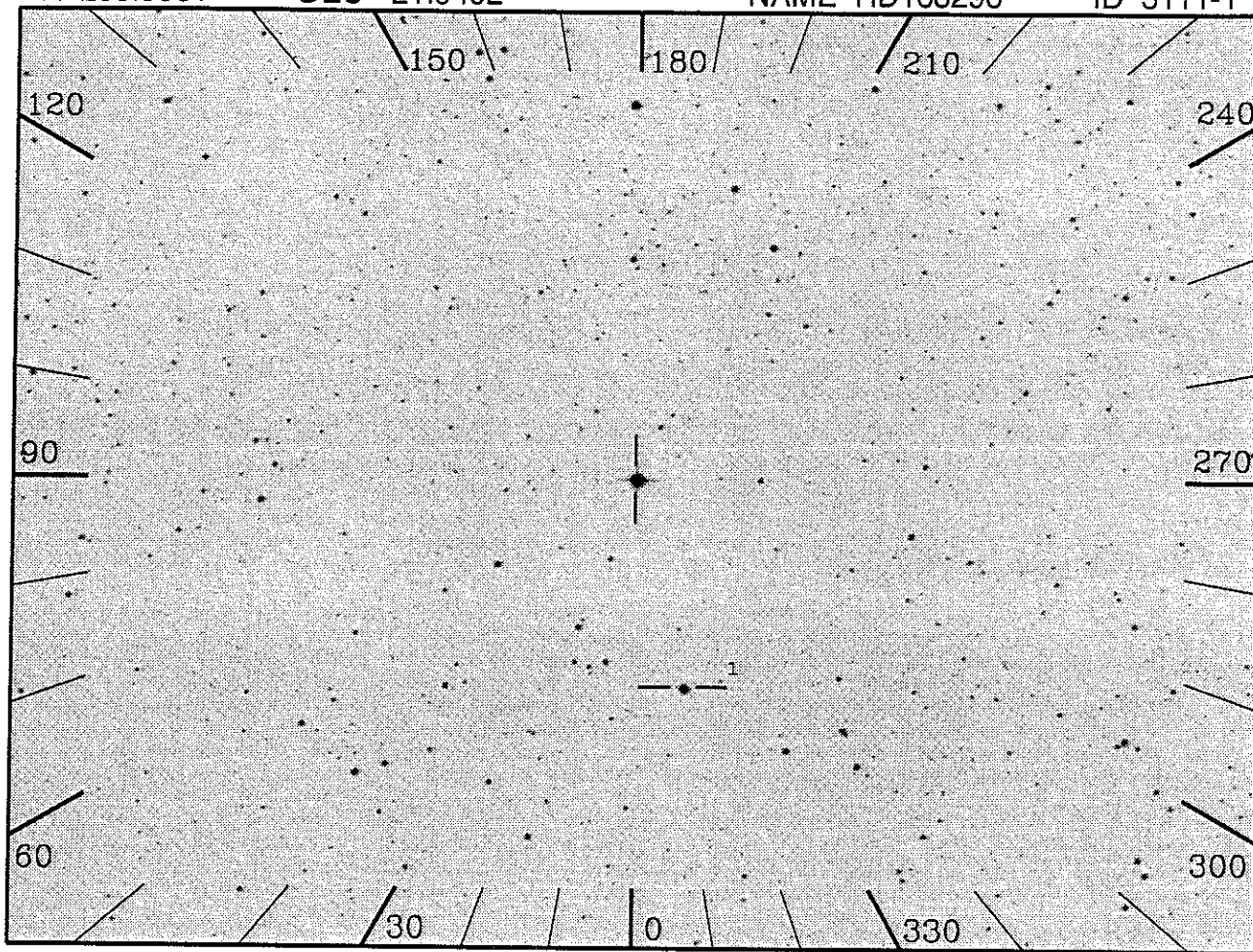


RA 268.3361

DEC -21.9492

NAME HD163296

ID 3111-1



20", 1000(s), Night

OBJECT: HD163296

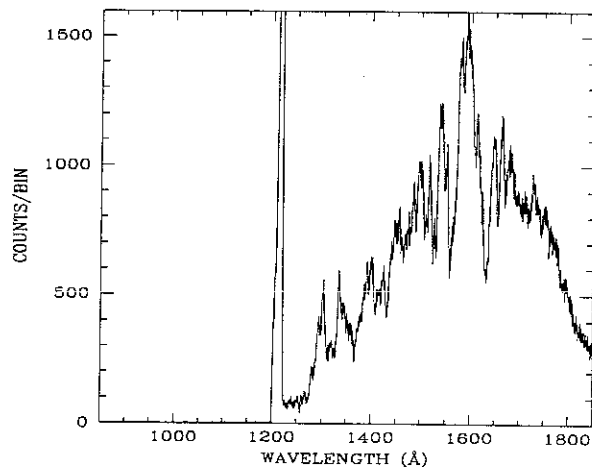
KEYWORDS: Herbig Ae star

COMMENTS:

V=6.8 B-V=0.07 E(B-V)=0.05 spectype=B9Ve-A2Ve

Flux\_1589 = 2.88e-12

Initial\_expected\_rate = 879 cts/sec



ID: 3111-1 W=Prime SciPgm= W23

Names: HD163296

Info: A1Ve V= 6.9 Wupmag=6.96

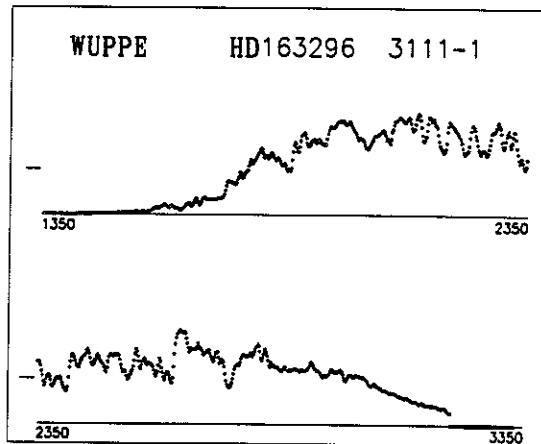
% Pol:

Pos Ang:

Mechanism: Dust plus electron scattering

Comments:

Pole-on control case. Polarization is expected to be low.

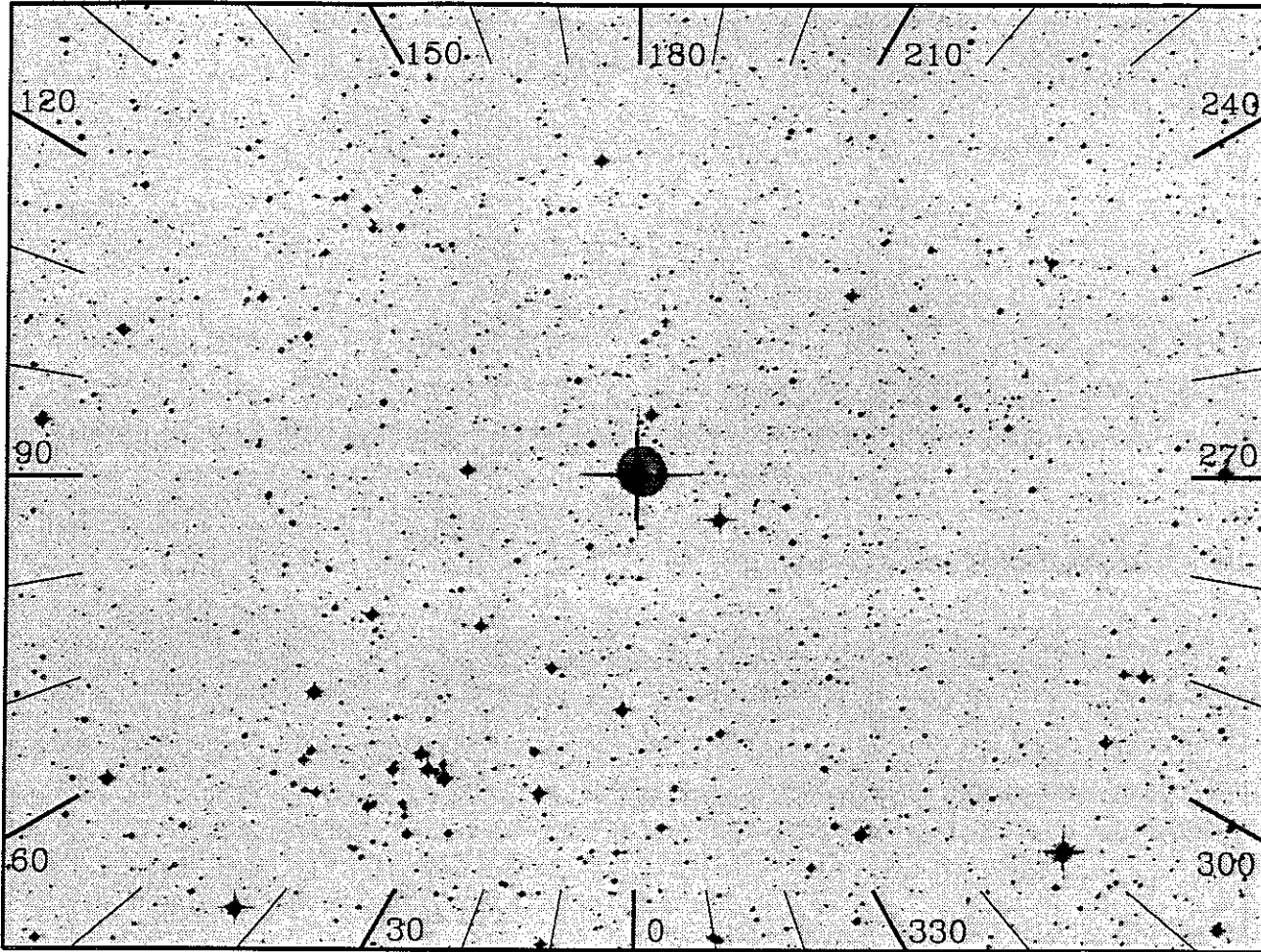


RA 102.2816

DEC -6.9060

NAME HD50138

ID 3114-1



20", 1000(s), Day

OBJECT: HD50138

KEYWORDS: Emission-line shell star

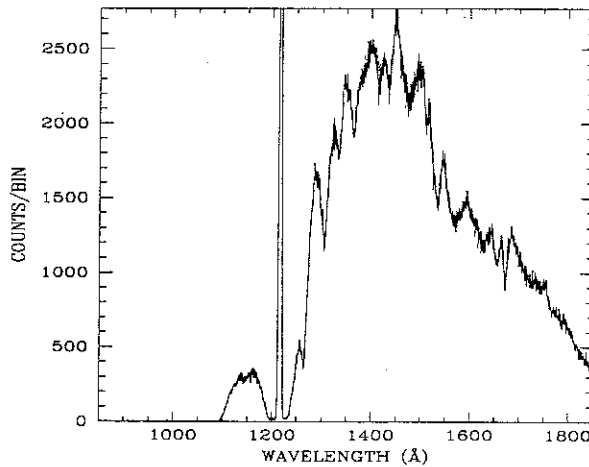
COMMENTS:

V=6.63 B-V=0.008 E(B-V)=0.04 spectype=B9.5Ve

Slightly variable: V = 6.63 +/- 0.027

Flux\_1493 = 2.1575e-11

Initial\_expected\_rate = 1770 cts/sec



ID: 3114-1 W=Prime SciPgm= W23

Names: HD50138

Info: B8e V= 6.7 Wupmag=5.68

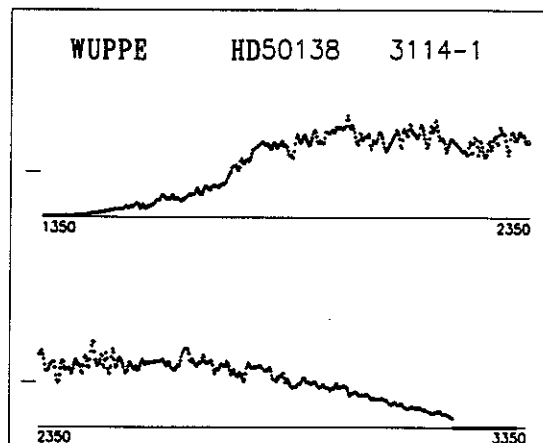
% Pol: 0.70

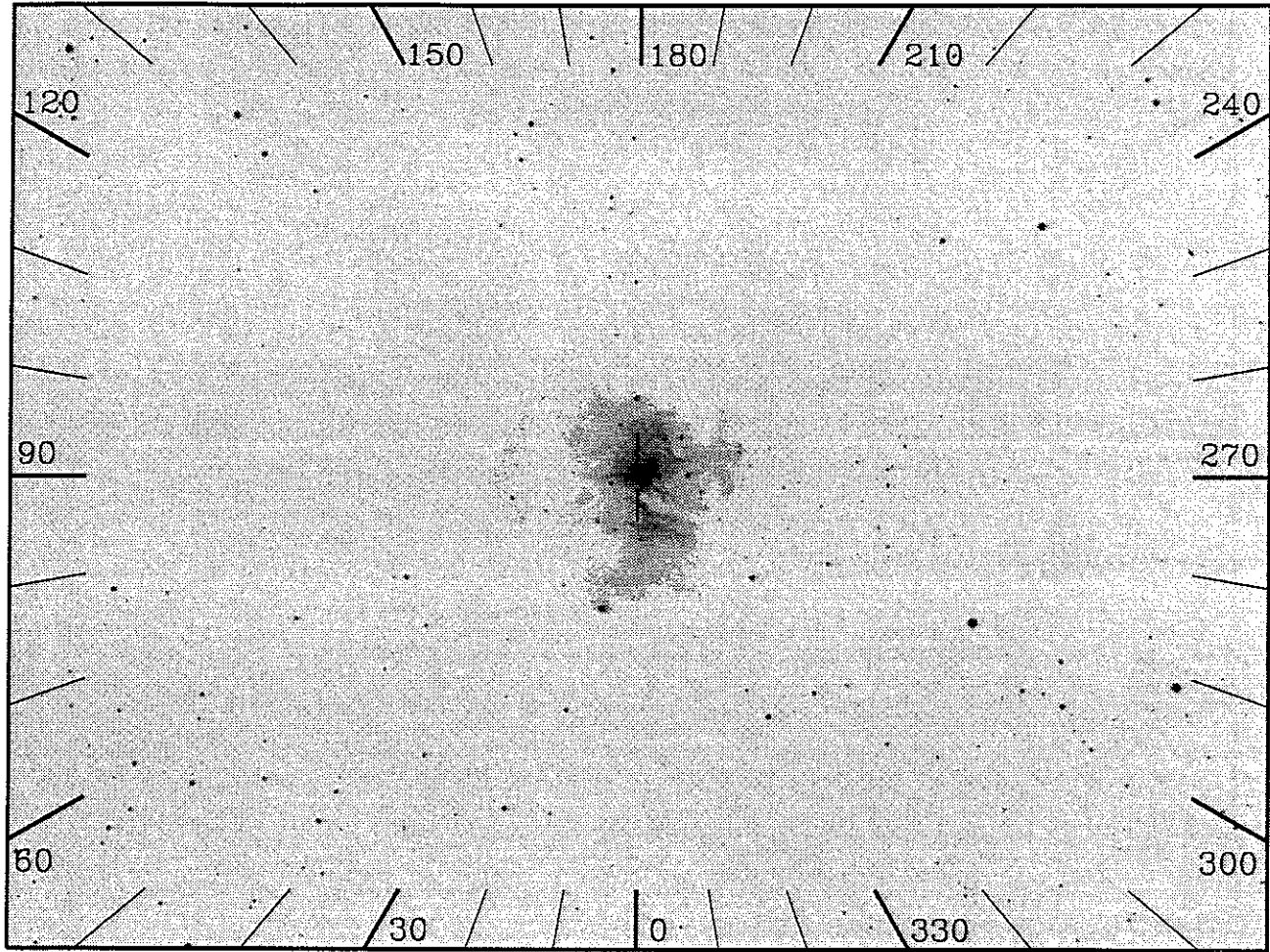
Pos Ang: 158.0

Mechanism: Electron scattering (plus dust?)  
in wind and disk

Comments:

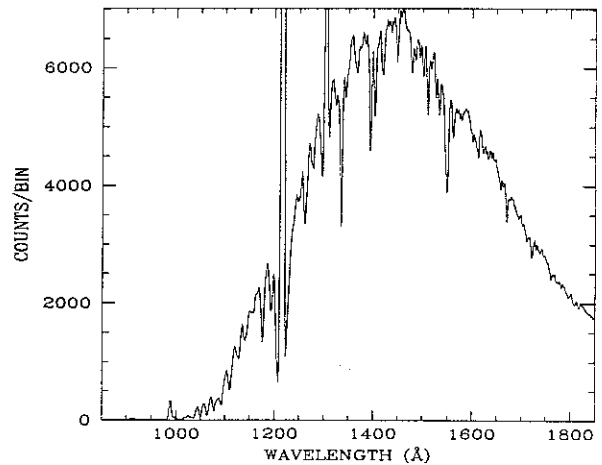
Possible Herbig AeBe candidate. Shows  
infall in UV lines. Edge-on case. Compar-  
ison for HD45677. Look for evidence for  
bipolar nature.





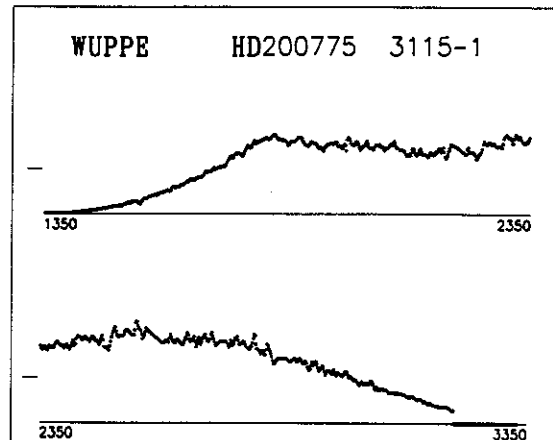
20, 2000(s), Day

OBJECT: 3115 HD200775  
 KEYWORDS: Hot young Be star in reflection nebula  
 COMMENTS:  
 Paired with nebulae NGC7023 ID 4211



ID: 3115-1    W=Prime    SciPgm= W22  
 Names: HD200775  
 Info: B2Ve    V= 7.2    Wupmag=7.06  
 % Pol: 0.93  
 Pos Ang: 94.0  
 Mechanism: Dust? Electron scattering?  
 Comments:

Exciting star of NGC7023 nebula. WUPPE will make a daytime observation of the star immediately following a nighttime observation of the nebula. Thought to be an HAeBe star. Small variations in optical polarization. MgII shows P-Cyg profile. Vsini=60.

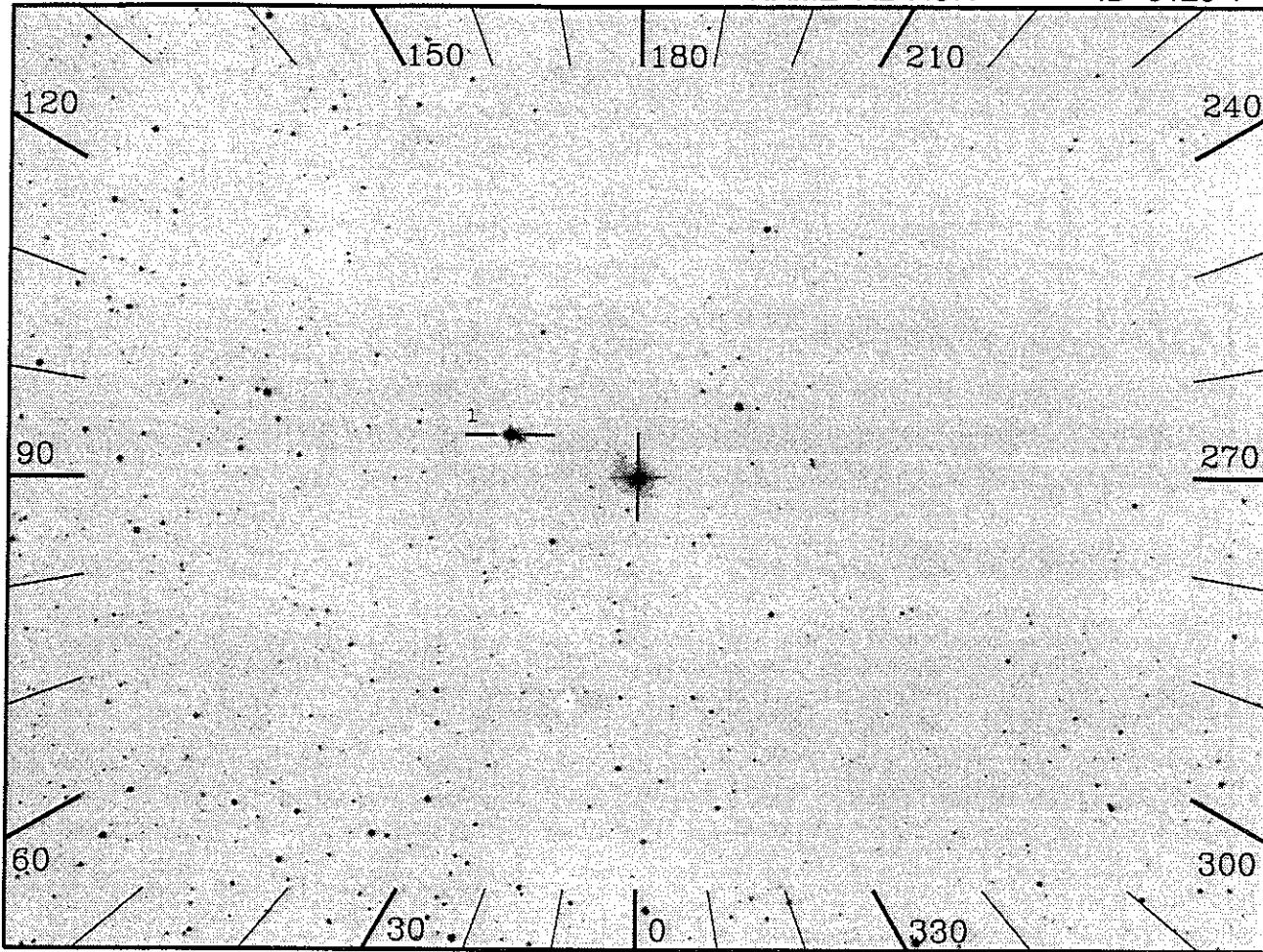


RA 73.1431

DEC 30.4727

NAME AB-AUR

ID 3120-1



20", 1000(s), Day

OBJECT: AB-AUR

KEYWORDS: Variable star

COMMENTS:

V=6.97 B-V=0.09 E(B-V)=0.11 spectype=A0Ve

Variable: 6.97 < V < 7.23

Flux\_1500 = 3.59e-12

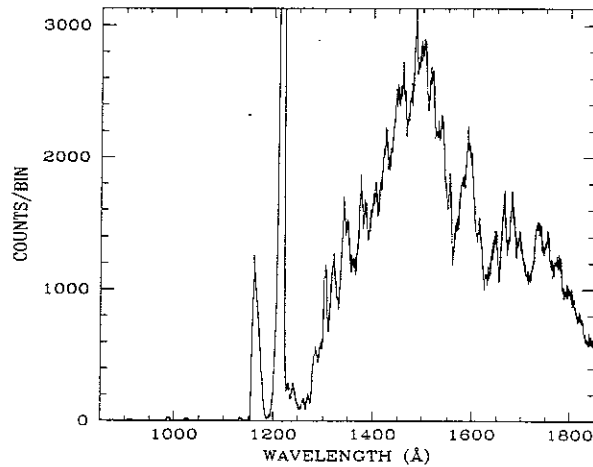
Initial\_expected\_rate =1805 cts/sec

Herbig Ae star

Anomalous circumstellar extinction on top of the

E(B-V)\_ISM = 0.11.

Star may have a 17000K extended chromosphere and stellar wind.



ID: 3120-1 W=Prime SciPgm= W23

Names: AB-AUR HD31293

Info: A0pe V= 7.1 Wupmag=7.00

% Pol: 0.32

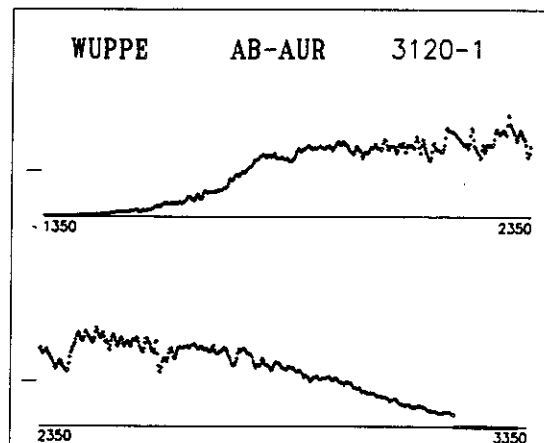
Pos Ang: 62.9

Mechanism: Electron scattering (plus dust?)  
in circumstellar disk and wind

Comments:

Pole-on control case. Brightest Herbig

AeBe star. Very low optical pol.



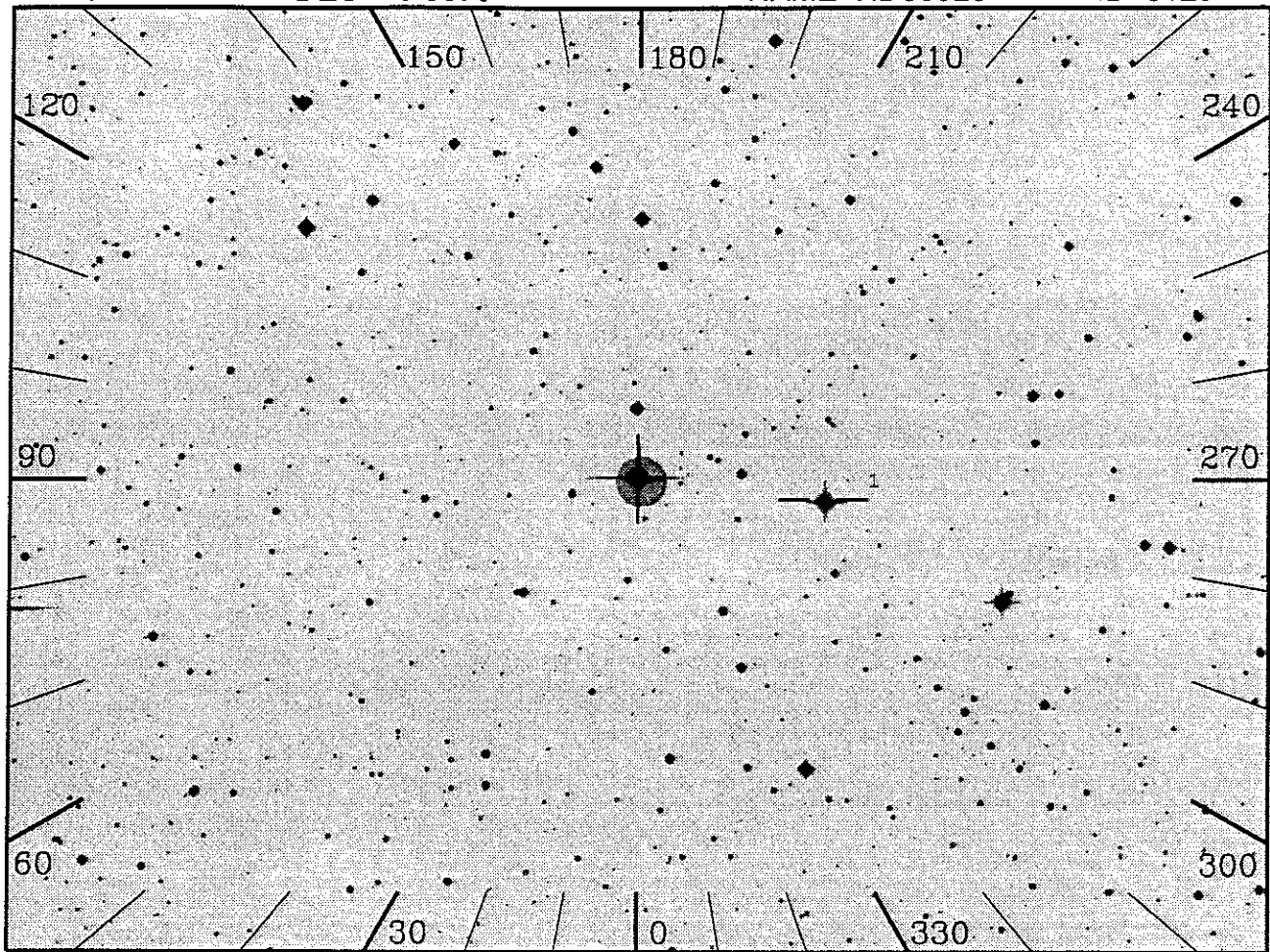


RA 81.3281

DEC -8.3679

NAME HD35929

ID 3129-1



20", 1000(s), Day

OBJECT: HD35929

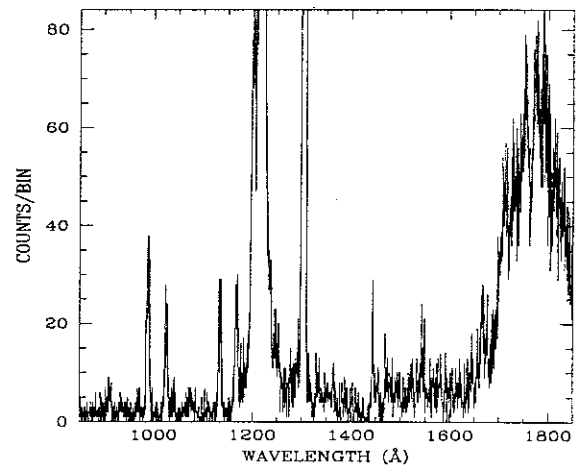
KEYWORDS: Herbig Ae star

COMMENTS:

V=8.2 B-V=0.20 E(B-V)=0.05 spectype=A5e

Flux\_1785 = 2.13e-13

Initial\_expected\_rate = 20 cts/sec



ID: 3129-1 W=Prime SciPgm= W23

Names: HD35929 S132136

Info: A5 V= 8.2 Wupmag=9.26

% Pol: 0.13%

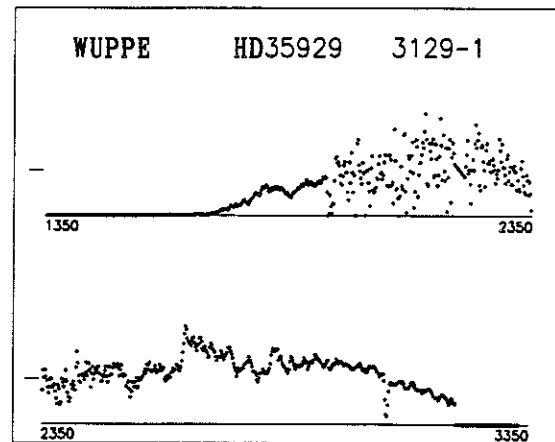
Pos Ang: 60

Mechanism: Dust plus electron scattering?

Comments:

Optical polarization is quite low.

Intermediate case between HAeBe stars and Beta-Pic-like stars.

