

ANNUAL REPORT OF THE DIRECTOR FOR FISCAL YEAR 1996–1997**Janet Akyüz Mattei**AAVSO Headquarters
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Cambridge, MA 02138

It is a privilege and a distinct pleasure for me to present to you my Annual Report for the fiscal year 1996–1997.

This has been a very active year in which we have organized and held a very successful second international meeting, in Switzerland; re-organized and expanded our web site to include more data, light curves, programs, charts, and information; upgraded our computer hardware and increased our system security; developed programs and procedures for more efficient handling of our operations; responded to requests for AAVSO data; and focused our attention on bringing our major publications up to date.

In my Annual Report I will share with you some highlights of our operations for this year.

1. Internet connection

Our direct internet connection through the NASA Astrophysics Division and NASA Science Internet continues to be vital in responding to requests for data, maintaining and expanding our web site, and distributing publications such as the *AAVSO News Flash*, *Circular*, and *Alert Notice*.

We started to place evaluated data by constellation on our web and ftp sites and unevaluated light curves (currently all Mira variables) on our web site. This project continues.

1.1. AAVSO Web site statistics

On our web site 483 pages are visited each day on average. Pages visited most (in descending order) are:

Light Curves

Alert Notices

Monographs

Educational Programs (Partnership in Astronomy and Hands-On Astrophysics, particularly the three observing exercises on delta Cep, zeta Gem, eta Aql)

Charts

Committees

Approximately 6000 unique machines have accessed our web site, of which 8% are at academic institutions.

There have been 376 downloads of AAVSO-generated computer programs (the plotting program ZAP, the time series data analysis program TS, and the Weighted Wavelet Z-Transformed data analysis program WWZ).

1.2. AAVSO FTP site statistics

Average number of data files downloaded per month: 2179

Sections visited most (Directories from which the most files were downloaded):

Charts

News Flash

Observing Materials (Bulletin, JD Calendar, Validation File)

Alert Notices

Approximately 2789 unique machines have accessed our ftp site, of which 8% are at academic institutions.

We fully recognize the power of the internet and will continue to increase AAVSO's exposure by adding more data, light curves, charts, and other materials, and enhancing the design of AAVSO web site in the coming year.

2. Data management and data processing

2.1. Computerization and processing of current data

The computerization and processing of the monthly data that we receive by postal mail, fax, and email is up to date, thanks to Barbara Silva, who enters and verifies the data in the computer, and Kerriann Malatesta and Elizabeth Waagen, who process and archive the data in the AAVSO International Database. The database from 1961 to date now contains over 6.5 million observations, and is archived on zip disks. We will be archiving the database on CD-ROMs in the future.

On average, 50% of the monthly reports came in electronically (via e-mail or on diskettes), in comparison to 32% last year. Of these electronically-submitted reports, 32% were created using the AAVSO's data-entry and report-formatting computer programs.

In addition to the monthly observations, a significant number of observers worldwide send their observations nightly to the AAVSO in order for them to be included in the *AAVSO News Flash*. These observations are entered in a "running file" by star. Soon we will be putting this running file on our web and ftp sites and will update it weekly.

2.2. Computerization and processing of archival data

I am very happy to report that the processing of the archival data from 1911 to 1961 has now been completed.

In April our technical assistant Michael Saladyga completed the initial processing of the data. The pre-merged archival data consisted of 112 files, ordered generally by observer initials. In the second half of the fiscal year he checked these files for correct designation and Julian Date, for duplicates, for correct sorting, invalid observations, and any other peculiarities that may have arisen during the data entry and processing.

Later, all of the files were merged into 24 output files by hour of right ascension and were structured like the current data files in the AAVSO International Database. He then examined these files using several programs, and final-checked observational validity and file integrity. In many cases, several passes were made on the data files with these checking procedures, until it was felt that a data file was sufficiently "combed" free of conflicts due to duplicates, omissions, and other problems. After running statistics programs on the merged archival files, the 24 archival files were then placed in a subdirectory of the AAVSO International Database directory.

On July 30, 1997, "First Light" of the on-screen light curve display of archival data via ZAP was achieved. Below are some statistics related to this project:

Total archival observations: 1,917,682

Total number of observers: 1,640

USA observers: 1,198 (73%)

Non-US observers: 442 (27%)

Total number of observers from 1961 to date: 3,988

USA observers: 2,138 (54%)

Non-US observers: 1,850 (46%)

I am very proud to report that the AAVSO now has the world's longest (in time) and largest variable star optical database, with over 8.5 million observations stretching from 1911 (with some observations going back to 1902) to date. Figure 1 shows the year-to-year number of observations compiled from 1902 to 1961 now in the AAVSO International Database.

2.3. Upgrading computer software

Our computer programs continue to be improved and developed for greater efficiency in working with AAVSO data and for technical and administrative operations. This year, we:

a. Developed the program Weighted Wavelet Z-Transform (WWZ), a data analysis program designed and written at AAVSO by Grant Foster. This program, our time series analysis program TS, and our plotting program ZAP are now accessible through our web site.

b. Revised our programs that calculate our annual totals of observations to allow us to track by computer much more information about each observer's monthly observations, calculate annual totals efficiently, and interface with other observer-related administrative operations throughout the year.

c. Modified our plotting programs, so that we can produce light curves for detailed studies, for publication in the Journal, and for posting to our web site.

d. Developed programs to access the machine-readable version of the *General Catalogue of Variable Stars* and to update our validation file quickly and easily.

e. Increased the security of our system, particularly our UNIX computer, by installing a more secure operating system on our web server. We did this as a result of a hacker breaking into our UNIX computer in January. Our system is now very secure and is checked regularly.

f. Installed Windows 95 on all our office computers. This has greatly improved efficiency, enabling multi-tasking and providing numerous useful utility programs and the latest commercial software.

2.4. Upgrading computer hardware

Most of our office computers were upgraded this year. We no longer have any 286 or 386 processors. We have several Pentium-based computers, including two with Pentium 166 processors. Three office computers have CD-ROM readers. We obtained a zip drive, allowing much more rapid and efficient backups of hard drives and easier diskette manipulation of large files; a CD-ROM writer for more efficient and permanent backups of office computers; and a color printer for producing color documents and viewgraphs. The new upgrading of our computer hardware has significantly improved the efficiency of our operations.

3. Requests for AAVSO data

We have responded to 239 requests for AAVSO data and information this year. Those requesting data and information included professional astronomers (50%); elementary and high school students (21%); amateur astronomers (13%); elementary and high school teachers (7%); college students (graduate and undergraduate) (6%); and newspaper and magazine reporters (3%). We sent 90% of the requested observations electronically.

A significant number of astronomers are obtaining data or information they need either directly from the *AAVSO News Flash*, of which we distributed 143 issues this year, or from the AAVSO web and ftp sites. Our web site statistics indicate that there have been 650 visits to the AAVSO On-Line Data Archives since we installed it in January. In addition, in the five months for which we have very accurate ftp site statistics, 325 data files were downloaded directly from the ftp site.

Thus, both the *AAVSO News Flash* and the web and ftp sites are providing the immediate information that some astronomers need, and the requests we receive at Headquarters are generally for long term or specific data that may not be on the web site. This increased direct access to the AAVSO data explains why the number of direct requests we received at Headquarters this year was lower than last year.

We continue to play an important role in providing data support for ground-based

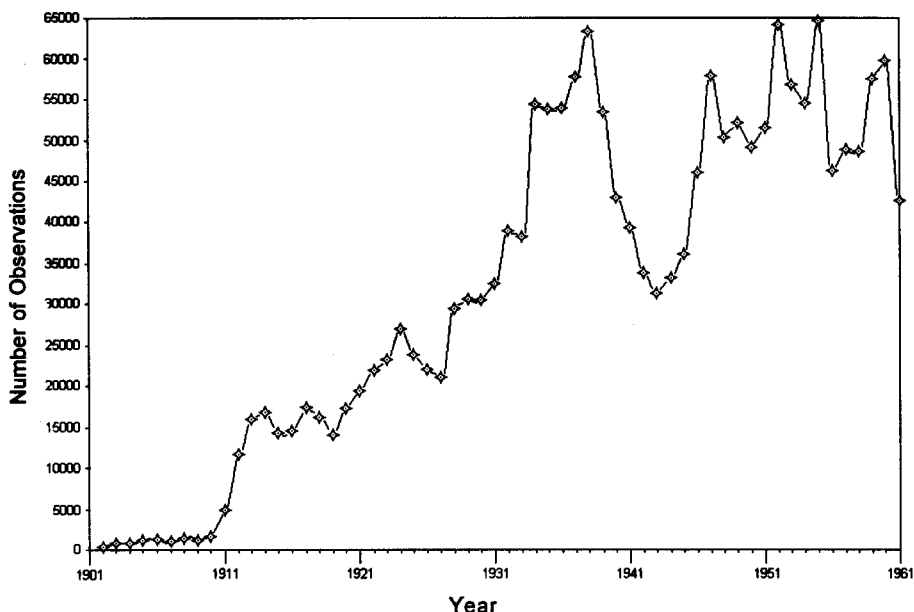


Figure 1. AAVSO archival data totals by year, 1902-1961.

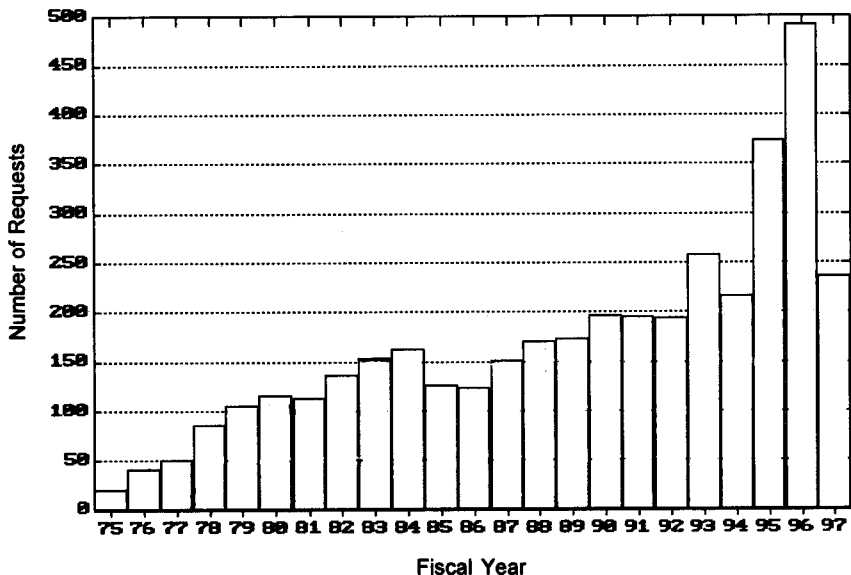


Figure 2. Histogram of the annual number of data and information requests the AAVSO has filled since fiscal 1974-1975. The drop in requests in fiscal 1996-1997 reflects the fact that more individuals are downloading data directly from the AAVSO web site, rather than requesting them through Headquarters; for example, 325 datafiles were downloaded in 5 months during 1996-1997.

