

**ANNUAL REPORT OF THE DIRECTOR  
FOR FISCAL YEAR 1985-1986**

It is a privilege and an honor for me to present my 13th Annual Report in the 75th Anniversary year of the Association. I will cover different areas of our operation, and where appropriate, I will also look back and reflect how various areas were administered in the past.

**NEW PERMANENT HEADQUARTERS OF THE AAVSO - CLINTON B. FORD ASTRONOMICAL DATA AND RESEARCH CENTER**

One of the major activities of this year has been the purchase of, the move to, and the settling of our new Headquarters - The Clinton B. Ford Astronomical Data and Research Center. I would like to share with you the details of this historic event.

We "passed papers," i.e., signed the deed for the new Headquarters (HQ) at 25 Birch Street, Cambridge, Massachusetts, on October 30, 1985, only one day before the 74th Annual Meeting at Mount Holyoke College. Extensive legal and formal negotiations with the previous owner preceded this event. We were much elated to at last be the proud owners of this property located next to Sky Publishing Corporation.

Our newly renovated Headquarters were in good condition. However, before we moved in there were some things that needed checking and upgrading. Thus, we spent November and December of 1985 in preparing the building for our move. The sprinkler system was checked thoroughly by Sylvia Danskin's father, a specialist in the field, and the system was consolidated into one from the two systems it had been. On the upper floor, new pipes were added and sprinkler heads lowered below the ceiling. Smoke detectors and burglar alarms were installed in every room. The electrical system was thoroughly checked and new lines added for computers and telephones. Gas pipes were connected to the main line and leaks in the pipes checked and fixed. Old windows in the lower floor were replaced with energy-efficient, more secure, glass-block windows. New telephones with two lines and six extensions were installed.

Edward Halbach from Colorado and Roy Lee from Florida spent two weeks at the new HQ to build much-needed shelves and tables for the library, the reception, mailing, and computer rooms, and my office. They also took care of other odds and ends such as installing doors and screens, adding a mail slot, and crafting an AAVSO sign. Local members and HQ staff then spent several weekends staining shelves and doors and painting the woodwork. After a thorough cleaning of the building, our new "home" was ready to be moved into.

We had been at the 187 Concord Avenue offices since 1965. The Association had grown by leaps and bounds in twenty years and every corner of Headquarters had been totally occupied with books, computer cards, data records, charts, and light curves. It took 10 days for the Headquarters staff to pack the contents of our offices. The amount of materials we had housed in our rather small office astounded us - 400 moving boxes, 1000 computer card boxes, 55 filing cabinets, and lots of old office furniture! We moved the Headquarters to our new location in 1 1/2 days (January 25 and 28) in five truck loads with the help of nine strong young men.

Unpacking and settling our new HQ required significant amounts of planning and time - February, March, and April. The staff worked as a team and organized the office in the most efficient manner for our operations. Thanks to the generosity of our members and Clint Ford, we furnished the library with a new conference table and chairs, the

windows with vertical blinds, and my office with a new desk and chairs. Through an electroplating process, we repainted all our various shades of grey, black, and green metal office furniture and filing cabinets to beige. This made a big difference in the appearance of the office. Finally, the AAVSO sign for the building, designed by architects Chris Heinzmann, a relative of volunteer George Raymond, and Renae Stark, and utilizing the projected star drawn by Newton Mayall, was made and installed. We are now officially settled in our new Headquarters and are extremely joyful!

## DATA MANAGEMENT

Let us look back to 1936 when the Association was celebrating its 25th Anniversary. How were the observations processed then? The observers were already reporting their observations on standardized report forms issued by Harvard College Observatory. The observations were plotted on specific light curves of each star as they were received, then typed on ledgered cards in preparation for their publication. Until 1936, the AAVSO observations had been published monthly in *Popular Astronomy* magazine. However, the observations became so voluminous (over 45,216 for the year) that the magazine was no longer able to publish them. Thus, Dr. Harlow Shapley, the Director of Harvard College Observatory, agreed to have the observations published quarterly in *Harvard Annals*, starting in 1936. This may have been the origin of the AAVSO title, "Quarterly Reports". In these Reports the observations of each star were listed individually in Tables and published in four parts per volume, covering two years.

Let us now look back to 1961 when the Association celebrated its 50th Anniversary. We had left Harvard College Observatory and had become an independent, non-profit, scientific and research organization in 1954. The observations were no longer published in *Harvard Annals* as we were not part of Harvard. In order to cut the high cost of printing the increasing number of incoming observations (57,510 for the year), the Association decided to publish 10-day means, rather than listings of individual observations of long period and semiregular variables. Individual observations were still published for eruptive and short period variable stars. The incoming observations were again plotted on light curves of individual stars. To prepare the data for publication, the observations were typed on Linadex strips, one observation per strip, and the strips were then sorted by star and by date within each star and filed on Linadex panels. The observations were grouped and 10-day means calculated, using a Monroe mechanical hand calculator. The 10-day mean values were typed for each star, and published in *AAVSO Quarterly Reports*, which appeared as they were prepared.

Now let us turn to 1986, when the Association is celebrating its 75th Anniversary. The AAVSO is now in its permanent home, with rooms dedicated to computers and data processing for the increasing number of observations (222,169 for the year). Computers, both at HQ and the Harvard-Smithsonian Center For Astrophysics (CFA), are essential to computerize and process the data. Observations are received from observers worldwide on AAVSO report forms, and they are checked and then keyed into the microcomputers at HQ and written on diskettes. The observation files are then converted to a format compatible with the Digital VAX System at CFA where, using several customized AAVSO programs, the observations are processed, checked against the library file of program stars, sorted, and finally listed individually by star and by date within each star. Using these lists, the light curves of each star are then brought up to date. The observations are published in the form of computer-plotted light curves, with each dot representing one observation, in *AAVSO Monographs*, which contain 20-year light curves, one star per Monograph.

The processing and publication of observations has thus changed with the times, to meet the demands of the astronomical community, the increasing amount of data, and the high cost of printing.

After this historical review, let us look at our present data management activities.

**1. Current Data Processing:** The entry of incoming observations into the computer fell behind when we started to pack the 'old' HQ. The computers were not used for several weeks during the packing period because of the enormous amount of dust raised. However, after the move to the new HQ and the organization of the data processing and computer room, the entry of the data speeded up significantly. We are now up to date in the entry and the processing of the incoming data.

**2. Computerization of the Archival Data from 1911 to 1961:** This priority project, vital for the accessibility and the security of the data, recorded slow progress in the beginning of the year due to the move. However, once we were settled in our new HQ, one full-time and two summer-student data entry processors were added to the staff. Increased staff resulted in rapid progress. We rejoiced to have entry completed of the over 160,000 observations of Reginald de Kock, the AAVSO's all-time top observer. Observations of observers whose last name start with the letter "E" are now being computerized.

**3. Publication of Data:** The second priority project of the publication of long-term light curves in Monograph series is progressing well. **AAVSO Monograph 1**, containing computer-generated light curves of SS Cygni from 1963 to 1986, and the historical light curve from its discovery in 1896 to 1963, was published in October of 1985. The astronomical community was informed of this publication through individual announcements to astronomers in the field of cataclysmic variables, and also through an announcement in the **American Astronomical Society Newsletter**. This publication has been well received, with distribution of over 300 copies to our members, astronomers, universities, and observatories. **AAVSO Monograph 2** on U Geminorum is nearing completion. Initial checking of the data on 14 stars has also been completed. Our goal is to publish four monographs per year.

#### **SPECIAL REQUESTS FOR AAVSO DATA**

The AAVSO was founded for the purpose of making observations of variable stars made by amateur astronomers available to professional astronomers. This has always been the main goal of the Association. During the last two decades, as astronomers extended their research of variable stars to multicolor wavelengths of the electromagnetic spectrum, the AAVSO optical data have played and continue to play an important role in correlating observations and in understanding the behavior of variable stars. Each year we supply AAVSO data to a significant number of astronomers, students, and writers.

