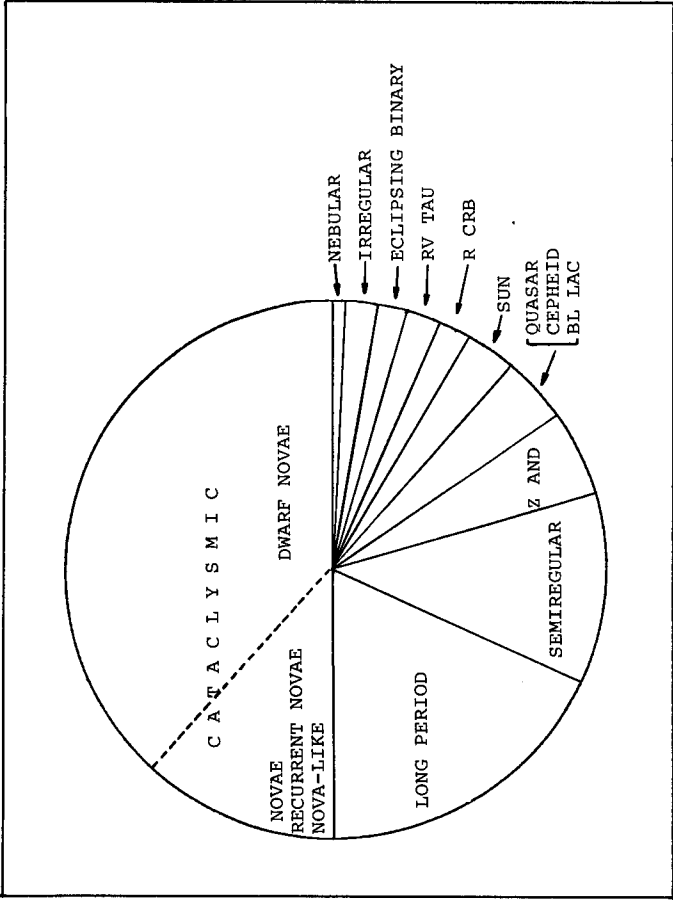


Figure 2. Types of variable stars for which data were requested during the fiscal year 1983-84.

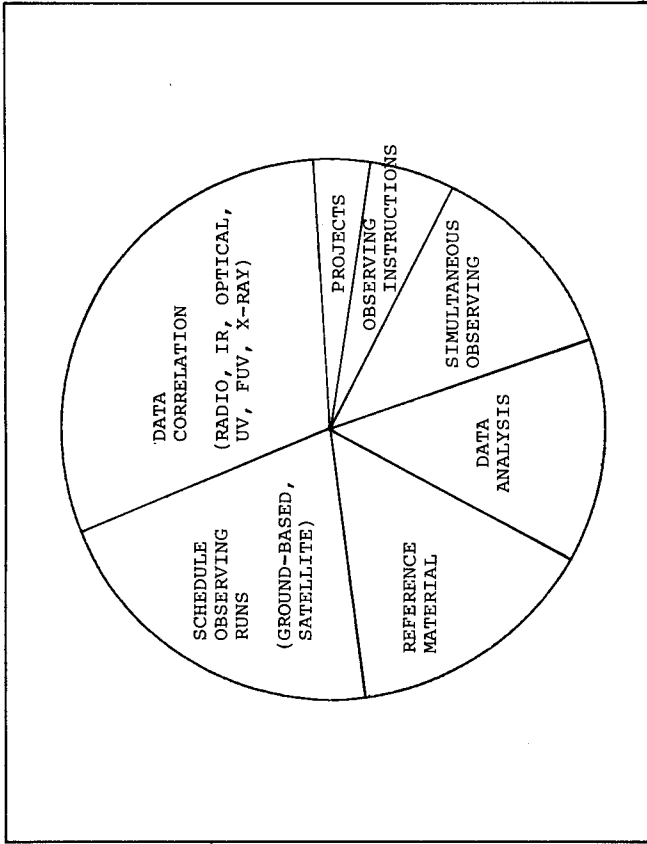


Figure 3. Areas in which MAVSO data and services were used during the fiscal year 1983-84.

