

**ANNUAL REPORT OF THE DIRECTOR
FOR FISCAL YEAR 1987-1988**

My 15th year as your Director has been a very active and exciting one. I present my Annual report of the activities of the Association as a privilege and with pleasure.

DATA MANAGEMENT

Our data management is recognized by the astronomical community worldwide. At the 20th General Assembly of the International Astronomical Union (IAU) that I attended, astronomers from Sonneberg Observatory in the German Democratic Republic and the Astronomical Council of the USSR complimented the AAVSO's management of the large number of variable star observations received from around the world.

1. Processing of Current Data: Keeping up-to-date with the computerization and processing of our incoming monthly data is vital to our operations and for providing current data to the astronomical community. The entry and the processing of the current data are up-to-date. An increasing number of groups of variable star observers wish to include their data in our data files. Thus, it appears by default that the AAVSO is becoming the center of variable star data in the world.

Using our new IBM-PC compatible computer, we are now able to be connected via modem to the mainframe Digital VAX computer at Harvard-Smithsonian Center for Astrophysics (CFA) to process our current data. This capability has increased the efficiency of our data processing immensely. We are investigating ways of processing our monthly data at AAVSO Headquarters, and our member Mark Malmros is helping us convert our computer programs to our new system so that we can accomplish this. We will continue to use the VAX computer for archiving our data and for working with large volumes of observations where we need large storage and memory capacities.

2. Computerization of Archival data 1911 - 1961:

We continue to computerize the data from 1911 - 1961, about 2 million observations, thanks to a grant from the Perkin Fund.

Young Lim, a former data entry technician at Headquarters, continues to be contracted to work from California, where he now lives. He has computerized 445,000 observations this year, and the arrangement continues to work well.

In December, Doug Van Orsow joined the Headquarters staff as a data entry technician to speed up the computerization of the archival data. At this time Doug is entering data on observers whose last name starts with a "K." We are at the approximately 65% completion mark on this project.

The proposal I submitted to the National Science Foundation last year for the funding of this project was unfortunately not funded. However, I have been encouraged to resubmit the proposal, which I am considering doing.

3. Publication of Data: This year, we published **AAVSO Monograph 3, R Scuti Light Curves, 1963 - 1985**. The Monographs are widely used by astronomers and referenced in the astronomical literature. Regrettably, due to the decrease in the Headquarters staff, we have not been able to publish the Monographs as speedily as we would like. At this time, **Monograph 4** on AH Her and **Monograph 5** on HL CMA

are scheduled for publication.

Twenty-year data on 13 other stars have been extracted from our large data files and computer-edited and checked, and are pending final editing prior to their publication in Monographs.

SPECIAL REQUESTS FOR AAVSO DATA

The observations that you, our observers, contribute to the AAVSO continue to be a unique source of reference and research material in variable star astronomy. This year we responded to 168 such requests for data. These requests came from astronomers, researchers, students, and writers from around the world. A list of names of individuals with their affiliation and location is given in Table IV at the end of my report. Figure 1 is a histogram of the number of special requests filled each year since 1974.

The list below and Figure 2 show the types of variable stars for which data have been requested:

1. Cataclysmic variables (39%) - dwarf novae (26%),
novae, recurrent novae, and nova-like (13%)
2. Long period variables (25%) - Mira-type (15%),
semi-regular (10%)
3. Symbiotic Stars - Z And-type (8%)
4. R Coronae Borealis (6%)
5. The Sun (4%)
6. Eclipsing Binaries (4%)
7. RV Tauri stars (3%)
8. Miscellaneous (11%) - Suspected variables, Cepheids,
S Doradus, Irregular, gamma Cassiopeiae, Seyfert Galaxies

The categories listed below, also shown in Figure 3, are areas in which AAVSO data services have been used:

1. **Reference Materials (31%):** Information on variable stars, general or specific stars, light curves, and finder charts have been used in articles published in magazines such as **Sky & Telescope**, **Astronomy**, and **Deep Sky** and newspapers such as the **The Standard Times**, in a WGBH Public Television subjects program, and in research projects on variable stars and related subjects by astronomers and students.

2. **Data Correlation (23%):** AAVSO visual data have been used to correlate and interpret multiwavelength photometric and spectroscopic data obtained using earth-based optical and radio telescopes or special detectors aboard satellites such as the International Ultraviolet Explorer (IUE).

3. **Reporting Variable Star Observations to the Central Bureau of Astronomical Telegrams (13%):** Throughout the year up-to-date information from observers on the unusual behavior of variable stars, novae, and supernovae is reported to the Central Bureau of Astronomical Telegrams for inclusion in the **International Astronomical Union (IAU) Circulars**. Observations of cataclysmic variables such as VY Aqr, RZ Leo, DO Dra, T Leo, and QV Vul, symbiotic stars such as Z And, AX Per, and CH Cyg, and R Coronae Borealis stars such as R CrB and V482 Cyg have been reported.

4. **Scheduling Observing Runs (11%):** We assisted astronomers in scheduling observing runs with earth-based telescopes at observatories such as Lowell and McDonald, and with instruments aboard satellites such as the International Ultraviolet Explorer (IUE), Ginga (the Japanese x-ray satellite), and the High Precision Parallax Collecting Satellite (HIPPARCOS). Some of the observing targets for these

observing runs have been long period variables (Mira and semiregular variables), cataclysmic variables such as AM Her, SU UMa, RX And, SS Cyg, GK Per, and EX Hya, and R Coronae Borealis stars such as R CrB and RY Sgr.

5. **Data Analysis (10%):** We are collaborating with astronomers on the analysis of our data on semiregular, RV Tauri, symbiotic, and dwarf novae type variables, searching for chaotic behavior in their variation.

6. **Setting up Observing Program (6%):** We helped to set up variable star observing programs in universities, colleges, and high schools in California, South Carolina, France, Israel, and Paraguay.

7. **Simultaneous Monitoring of Observing Targets (3%):** Our observers provided a unique service to astronomers during their observing runs with earth-based telescopes at Lowell Observatory and the Very Large Array (VLA) radio telescope, and with special detectors aboard satellites such as IUE and Ginga.

8. **Science Projects (3%):** We provided data and guidance to a number of college and high school students for their science projects.

I would like to share some of the highlights of these requests:

The following example points out the important service our observers provide to the astronomical community in monitoring variable stars closely both before and during observing runs in order to assist astronomers in scheduling observations and in giving direction to their observations with sophisticated ground-based telescopes.

Dr. Arnold Benz from Zurich, Switzerland, is interested in observing cataclysmic variables during their eruption with the Very Large Array radio telescope for the detection of radio emission. In 1983 he and his colleagues detected radio emission from SU UMa. Detection of radio emission from TY Psc using the radio telescope at Arecibo have also been reported. In the recent years several other astronomers have tried without success to detect radio emission from dwarf novae. This year Dr. Benz asked us to alert him to the behavior of TY Psc and UZ Boo, as he was scheduled to observe them with the VLA. During his observing run both of these stars were at quiescence, but EM Cyg, RX And, AB Dra, FO Aql, SY Cnc, and U Gem erupted during this time and we so alerted him. He detected radio emission from EM Cyg, the first such detection, thus marking EM Cyg as the third dwarf nova for which radio emission was detected among 37 observed. Dr. Benz reports that radio emission in these stars is most likely to be caused by some form of gyromagnetic emission and thus contains information on the magnetic field of the source. Dr. Benz used AAVSO observations in his recently published paper and stated that the AAVSO data were necessary for the success of the project.

The following requests are typical of our collaborations with astronomers observing with various satellites.

Cataclysmic variables are among the observing targets for the Japanese x-ray satellite Ginga. Dr. Jean Swank of NASA's Goddard Space Flight Center has been collaborating with the Japanese astronomers in the observations of the dwarf nova SS Cygni. During her recent observing run with Ginga, several of our observers provided simultaneous visual data and our member, Dr. Robert Cadmus of Grinnell College, obtained photoelectric data while SS Cygni was at minimum. These observations were important in correlating the x-ray data, and Dr. Swank was very appreciative of our help.

We also provided simultaneous optical observations for Dr. Paula

Szkody of the University of Washington, who observed BV Pup and V426 Oph with Ginga.

We are closely involved with the European astrometric satellite HIPPARCOS project. This satellite, to be launched in mid-1989, will be observing about 300 large-amplitude, long period variables, and our assistance has been requested in the scheduling of the observations of these stars during the satellite's 2.5-year expected lifetime. We sent 20-year computerized observations on 357 stars to the Input Catalogue Consortium members, who are preparing a catalogue containing accurate photometric and astrometric measurements of standard stars and objects that will guide HIPPARCOS.