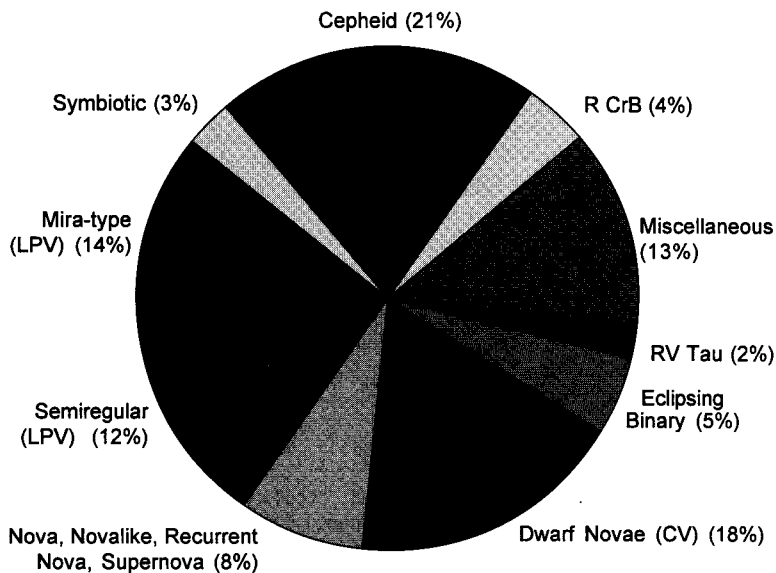


Figure 3. Types of stars for which AAVSO data were requested during fiscal year 1996-1997.

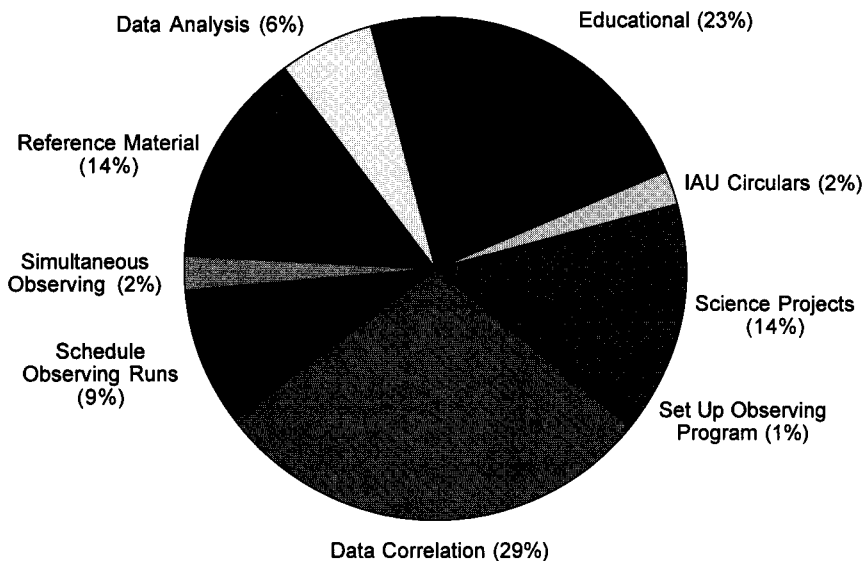


Figure 4. Areas in which AAVSO data or services were used during fiscal year 1996-1997.

and space satellite telescopes. We have provided data for observing runs with the following satellites of NASA and the European and Japanese Space Agencies: HST, EUVE, RXTE, ISO, ASCA, and ROSAT.

A list of individuals requesting data or information, as well as each person's affiliation and location, is given in Table 4 at the end of my report. Figure 2 is a histogram of the annual number of data and information requests the AAVSO has filled since the fiscal year 1974–1975.

The types of stars for which AAVSO data have been requested this year are given in the list below and in Figure 3:

- a. Cataclysmic variables (26%)—dwarf novae (18%); novae, recurrent novae, novalike, supernovae (8%)
- b. Long period variables (26%)—Mira type (14%); semiregular (12%)
- c. Cepheids (21%)
- d. Eclipsing binaries (5%)
- e. R Coronae Borealis stars (4%)
- f. Symbiotic stars (3%)
- g. RV Tauri stars (2%)
- h. Miscellaneous (13%)—S Dor, central stars of planetary nebulae, RR Lyr stars, the Sun.

The areas in which AAVSO data or services have been used this year are given in the list below and in Figure 4:

- a. multiwavelength data correlation with data obtained with HST, EUVE, RXTE, and ASCA satellites (29%)
- b. educational programs (23%)
- c. reference material (14%)
- d. science projects (14%)
- e. scheduling of satellite and ground-based observing runs with EUVE, HST, RXTE, ROSAT, and ASCA satellites (9%)
- f. data analysis (6%)
- g. simultaneous observation of targeted objects with EUVE and RXTE satellites (2%)
- h. information for the *IAU Circulars* (2%)
- i. setting up observing programs (1%)

Let me share with you some interesting requests we received this year.

AAVSO data on long period variables are used extensively, particularly by Austrian and Japanese astronomers, for correlating infrared data obtained with the European infrared satellite, ISO. In addition, several research teams around the world are involved in the measurement of angular diameters of long period variables with interferometers. AAVSO data are being used by these teams in the phase determination of the interferometric observations of these stars.

We have a fruitful collaboration with Kent Honeycutt, in which he and his team have been observing cataclysmic variables for the past several years with an automated telescope equipped with a CCD. We have collaborated on two papers correlating AAVSO observations with their CCD observations and analyzing the standstill and outburst brightnesses of several Z Cam stars. The collaboration is proving to be extremely fruitful, as the AAVSO provides a bounty of observations and their system provides the more precise photometry. It is extremely satisfying to see how well the two systems correlate with and complement each other.

Our observer Mary Dombrowski, who completed a very successful science fair

project on IP Pegasi, was awarded first prize in the state of Connecticut, and later was invited to give a talk at the National Science Teachers Association. She also spent a week at NASA Goddard Space Flight Center and visited the Space Telescope Science Institute. We are very happy for Mary and proud of her successes.

Recently we received a phone call from a 13-year old young lady, Lauren Versagli, who found us through *Women in Space* magazine. She asked for ideas for junior high science fair projects. She sounded extremely interested in astronomy, very mature for her age, clear in what she wanted to do, and enthusiastic. After we talked about possible projects, she asked if we knew someone she could call if she needed help. We suggested Mary Dombrowski. Mary later e-mailed me saying that she and Laurie had had a long phone conversation and that she was now mentoring Laurie in her science project. We hope Laurie will be as successful as Mary.

4. Outreach, awards, and recognition

4.1. Awards given

During the 86th AAVSO Spring Meeting in Sion, Switzerland, the following awards were presented:

a. AAVSO Nova Awards: Stefano Pesci and Piero Mazza, for their visual discovery of Supernova 1996bk in NGC 5308 on October 12.79, 1996 UT; Robert Evans, for his visual discovery of Supernova 1997bp in NGC 4680 on April 6.52 UT, 1997. The Nova Awards, which are usually given at the Annual meeting, were presented at this meeting to Stefano Pesci, who could attend the spring meeting in person and deliver the award to co-discoverer Piero Mazza. Similarly, Tom Cragg, who attended the meeting from Australia, offered to hand-deliver the award to Robert Evans.

b. AAVSO Observer Awards: Danie Overbeek for making over 200,000 visual observations; Hendrik Feijth (posthumously) for over 50,000; 5 observers for over 25,000 observations; 5 observers for over 10,000 observations; Ronald E. Zissell and Stephen P. Cook for making over 5,000 PEP/CCD observations; Raymond Thompson for making over 2,500 PEP observations; and Roger Diethelm and Gilbert C. Lubcke for making over 1,000 CCD/PEP observations.

c. AAVSO Director's Awards: Thomas Burrows of California for his valuable and vital contributions to many observing runs; Michel Grenon of Switzerland for the opportunity he provided for the AAVSO to participate in the Hipparcos mission, his very valuable contributions of photoelectric comparison star magnitudes for AAVSO charts, and for inviting the AAVSO to Switzerland and being the main host of our meeting there; Albert Jones of New Zealand for holding the world's record of making over 500,000 visual observations, his vital observations of outbursts of stars, and his crucial contributions to many satellite observing programs.

A complete list of the above award recipients is given in *Journal of the AAVSO*, Volume 26, Number 1, pages 84 to 87.

In addition, at our meeting in Switzerland, we presented plaques expressing our thanks and appreciation to the host institutes: Institut Universitaire Kurt Bösch, Observatoire de Genève, and Observatoire François-Xavier Bagnoud.

4.2. Awards and recognitions received

a. The AAVSO received a "Friend of NSERC Award" certificate from the National Sciences and Engineering Research Council of Canada (the equivalent of the National Science Foundation in the USA) for services rendered in the past to Canadian researchers.

b. The AAVSO's web site was named as one of the best education-related sites on the web by the Education Index.

c. The AAVSO one-day means light curve of SS Cygni for the interval 1960–1995 was featured on the cover of the April 1997 issue of *Publications of the Astronomical Society of the Pacific*. The AAVSO one-day means historical light curve of SS Cygni from 1896 to 1992 was shown to IAU General Assembly participants by Brian Warner, who gave an invited talk on Cataclysmic Variables.

4.3. Other recognition

In addition, the following AAVSO members have received awards:

a. John R. Percy received the Sanford Fleming Medal on March 22, 1996, from the Royal Canadian Institute for his contribution to the public understanding of science.

b. Dorrit Hoffleit received the first Maria Mitchell Women in Science Award from the Maria Mitchell Association on October 4, 1997.

c. An asteroid was named honoring Henk Feijth in April 1997.