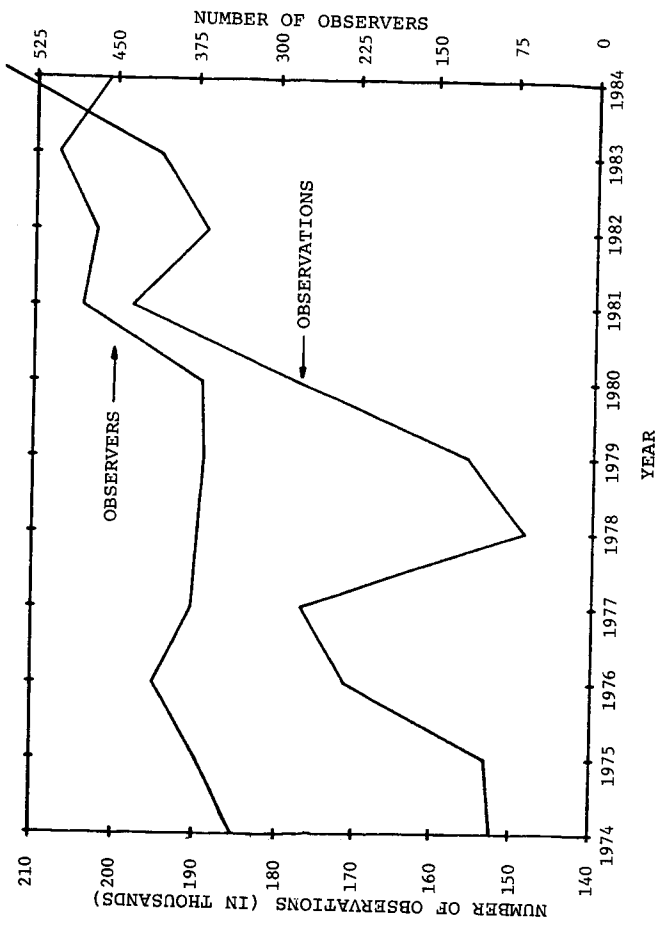


Figure 4. Number of observers and observations for each year since 1974.

TABLE I

Observer Totals by Country

Country	Number of Observers	Total of Observations	Country	Number of Observers	Total of Observations
Argentina	8	5878	Italy	14	3534
Australia	4	1795	Japan	6	2582
Austria	3	94	Malta	1	53
Belgium	14	3110	Netherlands	17	6885
Brazil	2	49	New Zealand	1	152
Canada	19	9270	Norway	13	3451
Czechoslovakia	2	347	Poland	1	721
Denmark	8	1686	Romania	1	1040
England	7	3602	South Africa	10	13970
Fed.Rep.Germany	4	3590	Spain	2	656
France	29	30410	Switzerland	1	527
German Dem.Rep.	2	4532	Turkey	1	26
Greece	3	1409	U. S. A.	251	99222
Hungary	21	15128	Yugoslavia	5	271
India	1	8	Zimbabwe	3	470
			TOTAL	454	214468

TABLE II

U. S. A. Observer Totals by State

State	Number of Observers	Total of Observations	State	Number of Observers	Total of Observations
Alabama (AL)	2	1609	Nebraska (NE)	1	29
Arizona (AZ)	8	1888	Nevada (NV)	2	14
Arkansas (AR)	1	819	New Hampshire (NH)	3	163
California (CA)	27	5269	New Jersey (NJ)	6	1381
Colorado (CO)	5	11965	New Mexico (NM)	1	11
Connecticut (CT)	10	4211	New York (NY)	22	16083
Florida (FL)	10	2693	North Carolina (NC)	1	800
Georgia (GA)	2	21	North Dakota (ND)	2	47
Hawaii (HI)	2	5550	Ohio (OH)	14	5413
Illinois (IL)	17	6356	Oklahoma (OK)	3	50
Indiana (IN)	3	1818	Oregon (OR)	1	922
Iowa (IA)	2	6	Pennsylvania (PA)	14	3737
Kansas (KS)	3	312	Rhode Island (RI)	2	18
Louisiana (LA)	6	3100	South Carolina (SC)	3	766
Maine (ME)	5	851	Tennessee (TN)	2	60
Maryland (MD)	7	831	Texas (TX)	15	3485
Massachusetts (MA)	6	5134	Vermont (VT)	3	145
Michigan (MI)	7	1597	Virginia (VA)	2	2948
Minnesota (MN)	6	2387	Washington (WA)	2	289
Mississippi (MS)	2	30	West Virginia (WV)	1	754
Missouri (MO)	7	1160	Wisconsin (WI)	13	4500
			TOTAL	251	99222