At this time simplified Fourier analyses are being performed on our data to predict the brightnesses of these stars during their HIPPARCOS observing runs. Recently, the satellite observing program was revised, and we sent long-term data together with light curves (some 4 pounds!) on an additional 175 variable stars. Our data will help them decide if these stars are sufficiently bright to be included in the HIPPARCOS observing program.

We often collaborated with astronomers observing cataclysmic variables with the IUE satellite. A team of astronomers from England was scheduled to observe the dwarf nova CN Ori with the IUE December 15 - 23. They had also scheduled ground-based observations during these times with the objective of obtaining very early optical and ultraviolet data on the eruption of this star. They asked our help in informing them of the history of the behavior of CN Ori and predicting if and when its eruption would occur during their observing run. After examining our data files and checking our current observations, we predicted an eruption to occur in the middle of their observing run, around December 18. The star erupted on December 18! They were able to obtain good IUE spectra, and Dr. Constanze la Dous, one of the astronomers involved with the research wrote,

"...we got exactly the phase in the outburst cycle we had hoped for...In the UV, December 15 and 17, minimum. The outburst seems to have started on December 18...UV and optical seemed to rise simultaneously, (very important results) but our last observation, taken at or just before optical maximum, around December 23 and 24, indicates a decrease in UV flux." Later she wrote,

"CN Orionis obviously had no precursor in the UV but seems to have declined before the optical maximum was reached."

So again, our collaboration with the astronomers observing with the IUE played a vital role in the success of the observing run and in obtaining data crucial to deciphering some of the mysteries of cataclysmic variables.

We are looking forward to another collaboration with Drs. Janet Drew of England and Frank Verbunt of West Germany, whose very successful IUE run on YZ Cnc last year indicated that YZ Cnc was ejecting mass in the form of stellar wind, not symmetrically but in the shape of a cone tilted with respect to the accretion disk around the white dwarf component. This result challenges the current theories concerning the form and the origin of stellar winds in cataclysmic variables and helps us to understand mass loss from these systems. They have been given more IUE time in November to carry out similar observations on a large number of dwarf novae. I would like to end this section of my report by quoting from Dr. Verbunt's recent letter,

"...AAVSO members help us on deciding when to observe, so that we use the IUE satellite optimally, and the AAVSO observations tell us what the status of the star was when we observed it, which is a necessary ingredient in any theory that wishes to explain outbursts."

RESEARCH COLLABORATIONS

Attending astronomical meetings and presenting papers help to increase the awareness of the astronomical community to the astronomical treasures of the AAVSO. At this time we are collaborating with the following astronomers on several research projects involving various types of variable stars:

1. **Paula Szkody, University of Washington:** To study the correlation of ultraviolet and optical emission spectral lines at quiescence in cataclysmic variables.
2. **Scott Kenyon and Mike Garcia, Harvard-Smithsonian Center for Astrophysics (CFA):** To determine orbital periods of symbiotic stars using radial velocity data and AAVSO observations.
3. **Sallie Baliunas, CFA:** To analyze the long-term behavior of semiregular variables using AAVSO data.
4. **Alan Kiplinger, NASA, Goddard Space Flight Center:** To carry out a detailed statistical study of the long-term behavior of SS Cygni.
5. **Roberto Viotti, CNR Astrofisica, Italy, and Scott Kenyon, CFA:** To provide historical optical light curves of symbiotic stars for an IUE atlas of symbiotic stars currently in preparation.
6. **Arnold Benz, Institute for Astronomie, Switzerland:** To study the correlation of the behavior of cataclysmic variables in radio and optical wavelengths.
7. **Marie-Odile Mennessier, University of Montpellier, France, and Gilbert Burki and Michel Grenon, Geneva Observatory:** Statistical study of the long-term behavior of large-amplitude variable stars in the HIPPARCOS Observing Program.
8. **John Cannizzo, McMaster University, Canada:** To investigate the presence of chaotic behavior in long period, symbiotic, and cataclysmic variable stars.
9. **Marie Jose Guppel and Annie Baglin, Meudon Observatory, France:** An independent study to investigate the chaos phenomena in long period variable stars.
10. **Constanze la Dous, Cambridge University, England:** To provide optical light curves for an IUE spectral atlas of cataclysmic variables that is being prepared.

This impressive list of collaborations is a testimony to you, our observers, and indicates the enormous value of the observations that you contribute to the AAVSO.

SUMMARY OF OBSERVATIONS

The big news is that we have reached the six-millionth observation mark in our data base this year. Sei-ichi Sakuma of Japan made the 6 millionth observation for the AAVSO when he observed IR Gem on JD 2447189.1 (January 28, 1988) at magnitude 13.2. We sent a telegram to Mr. Sakuma congratulating him for this milestone he has helped us reach, and he wrote back saying he was very happy for this and that he will try to make the seven millionth observation.

We received 229,167 visual and photoelectric observations from 518 observers, including 108 new observers, from around the world during the fiscal year 1987 - 1988. These totals include 101,638 observations

from 227 observers in 36 states of the United States and 127,529 observations from 291 observers in 37 countries. New York with 18,931, Massachusetts with 11,321, and Illinois with 7,964 are the leading states in the USA, while France with 29,377, Hungary with 16,746, and South Africa with 15,494 observations lead the countries abroad. These totals include the 63 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 6,149,087.

Table I lists the number of observers and the total observational contributions from each country for this fiscal 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).

This year 30 observers reported between 1000 and 2000 observations, 9 between 2000 and 3000, 8 between 3000 and 4000, 4 between 4000 and 5000, 2 between 5000 and 6000, 2 between 6000 and 7000 (William Albrecht, 6,707 and Marvin Baldwin, 6,237). Wayne Lowder with 7,381 observations, Gerry Dyck with 9,179, and Danie Overbeek with 11,713 observations are our top three observers this year.

Gerry Dyck sent in the highest number of inner sanctum observations with 5,739 (63% of his annual total), Michel Verdenet 2,005 (54% of his annual totals), and Michael Idem 1,687 (41% of his annual totals).

Each year we have been receiving more and more photoelectric data from our photoelectric photometrists. This year we have received 1,631 photoelectric observations from 26 photometrists. Thanks to Howard Landis's enthusiastic efforts all our photoelectric observations are reduced and computerized in a standard format.

My very special thanks go to each of our dedicated, untiring, and enthusiastic observers for their valuable astronomical contributions. Each observer's efforts, whether resulting in one observation or thousands, are very much appreciated and valued.

My sincere thanks to observers who telephone with up-to-date information of the unusual behavior of some of the variable stars, and to observers who participate in observing programs requested by astronomers. This participation is vital to the success of the observing programs.

INTERNATIONAL COOPERATION

The increase in the participation of observers worldwide in our observing programs is a testimony to the continuing international cooperation with variable star observing groups worldwide.

We continue to receive valuable data from members of the Variable Star Section of the Royal Astronomical Society of New Zealand, in a computerized form, kindly sent by Director Dr. Frank Bateson. These data of southern long period variables help immensely in refining the annual predictions of these stars. Frank Bateson, John Isles, the Director of the Variable Star Section of the British Astronomical Association, and Aare Kellomaki, the Director of the Scandinavian Variable Star Observers, disseminate to their observers the information in the **AAVSO Bulletin** on the predicted maxima and minima dates of long period variables.

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:

1. Association Française des Observateurs d'Étoiles Variables (France)
2. Astronomical Society of Southern Africa, Variable Star Section
3. Astronomischer Jugendclub (Austria)
4. Berliner Arbeitsgemeinschaft für Veränderliche Sterne (West Germany)
5. British Astronomical Association, Variable Star Section (England)
6. British Astronomical Association of New South Wales (Australia)
7. Japan Astronomical Study Association
8. Nederlandse Vereniging Voor Weer-en Sterrenkunde, Werkgroep Veranderlijke Sterren (Netherlands)
9. Norsk Astronomisk Selskap, Variable Stjernegrupper (Norway)
10. Planetario e Observatorio Astronomico do Colegio Estadual do Parana (Brazil)
11. Pleione Változócsillag-észlelő Hálózat (Hungary)
12. Red de Observadores de Estrellas Variables - MIRA (Spain)
13. Royal Astronomical Society of Canada
14. Scandinavian Astronomisk Selskap
15. Uniao Brasileira de Astronomia, Variable Star Commission (Brazil)
16. Vereniging Voor Sterrenkunde, Werkgroep Veranderlijke Sterren (Belgium).

The exchange of literature with observatories, universities, and colleges around the world has increased, in part due to the connections made at the IAU Colloquium 110 on Library and Information Services in Astronomy.