This year we supplied data for 123 requests from astronomers, students, government agencies, science writers, and individual researchers in the United States and around the world. A list of names of individuals making the requests, along with their affiliation and location, is given in Table IV at the end of my report.

The list below gives the types of variable stars for which data have been requested and their percentage of the total number of requests:

1. Cataclysmic variables - dwarf novae (36%),  
novae, recurrent novae, and nova-like (10%)

2. Long period variables - Mira type (9%),  
    semiregular - (9%)
3. Symbiotic stars - Z And type (12%)
4. Eclipsing Binaries - (6%)
5. RV Tauri stars - (5%)
6. S Doradus variables - (3%)
7. Cepheid variables - (3%)
8. Sun - (3%)
9. R Coronae Borealis stars - (2%)
10. Nebular variables - (2%)

The categories listed below indicate the areas in which AAVSO data and services have been used:

1. **Data correlation (31%):** AAVSO data have been used to correlate: a) photometric, spectroscopic, and polarimetric data obtained with special instruments on large ground-based telescopes; b) x-ray, ultraviolet, and infrared data obtained with instruments aboard spacecraft such as the European X-Ray Observatory Satellite (EXOSAT), the International Ultraviolet Explorer (IUE), and the Infrared Astronomical Satellite (IRAS); c) data in the radio wavelengths obtained with radio telescopes.

2. **Reference Material (24%):** AAVSO light curves, finder charts, and information on individual variable stars have been vital reference sources for articles in magazines such as **Sky & Telescope**, **Astronomy**, **Air and Space**, and **Deep Sky**, and in several newspapers.

3. **Scheduling Observing Runs (23%):** Astronomers applying for telescope or satellite time to observe variable stars often depend upon the information we provide on the behavior of these stars prior to and during the scheduled time. We have assisted in the scheduling of such observing runs on long period and semiregular variables, cataclysmic variables, and symbiotic stars. Some of the targets for these runs have been the long period variables R Cas, U Her, Mira, and VX Sgr, the cataclysmic variables U Gem, X Leo, TW Vir, RU Peg, SS Cyg, Z Cam, AM Her, and EY Cyg, and the symbiotic stars AG Dra, CI Cyg, CH Cyg, and Z And.

4. **Data Analysis (10%):** AAVSO data have been used in the analysis of the long term behavior of semiregular, cataclysmic, Cepheid, and S Doradus variables.

5. **Simultaneous Observing Runs (8%):** The observers of AAVSO provide a unique service to astronomers with their simultaneous monitoring of stars in special ground-based or satellite observing programs. Generally it is our observers who alert the astronomers to unusual activity or behavior in observing targets. This information has been crucial for maximizing the efficiency of special instruments, for obtaining vital data during rare events, and for the overall success of the observing runs. Our observers participated in eight ground-based and satellite observing programs through the simultaneous monitoring of observing targets.

6. **Setting Up Special Observing Programs (4%):** We have provided information, finding charts, light curves, and guidance to set up special observing programs for colleges and for observing groups.

I would like to share with you some of the highlights of the requests for data we have received:

During October and November 1986, U Geminorum had an outburst that lasted over 30 days. This was the longest recorded outburst for U Gem. Upon our alerting them, astronomers from Los Alamos National Laboratory were able to observe U Gem with EXOSAT. The data in the x-ray region

showed periodic oscillations which disappeared when U Gem started to fade. The astronomers planned to monitor U Gem again during its next outburst, but unfortunately, EXOSAT "died" before the outburst occurred.

The cataclysmic variable SW UMa, which has rare outbursts, had a very long and bright outburst in March 1986 - the longest in our records for this star! Upon being alerted by our observers to this rare outburst which appeared to be a superoutburst, we informed the astronomical community through telephone calls to individual astronomers and the publication of a notice in the *I.A.U. Circulars*. SW UMa was not known to have superoutbursts or to belong to the SU UMa class of dwarf novae. Dr. Edward Robinson, observing at McDonald Observatory of the University of Texas, was very interested in the news and monitored the star with a high-speed photometer. The excellent data set obtained showed superhumps (small-amplitude, periodic oscillations 2 - 3% longer than the orbital period of the system; they are the signature of SU UMa dwarf novae). The data confirmed that SW UMa was undergoing a superoutburst and thus this star belonged to the SU UMa class. Dr. Robinson invited me to be a co-author to the paper on SW UMa. This paper, submitted for publication, contains the AAVSO data of the superoutburst together with the high-speed photometric data and a detailed discussion of the results.

Another interesting event was the eruption of VY Aquarii in May of 1986. The research of our member Robert McNaught on this interesting star drew the attention of the astronomical community to it in recent years. The May eruption seemed to be a superoutburst, but this star was not known to be an SU UMa cataclysmic variable having superoutbursts. Again, upon receiving the news of the outburst from our observers, we alerted the astronomical community. Dr. Howard Bond, observing at Kitt Peak Observatory, revised his observing program after receiving my telephone message and concentrated on observing VY Aqr. Later, he informed me that he had obtained excellent high-speed photometric data which showed superhumps. Again, our observers' valuable information made it possible to classify this star as an SU UMa system.

Astronomers at the University of California were interested to observe with radio telescopes, at maximum, those bright long-period variable stars known to be SiO masers. Our extrapolated data indicated that all the stars in the program were going to be faint at the time of the scheduled observing run. This vital information caused them to reschedule their observing time for a later date.

Dr. Sidney van den Bergh, from the Dominion Astrophysical Observatory, asked our assistance in his study of the intrinsic colors and absolute magnitudes of galactic novae. Our extensive light curves of novae are being used in the determination of the dates of maximum and the rates of decline and colors for 2 and 3 magnitudes below maximum.

One of the most exciting observing runs on which we collaborated was the International Search For Outbursts of Cataclysmic Variables. In this project astronomers around the world participated in observing these eruptive variables at multicolor wavelengths ranging from the ultra-violet to the radio. The purpose of the project was to observe these stars at the onset of eruption in order to understand the causes of the outbursts. Through **AAVSO Alert Notices**, 220 observers were alerted to the project and the objectives of the observing run. Using the up-to-date data from our observers we were able to order the priority of the observing targets for the astronomers. Of the 35 stars of interest, 20 were cancelled out, as they had just recently had outbursts. For the remaining stars we predicted the outburst dates, which helped astronomers in deciding what stars to concentrate on.

During the observing run, three of the four stars had outbursts, as we had predicted. Very good multiwavelength data were obtained for SU UMA and T Leo. Just when the IUE satellite had ended its monitoring time for this project, four more stars had outbursts! Some observatories were able to obtain good optical data during these outbursts. The participating astronomers were extremely appreciative of the crucial role our observers played. Throughout the observing run it was the AAVSO observers who guided the astronomers as to what stars to observe. This very important service helped in maximizing the efficiency of all the special instruments used on telescopes and aboard satellites.

#### **OPPORTUNITIES FOR AMATEUR ASTRONOMERS TO OBSERVE WITH THE HUBBLE SPACE TELESCOPE**

On August 7, 1986, Dr. Riccardo Giacconi, the Director of the Space Telescope Science Institute, at a press conference in Baltimore, Maryland, formally announced that he will allocate part of his discretionary time on the Hubble Space Telescope for amateur astronomers' use. This news is exciting indeed! I was proud to be representing the AAVSO at this conference.

Dr. Giacconi was the Director of the HEAO-2 satellite, and the vital role our observers played in the observing runs made with that satellite convinced him of the capabilities of amateur astronomers and encouraged him to provide observing possibilities to amateur astronomers.

Representatives from major amateur astronomers' groups in the United States were invited to the Space Telescope Science Institute to discuss the logistics of reviewing and selecting the eligible proposals submitted by amateur astronomers. We invite observers to participate in this unique opportunity. More proposal details may be obtained from Headquarters.

