

AAVSO Director's Report

FY2006 (Oct1,2005-Sep30,2006)

Arne A. Henden

Director

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Annual Highlights - 1

- ★ Release of the automated chart plotting program
- ★ Release of the Variable Star Index (VSX)
- ★ Introduction of the Blue and Gold web section
- ★ Addition of A. W. Robert's 70K visual measures
- ★ Port of the AAVSO International Database to MySQL
- ★ PEP data merged into the International Database
- ★ Many observing campaigns initiated



Annual Highlights - 2

- ★ Translations of the Visual Observing Manual
- ★ JAM memorial issue of the JAAVSO published
- ★ RS Oph went into outburst!



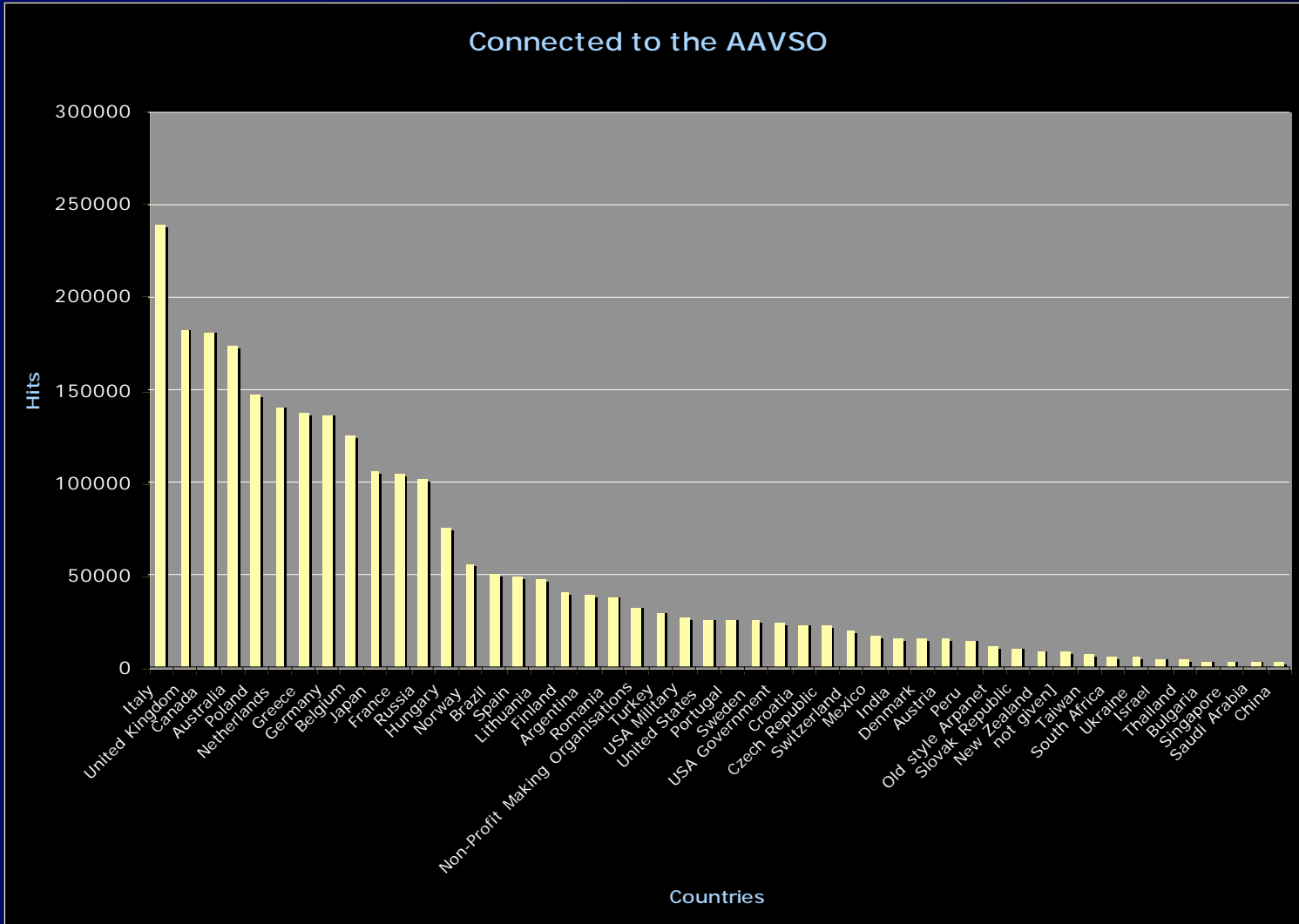
An Average Day on the Website

Within the Last Year

- ★ 20,580 requests for pages per day
- ★ 939 unique visitors served per day
- ★ 1.7 Gigabytes of data transferred per day



Connected to the AAVSO



Electronic Mailing List Sizes

Discussion Groups

- ★ AAVSO Discussion Group: 460
- ★ Photometry Discussion: 270
- ★ High Energy Network: 189
- ★ Sudden Ionic Disturbances: 122
- ★ Education and Public Outreach: 31

Electronic Publications

- ★ Alert Notice: 1984
- ★ MyNewsFlash: 1223
- ★ Charts Announce: 885
- ★ CCD Views: 779
- ★ Eyepiece Views: 568
- ★ Special Notice: 313



A Closer Look at Some Popular Programs

Webobs:

- ★ Total Number of Logins: 33,328
- ★ Total Number of Unique Logins: 693
- ★ Observer who logged in the more than 900 times: RJG, CAI, SSW
- ★ Percentage of logins that were members: 46%
- ★ Percentage of logins that were observers: 54%

Light Curve Generator:

- ★ Total number of curves generated: 116,869
- ★ Most popular stars (from most to least): RS Oph, SS Cyg, NSV 21, R Leo, Omi Cet, R Crb, TU Cas, U Ori, V2362 Cyg, U Gem



A Closer Look at Some Popular Programs

Quick Look:

- ★ Total Searches: 413,158
- ★ Most popular stars (from most to least): RS Oph, R Leo, SS Cyg, R Sct, U Gem, U Ori, Eta Car, BZ UMa, R Crb, RX And

Data Downloaded:

- ★ Total # of online requests for data: 2,080 or about six per day

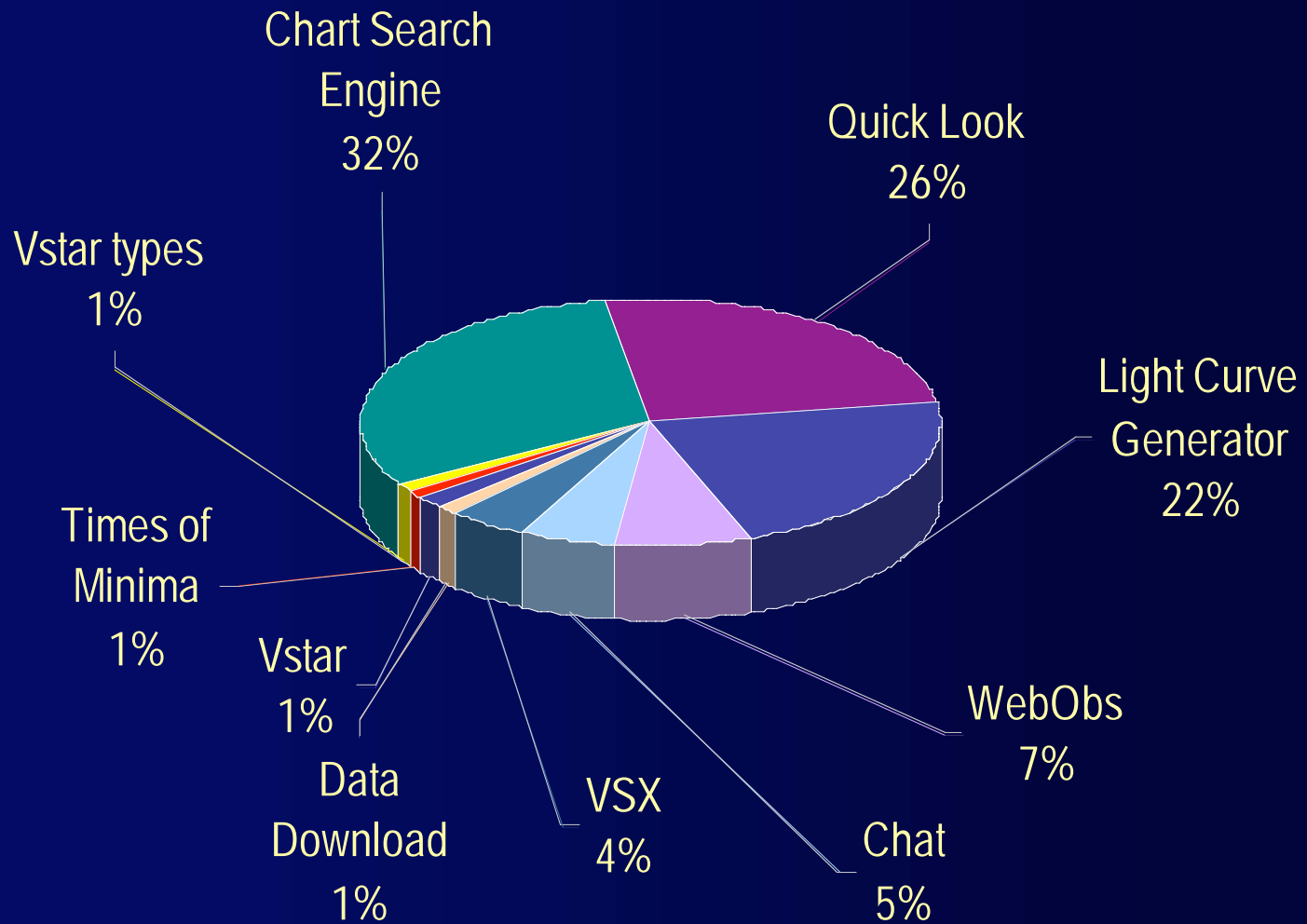
Charts:

- ★ Total # downloaded: 402,160
- ★ Top 10 stars: S Sex, And (const), SN 2003, Chi Cyg, NGC 3169, X Sex, Alpha Ori, Leo (const), HV Vir, Z And