TABLE III

AAVSO OBSERVERS 1983 - 1984

AAP A. P. ABBOTT, CANADA	611-	5	BUL T. M. BUTLER, MO	55-	13
AD R. M. ADAMS, MA	754-	190	CPA A.J. CAMPONOVO, ARGENTINA	5654	
ASK S. AKITA, JAPAN	298		CJA J.A.S. CAMPOS, S. AFRICA	129	
AB W. B. ALBRECHT, HI	5515-	170	CEA*B. CANDELA, FRANCE	131	
ALS S. ALLMAND, ENGLAND	329		CCD C. CARDONA, NY	2	
ALL L. R. ALLRED, MN	40		CPK P. CARPREAU, BELGIUM	70	
ARO R. J. R. AMORIM, BRAZIL	15		CIT M. CAVAGNA, ITALY	95	
AOD O. ANDERSEN, NORWAY	69		CJZ J. CERAR, YUGOSLAVIA	50	
AJR J. R. ANDRESS, OH	59		CDX D. A. CHALOUX, MD	57	
AWR R. S. ANDREWS, AZ	19		CGF G. F. CHAPLE JR., MA	3535-1442	
ARI R. B. ARIAIL, SC	701-	171	CAO A. CHRISTIAN, ITALY	21	
ACP C. P. ARMSTRONG, CT	10		TCE*E.CIFUENTES-TORRES, FRANCE	141	
ARN*L. ARNOLD, FRANCE	350-	21	CLK W. E. CLARK, MO	151-	1
AKT T. W. ATKIN, TX	509		CLB R. CLYDE, OH	2	
ATW P. ATWOOD, CT	116		CLO A. D. COLE, FL	7	
AUB*J. AUBAUD, FRANCE	518		COI*J. COLIN, FRANCE	18	
ADE D. E. AUCCOIN JR., ME	17		CMJ M. J. COLLINS, ENGLAND	55	
BAC W. B. BACHELOR, MD	2		COL P. L. COLLINS, CA	149	
BVE&E. BALLEGOY, NETHERLANDS	66		CMG&G. COMELLO, NETHERLANDS	540-	80
BWK W. S. BARKSDALE JR., FL	256		COO L. M. COOK, CA	1103-	10
BSR S. BARONI, ITALY	607-	2	CK S. P. COOK, AR	819-	16
BGT G. A. BARROS, ARGENTINA	47		CCL C. S. COOPER, LA	7	
BB R. S. BATES, MA	151		COE E. COSTA LINDSAS, BRAZIL	34	
BAU J. BAUER, W. GERMANY	26		CCH C. COTEFF, FL	13	
BAE A. BEAMAN, IL	4		CMK M. G. COUCKE, MO	12	
BBA B. B. BEAMAN, IL	717-	93	CLX L. B. COX, CANADA	9-	2
BKK K. C. BECKMANN, ME	8		CR T. A. CRAGG, AUSTRALIA	1617-	408
BJS J. R. BEDIENT, WI	13		DAN*J. DANKO, HUNGARY	6	
BSE R. E. BELL, CANADA	5		DAK K. H. DANSKIN, NH	77-	35
BTY T. BENNER, PA	1027-	415	DTA T. A. DARVANN, NORWAY	83-	2
BML M. L. BERNSTROM, MN	1846-	294	DRB R. DAVIDSON, NV	2	
BIL G. A. BILODEAU, CA	43-	31	DES S. DECEUNINCK, BELGIUM	154	
BKN A. J. BIRKNER, IL	126		DEA R. DEMARTINO, CT	5	
BGB B. BLAGG, TX	33		DPC P. A. D'ERRICO, CO	10	
BLD D. BLANE, S. AFRICA	115		DAU A. DEY, IL	18-	4
BOH D. BOHME, E. GERMANY	695		DRD R. D. DIETZ, CO	8	
BFK&F. BOINCK, NETHERLANDS	197		DIL W. G. DILLON, TX	57	
BMW M. W. BORGMAN, PA	109		DRX R. DIXON, NY	236-	9
BRJ JOHN E. BORTLE, NY	3477-1296		DZA A. DOLZAN, YUGOSLAVIA	4	
BJN JOHN E. BORTLE, III, NY	17		DPL P. L. DOMBROWSKI, CT	576-	20
BJT JOSEPH E. BORTLE, NY	96		GDB*G. DOMENY, HUNGARY	437	
BMU&R. J. BOUMA, NETHERLANDS	270		DMJ M. J. DREILING, OK	15	
BRG B. J. BOURGEOIS, TX	13		DRY R. B. DUCOTY, CA	317-	3
BAP P. A. BRADLEY, LA	226-	79	DMO*M. DUMONT, FRANCE	167	
BLX L. W. BRAGG, GA	2		DEU E. DUVILLIERS, BELGIUM	33	
BDT D. W. BRANCHETT, FL	12		ECJ J. H. ECKENDORF, AZ	242-	40
BAV A. BREIVIK, NORWAY	6		EL J. E. ELLERBE, SPAIN	118	
BTB T. C. BRETL, KS	8-	1	EJL J. L. EVERAERT, BELGIUM	284	
BHN&H. BRIL, NETHERLANDS	7		FSV S. A. FALVO, NY	9	
BSM S. M. BRINCAT, MALTA	53		FCA C. A. FAUSEL, MI	197-	1
BBM B. M. BROWN, NY	72		FWA W. A. FEIBELMAN, MD	2	
BOA*A. BRUNO, FRANCE	129		FJH&H. FEIJTH, NETHERLANDS	2629-	557
BYD R. K. BRYDEN, CANADA	591-	236	FEN*A. FENYVESI, HUNGARY	8	
BJY J. D. BRYDGES, IL	111		FET T. I. FETTERMAN, NJ	8-	6
BS S. A. BUCARO, IL	61		FRD R. G. FIADONE, ARGENTINA	26	
BGO R. D. BUNGE, NY	142		FRF*R. FIDRICH, HUNGARY	334	
BEP&E. P. BUS, NETHERLANDS	42		FDF D. F. FIGER, OH	60	
BJU J. C. BUSS, CA	856		FEM E. M. FLYNN, MO	11	
BUS R. A. BUSS, ND	32		FDA*A. FODOR, HUNGARY	81	

TABLE III (cont'd)