#### **SUMMARY OF OBSERVATIONS**

This year we reached another milestone in our observing totals when AAVSO's 5,500,000 observation, made of SS Cyg on December 29, 1985, was received from George Knight of Maine!

The observers are the heart of AAVSO. It is the dedication, the tireless efforts, and the valuable contributions of our observers that give the AAVSO its high reputation in the astronomical community. In this 75th Anniversary year and always we salute our observers!

We received 222,245 observations from 473 observers worldwide during the 1985 - 1986 fiscal year. These totals include 102,948 observations from 230 observers in 37 states of the United States, and 119,297 observations from 243 observers in 33 countries. Massachusetts with 12 observers and 13,400 observations, New York with 20 and 13,159, and Colorado with 4 and 9,407 are the leading States of the USA, while France with 34 observers and 31,042 observations, South Africa with 12 and 14,395, and Hungary with 38 and 10,810 lead the countries abroad. These totals include the 346 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 5,654,447.

Table I lists the number of observers and the total number of observations received from each country 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 AAVSO 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, 13 between 2000 and 3000, 11 between 3000 and 4000, 4 between 4000 and 5000, and 3 between 5000 and 6000. Alain Perez-Revilla (AFOEV) contributed 5,805 observations, Gerry Dyck 8,572, and Danie Overbeek 10,707.

Gerry Dyck sent in the highest number of inner sanctum observations with 5116, followed by Michel Verdenet (AFOEV) with 2,925 and Richard Ducoty with 1,667.

Each year we have been receiving more and more photoelectric data from our photoelectric photometrists. For several years we have been working on standardizing the reporting of observations, and computerizing and processing them. I am happy to report that this year our computer programmer Charles M. Jones, together with Howard Landis, developed the computer program, and Howard Landis computerized and processed all of the photoelectric photometry observations in the AAVSO data files. This year the following observers sent in photoelectric observations of stars in our photoelectric photometry program: Dietmar Bohme, S. J. Elwin, George Fortier, Paul Kneipp, George Kohl, Arthur Koster, Kevin Krisciunas, Howard Landis, Howard Louth, Frank Melillo, Luciano Pazzi, Donald Pray, Robert Reisenweber, and Samuel Slotte.

My very sincere thanks to our observers for their dedicated efforts, and for the valuable observations contributed to the AAVSO and variable star astronomy. Let me say again that each observer's observations, one or thousands, are very much appreciated and valued. My special thanks to observers for calling HQ and reporting observations of stars showing unusual behavior and/or of special interest to astronomers.

#### **INTERNATIONAL COOPERATION**

The participation of observers worldwide in our observing programs continues to increase. We continue to receive observations in a unit from variable star observers in France, the Netherlands, and Hungary, and of course individually from observers worldwide. This year, as well as several times in the past, we have received more observations from observers outside the USA than observers in USA. This in itself is a testimony to and evidence of the international nature of the AAVSO as well as the continuation of the international cooperation.

The attendance at our 75th Anniversary Meeting of Dr. Frank Bateson and Gordon and Alan Smith from New Zealand, Thomas Cragg and Robert McNaught from Australia, Sei-ichi Sakuma from Japan, Jan Hers and Danie Overbeek from South Africa, and Attila Mizser from Hungary, together with papers sent in by Emile Schweitzer (AFOEV), Henk Feijth (Netherlands), Werner Braun (West Germany), Frank Deboosere (Belgium), Peter Reinhard (Austria), Aare Kellomaki (Finland), and Bjorn Granslo and Jul Spongsveen (Norway), enriches our celebrations and helps to increase the collaboration among variable star groups worldwide.

We continue to receive valuable data from members of the Variable Star Section of the Royal Astronomical Society of New Zealand compiled by Gordon Smith and kindly sent by their Director, Dr. Frank Bateson. These data of southern long period variables help immensely in refining the annual predictions of these stars. Dr. Bateson, Mr. Douglas Saw, Director of the Variable Star Section of the British Astronomical Association, and Mr. Aare Kellomaki, Director of the Scandinavian Variable Star Observers, disseminate to their observers the information

in the **AAVSO Bulletin**, 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: Association Francaise des Observateurs d'Etoiles Variables (France); Astronomical Society of Southern Africa, Variable Star Section; Astronomischer Jugendclub (Austria); Berliner Arbeitsgemeinschaft fur Veranderliche 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 Veranderlijke Sterren (Netherlands); Norsk Astronomisk Selskap, Variable Stjernegrupper (Norway); Planetario e Observatorio Astronomico do Colegio Estadual do Parana (Brazil); Pleione Valtozocsillageszlelo Halozat (Hungary); Red de Observadores de Estrellas Variables - MIRA (Spain); Royal Astronomical Society of Canada; Scandinavian Astronomisk Selskap; Uniao Brasileira de Astronomia, Variable Star Commission (Brazil); Vereniging Voor Sterrenkunde, Werkgroep Veranderlijke Sterren (Belgium).

#### **NEW MEMBERSHIP AND INFORMATION ON THE AAVSO**

Applicants are voted in as new members each year at the Annual and Spring Meetings. This year being our 75th Anniversary year, the Council decided to have only one meeting in August of 1986 which would combine the Spring and Annual Meetings. The numbers given below reflect new members elected during this fiscal year, at the 74th Annual Meeting in October, 1985, and the 75th Anniversary Meeting in August, 1986. We elected 132 new members this year. 126 joined as Annual and 3 as Sustaining members. 3 individuals were elected to Honorary membership, Frank M. Bateson, Clinton B. Ford, and E. Dorrit Hoffleit.

Comet Halley increased public interest in all fields of astronomy, including variable stars. We received a record number of requests for information on the AAVSO, totalling 525. It was interesting to note that, particularly during the months when Comet Halley was observable and also after our 75th Anniversary celebrations when the Association received a great deal of publicity, the number of requests increased significantly. These requests came from individuals, educational institutions, and journalists. My sincere thanks to all members and friends of the Association who help to publicize the AAVSO through talks, lectures, and displays.

#### **PUBLICATIONS**

The following were published during the past fiscal year:

**The Journal of the AAVSO, Volume 14, No. 2**, edited by Charles A. Whitney, prepared by Elizabeth O. Waagen, Janet C. MacLennan, and Michael Saladyga.

**AAVSO Bulletin 49** - Predicted maxima and minima dates of long period variables for 1986, prepared by Janet A. Mattei. Due to our move to the new HQ the preparation of this publication was delayed significantly. I received numerous inquiries from observers which confirmed my belief that this publication is vital in planning an effective and useful observing program of variable stars. This year again the **AAVSO Bulletin** combines the information previously published in the Bulletin and its Supplement. Charles M. Jones, AAVSO's Margaret Mayall Assistant, made further revisions to the computer program he wrote to prepare the Bulletin in a shorter time. (Generally it takes



me one month to determine the observed maxima and minima of the 559 long period and semiregular variables and another one-and-a-half weeks to prepare the Bulletin for publication.)

**AAVSO Circular, Numbers 180 to 191**, edited and published by John E. Bortle and Charles E. Scovill.

**AAVSO Alert Notices, Numbers 79 to 84**, prepared by Janet A. Mattei.

The number of subscribers to the **AAVSO Alert Notices** has increased significantly. This publication contains information on the discovery of novae and supernovae, unusual activity of some variable stars, and special requests from astronomers for assistance during special observing runs. The charge is \$5 per year to cover for printing and postage.

**Ephemerides of Eclipsing Binary and RR Lyrae Stars for 1986**, prepared by Gerry Samolyk and Marvin E. Baldwin.

**AAVSO Photoelectric Photometry Newsletter, Volume 6, Numbers 2, 3, and 4, and Volume 7, Number 1**, edited by John R. Percy.

Predicted maximum and minimum brightness dates for 1987 for some bright long period variables, and an ephemeris of a few easy-to-observe stars were published by Janet A. Mattei in the **1986 Observer's Handbook** of the Royal Astronomical Society of Canada.