As a testimony to our commitment to international cooperation and good will, the proceeds from last year's raffle enabled us to bring our long-time, dedicated observer and member Jaroslav Kruta from Czechoslovakia to this year's annual meeting. Jaroslav was enjoyed by all who met him.

The first European meeting of the AAVSO is being organized at this time, and will be held July 24 - 29, 1990, in Brussels, Belgium.

MEMBERSHIP

This year, at the 76th Annual Meeting in Cambridge, Massachusetts, and the 77th Spring Meeting in Ithaca, New York, we elected 121 new members. Of these, 89 joined as Adult-Annual, 13 as Junior-Annual, 2 as Sustaining, and 17 as Sponsored members.

61 members changed their membership from Annual to susutaining, thus supporting the operation of the Association doubly with their dues.

AAVSO PUBLICATIONS

The following have been published this fiscal year:

The Journal of the AAVSO, Volume 16, No. 2 (double-sized issue with excellent articles), edited by Charles A. Whitney and prepared by Elizabeth O. Waagen and Susan M. Power.

AAVSO Bulletin 51: The 1988 predicted dates of maxima and minima of 559 long period variables prepared by Janet A. Mattei. Further

computer programs written by Charles Jones, AAVSO's Margaret Mayall assistant, have helped me to reduce the time necessary for the determination of the predicted maxima and minima dates for the Bulletin very significantly. This in turn has helped us to prepare, publish, and send the Bulletin to our observers and astronomers earlier than before.

AAVSO Circular, No. 204 - 216, edited and published by John E. Bortle and Charles E. Scovil.

AAVSO Alert Notice, No. 98 - 105, prepared by Janet A. Mattei.

1988 Ephemerides of Eclipsing Binaries and RR Lyrae Stars, prepared by Gerard Samolyk and Marvin E. Baldwin.

AAVSO Photoelectric Photometry Newsletter, Voume 8, No. 1 - 3, edited and published by John R. Percy.

AAVSO Solar Bulletin, Volume 43, No. 10 - 12, Volume 44, No. 1 - 8, edited and published by Peter O. Taylor.

AAVSO Monograph 3: R Scuti Light Curves from 1963-85, prepared by Janet A. Mattei, Michael Saladyga, Elizabeth O. Waagen, and Charles M. Jones.

AAVSO Newsletter, No. 3 and 4, prepared by Susan M. Power.

My very sincere thanks to Marvin E. Baldwin, John E. Bortle, John R. Percy, Susan M. Power, Michael Saladyga, Gerard Samolyk, Charles E. Scovil, Peter O. Taylor, Elizabeth O. Waagen, and Charles A. Whitney for the contribution of their time, wisdom, and talents in the preparation of the above AAVSO publications which represent the association in the astronomical literature.

OTHER PUBLICATIONS WITH AAVSO PARTICIPATION

Predicted maxima and minima dates of bright long period variables, ephemerides of a few easy-to-observe stars, and an article on the photoelectric observations of P Cyg were published by Janet A. Mattei in the **1988 Observers' Handbook** of the Royal Astronomical Society of Canada.

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

An article entitled, "AAVSO and Its Data Bank," describing the organization, its observing program and its data management practices, characteristics of the light curves of long period variable stars, and AAVSO's participation in the observations of these stars with the HIPPARCOS satellite was published in **The European Astrometric Satellite HIPPARCOS, Scientific Aspects of HIPPARCOS Input Catalogue Preparation II**.

MEETINGS ATTENDED AND TALKS GIVEN ON BEHALF OF THE AAVSO

Attending meetings and presenting talks on the AAVSO is vital for informing the astronomical community of our activities, increasing our visibility, bringing about research collaborations, and being informed of recent research on variable stars.

My sincere thanks go to the US National Committee for the IAU, the National Science Foundation, and the American Astronomical Society for partially funding my expenses to attend the 20th General Assembly of

the IAU, and to the AAVSO for partially funding my expenses to enable me to attend the following meetings:

1. In January I attended a colloquium held in Sitges, Spain, on the Scientific Aspects of the HIPPARCOS Input Catalogue Preparation, where I presented a paper on the AAVSO and our data bank and how we propose to assist the HIPPARCOS Mission with our data on long period variables.

Prior to this meeting, I met with our members and observers in Madrid, Spain, and gave talks at the Madrid Planetarium and at the meeting of the Variable Star Observers of Madrid.

2. After the Sitges meeting, during my visit with my parents in Turkey, I gave a Colloquium at Ege University in Izmir on the AAVSO and our variable star data bank.

3. In April I attended a meeting at NASA Goddard Space Flight Center, Greenbelt, Maryland, on the 10th anniversary celebrations of the of the IUE Satellite. There I met many astronomers who had used our data, and who presented papers at this meeting and acknowledged our data. I extend the special thanks of these astronomers to our observers.

4. In July I attended the IAU Colloquium No. 110 in Washington, DC, on Library and Information Services in Astronomy, where I presented a poster paper on the AAVSO and Its Services. This meeting was important in being informed of various astronomical data bases and how to access them and services offered by many libraries, such as weekly listings of papers that appear in the astronomical literature, and in increasing the astronomical publications we receive through exchanges with our publications.

5. In August, I attended the 20th General Assembly of the International Astronomical Union, in Baltimore, Maryland, where I presented a talk in Commission No. 27 on Variable Stars, on the AAVSO, our activities, data base, and the services we provide to the astronomical community.

I have also given talks at:

1. Boston University on the AAVSO and student science projects on variable stars.

2. MITRE Corporation on the AAVSO and how to set up an observing program using their 16 inch telescope.

3. Youth Group in Lowell, MA, on supernovae.

4. Tufts University, where I gave a lecture to college physics and astronomy teachers on variable stars and on how to set up an observing program. This program was a special one initiated by Dr. George Mumford and funded by the National science Foundation. Later several of the attendees became members of the AAVSO.

We have presented posters on the AAVSO at the meeting of the Astronomical Society of the Pacific and at meetings in Canada and Switzerland, thanks to John Griese, John Percy, and Noel Cramer.

PERSONNEL AT HEADQUARTERS

We are extremely fortunate to have a staff that is hardworking, consciencious, team-spirited, and efficient.

At the present time our staff consists of: Elizabeth O. Waagen, my Senior Technical Assistant, Mary Greene, our Office Manager, Susan Power, our Administrative Assistant, Margarita Vargas, our Data Entry and Plotting Assistant, Barbara Silva and Doug Van Orsow, our Current and Archival Data Entry Technicians, Young Lim, contracted Archival Data Entry Technician, and Margaret Lysaght, our Research Assistant for the HIPPARCOS Mission. Katherine Hazen, Frank McPherson, and George Raymond are our volunteer assistants to whom we are grateful for giving generously of their time and wisdom.

Janet MacLennan Zisk, our Administrative Assistant, left the AAVSO this winter, and we greatly miss her efficiency and her cheering personality.

My very sincere thanks go to all our staff, without whom I could not do my job as Director.

ACKNOWLEDGEMENTS

Our special thanks and gratitude go to Dr. Clinton B. Ford for providing a permanent Headquarters for the AAVSO, one in which we take so much pride and joy to be in, to show to our members and colleagues, and to utilize for some of the activities of our Annual Meetings. We are also grateful to Clint for his continued generosity in helping to carry out the important activities of the association, and for setting up a special project fund particularly for working on our finder charts.

We have been very fortunate to have received strong financial support from individuals and institutions this past year. Special thanks to:

The Smithsonian Astrophysical Observatory for computer time granted us through the efforts of Prof. Owen Gingerich and Barbara Welther;

NOAA, the National Oceanic and Atmospheric Administration, for its continuing grant to operate our Solar Division;

The Perkin Fund, for a grant to continue the computerization of our archival data;

The Theodore Dunham, Jr., Grants for Research in Astronomy from the Fund for Astrophysical Research, Incorporated, for a grant to purchase an IBM-PC clone computer to enable us to receive diskettes from observers who have IBM-compatible MS-DOS computers, to be able to connect with the Smithsonian Astrophysical Observatory via modem, and, since the computer has a 40-megabyte hard disk, to be able to carry out research on variable stars;

The Kenilworth Fund, for a grant to purchase a laser-printer and a scanner for the IBM-PC clone computer so that we can do the plotting of our light curves by computer.

Special thanks go to Erindale College of the University of Toronto, for funding the printing, and distribution of the **AAVSO Photoelectric Photometry Newsletter** that John Percy edits.

Our thanks go to Stamford Museum for allowing Charles Scovil and John Griese to use the 22" telescope at Stamford Observatory for variable star observations, and for Charles Scovil to use the facilities of the observatory in preparing charts, the **AAVSO Circular**, and revising the **AAVSO Variable Star Atlas**.