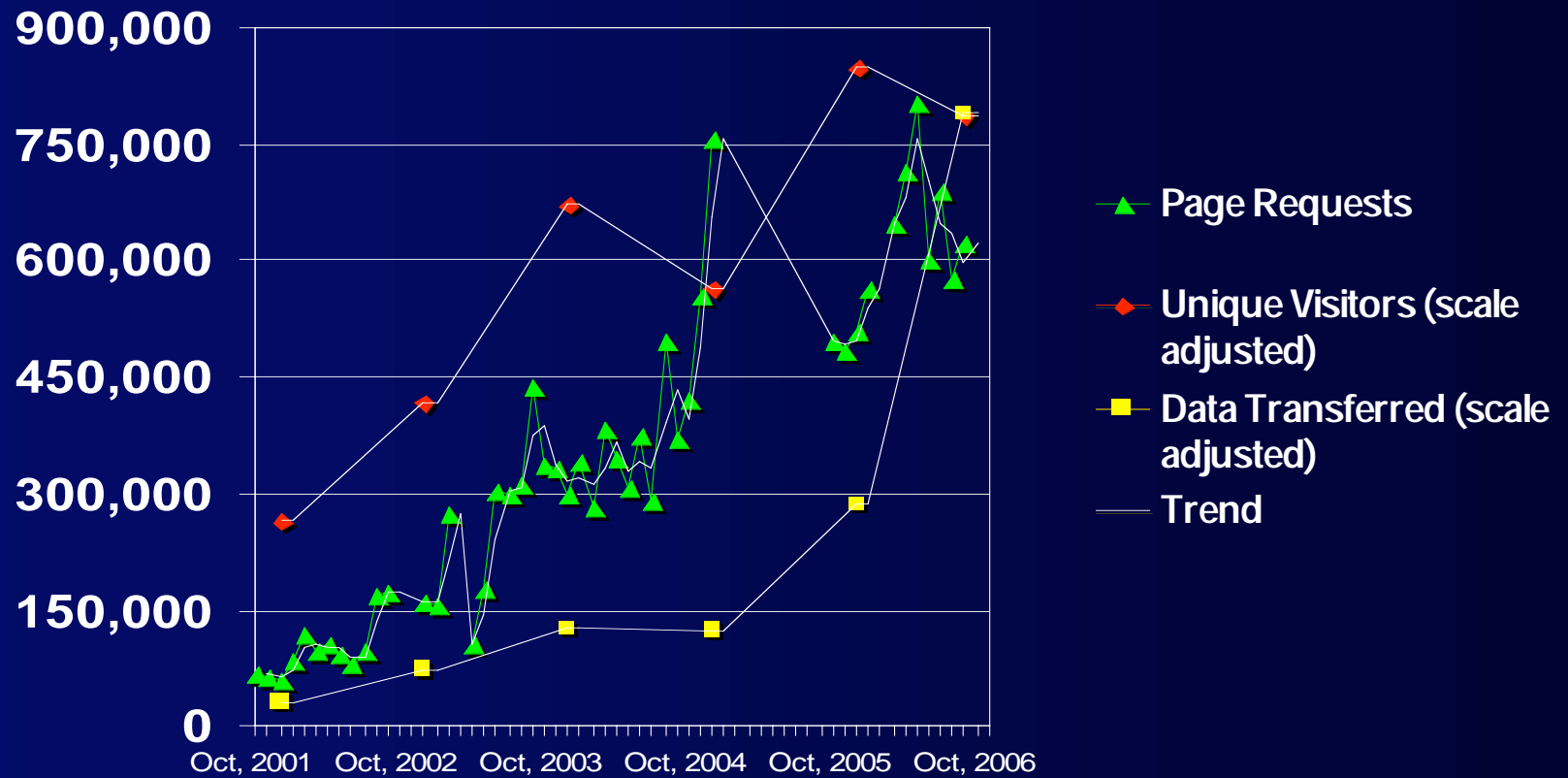


Top Ten Downloaded Pages

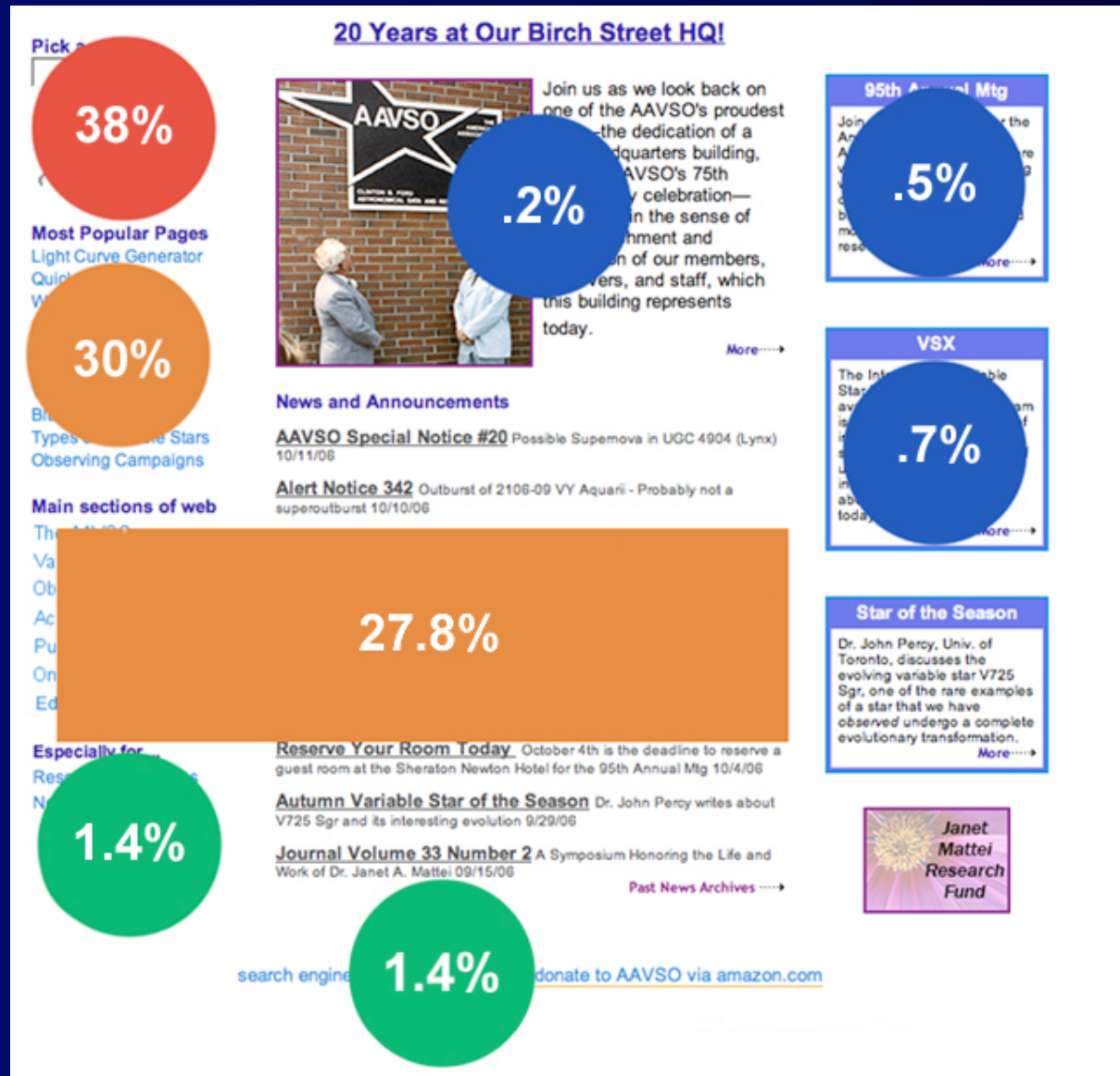
(Excluding the Home Page)