Monthly predictions of maximum and minimum brightness dates of bright long period variables were also published by Janet A. Mattei in **Sky & Telescope** magazine.

The Variable Star section of the **Astronomical Almanac 1987**, containing information on different types of variable stars, was prepared by Janet A. Mattei.

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

Marvin E. Baldwin, John E. Bortle, Janet C. MacLennan, John R. Percy, Michael Saladyga, Charles E. Scovill, Gerry Samolyk, Elizabeth O. Waagen, and Charles A. Whitney.

The following articles were published on the AAVSO:

"Star Patrol," by John W. Briggs, **Air & Space**, Volume 1, Number 3, August-September 1986, page 60.

"AAVSO at 75," Leif J. Robinson, **Sky & Telescope**, Volume 72, Number 5, November, 1986, page 455.

"They Keep Their Eyes on the Stars," **The Boston Globe**, Volume 230, Number 38, August 7, 1986, page 2.

#### **PERSONNEL AT HEADQUARTERS**

A group of people who deserve a great deal of credit this year is the HQ staff, who, with great efficiency, planned the move, packed, unpacked, and organized the new HQ. It was the team spirit, high morale, and the hard work of the staff that allowed the move and the settling into the new HQ to go smoothly.

We added to the HQ staff a full-time office manager, and a full-time and a part-time data entry operator for the computerization of the

archival data. We now have seven full-time (including myself) employees, five part-time employees, and three volunteer assistants. My very sincere thanks to this exceptional group of men and women, namely our senior technical assistant Elizabeth O. Waagen, our technical assistant Michael Saladyga, our office manager Mary Greene, our administrative assistant and correspondence secretary Janet C. MacLennan, our general secretary Dorothy Haviland, our computer programmer (hired through the Margaret Mayall Assistantship) Charles M. Jones, our data entry operators Barbara Silva, Margarita Vargas, Young Lim, Michael Bickford, and Gabriel Menchaca, and our volunteer assistants Katherine Hazen, George Raymond, and Frank McCarrison.

#### **ACKNOWLEDGEMENTS**

Our special thanks and heartfelt gratitude to Clint Ford for his establishment of the new, permanent AAVSO Headquarters - The Clinton B. Ford Astronomical Data and Research Center.

Our sincere thanks to our members and to Clint for their generous contributions to furnish the new HQ.

Our deep appreciation and thanks to an AAVSO member who wishes to remain anonymous, for very generous contributions to cover operating expenses and for time and wisdom devoted to AAVSO.

Our special thanks to Ed Halbach and Roy Lee for contributing their time, wisdom, and talent to craft the shelves and tables in our new building. Our sincere thanks to Ed for his work in the revision of the Standard Charts.

Our thanks to our local members Gerry Dyck, Ted Wales, Richard Strazdas, Mike Mattei, Keith and Sylvia Danskin, and Michael Saladyga, Elizabeth Waagen, Margarita Vargas, and Michael Bickford of the office staff who helped with the painting and staining of the woodwork in the new HQ.

Our very special thanks to Keith Danskin and his whole family, including his father-in-law, for giving so generously of their time to help us with the preparation of, the move to, and the settling of the new HQ as well as many other aspects of our operation.

Our thanks to Chris Heinzmann and Renae Stark for designing the striking Headquarters sign.

Our special thanks to Dorrit Hoffleit for her suggestion to publish Clint Ford's memoirs, **Some Stars, Some Music**, and for funding its publication.

Our sincere thanks to Katherine Hazen, George Raymond, and Frank McCarrison for volunteering their time and wisdom and helping significantly with the operation of our Association.

Our thanks to Charles E. Scovill for revising the standard charts and preparing the new **Standard Chart Catalog**.

We thank the Director of the Harvard-Smithsonian Center For Astrophysics (CFA), Professor Irwin J. Shapiro, for his support of AAVSO's use of CFA computers, and Dr. James Conklin, Director of the CFA Computer Facility, and his staff for their assistance in our data processing needs.

We received significant financial support from institutions and individuals. I would like to extend my sincere thanks to the following:

The Harvard-Smithsonian Center For Astrophysics for the computer time grant from Professor Owen Gingerich and Ms. Barbara Welther to process our large volume of monthly data and to prepare the data for publication.

The National Aeronautics and Space Administration (NASA) for the HEAO-2 Guest Investigator Program Grant to prepare 15 monographs on cataclysmic variables that were extensively observed with the HEAO-2 satellite.

The National Oceanic and Atmospheric Administration (NOAA) for the grant to operate the AAVSO Solar Division.

Erindale College of the University of Toronto for funding the publication and mailing of the **AAVSO Photoelectric Photometry Newsletter**.

The J. P. Bicknell Foundation for funding the analysis of AAVSO data on long period variables.

Emily and Cyrus Fernald for their continuing support through the trust fund bequeathed to the AAVSO.

A friend of the AAVSO who wishes to remain anonymous for a generous contribution to buy a hard disk for one of our computer systems used for the membership mailing list and the management of dues and other organizational operations.

AAVSO members who have taken sustaining membership and thus increased their financial support of the Association, and those who have contributed to the priority projects, the furnishing of the new AAVSO HQ, the Margaret Mayall Assistantship, the General Fund, and/or the Endowment Fund.

My personal thanks to my husband for his support and understanding, and for his efforts in the historical preservation of AAVSO meetings through his videotaping of them together with Keith Danskin.

My special thanks go to our Committee Chairmen, Officers, and Council members for their generous contribution of their time and wisdom in the operation of the Association.

My sincere gratitude goes to all of our members and observers, who through their astronomical and financial contributions, have brought the AAVSO to the height of achievement that it has reached today.

Janet Akyüz Mattei  
Director

TABLE I

## Observer Totals by Country

Country	Number of Observers	Total of Observations	Country	Number of Observers	Total of Observations
Argentina	10	295	Japan	5	4204
Australia	8	2476	Malta	1	348
Austria	3	879	Netherlands	15	8324
Belgium	15	2861	New Zealand	1	200
Brazil	2	50	Norway	12	6510
Canada	24	9248	Panama	2	26
Czechoslovakia	2	215	Poland	1	247
Denmark	7	850	Portugal	2	125
England	8	4093	Romania	1	1774
Finland	1	1899	South Africa	12	14395
France	34	31042	Scotland	1	70
Germany (FRG)	15	10483	Spain	4	3807
Germany (GDR)	1	459	Switzerland	1	372
Greece	4	1216	Turkey	1	63
Haiti	1	190	U. S. A.	230	102948
Hungary	38	10810	Venezuela	1	137
Italy	9	1332	Zimbabwe	1	297
			TOTAL	473	222245

TABLE II

## U. S. A. Observer Totals by State

State	Number of Observers	Total of Observations	State	Number of Observers	Total of Observations
Arizona	(AZ) 10	4472	Missouri	(MO) 3	187
Arkansas	(AR) 2	405	New Hampshire	(NH) 4	103
California	(CA) 26	6706	New Jersey	(NJ) 8	1672
Colorado	(CO) 4	9407	New Mexico	(NM) 2	79
Connecticut	(CT) 12	4214	New York	(NY) 20	13159
Florida	(FL) 6	3497	North Carolina	(NC) 2	729
Georgia	(GA) 2	81	Ohio	(OH) 9	2829
Hawaii	(HI) 2	4051	Oklahoma	(OK) 1	18
Illinois	(IL) 12	5331	Oregon	(OR) 3	393
Indiana	(IN) 9	4502	Pennsylvania	(PA) 11	2660
Kansas	(KS) 2	104	Rhode Island	(RI) 3	127
Kentucky	(KY) 1	4	South Carolina	(SC) 2	1371
Louisiana	(LA) 3	585	Tennessee	(TN) 1	209
Maine	(ME) 3	1101	Texas	(TX) 11	3099
Maryland	(MD) 8	2150	Vermont	(VT) 2	392
Massachusetts	(MA) 12	13400	Virginia	(VA) 4	3592
Michigan	(MI) 6	857	Washington	(WA) 5	1763
Minnesota	(MN) 7	3725	West Virginia	(WV) 2	876
			Wisconsin	(WI) 10	5098
			TOTAL	230	102948