AAVSO OBSERVERS 1983 - 1984

FD C. B. FORD, CT	107-	65	HRU R. R. HUNT, OH	129
FTO T. FORS, DENMARK	25		HR C. J. HURLESS, OH	1184- 68
FBN B. FRASER, S. AFRICA	44-	1	HUR G. M. HURST, ENGLAND	368- 13
FRI L. A. FRIGON, CA	2		IML M. IDEM, NY	1420- 344
FR L. A. FRIGON, MO	54		IFJ F. J. IVES, NEW ZEALAND	152
FAA A. FROSINA, ITALY	23		JCT T. B. JACOBS, WI	96
FMG G. C. FUGMAN, WI	90		JM R. A. JAMES, WI	477
GEC E. C. GALE, IA	3		JJT J. T. JEFFREY, OR	922- 350
GJW J. W. GARASICH, PA	11		JKK K. K. JENSEN, DENMARK	4
GJS J. L. GARRISON, PA	13		JOG G. E. JOHNSON, MD	501- 10
GAZ*J. GARSZTKA, FRANCE	63-	15	JKL K. L. JONES, AUSTRALIA	101
GMK M. GASKILL, TX	57		JJN J. JORDAN, TN	51- 2
GEJ&J. GEENEN, NETHERLANDS	69		JDL D. L. JUSTISON, MN	32
GJC J. A. GERACE, NV	12		KJA J. A. KALATA, IL	7
GSR R. GESCHWIND, OH	75-	4	KEI E. KATO, AUSTRALIA	41
GCH R. S. GILCHRIST, CT	6		KLY G. W. KELLEY JR., VA	87- 14
GLF F. R. GLENN, NY	141		KLD L. KERLEY JR., IL	96
GLW W. H. GLENN, NY	143		KSZ*S. KESZTHELY, HUNGARY	945
GLG G. W. GLIBA, MD	8		KRB R. P. KING, MN	305- 91
GAV A. GLOMSVOLL, NORWAY	70		KME M. E. KITTRELL, KS	5
GFB W. GOFF, CA	425-	284	KAE A. E. KLEIN, ARGENTINA	30
GDA A. C. GONDOLA, NM	11		KON O. KLINTING, DENMARK	97- 4
GOP P. N. GOODWIN, LA	2588-	517	KPL P. W. KNEIPP, LA	20
GFG F. G. GRAHAM, PA	6		KJL J. D. KNELL, TX	17
GKA K. A. GRAHAM, IL	101		KGT G. KNIGHT, ME	297
GRL B. H. GRANSLO, NORWAY	2395-	13	KJW J. W. KNIGHT, ME	28
GJH J. H. GRANT, SC	28		KSP S. P. KNIGHT, ME	501- 52
GRI J. W. GRIESE III, CT	759-	456	KS J. H. KNOWLES, MA	22
GFK F. W. GROVE M.D., MI	360		KOC*A. KOCSIS, HUNGARY	1792
GML M. GRUNANGER, AUSTRIA	60		KKF K. F. KOEHLER, AZ	776
GCT C. GRUNNET, DENMARK	500		KLK G. A. KOHL, AZ	198- 1
GRZ H.P.GRZELCZYK,E.GERMANY	3837-	409	KHL M. KOHL, SWITZERLAND	527
GCO C. GUALDONI, ITALY	142		KAS A. KOKKINEDIS, GREECE	304
GUG*V. GUGUMUS, FRANCE	19		KML&M. KOLE, NETHERLANDS	127
GUN*J. GUNTHER, FRANCE	2778-	11	KHJ H. J. KOLLER, CANADA	58
GMF M. A. GUTRIDGE, OK	15		KRS R. S. KOLMAN, IL	1526- 230
HK E. A. HALBACH, CO	6889-	397	KMA M. A. KOMOROUS, CANADA	5
HMR R. HAM, CO	1749-	12	KOS A. ROSA-KISS, ROMANIA	1040
HLD L. I. HAMPTON, CANADA	12		KOA M. KOSHIRO, JAPAN	439
HNN*C. HANON, FRANCE	39		KAU A. L. KOSTER, WI	41
HSG G. A. HANSON II, AZ	254		KVI*I. KOVACS, HUNGARY	745
HLP P. HARLES, ND	15		KIS G. KRISCH, W. GERMANY	875
HRR P. S. HARRINGTON, NY	13		KRK K. KRISCIUNAS, HI	20- 1
HAV R. P. HARVAN, MD	253		KRU J. KRUTA,CZECHOSLOVAKIA	313
HSB W. HASUBICK, W. GERMANY	867-	1	KPG&G. KUIPERS, NETHERLANDS	2539- 271
HZL L. HAZEL, NY	216-	60	KCF C. F. KURTZ, ARGENTINA	11
HEF M. A. HEIFNER, CO	2619-	883	KZO Z. KUTNJAK, YUGOSLAVIA	181
HEL K. HELBAK, NORWAY	24		LGT*G. LACASSIN, FRANCE	2090-1368
HEN C. HENSHAW, ZIMBABWE	66		LAR R. LAMBERT, TX	10
HJN J. HERS, S. AFRICA	1065-	427	LND H. J. LANDIS, LA	58
HEV*Z. HEVESI, HUNGARY	61		LTW T. W. LANGHANS, CA	336- 110
HE F. L. HIETT, VA	2861		LAX A. LANGOUSSIS, AL	396
HRI R. E. HILL, AZ	179		LPR R. LAPERNA, ITALY	110
HIR Y. HIRASAWA, JAPAN	1037-	110	LTN T. LARSEN, NORWAY	8
HDT D. H. HOROWITZ, TX	443		LZT T. LAZUKA, IL	800
HSR S. HOSTE, BELGIUM	756-	10	LKD D. C. LEAKE, IL	276
HDB B. F. HUDGENS, MS	19		LEB*R. LEBERT, FRANCE	498
HJA J. A. HUDSON, CA	194		LEG*L. LEGER, FRANCE	18
HWT W. J. HULLETT, TX	13		LTF T. LEIFSEN, NORWAY	26