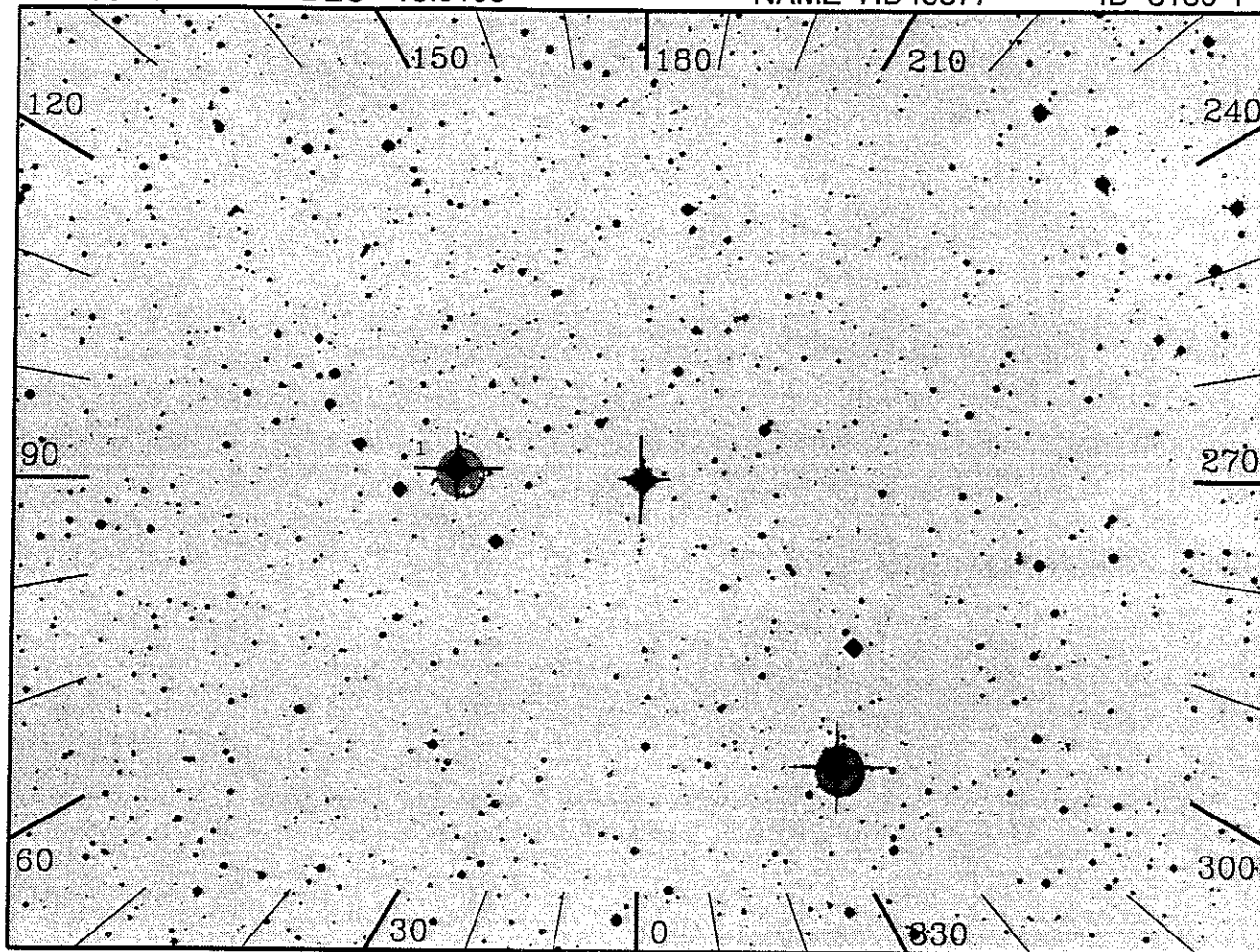


RA 96.4962

DEC -13.0199

NAME HD45677

ID 3130-1



20", 1000(s), No glow

OBJECT: HD45677

KEYWORDS: Herbig Be star

COMMENTS:

V=8.25 B-V=0.03 E(B-V)=0.29 spectype=B2IVE

Variable: 9.58 < V < 7.55

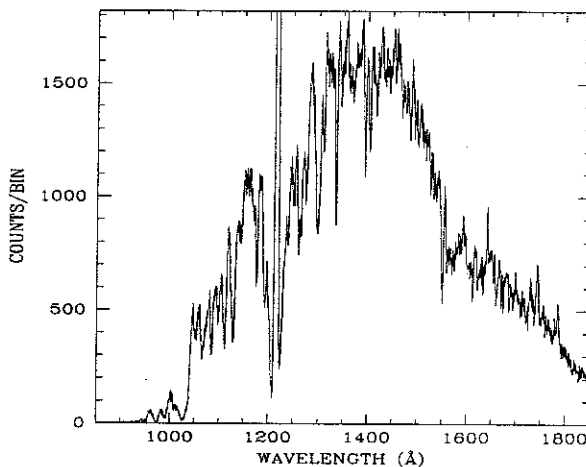
Flux\_1440 = 1.14e-11

Initial\_expected\_rate = 1390 cts/sec

E(B-V)\_ISM=0.04 E(B-V)\_circumstellar=0.25

System is viewed edge on through circumstellar disk

Airglow not used in model because ASTRO1 observation already included airglow.



ID: 3130-1 W=Prime SciPgm= W23

Names: HD45677

Info: B0e V= 7.5 Wupmag=6.78

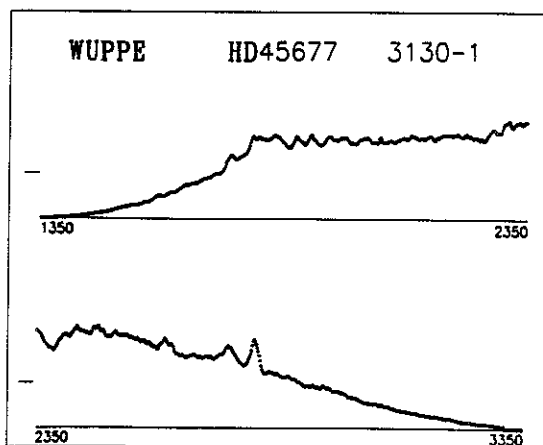
% Pol: 0.50 (Astro-1)

Pos Ang: 160.0 (Astro-1)

Mechanism: Electron scattering in CS disk and dust?

Comments:

Astro-1 follow-up. Evidence for bipolar nature from PA flip. Variable optical pol. Edge-on? Strong em lines (Fe, Mg). Pol and PA vary with time. Pol rises in the IR.

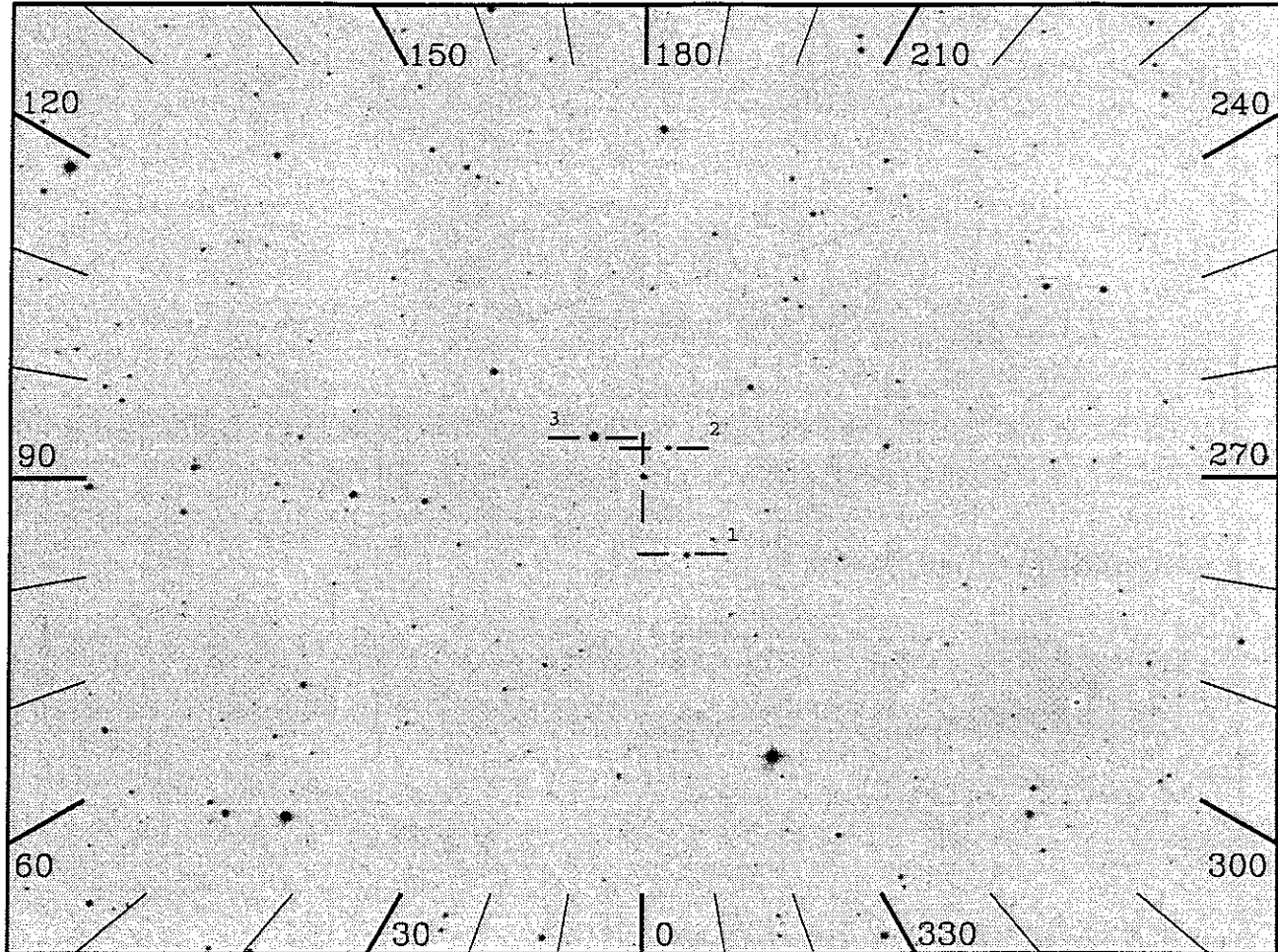


RA 35.6729

DEC 27.8724

NAME RW-TRI

ID 3203-1



20", 1000(s), Day

OBJECT: 3203 RW-TRI

KEYWORDS: CV, novalike variable

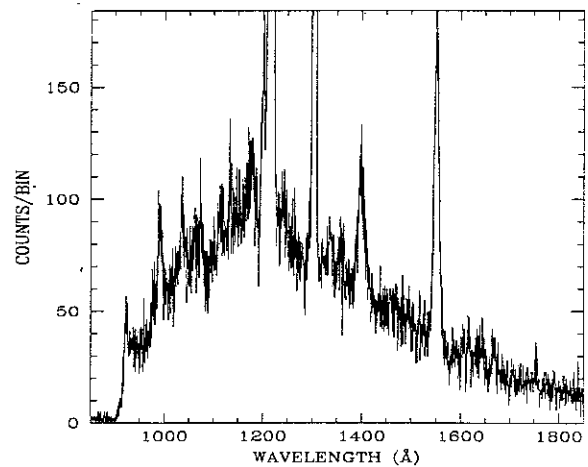
COMMENTS:

High inclination, novalike variable which undergoes eclipses of the inner accretion disk.

The optical magnitude in eclipse is quite faint 15.6 compared to the out of eclipse magnitude 13.

The purpose of the observation is to obtain a relatively high S/N spectrum to characterize the inner accretion disk and wind of the system.

Observations through eclipse are desirable, but by no means required.



ID: 3203-1 H=Prime SciPgm= H09

Names: RW-TRI

Info: MOV V=15.0 Wupmag=11.4

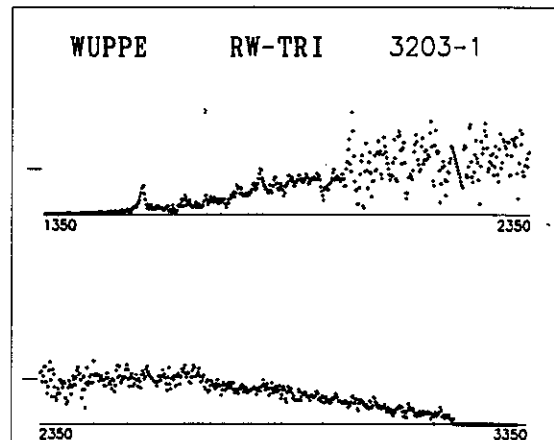
% Pol:

Pos Ang:

Mechanism: Electron scattering in an accretion disk

Comments:

Vmax=12.6, Vmin=15.6. Orbital period = 0.2319 days. Inclination angle = 82 degrees. Nova-like, UX-UMA type star.

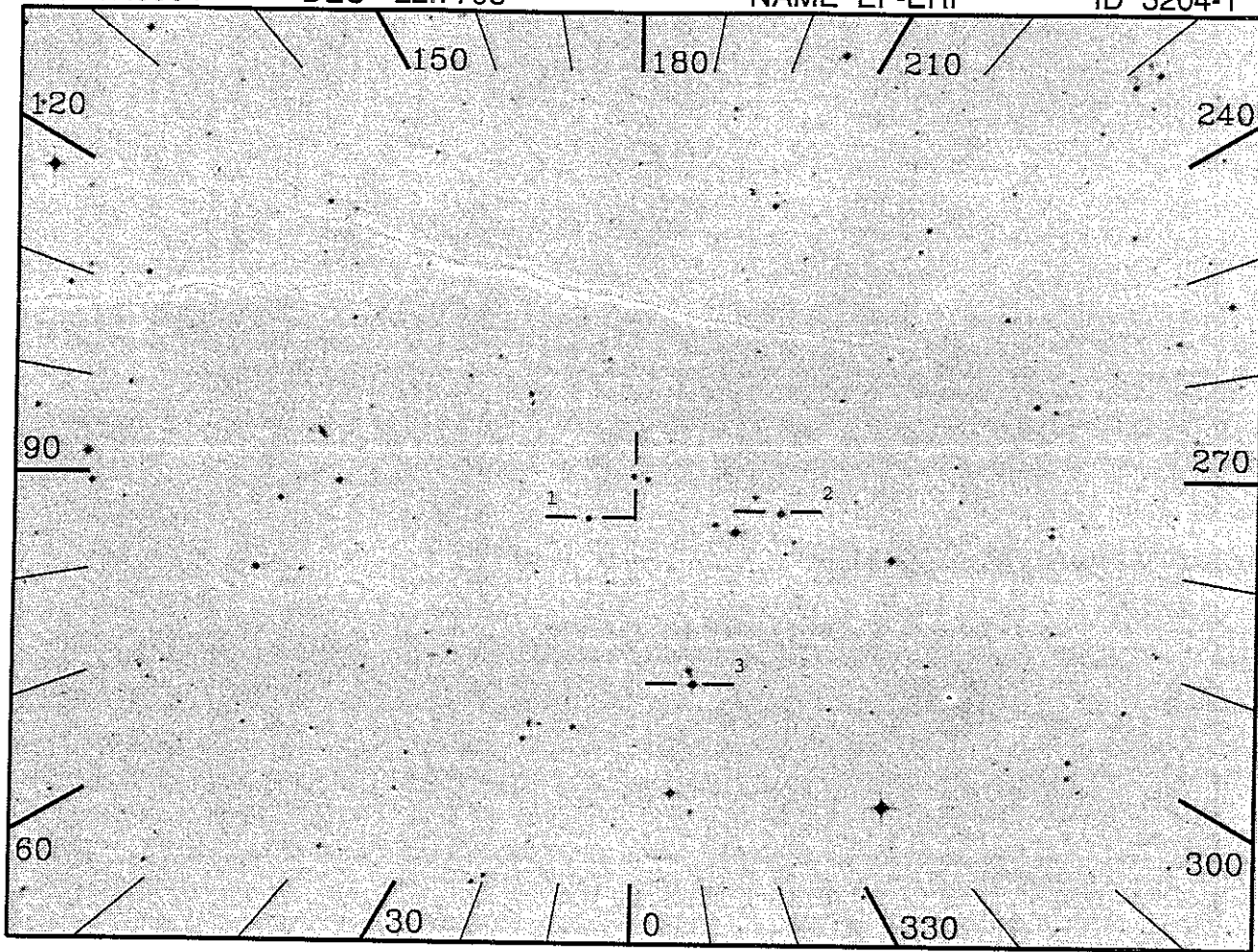


RA 47.9994

DEC -22.7798

NAME EF-ERI

ID 3204-1

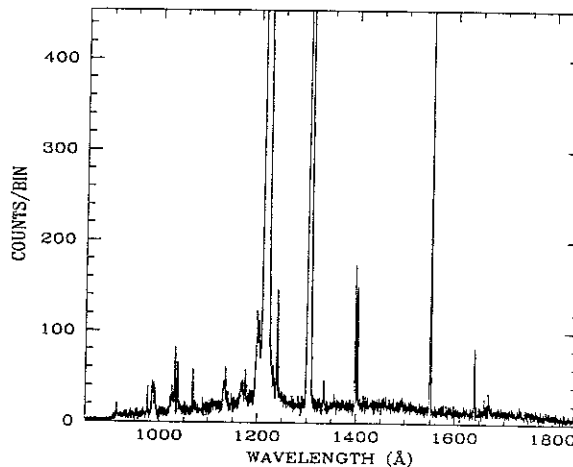


20", 1000(s), Day

OBJECT: 3204 EF-ERI

KEYWORDS: Cataclysmic Variable, Intermediate Polar  
COMMENTS:

Intermediate Polar (DQ Her Star) Optical magnitude varies from 13.7 - 15.5. Spectrum will provide the first sub-Lya spectrum of DQ Her system. The disk is less important here than in EX Hya, the other intermediate polar in the program.



ID: 3204-1 H=Prime SciPgm= H09

Names: EF-ERI

Info: AM-Her type V=13.7 Wupmag=12.0

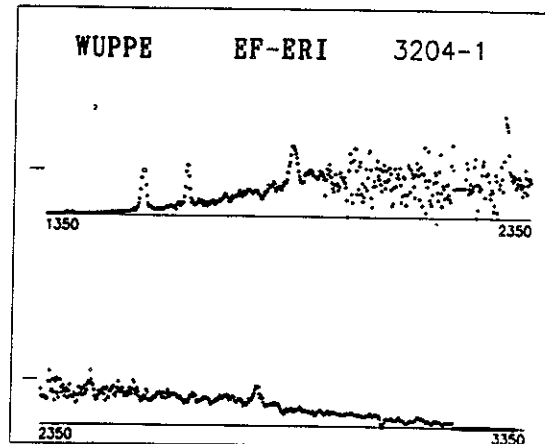
% Pol: 0-9% linear; up to 10% circular

Pos Ang: variable

Mechanism: accretion in magnetic field

Comments:

Variable brightness, V=13.7 to 15.5. Can have high linear pol. Both linear and circ pol are phase-dependent. Orbital period=0.06 days. Broad emission lines in IUE spectra.



TGT/ASTRO2/FIN A

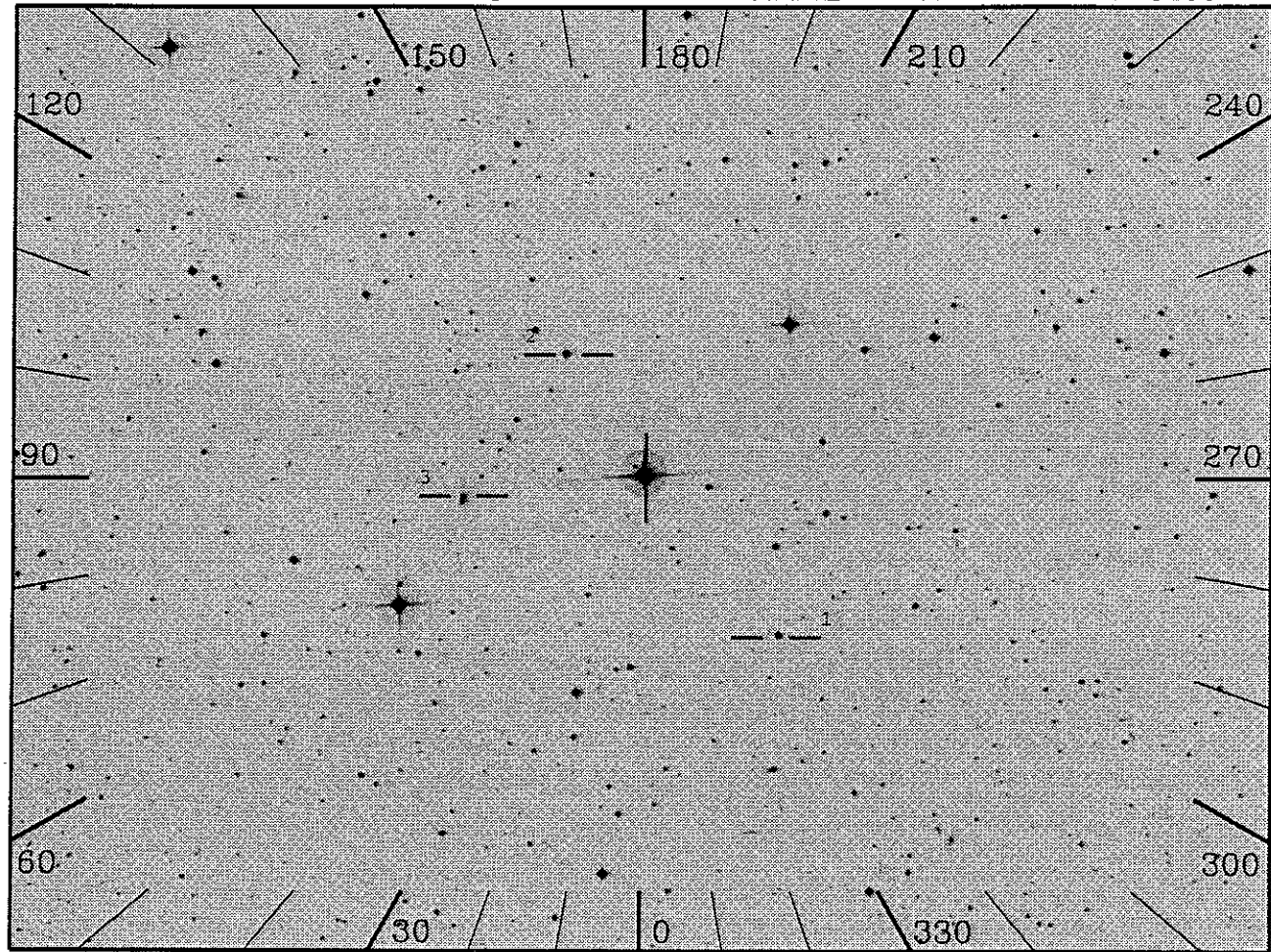


RA 62.3875

DEC -71.4243

NAME VW-HYI

ID 3206-2



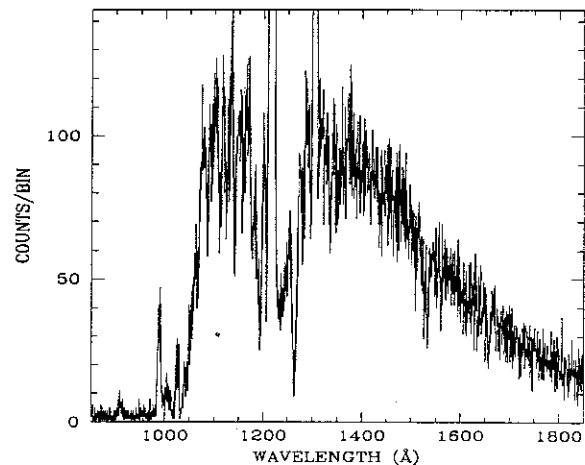
20", 1000(s), Day

OBJECT: 3206 VW-HYI

KEYWORDS: Dwarf Nova, CV, outburst monitor

COMMENTS:

Dwarf Nova which undergoes irregularly spaced outbursts roughly every 20 days. Magnitude variation can be as large as V=13.4 to 8.5. (Photo shows the high state.) Object will be observed at regular intervals to monitor for outburst and track evolution of spectrum. (Simulation is for Low State) Alternate HUT sequences are available depending on brightness of object.



ID: 3206-2 H=Prime SciPgm= H09

Names: VW-HYI

Info: DN;SU-UMa V= 8.5 Wupmag=9.89

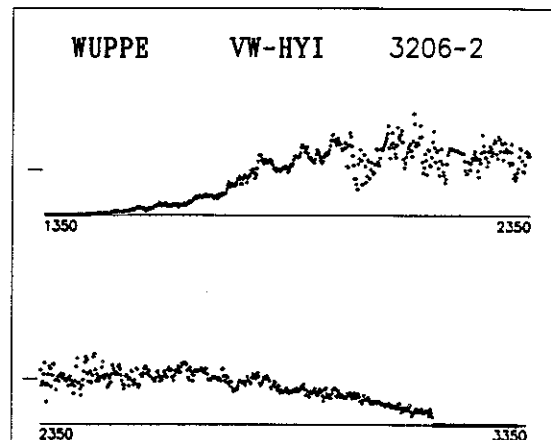
% Pol: 0.096

Pos Ang: 154.

Mechanism:

Comments:

Variable, Vmin=13.8, Vmax=8.5. Primarily interested in spectra; could be in outburst. Period=27 days, with outburst every 129 days. Primarily absorption lines in IUE spectra, emission lines observed occasionally. Spectra is outburst-state dependent. Rise to max in UV follows rise in visual.

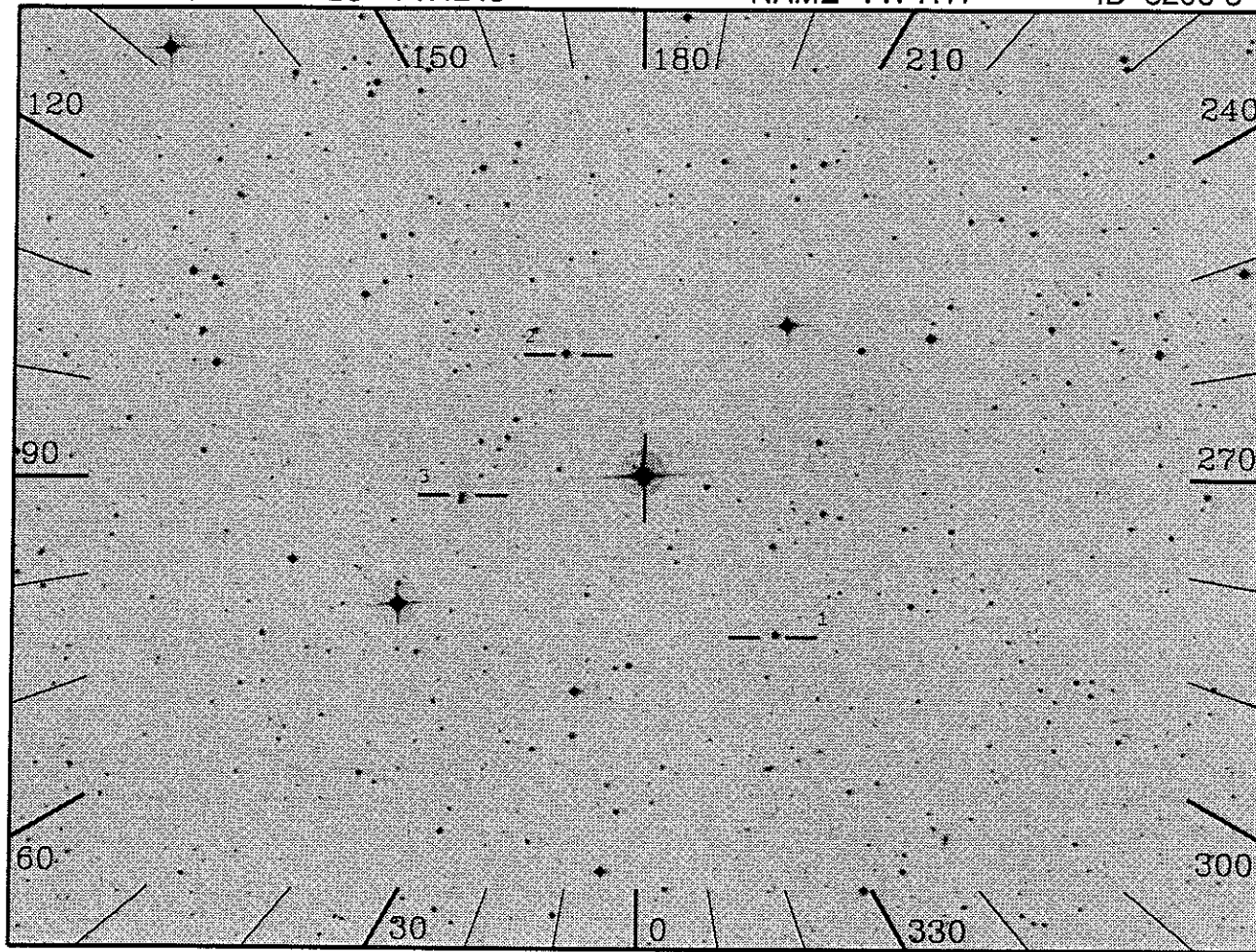


RA 62.3875

DEC -71.4243

NAME VW-HYI

ID 3206-3



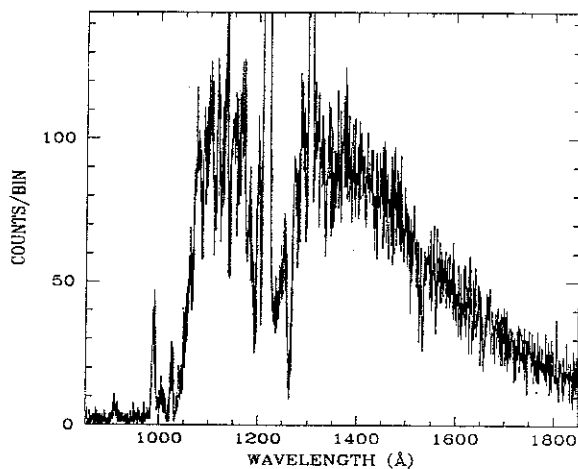
20", 1000(s), Day

OBJECT: 3206 VW-HYI

KEYWORDS: Dwarf Nova, CV, outburst monitor

COMMENTS:

Dwarf Nova which undergoes irregularly spaced outbursts roughly every 20 days. Magnitude variation can be as large as  $V=13.4$  to  $8.5$ . (Photo shows the high state.) Object will be observed at regular intervals to monitor for outburst and track evolution of spectrum. (Simulation is for Low State) Alternate HUT sequences are available depending on brightness of object.



ID: 3206-3 H=Prime SciPgm= H09

Names: VW-HYI

Info: DN;SU-UMa V= 8.5 Wupmag=9.89

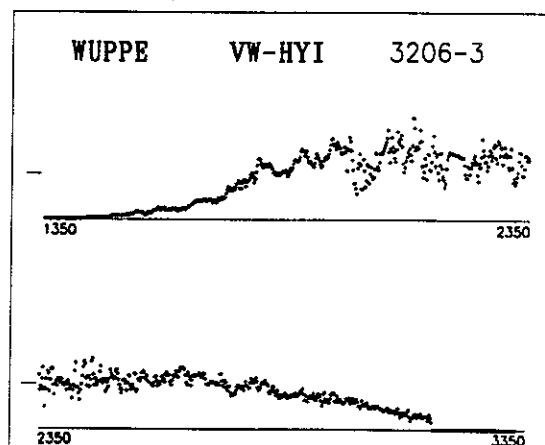
% Pol: 0.096

Pos Ang: 154.

Mechanism:

Comments:

Variable,  $V_{min}=13.8$ ,  $V_{max}=8.5$ . Primarily interested in spectra; could be in outburst. Period=27 days, with outburst every 129 days. Primarily absorption lines in IUE spectra, emission lines observed occasionally. Spectra is outburst-state dependent. Rise to max in UV follows rise in visual.