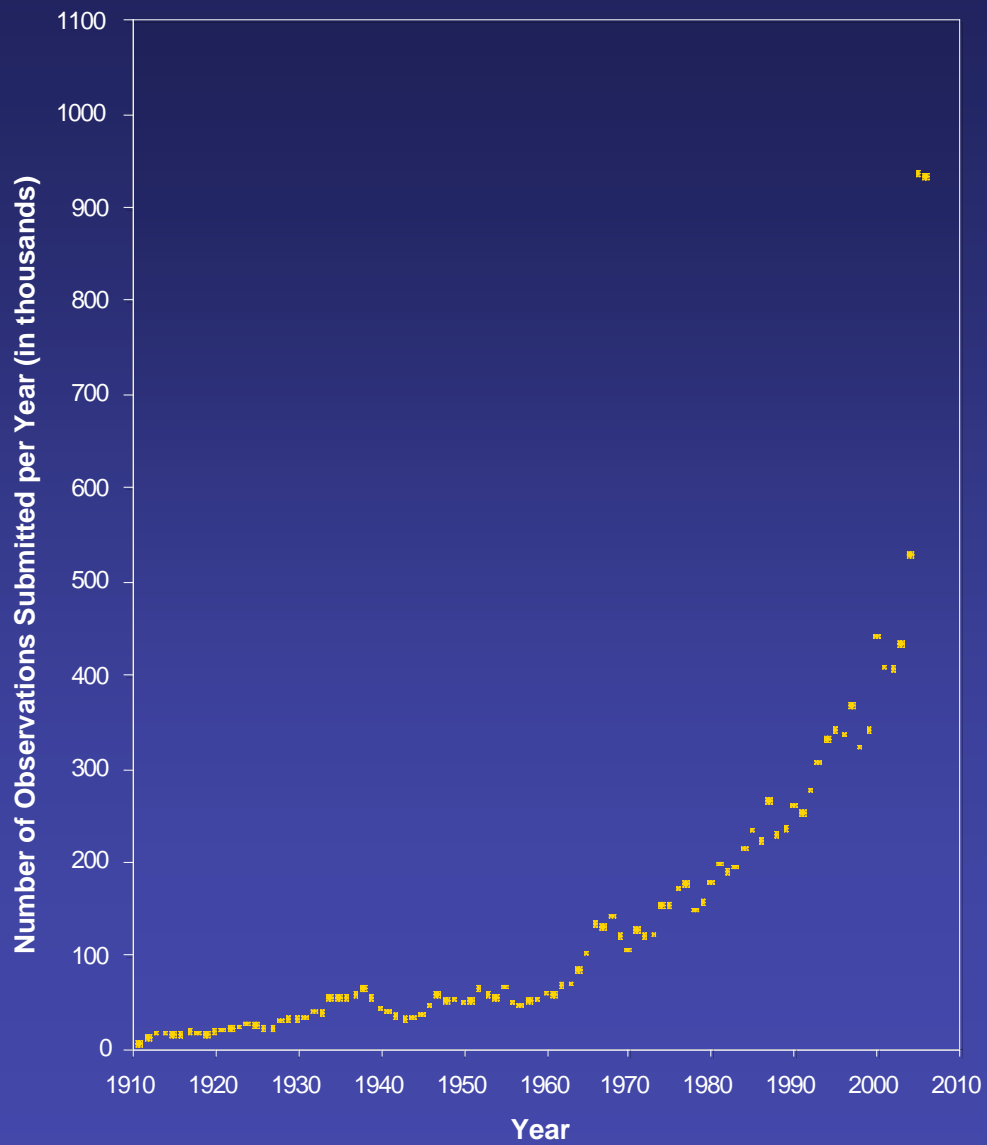
5 Year Website Trends



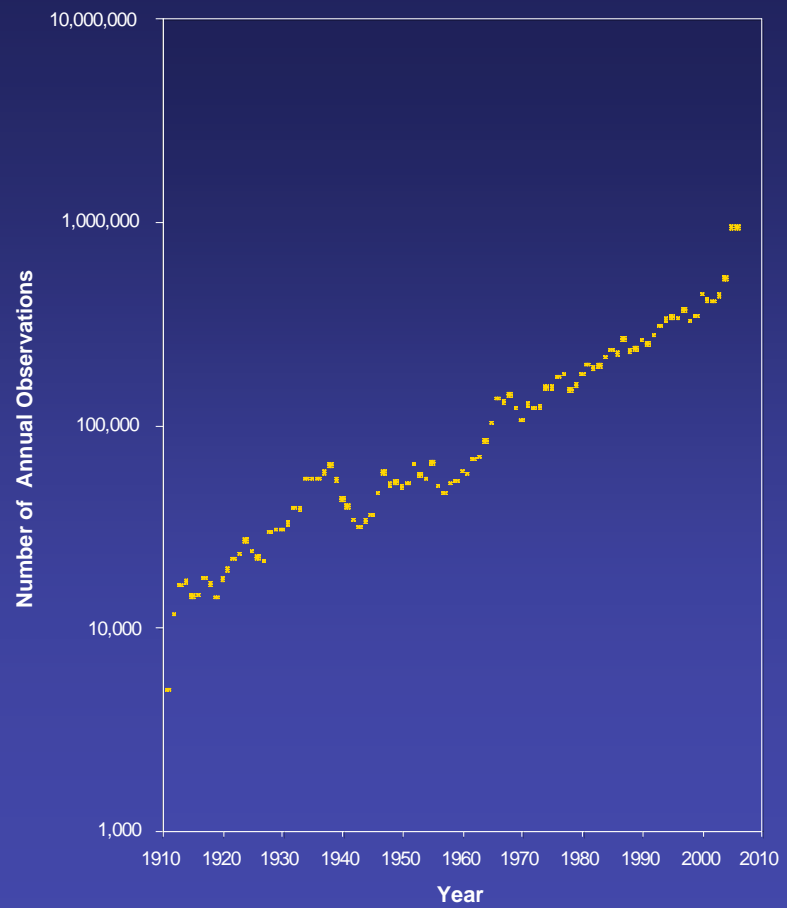
Clicks On the Home Page



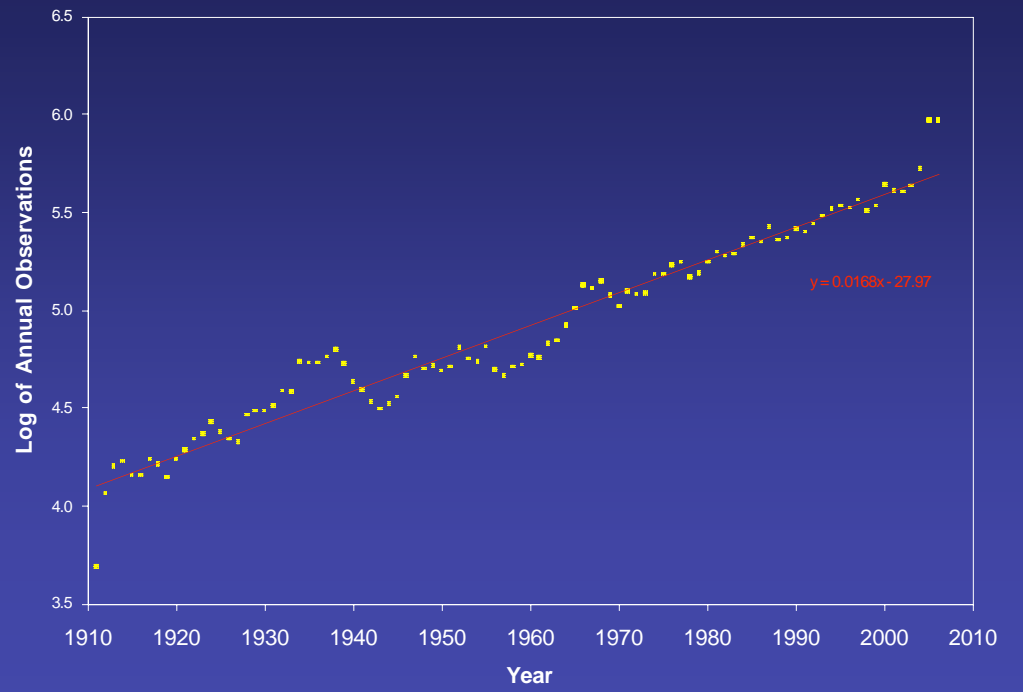
AAVSO Annual Observations 1911 - 2006



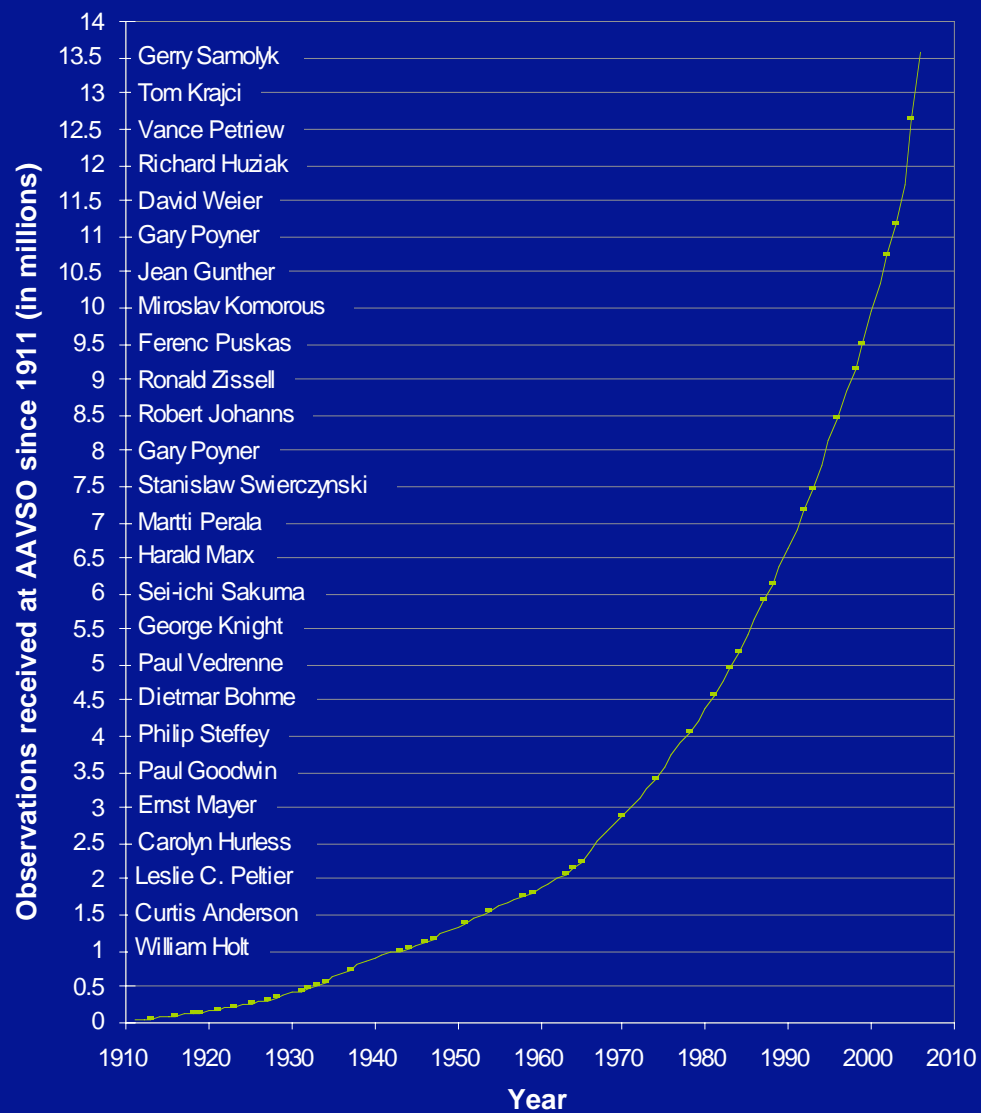
AAVSO Annual Observations
1911 - 2006



AAVSO Observations
1911 - 2006



Megasteps of the AAVSO 1911 - 2006



Special Requests

Requests filled by HQ staff:	249
Requests filled online:	1841
Total requests:	2090



MySQL

AAVSO International Database

- ★ Fully relational database with SQL searches
- ★ Creation of all-new access tools
- ★ Congratulations, Aaron!



AAVSO Quick Look Data

The data in this file are RAW DATA. They are exactly as they have been submitted by the observers. They have not been processed or checked to pass the strict quality control of the AAVSO. Thus, they may contain typographical errors or data that fall outside of the average magnitude for a given star and time. Once those data have been processed and checked, they will be part of the [AAVSO International Database](#).

DO NOT USE THESE DATA FOR SCIENTIFIC PUBLICATION.

Feel free to send us any questions using [this form](#) or e-mail aavso.org.

Displaying 10580 observations received since 2453870 from 118 observer(s).

[\(New Search\)](#)

Name	JD	Calendar Date	Mag.	Band	Comment Codes	Observer	Comparison Star(s)	Chart(s)	Uncertainty	Transformed
SS CYG	2454032.5361	OCT 24.0361	8.3	Vis		SET	7.5,7.8,8.5	XXX		N
SS CYG	2454032.40069	OCT 23.9007	8.3	Vis		SSW	78.85	040314		N
SS CYG	2454032.34931	OCT 23.8493	8.2	Vis		BCO	85	AAVSO		N
SS CYG	2454032.3285	OCT 23.8285	8.5	Vis	Y	WWJ	85.89	SD10/93		N
SS CYG	2454031.9093657	OCT 23.4094	8.289	R		JM	10.583,11.506,11.932	e050220	.03	N MaximDL 10.683,11.492,11.846
SS CYG	2454031.8998995	OCT 23.3999	8.323	R		JM	10.583,11.506,11.932	e050220	.03	N MaximDL 10.674,11.500,11.847
SS CYG	2454031.881606	OCT 23.3816	8.267	I		JM	10.313,11.178,11.550	e050220	.03	N MaximDL 10.338,11.178,11.527
SS CYG	2454031.8809637	OCT 23.3810	8.813	R		JM	10.583,11.506,11.932	e050220	.03	N MaximDL 10.609,11.495,11.917
SS CYG	2454031.8803213	OCT 23.3803	8.724	V		JM	8.478,9.579,9.775	e050220	.03	N MaximDL 8.716,9.411,9.705
SS CYG	2454031.8721146	OCT 23.3721	8.173	I		JM	10.313,11.178,11.550	e050220	.03	N MaximDL 10.288,11.169,11.586
SS CYG	2454031.8708299	OCT 23.3708	8.68	V		JM	8.478,9.579,9.775	e050220	.03	N MaximDL 8.745,9.405,9.682
SS CYG	2454031.8620053	OCT 23.3620	8.774	R		JM	10.583,11.506,11.932	e050220	.03	N MaximDL 10.653,11.508,11.860
SS CYG	2454031.861363	OCT 23.3614	8.816	V		JM	8.478,9.579,9.775	e050220	.03	N MaximDL 8.775,9.401,9.655
SS CYG	2454031.8596493	OCT 23.3596	8.408	I		JM	10.313,11.178,11.550	e050220	.03	N MaximDL 10.318,11.192,11.533
SS CYG	2454031.8590069	OCT 23.3590	8.981	R		JM	10.583,11.506,11.932	e050220	.03	N MaximDL 10.591,11.536,11.894
SS CYG	2454031.8583646	OCT 23.3584	8.625	V		JM	8.478,9.579,9.775	e050220	.03	N MaximDL 8.690,9.469,9.673
SS CYG	2454031.8471617	OCT 23.3472	8.425	I		JM	10.313,11.178,11.550	e050220	.03	N MaximDL 10.326,11.196,11.521
SS CYG	2454031.8465192	OCT 23.3465	8.88	R		JM	10.583,11.506,11.932	e050220	.03	N MaximDL 10.597,11.529,11.895
SS CYG	2454031.8458769	OCT 23.3459	8.621	V		JM	8.478,9.579,9.775	e050220	.03	N MaximDL 8.841,9.271,9.720
SS CYG	2454031.8409701	OCT 23.3410	11.647	B		JM	9.837,10.584,10.154	e050220	.03	N MaximDL 11.566,13.881
SS CYG	2454031.8346725	OCT 23.3347	8.371	I		JM	10.313,11.178,11.550	e050220	.03	N MaximDL 10.315,11.214,11.514
SS CYG	2454031.8340301	OCT 23.3340	9.093	R		JM	10.583,11.506,11.932	e050220	.03	N MaximDL 10.584,11.523,11.914
SS CYG	2454031.8333877	OCT 23.3334	8.65	V		JM	8.478,9.579,9.775	e050220	.03	N MaximDL 8.757,9.504,9.571
SS CYG	2454031.8284803	OCT 23.3285	11.697	B		JM	9.837,10.584,10.154	e050220	.03	N MaximDL 11.655,13.791
SS CYG	2454031.822184	OCT 23.3222	8.382	I		JM	10.313,11.178,11.550	e050220	.03	N MaximDL 10.320,11.181,11.541
SS CYG	2454031.8215418	OCT 23.3215	9.046	R		JM	10.583,11.506,11.932	e050220	.03	N MaximDL 10.597,11.528,11.896
SS CYG	2454031.8208993	OCT 23.3209	8.853	V		JM	8.478,9.579,9.775	e050220	.03	N MaximDL 8.840,9.374,9.618
SS CYG	2454031.8150010	OCT	11.750	B		JM	9.837,10.584,10.154	e050220	.03	N MaximDL 11.666,13.781

Transferring data from www.aavso.org...



