



CCD Views

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C C D V I E W S

 Special Issue: May 5, 2002

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1. INTRODUCTION TO MAY SPECIAL ISSUE

Many observing campaigns are underway which should be of special interest to CCD observers so we have issued this special edition of CCD Views. Our next full issue will probably be released near the end of June just prior to the Spring Meeting of the AAVSO in Hawaii.

We have noticed that many subscribers to CCD Views are not subscribed to the AAVSO News Flash -- an electronic publication issued several times a week (as needed) which lists observations of cataclysmic variables in outburst, and unusual behavior of other variables, and announcements on nova and supernova discoveries. We have many faint cataclysmic variables that need monitoring and the News Flash is the best way to stay tuned to their activity. If you don't subscribe via e-mail, be sure to check out the web site at <http://www.aavso.org/newsflash/> for the latest in CV activity and read the back issues of CCD Views for faint CV monitoring tips and requests.

Good observing!

2A. SPECIAL OBSERVING REQUEST BY JAM: XMM CAMPAIGN

Our colleagues at the University of California in Santa Barbara will be observing several dwarf novae in the next few weeks using the X-ray Multi-Mirror (XMM) satellite and have asked us for help in monitoring the variables optically (see AAVSO News Flash 950). The objects and dates of observation are as follows:

Object	Start of Observation (UTC)
=====	=====
SU UMa	MAY 05 17:14:54
EI UMa	MAY 10 09:54:07

Please keep a close eye on these variables for as long as you can (at least several hours, if possible) particularly on the dates of XMM their observation. In addition, please monitor these objects closely before and after the XMM observing runs so that the optical light curve can be correlated with the X-ray data.

Observing tips: Please use a CCD V filter
 Report the comparison stars used in your observations
 Report the time of your observations to 4 decimals of the JD.

Charts are available at these URLs:

http://www.aavso.org/charts/UMA/SU_UMA/

http://www.aavso.org/charts/UMA/EI_UMA/

2B. SPECIAL OBSERVING REQUEST BY JAM: RXTE CAMPAIGN

Dr. Darren Baskill of Leicester University, Leicester, UK, will be observing the dwarf nova WW Ceti with the Rossi X-ray Timing Explorer (RXTE) from May 10 through August 9, 2002 for a duration of 3,000 seconds each day. He has requested the assistance of AAVSO observers to monitor WW Cet simultaneously with his X-ray campaign so that the optical and X-ray data may be correlated (see AAVSO Alert Notice 295). Dr. Baskill provides the following description of the project:

The relationship between X-ray and optical observations varies dramatically between dwarf novae. In U Gem, the X-ray count rate increases during optical outburst, while observations of SS Cyg and SU UMa (see AAVSO News Flash #772) show completely the opposite; the X-ray count rate falls during optical outburst.

This may be due to the inclination of the system - U Gem has an inclination of 70 degrees, whereas SS Cyg and SU UMa have much lower inclinations of 37 degrees, and 44 degrees, respectively. The inclination of WW Cet is 54 degrees, and so it is unknown whether it will behave like U Gem or SS Cyg.

This new data should help us understand the X-ray variability (and the optical relationship) of dwarf novae.

Observers are urged to monitor the variable closely, particularly during intervals when RXTE is observing WW Cet.

Observing tips: Please use CCD V filter
 During RXTE observing times the frequency of the observations should be every 5 minutes
 Start observations 15 minutes before and continue 15 minutes after the scheduled

RXTE runs
When RXTE is not actively observing WW Cet,
observe it every hour during the night
Report the comparison stars used in your
observations
Report your observations to 4 decimals of JD.

Charts for WW Cet are available at:

http://www.aavso.org/charts/standard/CET/WW_CET/

More information about this campaign, including time tables are
available at:

<http://www.star.le.ac.uk/~dbl/xtewwcet.html>
the JD.

Good coverage from our observers is extremely important to the
success of this observing program.

2C. SPECIAL OBSERVING REQUEST BY JAM: 0203+56A UV PER

This dwarf nova type (SU UMa subclass) cataclysmic variable is
having one of its rare outbursts -- maybe a superoutburst --
which started on May 2 (see AAVSO News Flash 958). The last
outburst (superoutburst) recorded in the AAVSO International
Database was in Dec 2000/Jan. 2001.

The superoutbursts usually lasts about ten to fifteen days.
UV Per has interesting superoutbursts, in that it is known to
have some superoutbursts that start with a short outburst
followed by a full blown superoutburst (see the superoutburst of
Mar 1996-JD 2450150+). In addition, often a short outburst is
again seen a few days after the superoutburst reaches minimum
(see the superoutburst of Mar. 1996).

Please follow UV Per closely to see how it is going to behave this
time.

Observing tips: Observe with a CCD V filter
Search for superhumps - observe the star every
5 minutes _for as long as you can_
throughout the night, particularly
observers with good northern horizon
Report the comparison stars used
Report your observations to 4 decimal of JD.

During the last outburst Ron Zissell got an excellent set of
superhump CCD V data. We are planning to prepare a publication
of those observations together with observations (hopefully of
superhumps) of the current outburst.

Charts for UV Per are available at URL:

http://www.aavso.org/charts/PER/UV_PER/

Good Observing! --- Janet

3. V4334 SGR - SAKURAI'S OBJECT BEHAVIOR

V4334 SGR "Sakurai's Object" is gaining much attention lately. According to IAUC 7879 it has heated up and may be retracing its path away from the Asymptotic Giant Branch (AGB) for the second time. Also, it could be an analogue for mysterious V838 Mon (IAUC 7886). A complete description of Sakurai's Object is beyond the scope of CCD Views, so we plan to devote the June Variable Star of the Month to it. Please stay tuned to <http://www.aavso.org/vsotm/> for more detail.

In the meantime, please monitor the object closely. The last positive AAVSO observation was 15.0 by Steve O' Connor (OCN) on October 25, 1998! CCD observers should monitor V4334 Sgr over the next few years at least once a week, whenever possible. If any significant activity is detected increase your monitoring interval and notify the AAVSO. An observation of V4334 Sgr was made by Alan Gilmore and Pam Kilmartin of St. John's Observatory in New Zealand at the request of the AAVSO. Their unfiltered image has V4334 Sgr at around magnitude 16.3, but the star is quite red so if you cannot image it in V try using an R filter.

New charts have been made using photometry from A. Henden and a sequence from B. Sumner. F and G-scale charts were created because it is a challenging and crowded field. The charts can be downloaded at this URL:

http://www.aavso.org/charts/SGR/V4334_SGR/

Here is color data from Henden for the new F and G charts:

Comp	V	Err	B-V	Err
125	12.545	0.006	1.638	0.004
134	13.410	0.029	0.826	0.011
139	13.928	0.019	1.710	0.013
143	14.286	0.011	1.224	0.013
145	14.528	0.006	0.938	0.022
149	14.886	0.000	1.403	0.002
152	15.222	0.036	1.271	0.012
156	15.607	0.000	0.977	0.012
160	15.985	0.056	1.164	0.004

The full sequence file is available at:

<ftp://ftp.nofs.navy.mil/pub/outgoing/aah/sequence/sumner/v4334sgr.seq>

Note: There is a close companion to this star, located 10 arcsec west-northwest. This companion has a magnitude of V=17.033 and B-V=2.303.

CCD Views is published bimonthly and when circumstances warrant via e-mail. An archive is available at <http://www.aavso.org/ccdviews/>. Please send comments and suggestions to aaronp@aaavso.org.

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Good observing!

Aaron Price, AAVSO Technical Assistant (PAH)
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