TABLE III (cont'd)

AAVSO OBSERVERS 1983 - 1984

LNZ G. F. LENZ, CT	5	MFK F. K. MULLIGAN, CA	193
LJL J. L. LEONARD, IL	11	MUN C. R. MUNFORD, ENGLAND	125
LEV A. J. LEVEQUE, CA	25	MHN&H. MUNSTERMAN, NETHERLANDS	3
LMW M. W. LIFGREN JR., NY	9	MJC M. J. MURPHY, FL	262
LHN H. LIN, CA	2	NRH R. H. NELSON, CANADA	46
LNB G. C. LINDBLOOM, PA	493	NLZ~L. NEMETH, HUNGARY	21
LJK J. LINGAS, NORWAY	277	NPJ P. J. NEWMAN, TX	7
LRF R. F. LOBLAW, CANADA	54	NGU*J. NGUYEN, FRANCE	209
LWT T. W. LOHVINENKO, CANADA	315	NVG V. G. NIELSEN, DENMARK	69
LGV G. V. LOPATYNSKI, CA	28-	3 NWL&W. NOBEL, NETHERLANDS	24
LOL*J. LORSIGNOL, FRANCE	1	NTS T. S. NORTON, MA	136
LOS*S. LORSIGNOL, FRANCE	44	NOG G. T. NOWAK, VT	100
LEJ E. J. LOS, NH	29	OBG G. J. O'BRIEN MD, CT	66
LX W. M. LOWDER, NY	5335	OJO J. O. OLESEN, DENMARK	170
LTB T. F. LUBBERS, MN	110	OV E. G. ORAVEC, NY	3125
LCG C. LUDWIG, BELGIUM	54	OJR J. R. OSORIO, SPAIN	538
LJO&J. O. LUURS, NETHERLANDS	86	OB M.D.OVERBEEK, S.AFRICA	11622- 424
LYR R. LYNCH, RI	11	PTL T. S. PALMESEN, NORWAY	11
MDW W.J.MACDONALD II, CANADA	22	PCP C. PAMPALONI, ITALY	38
MMK M. K. MALMROS, PA	32	PRL R. PARMENTIER, WI	19
MTF T. MANGELSDORF, WI	4	PRN R. M. PATRICK, PA	802- 232
MJU J. C. MARIONI, ARGENTINA	94	PAR R. H. PATTERSON JR., NY	11- 2
MRX H. MARX, W. GERMANY	1822- 19	PLZ L. PAZZI, S. AFRICA	690- 35
MTH H. MATSUYAMA, JAPAN	166	PN A. E. PEARLMUTTER, MA	337
MEB E. MATTEO, ITALY	79	PEI E. PEDERSEN, DENMARK	29
MPX P. MAXSON, AZ	89	PEG*C. PEGUET, FRANCE	551
MYR E. H. MAYER, OH	3408-1615	PZA*A. PEREZ-REVILLA, FRANCE	2197- 1
MGT R. MCGWIER, RI	7-	6 PFK F. PESCI, ITALY	692
MKJ J. F. MCKENNA, NJ	1076-	50 PSO S. PESCI, ITALY	1037
MBC B. P. MCMILLAN, NC	800	PED D. B. PETTENGILL, FL	1242- 2
MSD D. L. MEANS, IA	3	PIJ~J. PIRITI, HUNGARY	327
MIB I. B. MEDIAS, NORWAY	180	PWR R. E. POWASKI, OH	62
MED K. J. MEDWAY, ENGLAND	1950	PRI L. H. PRICE, SC	37
MDG D. L. MEGGINSON, MO	247	PRG G. PROSSER, S. AFRICA	101
MHI H. I. MENALI, TURKEY	26	RHT H. RAUSCHKA, AUSTRIA	2
MPY P. MEYERS, S. AFRICA	69	REH D. REHNER, OH	18
MEZ~C. MEZOSI, HUNGARY	816-	34 RFK F. REIN, NJ	17
MOK O. MIDTSKOGEN, DENMARK	792-	58 REP P. REINHARD, AUSTRIA	32
MTL R. E. MILTON, CA	159-	7 RNT C. C. REINHART, OH	26
MMA R. A. MIMNA, OH	21	REN*J. RENAULT, FRANCE	179
MJI J. R. MINER, IN	42	RRC R. C. REISENWEBER, PA	14
MIS*J. MINOIS, FRANCE	547	RJI J. I. RIGGS, NY	1002- 153
MTD T. MINTER, WI	33-	5 RSB S. RITTERBUSH, NH	57- 3
MUK U. MITRA, INDIA	8	RJM J. C. ROEMMELT, MI	1
MZS~A. MIZSER, HUNGARY	7093-	168 RB D. W. ROEBRUGH, FL	460
MDC D. R. MOCARSKI, IL	22	ROG G. M. ROSS, MI	55- 2
MCE E. MOCHIZUKI, JAPAN	12	RR R. E. ROYER, CA	49
MOD D. G. MOHRBACHER, OH	58	RPH H. RUMBALL-PETRE, CA	14
MAR R. MONELLA, ITALY	39-	16 RMK M. RUPNIK, YUGOSLAVIA	10
MDE D. R. MONGER, FL	92	RAN A. RUTTER, NY	10
MPT P. MONIOT, NY	58	RPJ P. J. RYAN, MS	11
MOR R. L. MONSKE, PA	485-	7 SJD J. D. SABIA, PA	4- 1
MJ A. C. MONTAGUE, MI	944	SJC J. C. SADOW, LA	111
MAO A. J. MORBIDELLI, ITALY	546	SGT~T. SAGODI, HUNGARY	443
MJA J. A. MORGAN, WI	74	SSU S. SAKUMA, JAPAN	630- 162
MOJ J. E. MORGAN, AZ	131-	57 SRL R. SALA, ITALY	25
MRR C. S. MORRIS, CA	31-	2 SAH G. SAMOLYK, WI	2032
MB A. G. MORRISBY, ZIMBABWE	20	SSR R. SAMPSON, CANADA	38
MOW W. C. MORRISON, CANADA	4120	SVT T. G. SAVILLE, ENGLAND	686