AAVSO HOME > [access data](#) > [light curve generator](#) Search

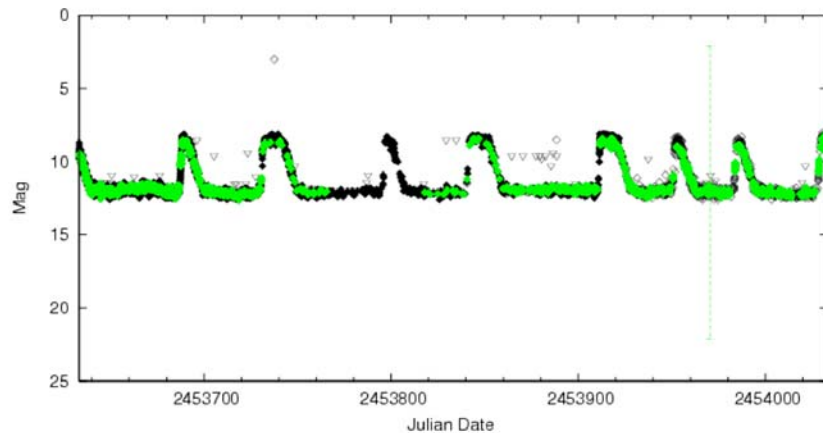
Access Data

Disclaimer & Acknowledgements

This is not fully [validated](#) data. [Click here for tips on how to use this in a publication or poster.](#)

Light Curve

AAVSO DATA FOR SS CYG - WWW.AAVSO.ORG



Visual Unvalidated ◊ Fainter-Than ▽
 Visual Validated ● V ▽

Additional Info

The AAVSO International Database has **411932** observations of **SS CYG** dating back to **July 3, 1903 (2416298.7)**.

[Plot A New Light Curve](#)

[Download Complete Archive](#)

[Quick Look Data](#)

[View Chart\(s\)](#)

[Get More Info on 2138+43 Via:](#)



The following observers have contributed to this light curve:

AAP	ABBOTT, A. PATRICK	CANADA	ACO	ALLEN, CHRISTOPHER MICHAEL	SWEDEN	ADI	AUGART, DIETMAR	GERMANY
ATI	ASZTALOS, TIBOR	HUNGARY	BBA	BEAMAN, BARRY B.	USA	BBE	BERENTE, BELA	HUNGARY
BBO	BARNES, BRIAN C.	USA	BCO	BIRZA, COSTEL	ROMANIA	BIC	BICHON, LAURENT	FRANCE
BIV	BALOGH, ISTVAN	HUNGARY	BJS	BEDIENT, JAMES	USA	BKL	BLACKWELL, JOHN ANDRES	USA
BMJ	BOUMA, REINDER JOHANNES	NETHERLANDS	BQE	BRIGGS, ERIC	CANADA	BRJ	BORTLE, JOHN E.	USA
BTB	BRETL, THOMAS C.	USA	BTY	BENNER, TERRY	USA	BVE	VAN BALLEGOIJ, ERWIN	NETHERLANDS
BVT	BARTLETT, TERRILL	USA	BWJ	BOHDANOWICZ, JOHN	CANADA	BWX	BEATON, ANDREW	CANADA
BXA	BARANSKY, ALEXANDR	UKRAINE	BXS	BRADY, STEVE	USA	BXV	BROS CATON, XAVIER	SPAIN
CBI	CHANDLER, BILLIE	USA	CCY	CHISELBROOK, CAREY	USA	CGF	CHAPLE JR., GLENN F.	USA
CK	COOK, STEPHEN P.	USA	CKH	COECKELBERGHS, HANS	BELGIUM	CKN	CASTLE, KENNETH R.	USA
CMG	COMELLO, GEORG	NETHERLANDS	CMP	CAMPBELL, RICHARD	USA	CNT	CHANTILES, DEAN	USA
CPE	CLOSAS, PERE	SPAIN	CPN	CAMPBELL, PAUL	CANADA	CPS	CLOESEN, PATRICK	BELGIUM
COJ	CENTALA, JOHN	USA	CR	CRAGG, THOMAS A.	AUSTRALIA	CRR	CRUMRINE, ROBERT E.	USA
CSM	CSUKAS, MATYAS	ROMANIA	CTI	CSORGEI, TIBOR	HUNGARY	CTX	CRAWFORD, TIMOTHY R.	USA
CHIA	CORIAN, ALEXANDRU	ROMANIA	CWD	CASTRO, WILLIAM	USA	CVR	CORIAN, RADU	ROMANIA



Variable Star Index (VSX)

- ★ Popular program - 900 accesses/day
- ★ Recognized at the IAU general assembly
- ★ Contains over 137K unique stars
- ★ More added every day



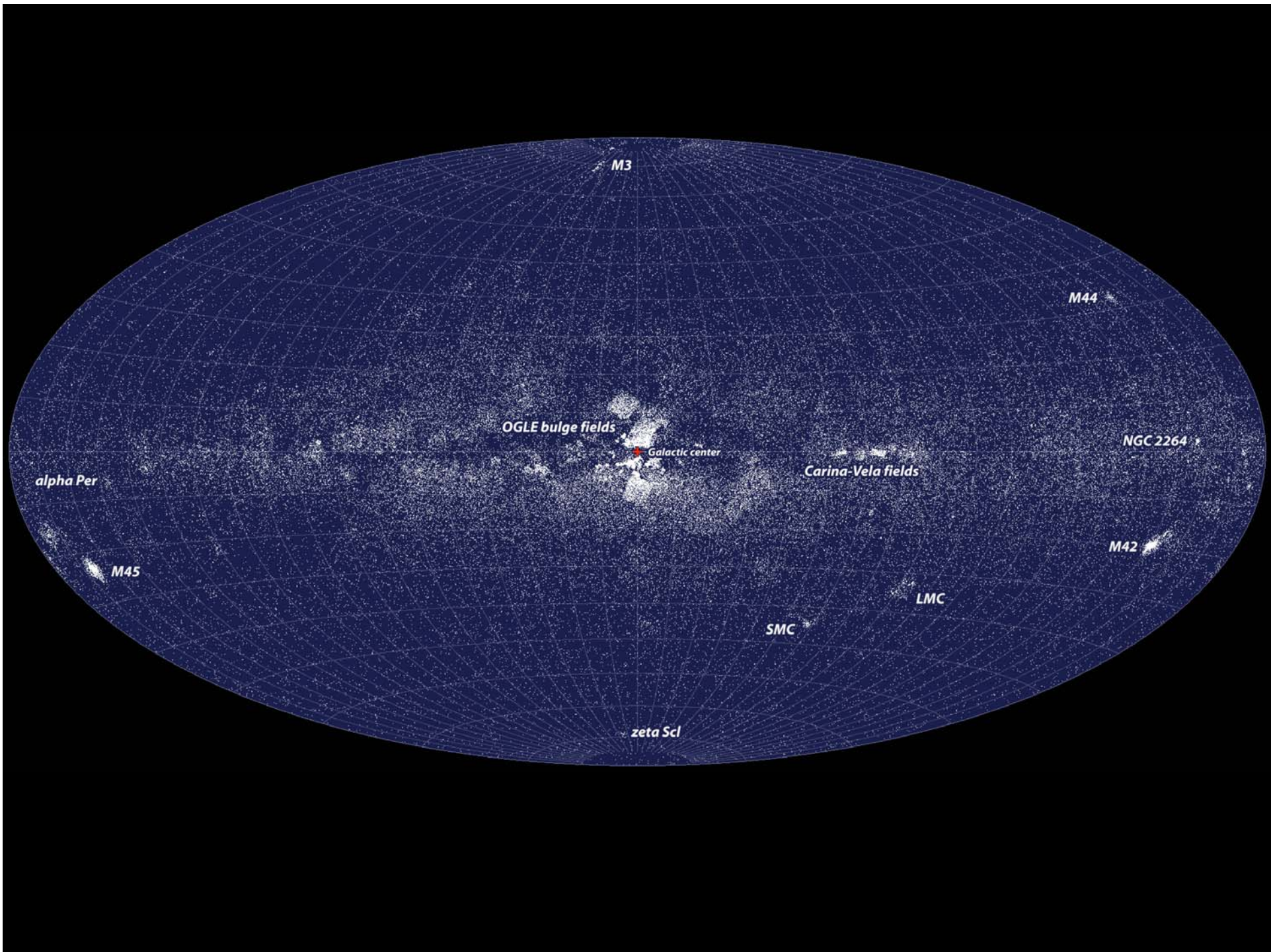


V | S | X

The AAVSO Variable Star Index



- [Search](#)
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- [About](#)



Observing

- Observing
- Observing Programs
- Observing Aids
- Submit Observations
- Charts
 - News and Updates
 - What are Charts?
 - How to use charts
 - Help with chart search
 - Constellation Charts
 - Suspect Stars Database
 - Sign up for email list
 - Report a Chart Error
 - Volunteer to make charts
 - Gateway to ftp site

- Main sections of web
- The AAVSO
 - Variable Stars
 - Observing
 - Access Data
 - Publications
 - Online Store
 - Education/HOA

- Pick a star
- Create a light curve
 - Recent Observations
 - Find charts

AAVSO Automated Chart Plotter BETA TEST

Location* Name
or
RA Dec
Delimited by spaces or colons; sexagesimal or decimal degrees

Title
Title to be displayed top center of chart

Comment
Comment to be displayed beneath chart star field

FOV*
Field of view size, expressed in arc minutes (0-180, 0-60 for DSS)

Resolution*
Print resolution of image, expressed in dots per inch (75-300)

Mag. Limit*
Limiting magnitude for stars (5-25; ignored if Use DSS Image checked)

CCD Box Limit
Maximum number of stars to include in photometry box (0 to disable)

North Up Down

East Right Left

Image Use DSS image (usually quicker)
Query Digitized Sky Survey and render image on chart