Special thanks go to the Astronomy Department of Colgate University, and in particular to Dr. Tom Balonek, for making it

possible for Charles Scovil to use their iris photometer to obtain comparison star sequences for our finder charts. Also, special thanks go to the Astronomy Department of Yale University for allowing John Griese to use their PDS machine for comparison star sequences.

Special thanks go to Drs. Ron Zissell of Mount Holyoke College, Richard Stanton of the Jet Propulsion Laboratory, and Michel Grenon of Geneva Observatory in Switzerland for obtaining photoelectric comparison star sequences for our finder charts.

Special thanks to Mark Malmros and his programmers William Gibbs and William Rogers for their time and expertise in setting up our IBM-PC-compatible computer, and for their assistance in revising our computer programs for processing our data at Headquarters. We also thank our local members Keith Danskin and Gerry Dyck for their help at Headquarters, Charles Fausel for his expertise in helping us with our computer needs, Martha Hazen for her valuable suggestions on scientific and organizational issues and for allowing us to use the Harvard photographic plate collection for the HIPPARCOS project, and Barbara Welther for her helpful suggestions with data management using the CFA computers.

A special note of thanks to Ted Wales for his managing of the finances of the Association so well, his caring for the Association, his wise suggestions and recommendations, his assistance to me in the running of the Association, and his very generous financial support.

My sincere appreciation goes to our Committee Chairmen who give generously of their time and wisdom to manage the Committees that they chair. Namely, Marvin Baldwin, Rev. Kenneth Beckmann, Thomas Cragg, Rev. Robert Evans, Clinton Ford, Howard Landis, Charles Scovil, and Peter Taylor.

Much gratitude goes to our Officers Keith Danskin, Clinton Ford, John Percy, Martha Hazen, and Ted Wales, and to our Council Members Marvin Baldwin, Lewis Cook, Charles Fausel, John Griese, Wayne Lowder, Gerard Samolyk, Arthur Stokes, and Barbara Welther for the truly generous contributions of their time and wisdom to assist in the successful operations of the Association.

My personal thanks go to my husband Mike for his understanding and support.

I would like to thank every AAVSO member and observer for their support and for their valuable contributions throughout my 15 years of directorship. My main goal has been and continues to be to make the astronomical community increasingly aware of the "treasure" of the AAVSO - its observers and their observations.

Janet Akyüz Mattei
Director

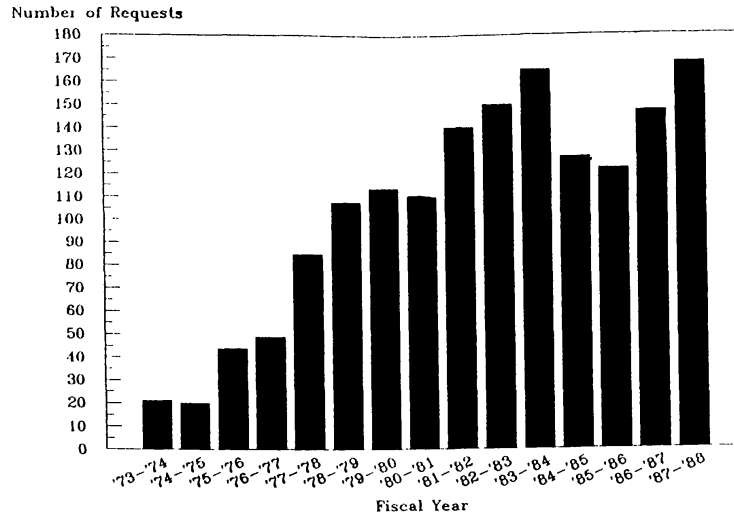


Figure 1. Number of requests for AAVSO data filled each year since 1974.

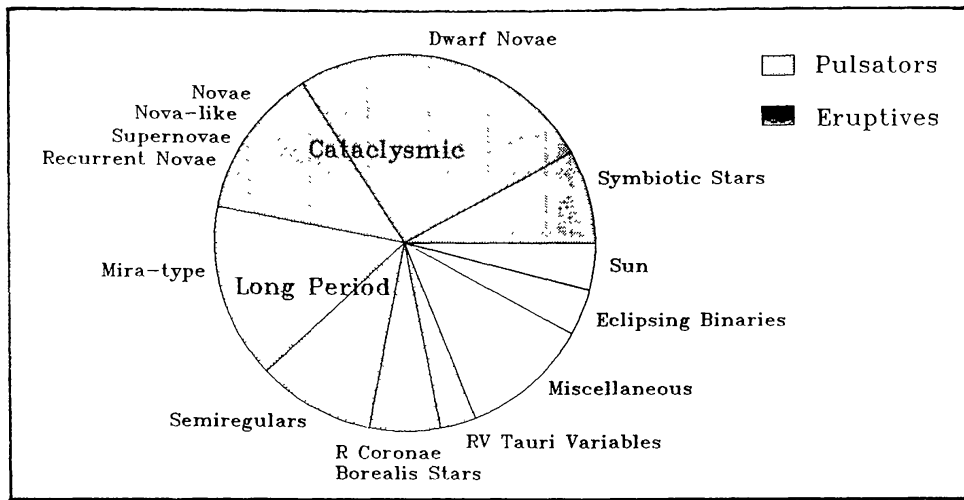


Figure 2. Types of variable stars for which AAVSO data were requested in fiscal 1987 - 1988.

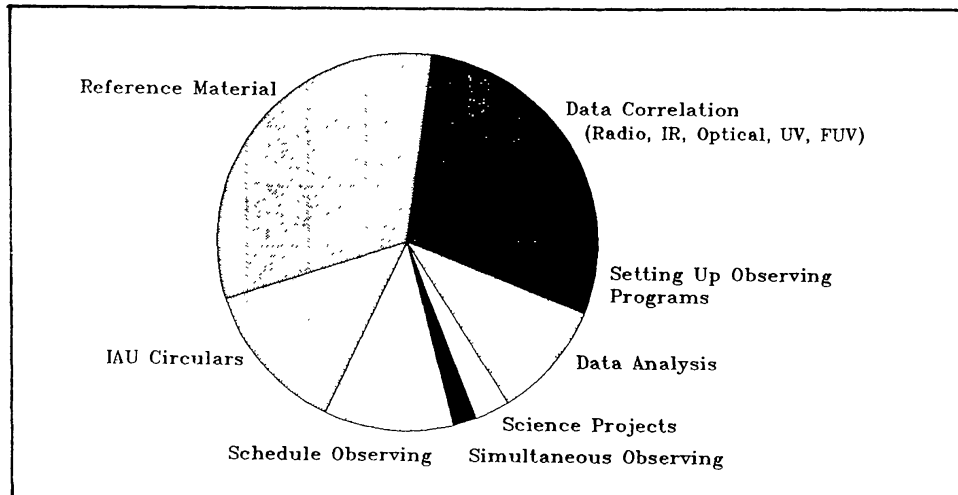


Figure 3. Areas in which AAVSO services were used in fiscal 1987-1988.

TABLE I

AAVSO Observer Totals by Country
1987 - 1988

Country	Number of Observers	Total of Observations	Country	Number of Observers	Total of Observations
Argentina	16	1926	Malta	2	708
Australia	6	3356	Netherlands	18	6853
Austria	3	460	Norway	1	172
Belgium	13	2628	New Zealand	1	142
Brazil	5	865	Panama	1	4
Canada	23	10970	Poland	2	1070
Costa Rica	1	35	Portugal	2	411
Czechoslovakia	2	206	Romania	4	3832
Denmark	5	1075	South Africa	16	15494
England	5	4827	Scotland	1	6
Finland	1	1440	Spain	4	5452
France	50	29377	Switzerland	1	512
Germany (FRG)	13	9233	Turkey	1	140
Germany (GDR)	1	515	Uruguay	1	17
Greece	3	1051	USA	227	101638
Hungary	64	16746	USSR	1	15
India	1	27	West Indies	1	371
Israel	1	248	Zimbabwe	3	674
Italy	13	2364			
Japan	5	4307	TOTAL	518	229167