TABLE III

AAVSO OBSERVERS 1985 - 1986

AAP A. P. ABBOTT, CANADA	694-	25	CPK P. CARPREAU, BELGIUM	59
ABT T. ABRAHAMSEN, NORWAY	19		CGJ J. CARRAGAN, NY	18
AD R. M. ADAMS, MA	296-	70	CGW W. CARRAGAN, NY	18
AB W. B. ALBRECHT, HI	4016-	115	CJR J. R. CARUSO, CT	19-
AFA*A. ALFOLDI, HUNGARY	8		CAB B. F. CASSIDY, NY	2
ALS S. ALLMAND, ENGLAND	111		CRV R. CASTINEIRAS, ARGENTINA	78
ADT D. ALTEWEIER, F. R. GER.	37		CCN R. A. CHACON, VENEZUELA	137
AAA A. A. ALVES, BRAZIL	41		CFR F. CHAMBERS, CANADA	19
AJ J. A. ANDERER, AR	2		CGF G. F. CHAPLE JR., MA	2755-
AOD O. ANDERSEN, NORWAY	139-	1	TCE*E. CIFUENTES T., FRANCE	159
AJR J. R. ANDRESS, OH	18		CLK W. E. CLARK, MO	33
ARI R. B. ARIAIL, SC	760-	163	CLG L. CLUYSE, BELGIUM	343
AKZ*Z. ARKOSI, HUNGARY	14		CMJ M. J. COLLINS, ENGLAND	91
ARN*L. ARNOLD, FRANCE	221-	83	COL P. L. COLLINS, AZ	267-
AKT T. W. ATKIN, HAITI	190		CMG&G. COMELLO, NETHERLANDS	1354-
ATW P. ATWOOD, CA	1360		CGG G. CONLIN, WA	17
AUB*J. AUBAUD, FRANCE	189		COO L. M. COOK, CA	1217-
ADE D. E. AUCOIN JR., ME	6		CK S. P. COOK, AR	403-
BAC W. B. BACHELOR, MD	13		COM T. COOPER, S. AFRICA	2077-
BOZ*B. BAGO, HUNGARY	32		COA A. COULOMBE, CANADA	79
BM M. E. BALDWIN, IN	3388		CLX L. B. COX, CANADA	122-
BRM R. M. BALES, OR	96-	1	CR T. A. CRAGG, AUSTRALIA	2168-
BVE&E. BALLEGOY, NETHERLANDS	710		CRW W. CRAMER, CA	1
BSF S. F. BARNHART, OH	67-	3	CWE W. E. CRAWFORD, CA	23-
BSR S. BARONI, ITALY	388		CRR R. E. CRUMRINE, NY	7
BGT G. A. BARROS, ARGENTINA	3		CZT*T. CSISZAR, HUNGARY	15
BTS*L. BATA, HUNGARY	5		CSI*I. CSOTI, HUNGARY	35
BB R. S. BATES, MA	92		DSL L. A. DA SILVA L., BRAZIL	9
BBA B. B. BEAMAN, IL	5		DMC M. DAMASHEK, MD	1
BKK K. C. BECKMANN, IN	33		DAK K. H. DANSKIN, NH	40-
BJS J. R. BEDIENT, MN	62		DLS LES DARLING, CA	1-
BTY T. BENNER, PA	1043-	375	DLI LISA DARLING, CA	1-
BBE*B. BERENTE, HUNGARY	14		DN P. DARNELL, DENMARK	21
BML M. L. BERNSTROM, MN	3014-	1491	DTA T. A. DARVANN, NORWAY	41-
BIO*M. BERRIOT, FRANCE	33		DV G. A. DAVIDSON, KS	74-
BIC*L. BICHON, FRANCE	303		DRE A. DE LA ROSA JR., TX	303
BIL G. A. BILODEAU, CA	20-	10	DBF F. DEBOOSERE, BELGIUM	195
BKN A. J. BIRKNER, IL	212		DIN R. DI NARDO, NY	54
BKL J. A. BLACKWELL, MA	48		DPA A. DIEPVENS, BELGIUM	404
BGB B. BLAGG, TX	20		DIR R. DIER, MN	50
BMN R. M. BLAKE, CANADA	14		DRD R. D. DIETZ, CO	2
BLD D. BLANE, SOUTH AFRICA	55		DIL W. G. DILLON, TX	8
BOH D. BOHME, GERMAN DEM REP	459		DPL P. L. DOMBROWSKI, CT	305-
BFK&F. BOINCK, NETHERLANDS	344		DAG A. DREDGE, SOUTH AFRICA	32
BVL*M. BONNEVILLE, FRANCE	93-	2	DUS*R. DUBOIS, FRANCE	49
BRJ JOHN E. BORTLE, NY	2061-	666	DRY R. B. DUCOTY, CA	2410-
BJT JOSEPH E. BORTLE, NY	49		DMO*M. DUMONT, FRANCE	73
BMU&M. BOUMA, NETHERLANDS	415-	9	DUP*M. DU PASQUIER, FRANCE	403-
BYS S. W. BRADLEY, OH	15		DGP G. P. DYCK, MA	8572-
BTB T. C. BRETJ, MN	5-	1	EL J. E. ELLERBE, SPAIN	46
BSM S. M. BRINCAT, MALTA	348		ELW S. J. ELWIN, AUSTRALIA	23
BBT R. R. BROWNING, NJ	245		EJT J. T. EMMERT, IN	311
BOA*A. BRUNO, FRANCE	52-	4	EJL J. L. EVERAERT, BELGIUM	28
BYD R. K. BRYDEN, CANADA	135-	53	FCA C. A. FAUSEL, MI	105
BJY J. D. BRYDGES, AZ	28		FJH&H. FEIJTH, NETHERLANDS	2974-
BS S. A. BUCARO, IL	10		FKB*B. FEKETE, HUNGARY	12
BGC C. G. BURDETTE JR., MI	1		FET T. I. FETTERMAN, NJ	14
BUI*H. BURILLIER, FRANCE	379		FRD R. G. FIADONE, ARGENTINA	11
CJA J. S. CAMPOS, S. AFRICA	176		FRF~R. FIDRICH, HUNGARY	1799
CIA L. CAMURRI, ITALY	32		FHO H. FISH, NH	26
CW W. H. CARINI, NY	14		FDV D. A. FISHER, CANADA	281-

TABLE III (cont'd)