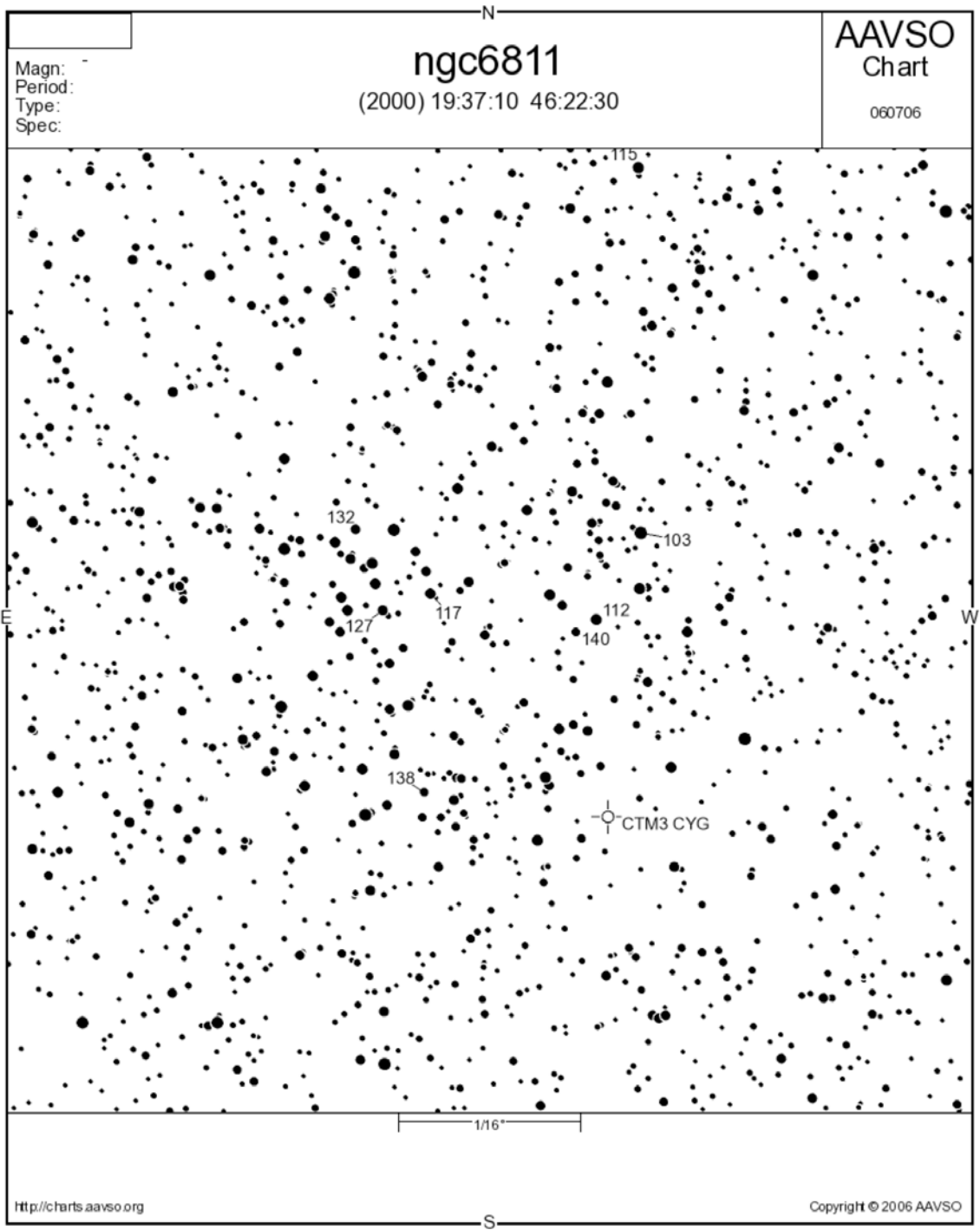
Field Photometry Do not plot a chart, just give me a table of photometry

* required
Click [here](#) to clear your saved settings.

Notes

- NGC 6811's center is RA 19:37:10 Decl +46:22:30
- Funding for the development of the Automated Chart Plotter was provided by the *Curry Foundation*. Development was by [Clockwork Active Media Systems](#). It is being maintained by Mike Koppelman (code), Aaron Price (code and UI) and Christopher Watson (UI).
- Plans for the AAVSO chart program and ACP are detailed in "[Charts and Comparison Stars: A Road Map to the Future](#)" in JAAVSO 33,1 (2005). Video and PDFs from a talk on the subject at a recent AAVSO Spring Meeting [are available here](#).
- [Bugs should be reported here](#) and sequence suggestions/problems [reported here](#).





Naming Contest

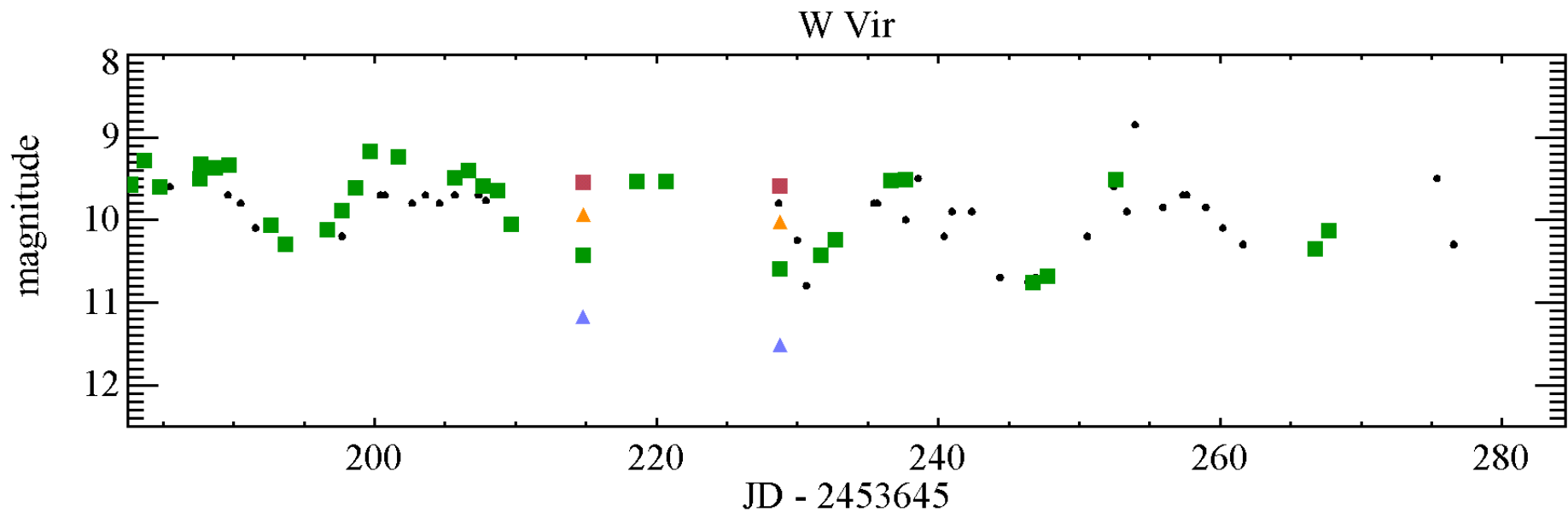
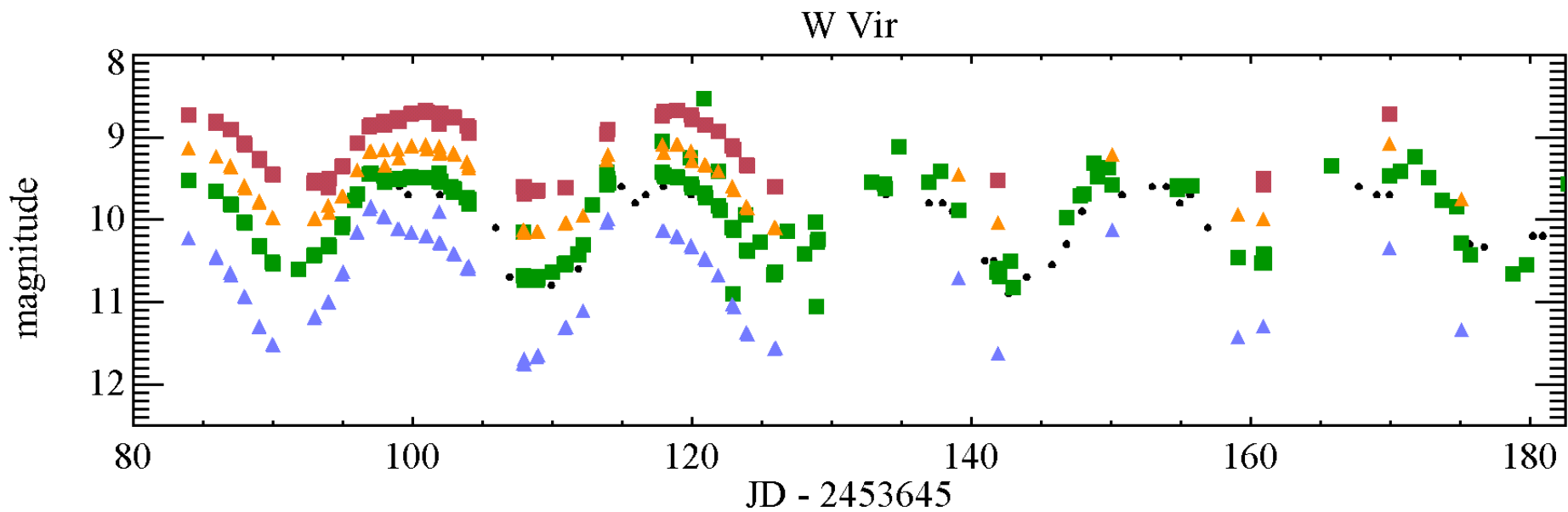
- ★ Automated Chart Extractor (ACE). Nice double meaning, easy to pronounce
- ★ Variable Star Plotter (VSP). Easy to pronounce, fits with VSX.



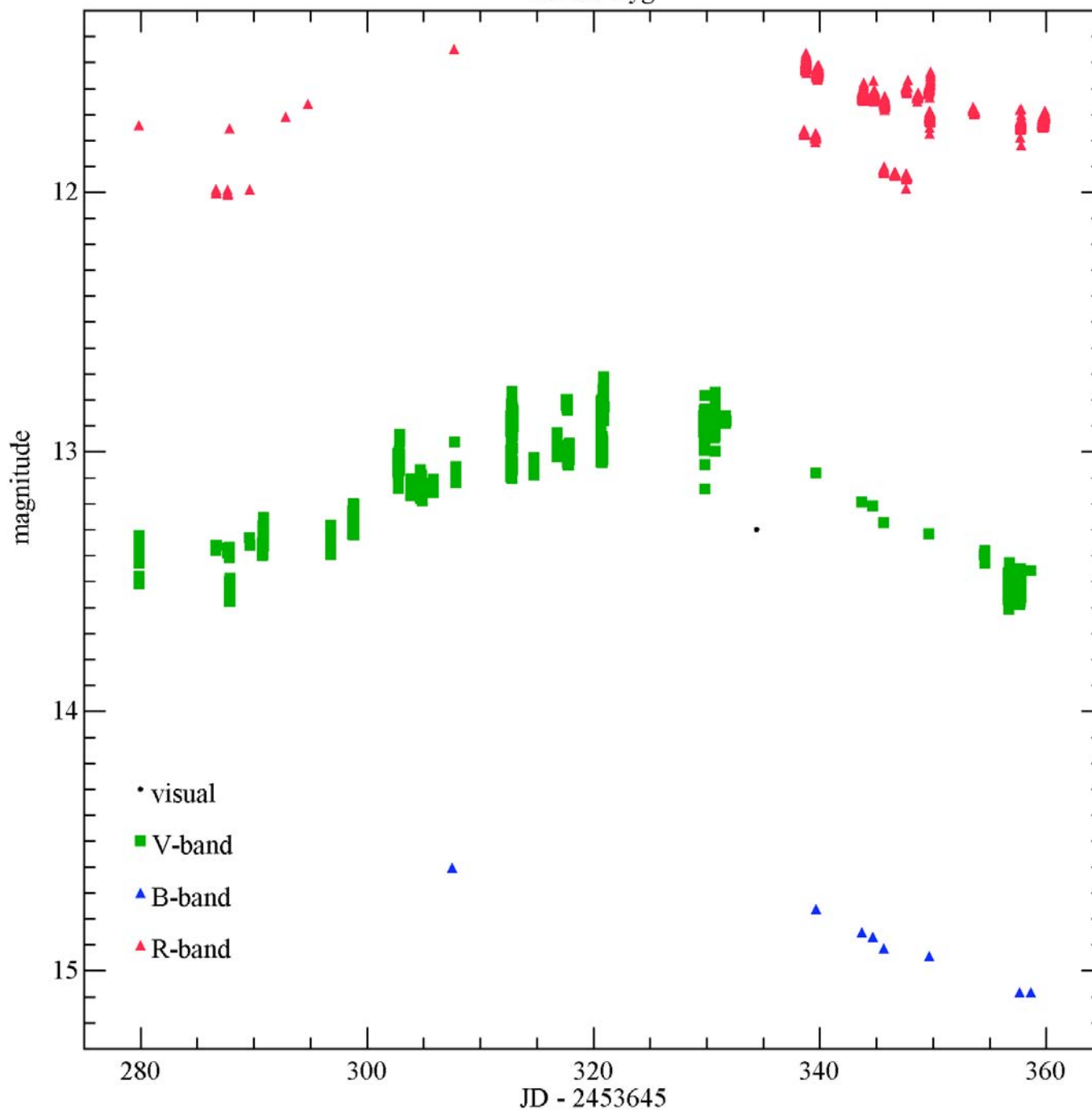
Observing Campaigns

- ★ W Vir for George Wallerstein
- ★ NGC6811 for Steve Howell
- ★ RS Oph for everybody