TABLE II

U. S. A. AAVSO Observer Totals by State
1987 - 1988

State	Number of Observers	Total of Observations	State	Number of Observers	Total of Observations
Arizona	(AZ) 7	2977	Nevada	(NV) 2	29
California	(CA) 27	4210	New Hampshire	(NH) 2	36
Colorado	(CO) 9	6439	New Jersey	(NJ) 5	2577
Connecticut	(CT) 16	3342	New York	(NY) 17	18931
Florida	(FL) 7	3855	North Carolina	(NC) 2	700
Georgia	(GA) 1	190	Ohio	(OH) 10	2665
Hawaii	(HI) 2	6752	Oklahoma	(OK) 3	55
Illinois	(IL) 14	7964	Oregon	(OR) 1	15
Indiana	(IN) 7	6640	Pennsylvania	(PA) 8	2027
Iowa	(IA) 4	133	Rhode Island	(RI) 2	176
Kansas	(KS) 2	77	Tennessee	(TN) 2	90
Louisiana	(LA) 3	529	Texas	(TX) 9	3831
Maine	(ME) 2	399	Virginia	(VA) 7	3626
Maryland	(MD) 9	2959	Vermont	(VT) 4	604
Massachusetts	(MA) 12	11321	Washington	(WA) 8	1955
Michigan	(MI) 5	1164	West Virginia	(WV) 2	623
Minnesota	(MN) 5	1151	Wisconsin	(WI) 7	3350
Mississippi	(MS) 1	3			
Missouri	(MO) 3	243	TOTAL	227	101638

TABLE III

AAVSO OBSERVERS 1987 - 1988

AAP A. P. ABBOTT, CANADA	665-	18	CEA*B. CANDELA, FRANCE	10
AD R. M. ADAMS, MA	71-	19	CW W. H. CARINI, NY	57
AB W. B. ALBRECHT, HI	6704-	143	CGJ J. CARRAGAN, NY	23
ADT D. ALTEWEIER, F.R. GERMANY	498		CGW W. CARRAGAN, NY	141
AAA A. A. ALVES, BRAZIL	322		CGF G. F. CHAPLE JR., MA	1130- 298
AMO M. AMORETTI, ITALY	49		TCE*E. CIFUENTES-TORRES, SPAIN	590- 2
AJR J. R. ANDRESS, OH	91-	1	CPH*P. CLAISSE, FRANCE	9
AZP~P. ANTALICZ, HUNGARY	6		CLK W. E. CLARK, MO	51- 5
ARB B. R. ARNOLD, OH	15		CJN J. COGGINS, ENGLAND	153
ARN*L. ARNOLD, FRANCE	33		CMJ M. J. COLLINS, ENGLAND	84
ASH S. M. ASHE, CO	3		COL P. L. COLLINS, AZ	753- 2
AZN~Z. ASZODI, HUNGARY	21		CMG&G. COMELLO, NETHERLANDS	1856- 173
AKT T. W. ATKIN, WEST INDIES	371-	4	CGG G. CONLIN, WA	313
ATW P. ATWOOD, CA	1187		COO L. M. COOK, CA	276- 133
AUB*J. AUBAUD, FRANCE	10		COM T. COOPER, SOUTH AFRICA	2062- 49
BBJ J. A. BAAB, BRAZIL	3		CLX L. B. COX, CANADA	96- 12
BAC W. B. BACHELOR, MD	2		CR T. A. CRAGG, AUSTRALIA	3062- 946
BOZ~B. BAGO, HUNGARY	727-	39	CRR R. E. CRUMRINE, NY	63- 3
BZA~A. BALAZS, HUNGARY	30		CTL~G. CSATLOS, HUNGARY	1
BM M. E. BALDWIN, IN	6237		CZE~E. CSISZAR, HUNGARY	8
BVE&E. BALLEGOY, NETHERLANDS	29		CZT~T. CSISZAR, HUNGARY	121
BHZ~Z. BALOGH, HUNGARY	10		CSI~I. CSOTI, HUNGARY	706
BBN W. D. BARBIN, PA	6		CSM M. CSUKAS, ROMANIA	725- 4
BSF S. F. BARNHART, OH	22-	2	DOC~C. DANKO, HUNGARY	69
BSR S. BARONI, ITALY	264-	12	DSL L. A. L. DASILVA, BRAZIL	9
BIM M. A. BASTANSKI, ARGENTINA	30		DYJ*J. DAUBY, FRANCE	259
BB R. S. BATES, MA	116		DV G. A. DAVIDSON, KS	8
BBA B. B. BEAMAN, IL	76-	15	DAJ J. F. DAVIS, MD	3
BJS J. R. BEDIENT, MN	38-	6	DMA M. A. DAVIS, VA	19
BTY T. BENNER, PA	639-	232	DRE A. DE LA ROSA JR., TX	233
BBE~B. BERENTE, HUNGARY	9		DFF*C. DEFFAYET, FRANCE	170
BNS*S. BERGERON, FRANCE	431		DEA R. DEMARTINO, CT	121
BIO*P. BERRIOT, FRANCE	63		DFR F. S. DEMPSEY, CANADA	33
BIC*L. BICHON, FRANCE	5271		DET S. M. DETEZANOS, URUGUAY	17
BKN A. J. BIRKNER, IL	59		DGG G. A. DICKINSON, CO	10
BKL J. A. BLACKWELL, MA	5		DPA A. DIEPVENS, BELGIUM	755
BAX A. BOATTINI, ITALY	812-	176	DRD R. D. DIETZ, CO	3
BOH D. BOHME, GERMAN DEM REP	515		MDS M. DIONISI, ITALY	93
BFK&F. BOINCK, NETHERLANDS	43		DRX R. DIXON, NY	49- 1
BYR J. R. BONDONO, MI	385		DPL P. L. DOMBROWSKI, CT	512- 100
BRJ J. E. BORTLE, NY	2394-	817	GDB~G. DOMENY, HUNGARY	343
BMU&R. BOUMA, NETHERLANDS	429-	2	DZS S. DOMINGUEZ, ARGENTINA	649
BDS R. R. BOYD, CA	112		DAG A. C. DREDGE, SOUTH AFRICA	149
BTB T. C. BRETL, MN	176-	50	DUS*R. DUBOIS, FRANCE	206
BVF V. F. BRIGI, ARGENTINA	44		DMO*M. DUMONT, FRANCE	206
BSM S. M. BRINCAT, MALTA	394		DDR~O. R. DUNAI, HUNGARY	2
BKF F. BROCKMEIER, F.R. GERMANY	3		DUP*M. DUPASQUIER, FRANCE	654- 35
BOS E. BROENS, BELGIUM	112		DGP G. P. DYCK, MA	9176-5739
BBT R. R. BROWNING, NJ	1000		EWB W. H. EDWARDS, TN	20
BYV*Y. BRUCHER, FRANCE	54		EIE C. J. EIERS, CA	33- 5
BOA*A. BRUNO, FRANCE	19		EL J. E. ELLERBE, SPAIN	317
BYD R. K. BRYDEN, CANADA	40-	18	ELW S. J. ELWIN, AUSTRALIA	28
BUI*H. BURILLIER, FRANCE	32		EMG S. EMIG, WA	52
BEP&E. P. BUS, NETHERLANDS	12		FJB*J. FAURE, FRANCE	12
BUB F. BUSTOS, ARGENTINA	24		FCA C. A. FAUSEL, MI	4
BTk A. W. BUTTRICK JR., CT	1		FJH&H. FEIJTH, NETHERLANDS	2975- 751
CMN R. D. CAMERON, AUSTRALIA	177		FKJ~J. FEKETE, HUNGARY	317
CJA J. D. CAMPOS, SOUTH AFRICA	298		FRF~R. FIDRICH, HUNGARY	2282- 309
CIA L. CAMURRI, ITALY	33		FLT R. W. FLEET, ZIMBABWE	27

TABLE III (cont'd)