TABLE III (cont'd)

AAVSO OBSERVERS 1983 - 1984

SSC S. M. SCHIMPF, CA	18	TRY R. TRANK, IL	5
SMF F. SCHMIDT, NY	389	TGW&G.TREMONTI, NETHERLANDS	151
SCY A. SCHROYENS, BELGIUM	94	TDM D. M. TROIANI, IL	1997- 5
SDH D. SCHROYENS, BELGIUM	28	TJC J. C. TRUAX, MI	27
SRD R. H. SCHMIDT, MN	54	TUB*V. TUBOLY, HUNGARY	131- 1
SCZ*M. E. SCHWEITZER, FRANCE	4669- 50	TUC C. TURK, S. AFRICA	20
SCE C. E. SCOVIL, CT	2561-1249	TYS R. L. TYSON, NY	160
SEE E. H. SEIFERT JR., NE	29	UND G. E. UNDERHAY, CA	195- 1
SHS S. B. SHARPE, CANADA	2287- 44	VFR F.VACLIK, CZECHOSLOVAKIA	34
SSA A. P. SHARPLESS, WA	30	VAI*J. VAIDIS, FRANCE	1256
SRC R. SHINKFIELD, AUSTRALIA	25	VCP P. VAN CAUTEREN, BELGIUM	233- 32
SJA A. J. SHORTEN, ENGLAND	89	VJD J. VANDEVOORDE, BELGIUM	26
SLH L. J. SHOTTER, PA	240- 9	VDJ&J. VAN DIJK, NETHERLANDS	13
SKL K. SIMMONS, FL	12	VNL F. R. VAN LOO, BELGIUM	241- 16
SNE N. A. SIMMONS, WI	330- 127	VWS J.VANWASSENHOVE, BELGIUM	159
SBS S. SINGER-BREWSTER, CA	48	VPL P. VARELA, ARGENTINA	12
SOF O. SKJAERAASEN, NORWAY	28	VWD&W.V.D.VELDE, NETHERLANDS	71
SHA H. A. SMITH, MI	13	VED*P. VEDRENNE, FRANCE	4912
SJE J. C. SMITH, CA	25	VRG R. VENNE, CANADA	68
SOD J. SODER, OH	5	VET*M. VERDENET, FRANCE	7773-4214
SJZ J. SPEIL, POLAND	721	VIA*J. VIALLE, FRANCE	609
SLF L. F. SPEITH, CA	1	VIL*A. VILLETORTE, FRANCE	19
SPO J. SPONGSVEEN, NORWAY	273	VIN J. V. VINCENT, ZIMBABWE	384
SC C. E. SPRATT, CANADA	412- 74	VYP P. VUYLSTEKE, BELGIUM	192- 3
SPG N. G. SPRYN, MD	8	WKP P. R. WALKER, VT	13
STR R. H. STANTON, CA	164- 139	WND*P. WALLIAN, FRANCE	46
SKS T. STECKNER, CANADA	220- 10	WMJ&J.WARMERDAM, NETHERLANDS	51
STI P. STEFFEY, CA	91- 9	WWA W. A. WASHBURN, GA	19
SGP P. E. STEGMANN, NJ	9	WBB W. V. WEBB, OH	212
SET C. STEPHAN, FL	337- 15	WER R. J. WEBER, KS	299- 144
STF G.STEPHANOPOULOS, GREECE	982- 1	WCB C. B. WEBSTER, PA	285- 7
SDR R. D. STEPHENS, CA	88- 32	WEI D. D. WEIER, WI	1080- 344
SWT R. J. STEWART, NJ	244	WC R. E. WEND, IL	478- 3
STQ N. STOIKIDIS, GREECE	123	WEF F. R. WEST, AL	1213
SNJ N. STRITOF, YUGOSLAVIA	26	WTJ J. E. WEST, TX	275
SGM M. D. SUGARMAN, CA	9- 6	WYT T. A. WEYENBERG, WI	211
SJN J. E. SULLIVAN, OK	20- 1	WI D. B. WILLIAMS, IN	1698- 10
HUO D. J. SVENTER, TX	73- 3	WDJ D. J. WILLIAMS, TN	9
SVN P. L. SVENTER, TX	1078- 15	WMR R. H. WILLIAMS, VT	32
SBA*A. SZABOLCS, HUNGARY	20- 1	WLP P. WILS, BELGIUM	786- 114
SOZ*L. SZANTHO, HUNGARY	673	WJA J. A. WILSON, MO	630
TZR R. G. TANZER, NJ	27	WSN T. W. WILSON, WV	754- 249
TU D. C. TAULMAN, TX	18	WCL C. L. WOMACK, TX	882
TPS*I. TEPLICZKY, HUNGARY	355	YON R. R. YOUNG, PA	152- 2
TM H. D. THOMAS, WA	259- 1	ZGZ*G. ZAJACZ, HUNGARY	350
TMR R. P. THOMAS, CA	512	ZLT*T. ZALEZSAK, HUNGARY	430- 5
THR R. R. THOMPSON, CANADA	239	ZJJ J.J.ZAMICHIEI, ARGENTINA	3
TRJ R. J. THOMSON, S. AFRICA	115- 1	ZAM M. ZANOTTA, ITALY	56- 17
THU*B. THOUET, FRANCE	438	ZPA P. A. ZELLER, IN	78
TBC B. TIC, CANADA	158		
TAN*A. TOLGYESI, HUNGARY	46		