## AAVSO OBSERVERS 1985 - 1986

FFC*F. FOLDESI, HUNGARY	236	HFE*F. HORVATH, HUNGARY	16
FD C. B. FORD, CT	22-	8 HSR S. HOSTE, BELGIUM	340- 9
FTO T. FORS, DENMARK	28	HU W. S. HOUSTON, CT	1
FT G. L. FORTIER, CANADA	28	HJA J. A. HUDSON, CA	110
FBN B. FRASER, SOUTH AFRICA	42-	5 HKE&E. HULSKEN, NETHERLANDS	4
FSR R. FRASER, SCOTLAND	70	HR C. J. HURLESS, OH	198-
FRT T. FREEMAN, CA	91	IML M. IDEM, NY	3411-1186
FRH*A. FRICH, FRANCE	45	ILE*E. ILLES, HUNGARY	8
FRI L. A. FRIGON, CA	8	IPA P. A. INGRASSIA, ARGENTINA	4
GMK M. GASKILL, TX	13	IFJ F. J. IVES, NEW ZEALAND	200
GKR R. GECKELER, FED. REP. GER.	36	IAZ A. IZUMO, JAPAN	28
GEJ&J. GEENEN, NETHERLANDS	45	JCT T. B. JACOBS, WI	20
GCP C. GERBER, FED. REP. GER.	74	JJA J. JAHN, F. R. GER.	403- 2
GHO L. H. GHIO, ARGENTINA	34	JM R. A. JAMES, WI	26
GDI D. P. GILL, OH	18	JJT J. T. JEFFREY, OR	295- 171
GJD J. D. GIRAUDI, ARGENTINA	7	JLR R. JEPEAL, CT	241
GLF F. R. GLENN, NY	59	JCH&C. JOHANNINK, NETHERLANDS	135
GLW W. H. GLENN, NY	59	JOG G. E. JOHNSON, MD	361- 9
GLC C. GLOWINSKI, FED. REP. GER.	95	JKL K. L. JONES, AUSTRALIA	20
GFB W. GOFF, CA	163-	89 KRG R. KALTEBERG, NORWAY	1
GOT*T. GOMEZ, SPAIN	199	KEI E. KATO, AUSTRALIA	109
GDA A. C. GONDOLA, NM	7	KTS M. KATSADRAMIS, GREECE	10
GOP P. N. GOODWIN, LA	541-	75 KNA*A. KELEMAN, HUNGARY	21
GLM L. M. GORSKI, IL	46	KKP&P. KERKVLIIET, NETHERLANDS	2
GFF T. G. GRAFFUNDER, WI	43	KSZ*S. KESZTHELY, HUNGARY	27
GKA K. A. GRAHAM, IL	99	KRB R. P. KING, MN	354- 114
GAF A. F. GRANADOS, CA	47	KLC C. F. KLAUSING, FL	16
GDP*P. GRANAUD, FRANCE	330	KON O. KLINTING, DENMARK	6
GRL B. H. GRANSLO, NORWAY	5118-	295 KPL P. W. KNEIPP, LA	20
GRI J. W. GRIESE III, CT	1403-	911 KGT G. KNIGHT, ME	753- 1
GML M. GRUNANGER, AUSTRIA	71	KSP S. P. KNIGHT, ME	342- 42
GCT C. GRUNNET, DENMARK	276	KS J. H. KNOWLES, NH	9
GRZ H. GRZELCZYK, F. R. GER.	1957-	174 KOC*A. KOCSIS, HUNGARY	1125
GUB G. GUBBELS, BELGIUM	259-	2 KKF K. F. KOEHLER, AZ	846
GUG*V. GUGUMUS, FRANCE	21	KLG G. A. KOHL, AZ	49
GUN*J. GUNTHER, FRANCE	3362-	194 KHL M. KOHL, SWITZERLAND	372
GMF M. A. GUTRIDGE, OK	18	KAS A. KOKKINEDIS, GREECE	154
GYA*L. GYARMATI, HUNGARY	13	KHJ H. J. KOLLER, CANADA	4
HTY T. HAGER, CT	238-	21 KRS R. S. KOLMAN, IL	1358- 146
HYS*S. HAJNACZKY, HUNGARY	6	KMA M. A. KOMOROUS, CANADA	283
HK E. A. HALBACH, CO	4214-	164 KSG G. KORONIS, GREECE	9
HMG*G. HALMI, HUNGARY	48	KRT S. KORTH, FED REP GERMANY	212- 21
HMR R. HAM, CO	1979-	6 KOS A. KOSA-KISS, ROMANIA	1774
HLA L. A. HARRIS, PANAMA	9	KOA M. KOSHIRO, JAPAN	1542- 674
HAV R. P. HARVAN, MD	1125	KAU A. L. KOSTER, WI	57
HSB W. HASUBICK, F. R. GER.	1062-	9 KVI*I. KOVACS, HUNGARY	959- 15
HAB R. H. HAYS JR., IL	979	KOI*I. KOVALICZKY, HUNGARY	21
HY A. S. HEASLEY, PA	1	KIS G. KRISCH, F. R. GER.	1241
HLS L. T. HEEN, NORWAY	35	KRK K. KRISCIUNAS, HI	35- 1
HEF M. A. HEIFNER, CO	3212-	1013 KRU J. KRUTA, CZECHOSLOVAKIA	49
HEL K. HELBAK, NORWAY	79	KPG&G. KUIPERS, NETHERLANDS	1505- 158
HGZ*Z. HERCEG, HUNGARY	66	KCF C. F. KURTZ, ARGENTINA	77
HJN J. HERS, SOUTH AFRICA	734-	294 LGT*G. LACASSIN, FRANCE	1220- 772
HDV D. HICKEY, AUSTRALIA	91	LND H. J. LANDIS, GA	76
HE F. L. HIETT, VA	3376	LTW T. W. LANGHANS, CA	375- 202
HIM M. HILL, MA	220	LDR D. LAURENT, BELGIUM	49
HRI R. E. HILL, AZ	1221	LZT T. LAZUKA, IL	721
HIR Y. HRASAWA, JAPAN	1261-	132 LKD D. C. LEAKE, IL	449
HLT G. M. HOLTER, WA	85	LEB*R. LEBERT, FRANCE	425
HDT D. H. HOROWITZ, TX	1050	LTF T. LEIFSEN, NORWAY	2

TABLE III (cont'd)