AAVSO OBSERVERS 1987 - 1988

FEM E. M. FLYNN, MO	52-	1	HAB R. H. HAYS JR., IL	1207-	1
FDA~A. FODOR, HUNGARY	49		HEF M. A. HEIFNER, CO	54-	4
FDC~F. FODOR, HUNGARY	7		HEN C. HENSHAW, ZIMBABWE	210	
FFC~F. FOLDESI, HUNGARY	1368		HGZ~Z. HERCEG, HUNGARY	43	
FD C. B. FORD, CT	28-	19	HJN J. HERS, SOUTH AFRICA	496-	184
FT G. L. FORTIER, CANADA	9		HE F. L. HIETT, VA	3535	
FBN B. FRASER, SOUTH AFRICA	76-	6	HRI R. E. HILL, AZ	940	
FSR R. FRASER, SCOTLAND	6		HIR Y. HIRASAWA, JAPAN	832-	113
FRH*A. FRICH, FRANCE	85		HLT G. M. HOLTER, WA	113	
FAA A. FROSINA, ITALY	13		HOO&G.HOOGVEEN, NETHERLANDS	63	
FMG G. C. FUGMAN, IA	63-	1	HDT D. H. HOROWITZ, TX	1121	
GEP E. P. GAGNON, CT	39		HFE~F. HORVATH, HUNGARY	23	
GEC E. C. GALE, IA	8		HSR S. HOSTE, BELGIUM	407-	17
GMK M. GASKILL, TX	14		HJA J. A. HUDSON, CA	58	
GKR R. GECKELER, F.R.GERMANY	36		IML M. IDEM, NY	4100-	1687
GEJ&J. GEENEN, NETHERLANDS	12		ILE~E. ILLES, HUNGARY	120	
GCP C. GERBER, F.R.GERMANY	25		IPA P.A. INGRASSIA, ARGENTINA	85	
GMJ M.J.GEYSER, SOUTH AFRICA	5		IFJ F. J. IVES, NEW ZEALAND	142	
GDI D. P. GILL, OH	71-	1	JCH&C.JOHANNINK, NETHERLANDS	12	
GLF F. R. GLENN, NY	12		JOG G. E. JOHNSON, MD	323-	4
GLW W. H. GLENN, NY	13		JR R. G. JOHNSON, MD	97-	18
GFB W. GOFF, CA	15-	12	JRW R.W.JONES, SOUTH AFRICA	6	
GOT*T. GOMEZ, SPAIN	110		JOO~I. JOO, HUNGARY	7	
GOP P. N. GOODWIN, LA	493-	103	JJL J.L.JOOSTE, SOUTH AFRICA	38	
GIM L. M. GORSKI, IL	98		KDA D. H. KAISER, IN	12	
GMR*M. GOULET, FRANCE	12		KNL~L. KANNAI, HUNGARY	28	
GOY*W. GOUY, FRANCE	134		KEI E. KATO, AUSTRALIA	47-	2
GIV I. GRABOVAC, CANADA	61		KKP&P.KERKVLiet, NETHERLANDS	100	
GFF T. G. GRAFFUNDER, WI	8		KGD D. L. KING, CANADA	23	
GFG F. G. GRAHAM, PA	10		KRB R. P. KING, MN	391-	152
GKA K. A. GRAHAM, IL	15		KLC C. F. KLAUSING, FL	61	
GAF A. F. GRANADOS, CA	4		KPL P. W. KNEIPP, LA	19	
GHC H. C. GRAND, ARGENTINA	4		KGT G. KNIGHT, ME	237	
GHF H. E. GRAY MD, CA	10		KSP S. P. KNIGHT, ME	162-	31
GRW D. W. GREEN, MA	3		KS J. H. KNOWLES, NH	15	
GEZ~Z. GREGOR, HUNGARY	8		KPN P. N. KOCH, NV	27	
GRI J. W. GRIESE III, CT	1916-1323		KOC~A. KOCSIS, HUNGARY	355	
GIA A. GRIMA, MALTA	314		KOZ~Z. KOCSIS, HUNGARY	4	
GSC*C. GROS, FRANCE	1112-	43	KDF D. F. KOCYLA, CT	108	
GML M. GRUNANGER, AUSTRIA	216		KKF K. F. KOEHLER, AZ	629-	1
GCT C. GRUNNET, DENMARK	102		KLK G. A. KOHL, AZ	34	
GUB G. GUBBELS, BELGIUM	321		KHL M. KOHL, SWITZERLAND	512	
GMM M. G. GUMLER, TX	67		KLR T. M. KOLAR, OH	60	
GUN*J. GUNTHER, FRANCE	509-	13	KRS R. S. KOLMAN, IL	3122-	473
GMF M. A. GUTRIDGE, OK	25-	1	KMA M. A. KOMOROUS, CANADA	752	
GWZ*R. GUZIEWICZ, FRANCE	21		KSE S. B. KOMP, MS	3	
GYO~J. GYORI, HUNGARY	7		KRF R. F. KONIOR, NY	56	
HTY T. HAGER, CT	258-	45	KSG G. KORONIS, GREECE	3	
HK E. A. HALBACH, CO	4448-	233	KRT S. KORTH, F.R.GERMANY	892-	265
HMG~G. HALMI, HUNGARY	447		KOS A. KOSA-KISS, ROMANIA	1437-	5
HMR R. HAM, CO	1866-	7	KOA M. KOSHIRO, JAPAN	2064-	820
HIT-T. HAMORI, HUNGARY	17		KVI~I. KOVACS, HUNGARY	394	
HMI M. L. HANKINS, CO	4		KVK~K. KOVACS, HUNGARY	7	
HRR P. HARRINGTON, NY	11		KIS G. KRISCH, F.R.GERMANY	1198	
HLA L. A. HARRIS, PANAMA	4		KRK K. KRISCIUNAS, HI	48	
HAV R. P. HARVAN, MD	1312		KRU J. KRUTA, CZECHOSLOVAKIA	118	
HKP K. P. HASLAG, VA	9		KUC*S. KUCHTO, FRANCE	366	
HSB W.HASUBICK, F.R.GERMANY	732-	9	KSA*A. KUCINSKAS, USSR	15	
HDO~M. D. HAVASSY, HUNGARY	23		KPG&G. KUIPERS, NETHERLANDS	299-	15

TABLE III (cont'd)

AAVSO OBSERVERS 1987 - 1988

KCF C. F. KURTZ, ARGENTINA	634	MOK O. MIDTSKOGEN, DENMARK	797-	225
LND H. J. LANDIS, GA	190	MIU M. MIKUTIS, IA		38
LTW T. W. LANGHANS, CA	578-	261 MKD K. MILLYARD, CANADA	35-	21
LMF M. F. LARA, BRAZIL	67	MTL R. E. MILTON, CA		356
LJS J. J. LAVIGNE, FL	32-	2 MJI J. R. MINER, IN		32
LZT T. LAZUKA, IL	1023	MNK&R. MINK, NETHERLANDS		25
LKD D. C. LEAKE, IL	323	MNT E. R. MINNITI, ARGENTINA		17
LEB*R. LEBERT, FRANCE	419	MZS~A. MIZSER, HUNGARY	3317-	81
LST*S. LECOMTE, FRANCE	74	MCE E. MOCHIZUKI, JAPAN		249
LEE P. LEE, SOUTH AFRICA	16	MMI M. MOELLER, F.R.GERMANY	1826	
LRU*R. LEGENDRE, FRANCE	8	MGY~I. MOGYOROSI, HUNGARY	4-	1
LPI*P. LEISY, FRANCE	131	MOD D. G. MOHRBACHER, OH		45
LNZ G. F. LENZ, CT	14	MOZ Z. MOLNAR, ROMANIA		6
LEV A. J. LEVEQUE, CA	53	MAR R. MONELLA, ITALY	348-	199
LKB K. B. LINSLEY, MA	60	MDE D. R. MONGER, FL		146
LJH J. H. C. LIU, CA	18	MOR R. L. MONSKE, PA	603-	7
LWT T. W. LOHVINENKO, CANADA	257	MJ A. C. MONTAGUE, MI		524
LGV G. V. LOPATYNSKI, CA	12-	5 MOA A. MONTANELLI, ARGENTINA		20
LLH L. M. B. LOPES, PORTUGAL	85	MOI*E. MORILLON, FRANCE		947
LGN G. R. LOPRIORE, MA	114	MB A.G. MORRISBY, ZIMBABWE		437
LOS*S. LORSIGNOL, FRANCE	56	MOW W. C. MORRISON, CANADA	5016-	192
LEJ E. J. LOS, NH	21	MWL W. MOSCHNER, F.R.GERMANY		13
LOT H. LOUTH, WA	1094	MKH S. MUKHERJEE, INDIA		27
LX W. M. LOWDER, NY	7381	MNS*S. MUNIER, FRANCE		4
LTB T. F. LUBBERS, MN	458	MUY E. MUYLLAERT, BELGIUM		210
LBK S. J. LUBBOCK, ENGLAND	1051-	463 MYE K. J. MYERS, IN		4
LBG G. C. LUBCKE, WI	928-	6 NYI~I. NAGY, HUNGARY		6
LKA K. D. LUEDEKE, WA	74	NZO~Z. NAGY, HUNGARY		30
LKS R. LUKAS, FED REP GERMANY	28	NMA~A. NAGY-MELIKUTI, HUNGARY		222
LRE R. LUNSFORD, CA	6-	1 NMB~B. NAGY-MELIKUTI, HUNGARY		2
LJO&J. O. LUURS, NETHERLANDS	194	NRH R. H. NELSON, CANADA	471-	23
LBB B. A. LUX, PA	413	NEC~C. NEUWIRTH, HUNGARY		3
MDW W. J. MACDONALD II, CANADA	4	NGA G. S. NICHOLS, CT		5
MKE R. P. MANSKE, WI	23	NIC M. T. NICHOLS, NC		5
MCO M. MARCARIO, CA	25-	1 NWL&W. NOBEL, NETHERLANDS	366-	2
MJU J. C. MARIONI, ARGENTINA	44	NTS T. S. NORTON, NJ		75
MRX H. MARX, FED REP GERMANY	1622-	32 NVD~D. NOVOTNY, HUNGARY		10
MUI U. MASSIMO, ITALY	4	NOG G. T. NOWAK, VT		173
MSM*M. MASSON, FRANCE	41-	1 OER E. OFEK, ISRAEL		248
MPI*P. MASSON, FRANCE	12-	1 OJO J. O. OLESEN, DENMARK		82
MTH H. MATSUYAMA, JAPAN	53	OV E. G. ORAVEC, NY		3526
MTT J. A. MATTEI, MA	4	OJR*J. R. OSORIO, SPAIN	4435-	1266
MYR E. H. MAYER, OH	2290-	931 OSV~L. OSVALD, HUNGARY		60
MJW J. W. MAYER, PA	252-	23 OTT P. L. OTTERNESS, VA		1
MAZ M. J. MAZUREK, CA	268	OB M. D. OVERBEEK, S.AFRICA	11713-	294
MGU T. J. MCCAGUE, IL	5-	1 PLA A. PADILLA FILHO, BRAZIL		464
MCB R. G. MCCALLUM, CANADA	71	PCP C. PAMPALONI, ITALY	4-	2
MCX A. R. MCCRAE, SOUTH AFRICA	108	PAO S. PAOLANTONIO, ARGENTINA		98
MGG G. L. MCGINNIS, WA	191-	27 PPS~S. PAPP, HUNGARY	3208-	53
MKJ J. F. MCKENNA, NJ	1273-	34 PLI*L. PARMEGGIANI, FRANCE		568
MBC B. P. MCMILLAN, NC	695-	2 PLZ L. PAZZI, SOUTH AFRICA		51
MED K. J. MEDWAY, ENGLAND	2852	PN A. E. PEARLMUTTER, MA		265
MDG D. L. MEGGINSON, MO	140	PEI E. PEDERSEN, DENMARK	68-	4
MJQ&D. MEIJER, NETHERLANDS	3	PEG*C. PEGUET, FRANCE	298-	1
MHI H. I. MENALI, TURKEY	140	PMR M. R. PERALA, FINLAND	1440-	83
MDJ D. J. MENDICINI, ARGENTINA	7	PAE A. J. S. PEREIRA, PORTUGAL	326-	3
MNZ E. MENEGUZZO, ITALY	320	PZA*A. PEREZ-REVILLA, FRANCE	4269-	4
MPY P. MEYERS, SOUTH AFRICA	84	PML*M. PERROT, FRANCE		49
MDI I. A. MIDDLEMIST, ENGLAND	687	PED D. B. PETTENGILL, FL	1732-	30