* also member of Association Française des Observateurs d'Étoiles Variable (AFOEV).

~ also member of Pleione Vátozócsillag-észlelő Hálózat (Hungary).

& also member of Nederlansde Vereniging Voor Weeren Sterrenkunde, Werkgroep Veranderlijke Sterren (NVVWS, WVS).

TABLE IV

List of Individuals Requesting AAVSO Data
During Fiscal Year 1983-1984*

Aliaga, R.	Spain
Anttila, R.	University of Helsinki Observatory, Finland
Balonek, T.	Williams College, MA
Bartolini, C.	Universita degli Studi di Bologna, Italy
Benz, A.	Institut fur Astronomie, Eidgenossische Technische Hochschule, Switzerland
Benz, A.	Institut fur Astronomie, Eidgenossische Technische Hochschule, Switzerland
Benz, A.	Institut fur Astronomie, Eidgenossische Technische Hochschule, Switzerland
Berry, R.	Astronomy magazine
Bode, M.	Los Alamos National Laboratory, NM
Bopp, B.	University of Toledo, OH
Bowers, P.	Naval Research Laboratory, DC
Boyd, M.	Science Digest magazine
Broccious, D.	Smithsonian Astrophysical Observatory, AZ
Bujarrabal, V.	Centro Astronomico de Yebes, Spain
Burnham, R.	Astronomy magazine
Burnham, R.	Astronomy magazine
Burnham, R.	Astronomy magazine
Bushing, W.	California
Cadmus, R.	Grinnell College, IA
Cadmus, R.	Grinnell College, IA
Cadmus, R.	Grinnell College, IA
Cannizzo, J.	Center for Astrophysics, MA
Carpenter, K.	University of Colorado
Celestian, S.	Arizona
Chakravorty, R.	India
Chanmugam, G.	Louisiana State University
Chandler, D.	The Boston Globe , MA
Clarke, J.	University of California at Berkeley
Clarke, J.	University of California at Berkeley
Clarke, J.	University of California at Berkeley
Cohen, J.	California Institute of Technology
Cordova, F.	Los Alamos National Laboratory, NM
Cordova, F.	Los Alamos National Laboratory, NM
Coulombe, A.	Universite de Montreal, Canada
Cragg, T.	Anglo-Australian Observatory, Australia
Crowe, R.	University of Toronto, Canada
Crowe, R.	University of Toronto, Canada
DePoy, D.	University of Hawaii
Detterline, P.	Boyertown Area School District, PA
Dunham, D.	International Occultation Timing Association (IOTA), MD
Elvis, M.	Center for Astrophysics, MA
Elvis, M.	Center for Astrophysics, MA
Faulkner, J.	University of California at Santa Cruz
Faulkner, J.	University of California at Santa Cruz
Feast, M.	South African Astronomical Observatory
Foley, J.	Maine
Fournier, C.	France
Friday, M.	Pennsylvania
Garnavich, P.	Space Telescope Science Institute, MD
Gillet, D.	European Southern Observatory, W. Germany
Gillet, D.	European Southern Observatory, W. Germany
Graham, F.	Pennsylvania
Gravina, M.	Observatoire de Lyon, France
Hadley, D.	University of Texas
Heise, J.	Space Research Utrecht, Netherlands
Heise, J.	Space Research Utrecht, Netherlands