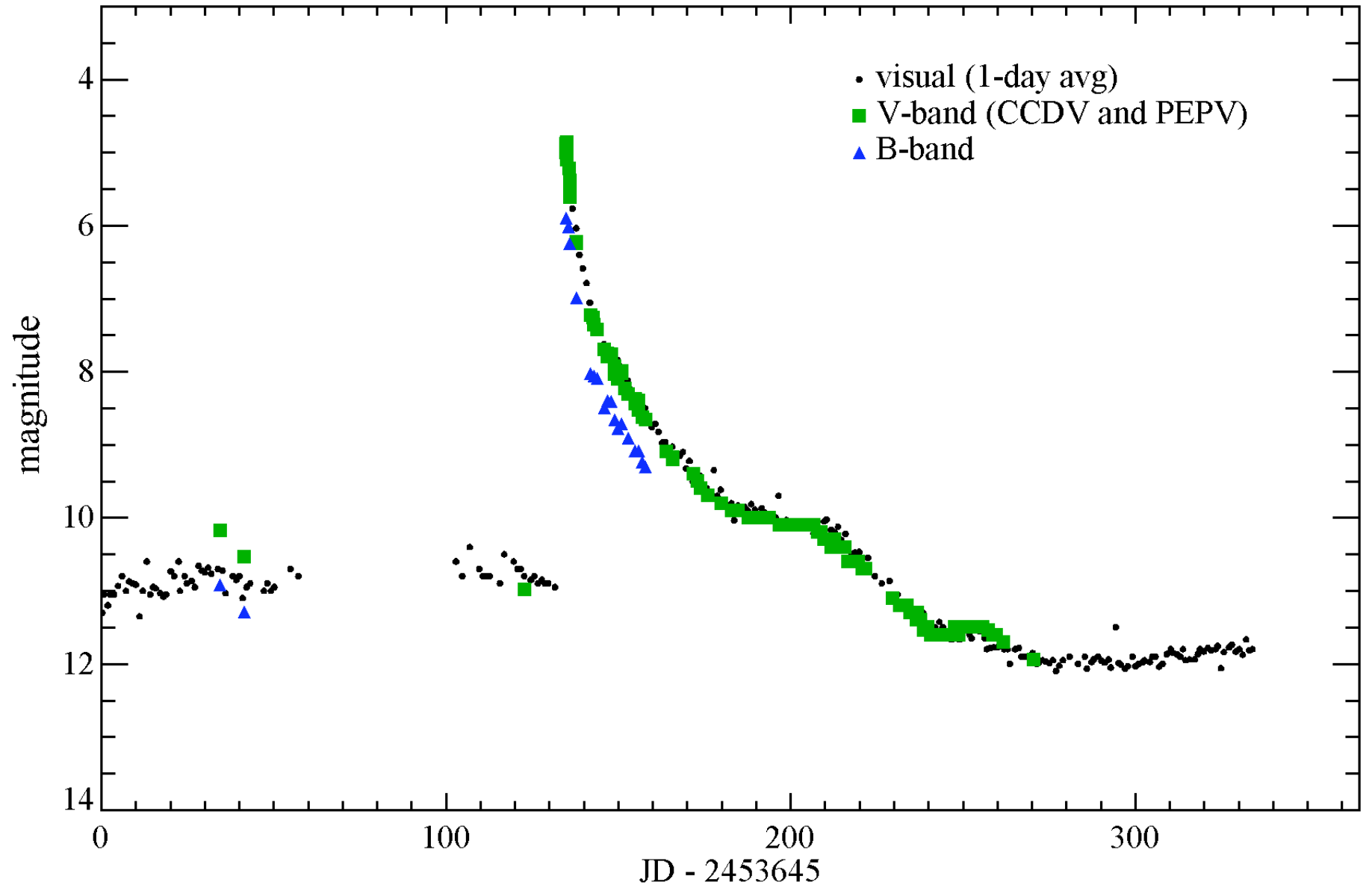




CTM3 Cyg



RS Oph



JA-NET Activities

- ★ Fully transferred from A. Price to M. Templeton in May 2006
- ★ 12 GRB follow-up requests (including September campaign)
- ★ 2 GCNs (#4977-060418 & #5430-060807)



Turkish Translation of the AAVSO Manual for Visual Observing

Bölüm 1 – HAZIRLIKLAR

Bir Gözlem Programının Hazırlanması

Bu el kitapçığının amacı, bir değişken yıldız gözlemi yaparken ve gözlemlerinizi AAVSO Uluslararası Veritabanı'na iletirken size kılavuzluk etmektir. Bu kitapçığa ek olarak, AAVSO'nun web sitesindeki (<http://www.aavso.org>) yeni üye paketindeki ve "Yeni Gözlemci" bölümlerindeki yararlı bilgileri kullanabilirsiniz. Tüm yazılarınızı lütfen dikkatlice okuyun ve herhangi bir sorunuz olduğu takdirde bizlerle temas kurmaktan çekinmeyin.

Başlarken

Gözlem yapacağınız yıldızların seçimi, gerekli gözlem aletlerinin bir araya getirilmesi, gözlem yeri ile ne zaman ve hangi sıklıkta gözlem yapılacağına kararlaştırılması, başarılı bir gözlem için gerekli unsurlardır. Bir değişken yıldız programından azami faydayı sağlayabilmek için sizin ilgi alanınıza, deneyiminize, aletlerinize ve gözlem yerinizin durumuna uygun bir programın seçimi çok önemlidir. Ayda tek bir gözlem verisi gönderiyor olsanız bile, değişken yıldız araştırmalarına önemli bir katkı yapıyor olacaksınız ve bu katkının bilincine varmak ta sizi çok mutlu edecektir.

Yardım Alabilirsiniz

Bazı zamanlar birebir çalışmaktan daha eğitici hiçbir şey yoktur. Gözlemlere başlayabilmek için yardım isteyen amatör gökbilimciler için AAVSO, uygun zamanlarda aynı bölgedeki deneyimli gözlemcilerle yeni başlayanları bir araya getiren programlar düzenlemektedir. Bu program ile ilgili bilgiler "Yeni Üye Paketi" içinde bulunmaktadır. Yeni başlayanlar ve daha deneyimli gözlemciler için benzer başka bir eğitici kaynak ise "AAVSO Tartışma Grubu" olabilir. Bu tartışma grubu, elektronik posta tabanlı bir forum olup, gözlemciler buraya sorularını gönderebilir ya da yorumlarda bulunabilirler. Diğer AAVSO üyeleri de bu talep ve sorulara cevap verirler. Bu gruba nasıl ulaşabileceği hakkın-

daki bilgi yine AAVSO internet sitesindeki "Yeni Üye Paketi"nden edinilebilir. Bu el kitabında anlatılanlara bir göz atıldığında değişken yıldız gözlemi çok basit gözükse de, bu uğraş yeni başlayanlar için zorluklarla dolu ve bazen başarılması olanaksızmış gibi gelebilir. BU GAYET NORMALDİR! Bunu şimdiden açıkça ortaya koymak istiyoruz, çünkü yeni başlayanların ilk deneyimlerinden sonra genellikle moralieri çok bozulur ve işlerin düzelmeyeceğini düşünürler. Ancak bizler, işlerin daha iyiye gideceği konusunda size garanti veriyoruz. Size tek gereken biraz daha pratik yapmaktır.



AAVSO gözlemcisi Avusturya'lı Peter Reinhard'ın düzenlediği bir gözlemede "Astronomische Jugendclub"ün bazı üyeleri

Hangi Yıldızları Gözlemeliyim?

Yeni gözleme başlayanların hem AAVSO web sitesinde yayınlanan, hem de "Yeni Üye Paketi" içinde bulunan "Kolay Gözlenebilen Yıldızlar" listesinden bir yıldız seçmeleri tavsiye olunur. Bu listede yılın herhangi bir zamanında dünyanın tüm bölgelerinden görülebilen değişken yıldızların bilgileri verilmiştir. Buradan sizin konumunuz ve ekipmanınıza uygun bir yıldızı kolaylıkla bulup seçebilirsiniz. Bu listelerde hem dürbünle, hem de çıplak gözle gözlem yapacaklar için yıldızlar ayrı ayrı sıralanmıştır. Seçtiğiniz yıldız eğri kutup yıldızına yakın değilse, yılın farklı mevsimlerinde geceleri ufukun altında bulunabilir. Bu durumda farklı yıldızlar ile farklı gözlem programları yapmalısınız.

- Sample Pages -

Translated by Tugrul Ussakli and Sabahattin Bilsel

Edited by Haldun Menali with assistance from Gamze Menali and Sara Beck





Tugrul Ussakli is enjoying the total eclipse of 2006



Tugrul Ussakli (left) and Sabahattin Bilisel (right)



More Translations

Work in progress:

- ★ **Russian:** Kirill Sokolovsky and Dennis Nikitin, under Tom Krajci's supervision
- ★ **Greek:** George Koronis, Athanasios Douvris and Vagelis Tsamis from Greece
- ★ **Japanese:** Seiji Tsuji from Japan
- ★ **Portuguese:** Eduardo Burichel from Brazil and Jorge Almeida from Portugal
- ★ **Italian:** Andrea Salati from Italy
- ★ **Romanian:** Andrei Juravle and Alexandru Tudorica from Romania



More Translations

What is next?

- ★ What is left of official UN languages: **Arabic** and **Chinese**
- ★ Then perhaps: **German, Hungarian, Indian, Hungarian**



AAVSO Publications

October 2005 – September 2006

★ *Journal of the AAVSO*

Print: Vol. 33, No.1 and Vol.33, No.2

Vol. 33, No. 2: Preprint Nos. 12 – 16

eJAAVSO: Vol. 34, No. 1: Preprint Nos. 19, 21, 22, 29, 32, 33

Vol. 34, No: 2: Preprint Nos. 37 – 44

Edited by Charles A. Whitney, with assistance from Elizabeth O. Waagen, Michael Saladyga, and Matthew Templeton

★ *AAVSO Bulletin 69: 2006: Predicted Dates of Maxima and Minima of 561 Long Period Variables*

Prepared by Elizabeth O. Waagen



AAVSO Publications

October 2005 – September 2006

★ *AAVSO Alert Notice*, Nos. 327 – 341

Prepared by Elizabeth Waagen and Aaron Price with assistance by Kerriann Malatesta

★ *AAVSO Special MyNewsFlash*: EX Hya appears to be in outburst

Prepared by Elizabeth Waagen

★ *AAVSO Special Notice*, Nos. 1 – 19

Prepared by Aaron Price and Elizabeth Waagen



AAVSO Publications

October 2005 – September 2006

★ *AAVSO Eyepiece Views*, Nos. 311 – 316

Prepared by Gamze Menali with contributions from Aaron Price and Mike Simonsen

★ *AAVSO Variable Star of the Season* (AAVSO website)

Prepared by Kerriann Malatesta (Mira Revisited: Winter 2006), Pamela Gay (AH Leo: Spring 2006), Matt Templeton (V4641 Sgr: Summer 2006) and by Dr. John Percy (The Remarkable Transformation of V725 Sgr: Autumn Variable Star of the Season)