TABLE III (cont'd)

AAVSO OBSERVERS 1987 - 1988

PFA J.A. PFANNERSTILL JR., WI	15	SDW D. SHANNON, WA	16
PKT J. A. PICKETT, AZ	3	SHS S. B. SHARPE, CANADA	2297- 27
PKI O. R. PIECHOWSKI, MI	4	SSA A. P. SHARPLESS, WA	102- 1
PIJ~J. PIRITI, HUNGARY	231	SHW W. R. SHERMAN, IN	273
PIZ P. PIZZI, ARGENTINA	72	SIH*M. SILHOL, FRANCE	1100
PLS G. PLESIER, BELGIUM	121	SMO~L. SIMONICS, HUNGARY	9
PLR R. M. POOLE, TX	253	SKK A. L. SKERKER, VA	12
PLL M. R. PORCELLINO, IL	24	SDN D. M. SLAUSON, IA	24
PMI M. POTTER, MD	28- 8	SJX J. SMIT, SOUTH AFRICA	214
PWR R. E. POWASKI, OH	50	SMQ M. S. SMITH, AZ	531
PHD H. D. POWELL, TN	70	SRV R. V. SMITH, CA	139
PDO D. P. PRAY, RI	63	SLP T. L. SMITH, VA	2
PCJ C. J. PREDOM, CT	11	SNX L. F. SNYDER, NV	2
PRI L. H. PRICE, CA	1	SOD J. SODER, OH	11
PDQ*D. PROUST, FRANCE	166- 5	SSZ~Z. SOOS, HUNGARY	210
RJE J. RASMUSSEN, CA	5	SOH H. SORENSEN, DENMARK	26
RJT J. T. REED, OK	29	SJZ J. SPEIL, POLAND	809
REP P. REINHARD, AUSTRIA	19	SPO J. SPONGSVEEN, NORWAY	172
RNT C. C. REINHART, OH	10	SC C. E. SPRATT, CANADA	5
RRC R. C. REISENWEBER, PA	42	SFJ F. J. ST. LOUIS, CANADA	15
REN*J. RENAULT, FRANCE	163	SSP P. A. STAMUS, CO	27
RJI J. I. RIGGS, NY	964- 211	STR R. H. STANTON, CA	88- 45
RLR R. L. ROBINSON, WV	120	SKS T. STECKNER, CANADA	35- 1
RGP P. ROGGEMANS, BELGIUM	473	STI P. C. STEFFEY, FL	1224- 167
RJA*J.-P. ROHART, FRANCE	14	SGP P. E. STEGMANN, NJ	102
RHR H. D. ROMERO, ARGENTINA	19	SET C. STEPHAN, FL	509- 44
RB D. W. ROSEBRUGH, FL	151	STF G. STEPHANOPOULOS, GREECE	940
RGB G. B. ROSENBERG, CA	145	SWT R. J. STEWART, NJ	127- 10
RSW W. ROSENTHAL, CA	5- 1	STQ N. STOIKIDIS, GREECE	108
ROG G. M. ROSS, MI	247- 71	STG G. STONE, MA	10- 1
RLU L. ROSSI, ITALY	368	SAX A. J. STUDER, VT	6
RWL D. A. ROWLEY, VA	48	SUM M. T. SUADONI, ITALY	20
RR R. E. ROYER, CA	252- 50	SUS D. SUSSMANN, F.R.GERMANY	2315
RPH H. RUMBALL-PETRE, CA	12	SVN P. L. SVENTEK, TX	1487- 66
RKR K. RUMINSKI, POLAND	261	SZX~Z. SZALMA, HUNGARY	2
SJC J. C. SADOW, LA	17	SAO~A. SZAUER, HUNGARY	131
SGT~I. SAGODI, HUNGARY	209	SNO~L. SZENTASKO, HUNGARY	10
SJU*J.L.SAINT-JQUAN, FRANCE	7	SZK~G. SZITKAY, HUNGARY	34
SJQ A. SAJTZ, ROMANIA	1664	SUZ~P. SZUTOR, HUNGARY	21
SSU S. SAKUMA, JAPAN	1109- 307	TDB D. B. TAYLOR, CANADA	684- 2
SAH G. SAMOLYK, WI	1764	TSZ~S. TEICHNER, HUNGARY	303
SSR R. SAMPSON, CANADA	146	TPS~I. TEPLICZKY, HUNGARY	237
SJM J. SAPP, CO	24	THR R. R. THOMPSON, CANADA	161
SGU~G. SARI, HUNGARY	105	THU*B. THOUET, FRANCE	430
SCK B. E. SCHAEFER, MD	38	TSR~I. TISZINGER, HUNGARY	64
SCQ T. A. SCHELL, TX	39	TJO J. H. TOBIN, CT	54
SIR D.SCHILLER,SOUTH AFRICA	25	TRT~T. TORDAI, HUNGARY	1
SMF F. SCHMIDT, NY	25	TTH~T. TOTH, HUNGARY	11
SRD R. H. SCHMIDT, MN	88	TRY R. TRANK, IL	5
SAQ&A. SCHOLTEN,NETHERLANDS	68	TFN F. N. TRAYNOR,AUSTRALIA	28
SLZ G.SCHOTT,FED REP GERMANY	45	TDM D. M. TROIANI, IL	122- 2
SCY A. SCHROYENS, BELGIUM	6	TUD~B. TUDOS, HUNGARY	70
SCZ*E. SCHWEITZER, FRANCE	1956- 90	TUC C. TURK, SOUTH AFRICA	153
SCE C. E. SCOVIL, CT	38- 16	TNL N. J. TURNER, AUSTRALIA	14
SEZ*J. SEGONZAT, FRANCE	488- 1	TYS R. L. TYSON, NY	110
SMV M. SEKIGUCHI, IL	15	UND G. E. UNDERHAY, CA	182- 1
SRZ~Z. SERES, HUNGARY	21	VFR*F.VACLIC,CZECHOSLOVAKIA	88
SEN&P. SERNE, NETHERLANDS	341- 3	VAI*J. VAIDIS, FRANCE	3
SVY N. SEVERIJNS, BELGIUM	12	VNL F. R. VAN LOO, BELGIUM	27