JA-1782

3-12

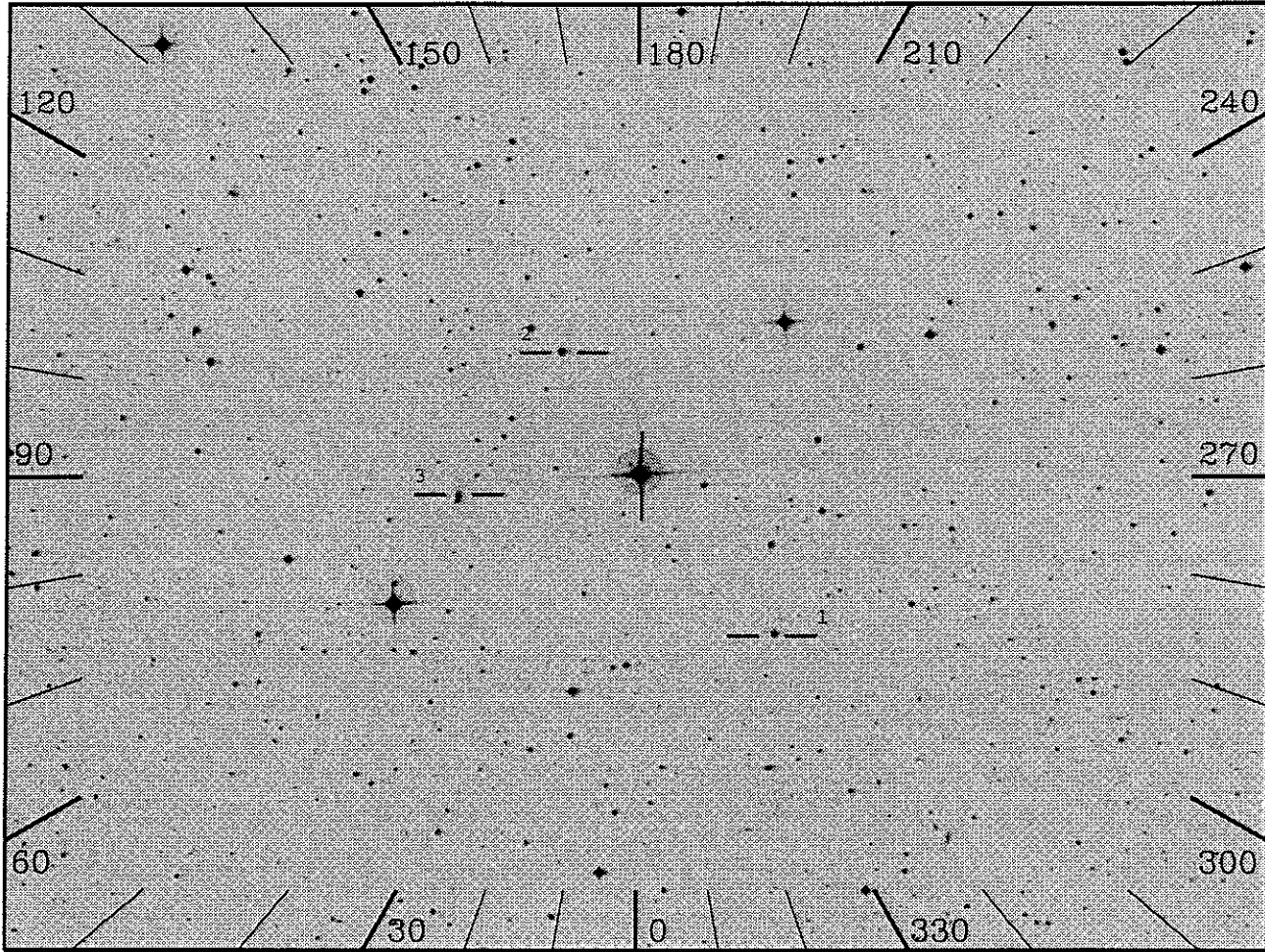
TGT/ASTRO2/FIN A

RA 62.3875

DEC -71.4243

NAME VW-HYI

ID 3206-4



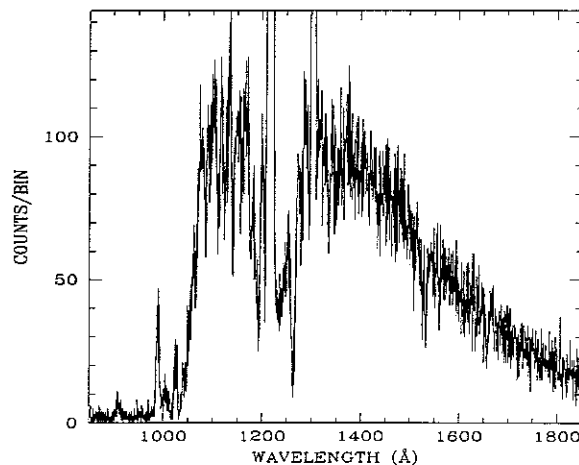
20", 1000 (s), Day

OBJECT: 3206 VW-HYI

KEYWORDS: Dwarf Nova, CV, outburst monitor

COMMENTS:

Dwarf Nova which undergoes irregularly spaced outbursts roughly every 20 days. Magnitude variation can be as large as  $V=13.4$  to  $8.5$ . (Photo shows the high state.) Object will be observed at regular intervals to monitor for outburst and track evolution of spectrum. (Simulation is for Low State) Alternate HUT sequences are available depending on brightness of object.



ID: 3206-4 H=Prime SciPgm= H09

Names: VW-HYI

Info: DN;SU-UMa V= 8.5 Wupmag=9.89

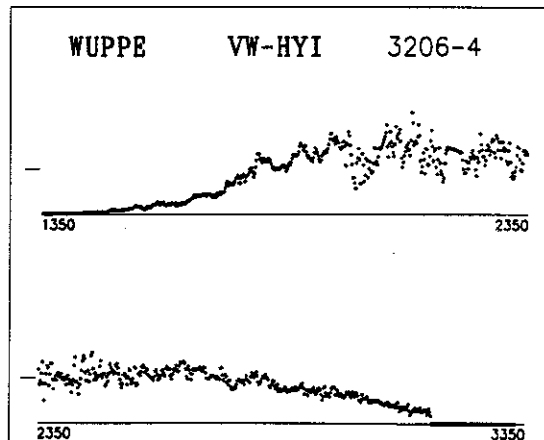
% Pol: 0.096

Pos Ang: 154.

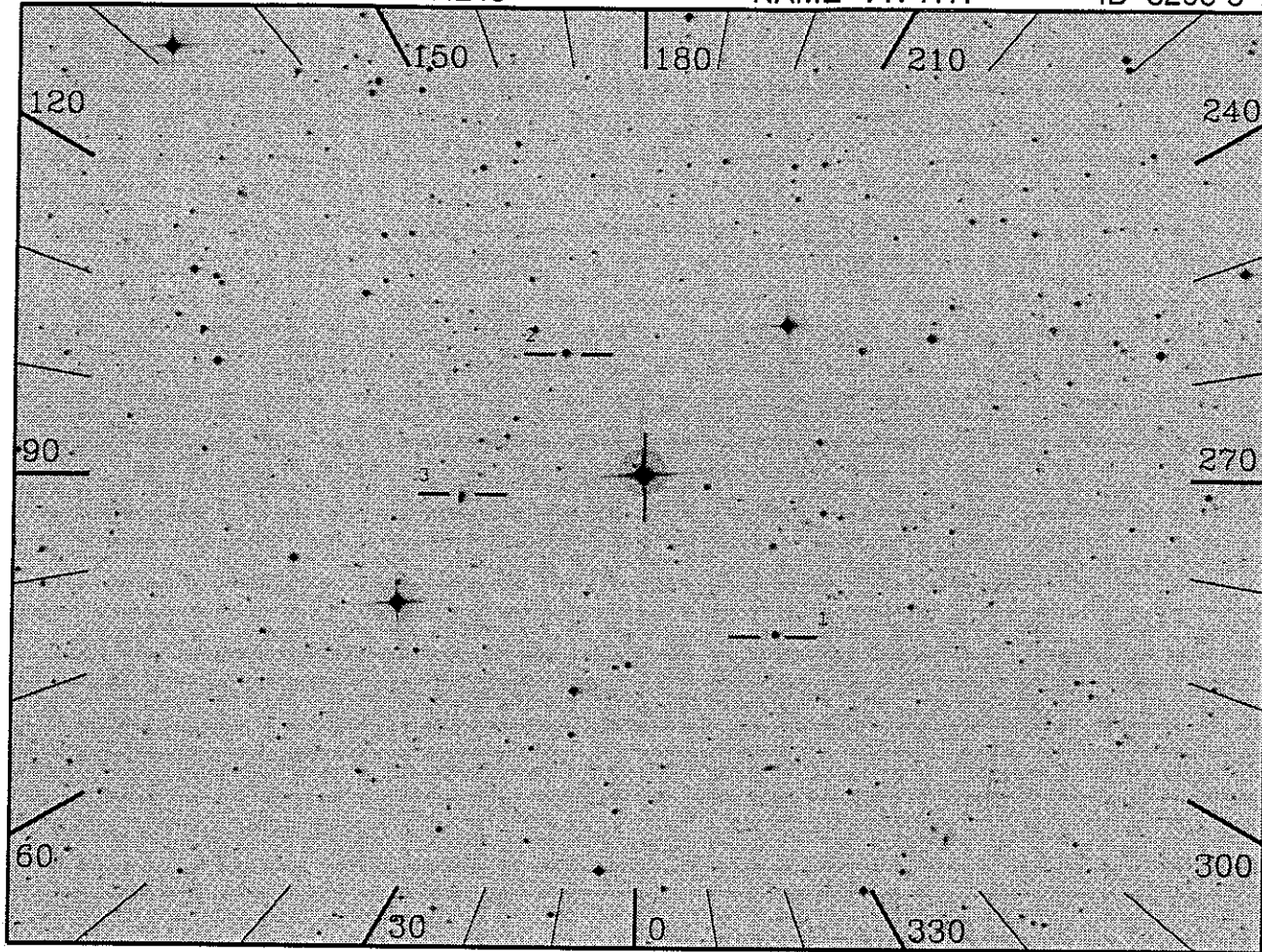
Mechanism:

Comments:

Variable,  $V_{min}=13.8$ ,  $V_{max}=8.5$ . Primarily interested in spectra; could be in outburst. Period=27 days, with outburst every 129 days. Primarily absorption lines in IUE spectra, emission lines observed occasionally. Spectra is outburst-state dependent. Rise to max in UV follows rise in visual.







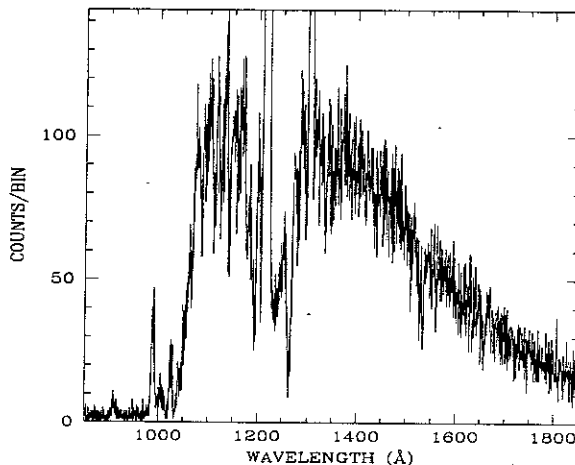
20", 1000(s), Day

OBJECT: 3206 VW-HYI

KEYWORDS: Dwarf Nova, CV, outburst monitor

COMMENTS:

Dwarf Nova which undergoes irregularly spaced outbursts roughly every 20 days. Magnitude variation can be as large as V=13.4 to 8.5. (Photo shows the high state.) Object will be observed at regular intervals to monitor for outburst and track evolution of spectrum. (Simulation is for Low State) Alternate HUT sequences are available depending on brightness of object.



ID: 3206-5 H=Prime SciPgm= H09

Names: VW-HYI

Info: DN;SU-UMa V= 8.5 Wupmag=9.89

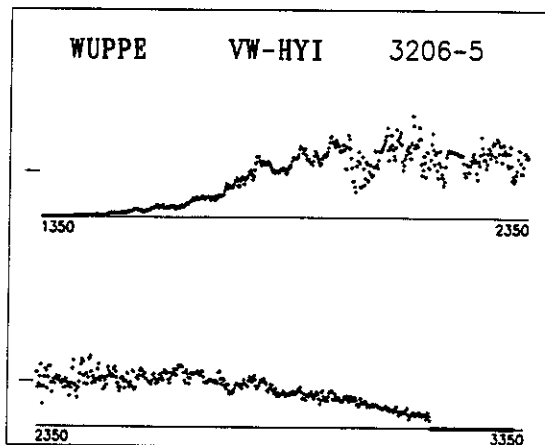
% Pol: 0.096

Pos Ang: 154.

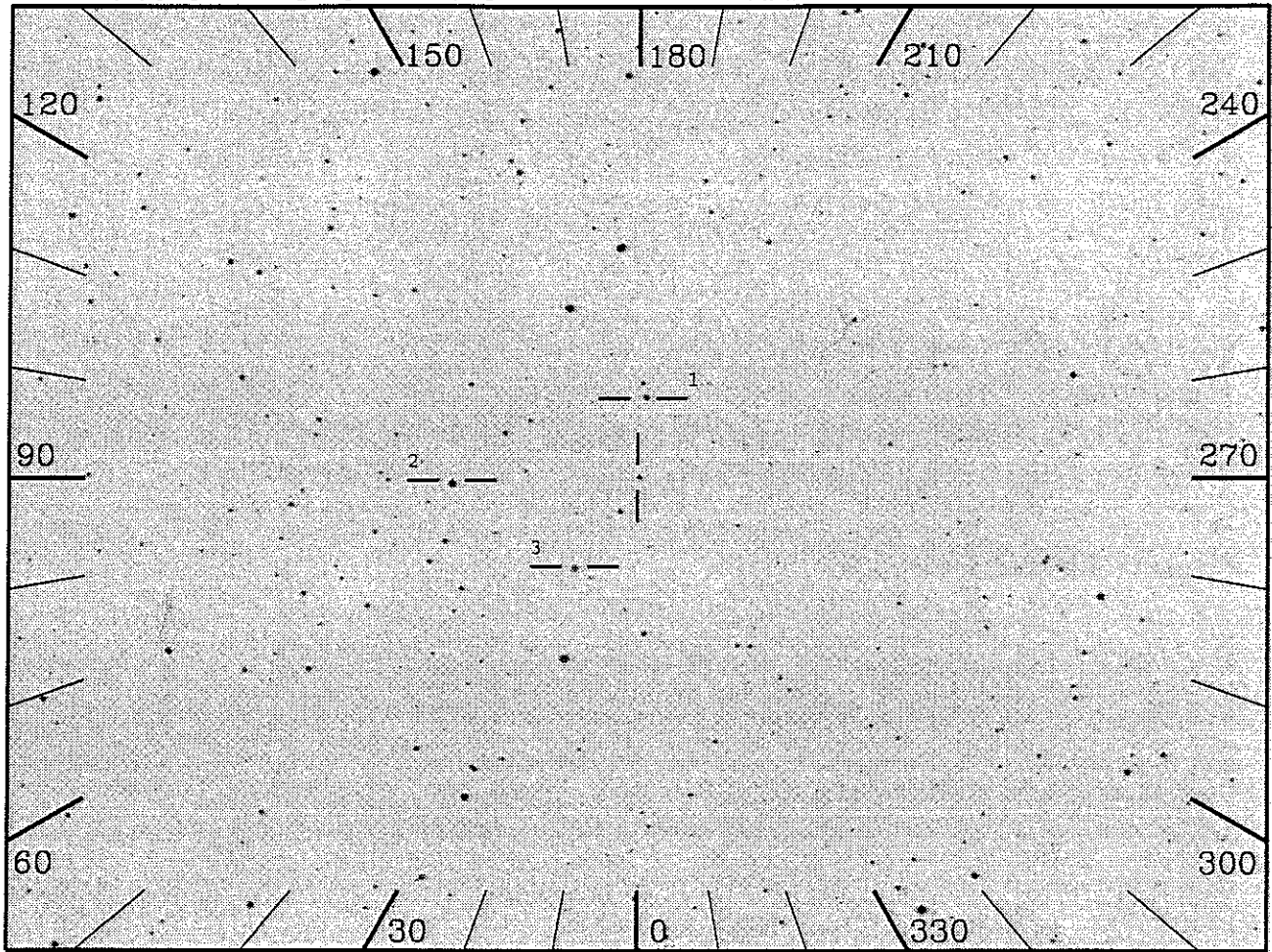
Mechanism:

Comments:

Variable, Vmin=13.8, Vmax=8.5. Primarily interested in spectra; could be in outburst. Period=27 days, with outburst every 129 days. Primarily absorption lines in IUE spectra, emission lines observed occasionally. Spectra is outburst-state dependent. Rise to max in UV follows rise in visual.







20", 1000(s), Night

OBJECT: 3208 U-GEM

KEYWORDS: Dwarf Nova, CV

COMMENTS:

Magnitude can vary between V=8.8 and 14.5.

(Photo and simulation show the low state.)

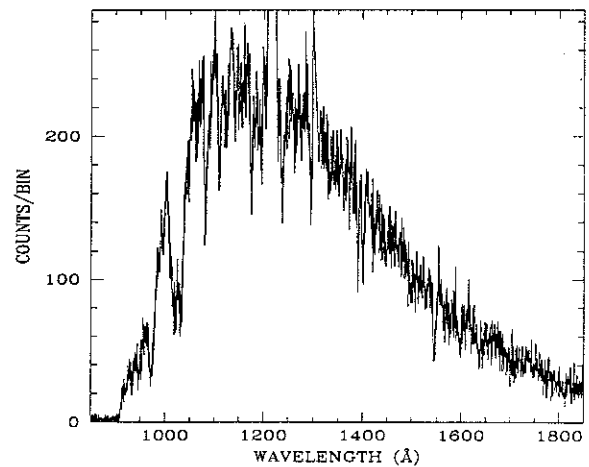
Object will probably be observed in low state.

Alternate HUT sequence is available if the object is in high state.

In quiescence, spectrum is dominated by WD.

A better spectrum (further from outburst) will help determine the cooling of the WD between outbursts.

In outburst, the scientific objective is to obtain high quality spectrum in order to carry out detailed modeling of the accretion disk.



ID: 3208-1 H=Prime SciPgm= H09

Names: U-GEM HD64511

Info: DN;U-Gem type V=9.1 Wupmag=11.9

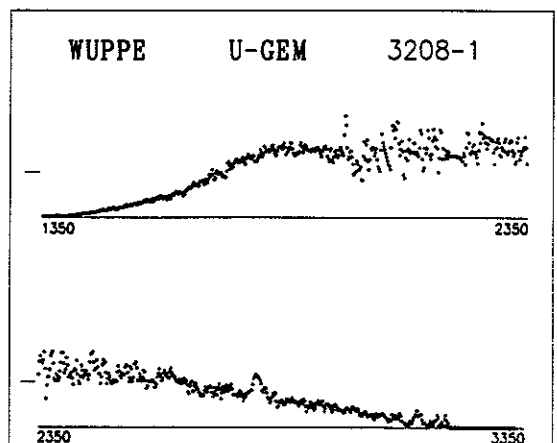
% Pol: 0.3

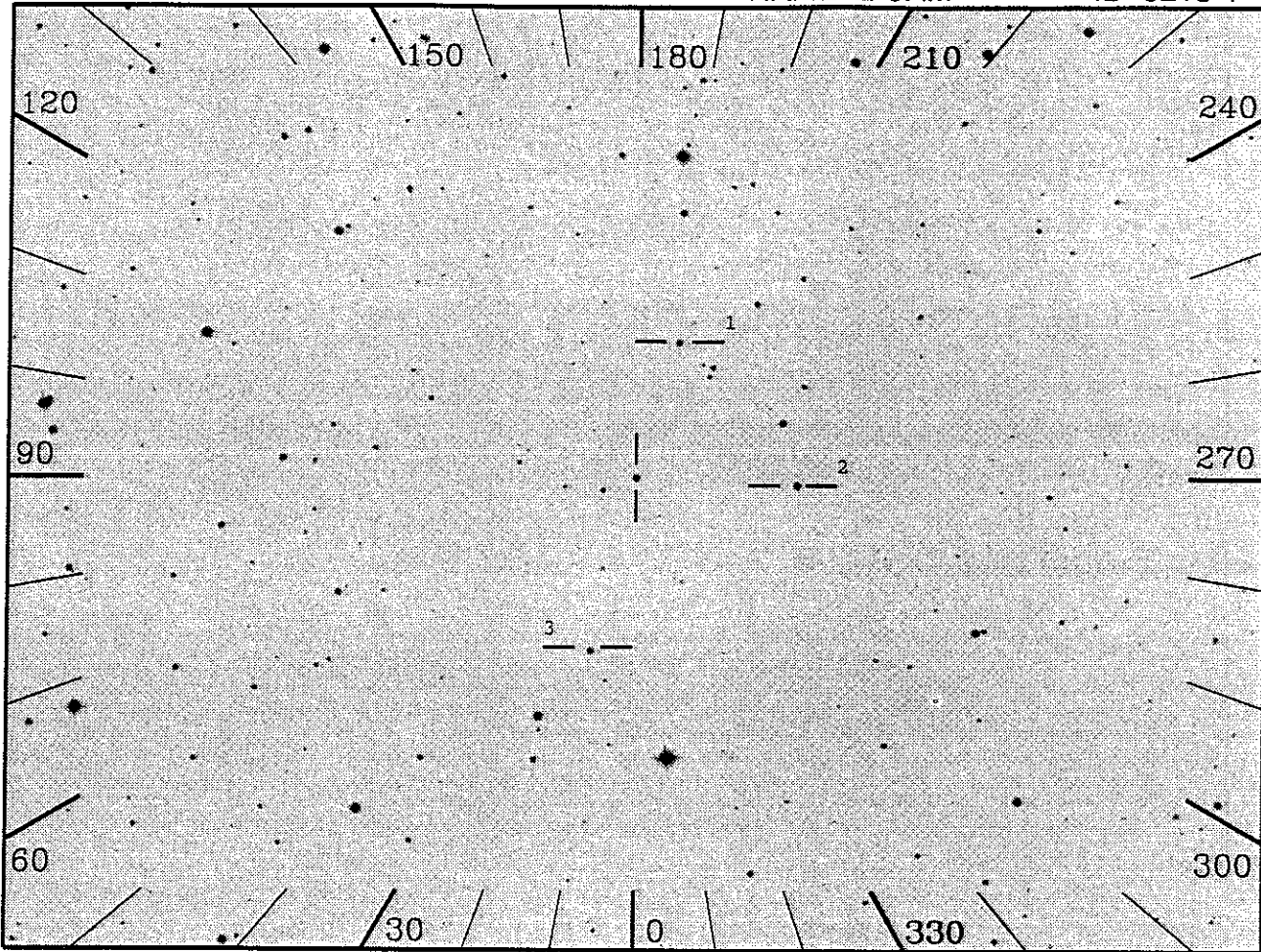
Pos Ang: 173.

Mechanism: Electron scattering?

Comments:

Observed during Astro-1; Vmin=15.2, normal Vmax=14.0, outbursts to V=9.1 every 100 days. Abs lines in IUE spectra, occ. em lines. (Spectrum is outburst-dependent). Models predict pol of few % in UV during outburst.





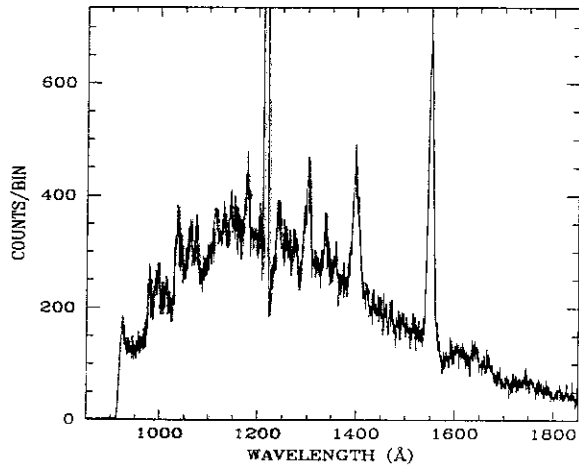
20", 1000(s), Night

OBJECT: 3213 Z-CAM

KEYWORDS: Dwarf Nova, CV

COMMENTS:

Dwarf Nova. Magnitude can vary from V=14.4 to 11.9. (Photo shows the low state.) Object will probably be observed in LOW state. (Spectrum is for LOW State). Alternate HUT sequences are NOT needed for HI state because count rate is sufficiently low. Scientific objective of observation is to obtain high quality spectrum in order to determine where FUV emission arises -- WD, disk, or boundary layer



ID: 3213-1 H=Prime SciPgm= H09

Names: Z-CAM

Info: DN; Z-Cam V=10.5 Wupmag=8.46

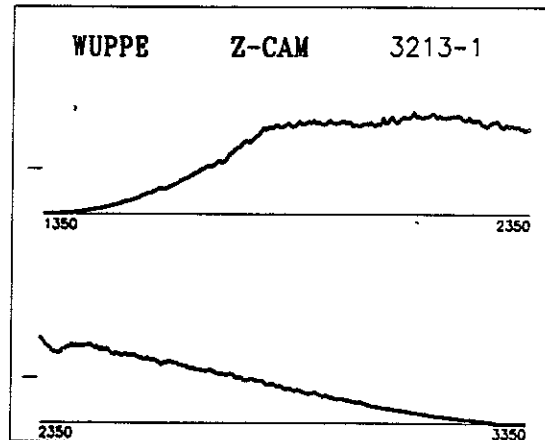
% Pol: 0.14

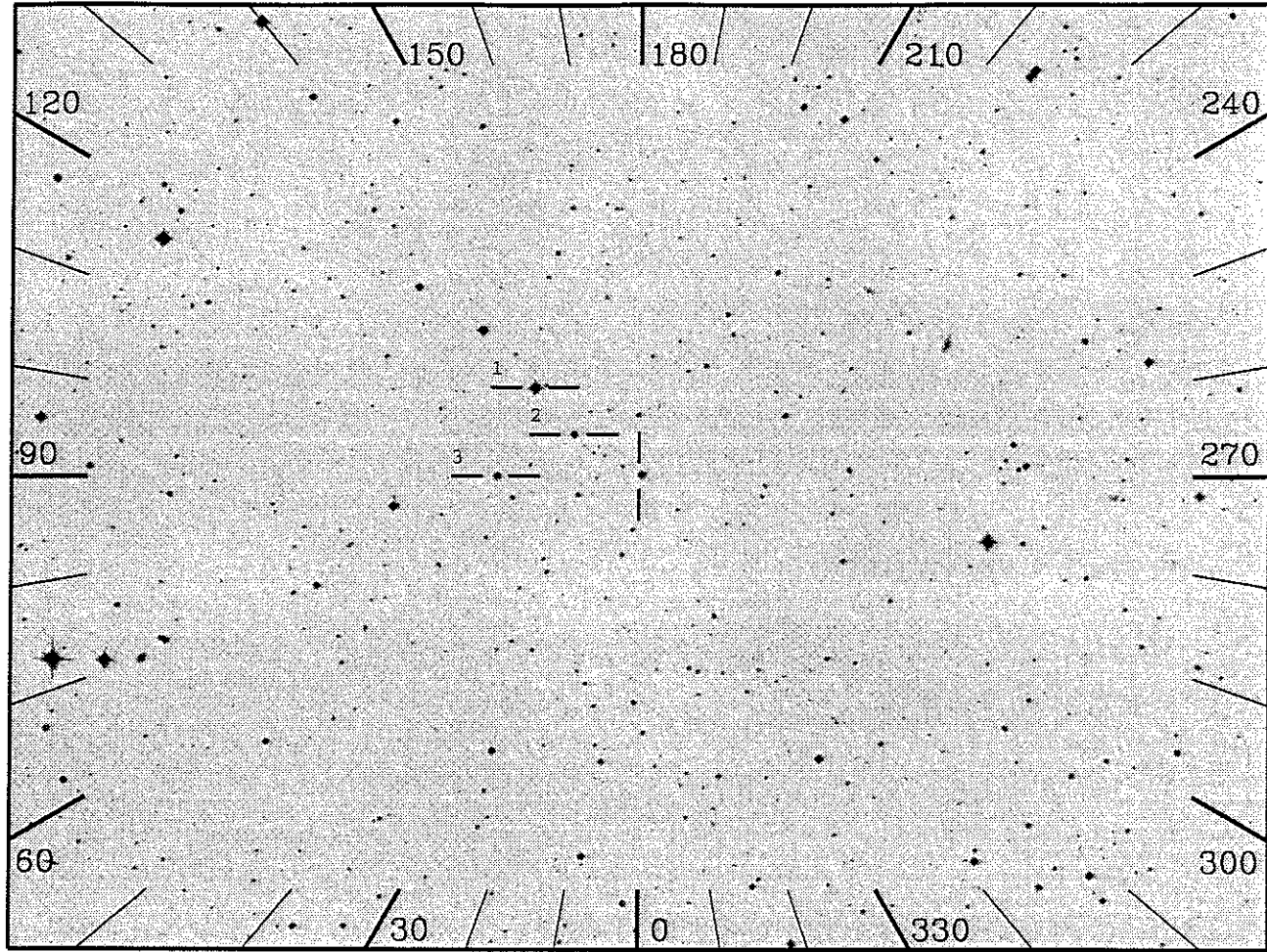
Pos Ang: 177.0

Mechanism: Electron scattering?

Comments:

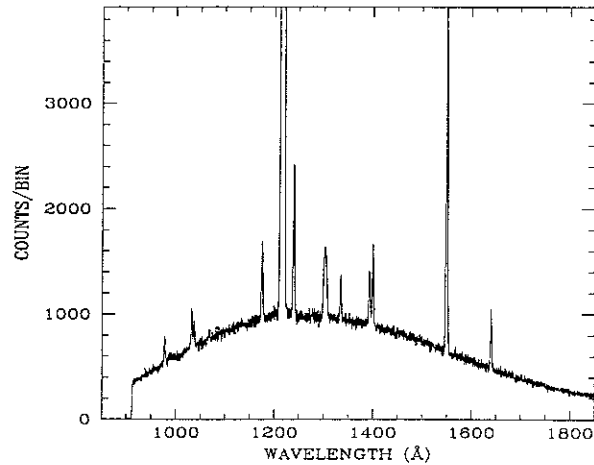
Observed during Astro-1, but short obs. Vmin=14.18, Vmax=10.5. Period from 12 to 30 days, usually 21. Variations chaotic. Sometime P-Cyg lines, sometimes absorption lines, sometimes emission lines in IUE spectrum. (Spectrum is state-dependent.)



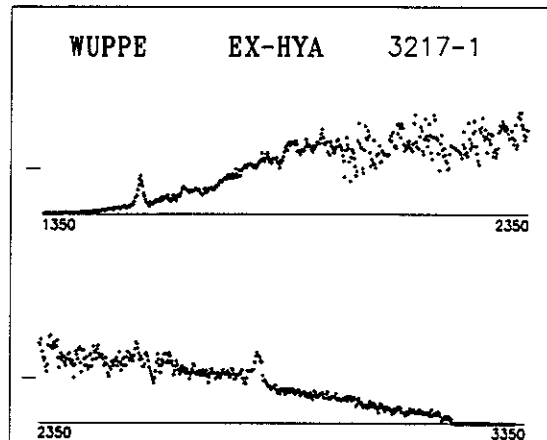


20", 1000(s), Day

OBJECT: 3217 EX Hya  
 KEYWORDS: Cataclysmic Variable, Intermediate Polar  
 COMMENTS:  
 Intermediate Polar (DQ Her Star) Optical magnitude varies from 11.5 - 14.0. This particular system may have a fairly strong disk in the FUV  
 Spectrum will provide the first sub-Lya spectrum of DQ Her system. The flux may vary as the orbital phase changes. A 2000 second observation will cover 0.33 of the orbital period.



ID: 3217-1    H=Prime    SciPgm= H09  
 Names: EX-HYA  
 Info: M5/M6    V=13.    Wupmag=10.9  
 % Pol:  
 Pos Ang:  
 Mechanism:  
 Comments:  
 Nova-like, DQ-Her type. Vmax=13.0 to 14.1 but can get to 11.7 every 574 days. May have circular pol. Emission lines in IUE spectra.