★ *AAVSO Newsletter*, No. 33

Edited by Travis Searle



AAVSO Publications

October 2005 – September 2006

- ★ *Observed Minima Timings of Eclipsing Binaries, No. 10*
Prepared by Marvin E. Baldwin and Gerry Samolyk
- ★ *AAVSO 2006 Ephemeris for Eclipsing Binaries*
Prepared by Gerard Samolyk and Marvin E. Baldwin
- ★ *AAVSO 2006 Ephemeris for RR Lyrae Stars*
Prepared by Gerard Samolyk and Marvin E. Baldwin
- ★ *AAVSO Solar Bulletin, Vol. 61, Nos. 9 – 12; Vol. 62, Nos. 1 – 4*
Prepared by Carl E. Feehrer; SID Reports by Michael Hill
- ★ *AAVSO Solar Bulletin, Vol. 62, Nos. 5 – 8*
Prepared by Paul Mortfield; SID Reports by Michael Hill



AAVSO Staff Publications

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- ★ Boyd, D., Oksanen, A., and Henden, A., "Measurement of the orbital and superhump periods of the eclipsing cataclysmic variable SDSS J170213.26+322954.1", *J. British Astronomical Association*; 2006. (accepted)
- ★ Gerke, J., Howell, S. B., Otero, S., Henden, A., "'Iron Star' AS 325: An Unusual Emission Line Eclipsing Binary", *AAS Meeting*; June 2006.
- ★ Henden, A., "Pro-Am Collaboration and the AAVSO, Astrophysics of Variable Stars", *ASP Conference Series*, Vol. 999, C. Sterken and C. Aerts; 2006.
- ★ Davis, K.L., Malatesta, K.H., Turner, R., Beck, S.J., Menali, G., Price, A., Saladyga, M., Searle, T.J., Sechelski, S.T., Templeton, M., Waagen, E.O., "A View of Janet, from the Headquarters Staff", *JAAVSO* 33, 2, 112; 2005.
- ★ Jevtic, N., Waagen, E.O., Schweitzer, J.S., "Evidence for Low-Dimensional Chaos in Semiregular Variable RS Cyg", *Bull. Amer. Astron. Soc.*, 207, 1221; 2005.
- ★ Malatesta, K.H., Beck, S.J., Menali, G., Waagen, E.O., "The AAVSO Data Validation Project", *eJAAVSO* (pre-print no.31; accepted for publication *JAAVSO* 33, 1.).



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- ★ Pearce, A., Mendicini, D., Waagen, E.O., "V5117 Sagittarii", *IAU Circular* 8706; 2006.
- ★ Price, A. et al., "Planetary Transits of the Trans- Atlantic Exoplanet Survey Candidate TrES-1b", *JAAVSO*, Volume 34; 2005. (published)
- ★ Price, A.; Allen, S. L.; Fhima, A.; Garcia, J.; Mahabal, A.; Seaman, R.; Williams, R. "The VOEvent Alert Messaging System", presented at the 207th Meeting of the AAS, No 34.02; January 2006.
- ★ Price, A., Gay, P., Searle, T., Brissenden, G. *Astr. Edu. Rev.* 1, 5. "A History and Informal Assessment of the Slacker Astronomy Podcast", *Astronomy Education Review* <http://aer.noao.edu/cgi-bin/article.pl?id=188>, presented at the 207th Meeting of the AAS; January 2006.
- ★ Price, A., "An Integrated Approach to Outreach With New Media Technologies", *ASP 118th Annual Meeting*; 2006.



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- ★ Templeton, M.R. et al., "The Recently Discovered Dwarf Nova System ASAS J002511+1217.2: A New WZ Sagittae Star", *PASP* 118, 236.
- ★ Templeton, M.R. and Price, A., "Campaign '04: AAVSO Observing Campaigns in 2004", *JAAVSO* 33.2; 2006.
- ★ Templeton, M.R., "From Submission to Publication", prepared for the Publication Workshop, held during the 94th Spring Meeting of the AAVSO, to appear in *JAAVSO*; 2006.
- ★ Templeton, M.R., West, J.D., Terrel, D., Hodgson, W.D., Koppelman, M.D., Luedeke, K.D., Wood, J.E., Henden, A., "Preliminary Results from the AAVSO Infrared Photometry Group", presented at the 207th Meeting of the AAS (AAS 207, 122.17); January 2006.



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- ★ [Waagen, E.O.](#), Williams, P., de Scala, G., Merlin, J.-C., "V1118 Orionis", *IAU Circular* 8626; 2005.
- ★ [Waagen, E.O.](#), Allen, B., Nelson, P., "Nova in the Large Magellanic Cloud", *IAU Circular* 8636; 2005.
- ★ [Waagen, E.O.](#), Labordena, C., Pearce, A., Granslo, B., Otten, C., Mavrofridis, G., Muylaert, E., "RS Ophiuchi", *IAU Circular* 8688; 2006.
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- ★ [Waagen, E.O.](#), "Annual Report of the Director for Fiscal Year 2003-2004", *JAAVSO* 33, 2, 222; 2006.
- ★ [Waagen, E.O.](#), "Introduction: Janet Akyuz Mattei and the AAVSO", *JAAVSO* 33,2, 106; 2006.
- ★ [Waagen, E.O.](#), "The Janet Mattei Gravesite", *JAAVSO* 33,2, 148; 2006.
- ★ Williams, P., [Waagen, E.O.](#), Krajci, T., Schmeer, P., "Nova Ophiuchi 2006 No. 2", *Central Bureau Electronic Telegram* 469; 2006.
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- ★ Balman, S., Retter, A., and Bos, M., "The Detection of a 3.5-h Period in the Classical Noval Velorum 1999 (V382 Vel) and the Long Term Behavior of the Nova Light Curve", *AJ*; 2006. (accepted)
- ★ Barlow, E.J. et al., "20-100 keV properties of cataclysmic variables detected in the INTEGRAL/IBIS survey", *MNRAS*; 2006. (accepted)
- ★ Hachisu, I. et al., 2006, "The Hydrogen Burning Turn-off of RS Ophiuchi 2006", submitted to *Astrophysical Journal Letters*.
- ★ Kiss, L.L., Szabo, Gy.M., and Bedding, T.R., 2006, "Variability in red supergiant stars: pulsations, long secondary periods and convection noise", *Monthly Notices of the Royal Astronomical Society*, 2006. (accepted)
- ★ Kotnik-Karuza, D. et al., "The effect of dust obscuration in RR Tel on optical and IR long-term photometry and Fe II emission lines", *Astronomy & Astrophysics* 452, 503; 2006.



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- ★ Rudnitskii, G. M., Pashchenko, M. I., "Long-Term Monitoring of the Long-Period Variable Y Cassiopeiae in the 1.35-cm Water-Vapor Line", *Astronomy Letters*, Vol. 31, Issue 11, p.760-766; 2005.
- ★ Shears, J., Pickard, R., and Poyner, G., "CG Draconis, a particularly active dwarf nova", *Journal of the British Astron. Assoc.*; 2006. (accepted)



Eyepiece Views is a newsletter published to support our observers' visual observing program with lists of new targets, new observing program ideas, and information that is both interesting and helpful. Comments will be added on stars, mostly long period variables (LPVs) that need more observations and other news from time to time.

Issues:
 September 2006
 July 2006
 May 2006
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Eyepiece Views: September, 2006

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 http://www.aavso.org

E Y E P I E C E V I E W S #316

 September, 2006

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- [2. Visual Variable Star Observing from Belgium](#)
- [3. Chi Cygni's bright maxima](#)
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- [5. Blue & Gold](#)

1. INTRODUCTION

It is mind blowing how fast time flies! It is fall again and we find ourselves gearing towards a very busy season of the year with the annual meeting preparations.

Fall means so many things to so many people from changing colors to cooling temperatures from harvest to Halloween. Here at the AAVSO, it also means that the annual fall meeting is closing in!

Publications
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 Newsletter of the AAVSO
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2007 AAS Calendar Page

110 years of SS Cygni

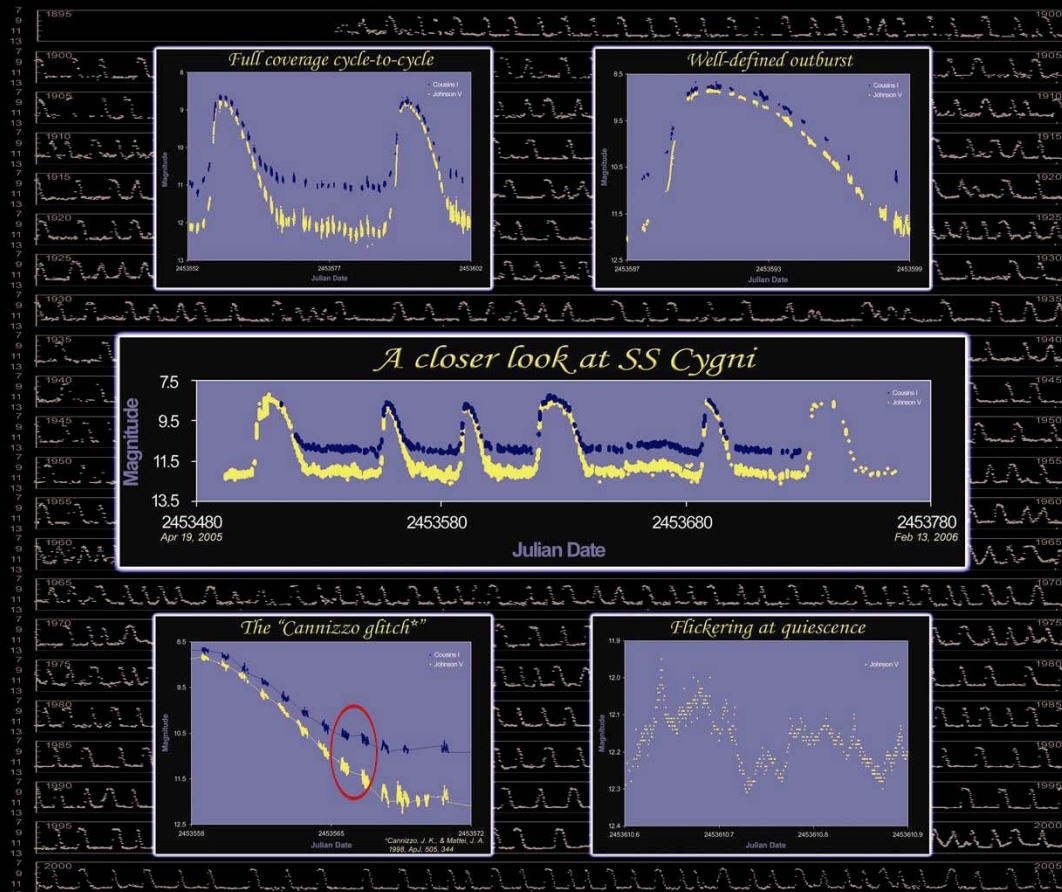
The AAVSO has archived nearly 400,000 observations of the dwarf nova cataclysmic variable, SS Cygni, since its discovery in 1896. In 2005, an international group of AAVSO CCD observers tested their capabilities as they watched SS Cygni nightly. Over nine months, they compiled more than 100,000 high-quality observations, resulting in the most detailed and comprehensive light curve of SS Cygni yet obtained.