4.4. Outreach programs

a. The AAVSO discussion forum on the internet is going strong, thanks to the excellent management of this site by our Council member Douglas Welch. Interested members and observers may participate by sending a "subscribe" message via e-mail to aauso-discussion-request@physics.mcmaster.ca.

b. We are continuing with our mentoring program, designed to pair up new observers with more experienced observers, thanks to our long-time observer and Council member Daniel Kaiser, who is coordinating this program. He may be contacted via e-mail at kaiser@iquest.net.

5. AAVSO educational projects

5.1. Hands-On Astrophysics (*project funded by the National Science Foundation*)

This year we have focused our attention on the completion of this project. Donna Young, one of the participants in our Teachers Workshops and a Fellow at the Wright Center for Innovative Science Education of Tufts University, has been working with Michael Saladyga on finalizing the teacher and student manual. This summer we added another staff person, Karin Hauck, who is working with Donna and Mike in preparing the manual for publication. When the manual is completed, we feel strongly that it will be a major publication referred to and used by teachers and students.

We have now finalized the three-part video which is part of this project and have completed the design for the video cover. The video is now ready to go into production.

We have finalized the slides and some of the printed pages of the slides. We will have 31 slides and 14 printed pages of the slides in the final package.

The project will be completed by the end of the calendar year.

5.2. Astronomy On-Line

We developed a web page on variable stars for an exciting education program called Astronomy On-Line and claiming to be the "World's Biggest Astronomy Event on the World Wide Web." This major web-based education program of the European Association for Astronomy Education, the European Southern Observatory, and the European Union contained a comprehensive network of astronomy-oriented educational web pages developed at different sites, and had 5,000 persons, mostly young people, participate from 39 countries.

5.3. Hipparcos web site

The AAVSO is prominently mentioned in various pages of the recently-expanded Hipparcos web site. The contributions of amateur astronomers to the astrometric and photometric observations of large amplitude variable stars are displayed on the web site with several links to the AAVSO web site. Presently we are communicating with

Hipparcos Project Scientist Michael Perryman on how to expand, in particular, the education part of the Hipparcos web site, with more participation from the AAVSO and AAVSO data. I invite those who have access to the Internet to visit the site at this URL:

<http://astro.estec.esa.nl/SA-general/Projects/Hipparcos/hipparcos.html>

6. Summary of observations

We reached another milestone in our observational records this year when the 8.5 millionth observation in the AAVSO International Database was made by Robert H. Johanns of Balkbrug, Netherlands, with the observation he made of 1510+83 Z UMi on JD 2450345.3 (September 18, 1996) at magnitude 11.8.

6.1. Annual observations

This year we received a record high number of observations, reaching 366,335 visual, photoelectric, and CCD observations from 564 observers around the world. These totals include 136,236 observations from 209 observers in 39 states and territories of the United States, and 230,099 observations from 355 observers in 37 countries. Arizona with 16,361 observations, along with Massachusetts (15,837) and Georgia (11,706), led the United States, while Germany (28,769), Denmark (22,388), and South Africa (22,019) led the countries abroad.

The total number of observations since 1911 in the AAVSO International Database is 8,853,322.

Table 1 lists the number of observers and the total observational contribution from each country during this fiscal year. Table 2 gives the same information for each state or territory in the United States. Table 3 is an alphabetical list of observers, giving each person's AAVSO observing initials, location, and annual totals of observations and inner sanctum observations (magnitude 13.8 or fainter, or "fainter than" 14.0 or fainter).

This year 48 observers reported between 1000 and 2000 observations; 11 between 2000 and 3000; 10 between 3000 and 4000; 6 between 4000 and 5000. Warren Morrison (Canada) reported 5,058 observations; Marvin Baldwin (Indiana) 5,139; Gerald Dyck (Massachusetts) 5,324; Ronald Zissell (Massachusetts) 5,468; John Bortle (New York) 5,800; Alfons Diepvens (Belgium) 6,112; Paul Vedrenne (France) 6,261; Richard Huziak (Canada) 6,870; Georg Comello (Netherlands) 8,649; Richard Schmude (Georgia, USA) 11,134; and Gene Hanson (Arizona) 13,698. Our top three observers for this year were Gary Poyner (England) with 15,097 observations; Danie Overbeek (South Africa) with 16,095; and Lasse Teist Jensen (Denmark) with 21,607 (two years of data).

Lasse Teist Jensen reported 12,237 inner sanctum observations among the two years' data he submitted, followed by Gary Poyner (9,872) and Gene Hanson (6,932).

We received 3,395 photoelectric observations from 18 observers. Howard Landis, the chair of the AAVSO Photoelectric Photometry Committee, continues to give generously of his time to digitize, reduce to standard format, archive, and send these observations to Headquarters to be included in the AAVSO Photoelectric Photometry Database.

We received 18,035 CCD observations from 27 observers. These include both the B,V,R,I observations of program stars and the CCD observations of other stars, particularly cataclysmic and long period variables. Gary Walker, the chair of the AAVSO CCD Committee, contributes much time to make sure the CCD-program-star observations are reduced in the standard format, archived, and submitted to Headquarters for inclusion in the AAVSO CCD Database.

We received 18,566 observations of eclipsing binaries and RR Lyrae stars from 53 observers. Marvin Baldwin, the chair of both the AAVSO Eclipsing Binary and the AAVSO RR Lyrae Committees, continues to contribute generously much of his time to reduce and archive the data for the determination of times of minima and maxima, respectively.

We received 3,552 Supernova Search observations from four observers. These observations, which are not included in the annual totals, are archived at AAVSO Headquarters. Rev. Robert Evans, the chair of the AAVSO Supernova Search Committee, continues to provide vital guidance to observers and sets a wonderful example by his visual discovery of extragalactic supernovae.

Four observers made 2,395 Nova Search observations covering 219 nova search areas. Rev. Kenneth Beckmann, the chair of the AAVSO Nova Search Committee, continues to compile the observations and provide valuable guidance to observers and those interested in nova search.

My sincere thanks to all of our dedicated observers for their contributions, whether one or thousands of observations. Our observers are the basis of the AAVSO's success.

6.2. International cooperation

We acknowledge with appreciation the observations sent to the AAVSO by members of the following variable star associations, either individually or as a group, for inclusion in the AAVSO International Database for dissemination to the astronomical community worldwide:

- a. Agrupación Astronómica Albireo of Seville (Spain);
- b. Asociación Argentina Amigos de la Astronomía;
- c. Asociación de Variabilistas de Espagne (Spain);
- d. Association Française des Observateurs d'Étoiles Variables (France);
- e. Astronomical Society of South Australia;
- f. Astronomical Society of Southern Africa, Variable Star Section;
- g. Astronomischer Jugendclub (Austria);
- h. Astronomisk Selskab (Scandinavia);
- i. British Astronomical Association, Variable Star Section (England);
- j. Bundesdeutsche Arbeitsgemeinschaft für Veränderliche Sterne e. V. (BAV)(Germany);
- k. Grupo Astronomico Silos (Zaragoza, Spain);
- l. Liga Ibero-Americana de Astronomia (South America);
- m. Madrid Astronomical Association MI (Spain);
- n. Magyar Csillagászati Egyesület, Változócsillag Szakcsoport (Hungary);
- o. Nederlandse Vereniging Voor Weeren Sterrenkunde, Werkgroep Veranderlijke Sterren (Netherlands);
- p. Norsk Astronomisk Selskap, Variable Stjernegrupper (Norway);
- q. Planetario e Observatorio Astronomico do Colegio Estadual do Parana (Brazil);
- r. Red de Observadores de Estrellas Variables—MIRA (Spain);
- s. Royal Astronomical Society of Canada;
- t. Royal Astronomical Society of New Zealand, Variable Star Section;
- u. Sociedad Astronomica "Syrma" (Valladolid, Spain);
- v. Svensk Amator Astronomisk Forening, variabelsektionen (Sweden);
- w. Uniao Brasileira de Astronomia, Variable Star Commission (Brazil);
- x. Unione Astrofili Italiani (Italy);
- y. Variable Star Observers League in Japan;
- z. Vereniging Voor Sterrenkunde, Werkgroep Veranderlijke Sterren (Belgium).

7. Membership

At the Spring Council Meeting held at Headquarters this year, we elected 47 new members, one of whom joined as a Sustaining member. A list of these new members appears on page 84 of Volume 26, Number 1, of the *Journal of the AAVSO*. At the 86th Annual Meeting, held in Mt. Holyoke, Massachusetts, we elected 57 new members, two of whom joined as Sustaining members, and five of whom joined as Junior members. A list of these new members appears on page 169 in this volume of the Journal.

This year one member changed his membership from Annual to Sustaining, thus

supporting the operation of the Association doubly with his dues.