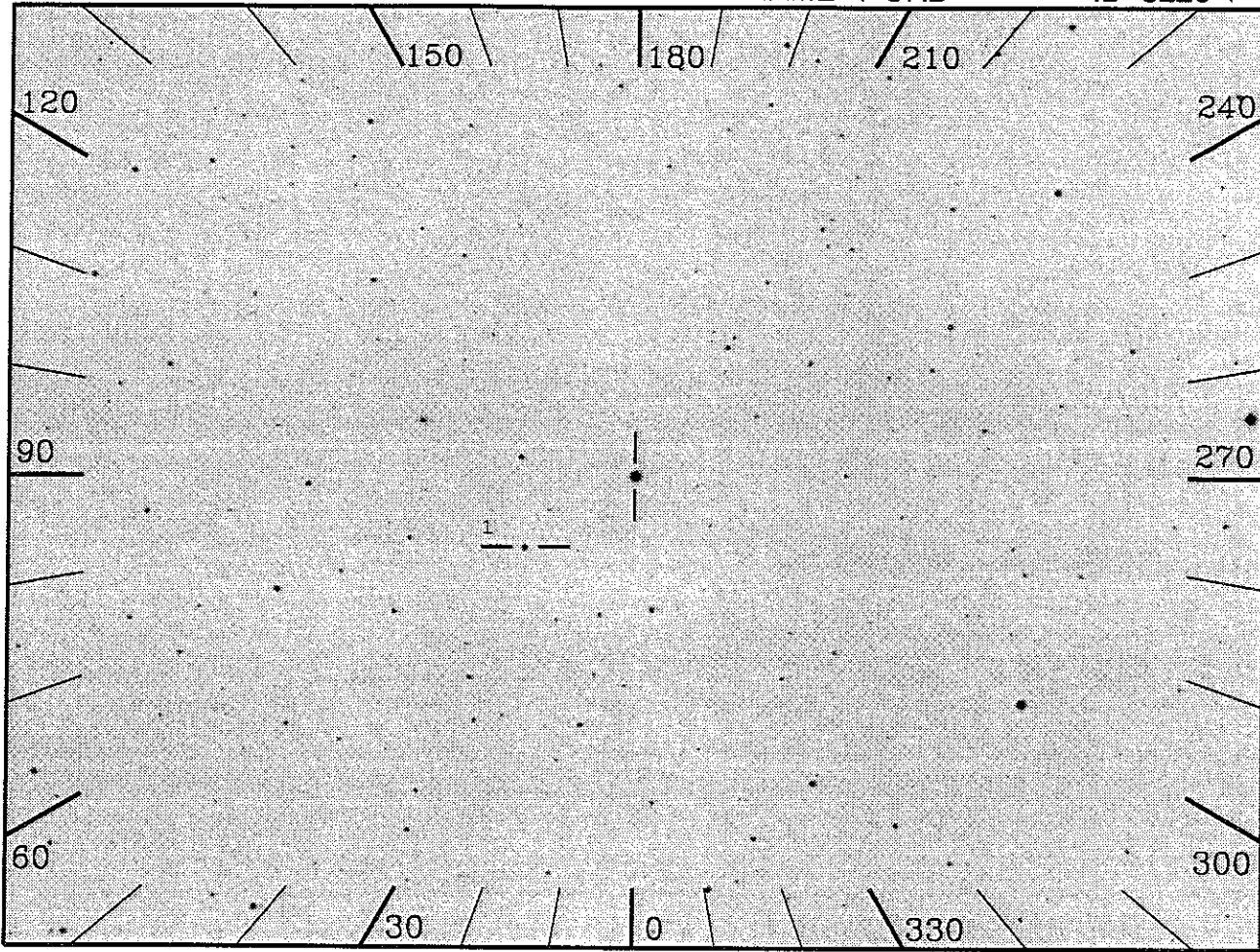


RA 239.3524

DEC 26.0609

NAME T-CRB

ID 3220-1



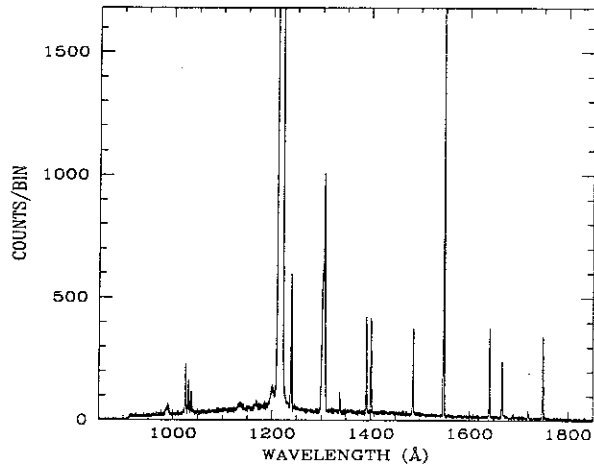
20", 2000(s), Day

OBJECT: 3220 T-CRB

KEYWORDS: Recurrent Nova, Symbiotic Star

COMMENTS:

System consists of an M4.1 III star together with a hotter component. The system is expected to be near maximum and the region should look similar to that in the target book field. Nova outbursts occur roughly every 80 years, but variations of about 1 magnitude occur every 228 days.



ID: 3220-1 H=Prime SciPgm= G11

Names: T-CRB HD143454

Info: M4.IIII V=10.0 Wupmag=12.5

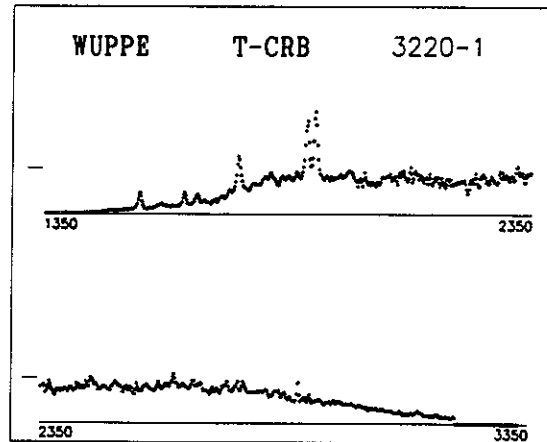
% Pol: 0

Pos Ang:

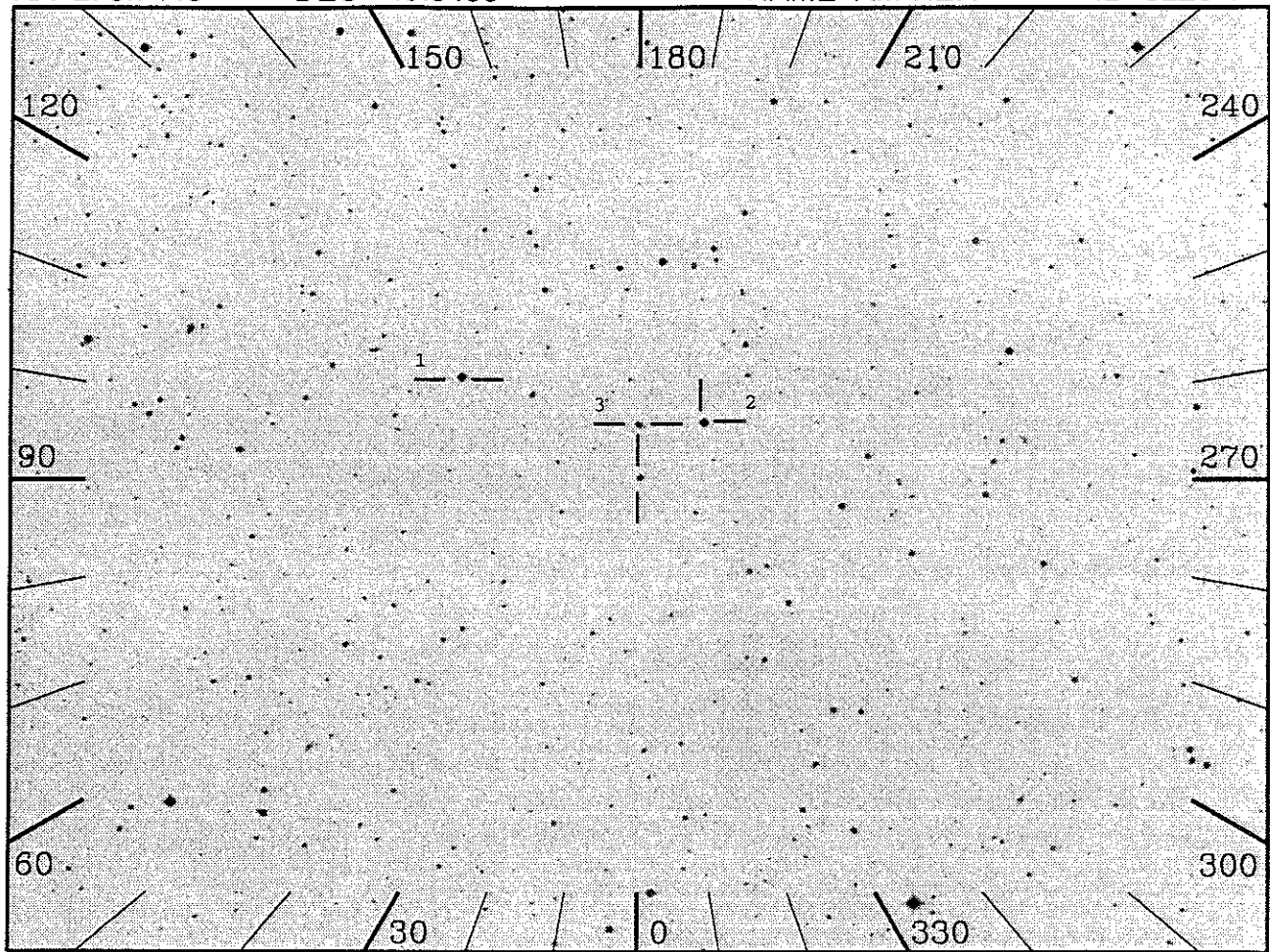
Mechanism:

Comments:

OVI, Ly-alpha and CIV pumping of UV FeII.  
Joint HUT/WUPPE guest investigator program.







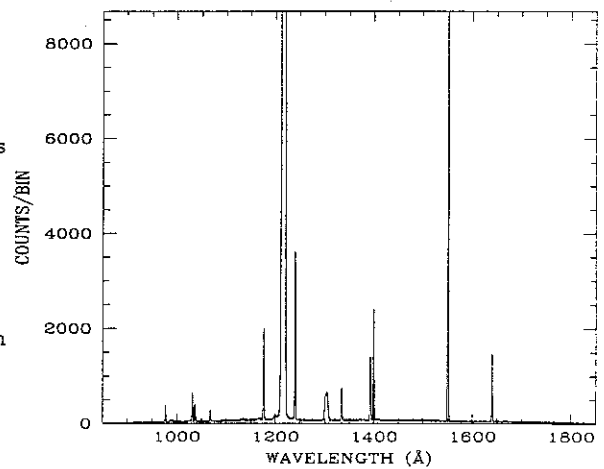
20", 1000(s), Day

OBJECT: 3223 AM Her

KEYWORDS: Cataclysmic Variable, Polar

COMMENTS:

This is the prototypical Polar, a CV with a magnetic field which disrupts the disk. Optical magnitude varies from 12.5 - 15.3 The simulation is for the low state. In this state the continuum is dominated by the WD. In the high state, the continuum is dominated by the accretion column. The purpose of the AM Her observations are to observe the system pole-on and at quadrature. This will allow us to explore the accretion geometry, including the line emitting regions, and the heating of the WD by the accretion column.



ID: 3223-1 H=Prime SciPgm= H09

Names: AM-HER

Info: D; AM-Her type V=11.9 Wupmag=10.2

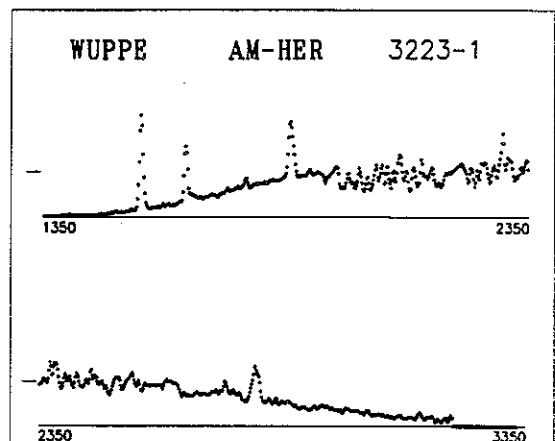
% Pol: 3.00

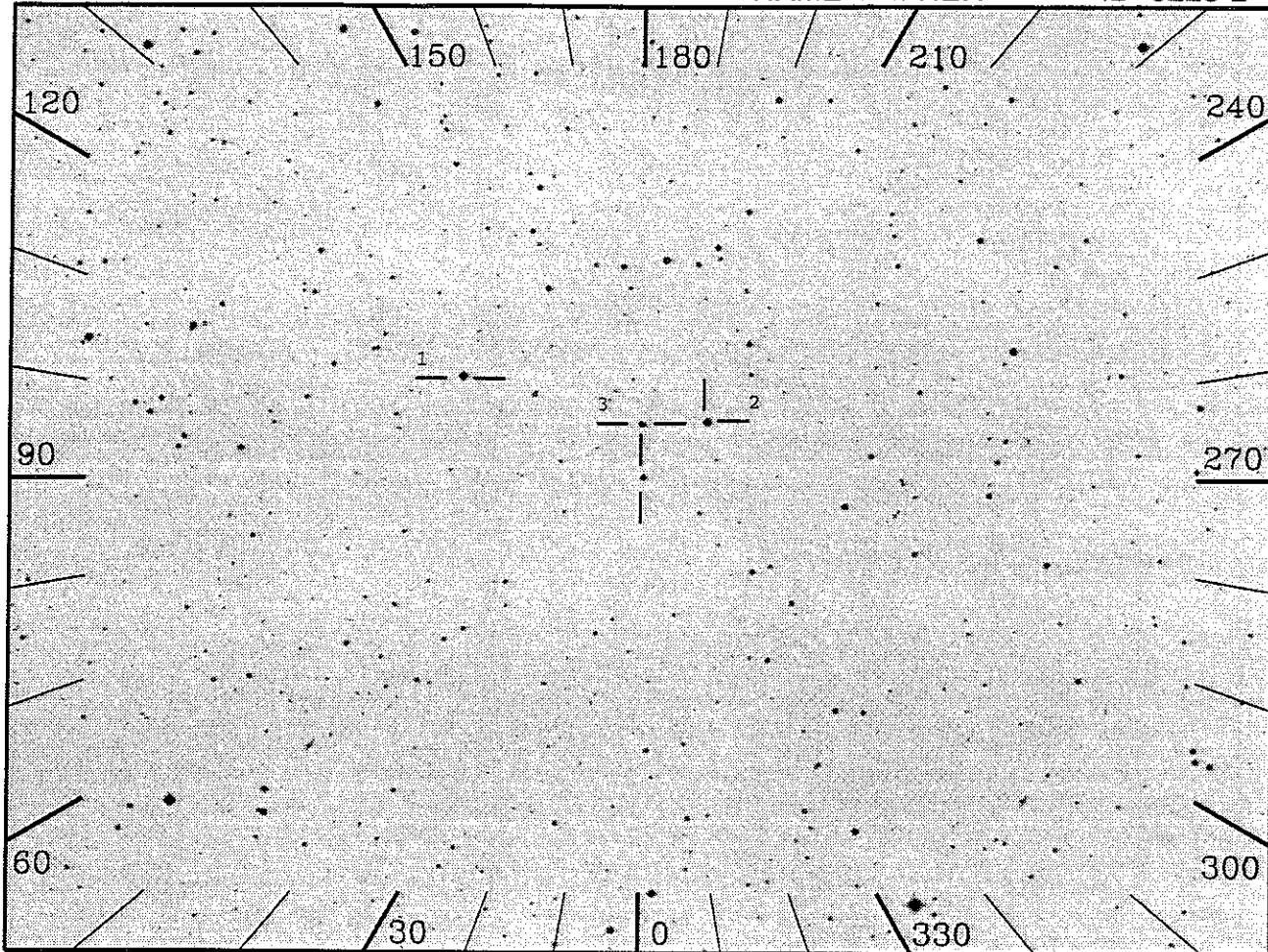
Pos Ang: 0.

Mechanism: Accretion in magnetic field

Comments:

Lots of emission lines in IUE spectrum. Will show circ and linear pol. Can get as faint as  $V_{min}=15.0$ , but usually  $V=12.0$  to  $13.5$ .  
Orbital period=0.13 days.





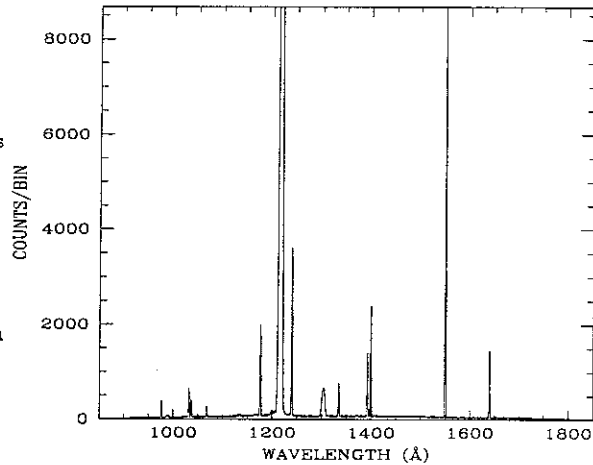
20", 1000(s), Day

OBJECT: 3223 AM Her

KEYWORDS: Cataclysmic Variable, Polar

COMMENTS:

This is the prototypical Polar, a CV with a magnetic field which disrupts the disk. Optical magnitude varies from 12.5 - 15.3 The simulation is for the low state. In this state the continuum is dominated by the WD. In the high state, the continuum is dominated by the accretion column. The purpose of the AM Her observations are to observe the system pole-on and at quadrature. This will allow us to explore the accretion geometry, including the line emitting regions, and the heating of the WD by the accretion column.



ID: 3223-2 H=Prime SciPgm= H09

Names: AM-HER

Info: D; AM-Her type V=11.9 Wupmag=10.2

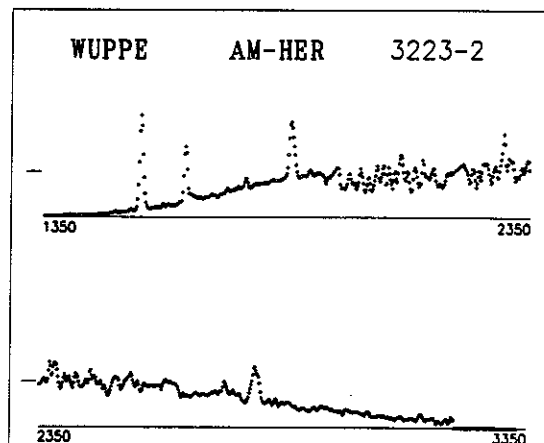
% Pol: 3.00

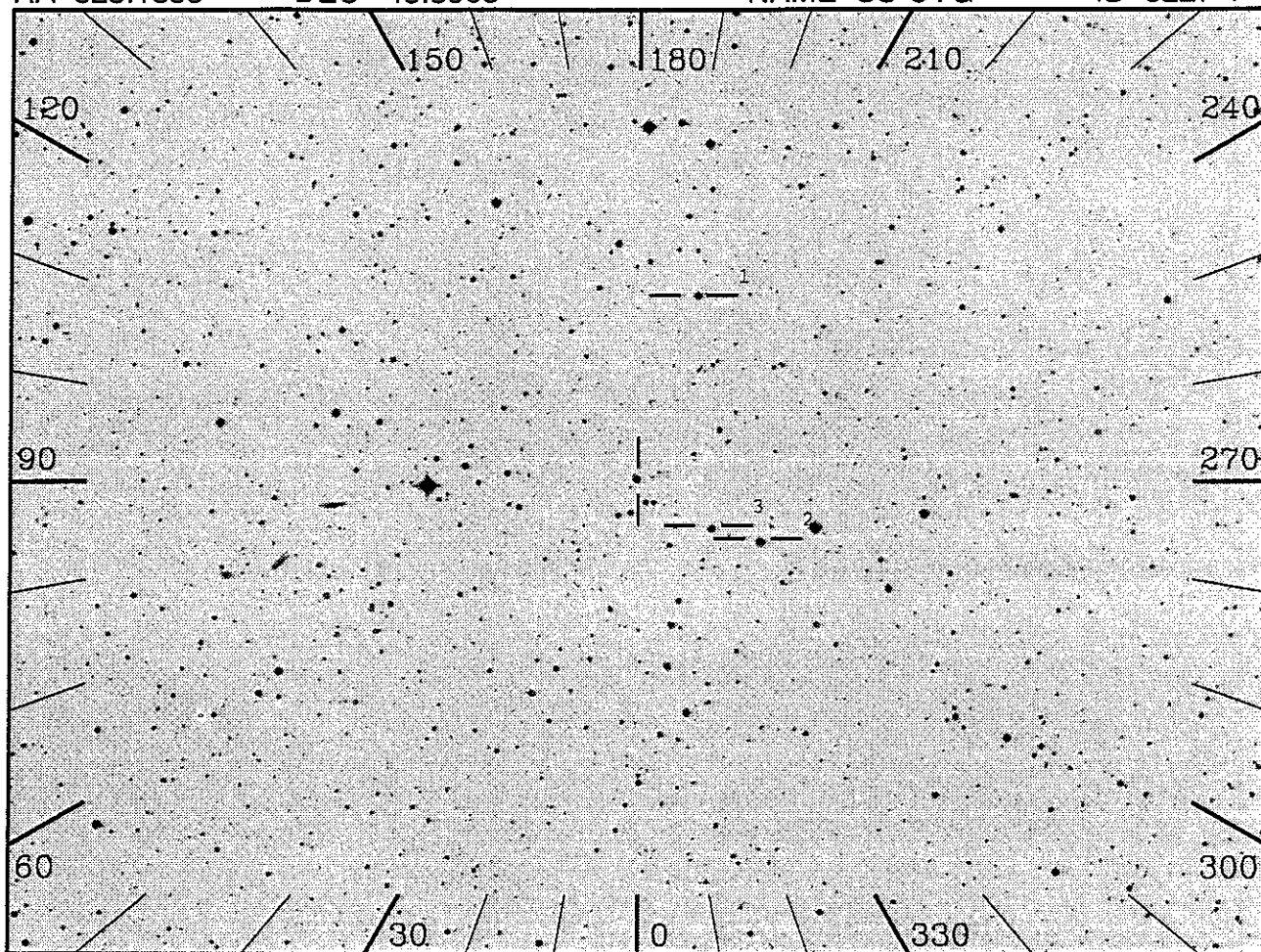
Pos Ang: 0.

Mechanism: Accretion in magnetic field

Comments:

Lots of emission lines in IUE spectrum. Will show circ and linear pol. Can get as faint as  $V_{min}=15.0$ , but usually  $V=12.0$  to  $13.5$ .  
Orbital period=0.13 days.





20", 1000(s), Night

OBJECT: 3227 SS-CYG

KEYWORDS: Dwarf Nova, CV

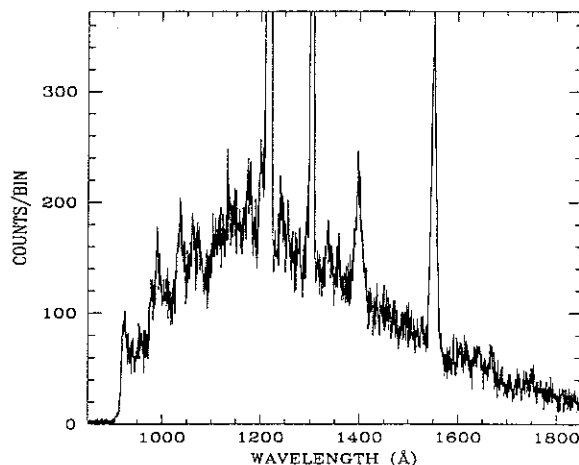
COMMENTS:

Magnitude variation can be as large as V=12.2 to 8.2.  
(Photo and simulation show the low state.)

Object will probably be observed in low state.

Alternate HUT sequences are available depending on  
brightness of object.

Scientific objective of low-state observation is to  
obtain high quality spectrum to determine where  
FUV emission arises -- WD, disk, or boundary layer.  
Scientific objective of hi-state observation is to  
obtain high quality spectrum to carry out detailed  
modeling of the accretion disk.



ID: 3227-1 H=Prime SciPgm= H09

Names: SS-CYG

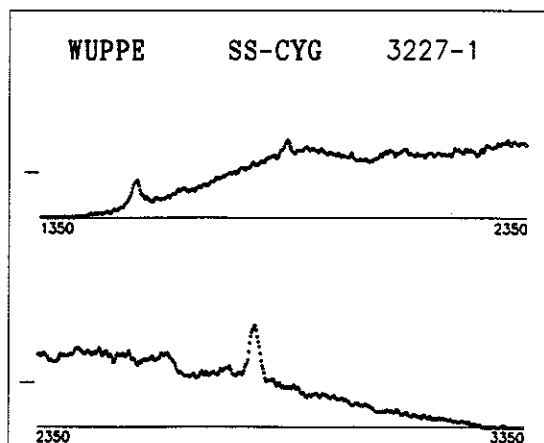
Info: DSB UG V= 8.2 Wupmag=10.0

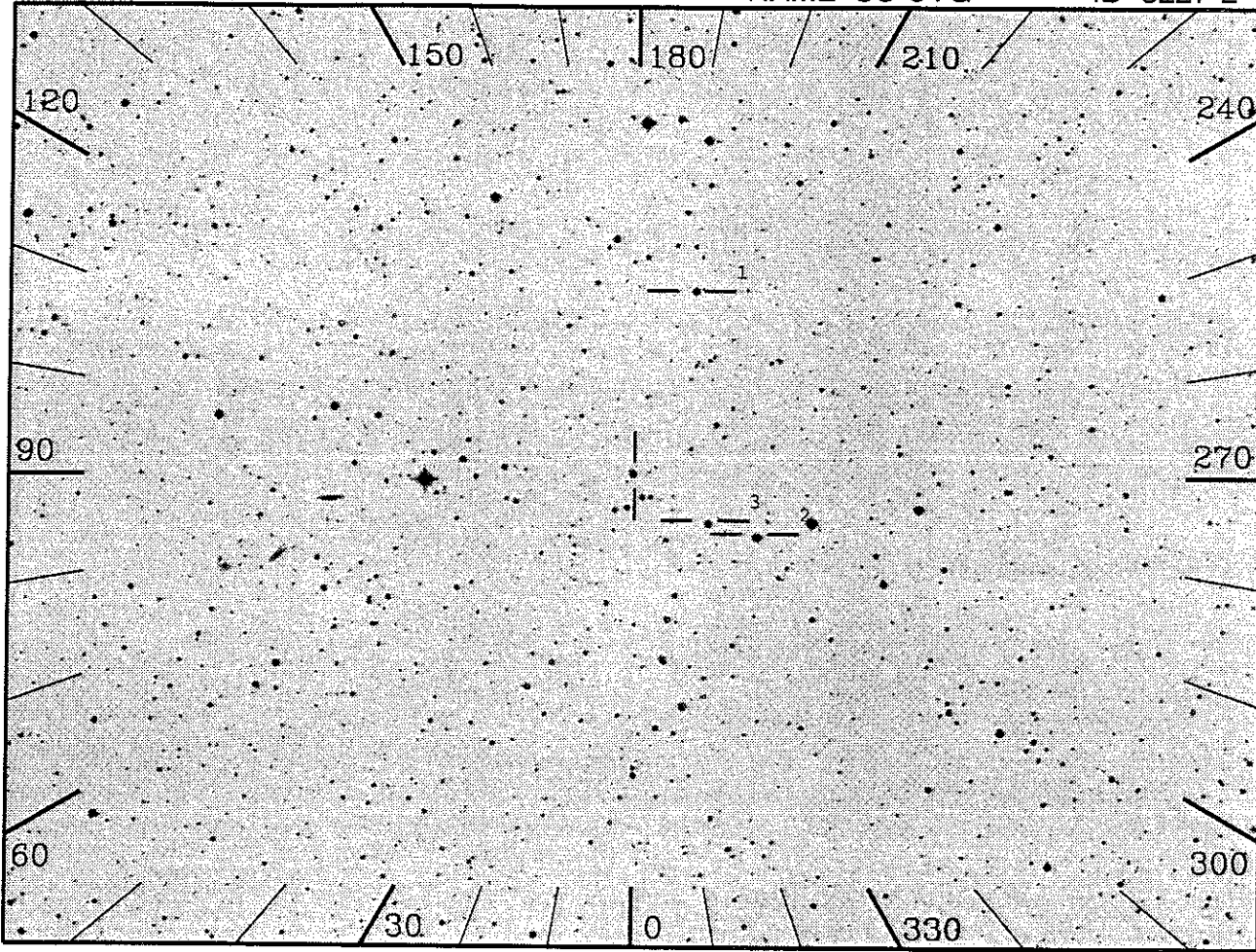
% Pol: 0.4 Pos Ang: 58.

Mechanism: Accretion in disk

Comments:

Observed during Astro-1, but obs too short.  
See emission lines in IUE spectrum (lines  
are phase-dependent). May be in outburst.  
Models predict low UV pol since disk is  
seen at low inclination, but observed  
optical pol is higher than predicted.  
The rise to max in UV follows the rise in  
the visual.





20", 1000(s), Night

OBJECT: 3227 SS-CYG

KEYWORDS: Dwarf Nova, CV

COMMENTS:

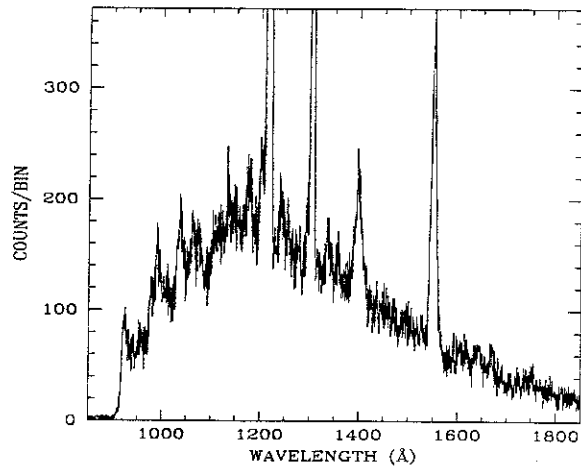
Magnitude variation can be as large as  $V=12.2$  to  $8.2$ .  
(Photo and simulation show the low state.)

Object will probably be observed in low state.

Alternate HUT sequences are available depending on  
brightness of object.

Scientific objective of low-state observation is to  
obtain high quality spectrum to determine where  
FUV emission arises -- WD, disk, or boundary layer.

Scientific objective of hi-state observation is to  
obtain high quality spectrum to carry out detailed  
modeling of the accretion disk.



ID: 3227-2 W=Prime SciPgm= W32

Names: SS-CYG

Info: DSB UG V= 8.2 Wupmag=10.0

% Pol: 0.4 Pos Ang: 58.

Mechanism: Accretion in disk

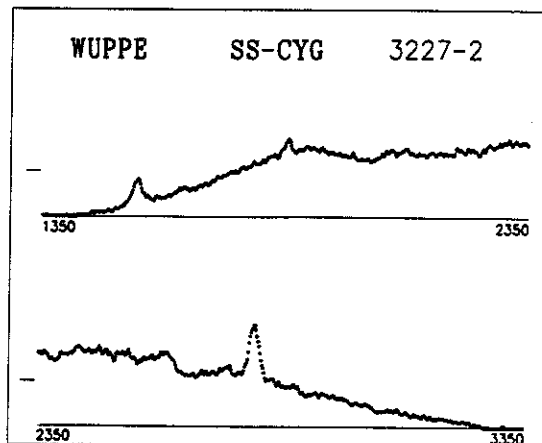
Comments:

Observed during Astro-1, but obs too short.