AAVSO OBSERVERS 1985 - 1986

LNZ G. F. LENZ, CT	12	MWL W. MOSCHNER, F. R. GER.	30
LJN J. M. LEONARD, WV	3	MUN C. R. MUNFORD, ENGLAND	38
LJL J. L. LEONARD, IL	101	MHN&H. MUNSTERMAN, NETHERLANDS	44- 1
LLR*G. LETELLIER, FRANCE	50	MIA*A. MURAI, HUNGARY	26
LEV A. J. LEVEQUE, CA	48	MJC M. J. MURPHY, FL	193
LMW M. W. LIFGREN JR., NY	6	MSU S. K. MURPHY, TX	55
LJK J. LINGAS, NORWAY	489	MUY E. MUYLLAERT, BELGIUM	139
LJH J. H. C. LIU, CA	5	MYE K. J. MYERS, IN	4
LWT T. W. LOHVINENKO, CANADA	260	NGR M. NAGAR, NY	5
LGV G. V. LOPATYNSKI, CA	52-	NRH R. H. NELSON, CANADA	75- 1
LLH L. M. B. LOPES, PORTUGAL	13	NGU*J. NGUYEN, FRANCE	120
LOS*S. LORSIGNOL, FRANCE	46	NIC M. T. NICHOLS, NC	3- 1
LEJ E. J. LOS, NH	28	NWL&W. NOBEL, NETHERLANDS	290
LOT H. LOUW, WA	1544	NTS T. S. NORTON, MA	40
LX W. M. LOWDER, NY	3600	NOG G. T. NOWAK, VT	114
LTB T. F. LUBBERS, MN	217	OBG G. J. O'BRIEN MD, CT	55
LBK S. J. LUBBOCK, ENGLAND	117-	OJO J. O. OLESEN, DENMARK	112
LBC G. C. LUBCKE, WI	30	OV E. G. ORAVEC, NY	3468
LJO&J. O. LUURS, NETHERLANDS	154	OJR*J. R. OSORIO, SPAIN	3380- 363
LYR R. LYNCH, RI	15	OTT P. L. OTTERNESS, VA	4
MDW W. J. MACDONALD II, CANADA	12	OB M. D. OVERBEEK, S. AFRICA	10707- 257
MMK M. K. MALMROS, PA	29	PPS*S. PAPP, HUNGARY	2160- 14
MSI S. MARGUTTI, ITALY	1	PRN R. M. PATRICK, PA	47- 12
MIG*G. MARI, HUNGARY	14	PLZ L. PAZZI, SOUTH AFRICA	99- 1
MJU J. C. MARIONI, ARGENTINA	64	PN A. E. PEARLMUTTER, MA	376
MRX H. MARX, F. R. GER.	1658-	PEI E. PEDERSEN, DENMARK	26
MTH H. MATSUYAMA, JAPAN	78	PEG*C. PEGUET, FRANCE	729
MAM A. L. MAYER, OH	6	PMR M. R. PERALA, FINLAND	1899
MYR E. H. MAYER, OH	2391-1054	PAE A. J. S. PEREIRA, PORTUGAL	112
MJW J. W. MAYER, PA	736-	PZA*A. PEREZ-REVILLA, FRANCE	5805- 15
MCX A. R. MCCRAE, S. AFRICA	128-	3 PFK F. PESCI, ITALY	82
MDP P. MCDONALD, CANADA	5	PED D. B. PETTINGILL, FL	2134- 109
MKJ J. F. MCKENNA, NJ	1325-	98 PIJ*J. PIRITI, HUNGARY	347
MBC B. P. McMILLAN, NC	726	PGA A. PORTER, CA	13
MRH R. H. MCNAUGHT, AUSTRALIA	22-	9 PMI M. POTTER, MD	14
MSD D. L. MEANS, AZ	70-	2 PWR R. E. POWASKI, OH	38
MIB I. B. MEDIAS, NORWAY	280	PDO D. P. PRAY, RI	61
MED K. J. MEDWAY, ENGLAND	2905	PRG G. PROSSER, SOUTH AFRICA	32
MDG D. L. MEGGINSON, MO	111	QPR P. R. QUEITSCH, IN	10
MEH C. C. MEINHARDT, WA	36	RDK K. C. REDDEN, KY	4
MFR F. MELILLO, NY	12	REP P. REINHARD, AUSTRIA	36
MHI H. I. MENALI, TURKEY	63	RRC R. C. REISENWEBER, NY	39
MNZ E. MENEGUZZO, ITALY	386	REN*J. RENAULT, FRANCE	147
MPY P. MEYERS, SOUTH AFRICA	273	RJI J. I. RIGGS, AZ	1005- 124
MDI I. A. MIDDLEMIST, ENGLAND	223	RWD D. W. ROBERTS, GA	5
MOK O. MIDTSKOGEN, DENMARK	381-	25 ROP*A. RODRIQUEZ, FRANCE	38
MLB F. H. MILBURN III, TX	1	RJM J. C. ROEMMELT, MI	13- 1
MKD K. A. MILLYARD, CANADA	3-	2 RB D. W. ROSEBRUGH, FL	478
MJI J. R. MINER, IN	47	ROG G. M. ROSS, MI	69- 9
MIS*J. MINOIS, FRANCE	836	RLU*L. ROSSI, ITALY	237
MZS*A. MIZSER, HUNGARY	2674-	65 RO J. ROUSOM, CANADA	28
MMI M. MOELLER, F. R. GER.	3178	RR R. E. ROYER, CA	24- 1
MOD D. G. MOHRBACHER, OH	78	RPH H. RUMBALL-PETRE, CA	14
MAR R. MONELLA, ITALY	58-	43 SJD J. D. SABIA, PA	16
MDE D. R. MONGER, FL	14	SJC J. C. SADOW, LA	24
MOR R. L. MONSKE, PA	549-	5 SGT*T. SAGODI, HUNGARY	130
MJ A. C. MONTAGUE, MI	665	SJU*J. L. SAINT-JOUAN, FRANCE	129
MAO A. J. MORBIDELLI, ITALY	79	SSU S. SAKUMA, JAPAN	1295- 327
MB A. MORRISBY, ZIMBABWE	297	SAH G. SAMOLYK, WI	2220- 5
MOW W. C. MORRISON, CANADA	4710-	87 SSR R. SAMPSON, CANADA	30

TABLE III (cont'd)

AAVSO OBSERVERS 1985 - 1986

SNL J. G. SANDEL, SC	611	TFN F. N. TRAYNOR, AUSTRALIA	21
SGU*G. SARI, HUNGARY	22	TDM D. M. TROIANI, IL	446- 3
SVT T. G. SAVILLE, ENGLAND	475-	1 TJC J. C. TRUAX, MI	4
SCK B. E. SCHAEFER, MD	65	TNL N. J. TURNER, AUSTRALIA	22
SSC S. M. SCHMPFF, CA	14	TYD D. C. TYLER, PA	6
SMF F. SCHMIDT, NY	82	TYS R. L. TYSON, NY	162
SRD R. H. SCHMIDT, MN	23	UND G. E. UNDERHAY, CA	75
SLZ G. SCHOTT, F. R. GER.	33	VFR*F.VACLIK,CZECHOSLOVAKIA	166
SCY A. SCHROYENS, BELGIUM	216	VAD*S. VADASZ, HUNGARY	6
SCZ*E. SCHWEITZER, FRANCE	3687-	166 VAI*J. VAIDIS, FRANCE	13
SCE C. E. SCOVIL, CT	1898-	963 VDW&R.VANDERWAL,NETHERLANDS	103
SEZ*J. SEGONZAT, FRANCE	1352	VNL F. R. VAN LOO, BELGIUM	67
SJK J. C. SEMCZUK, CT	3	VWS J.VANWASSENHOVE,BELGIUM	30
SEN&P. SERNE, NETHERLANDS	245-	6 VPL P. VARELA, ARGENTINA	2
SEJ J. L. SEVERINO, PANAMA	17	VED*P. VEDRENNE, FRANCE	4250
SVY N. SEVERYNS, BELGIUM	130	VEL*P. Y. E. VELASCO, SPAIN	182
SHS S. B. SHARPE, CANADA	2003-	37 VRG R. VENNE, CANADA	131- 5
SSA A. P. SHARPLESS, WA	81	VET*M. VERDENET, FRANCE	5390-2925
SHW W. R. SHERMAN, IN	10	VIA*J. VIALLE, FRANCE	575
SSV S. SHERVAIS JR., VA	33	VIM*L. VIMLATI, HUNGARY	239
SNW J. W. SHIPMAN, NM	72-	5 VGJ G. J. VINCI, CT	17- 4
SIH* M. SILHOL, FRANCE	57-	1 VLP J. VINOPAL, CA	2
SNE N. A. SIMMONS, WI	42-	19 VOL W. VOLLMANN, AUSTRIA	772
SDO C. D. SIMONE, ARGENTINA	15	VYP P. VUYLSTEKE, BELGIUM	410- 16
SKK A. L. SKERKER, VA	179	WEO E. O. WAAGEN, MA	3- 1
SKD D. R. SKILLMAN, MD	102	WTH T. H. N. WALES, MA	1
SOF O. SKJAERAASEN, NORWAY	90-	1 WKP P. R. WALKER, VT	278- 1
SSO S. SLOTE, NY	33	WER R. J. WEBER, KS	30- 2
SMI A. L. SMITH, ENGLAND	133-	4 WCB C. B. WEBSTER, PA	113- 2
SJO J. E. SMITH, AZ	7	WEI D. D. WEIER, WI	1819- 574
SMQ M. B. SMITH, AZ	974	WC R. E. WEND, IL	905
SRV R. V. SMITH, CA	25	WEF F. R. WEST, MD	469
SIP*P. SPANYI, HUNGARY	3	WTJ J. E. WEST, TX	162
SJZ J. SPEIL, POLAND	247	WRA R. A. WEST, AZ	5
SPO J. SPONGSVEEN, NORWAY	217	WYT T. A. WEYENBERG, WI	600
SFJ F. J. ST. LOUIS, CANADA	45	WHI S. L. WHITNEY, RI	51
STR R. H. STANTON, CA	210-	128 WJT J. T. WILCOX, PA	37
SKS T. STECKNER, CANADA	60-	11 WI D. B. WILLIAMS, IN	677
SGP P. E. STEGMANN, NJ	9	WLP P. WILS, BELGIUM	192- 5
SET C. STEPHAN, FL	662-	51 WJA J. A. WILSON, MO	43
STF G.STEPHANOPOULOS,GREECE	1043	WSN T. W. WILSON, WV	873- 307
SGS S. A. STERLING, MA	16	WNB B. I. WINGATE, NJ	20
SWT R. J. STEWART, NJ	18-	1 WCL C. L. WOMACK, TX	639
SUT P. C. STUART, TX	1	WMI M. J. WRIGHT, WI	241
SUS D. SUSSMANN, F. R. GER.	232	WUN E. WUNDER, F. R. GER.	235
SVN P. L. SVENTEK, TX	847-	16 YRK D. O. YORK, CA	397- 12
SOZ*L. SZANTHO, HUNGARY	14	YLD L. D. YOUNG JR., NJ	10
SMZ*M. SZASZ, HUNGARY	2	YON R. R. YOUNG, PA	83
SAO*A. SZAUER, HUNGARY	16	YUR J. A. YURCHESYN, CANADA	7
TZR R. G. TANZER, NJ	31	ZAG*G. ZAJACZ, HUNGARY	339
THM J. V. THOMAS, OR	2	ZYH*H. ZALAY, HUNGARY	3
THR R. R. THOMPSON, CANADA	220	ZLT*H. ZALEZSAK, HUNGARY	317- 24
TRJ R. J. THOMSON, S. AFRICA	40	ZAM M. ZANOTTA, ITALY	69- 16
THU* B. THOUET, FRANCE	461	ZPA P. A. ZELLER, IN	22
TRT*T. TORDAI, HUNGARY	18	ZRE R. E. ZISSELL, MA	981- 151
TWN A. W. TOWNSEND, TN	209		