8. AAVSO publications

The following were published by the AAVSO this year:

- a. *Journal of the AAVSO*, Vol. 25, Nos. 1 and 2, edited by Charles A. Whitney, with assistance from Elizabeth O. Waagen and Lynn M. Anderson
- b. *AAVSO Bulletin 60: 1997 Predicted Dates of Maxima and Minima of 561 Long Period Variables*, prepared by Janet A. Mattei, with assistance from Elizabeth O. Waagen
- c. *AAVSO Alert Notice*, Nos. 232–241, prepared by Janet A. Mattei, with assistance from Elizabeth O. Waagen
- d. *AAVSO News Flash*, Nos. 70–211, prepared by Janet A. Mattei, with assistance from Rebecca T. Pellock
- e. *AAVSO Circular*, Nos. 312–322, edited by John E. Bortle, with assistance from Charles E. Scovil and Robert Leitner
- f. *AAVSO 1997 Ephemeris for Eclipsing Binaries*, prepared by Gerard Samolyk and Marvin E. Baldwin
- g. *AAVSO 1997 Ephemeris for RR Lyrae Stars*, prepared by Gerard Samolyk and Marvin E. Baldwin
- h. *AAVSO Solar Bulletin*, Vol. 52, Nos. 9–12; Vol. 53, Nos. 1–8; Vol. 52 and Vol. 53., Nos. 1–3, edited by Peter O. Taylor; Vol. 53, Nos. 4–8, edited by Elizabeth Stephenson
- i. *SID Technical Bulletin*, Vol. 7, No. 4; Vol. 8, Nos. 1–2, prepared by Arthur J. Stokes and Peter O. Taylor
- j. *CCD Views*, Vol. 1, No. 3, edited by Gary Walker
- k. *AAVSO Newsletter*, No. 18, edited by Lynn M. Anderson
- l. *AAVSO Photoelectric Photometry Newsletter*, Vol. 17, Nos. 1–2, edited by John R. Percy
- m. *AAVSO Eclipsing Binary Update*, No. 4, edited by David B. Williams
- n. *Observed Minima Timings of Eclipsing Binaries No. 4*, prepared by Marvin E. Baldwin and Gerard Samolyk
- o. *AAVSO Monographs*, prepared by Janet A. Mattei, Elizabeth O. Waagen, and Grant Foster:
 - Monograph 10: AM Herculis Light Curves 1977–1995*
 - Monograph 11: PU Vulpeculae Light Curves 1979–1995*
 - Monograph 12: TT Arietis Light Curves 1974–1995*

9. Other publications with AAVSO participation

- a. Predicted maxima dates of bright long period variables and ephemerides of a few easy-to-observe stars were published by Janet A. Mattei together with an article on “Variable Star of the Year — Alpha Herculis” with John R. Percy in the 1997 *Observer's Handbook* of the Royal Astronomical Society of Canada.
- b. Monthly prediction of maxima dates of bright long period variables were published in *Sky & Telescope* magazine from October 1996 to June 1997.
- c. “Time Frequency Analysis and Pulsation of LPV Stars. I. α Ceti,” by D. Barthès and J. A. Mattei was published in the *Astronomical Journal*, **113**, 373; 1997.
- d. “New Clues on the Nature of the Recurrent Nova T Coronae Borealis from a 40-Year Light Curve of the System” by E. Leibowitz, E. Ofek, and J. A. Mattei was published in the *Monthly Notices of the Royal Astronomical Society*, **287**, 643; 1997.
- e. “Mean Light Curves of long-period variables and discrimination between carbon- and oxygen-rich stars” by M. O. Mennessier, H. Boughaleb, and J. A. Mattei was published in *Astronomy and Astrophysics*, **124**, 143, 1997.

f. "The Symbiotic Star YY Her" by U. Munari, *et al.* and J. A. Mattei was published in *Astronomy and Astrophysics*, **323**, 113; 1997.

g. "Using 35-mm Slides for Measuring Variable Stars" by J. R. Percy, L. Syczak, and J. A. Mattei was published in *The Physics Teacher*, **35**, 349, 1997.

h. "Amateur Contributions to the Hipparcos Satellite" by J. A. Mattei and G. Foster was published in *Sky & Telescope*, April, 1997.

In addition to the above, 10 papers with AAVSO participation were submitted for publication this year, but had not yet been published by the end of this fiscal year.

10. Meetings attended and talks given

10.1. Meetings attended

I have attended the following scientific meetings this year:

a. Meeting with M. O. Mennessier and her team at the University of Montpellier, France, to discuss collaborative papers and projects on long period variables between her and her team and the AAVSO, December 2–5, 1996.

b. International meeting of the National Science Teachers Association, December 26–30, 1996, in San Francisco, CA.

c. 90th Birthday Symposium for Dorrit Hoffleit, March 7, 1997, at Yale University, New Haven, CT.

d. Hipparcos Venice '97 meeting, May 13–18, 1997, in Venice, Italy.

e. XXIIIrd General Assembly of the International Astronomical Union, August 18–30, 1997, in Kyoto, Japan.

f. Annual meeting of the Variable Star Observers League of Japan (VSOLJ), August 23–24, 1997, near Kyoto, Japan.

In addition, Elizabeth Waagen attended the 190th Meeting of the American Astronomical Society (AAS), June 8–11, 1997, in Winston-Salem, NC.

10.2. Talks given

I have given the following talks this year:

a. Workshop on variable stars, AAVSO, and Hands-On Astrophysics, with John Percy at the NSTA meeting.

b. "Variable Stars, Maria Mitchell Observatory, and the AAVSO," at the 90th Birthday Symposium of Dorrit Hoffleit, Yale University, New Haven, CT.

c. "Classification of Red Variables," in Venice, Italy.

d. "The AAVSO and Its Activities" and "Contributions of Amateur Astronomers to Space Science," at the 86th Spring Meeting of the AAVSO in Sion, Switzerland.

e. "Observations of Dwarf Novae with EUVE," with Christopher Mauche, at the 86th Spring Meeting of the AAVSO in Sion, Switzerland.

f. "AAVSO's Hands-On Astrophysics Educational Project" at the Special Education Session at the 86th Spring Meeting of the AAVSO in Sion, Switzerland.

g. "Variable Stars, AAVSO, and Hands-On Astrophysics," at the Teachers Workshop at Colorado University.

h. "Contributions of Amateur Astronomers to Variable Stars," "The Activities of the AAVSO," and "Contributions of Japanese Variable Star Observers to the AAVSO" at the Annual meeting of the VSOLJ, near Kyoto, Japan.

In addition, Elizabeth Waagen gave a talk entitled "Current AAVSO Frontiers" at the special session on Collaboration of Professional and Amateur Astronomers at the AAS meeting in Winston-Salem, NC.

Grant Foster and Mike Saladyga gave talks on the AAVSO and the Hands-On Astrophysics project and its activities at the Space Science Workshop for Teachers at Wright Center, Tufts University, Medford, MA.

Lynn Anderson gave talks on variable star astronomy to sixth- and eighth-grade science classes at Chenery Middle School in Belmont, MA.

11. Personnel at Headquarters

The technical and the administrative staff at the Headquarters of the Association help me in the running of the AAVSO. The staff members are well qualified for their responsibilities, extremely conscientious, hard-working, and team-spirited. I would like to express my sincere thanks and appreciation to the dedicated staff of AAVSO: Elizabeth Waagen, my senior technical assistant; Grant Foster, our computer specialist and statistician; Rebecca Pellock, our technical assistant; Kerriann Malatesta, our technical assistant, Leora Hurwitz, our technical assistant and webmaster, Michael Saladyga, our technical assistant; Barbara Silva, our data entry technician; Sara Beck, our part-time technical and administrative assistant; Quinnette Littleton, our office assistant, Lynn Anderson, the production editor of our Journal and the editor of our Newsletter; Karin Hauck, whom we hired this summer as the production, design, and layout editor for our Hands-On Astrophysics Manual; and Frank McCarrison, our loyal volunteer.

I also thank Tanja Foulds and Shawna Hutchison (Helleur), our former staff persons, who continue to assist us at night or on weekends when needed.

12. Acknowledgements

I want to thank with deep feelings of appreciation and gratitude all those who have contributed so much the Association this year.

We remember Clint Ford with fond memories, love, and gratitude for the very special feeling he had for the AAVSO, for his generosity, for providing us with our own Headquarters and with a legacy—the Clinton B. Ford Fund—that assures a sound future for the AAVSO.

We remember Margaret Mayall with warm memories and gratitude for all she did for the Association during some very hard times and as the director, and both Margaret and Newton Mayall for providing the AAVSO with a legacy—the Mayall Fund—for a more secure future.

Our appreciation and thanks go to our dedicated, devoted, and untiring 564 observers around the world this year, the unsung heroes of the AAVSO, who make the AAVSO vital to variable star research. We especially thank observers who have contributed to special observing programs this year and to those who e-mail, phone, and fax in their up-to-date observations to Headquarters for inclusion in the *News Flash*, in addition to sending in their monthly reports.

Our thanks to members who support the AAVSO with their dues, and our special thanks to those who have generously contributed above their dues so that we can serve you, our members, and the astronomical community well and to those who are sponsoring the membership of active observers.

12.1. Grants

We have been very fortunate to receive strong financial support from institutions, private foundations, and government agencies this year. We gratefully acknowledge the following:

12.1.1. National Science Foundation (NSF)

For the grant from the Education Division for the preparation of the project Hands-On Astrophysics: Variable Stars in Science, Math, and Computer Education.

12.1.2. National Aeronautics and Space Administration (NASA)

As a Co-Investigator with Chris Mauche in the observations of SS Cygni and OY Carinae with the Extreme Ultraviolet Explorer (EUVE), and the Rossi X-ray Timing

Explorer (RXTE).

12.1.3. National Oceanographic and Atmospheric Administration (NOAA)
For the operation of our Solar Division.

12.1.4. American Astronomical Society

For the travel grant to attend the IAU General Assembly in Japan in August 1997.

12.2. Institutional support

12.2.1. Stamford Observatory for allowing Charles Scovil and John Griese to use the 22" telescope for making variable star observations, and for allowing Charles Scovil and Robert Leitner to use the facilities of the Observatory to prepare charts and the *AAVSO Circular*.

12.2.2. The University of Toronto for the time John Percy contributes, together with his students, to Hands-On Astrophysics and for John's editorship of the *AAVSO Photoelectric Photometry Newsletter*.

12.2.3. The Smithsonian Astrophysical Observatory for providing us access to electronic mail through their network.

How fortunate we are to be grateful and thankful to so many individuals, institutions, and government agencies!

My sincere thanks and appreciation go to our Committee Chairpersons who give so generously of their time and wisdom to the Committees for which they are responsible. Thanks to Marv Baldwin, Ken Beckmann, Bob Evans, Howard Landis, Charles Scovil, Betty Stephenson, and Gary Walker. I very much appreciate the support of our Vice President Gary Walker, and of our Council members Peter Garnavich, Mike Hayden, John Isles, Dan Kaiser, Mario Motta, Msgr. Ron Royer, Doug Welch, and Lee Anne Willson.

I especially thank Al Holm, our President, Martha Hazen, our Secretary, and Wayne Lowder and Tom Williams, our past presidents, for their support and wisdom and for always being there to help with matters of the Association.

A very special thanks to our treasurer Ted Wales for his wisdom, financial expertise, for his caring so deeply about the good of the Association, and for giving so generously of his time. We congratulate him most sincerely for the superb job he has done to computerize our accounting.

Last but not least, my personal thanks to my husband Mike, for his continuous support and understanding.

With the completion of the processing of the archival data and now possessing the world's largest variable star database, and with the completion of an extremely innovative and exciting educational project, Hands-On Astrophysics, the AAVSO stands at a crossroads with its involvement with science and education. I thank each of you for your contributions and support, and I look forward to an exciting and fruitful year.