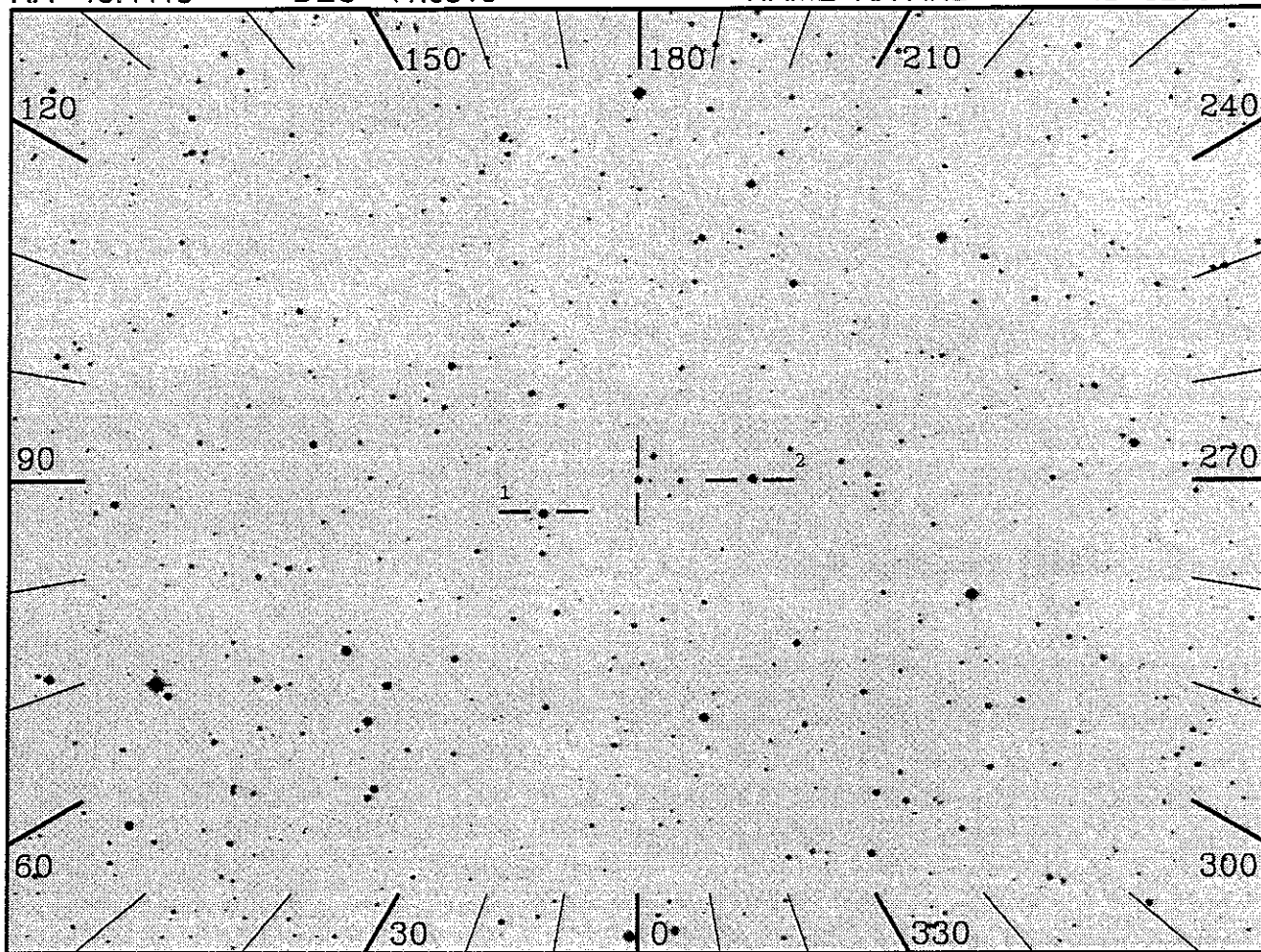
See emission lines in IUE spectrum (lines  
are phase-dependent). May be in outburst.

Models predict low UV pol since disk is  
seen at low inclination, but observed  
optical pol is higher than predicted.

The rise to max in UV follows the rise in  
the visual.







20", 1000(s), Day

OBJECT: 3230 RX-AND

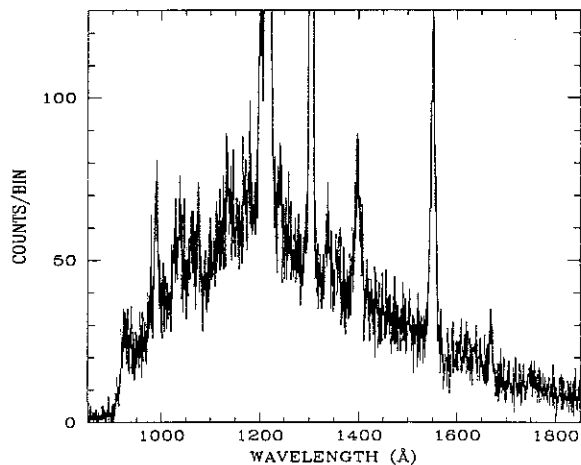
KEYWORDS: Dwarf Nova, CV

COMMENTS:

Dwarf Nova which undergoes irregularly spaced outbursts. Magnitude varies between  $V=10.9$  to  $12.6$  out of eclipse. There are eclipses of the disk in the visible but not in the UV. In optical eclipse the magnitude can be as faint as  $14.9$ . The purpose of the observation is to obtain a good low state spectrum to determine whether WD or disk dominates.

(Photo shows the low state.)

(Spectrum is for Low State)



ID: 3230-2 H=Prime SciPgm= H09

Names: RX-AND

Info: ?p V=10.9 Wupmag=9.59

% Pol: 0.59

Pos Ang: 119.

Mechanism: Electron scattering

Comments:

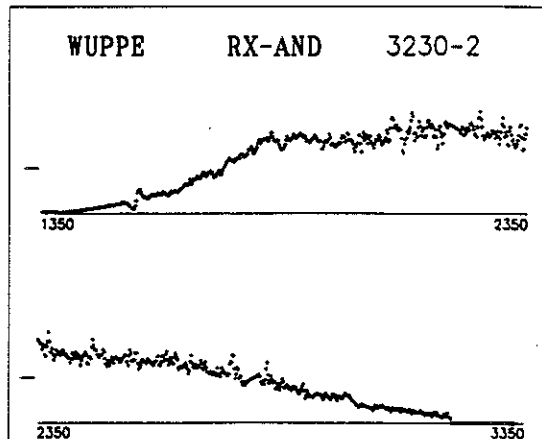
Dwarf nova, Z-Cam type.  $V_{max}=12.6$ ,  $V_{min}=14.4$ .

Super outburst:  $V=10.9 - 11.8$ . Outburst

period = 5 -23 days. Orbital Period =

0.2115 days. Inclination angle=51 degrees.

P-Cyg profiles in IUE spectra.

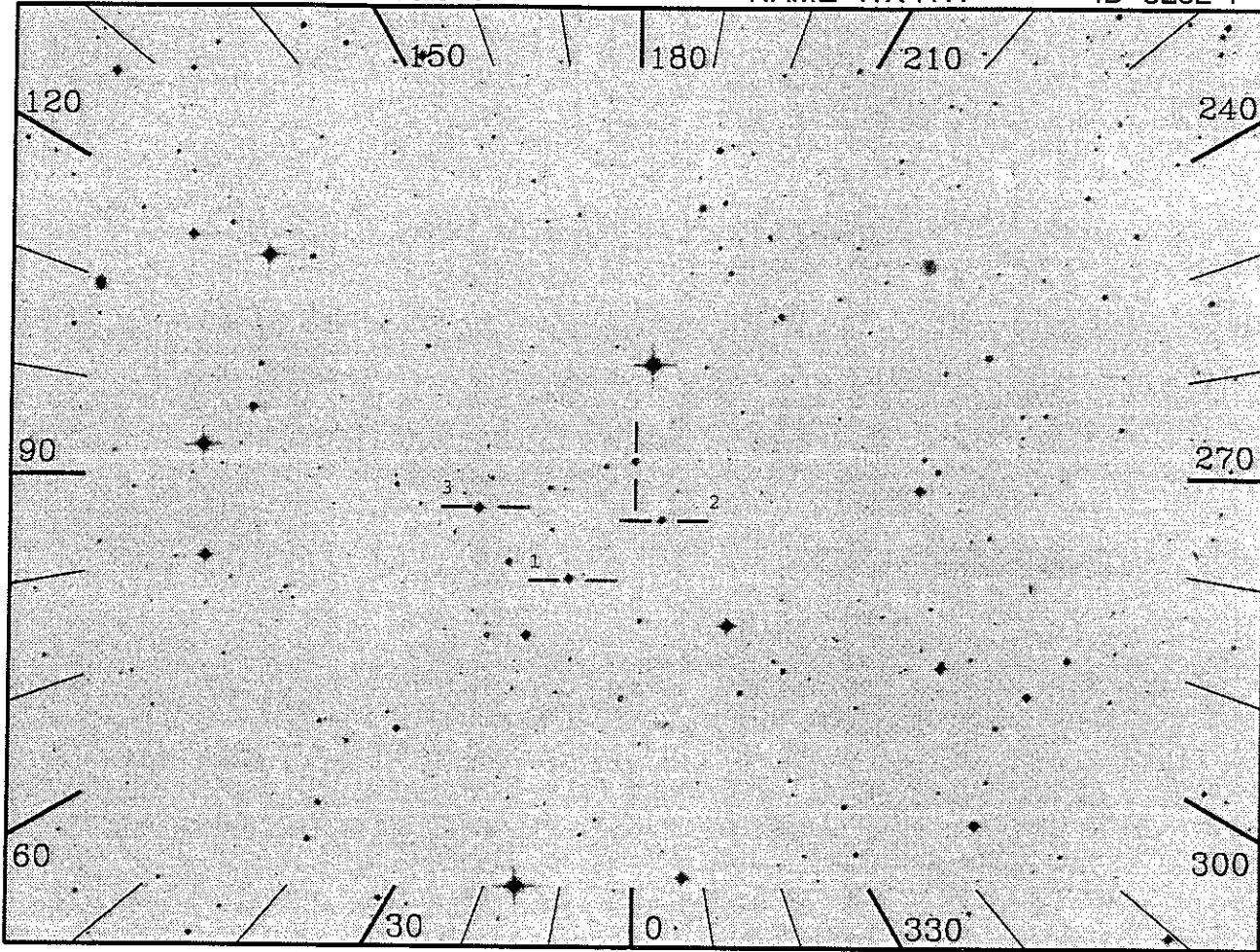


RA 32.1223

DEC -63.5467

NAME WX-HYI

ID 3232-1



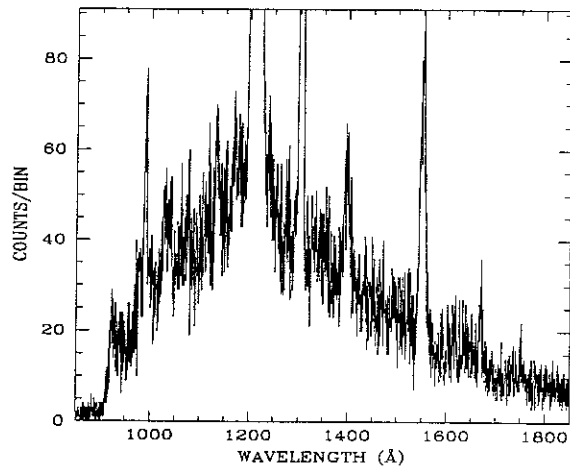
20", 1000(s), Day

OBJECT: 3232 WX-HYI

KEYWORDS: Dwarf Nova, CV, outburst monitor

COMMENTS:

Dwarf Nova which undergoes irregularly spaced outbursts roughly every 10 days. Magnitude varies between V=14.8 and 11, but the count rates are sufficiently low that alternative sequences are not needed. (Photo shows the low state.) If object goes into optical outburst it will be monitored at regular intervals.



ID: 3232-1 H=Prime SciPgm= H09

Names: WX-HYI

Info: DN;SU-UMa type V=13. Wupmag=11.2

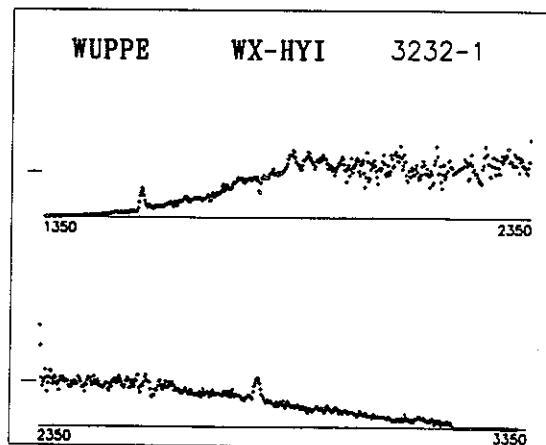
% Pol:

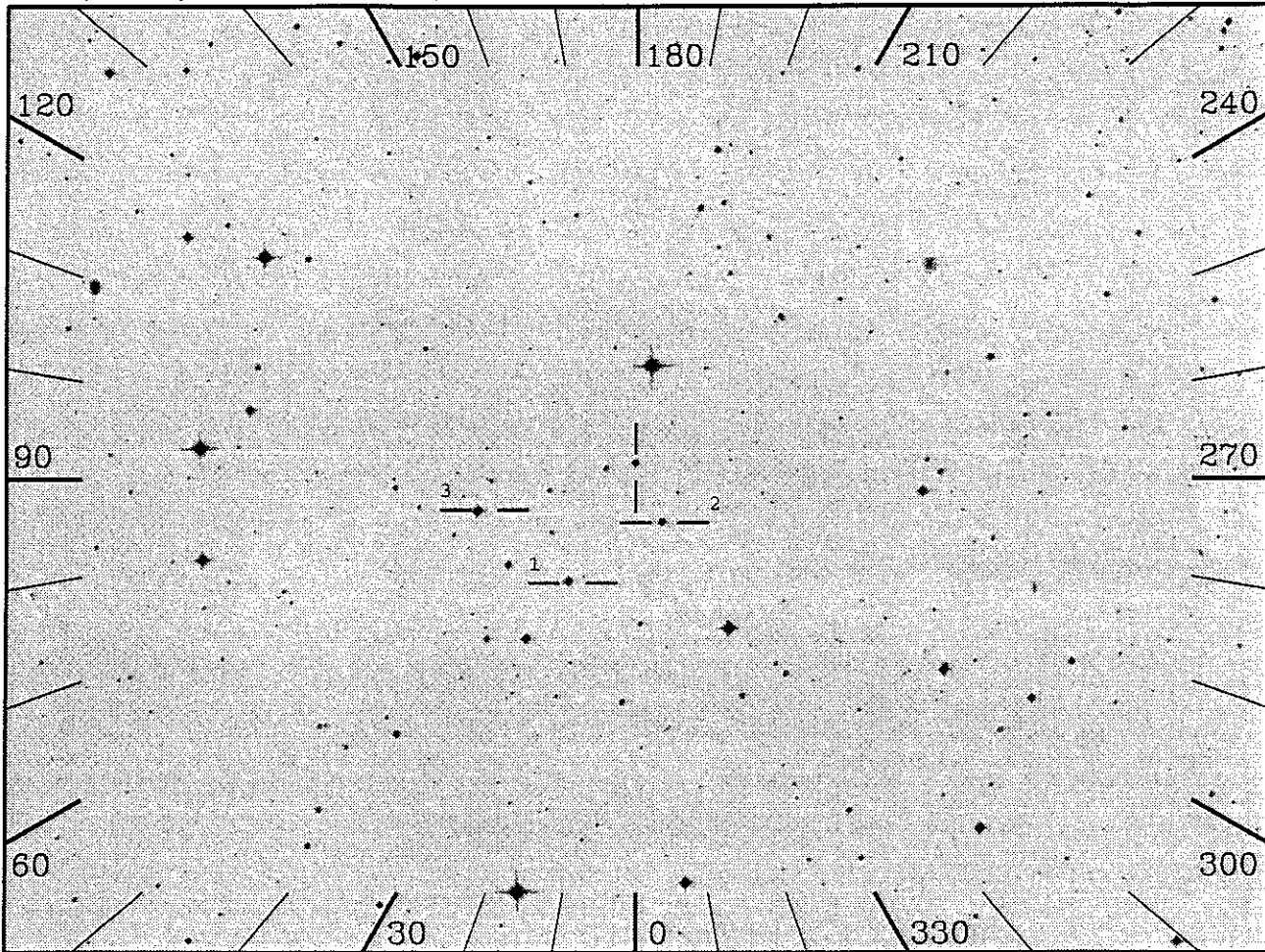
Pos Ang:

Mechanism:

Comments:

IUE spectrum variable (dependent on state); sometimes absorption lines, sometimes emission lines, sometimes P-Cyg profiles. Vmin=14.8, Vmax=12.5 to 11.4. Outburst periods=14 days and 140 days. Models predict pol of a few % in UV.





20", 1000(s), Day

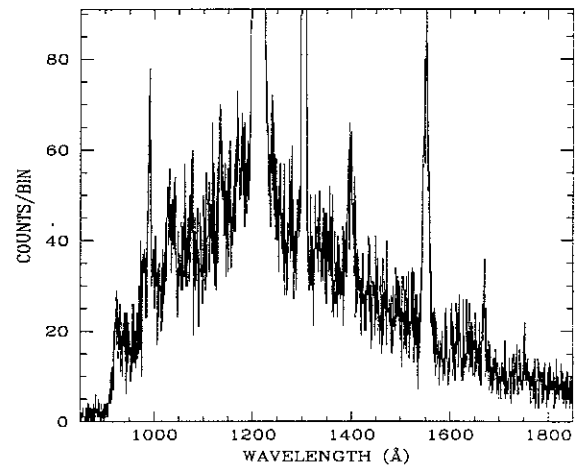
OBJECT: 3232 WX-HYI

KEYWORDS: Dwarf Nova, CV, outburst monitor

COMMENTS:

Dwarf Nova which undergoes irregularly spaced outbursts roughly every 10 days. Magnitude varies between V=14.8 and 11, but the count rates are sufficiently low that alternative sequences are not needed. (Photo shows the low state.)

If object goes into optical outburst it will be monitored at regular intervals.



ID: 3232-2 H=Prime SciPgm= H09

Names: WX-HYI

Info: DN;SU-UMA type V=13. Wupmag=11.2

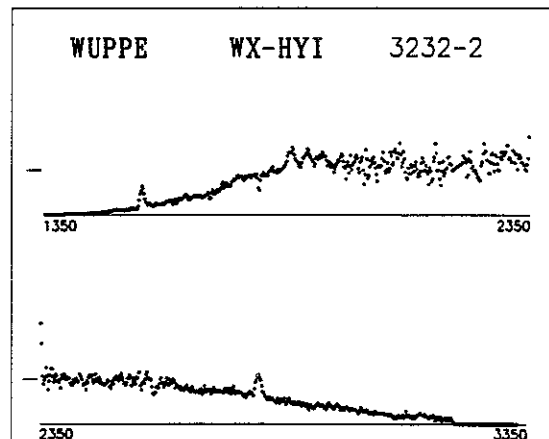
% Pol:

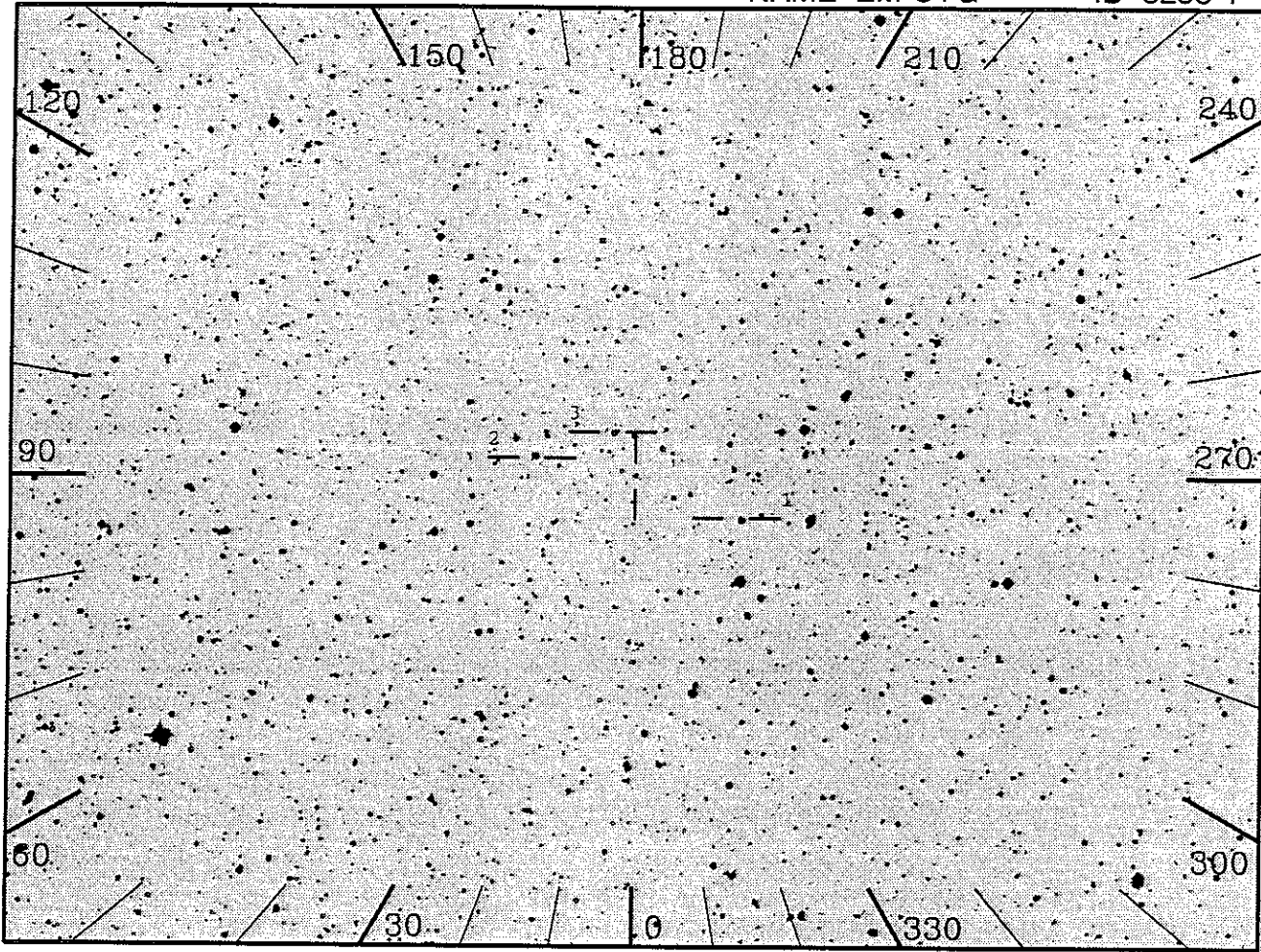
Pos Ang:

Mechanism:

Comments:

IUE spectrum variable (dependent on state); sometimes absorption lines, sometimes emission lines, sometimes P-Cyg profiles. Vmin=14.8, Vmax=12.5 to 11.4. Outburst periods=14 days and 140 days. Models predict pol of a few % in UV.





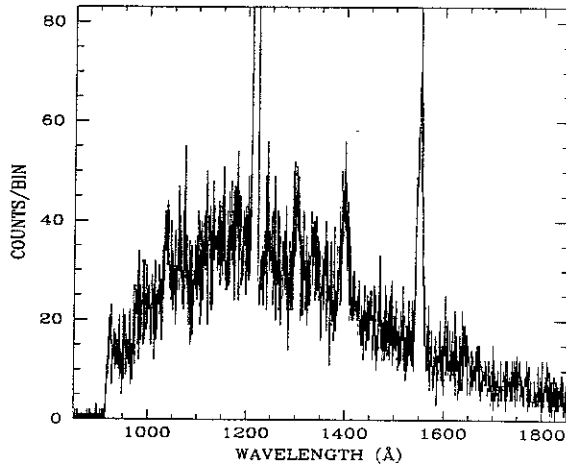
20", 1000(s), Night

OBJECT: 3253 EM-CYG

KEYWORDS: Dwarf Nova, CV

COMMENTS:

Dwarf Nova. Magnitude variation is relatively small V=13.6-14.8. Object being observed to acquire good low state spectrum to separate sources of FUV emission, WD, disk, or boundary layer.



ID: 3253-1 H=Prime SciPgm= H09

Names: EM-CYG

Info: DN;Z-Cam type V=14.4 Wupmag=10.5

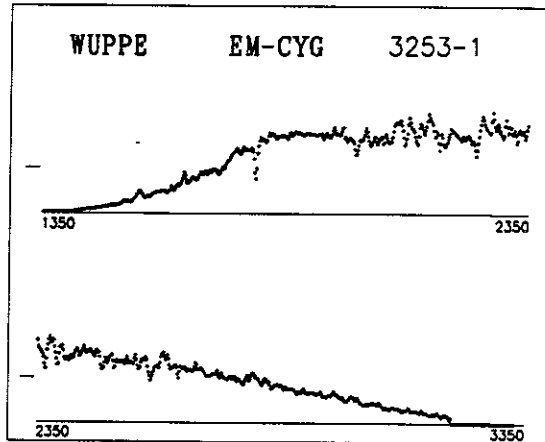
% Pol:

Pos Ang:

Mechanism:

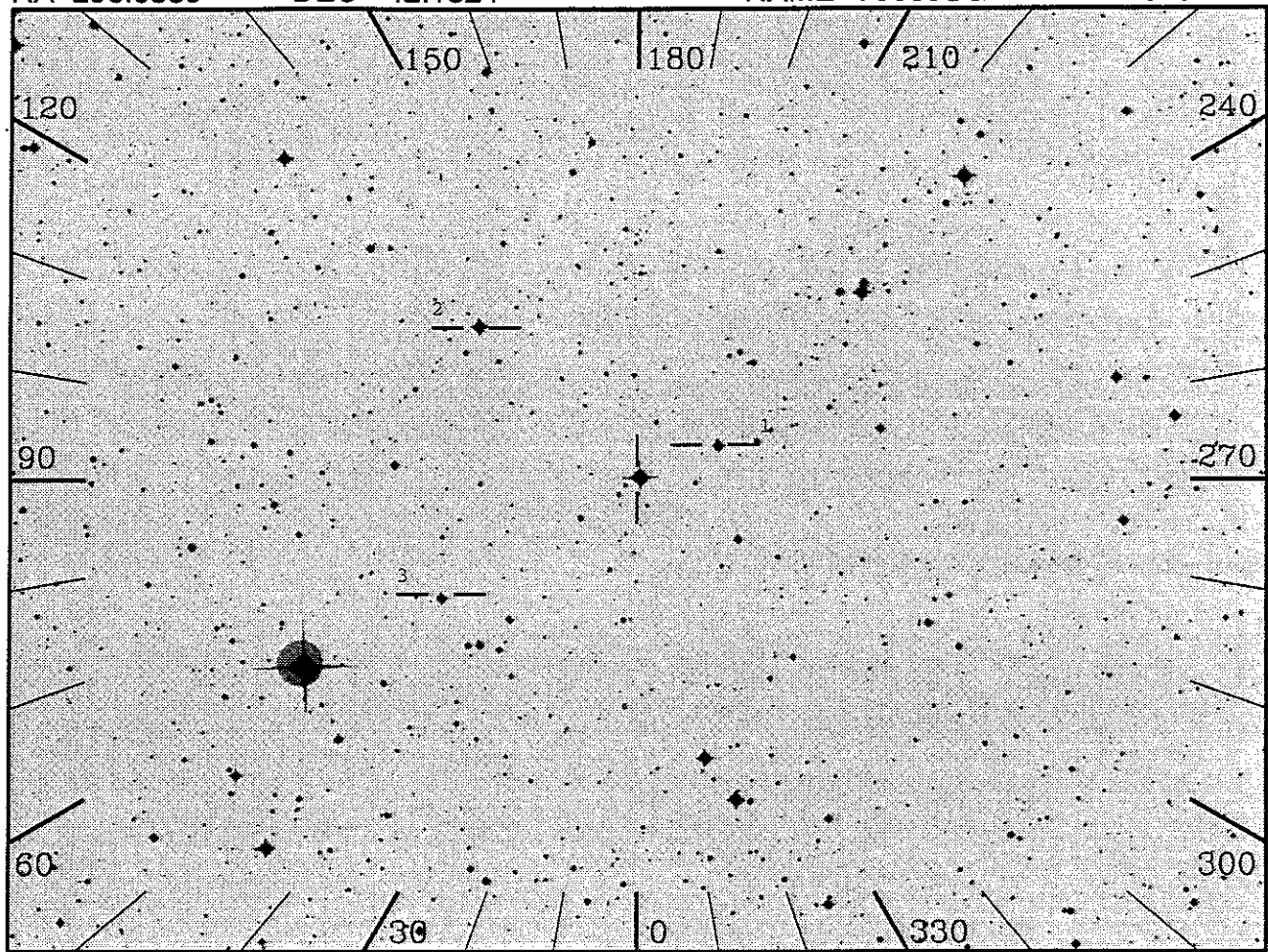
Comments:

Variable strength emission lines in IUE spectra. Vmin=13.3 to 14.4, Vmax=12.5 to 12.9. Outburst period varies from 13 to 46 days. Expect low pol.



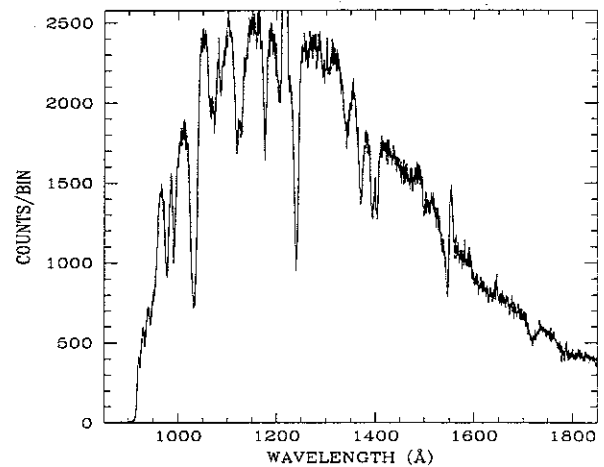
TGT/ASTRO2/FIN A



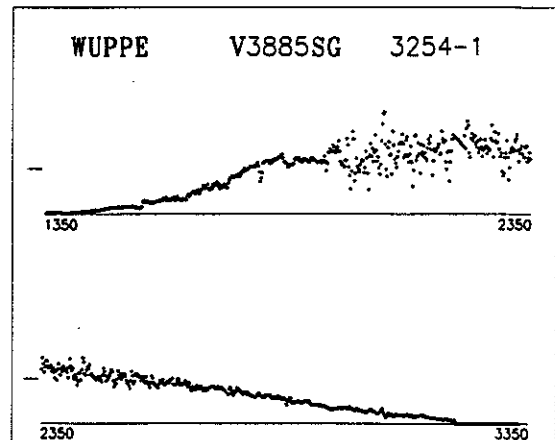


20", 1000(s), Day

OBJECT: 3254 V3885SG  
 KEYWORDS: CV, novalike variable  
 COMMENTS:  
 Very bright novalike variable, with predicted flux near bright limit of HUT full aperture observations. The purpose of the observation is to obtain a high S/N spectrum to characterize the inner accretion disk and wind of the system.



ID: 3254-1    W=Prime    SciPgm= W32  
 Names: V3885SG  
 Info: DB:p    V= 9.6    Wupmag=7.71  
 % Pol:  
 Pos Ang:  
 Mechanism: Electron scattering  
 Comments:  
 Nova-like, UX-UMa type.  $V_{max}=9.6$ ,  
 $V_{min}=10.3$ . Orbital Period=0.206 days.  
 Inclination angle < 50 degrees. P-Cyg profiles in IUE spectra.