TABLE IV (cont'd)

Hoeppe, G.	W. Germany
Hoeppe, G.	W. Germany
Hoeppe, G.	W. Germany
Hoffleit, D.	Yale University, CT
Holm, A.	Space Telescope Science Institute, MD
Iijima, T.	Universita di Padova, Italy
Johnson, H.	Indiana University
Johnson, R.	Hastings College, NE
Johnston, K.	Naval Research Laboratory, DC
Kaitchuck, R.	Ohio State University
Keith, D.	University of Toronto, Canada
Kenyon, S.	Center for Astrophysics, MA
King, A.	University of Leicester, England
King, A.	University of Leicester, England
Kiplinger, A.	NASA Goddard Space Flight Center, MD
Kohl, M.	Switzerland
Kratz, D.	State University of New York at Stony Brook
Krisciunas, K.	United Kingdom Infrared Telescope Unit, Hawaii
Ladd, E.	Los Alamos National Laboratory, NM
Ladd, E.	Los Alamos National Laboratory, NM
Landolt, A.	Louisiana State University
Latham, A.	Jonas Clarke Junior High School, MA
Linn, D.	University of California at Santa Cruz
Little, I.	Wellesley College, MA
Lovik, T.	Stavanger Astronomiske, Norway
MacRobert, A.	SKY & Telescope magazine
Maccarini, L.	Italy
Marcey, B.	Virginia
Martin, P.	University of Toronto, Canada
Mason, K.	University College, England
Mason, K.	University College, England
Mason, K.	University College, England
Mason, K.	University College, England
Mayall, M. and Mayall, N.	Massachusetts
McGloin, M.	NASS-TV, Ontario, Canada
McKay, M.	University of Leicester, England
Mead, J.	Pennsylvania
Menessier, M.	Université des Science et Technique du Languedoc, France
Michalitsianos, A.	NASA Goddard Space Flight Center, MD
Michalitsianos, A.	NASA Goddard Space Flight Center, MD
Milone, E.	University of Calgary, Canada
Mitra, U.	Central School, India
Mozurkewich, D.	University of Wyoming
Nagy, T.	Indiana State University
Nyman, L.	Onsala Space Observatory, Sweden
O'Brien, G.	Connecticut
Osborne, J.	University of Durham, England
Osborne, J.	University of Durham, England
Parmar, A.	European Southern Observatory, W. Germany
Patterson, J.	Columbia University, NY
Patterson, J.	Columbia University, NY
Patterson, J.	Columbia University, NY
Percy, J.	University of Toronto, Canada
Pesci, S.	Italy
Polidan, R.	University of Arizona
Polidan, R.	University of Arizona
Polidan, R.	University of Arizona
Polidan, R.	University of Arizona
Querici, F.	Observatoire du Pic-du-Midi, France
Rawlings, G.	New York
Raymond, J.	Center for Astrophysics, MA
Raymond, J.	Center for Astrophysics, MA

TABLE IV (cont'd)

Robinson, E.	University of Texas
Santos, F.	Portugal
Sasselov, D.	University of Sofia, Bulgaria
Schlegel, E.	Indiana University
Shafter, A.	University of Texas
Shara, M.	Space Telescope Science Institute, MD
Sion, E.	Arizona State University
Slovak, M.	University of Wisconsin
Snyjders, T.	Royal Greenwich Observatory, England
Snyjders, T.	Royal Greenwich Observatory, England
Snyjders, T.	Royal Greenwich Observatory, England
Snyjders, T.	Royal Greenwich Observatory, England
Snyjders, T.	Royal Greenwich Observatory, England
Stover, R.	University of California at Santa Cruz
Stover, R.	University of California at Santa Cruz
Stover, R.	University of California at Santa Cruz
Stover, R.	University of California at Santa Cruz
Szkody, P.	University of Washington
Szkody, P.	University of Washington
Teska, R.	University of Michigan
Tomlin, R.	University of Wisconsin
Ukita, N.	Nobeyama Radio Observatory, Japan
Umato, A.	University of Michigan
Van de Woerd, H.	Space Institute, Netherlands
Viotti, R.	CNR Astrofisica, Italy
Viotti, R.	CNR Astrofisica, Italy
Wallerstein, G.	University of Washington
Wallerstein, G.	University of Washington
Wallerstein, G.	University of Washington
Wallerstein, G.	University of Washington
Wallerstein, G.	University of Washington
Watson, M.	University of Leicester, England
Watson, M.	University of Leicester, England
Watson, M.	University of Leicester, England
Watson, M.	University of Leicester, England
Watson, M.	University of Leicester, England
Wheeler, C.	University of Texas
Whitelock, P.	South African Astronomical Observatory
Whitesell, R.	South Carolina
Wilbur, A.	Science Digest magazine
Wlasuk, P.	Yale University, CT
Wolf, J.	Queens College, NY
Wood, J.	University of Cambridge, England
Zuckerman, B.	University of California at Los Angeles

* Name repeated for each request.