Table 1. AAVSO Observer Totals 1996 - 1997 by Country

<i>Country</i>	<i>No. Observers</i>	<i>Obs.</i>	<i>Country</i>	<i>No. Observers</i>	<i>No. Obs.</i>
ARGENTINA	4	2086	JAPAN	5	2375
AUSTRALIA	12	4248	MALTA	1	724
AUSTRIA	3	970	NETHERLANDS	9	15280
BELGIUM	11	16892	NEW ZEALAND	2	269
BRAZIL	9	3887	NORWAY	9	4996
CANADA	16	17279	PARAGUAY	1	12
CHILE	1	71	POLAND	12	6575
CROATIA	1	4537	PORTUGAL	1	12
CZECH REPUBLIC	5	770	ROMANIA	4	3012
DENMARK	7	22388	RUSSIA	1	130
ENGLAND	11	18225	SOUTH AFRICA	11	22019
FRANCE	40	17439	SPAIN	28	5101
GERMANY	39	28769	SWEDEN	1	192
GREECE	3	4804	SWITZERLAND	5	2585
HAITI	1	1900	UKRAINE	18	2334
HUNGARY	66	16632	URUGUAY	3	233
INDIA	1	17	USA	209	136236
IRELAND	2	89	ZIMBABWE	2	306
ISRAEL	1	1			
ITALY	9	2940	TOTAL	564	366335

Table 2. AAVSO Observer Totals 1996 - 1997 USA by State or Territory

<i>State</i>		<i>No. Observers</i>	<i>No. Obs.</i>	<i>State</i>		<i>No. Observers</i>	<i>No. Obs.</i>
ALABAMA	(AL)	1	42	MINNESOTA	(MN)	4	1652
ALASKA	(AK)	1	9	MISSOURI	(MO)	6	328
ARIZONA	(AZ)	12	16361	NEVADA	(NV)	1	2
ARKANSAS	(AR)	2	4044	NEW HAMPSHIRE	(NH)	3	611
CALIFORNIA	(CA)	22	9126	NEW JERSEY	(NJ)	7	5905
CONNECTICUT	(CT)	9	2869	NEW MEXICO	(NM)	4	6381
COLORADO	(CO)	3	4575	NEW YORK	(NY)	10	10573
FLORIDA	(FL)	3	3133	NORTH CAROLINA	(NC)	2	13
GEORGIA	(GA)	4	11706	OHIO	(OH)	8	4449
HAWAII	(HI)	3	4349	PENNSYLVANIA	(PA)	8	2785
IDAHO	(ID)	1	7	PUERTO RICO	(PR)	1	27
ILLINOIS	(IL)	16	6540	RHODE ISLAND	(RI)	3	1710
INDIANA	(IN)	7	8372	UTAH	(UT)	2	871
IOWA	(IA)	5	278	TEXAS	(TX)	9	1149
KANSAS	(KS)	2	463	VIRGINIA	(VA)	5	2184
LOUISIANA	(LA)	1	7	WASHINGTON	(WA)	3	275
MAINE	(ME)	4	2908	WEST VIRGINIA	(WV)	1	371
MARYLAND	(MD)	7	1606	WISCONSIN	(WI)	6	4419
MASSACHUSETTS	(MA)	16	15837				
MICHIGAN	(MI)	6	211	TOTAL		209	136236

TABLE 3. AAVSO Observers, 1996 - 1997

Code	Name	No. Obs.	No. I.S.	Code	Name	No. Obs.	No. I.S.
AAP	P. Abbott, Canada	812	66	CNL	O. Cole Armal, Canada	219	
AAK	# A. Ackermann, Hungary	8		COL	P. Collins, AZ	1810	
ABB	B. Adams, CA	1024	127	CME	@ E. Colombo, Italy	706	
ADJ	J. Adams, NY	499		CMG	& G. Cornelio, Netherlands	8649	1307
AMT	M. Adams, TX	1		COX	* O. Constans, France	12	
AB	W. Albrecht, HI	4319	35	CK	S. Cook, AR	3985	
ARL	R. Alencar Caldas, Brazil	420		CLZ	L. Corp, France	1	
AMC	M. Alkema, CA	53		CWD	D. Cowall, MD	94	
AAA	A. Alves, Brazil	1191		CLX	L. Cox, Canada	50	
AEJ	E. Anderson, NY	311		CR	T. Cragg, Australia	2660	734
AJR	R. Andress, AZ	57		CJH	J. Crast, PA	49	
AJU	J. Antaw, Australia	14	1	CRR	R. Crumrine, NY	18	
ADN	D. Arnaudovic, Australia	4		CTD	T. Crute, TX	10	1
AKT	T. Atkin, Haiti	1900	4	CBZ	# B. Csak, Hungary	336	7
AJM	* J. Azema, France	51		CJK	# J. Csanyi, Hungary	49	
BGL	# G. Baglyas, Hungary	4		CGB	# G. Cseri, Hungary	24	
BWY	W. Bailey, AL	42		CTI	# T. Csorgei, Hungary	10	
BM	M. Baldwin, IN	5139		CSM	M. Csukas, Romania	601	6
BIV	# I. Balogh, Hungary	478		CCO	λ C. Cubillo Rubiato, Spain	24	
BGZ	G. Banialis, IL	4		CKB	B. Cudnik, CA	241	1
BDI	8 D. Bannuscher, Germany	131		DMI	8 M. Dahm, Germany	573	
BXA	† A. Baransky, Ukraine	1178		DSG	@ S. Dallaporta, Italy	430	
BEQ	# E. Barat, Hungary	6		DMM	@ M. Damiani, Italy	2	
BSF	S. Barnhart, OH	98	5	DAM	λ A. Darriba Martínez, Spain	68	28
BSR	@ S. Baroni, Italy	562		DAJ	J. Davis, MD	13	3
BQ	# L. Bartha, Hungary	332		DJS	J. Day, England	2	
BXJ	J. Baxter, Canada	79		DAF	A. Demelo Farias, Brazil	45	
BBA	B. Beaman, IL	24		DFR	F. Dempsey, Canada	120	
BVD	D. Beard, PA	181		DNO	O. Deren, Poland	1229	
BSJ	S. Beck, MA	3		DMG	M. DeTraglia, AK	9	5
BJS	J. Bedient, HI	6		DVI	+ F. De Villiers, South Africa	174	1
BOX	✓ O. Benitez Sanchez, Spain	77		DPA	✓ A. Diepvens, Belgium	6112	855
BTY	T. Berner, PA	556	156	DRG	R. Diethelm, Switzerland	2015	1391
BCO	# C. Bereczky, Hungary	55		DLA	A. Dill, KS	427	3
BBE	# B. Berente, Hungary	2		DIL	W. Dillon, TX	532	52
BTU	T. Beresky, MO	120		DIO	M. Disko, NJ	6	
BEB	R. Berg, IN	2063	14	DMY	M. Dombrowski, CT	21	
BMM	∇ M. Biesmans, Belgium	1070	347	DPL	P. Dombrowski, CT	874	221
BQM	M. Bignotti, Italy	1		DZS	S. Dominguez, Argentina	1909	
BPZ	P. Bilejszys, Poland	2		DKI	# I. Drucsko, Hungary	4	
BLV	L. Binder, TX	1		DMB	ξ M. Duenas Beceril, Spain	4	
BKL	J. Blackwell, NH	18		DMO	* M. Dumont, France	532	
BGI	G. Blasco Gill, Spain	4	4	DKS	S. Dvorak, OH	359	19
HUO	D. Bloom, UT	4		DGP	G. Dyck, MA	5324	3247
BEC	8 E. Born, Germany	1859		EM	G. Emerson, CO	20	6
BRJ	J. Bortle, NY	5800	3263	EPE	8 P. Enskonatus, Germany	452	
BYK	† S. Borysenko, Ukraine	5		ERU	8 R. Eyck, Germany	314	
BJO	λ J. Bosch, Spain	28	28	FMX	% F. Farrell, Australia	324	
BJB	J. Bosch, Switzerland	13		FCA	C. Fausel, IN	238	1
BSX	S. Boucher, CA	6		FJH	& H. Feijth, Netherlands	1166	301
BMU	& R. Bourma, Netherlands	972	45	FKJ	# J. Fekete, Hungary	1030	3
BPI	* P. Bourret, France	66		FJM	J.M. Fernandez, Spain	398	
BMK	M. Bradbury, IN	423	31	FRF	# R. Fridrich, Hungary	1628	172
BNW	8 W. Braune, Germany	59		FAL	† A. Filatov, Ukraine	18	
BTB	T. Bretl, MN	125	12	F13	R. Fink, NJ	4	
BHA	8 H. Bretschneider, Germany	710		FSJ	* J.L. Fis, France	126	40
BSM	S. Brincat, Malta	724	76	FEM	E. Flynn, MO	10	1
BOS	∇ E. Broens, Belgium	1668	1262	FAT	# A. Fodor, Hungary	1	
BKD	R. Brooks, IN	36		FSE	@ S. Foglia, Italy	1196	2
BBT	R. Browning, NJ	5		FFC	# F. Foldesi, Hungary	39	
BHC	† C. Bruhn, Denmark	68		FMR	M. Fonovich, Croatia	4537	554
BOA	* A. Bruno, France	59	18	FT	G. Fortier, Canada	22	
BJD	✓ J. Bueno, Spain	3		FRL	R. Fournier, OH	27	
BTH	T. Burrows, CA	3739	1493	FMC	* M. Frangeul, France	191	
CVJ	λ J. Carvajal Martinez, Spain	6	4	FML	& C. Fridlund, Netherlands	45	6
CVR	R. Carver, Australia	197		FMG	G. Fugman, IA	72	
CGN	G. Cerruti, Uruguay	74		FGB	# G. Furesz, Hungary	1	1
CNB	N. Cerruti, Uruguay	27		GEC	E. Gale, IA	109	
CFE	* F. Chambon, France	6	1	GDX	* D. Gamera, France	4	
CNT	D. Chantiles, CA	323	2	GPA	λ F. Garcia, Spain	4	3
CMH	* M. Chapelet, France	36	2	GJN	8 J. Grenier, Germany	53	
CGF	G. Chapple, Jr., MA	4692	1870	GTR	R. Gent, AZ	154	
OCR	∇ O. Chretien, Belgium	192		OGJ	J. Gil Ortega, Spain	26	
CYA	A. Cichy, Poland	220		GMC	M. Gill, England	2	
CLK	W. Clark, MO	74	2	GVN	V. Giovannone, NY	103	
CRX	R. Cnota, Poland	980		GHA	8 H. Goldhahn, Germany	1757	