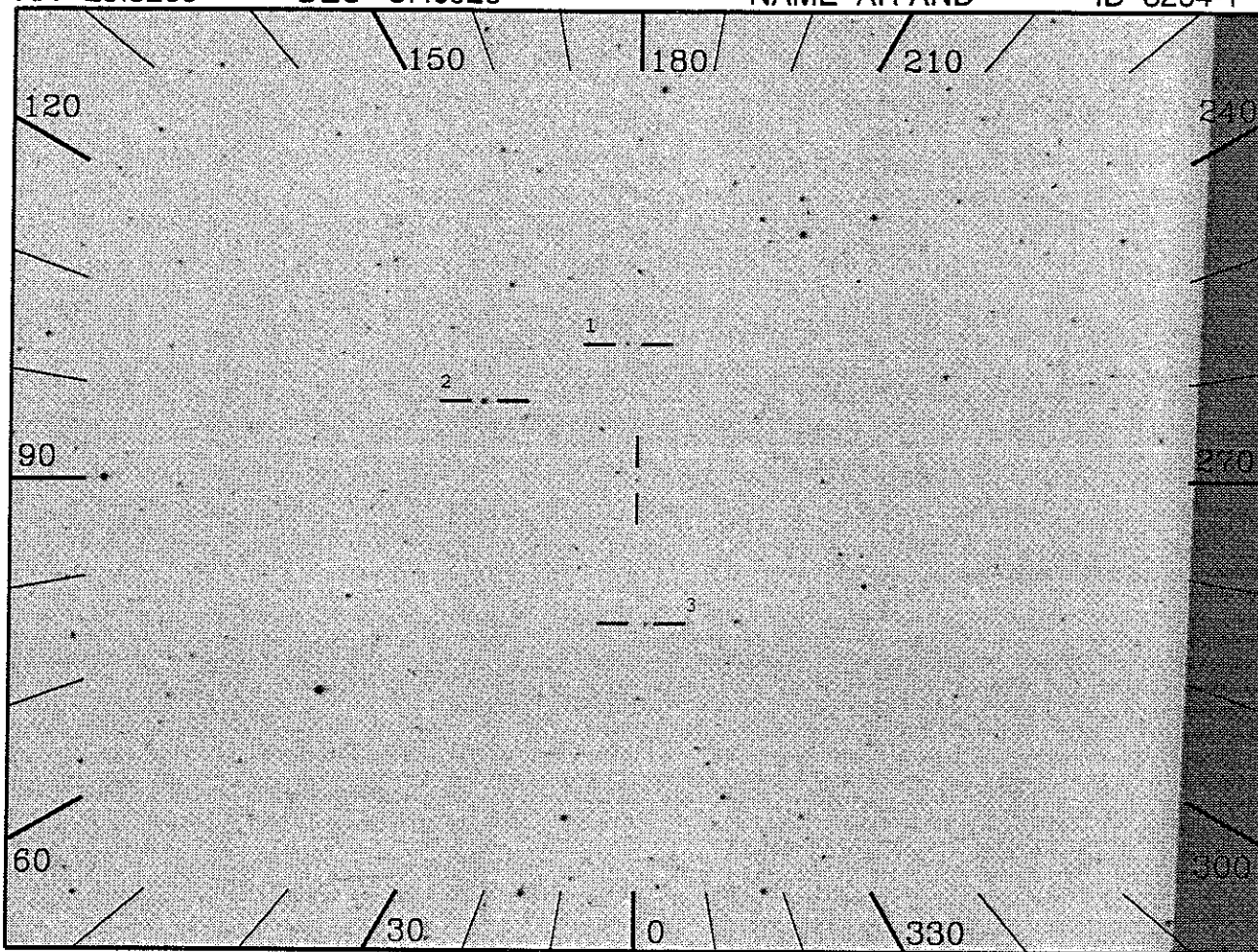


RA 25.5285

DEC 37.6926

NAME AR-AND

ID 3264-1



20", 1000(s), Day

OBJECT: 3264 AR-AND

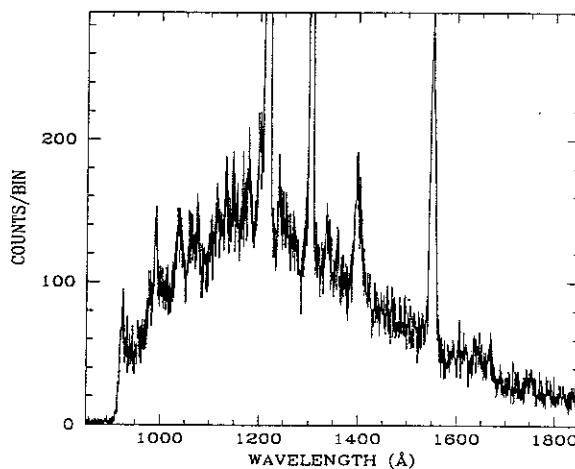
KEYWORDS: Dwarf Nova, CV

COMMENTS:

Dwarf Nova which undergoes irregularly spaced outbursts. Magnitude varies between V=11.0 to 16.9. The purpose of the observations is to obtain a good low state spectrum to determine whether WD or disk dominates.

(Photo shows the low state.)

(Spectrum is for Low State)



ID: 3264-1 H=Prime SciPgm= H09

Names: AR-AND

Info: ?p V=17.6 Wupmag=9.97

% Pol:

Pos Ang:

Mechanism: Electron scattering

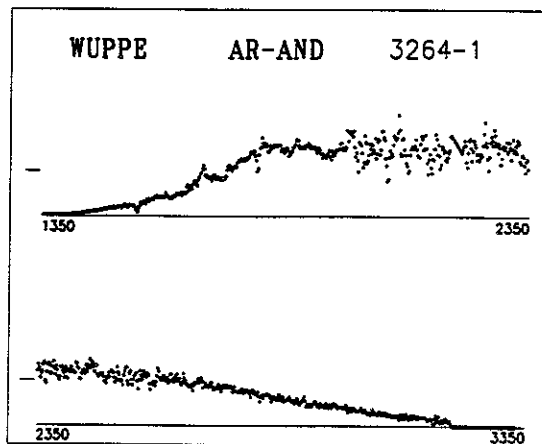
Comments:

Dwarf nova, U-Gem type. Vmax=16.9,

normally up to 11.0, Vmin=17.6.

Outburst period=25 days.

Orbital period=0.0938 days.



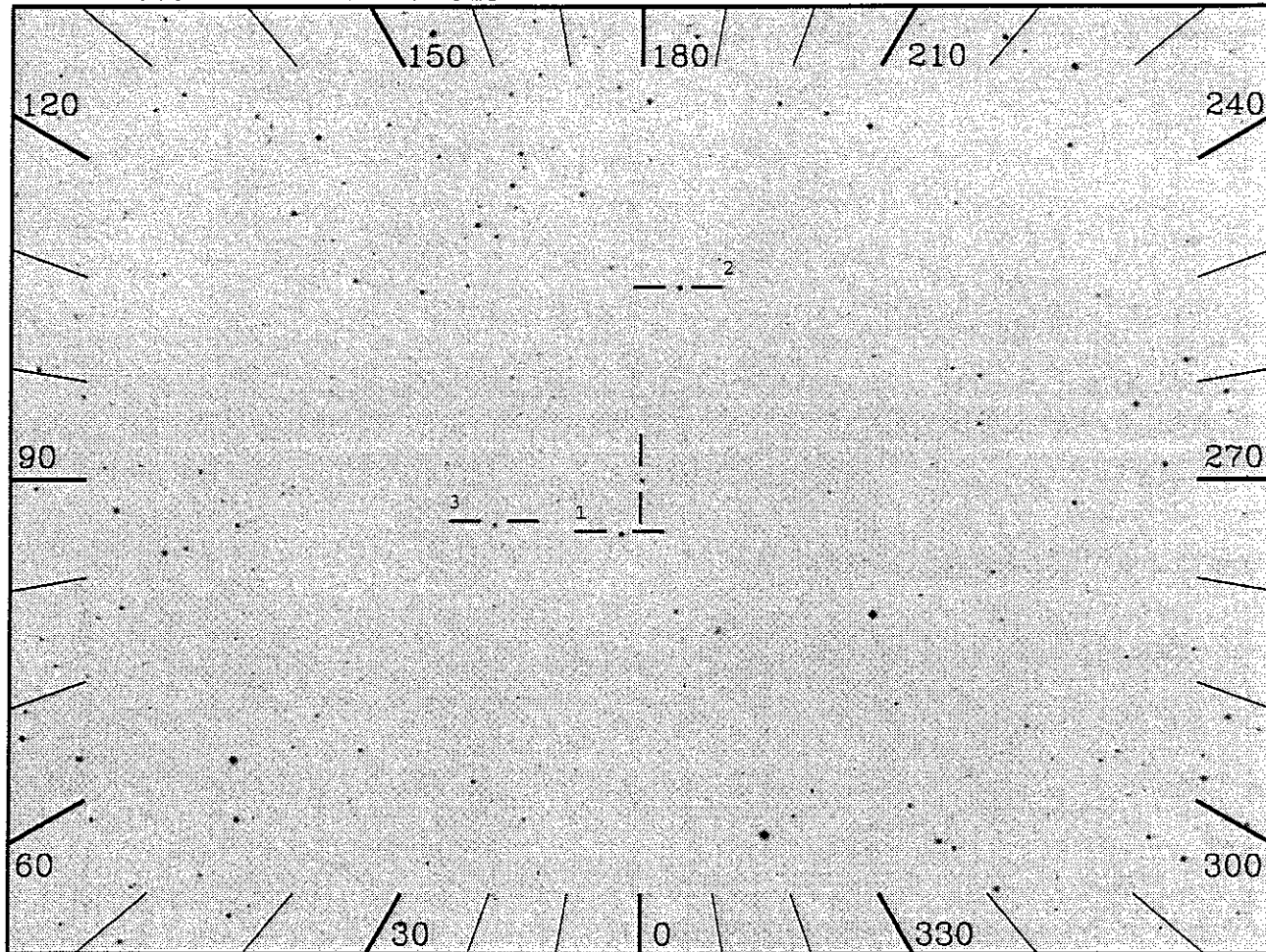
TGT/ASTRO2/FIN A

RA 121.9691

DEC 28.2923

NAME YZ-CNC

ID 3266-1



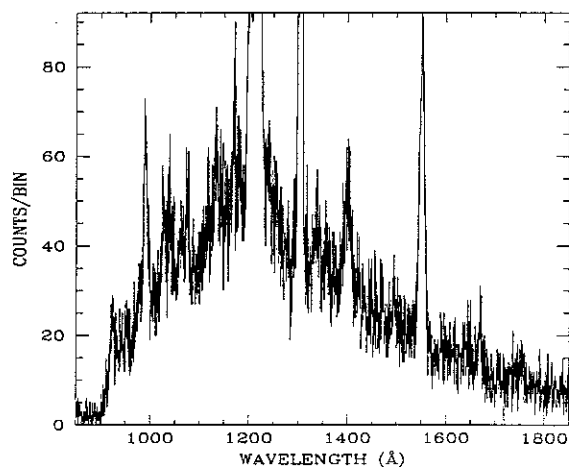
20", 1000(s), Night

OBJECT: 3266 YZ-CNC

KEYWORDS: Dwarf Nova, CV, outburst monitor

COMMENTS:

Dwarf Nova which undergoes irregularly spaced outbursts roughly every 10-20 days. Magnitude varies between V=11.9 to 15.5. (Photo shows the low state.) Object may be observed at regular intervals to monitor for outburst and track evolution of spectrum, if there is evidence of an outburst. (Spectrum is for Low State)



ID: 3266-1 H=Prime SciPgm= H09

Names: YZ-CNC

Info: DN;SU-UMa type V=11.9 Wupmag=10.4

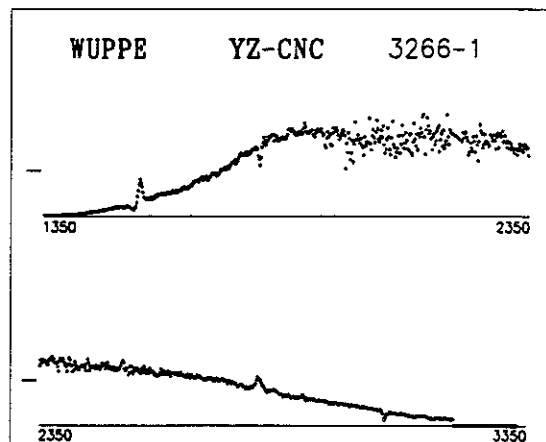
% Pol:

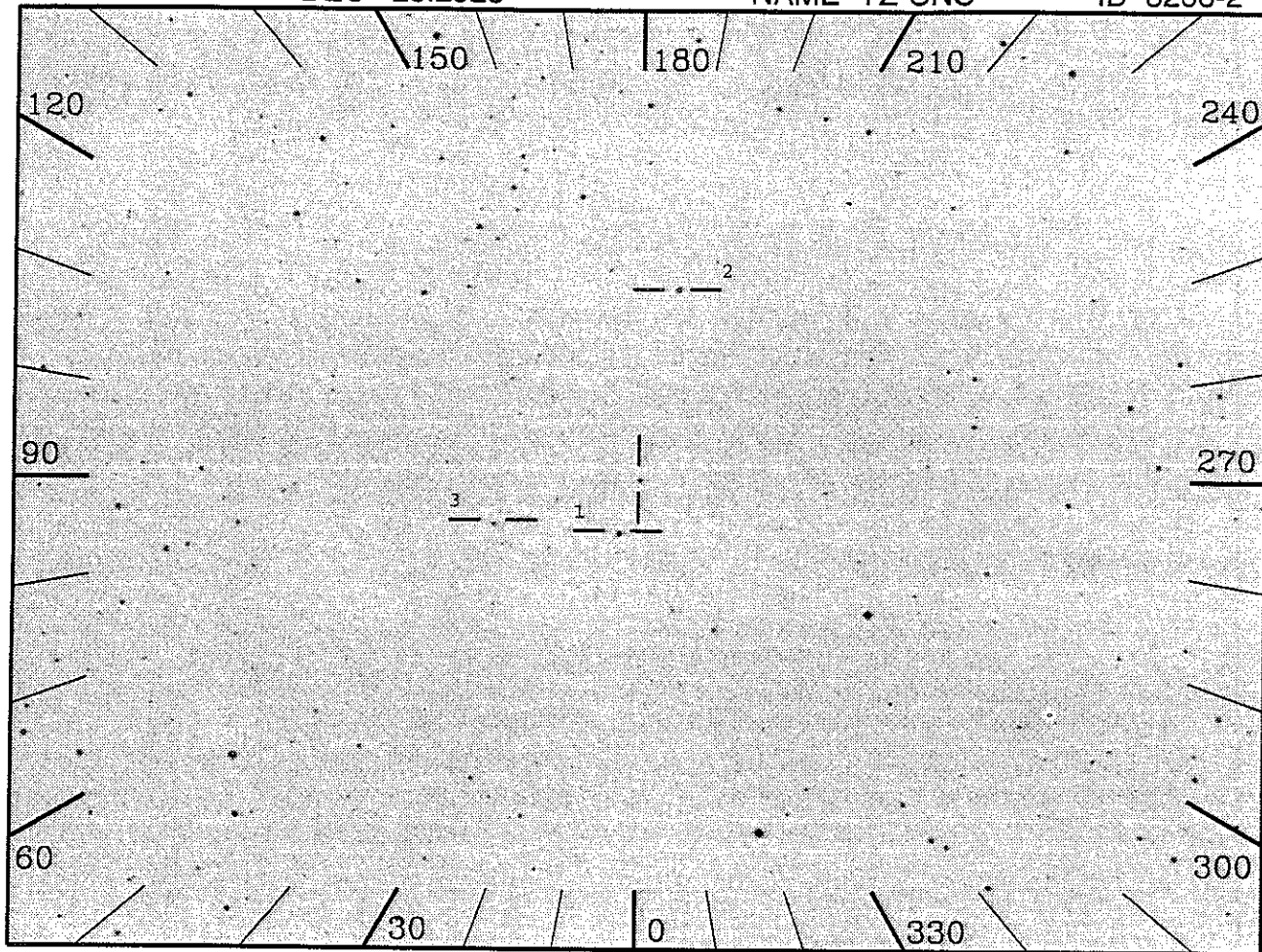
Pos Ang:

Mechanism:

Comments:

IUE spectrum shows P-Cyg profiles of varying strengths; state-dependent.  $V_{min}=14.1$  to 15.5,  $V_{max}=11.9$  to 10.5. Outburst period=6-16 days. Secondary outburst period=134 days. Models predict a few % pol in UV.





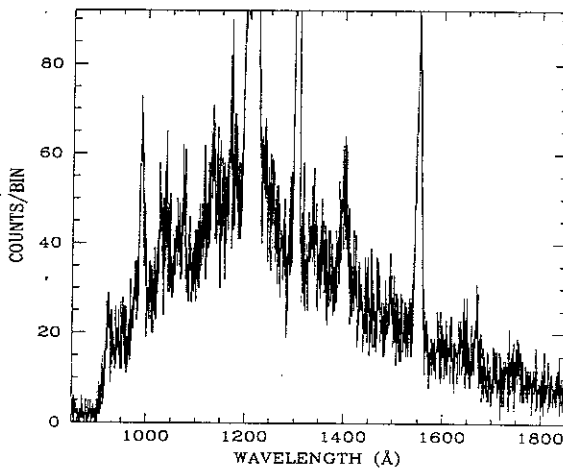
20", 1000(s), Night

OBJECT: 3266 YZ-CNC

KEYWORDS: Dwarf Nova, CV, outburst monitor

COMMENTS:

Dwarf Nova which undergoes irregularly spaced outbursts roughly every 10-20 days. Magnitude varies between V=11.9 to 15.5. (Photo shows the low state.) Object may be observed at regular intervals to monitor for outburst and track evolution of spectrum, if there is evidence of an outburst. (Spectrum is for Low State)



ID: 3266-2 H=Prime SciPgm= H09

Names: YZ-CNC

Info: DN;SU-UMa type V=11.9 Wupmag=10.4

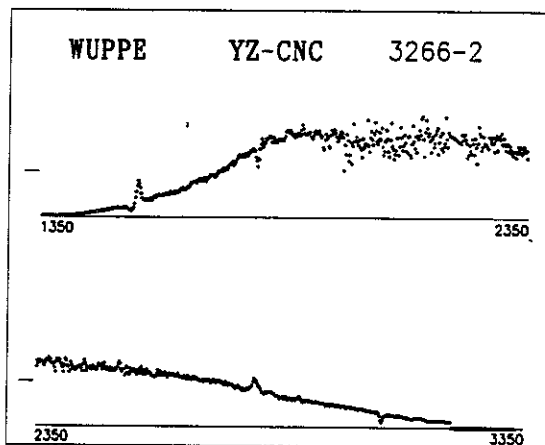
% Pol:

Pos Ang:

Mechanism:

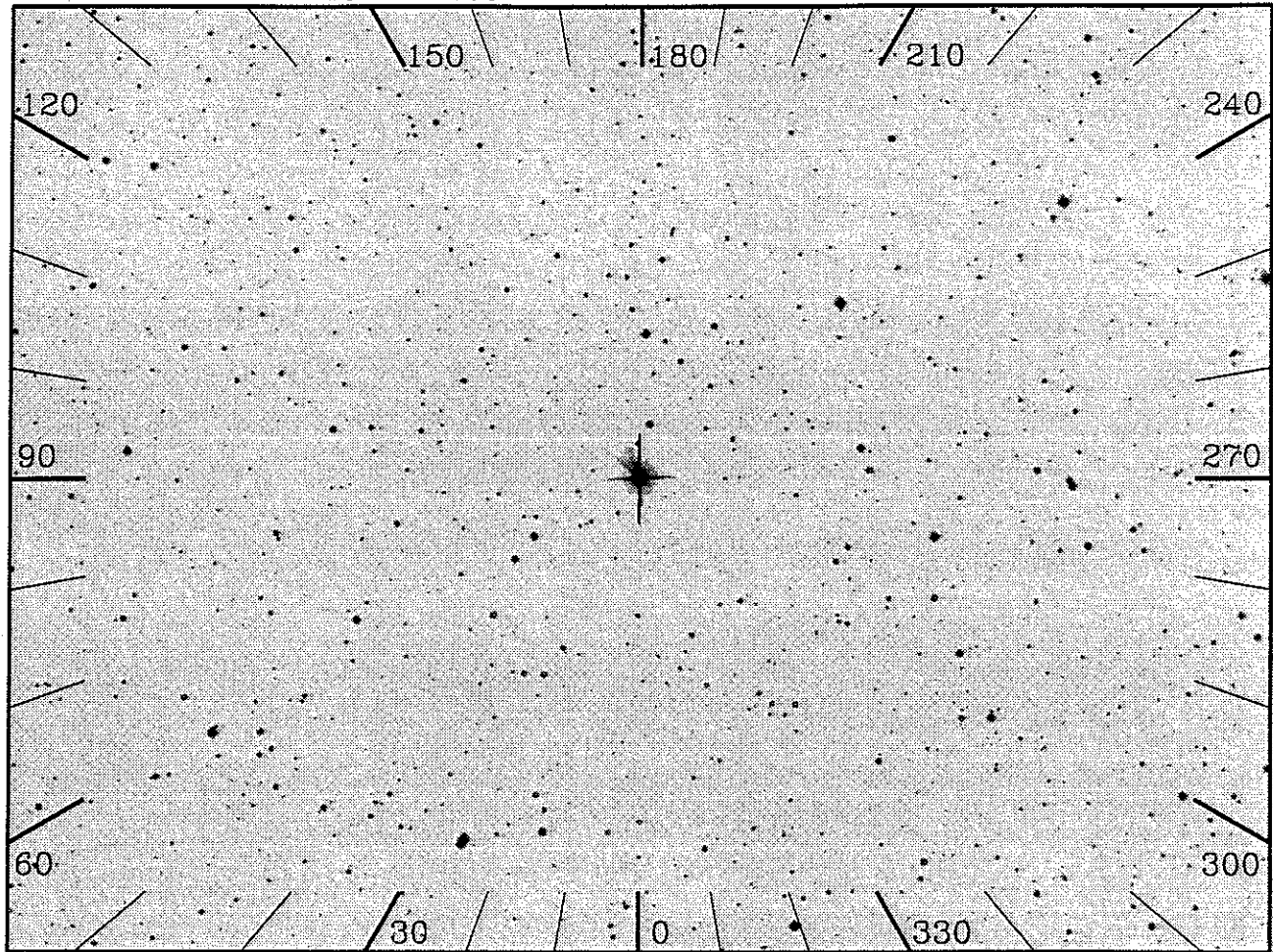
Comments:

IUE spectrum shows P-Cyg profiles of varying strengths; state-dependent. Vmin=14.1 to 15.5, Vmax=11.9 to 10.5. Outburst period=6-16 days. Secondary outburst period=134 days. Models predict a few % pol in UV.



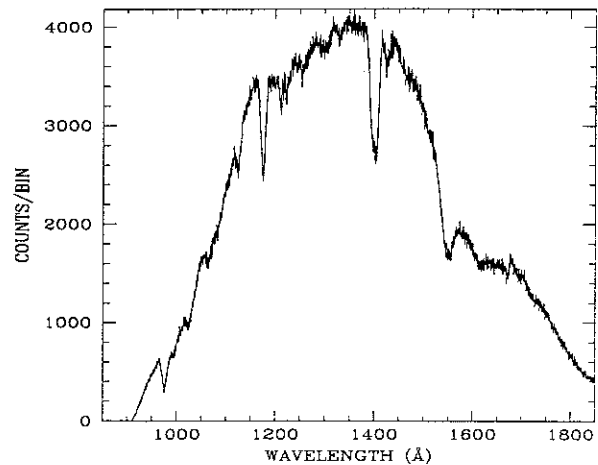
TGT/ASTRO2/FIN A





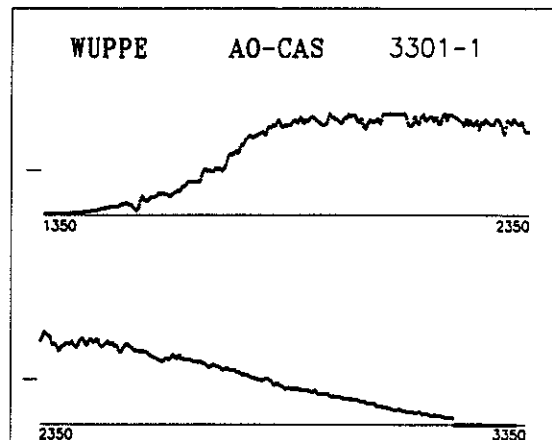
20", 2000(s), Day

OBJECT: 3301 AO-CAS  
 KEYWORDS: Interacting Binary  
 COMMENTS:  
 Use 20" slit even if pointing is good.  
 System consists of O7 Ia:fp + OB star in an eclipsing binary (EB/KE?) system with a range of  $V = 4.84$  to  $5.33$  in a period of  $4.393407$  days. Emission lines may be present. The simulation was run using a  $T=32,000K$  Kurucz model assuming maximum light.



ID: 3301-1 W=Prime SciPgm= W32  
 Names: AO-CAS HD1337  
 Info: O9IIIInn V= 5.9 Wupmag=3.51  
 % Pol: 0.49  
 Pos Ang: 39.0  
 Mechanism: Electron scattering  
 Comments:

Pol varies by 0.2%. Prefer obs at either phase 0.0, 0.25, 0.5 or 0.75.  $N=(JD-24432191.189)/3.523487$ .  
 (WUP contact person is GK Fox.)  
 NOTE: DETECTOR IN FAST MODE- DO NOT EXPECT ON-LINE SPECTRUM.

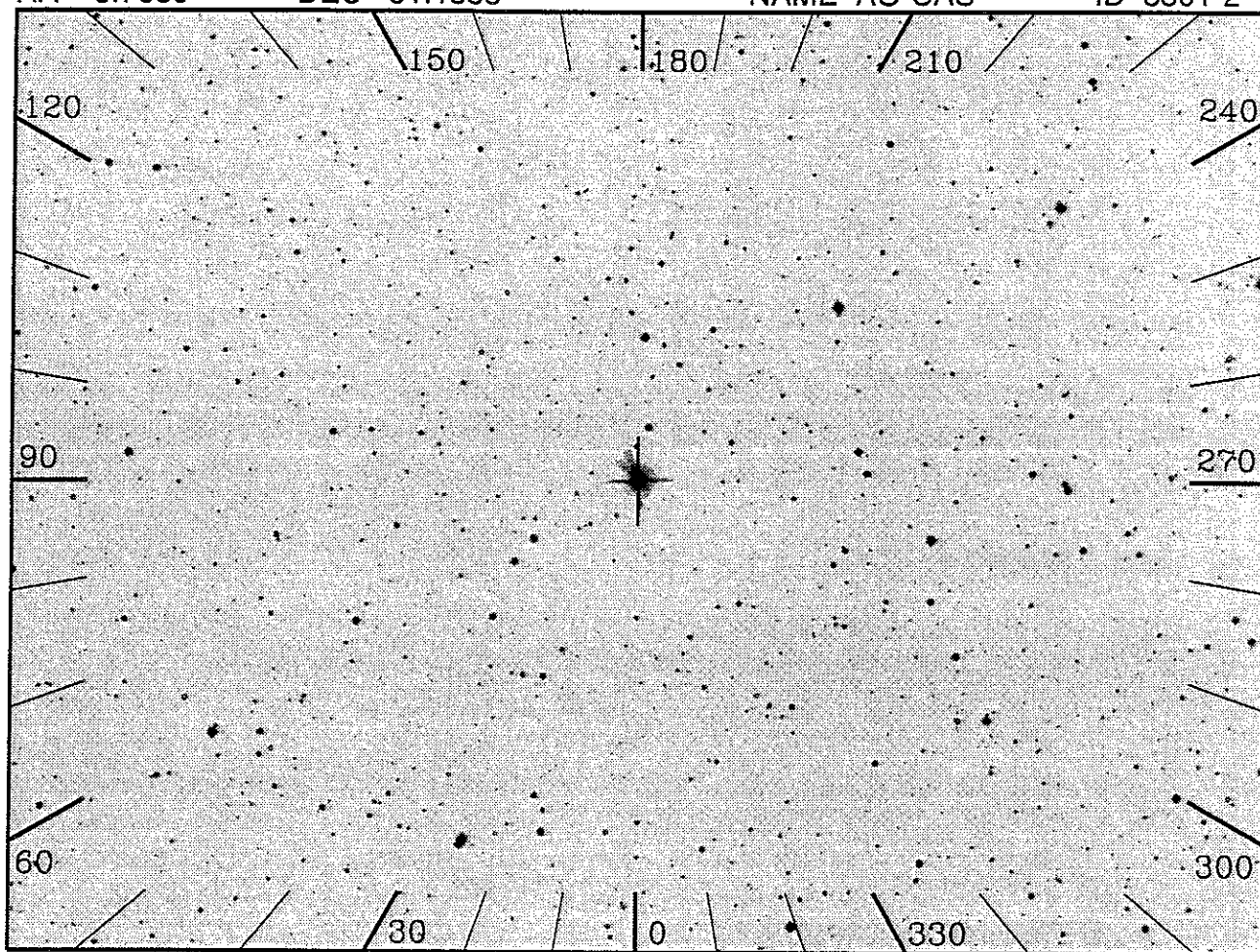


RA 3.7639

DEC 51.1555

NAME AO-CAS

ID 3301-2



20", 2000(s), Day

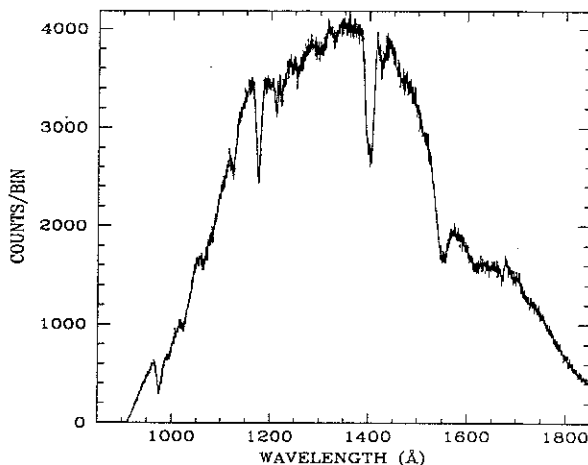
OBJECT: 3301 AO-CAS

KEYWORDS: Interacting Binary

COMMENTS:

Use 20" slit even if pointing is good.

System consists of O7 Ia:fp + OB star in an eclipsing binary (EB/KE?) system with a range of V = 4.84 to 5.33 in a period of 4.393407 days. Emission lines may be present. The simulation was run using a T=32,000K Kurucz model assuming maximum light.



ID: 3301-2 W=Prime SciPgm= W32

Names: AO-CAS HD1337

Info: O9IIInn V= 5.9 Wupmag=3.51

% Pol: 0.49

Pos Ang: 39.0

Mechanism: Electron scattering

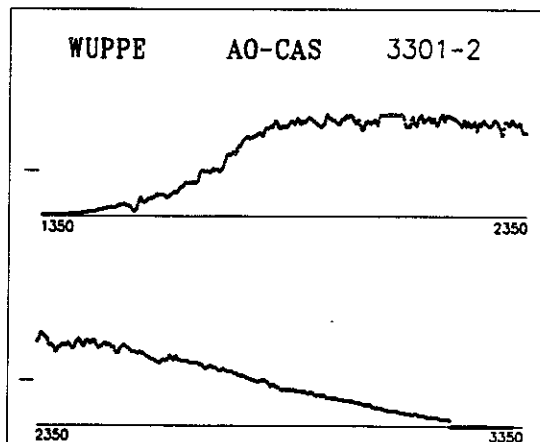
Comments:

Pol varies by 0.2%. Prefer obs at either phase 0.0, 0.25, 0.5 or 0.75. N=(JD-24432191.189)/3.523487.

(WUP contact person is GK Fox.)

NOTE: DETECTOR IN FAST MODE-

DO NOT EXPECT ON-LINE SPECTRUM.