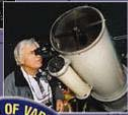
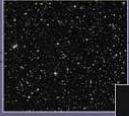
The American Association of Variable Star Observers

(AAVSO) is a nonprofit research and educational organization founded in 1911 with the purpose of coordinating variable star observations made largely by skilled amateur astronomers and making them available to professional astronomers. Today with more than 2,500 active participants from 35 countries, over 13 million observations – most of which are downloadable via the AAVSO website – and headquartered in Cambridge, Massachusetts, it is one of the largest pro-am organizations in the world. Astronomers regularly use AAVSO data and services to schedule and execute target-of-opportunity observations, correlate multiwavelength data with AAVSO optical data, acquire real-time information on unusual stellar activity, process large datasets, do research through data mining and data analysis, and study long-term variable star data. For more information, visit us at:

www.aavso.org



Connecting amateur and professional astronomers



through variable star research

AAVSO Brochure

Geared for the Amateur Astronomer

The American Association of Variable Star Observers

History
The American Association of Variable Star Observers (AAVSO) was founded in 1911 at Harvard College Observatory. In 1954, the AAVSO became an independent, private research organization. Today with members in more than 40 countries and headquartered in Cambridge, Massachusetts, USA, it is the world's largest association of variable star observers.

Purpose
Since its founding, the purpose of the AAVSO has remained constant: to coordinate and collect variable star observations made mainly by amateur astronomers and to make them available to the professional astronomical and educational communities for the advancement of science.

The AAVSO International Database
The data archives of the AAVSO, which are accessible through the AAVSO web site, contain over 12.5 million observations for nearly 10,000 known and suspected variable stars contributed by observers worldwide since 1911.



The AAVSO annual meeting, 1915



The AAVSO annual meeting, 2005



Variable Stars

Connecting amateur and professional astronomers

AAVSO is a non-profit worldwide scientific and educational organization of amateur and professional astronomers who are interested in that change in brightness – variable stars.



Mary Glennon, AAVSO member-observer, with her 7x50 binoculars.

Variable stars are important

Research on variable stars provides information about stellar properties, such as mass, radius, luminosity, temperature, internal and external structure, composition, and evolution. This information can then be used to understand other stars, including our Sun.

Anyone can observe variable stars

Anyone with an interest in astronomy can make variable star observations. A pair of binoculars or a telescope of any size is sufficient equipment. *There is no minimum quota – every observation counts!*



Gary Poyner, AAVSO member-observer, with his 14-inch telescope.

Many opportunities

The AAVSO observing program encompasses variable stars, gamma-ray burst afterglows, exoplanet transit searches, solar studies, and more. Visual, PEP, and CCD observers are all welcome.

Contribute to Science & Education

Contribute to real science

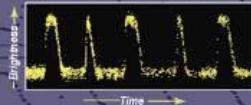
Astronomy is a field that benefits greatly from amateur participation. Amateurs can make a real and useful contribution to science by observing variable stars. Through the AAVSO, observers provide **real-time information** on unusual stellar activity, **scheduling assistance** between amateur and professional astronomers for correlation with earth-based observatories and satellites, including the *Hubble Space Telescope*, the *Chandra X-ray Observatory*, the *Spitzer Space Telescope*, and more; **long-term variability data** that can be used in analysis of stellar behavior; and *much more!*



The variable star U Gem in its faint state (left) and in its bright state (right). Images taken by AAVSO Director Alno Henden.

Contribute to the education of future astronomers

Using its rich variable star database as a resource, the AAVSO is actively involved in education and public outreach through assistance with all levels of research projects, including science fair projects, teacher workshops, and other activities, as well as its *Hands-On Astrophysics* math and science curriculum for high school and college students.



An AAVSO light curve of the variable star SS Cygni.

Membership Benefits

You do not have to be a member to be active in the AAVSO, but in addition to contributing valuable observations, you support the work of the AAVSO through your annual membership dues. Member benefits include:

Customized Observing Program

Variable star observing program assist individualized to your skill level, local equipment, and interests.

Publications

Subscriptions to the *Journal of the AAVSO* and other publications free of charge.

Discounts

Enjoy discounts on publications, AAVSO meeting registration, T-shirts, mugs, and more.

Meetings

Notification of two yearly AAVSO meetings: one held annually in the AAVSO's home state (Massachusetts, USA) and the other held in a different state – or country – making it easier for members and observers around the world to participate.

Voting Privileges

Members elect the AAVSO Council, whose responsibility is to determine the direction of the AAVSO.

Web Site Privileges

Special web site access via a members-only section.

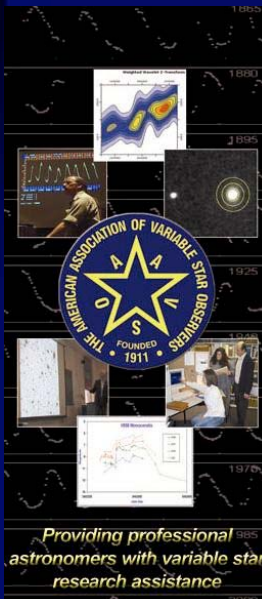
For more information on getting started, visit us at:

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AAVSO Brochure

Geared for the Professional Astronomer



Services to Professional Astronomy

AAVSO is a non-profit, worldwide scientific, educational organization that links amateur observers with professional astronomers for the use of data and research assistance. Its services include:

Opportunities for

Opportunities for ground- and space-based observations in bringing target-of-opportunity observations.

Providing professional astronomers with variable star research assistance

AAVSO services have been used by researchers affiliated with such satellites as Chandra, XMM, RXTE, FUSE, HST, Spitzer and many more!



Chandra X-ray observatory

Multiwavelength correlation

The AAVSO routinely executes simultaneous optical observing campaigns for use with multiwavelength correlation.

Notification of unusual stellar activity

Researchers are regularly alerted to real-time, up-to-date information on unusual stellar activity.

Data mining and data analysis

The AAVSO connects professional and amateur astronomers for the purpose of processing large datasets, database mining, building software tools, or for help with any basic analysis.

In addition to these services, the AAVSO **International Database** is also a valuable resource for those interested in the analysis of recent or long-term variable star behavior.

Professional-Amateur Collaboration

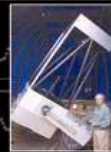
AAVSO observers are highly qualified and are trained in observing techniques, data mining, and data analysis through AAVSO workshops and tutorials. They offer professional astronomers:

Global coverage

With 2,500 active participants from 35 countries, the AAVSO is one of the largest pro-am astronomy organizations in the world. With worldwide coverage, climate and/or time of day are rarely a limitation.

Observing talent

AAVSO observers are experienced in monitoring variable stars, gamma-ray burst afterglows, exoplanet transits, solar phenomena and more, and frequently have their work published in professional journals, bulletins, and circulars. CCD and PEP observers are trained to use standardized filters and reach high photometric precision.



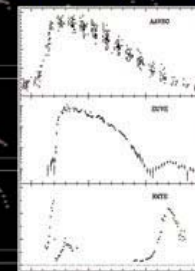
AAVSO observer Mario Motta, M.D., at his 32-inch telescope in Massachusetts, USA (left), and the 90-cm telescope at the public facility of Georges Observatory in Fort Bend, Texas, USA (right).



Impact on Variable Star Research

Through collaborations with the AAVSO its observers, researchers have profoundly expanded our knowledge about cataclysmic variable stars, long period variables, much more, as evident in the hundreds of scientific papers published with AAVSO assistance. For example:

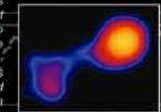
Multiwavelength coverage of SS Cygni



With the outburst triggered by AAVSO observations of simultaneous visual, EUVE, and observations of SS Cygni were triggered providing astronomers with important information about the behavior of dwarf novae (Wheatley et al. 2009, MNRAS 393, 49).

X-ray emission from Mira detected

Time-of-minimum estimates based on the AAVSO light curve of Mira were used to schedule observations of the Mira AB system with Chandra. As a result, astronomers made the first confirmed detection of X-ray emission from Mira itself (Karovska, et al. 2005, ApJ, 623, L137).



Chandra X-ray image of Mira

And much more!
For more information, visit us at:

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Membership

You do not have to be a member to utilize AAVSO services, but you can support the valuable work carried out by the association through your annual membership dues. Benefits include:

- ★ Free and discounted publications, including the *Journal of the AAVSO*
- ★ Reduced AAVSO meeting registration rates (two meetings held annually)
- ★ Voting privileges
- ★ Special web site access

Visit our web site for more information about how you can become a member!



The AAVSO annual meeting in 1995



The AAVSO annual meeting 2009



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The AAVSO is a non-profit scientific and educational organization



What's Next?

- ★ CompStar DB
- ★ Support of the BAA and RASNZ databases
- ★ PEP raw data submission
- ★ Real-time data validation
- ★ CCD output file standardization
- ★ Online image access and header database



Awards

- ★ 2 SID Award recipients (awarded to observers with 40 or more months of SID data reports)
- ★ 9 Sunspot Award recipients (awarded to observers with 1,500 or more observations)



Awards

Arne receives the first Charles Butterworth Award



"This, the first Charles Butterworth Award, was presented to Dr. Arne Henden, Director AAVSO, on 3rd June 2006 by the Variable Star Section of the British Astronomical Association, in recognition of his outstanding contributions to the observation of variable stars."



Awards

Elizabeth Waagen receives the Leslie Peltier Award for 2006



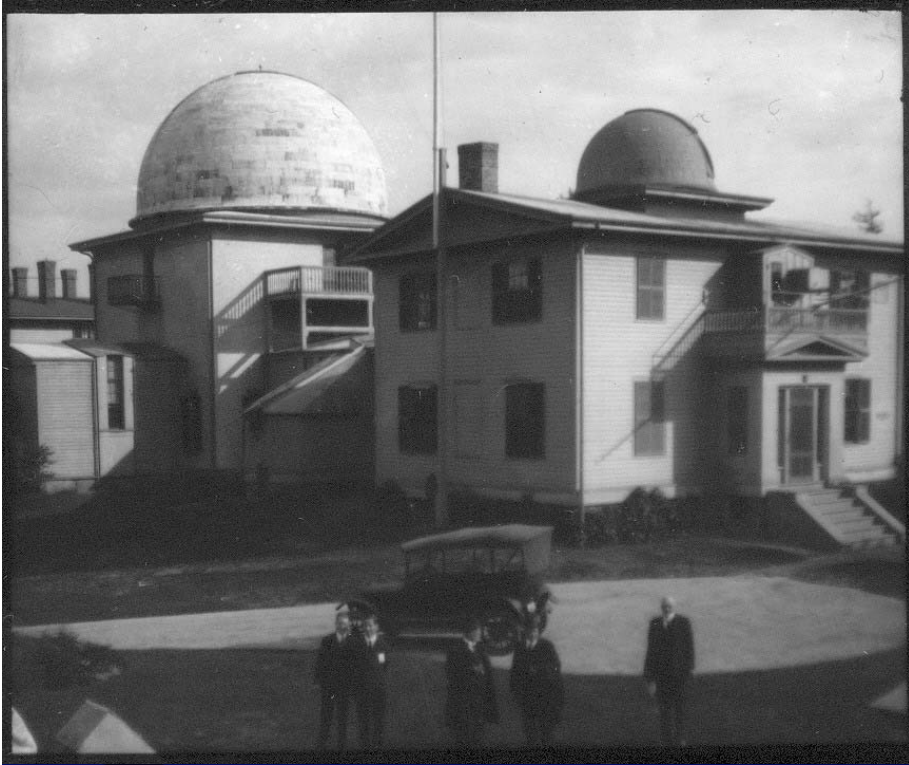
"We are very proud to announce that AAVSO Senior Technical Assistant, Elizabeth Waagen, has been awarded the Astronomical League's prestigious Leslie C. Peltier Award for 2006. The Astronomical League presented the award to Elizabeth for her contributions to variable star research and for her work as Interim Director, guiding the AAVSO through the difficult time during the 18 months that encompassed Janet Mattei's illness and death and the subsequent search to find a new Director. Our congratulations to Elizabeth for receiving this well deserved honor. For more information on the Leslie C. Peltier Award visit:

<http://www.astroleague.org/al/awards/peltier/peltiers.html>"



One more award...





A story...