TABLE 3. AAVSO Observers, 1996 - 1997, continued

Code	Name	No. Obs.	No. I.S.	Code	Name	No. Obs.	No. I.S.
GIN	✓ I. Gomez, Spain	49		KGT	G. Knight, ME	79	
GZN	A. Gonzales, Spain	55		KSP	S. Knight, ME	80	25
GDF	ξ D. Gonzalez, Spain	1		KS	J. Knowles, NH	579	
GDV	F. Graham, OH	1	1	KDL	δ D. Koehn, Germany	123	
GKA	K. Graham, IL	26		KHL	M. Kohl, Switzerland	477	
GDS	* D. Grandclaude, France	5		KRS	R. Kolman, IL	1220	138
GRL	\$ B. Granslo, Norway	3224	61	KMA	M. Komorous, Canada	1614	22
GRI	J. Griese, III, CT	395	287	KOS	A. Kosa-Kiss, Romania	284	
GOC	R. Grochowski, Poland	60		KJF	# J. Koszo, Hungary	33	
GCT	† C. Grunnet, Denmark	342	1	KTD	T. Koutsotheodoris, Greece	22	
GHD	H. Guidry, NC	11		KVS	# A. Kovacs, Hungary	18	
GPR	P. Guilbault, RI	1081	473	KKV	# K. Kovacs, Hungary	7	
GUN	* J. Gunther, France	3465	680	KGV	# G. Kovago, Hungary	31	
GGX	* G. Guzman, France	28		KRC	R. Kowalski, FL	14	
HCS	# C. Hadhazi, Hungary	1655		KDE	\$ D. Kraakenes, Norway	14	
HTY	T. Hager, CT	434	170	KRO	# R. Krajcz, Hungary	1	
HJT	# A. Hajdu, Hungary	2		KAW	δ A. Kravietz, Germany	54	
HKB	B. Hakes, IL	218		KWO	δ W. Kriebel, Germany	787	37
HK	E. Halbach, CO	3928	164	KIS	δ G. Krisch, Germany	2518	
HMG	# G. Halmi, Hungary	148		KTZ	T. Krzyt, Poland	1045	
HP	W. Hampton, CT	53		KUC	* S. Kuchto, France	568	
HDX	D. Hands, NC	2		KLW	L. Kuczowski, Poland	128	
HAN	J. Hannon, CT	2	2	KPB	P. Kuebler, OH	327	
HSG	G. Hanson, II, AZ	13698	6932	KPG	& G. Kuipers, Netherlands	7	
HSI	† S. Harchuk, Ukraine	3		LTO	δ T. Lange, Germany	1487	
HAV	R. Harvan, MD	850	244	LMF	M. Lara, Brazil	444	
HBL	δ B. Hassforth, Germany	762		LSK	S. Lascowski, WI	54	
HAI	A. Hastings, MA	21		LJC	* J. Lazo-Contreras, France	6	
HSB	δ W. Hasubick, Germany	237	1	LZT	T. Lazuka, IL	879	4
HAB	R. Hays, Jr., IL	1245		LEB	* R. Lebert, France	361	
HZL	L. Hazel, NY	144	53	LNZ	G. Lenz, CT	295	
HLS	\$ L. Heen, Norway	13		LJL	J. Leonard, IL	56	
HEF	M. Heifner, CO	627	184	LGE	* G. Letellier, France	108	
FYE	E. Heironimus, MO	64		LEV	A. Leveque, CA	111	
HEN	+ C. Henshaw, England	201		LVY	D. Levy, AZ	108	53
HJN	+ J. Hers, South Africa	557	134	LTW	W. Liller, Chile	71	46
HUU	+ U. Hartling, South Africa	2		LJR	J. Link, IL	3	
HEV	# Z. Hevesi, Hungary	58		LSM	S. Linscott, TX	3	
HE	L. Hielt, VA	428		LOB	λ J. Lobo-Rodriguez, Spain	10	1
HRI	R. Hill, AZ	264		LGV	G. Lopatyński, CA	7	1
HIR	Y. Hirasawa, Japan	1834	182	LRD	D. Loring, UT	867	
HWD	W. Hodgson, England	3		LEJ	E. Los, NH	14	
HFO	δ G. Hoffer, Germany	157		LHR	H. Lourenco, Brazil	67	
HBA	δ A. Holbe, Germany	1321		LTB	T. Lubbers, MN	674	
HZJ	J. Holtz, PA	341	1	LBG	G. Lubcke, WI	164	4
HVA	∇ A. Houvenaeghe, Belgium	4		LPH	* P. Lucaud, France	44	
HOA	A. Howell, GA	354	184	LKA	K. Luedcke, NM	752	
HUR	G. Hurst, England	597	43	LHU	+ H. Lund, South Africa	123	3
HUZ	R. Huziak, Canada	6870	71	LME	M. Lyons, England	100	
IPA	P. Ingrassia, Argentina	144		MDW	W. MacDonald, II, Canada	226	8
IAN	† A. Ishchenko, Ukraine	27		MDD	P. Madden, MD	41	1
IFJ	% F. Ives, New Zealand	93		MDH	H. Maddocks, VA	7	
JTP	* P. Jacquet, France	407	2	MZG	δ G. Maintz, Germany	199	
JM	R. James, NM	1953		MLI	L. Maisler, NY	255	5
JLT	L. Jensen, Denmark	21607	12237	MEK	J. Manek, Czech Republic	32	29
JRJ	& R. Johanns, Netherlands	4148	526	MPH	P. Manker, Jr., GA	208	
JOG	G. Johnson, MD	186		MVN	† V. Manko, Ukraine	2	
JR	R. Johnson, MD	17	5	MJZ	* J. Manzorro, Spain	265	
JA	% A. Jones, New Zealand	176		MZY	# Z. Margyaris, Hungary	36	
JRW	+ R. Jones, South Africa	180		MIC	* C. Mariller, France	38	
JJL	+ J. Jooste, South Africa	10		MDR	R. Martin, MD	405	
KB	W. Kaminski, NM	323	81	MPD	J. Martinez Perez, Spain	5	
KAD	# A. Karpati, Hungary	19		MJH	J. Martins, Spain	9	
KEI	E. Kato, Australia	187	13	MRX	δ H. Marx, Germany	1390	133
KTA	T. Kato, Japan	1		MIV	# I. Matiz, Hungary	1	
KTL	L. Keith, WI	308		MAV	D. Matsnev, Russia	130	
KZK	# Z. Keregyarto, Hungary	5		MMZ	% M. Mattiazzo, Australia	484	2
KKP	& P. Kerkvliet, Netherlands	66		MPR	δ P. Maurer, Germany	2364	316
KZD	# D. Keszhelyi, Hungary	894		MGE	G. Mavrofridis, Greece	4547	107
KSZ	# S. Keszhelyi, Hungary	6		MJW	J. Mayer, PA	181	11
KHV	† V. Khanasuk, Ukraine	1		MGU	T. McCague, IL	47	
KRB	R. King, MN	579	160	MDP	P. McDonald, Canada	235	11
KHN	# H. Kiss, Hungary	11		MJP	P. McJunkins, Jr., TX	1	
KIL	# L. Kiss, Hungary	1264	21	MKJ	J. McKenna, NJ	2920	353
JKK	† K. Klindt-Jensen, Norway	74		MSD	D. Means, AZ	5	
KON	† O. Klinding, Denmark	23		MED	K. Medway, England	1697	