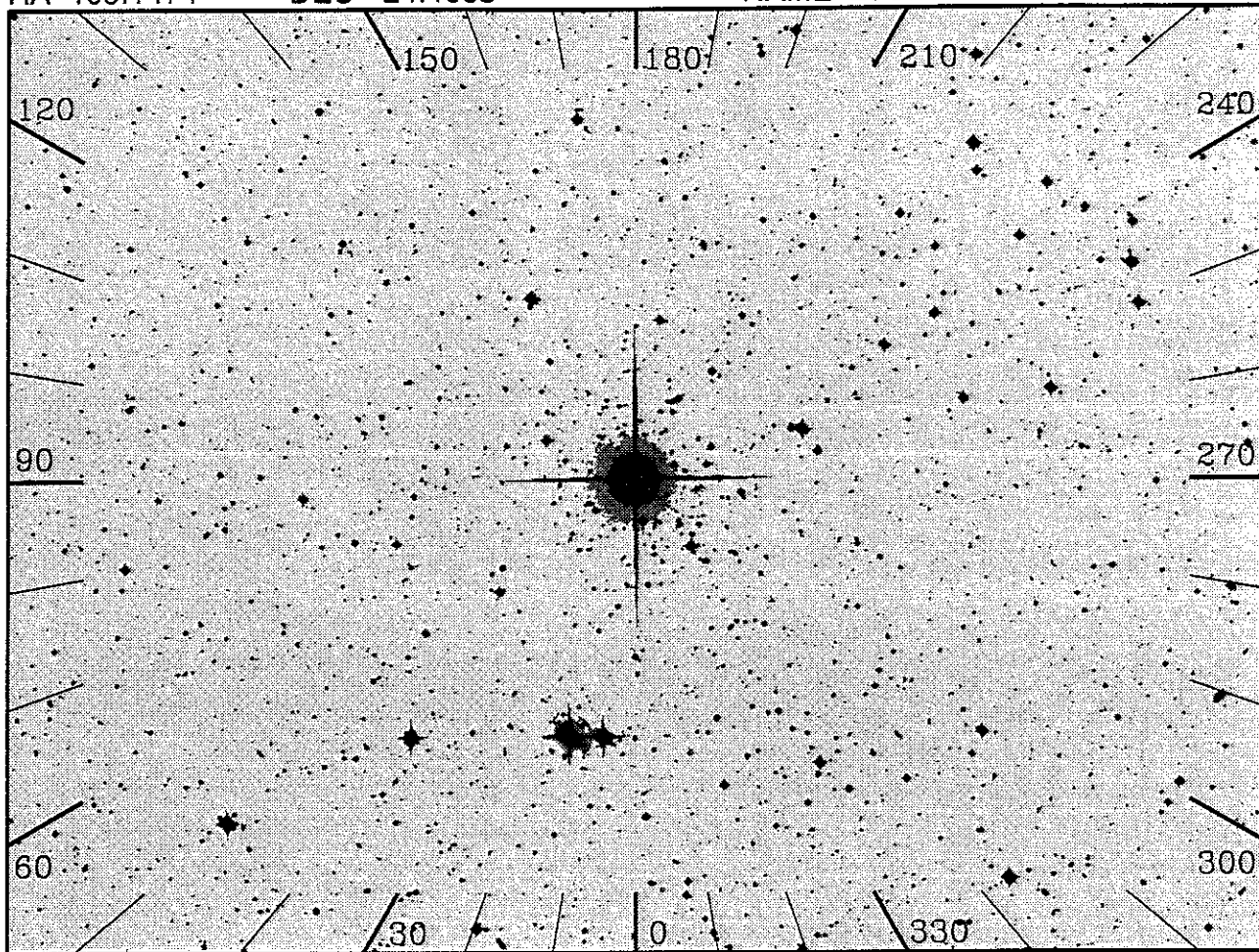


RA 109.1474

DEC -24.4663

NAME 29CMA

ID 3305-1



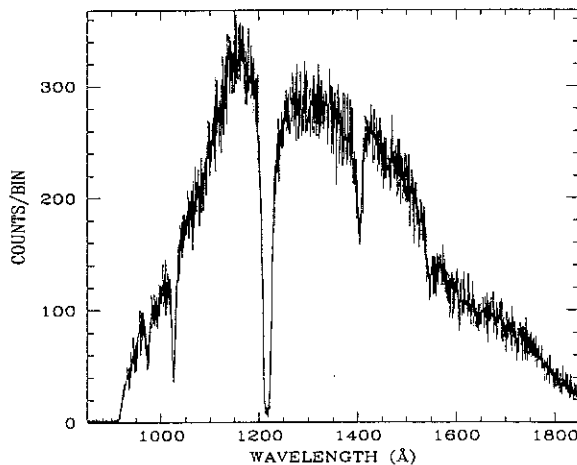
20", 2000(s), Day

OBJECT: 3305 29CMA

KEYWORDS: Interacting Binary

COMMENTS:

Use 20" aperture even if pointing is good. Object consists of two O9III stars in an interacting E11/KE system with a range of  $V = 6.07$  to  $6.24$  every  $3.523487$  days. The spectrum has been generated using a Kurucz model with  $T=50,000K$  and assuming maximum light.



ID: 3305-1 W=Prime SciPgm= W32

Names: 29CMA HD57060

Info: O7f V= 4.9 Wupmag=2.40

% Pol: 0.57

Pos Ang: 94.1

Mechanism: Electron scattering

Comments:

Ephemeris is

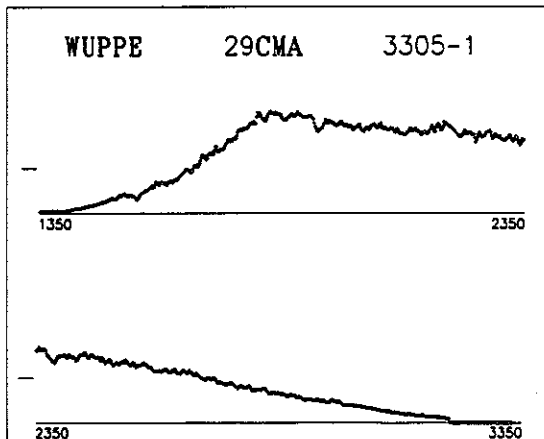
$N=(JD-24426326.760)/4.3934$

IUE data used for simulated spectrum

is that of Tht2-OriA (3311).

NOTE: DETECTOR IN FAST MODE-

DO NOT EXPECT ON-LINE SPECTRUM.

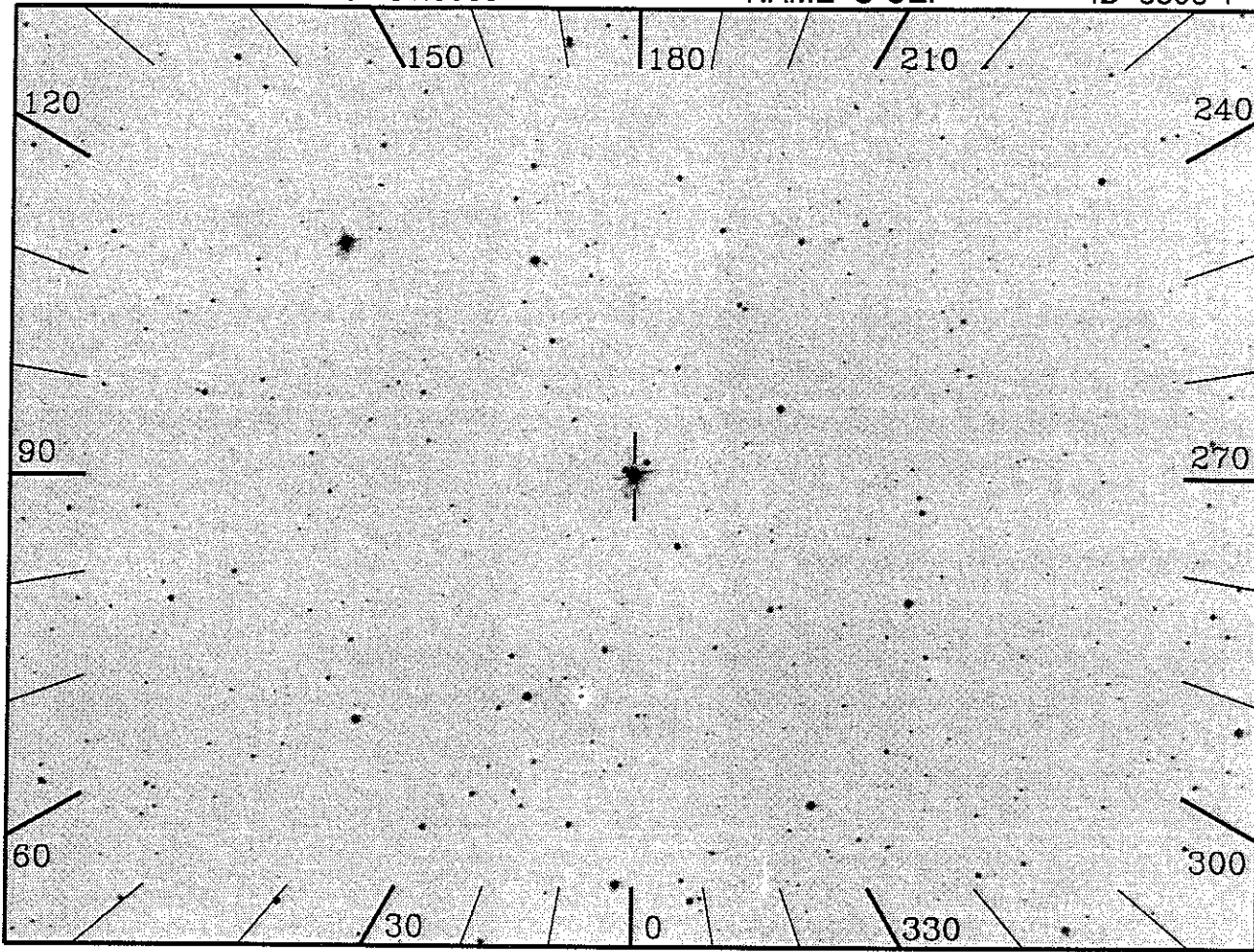


RA 14.4371

DEC 81.6068

NAME U-CEP

ID 3306-1



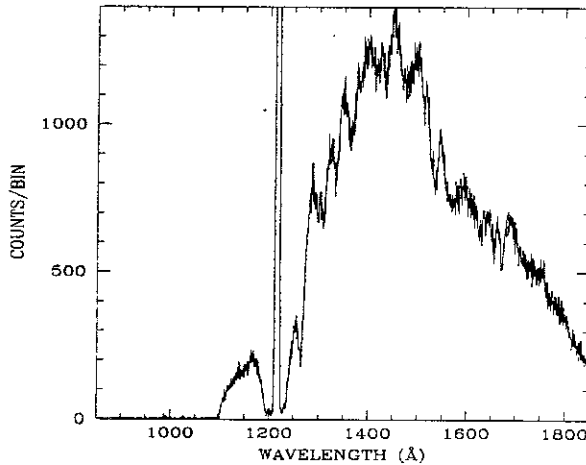
20", 2000(s), Day

OBJECT: 3306 U-CEP

KEYWORDS: Interacting Binary

COMMENTS:

Use 20" slit even if pointing is good. System consists of B7 Ve + G8 III-IV stars in eclipsing binary (EA/SD) system with a range of V = 6.75 to 9.24 with a period of 2.4930475 days. The spectrum has been modeled using a T=11,000K Kurucz model which gives a good fit to the IUE + Copernicus data.



ID: 3306-1 W=Prime SciPgm= W32

Names: U-CEP HD5679

Info: B8+G8 V= 6.9 Wupmag=6.94

% Pol:

Pos Ang:

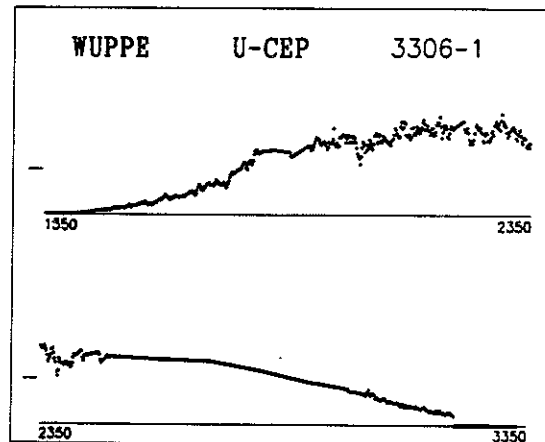
Mechanism: Electron scattering

Comments:

Observe near eclipse phase = 0.0 or

0.5.  $N=(JD-24438291.502)/2.493041$ .

(WUP contact person is GK Fox.)



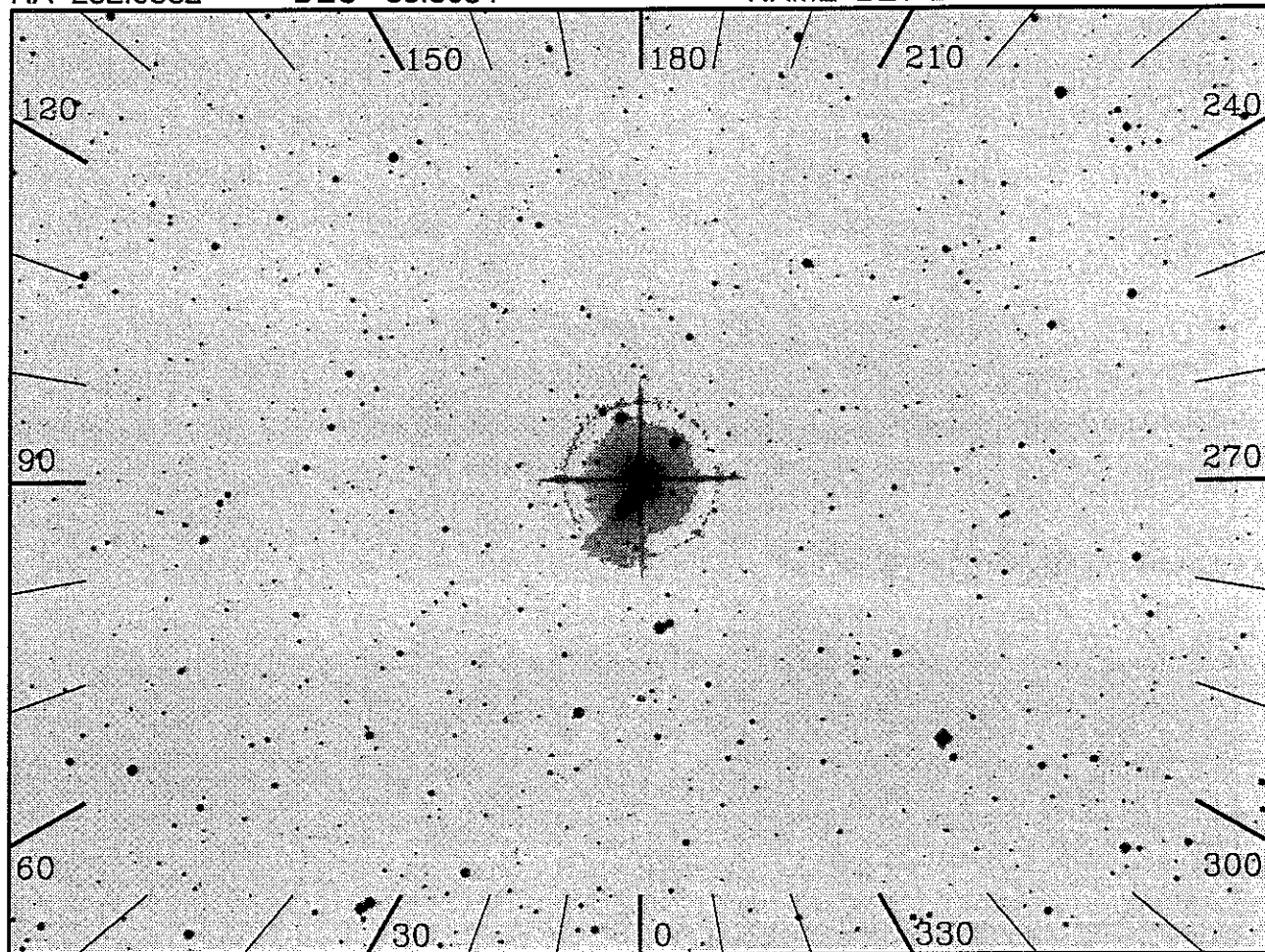


RA 282.0582

DEC 33.3034

NAME BET-LYR

ID 3323-1



20, 2000(s), Day

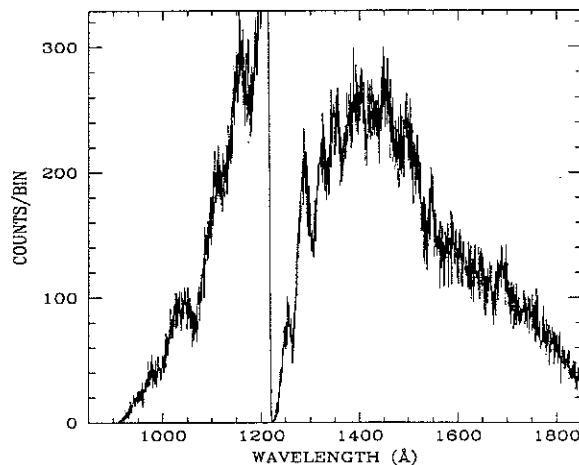
OBJECT: 3323 BET-LYR

KEYWORDS: Interacting Binary

COMMENTS:

Use 20" slit even in pointing is good.

System consists of B7 Ve + A8p stars in an Algol-like eclipsing binary (EB) system with a range of  $V = 3.34$  to  $4.34$  in a period of  $12.93578$  days. Based on Voyager UVS observations, the FUV continuum has variations of  $< 20\%$  while the IUE spectral region has minima which are  $60\%$  of the peak flux. Emission lines of CII, CIV and NV have been seen so other lines may be present in the FUV although HeII 1640 has not been observed. The simulation was generated using a Kurucz 11,000K model and assumes maximum light.



ID: 3323-1 W=Prime SciPgm= W32

Names: BET-LYR HD174638

Info: B7Ve+ V= 3.5 Wupmag=1.70

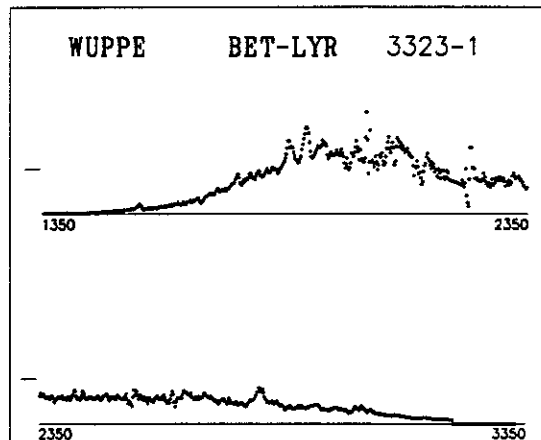
% Pol: 0.65

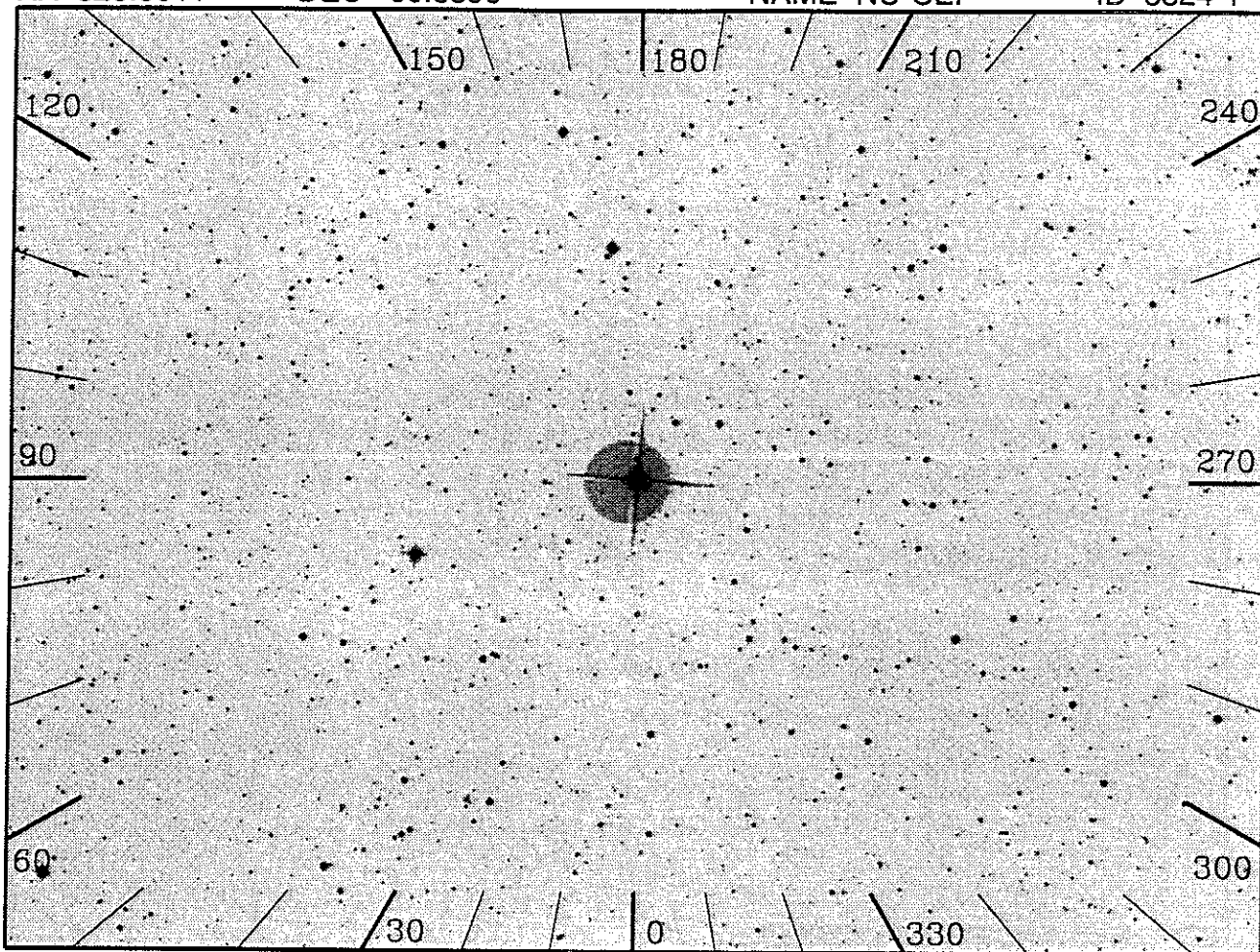
Pos Ang: 155.0

Mechanism: Electron scattering

Comments:

Prefer to have obs at phase 0.0, 0.25, 0.5, or 0.75.  $N=(JD-2398590.514)/12.90814$   
 Expect line pol as well as continuum.  
 (WUP contact person is GK Fox.)  
 NOTE: DETECTOR IN FAST MODE-  
 DO NOT EXPECT ON-LINE SPECTRUM.





20", 1000(s), Day

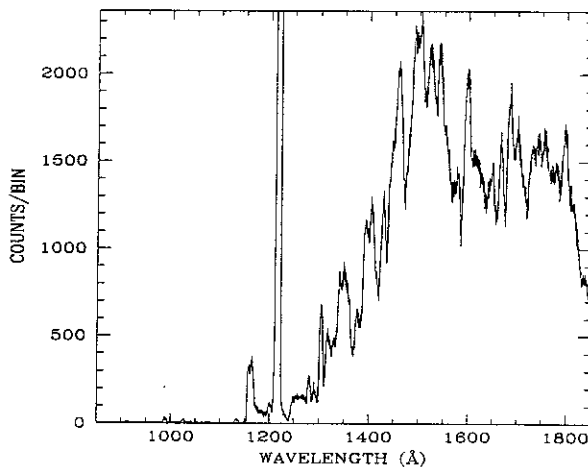
OBJECT: 4561 NU-CEP

KEYWORDS: extinction, psf.5

COMMENTS:

An extincted A2 Iab star ( $E(B-V) = 0.48$ ).

psf.5 - offset 20" after 600 sec.



ID: 3324-1 W=Prime SciPgm= W11

Names: NU-CEP HD207260

Info: A2IA V= 4.5 Wupmag=6.85

% Pol: 1.60

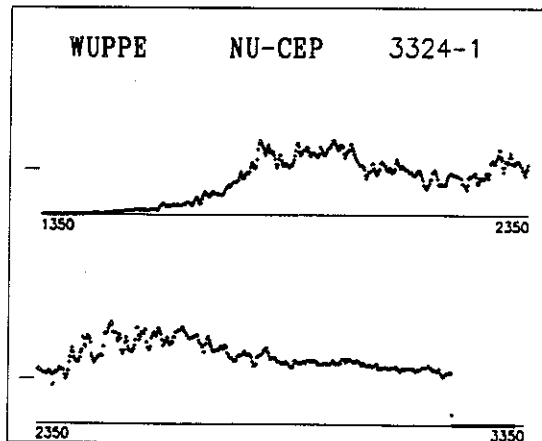
Pos Ang: 42.0

Lmax: 4100A

Mechanism: ISM

Comments:

Object is a close binary system with shallow eclipses. Originally classed as an ISM probe. Should be considered as an ISM probe and is not an ephemeris target. This object has one of the shortest known lambda maxes (4100A).

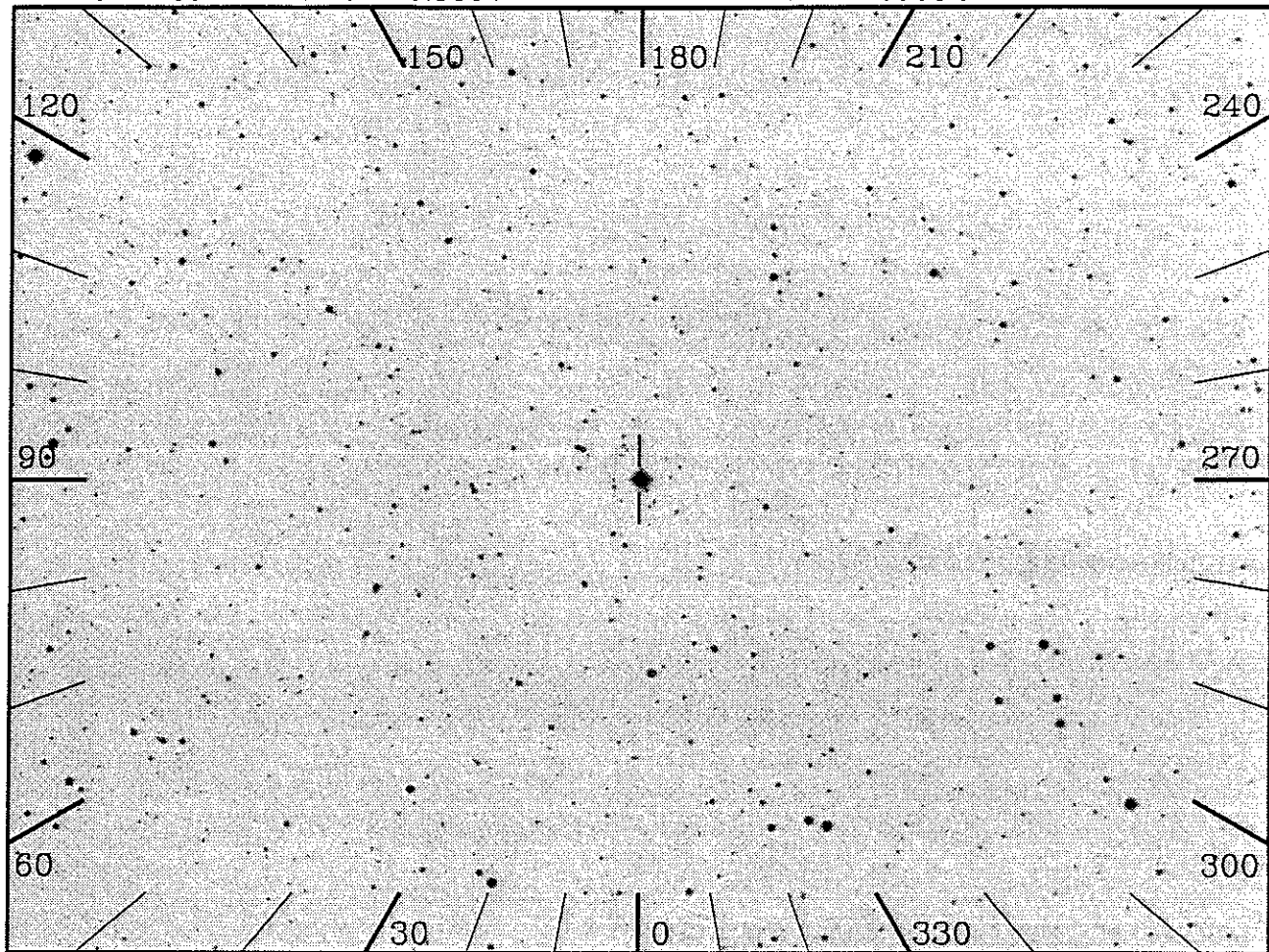


RA 281.2265

DEC -20.3304

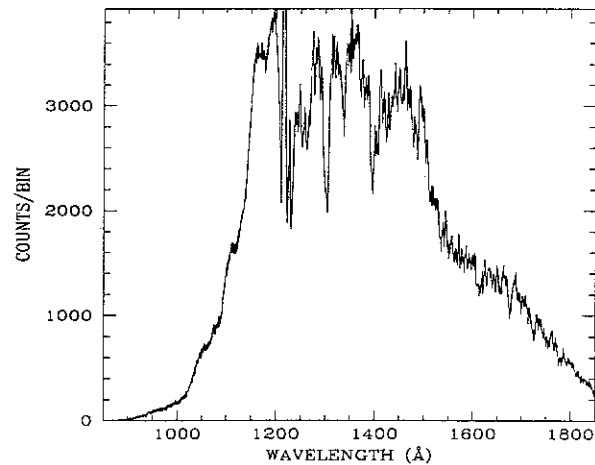
NAME V356SGR

ID 3327-1



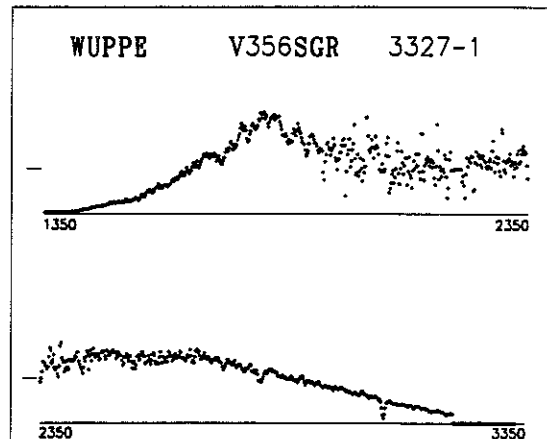
20", 1000(s), Day

OBJECT: V356SGR  
 KEYWORDS: Eclipsing binary of Algol type  
 COMMENTS:  
 V=6.8 E(B-V)=0.23 spectype=B3:V + A2II  
 Flux\_1400 = 3e-11  
 Initial\_expected\_rate = 3183 cts/sec  
 Period=8.89619 days  
 Fraction of period spent in eclipse = 0.12  
 If in eclipse, door state 5 gives 908 cts/sec  
 Eclipse depths in V are 0.87 and 0.39, for primary and secondary eclipses, respectively.



ID: 3327-1 W=Prime SciPgm= W32  
 Names: V356SGR HD173787  
 Info: B3V+A2II V= 6.8 Wupmag=6.25  
 % Pol: 0.89  
 Pos Ang: 56.8  
 Mechanism: Electron scattering  
 Comments:

Orbital period is 8.896 days. Ephemeris target. To be observed at phase 0.25 or 0.75. The data will be used to confirm HST observations that the polarization increases to about 2% in the UV.