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

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

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



TABLE IV

List of Individuals Requesting AAVSO Data  
During Fiscal Year 1985 - 1986\*

Name	Affiliation
Adnopoz, S.	Children's Television Workshop, NY
Aikawa, T.	Tohoku Institute, Japan
Baliunas, S.	Center For Astrophysics, MA
Barstow, M. A.	University of Leicester, England
Benson, P.	Wellesley College, MA
Benson, P.	Wellesley College, MA
Beuermann, K.	Technische Universitat Berlin, West Germany
Beuermann, K.	Technische Universitat Berlin, West Germany
Blake, B.	Tolland, CT
Bode, M.	Lancashire Polytechnic, England
Bode, M.	Lancashire Polytechnic, England
Bode, M.	Lancashire Polytechnic, England
Bode, M.	Lancashire Polytechnic, England
Bode, M.	Lancashire Ploytechnic, England
Bode, M.	Lancashire Polytechnic, England
Bond, H.	Space Telescope Science Institute, MD
Bond, H.	Space Telescope Science Institute, MD
Briggs, J.	<b>Air and Space</b> magazine
Burnham, R.	<b>Astronomy</b> magazine
Burroughs, T.	<b>Air and Space</b> magazine
Busher, R.	University of Florida
Cadmus, R.	Grinnell College, IA
Clark, H.	McDonald Observatory, TX
Cole, R.	University College of London, England
Chu, G.	<b>San Jose Mercury</b> , CA
Cordova, F.	Los Alamos National Labotatory, NM
Cordova, F.	Los Alamos National Laboratory, NM
Cordova, F.	Los Alamos National Laboratory, NM
Cordova, F.	Los Alamos National Laboratory, NM
Cordova, F.	Los Alamos National Laboratory, NM
Cordova, F.	Los Alamos National Laboratory, NM
Cordova, F.	Los Alamos National Laboratory, NM
Cordova, F.	Los Alamos National Laboratory, NM
Crawford, L.	<b>Astronomy 85</b> magazine, DC
Culver, R.	Colorado State University
Dawson, D.	San Diego State University, CA
diCicco, D.	<b>Sky &amp; Telescope</b> magazine
diCicco, D.	<b>Sky &amp; Telescope</b> magazine
Drilling, J.	Louisiana State University
Echevarria, J.	Instituto Astronomia, Mexico
Echevarria, J.	Instituto Astronomia, Mexico
Engels, D.	Max-Planck-Institut fur Radioastronomie, West Germany
Gehrz, R.	University of Minnesota
Gillet, D.	Observatoire de Haute-Provence, France
Glaccum, W.	NASA Goddard Space Flight Center, MD
Glaccum, W.	NASA Goddard Space Flight Center, MD
Glasser, R.	Lexington, MA
Goldfinger, R.	Oregon
Hadley, D.	McDonald Observatory, TX
Hardeson, J.	Gainesville, FL
Hassall, B.	University of Oxford, England
Heise, J.	National Institute for Space Research, Netherlands
Heise, J.	National Institute for Space Research, Netherlands

TABLE IV (cont'd)

Name	Affiliation
Hocking, J.	Pasadena, CA
Horowitz, D.	Houston, TX
Hutchings, J.	Dominion Astrophysical Observatory, Canada
Jackson, J.	University of California
Jameson, R.	University of Leicester, England
Kanipe, J.	<b>Astronomy</b> magazine
Karovska, M.	Center For Astrophysics, MA
Kendzie-Holeaway, D.	<b>Deep Sky</b> magazine
Kenneally, K.	Abington, MA
Kiplinger, A.	NASA Goddard Space Flight Center, MD
Kleinman, S.	University of Massachusetts
Kwitter, K.	Williams College, MA
Landolt, A.	Louisiana State University
Lestition, C.	Center For Astrophysics, MA
Little, I.	Wellesley College, MA
Livio, M.	University of Illinois
Luoma, R.	Massachusetts Institute of Technology
MacRobert, A.	<b>Sky &amp; Telescope</b> magazine
MacRobert, A.	<b>Sky &amp; Telescope</b> magazine
MacRobert, A.	<b>Sky &amp; Telescope</b> magazine
Mason, K.	Mullard Space Science Laboratory, England
Mason, K.	Mullard Space Science Laboratory, England
Mauche, C.	Center For Astrophysics, MA
Metchnek, J.	Saint Louis Park, MN
Nowak, G.	Essex Junction, VT
O'Leary, J.	Baltimore Planetarium, MD
Oliverson, N.	NASA Goddard Space Flight Center, MD
Oliverson, N.	NASA Goddard Space Flight Center, MD
Peel, M.	Preston, England
Percy, J.	University of Toronto, Canada
Percy, J.	University of Toronto, Canada
Percy, J.	University of Toronto, Canada
Persson, S. E.	Mount Wilson and Las Campanas Observatories, CA
Polidan, R.	University of Arizona
Polidan, R.	University of Arizona
Robinson, E.	University of Texas
Robinson, E.	University of Texas
Robinson, E.	University of Texas
Schaefer, R.	Institute of Astronomy, England
Schaefer, R.	Institute of Astronomy, England
Shuster, W.	Tacoma, WA
Shawl, S.	University of California
Starrfield, S.	Arizona State University
Stephan, C.	Sebring, FL
Stencil, R.	University of Colorado
Shafter, A.	University of Texas
Surratian, H.	Aerospace Corporation, CA
Szkody, P.	University of Washington
Szkody, P.	University of Washington
Szkody, P.	University of Washington
Szkody, P.	University of Washington
Szkody, P.	University of Washington
Talcott, R.	<b>Astronomy</b> magazine
Tarshis, L.	US magazine
Van Sant, T.	Elkins, WV
Van den Bergh, S.	Dominion Astrophysical Observatory, Canada
Viotti, R.	CNR Astrofisica, Italy
Viotti, R.	CNR Astrofisica, Italy
Viotti, R.	CNR Astrofisica, Italy
Wade, R.	University of Arizona
Wallerstein, G.	University of Washington

TABLE IV (cont'd)

Name	Affiliation
Warner, B.	Dartmouth College, NH
Warner, B.	Dartmouth College, NH
Warner, B.	Dartmouth College, NH
Watson, M.	University of Leicester, England
Wilson, K.	Richmond, VA
Wing, R.	Ohio State University
Wing, R.	Ohio State University
Wood, J.	Institute of Astronomy, England

\* Name repeated for each request.