TABLE 3. AAVSO Observers, 1996 - 1997, continued

Code	Name	No. Obs.	No. I.S.	Code	Name	No. Obs.	No. I.S.
MSC	+ C. Mesu, Zimbabwe	118		RFN	P. Reis-Fernandes, Brazil	91	
MMY	♠ M. Meyer, Germany	18		RO	C. Ricker, MI	72	
MYJ	♠ A. Meyl, Germany	103		RRZ	# R. Ricza, Hungary	639	
MTK	T. Michalik, VA	249		OJR	λ J. Ripero Osorio, Spain	1518	496
MDI	I. Middlemist, England	48		RJX	* J. Roca, France	10	
MOK	\$ O. Midtskogen, Norway	1178	282	RJN	* J. Rochefort, France	18	1
MZS	# A. Mizser, Hungary	1131	35	RRG	R. Rodrigues da Gama, Brazil	3	
MCE	E. Mochizuki, Japan	50		RMU	♠ M. Rodriguez Marco, Spain	448	6
MRV	R. Modic, OH	3196	1384	RTY	A. Rogers, MA	28	
MOX	G. Moeller, LA	7		RJA	* J. Rohart, France	147	
MMI	♠ M. Moeller, Germany	4287		RGB	G. Rosenberg, AZ	44	
MOL	J. Molnar, VA	1439		ROG	G. Ross, MI	92	52
MLF	+ B. Monard, South Africa	3570		RJO	J. Rothchild, MA	2	
MVR	† V. Mornil, Ukraine	11		RSH	S. Rowse, MO	58	
MOW	W. Morrison, Canada	5058	362	RR	R. Royer, CA	394	117
MYL	† Y. Moskalenko, Ukraine	76		RJV	* J. Ruiz, Spain	164	
MDY	D. Mounsey, CA	4		RVR	✓ V. Ruiz Ruiz, Spain	1	
MKH	S. Mukherjee, India	17		RPH	H. Rumball-Petre, CA	16	
MMU	M. Munkacsy, RI	547		SXW	W. Sabo, IL	212	
MSX	♠ S. Mustos, Hungary	4		SGT	# I. Sagodi, Hungary	614	
MUY	∇ E. Muyllaert, Belgium	1082	76	SJU	* J. Saint-Jouan, France	3	2
NMS	M. Nall, MO	2		SOV	λ J. Sainz Benito, Spain	875	3
NTP	P. Nation, Australia	3		SJO	A. Sajtz, Romania	1683	
NAX	† A. Naumov, Ukraine	17		SSU	S. Sakuma, Japan	483	41
NKH	K. Nelson, HI	24		SEO	* E. Salazar-Garcés, Spain	88	
NRH	R. Nelson, Canada	42		SOL	R. Salvo, Uruguay	132	
NLB	# L. Nemeth, Hungary	5		SAH	G. Sarnolyk, WI	3196	
NJO	♠ J. Neumann, Germany	1546		SSD	✓ S. Sanchez Jimenez, Spain	50	
NTY	† T. Nikolaenko, Ukraine	7		SGX	# G. Santa, Hungary	157	
NBY	J. Nordby, MN	274	104	SGT	G. Santacana, PR	27	
NPM	P. Norris, MA	8		SYN	* Y. Santens, France	27	
OKB	K. O'Bara, WA	8		SPQ	* C. Sapi, Hungary	26	2
OCN	S. O'Connor, Canada	804	26	SKI	# K. Sarneczky, Hungary	291	23
OFA	A. O'Fearghail, Ireland	7		SGE	G. Sarty, Canada	98	
ONJ	J. O'Neill, Ireland	82		SDY	♠ D. Scharnhorst, Germany	108	2
OMA	M. Oefelein, IL	686		SVK	† V. Scherbak, Ukraine	12	
OES	D. Oesper, IA	1		SXT	T. Schieding, MA	31	
OCV	* C. Olivá, France	22		SPK	♠ P. Schmeer, Germany	203	13
OV	E. Oravec, NY	2982		SOR	R. Schmude, Jr., GA	11134	6
OSW	W. Osborn, MI	12	6	SLZ	♠ G. Schott, Germany	36	
OJO	♠ J. OSTERGAARD Olesen, Denmark	93		SHX	♠ H. Schubert, Germany	46	
OB	+ D. Overbeek, South Africa	16095	78	SBD	R. Schultz, TX	9	1
PLA	A. Padilla Filho, Brazil	958		SCZ	* E. Schweizer, France	1426	26
PJY	* J. Paillet, France	23		SBC	† B. Scoritchenko, Ukraine	7	
PCC	@ R. Pappini, Italy	22		SCE	C. Scovill, CT	185	94
PFS	# S. Papp, Hungary	1859	116	SVV	V. Scurtu, Romania	444	
PMW	M. Paradowski, Poland	17		SPB	# P. Sebok, Hungary	24	
PMA	M. Parker, CA	2		SFL	F. Sevilla Lobato, Spain	45	
PEX	% A. Pearce, Australia	4		SHS	S. Sharpe, ME	1772	22
PN	A. Pearlmuter, MA	12		SSA	A. Sharpless, WA	105	
PTI	N. Peattie, CA	93		SON	L. Shaw, CA	548	244
PPB	P. Pecorelli, Argentina	6		SHQ	! O. Shemmer, Israel	1	
PEI	♠ E. Pedersen, Denmark	93	1	SHW	W. Sherman, IN	1	
PEG	* C. Peguet, France	97	3	SBN	B. Silva, Brazil	668	
PAE	A. Pereira, Portugal	12		SNE	N. Simmons, WI	310	58
PBA	B.A. Perriello, OH	405	268	SDQ	# D. Simon, Hungary	5	
PKT	J. Pickett, AZ	16	2	SWZ	W. Sizensky, NY	294	
PEY	E. Piggott, AZ	56		SKP	P. Skalak, Czech Republic	102	43
PSB	# S. Pinter, Hungary	2		SOV	\$ O. Skilbrei, Norway	2	
PJ	# J. Piriú, Hungary	1202		SDN	D. Slauson, IA	15	
PGN	G. Pizzetti, Italy	1		SOS	S. Slivan, MA	10	
PPL	P. Plante, OH	36		SLO	L. Smelcer, Czech Republic	548	
PAQ	* A. Pliego-Carmona, France	36		SJX	+ J. Smit, South Africa	1306	
AST	R. Podesta, Paraguay	12		SDZ	D. Smith, AZ	23	
PGG	# G. Poztpisil, Hungary	27		SHA	H. Smith, MI	9	6
PNL	+ N. Potgieter, South Africa	1		SJE	J. Smith, CA	285	
POX	M. Poxon, England	476	66	SMQ	M. Smith, AZ	126	
PYG	G. Poyner, England	15097	9872	SX	L. Snyder, NV	2	
PDO	D. Pray, RI	82		SFV	P. Sobotka, Czech Republic	1	
PDO	* D. Proust, France	23		SSZ	# Z. Soos, Hungary	58	
PUJ	λ F. Pujol, Spain	583	71	SOH	♠ H. Sorensen, Denmark	172	
OW	♠ W. Quester, Germany	1	1	SXC	C. Sousa, MA	21	
RCH	* C. Ramillon, France	9		SJZ	J. Spell, Poland	1873	
RRB	R. Raphael, ME	977	265	SPO	\$ J. Spongsveen, Norway	21	
RSK	† S. Redko, Ukraine	9		SKR	# M. Sragner, Hungary	3	
REP	P. Reinhard, Austria	682		STR	R. Stanton, CA	570	488

TABLE 3. AAVSO Observers, 1996 - 1997, continued

Code	Name	No. Obs.	No. I.S.	Code	Name	No. Obs.	No. I.S.
SSY	S. Starowy, Poland	6		BVE	& E. Van Ballegoy, Netherlands	197	
SVD	V. Steblina, WA	162	1	VDL	∇ J. Van der Looy, Belgium	2736	
STF	G. Stefanopoulos, Greece	235		VDE	& E. Van Dijk, Netherlands	30	1
STI	P. Steffey, FL	1327	87	VHD	∇ D. Van Hessehe, Belgium	204	4
SGP	P. Stegmann, NJ	4		VNL	∇ F. Van Loo, Belgium	1476	100
SET	C. Stephan, FL	1792	54	VMT	∇ T. Vanmunster, Belgium	2304	1819
SWH	M. Stewart, NJ	1		VKG	# G. Vaskuti, Hungary	4	
SWT	R. Stewart, NJ	2965	962	VED	* P. Vedrenne, France	6261	
SHZ	§ H. Struever, Germany	106		VPE	‡ P. Veleshchuk, Ukraine	948	
SRX	% R. Stubbings, Australia	262	133	VET	* M. Verdenet, France	2275	1342
SQO	R. Stuber, IL	612		VIA	* J. Vialle, France	136	
SUK	M. Stuka, CA	11		VAN	§ A. Viertel, Germany	186	
SAC	§ A. Sturm, Germany	194		VII	# I. Vincze, Hungary	11	
SUX	✓ M. Suarez Tejera, Spain	376	3	VFK	§ F. Vohla, Germany	3675	16
SQC	C. Suslavage, CA	1		VOL	W. Vollmann, Austria	244	
SUS	§ D. Sussmann, Germany	759		VAX	‡ A. Voloshun, Ukraine	6	
SWV	D. Swann, TX	491		VOA	‡ O. Voronaja, Ukraine	2	
SSW	S. Swierczynski, Poland	939		WEO	E. Waagen, MA	3	
SDX	D. Sworin, CA	1422	342	WLC	L. Wadle, TX	5	
SSH	# Gabor Szabo, Hungary	6		WGR	G. Walker, MA	162	
SGO	# Gyula Szabo, Hungary	1		WMH	M. Walsh, MA	1	
SIZ	# Rita Szabo, Hungary	49		WSM	+ S. Walsh, Zimbabwe	188	7
SBT	# Robert Szabo, Hungary	578	63	WFR	§ F. Walter, Germany	8	
SAC	# A. Szauer, Hungary	84		WBL	+ B. Walwyn, South Africa	1	
SLY	# L. Szegedi, Hungary	433		WSI	R. Wasatonic, PA	14	
SNO	# L. Szentasko, Hungary	1005	609	WME	M. Wasiuta, VA	61	
SSB	S. Szirko, Argentina	27		WRS	R. Watt, PA	158	1
SZK	# G. Szitay, Hungary	3		WER	R. Weber, KS	36	
SFZ	# F. Szoke, Hungary	35		WPU	P. Weeks, CA	24	
TVI	§ V. Takvam, Norway	85		WDV	§ D. Wehn, Germany	15	
TDB	D. Taylor, Canada	366	85	WEI	D. Weier, WI	387	101
TPH	P. Teng, Austria	44		WC	R. Wend, IL	1156	
THR	R. Thompson, Canada	664		WEF	F. West, PA	1305	
THU	* B. Thouet, France	413	21	WTJ	J. West, TX	106	28
TJN	% J. Tilbrook, Australia	84	7	WDM	π M. Westund, Sweden	192	2
TIA	# A. Timar, Hungary	90		WSK	* S. Westrich, France	30	
TRL	R. Togni, AR	59		WTK	# K. Wieszt, Hungary	15	
TOO	J. Toone, England	2		WI	D. Williams, IN	472	
TST	S. Toothman, IL	38		WGN	G. Williams, MI	1	
TSC	S. Tracy, CT	610	202	WPX	% P. Williams, Australia	25	8
TRF	C. Trefzger, Switzerland	41	17	WRX	R. Williams, MI	25	
TDM	D. Troiani, IL	115	17	WJY	∇ J. Wilms, Belgium	44	
TRO	§ O. Trondal, Norway	385	56	WSN	T. Wilson, WV	371	96
TSJ	S. Tsuji, Japan	7		WKM	M. Wiskirken, ID	7	
TFU	✓ F. Turi, Spain	5		WUL	§ U. Witt, Germany	150	
TYS	R. Tyson, NY	167		WTW	* J.M. Wittwer, Switzerland	39	
UND	E. Underhay, CA	40		WJM	J. Wood, CA	208	
UIA	Univ. of Iowa Automated Telescope Facility, IA	81	2	YIJ	‡ J. Yajkumina, Ukraine	5	
UKO	# K. Untener, Hungary	4		YRK	D. York, NM	3353	2117
UOL	# O. Untener, Hungary	4		ZAG	# G. Zajacz, Hungary	68	
VFR	* F. Vaclic, Czech Republic	37		ZAM	@ M. Zanotta, Italy	20	
VLN	* L. Vadrot, France	320		ZHG	§ H. Zaunick, Germany	21	
VRF	* R. Valasco-Fernandez, France	19		ZRE	R. Zissell, MA	5468	2930
				ZPR	P. Zoladek, Poland	76	

These symbols indicate observers are also affiliated with the groups below:

- ^ Agrupacia Astronomica Albireo of Seville (Spain)
- ✓ Asociacion de Variabilistas de Espagne (Spain)
- * Association Française des Observateurs d'Etoiles Variables (AFOEV)
- + Astronomical Society of Southern Africa, Variable Star Section
- ‡ Astronomisk Selskab (Scandinavia)
- § Bundesdeutsche Arbeitsgemeinschaft für Veränderliche Sterne e.V. (BAV) (Germany)
- ξ Grupo Astronomico Silos (Zaragoza, Spain)
- ! Israeli Astronomical Association, Variable Star Section
- λ Madrid Astronomical Association M1 (Spain)
- # Magyar Csillagászati Egyesület, Valtózcillag Szakcsoport (Hungary)
- & Nederlandse Vereniging voor Weer-en Sterrenkunde, Werkgroep Veranderlijke Sterren (Netherlands)
- § Norwegian Astronomical Society, Variable Star Section
- % Royal Astronomical Society of New Zealand (RASNZ)
- ∪ Sociedad Astronomica 'Syma' (Valladolid, Spain)
- π Svensk Amatörastronomisk Förening, variabelsektionen (Sweden)
- ‡ Ukraine Astronomical Group, Variable Star Section
- @ Unione Astrofili Italiani (UAI)

Table 4. Individuals requesting AAVSO data during fiscal year 1996–1997.