TABLE III (cont'd)

AAVSO OBSERVERS 1987 - 1988

VWS J. VANWASSENHOVE, BELGIUM	26	WTJ J. E. WEST, TX	265-	62
VPL P. VARELA, ARGENTINA	29	WRA R. A. WEST, AZ	87	
VKG-G. VASKUTI, HUNGARY	6	WMB&M.WESTENBROEK, NETHERLANDS	26	
VED*P. VEDRENNE, FRANCE	3750-	1 WHI S. L. WHITNEY, RI	113	
VRG R. VENNE, CANADA	35	WTK-K. WIESZT, HUNGARY	265	
VET*M. VERDENET, FRANCE	3699-2005	WI D. B. WILLIAMS, IN	37	
VIA*J. VIALLE, FRANCE	230	WMR R. H. WILLIAMS, VT	16	
VNZ~Z. VICIAN, HUNGARY	7	WJY J. WILMS, BELGIUM	73	
VGP*P. VIGNIER, FRANCE	704-	14 WLP P. WILS, BELGIUM	85	
VLL A. VILLALOBOS, COSTA RICA	35	WSN T. W. WILSON, WV	503-	178
VLR W. VILLAR, ARGENTINA	150	WCL C. L. WOMACK, TX	352	
VGJ G. J. VINCI, CT	237-	28 WJM J. E. WOOD, CA	168	
VOL W. VOLLMANN, AUSTRIA	225	WOL P. WOODRILL JR., NY	6	
WGL G. M. WAHLGREN, MD	1	WMI M. J. WRIGHT, WI	439	
WKP P. R. WALKER, VT	409-	24 WRO R. L. WRIGHT, CA	202	
WKR T. D. WALKER, OR	12	YON R. R. YOUNG, PA	62	
WND*D. WALLIAN, FRANCE	113	YUR J. A. YURCHESYN, CANADA	38	
WER R. J. WEBER, KS	69	ZAG-G. ZAJACZ, HUNGARY	35	
WEI D. D. WEIER, WI	173-	40 ZLT-T. ZALEZSAK, HUNGARY	343	
WC R. E. WEND, IL	1870-	11 ZAM M. ZANOTTA, ITALY	36	
WEF F. R. WEST, MD	1155	ZPA P. A. ZELLER, IN	45	
WJD J. D. WEST, OK	1	ZRE R. E. ZISSELL, MA	367-	90

* also member of Association Francaise des Observateurs d'Etoiles Variables (AFOEV).

~ also member of Pleione Valtozocsillag-eszlelo Halozat (PHV) (Hungary).

& also member of Nederlandse Vereniging Voor Weer-en Sterrenkunde, Werkgroep Veranderlijke Sterren (NVVWS, WVS).

TABLE IV

Individuals Requesting AAVSO Data in Fiscal Year 1987 - 1988*

Name	Affiliation
Allman, W.	U.S. News
Baliunas, S.	Harvard-Smithsonian Center for Astrophysics, MA
Baliunas, S.	Harvard-Smithsonian Center for Astrophysics, MA
Barnes, T.	University of Texas, TX
Benson, P.	Wellesley College, MA
Benson, P.	Wellesley College, MA
Benz, A. O.	Institute for Astronomy, Switzerland
Benz, A. O.	Institute for Astronomy, Switzerland
Benz, A. O.	Institute for Astronomy, Switzerland
Benz, A. O.	Institute for Astronomy, Switzerland
Boggino, A. E.	National University of Asuncion, Paraguay
Bode, M.	Lancashire Polytechnic, England
Brewer, D.	DeBary, FL
Buchler, J. R.	University of Florida, FL
Cannizzo, J. K.	McMaster University, Canada
Carone, T.	University of Arizona, AZ
Carone, T.	University of Arizona, AZ
Carone, T.	University of Arizona, AZ
Cassatella, A.	IUE Observatory, Spain
Charles, P. A.	Oxford University, England
Cohen, S.	Knoxville, TN
Collins, P.	Scottsdale, AZ
Crowe, R.	University of Hawaii at Hilo, HI
Deeds, T.	New York, NY
Drilling, J.	Louisiana State University, LA
Fehrenbacher, G.	The Standard-Times , MA
Fjermedal, G.	Seattle, WA
Fortier, E.	N. Scituate, MA
Garcia, M.	Harvard-Smithsonian Center for Astrophysics, MA
Garnavich, P.	University of Washington, WA
Gerencher, J.	Moravian College, PA
Gehrz, R.	University of Minnesota, MN
Gillet, D.	Observatoire de Haute-Provence, France
Grenon, M.	Observatoire de Geneve, Switzerland
Grenon, M.	Observatoire de Geneve, Switzerland
Gros, C.	Besancon, France
Hall, S.	New York, NY
Hassall, B.	Oxford University, England
Hazelrigg, K.	WGBH-TV, MA
Hazelrigg, K.	WGBH-TV, MA
Hazelrigg, K.	WGBH-TV, MA
Hessman, F. V.	Max-Planck-Institut fur Astronomie, W. Germany
Hollis, J.	NASA Goddard Space Flight Center, MD
Holm, A.	Space Telescope Science Institute, MD
Imhoff, C.	NASA Goddard Space Flight Center, MD
Jolly, A.	Forestville, CT
Jones, B.	United World College of S. Africa, S. Africa
Jordan, C.	San Antonio, TX
Kaitchuck, R.	The Ohio State University, OH
Kabiraj, S. P.	W. Bengal, India
Karovska, M.	Harvard-Smithsonian Center for Astrophysics, MA
Kenyon, S.	Harvard-Smithsonian Center for Astrophysics, MA
King, J.	Boston, MA
Kiplinger, A.	NASA Goddard Space Flight Center, MD
Kiplinger, A.	NASA Goddard Space Flight Center, MD
Kiplinger, A.	NASA Goddard Space Flight Center, MD
Kucinskas, A.	Lithuania, USSR
Lacey, S.	Burlington, MA

TABLE IV (cont'd)

Individuals Requesting AAVSO DATA in Fiscal Year 1987 - 1988*

Ofek, E.	Tel Aviv, Israel
Oliverson, R. J.	NASA Goddard Space Flight Center, MD
Orland, R.	Loyola University Medical Center, IL
Osborn, W.	Central Michigan University, MI
Overcash, J.	Myrtle Beach, SC
Page, S.	Clinton, WA
Paresce, F.	Space Telescope Science Institute, MD
Pazmino, J.	New York, NY
Percy, J. R.	University of Toronto, Canada
Percy, J. R.	University of Toronto, Canada
Percy, J. R.	University of Toronto, Canada
Percy, J. R.	University of Toronto, Canada
Perquilly, D.	NASA Goddard Space Flight Center, MD
Pesnell, D.	New Mexico State University, NM
Petrovko, M.	N. Falmouth, MA
Phelps, R.	Boston University, MA
Polidan, R.	University of Arizona, AZ
Salter, R.	Allentown, PA
Sampson, R.	Edmonton Space Sciences Centre, Canada
Schaefer, B. E.	NASA Goddard Space Flight Center, MD
Schiller, S. J.	South Dakota State University, SD
Schindler, L.	Charles Hayden Planetarium, MA
Schorn, R.	Sky & Telescope magazine, MA
Schorn, R.	Sky & Telescope magazine, MA
Shara, M.	Space Telescope Science Institute, MD
Spella, L.	European Space Agency, Netherlands
Starrfield, S.	Arizona State University, AZ
Sullivan, M.	Astronomy & Deep Sky magazine, WI
Swank, J.	NASA Goddard Space Flight Center, MD
Szkody, P.	University of Washington, WA
Szkody, P.	University of Washington, WA
Szkody, P.	University of Washington, WA
Szkody, P.	University of Washington, WA
Szkody, P.	University of Washington, WA
Szkody, P.	University of Washington, WA
Talcott, R.	Astronomy magazine, WI
Torbett, M. V.	University of Kentucky, KY
Townes, C.	University of California, CA
Wahlgren, G. M.	Space Telescope Science Institute, MD
Wallerstein, G.	University of Washington, WA
Wallerstein, G.	University of Washington, WA
Warner, B.	University of Texas, TX
Warner, B.	University of Texas, TX
Warner, B.	University of Texas, TX
Warner, B.	University of Texas, TX
Wasserman, I.	Cornell University, NY
Welsh, W.	The Ohio State University, OH
Whidden, C. J.	Morehead State University, KY
Wood, J.	Cambridge University, England

* Name repeated for each request.