<i>Name</i>	<i>Affiliation/Location</i>
T. Ak (2)	Istanbul University Observatory, Turkey
A. Akalin	Instituto de Astrofisica de Canarias, Spain
G. Ambika (2)	Maharas College, India
C. Aronowitz	
L. Ashburn	Indianapolis, IN
R. Barnes (2)	University of Wyoming, WY
R. Bennatti	Orland, ME
M. Biggs	Columbia, MD
C. Billmeyer	Hogeland, MT
S. Bloom (2)	NASA Goddard Space Flight Center, MD
J. Bonnet-Bidaud	Service d'Astrophysique, France
H. Breunig	Essfeld, Germany
J. Brodrick	Virginia Institute of Technology, VA
D. Burns (2)	Cambridge University, England
V. Cairns	Granville, OH
M. Campbell	Colby College, ME
J. Cannizzo	NASA Goddard Space Flight Center, MD
W. Carragan (2)	Troy, NY
G. Chaple	Townsend, MA
V. Chutchurru	Buenos Aires, Argentina
G. Clayton (5)	Louisiana State University, LA
A. Cody	Harvard, MA
K. Cook	Lawrenceburg, TN
M. Creech-Eakman	University of Denver, CO
J. Cuypers	Royal Observatory of Belgium, Brussels
A. Datir	Buldana, India
W. Davidson	Eureka, Northwest Territories, Canada
P. de Laverny	Uppsala Astronomical Observatory, Sweden
H. Dean	Maine
A. Delcheva	Wallingford, CT
M. Della Valle	University of Padova, Italy
A. DiMatteo	Natick, MA
W. Dishong	Miami Planetarium, FL
M. Dombrowski	Glastonbury, CT
P. Dombrowski	Glastonbury, CT
P. Donnelly	Western Kentucky University, KY
H. Esenoglu	Istanbul University Observatory, Turkey
E. Fagrelius	Ouray High School, CO
V. Foresto	Observatoire de Paris, France
B. Gaensicke	Universitaetssternwarte Goettingen, Germany
R. Gangale	Mamaroneck High School, NY
D. Gentry	Library of Virginia, VA
J. Getchius (2)	Depauw University, IN
B. Goldberg	Maitland, FL
G. Gonzalez	University of Washington, Seattle
K. Goodhouse	Goshen, CT
C. Gray	Corpus Christi, TX
D. Green (5)	Harvard-Smithsonian Center for Astrophysics, MA
P. Guilbault (2)	Chepachet, RI
J. Guillen	Pittsburgh, PA
S. Guryanov	School for Young Cosmonauts, Siberia, Russia
M. Haas	NASA Ames Research Center, CA
T. Hager	New Milford, CT
R. Haight	Southbury, CT
B. Hakes	Peoria, IL
S. Hale	Seattle, WA
E. Harlaftis	University of St. Andrews, Scotland
H. Harrison	Yukon, OK

Note: A number in parentheses after a name indicates multiple requests.

Table 4, cont. Individuals requesting AAVSO data during fiscal year 1996-1997.

<i>Name</i>	<i>Affiliation/Location</i>
W. Hatchette	Belleville, NJ
J. Hauk (2)	Angola, NY
J. Heath	Ti-In Network, TX
K. Holland	University of Leicester, UK
K. Honeycutt (2)	Indiana University
S. Howell (3)	University of Wyoming
J. Hron (3)	University of Vienna, Austria
C. Humrickhouse	Selah, WA
E. Hunting	Howard City, MI
J. Huynh	Mississauga, Ontario, Canada
R. Huziak	Saskatoon, Saskatchewan, Canada
A. Ibrahim	Giza, Egypt
K. Isbell	Taft, CA
J. Isles	Plymouth, MI
C. Ivie	Science and Technology Center, CA
R. Ivison	University of Toronto, Ontario, Canada
Jerrad ?	Bakersfield, CA
K. Justanont (2)	Space Research Organization, Groningen, Netherlands
S. Kanbur	University of Glasgow, Scotland
M. Karovska (2)	Harvard-Smithsonian Center for Astrophysics, MA
L. Kerr	Virginia Beach, VA
J. Knapp	Princeton University, NJ
M. Koenig	Institute for Astronomy and Astronphysics, University of Tuebingen, Germany
K. Kuo (2)	Ridge Crest, CA
E. Kuulkers (2)	Oxford University, UK
K. Lai	University of Hong Kong
T. Le Bertre	Observatoire de Paris, France
C. Leggat	Fareham, England
M. Lerman	Penetanguishene, Ontario, Canada
R. Loidl	Institute for Astronomy, University of Vienna, Austria
K. Long (2)	Space Telescope Science Institute, MD
K. Lum	San Carlos, CA
A. MacRobert (2)	<i>Sky & Telescope</i>
P. Madden	Monroe, LA
J. Magarian	MIT Haystack Observatory, MA
U. Magedaragamage	Maharagama, Sri Lanka
J. Manek	Stefanik Observatory, Czech Republic
M. Marco	Valladolid, Spain
G. Masi	Ceccano, Italy
E. Mathews	Natick, MA
G. Matt (2)	Università degli Studi, Italy
C. Mauche (7)	Lawrence Livermore National Laboratory, CA
N. Mauron	Université Montpellier II/CNRS, France
E. Mendoza	Instituto Nacional de Astrofisica Optica y Electronica, Mexico
T. Meng	Astronomical Society of Malaysia, Kuala Lumpur
B. Menge	<i>Cincinnati Enquirer</i>
M.-O. Mennessier (2)	Université Montpellier II/CNRS, France
D. Meyer	Missouri
H. Miller	Georgia State University, GA
A. Moffat	University of Montreal, Quebec, Canada
B. Moya	Cleburne, TX
J. Mrduljas (2)	Croatia
R. Nellerhoe	University of Iowa
B. Netzley (2)	Stillwater Stargazers, OH
M. Norris	Van Buren, MO
E. Ofek	Wise Observatory, Tel Aviv, Israel
B. Oh	Chungnam National University, Korea
T. Onaka	University of Tokyo, Japan

Table 4, cont. Individuals requesting AAVSO data during fiscal year 1996-1997.

<i>Name</i>	<i>Affiliation/Location</i>
D. Ortiz	Sacaton, AZ
J. Osborne (2)	University of Leicester, England
S. Ostrander	Ohio Magazine, OH
J. Owens	Cambridge, MA
J. Patterson (2)	Columbia University, NY
M. Pellet (3)	Hudson, NY
J. Percy	University of Toronto, Ontario, Canada
J. Pesce	Space Telescope Science Intsitute, MD
G. Pointer (2)	University of Sussex at Brighton, England
E. Pollmann	Fachgruppe Spectroskopie der Vereinigung der Sternfreunde e. V. Deutschland, Germany
D. Pollock	Houghton, MI
T. Pribulla	The Slovak Academy of Sciences, Slovakia
D. Price	West Orange, NJ
P. Qualtieri	Northeast Arkansas Sky Crew Newsletter, AR
B. Racine	Concord Academy, MA
A. Radloff	University of Iowa, IA
R. Ramdhan	
W. Richter (5)	Arkansas School for Mathematics and Sciences, AR
A. Riegel	Pennsylvania
M. Rogers	Oregon State University, OR
N. Roman	NASA Gaddard Space Flight Center, MD
N. Samus (3)	Russian Academy of Science, Institute of Astronomy, Moscow
V. Schweitzer	Vancouver, WA
Z. Seary	Emerald Isle, NC
L. Shapiro	Baltimore, MD
L. Shaw	Pinole, CA
C. Sheremey	Bloomfield Hills, MI
J. Silhan	Brno Regional Network of Observers, Czech Republic
E. Sion (5)	Villanova University, PA
W. Skidmore (2)	Keele University, England
D. Stehling	Black Hawk Ridge Unit, WI
Suaziz	New York
E. Sujemezki	Buenos Aires, Argentina
P. Szkody	University of Washington, WA
P. Temple	Kingman, AZ
A. Terkel	Corfu, NY
R. Thompson	Maple, Ontario, Canada
R. Thompson	Detroit, MI
R. Tomer	San Jose, CA
V. Trimble (2)	University of California, Irvine, CA
G. Tucker	Springfield High School, MA
C. Uchytíl	Chetek, WI
G. van Belle	Jet Propulsion Laboratory, Pasadena, CA
A. van Teeseling	University Observatory Goettingen, Germany
G. Venkatesan (5)	Exeter, MA
L. Versagli	Temple, PA
R. Victor	Abrams Planetarium, East Lansing, MI
R. Viotti (5)	Istituto di Astrofisica Spaziale, Italy
M. Wagner	Lowell Observatory, Flagstaff, AZ
S. Walden	Winters, TX
G. Wallerstein	University of Washington, Seattle
B. Warner	University of Cape Town, South Africa
R. Wasatonic	Villanova University, PA
A. Wehlau	University of Western Ontario, Canada
P. Wheatley (2)	Utrecht University, The Netherlands
Wood	
K. Yan	University of Hong Kong
L. Yerino	Independence, MO
G. Zinn	New Haven, CT