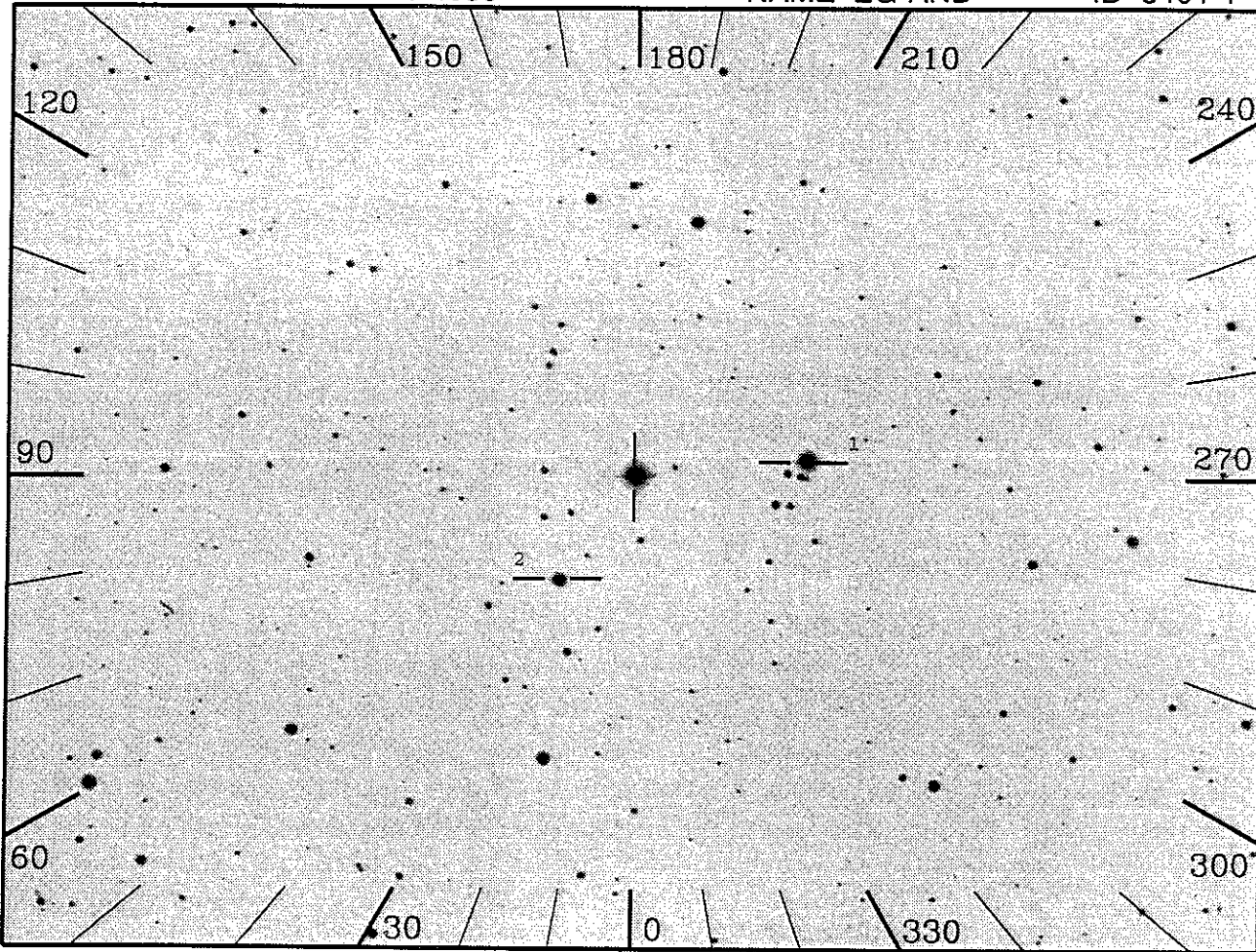


RA 10.4697

DEC 40.4059

NAME EG-AND

ID 3401-1



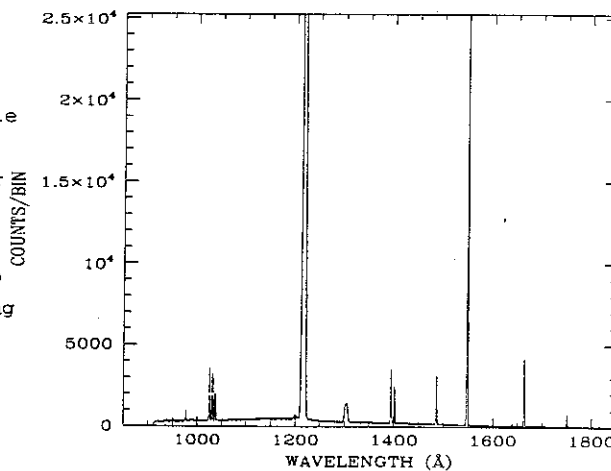
20", 2000(s), Day

OBJECT: 3401 EG-AND

KEYWORDS: Symbiotic Star

COMMENTS:

System consists of M2.4III star dominating the visible region and a T = 75,000K star the UV. OVI 1035A has been observed with the Voyager UVS together with star continuum. The system is expected to be near maximum and the field should be similar to that shown in the target book field. Range is observed to be V = 7.1 to 7.8 with a period of 481 days. CIV is generally strong in the spectrum, but the intercombination lines vary in intensity with phase.



ID: 3401-1 H=Prime SciPgm= G11

Names: EG-AND HD4174

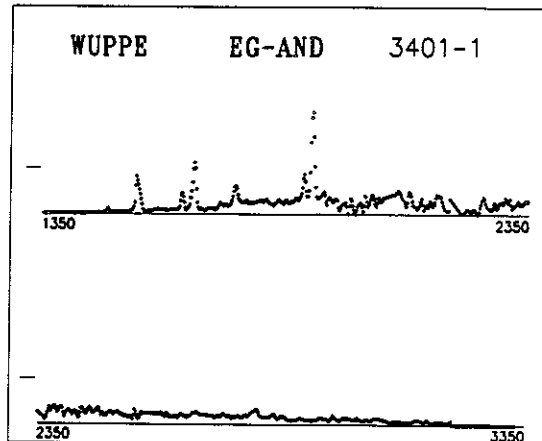
Info: M2.4III V= 7.3 m(1500)=11.4

% Pol: 0.50 Pos Ang: 90.0

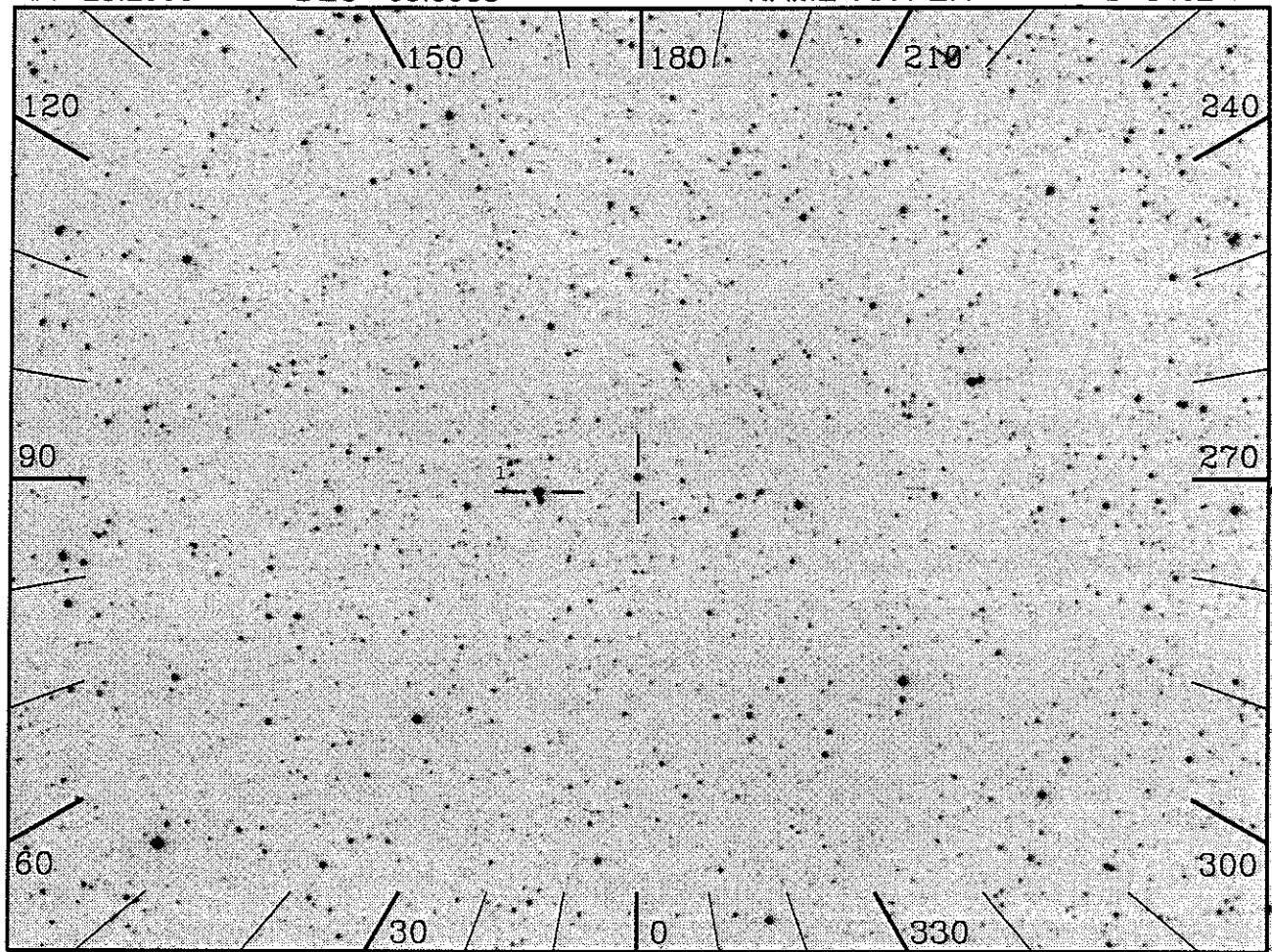
Mechanism: Rayleigh scattering

Comments:

PA rotation in U to 130. Rayleigh scattering should be more apparent for a reduced phase of 0.25 or 0.75 and shortward of 2300Å. Phase of 0.27 predicted for mid-March 1995. Lyman-alpha and CIV pumping of UV FeII present. m(1500) value is estimated for a Feb '95 launch. Joint HUT/WUPPE guest investigator program.

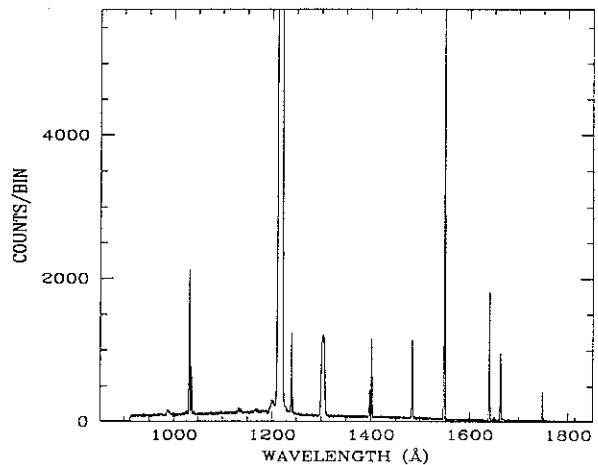




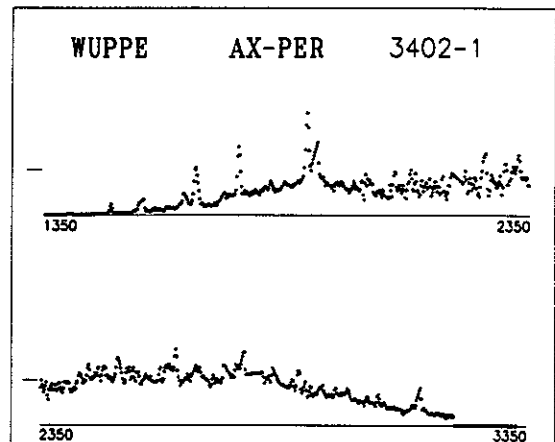


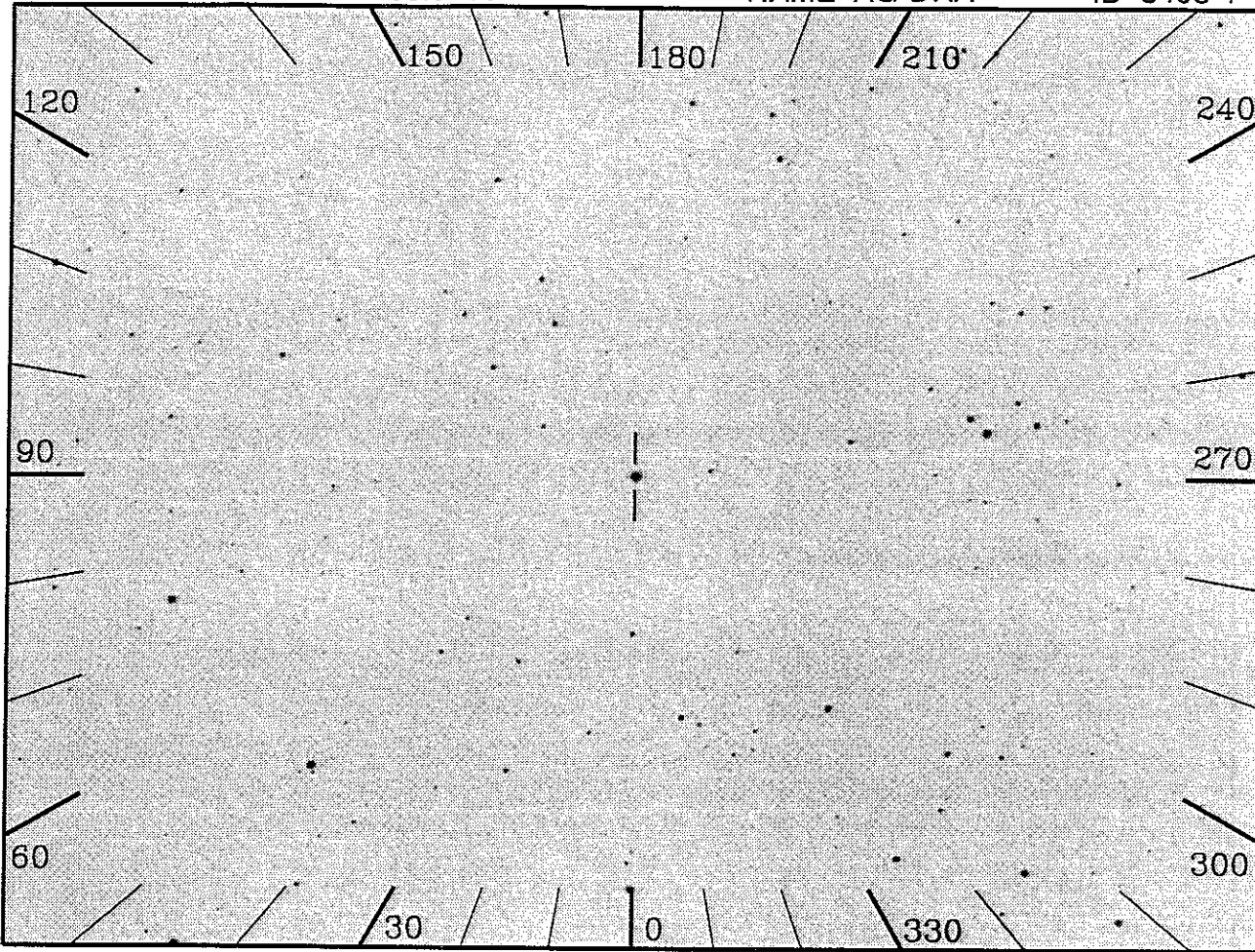
20", 2000(s), Day

OBJECT: 3402 AX-PER  
 KEYWORDS: Symbiotic Star  
 COMMENTS:  
 Target is a binary system consisting of an M5.2II-III star together with a T=105,000K hot component in an orbit of 681.6 days. The target should be close to the magnitude shown on the target book page.  
 Note that this object is faint enough to be observed at full aperture and the simulation has been performed for this setup.



ID: 3402-1 H=Prime SciPgm= G11  
 Names: AX-PER MWC411  
 Info: M5.2II-II V=11.7 m(1500)=13.0  
 % Pol: 0  
 Pos Ang:  
 Mechanism: Mass transfer effects?  
 Comments:  
 m(1500) value is estimated for a Feb '95 launch. Joint HUT/WUPPE guest investigator program.





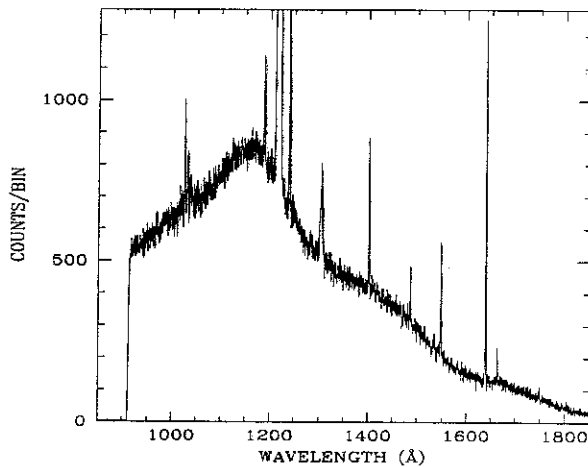
20", 2000(s), Day

OBJECT: 3403 AG-DRA

KEYWORDS: Symbiotic Star

COMMENTS:

Binary system with K1 II dominating the visible and T = 125,000K star dominating the UV. OVI lines and continuum were observed with Voyager UVS. Object is expected to be near minimum and field should look similar to target book image. Range is observed to be V = 8.4 to 9.8 with 554 day period. High ionization lines may be relatively weaker with respect to low ionization when near minimum. System shows outburst activity with last occasion in June 1994. Plot is for quiescence - continuum is both bluer and brighter near outburst and emission lines stronger by factor 2 to 10.



ID: 3403-1 H=Prime SciPgm= G11

Names: AG-DRA

Info: K3III V= 9.8 m(1500)=8.7

% Pol: 0.16

Pos Ang: 49.0

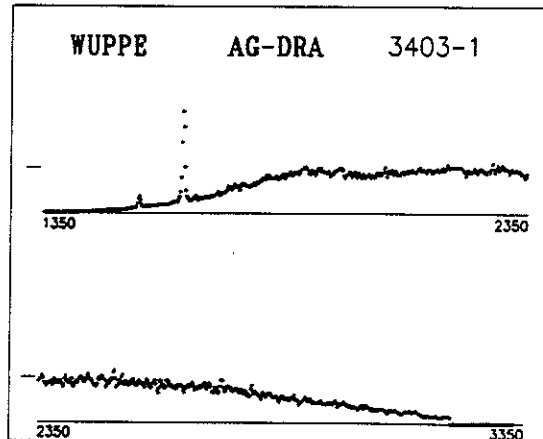
Mechanism:

Comments:

OVI and CIV pumping of UV FeII.

m(1500) value is estimated for a Feb '95

launch. Joint HUT/WUPPE guest investigator program.

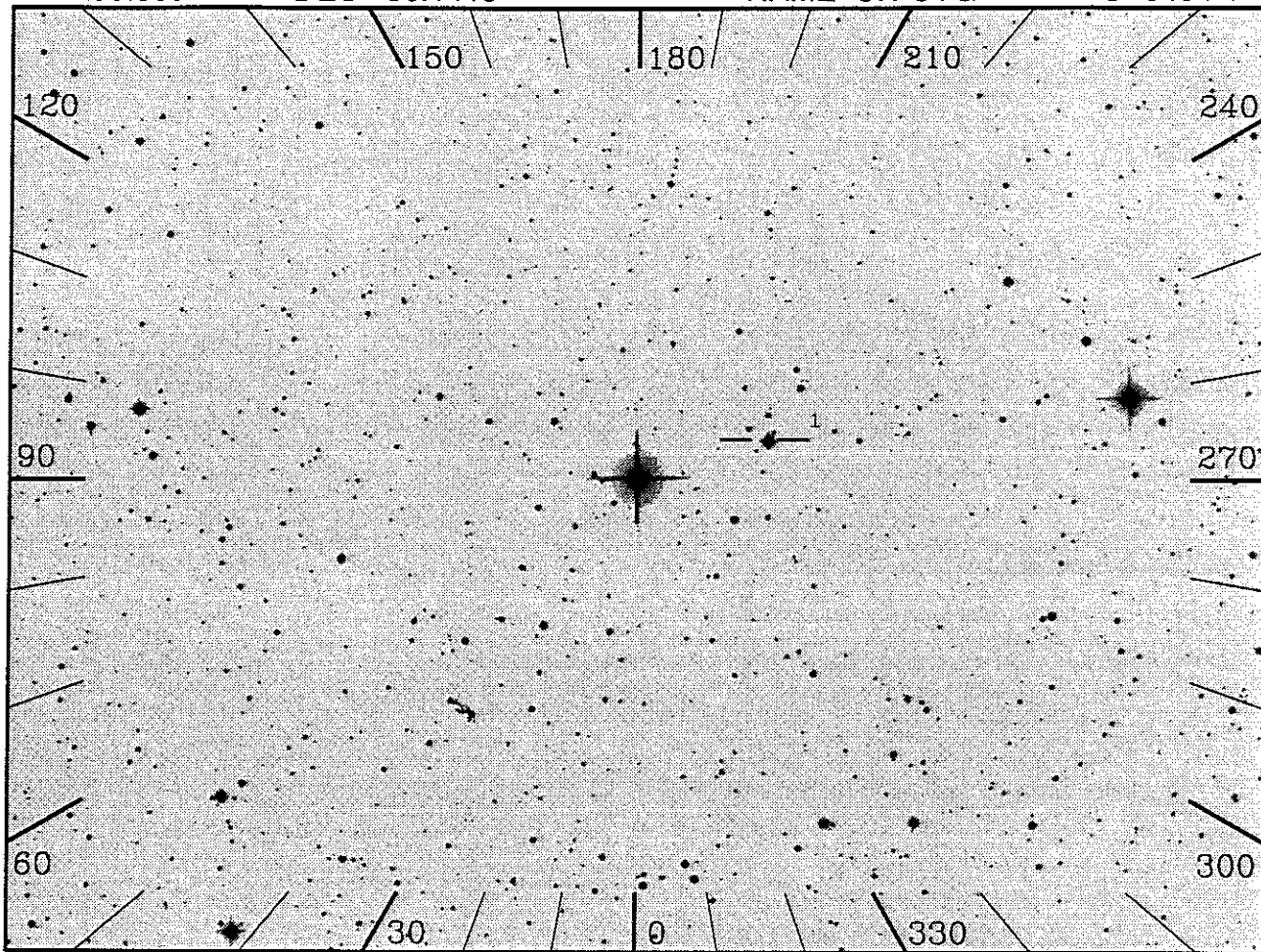


RA 290.8092

DEC 50.1419

NAME CH-CYG

ID 3404-1



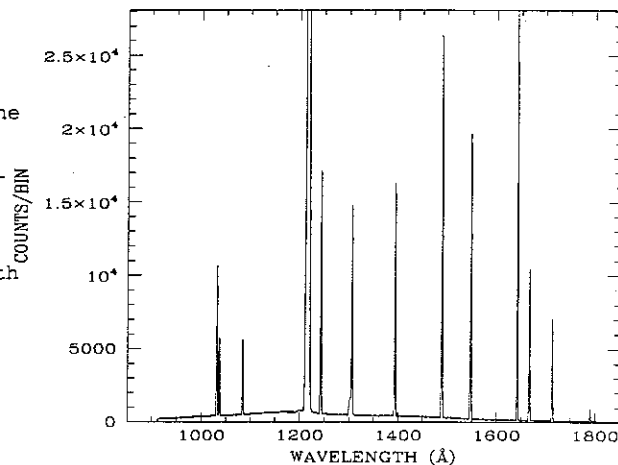
20", 2000(s), Day

OBJECT: 3404 CH-CYG

KEYWORDS: Symbiotic Star

COMMENTS:

Binary system consists of M6.5 III star dominating the visible and a  $T = 80,000\text{K}$  which dominates the UV. The system is expected to be near maximum and approximately one magnitude fainter than as shown in the target book field. Expected range is  $V = 5.6$  to  $8.5$  in a period of 488 days. No OVI line was observed with the Voyager UVS.



ID: 3404-1 H=Prime SciPgm= G11

Names: CH-CYG

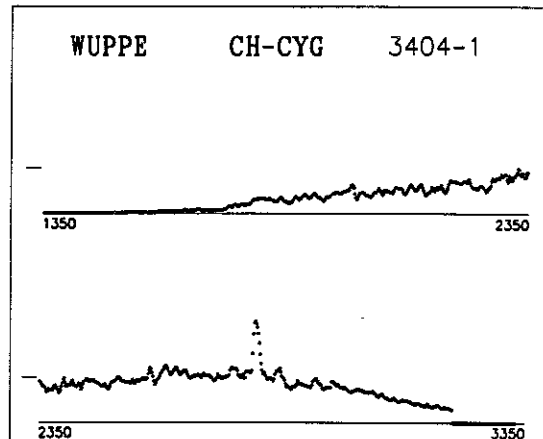
Info: M6.5III,  $V = 8.7$ ,  $m(1500) = 10.7$

% Pol: 0.60 Pos Ang: 40.0

Mechanism: Dust scattering

Comments:

Variable pol. PA sometimes at 140.  
 Poln. rises to the blue like Rayleigh.  
 Irregular variable with outbursts,  
 $p = 15.8$  yr? Flickering. Soft X-rays.  
 Radio jet with direction perpendicular  
 to pol variations.  $m(1500)$  value is  
 estimated for a Feb '95 launch.  
 Joint HUT/WUPPE guest investigator program.

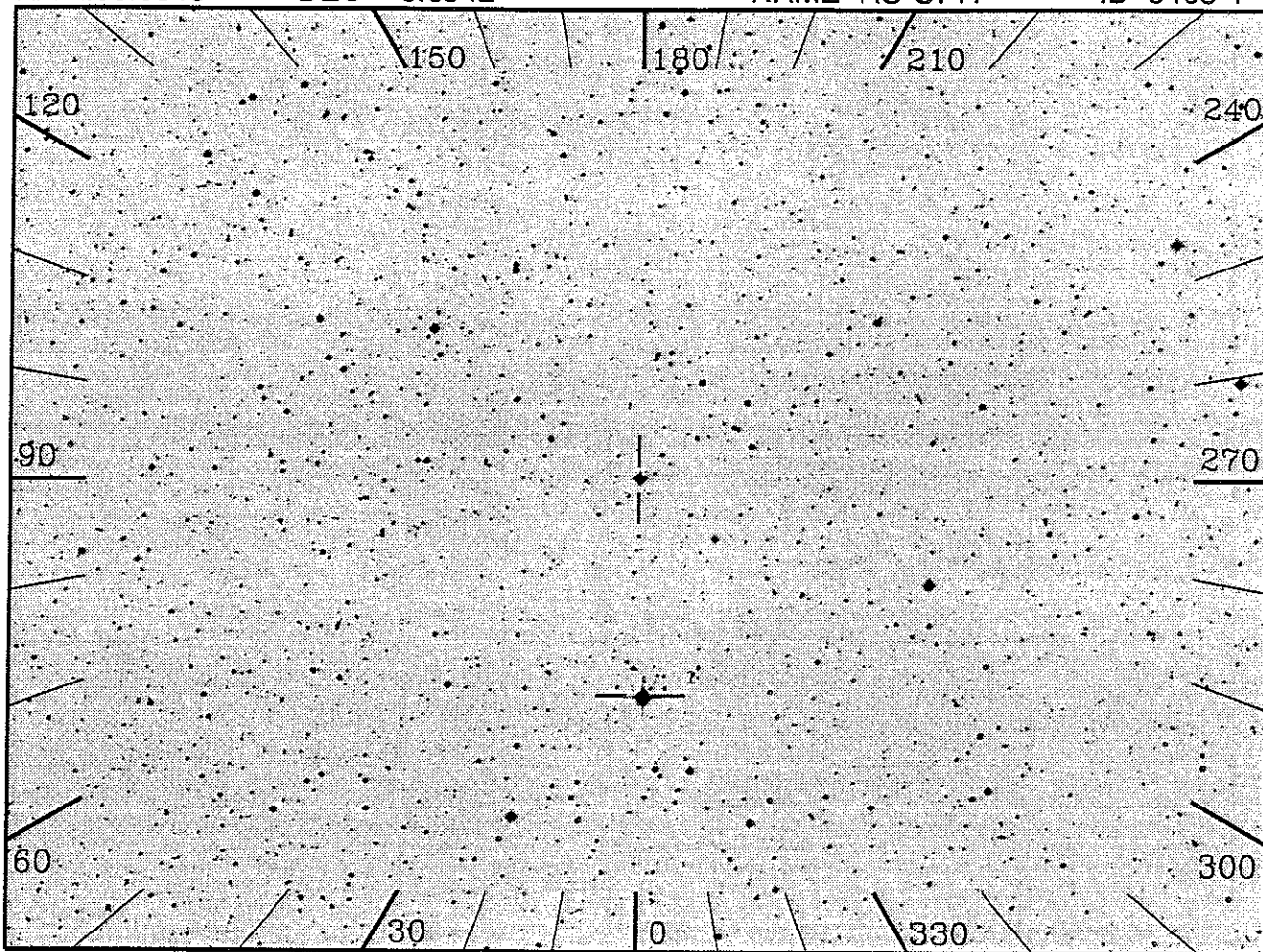


RA 266.8815

DEC -6.6942

NAME RS-OPH

ID 3405-1

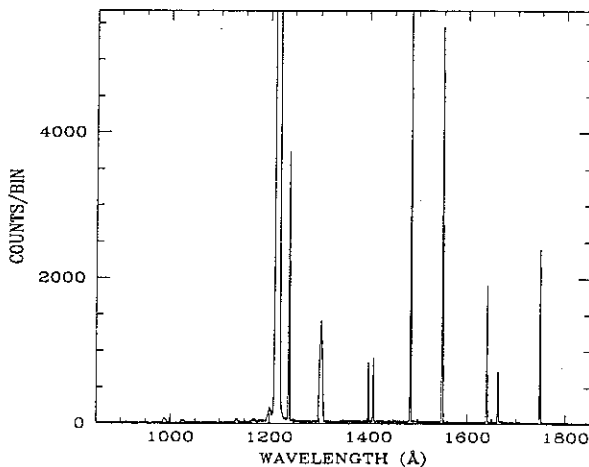


OBJECT: 3405 RS-OPH

KEYWORDS: Symbiotic Star, Recurrent Nova

COMMENTS:

Target is a binary system consisting of a K5.7I-II star together with hot component which undergoes nova-like outbursts (the last being in 1985). The system has a range of 4.3 to 12.5 in V, but is expected to be close to V = 11.6 and the field should thus appear similar to the image shown on the target book page.



ID: 3405-1 H=Prime SciPgm= G11

Names: RS-OPH HD162214

Info: K5.7I-II V=11.6 m(1500)=13.0

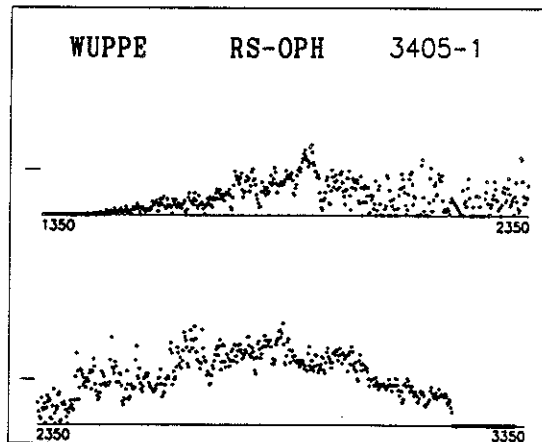
% Pol: 2.72

Pos Ang: 46.

Mechanism: Mass transfer effects?

Comments:

m(1500) value is estimated for a Feb '95 launch. Joint HUT/WUPPE guest investigator program.



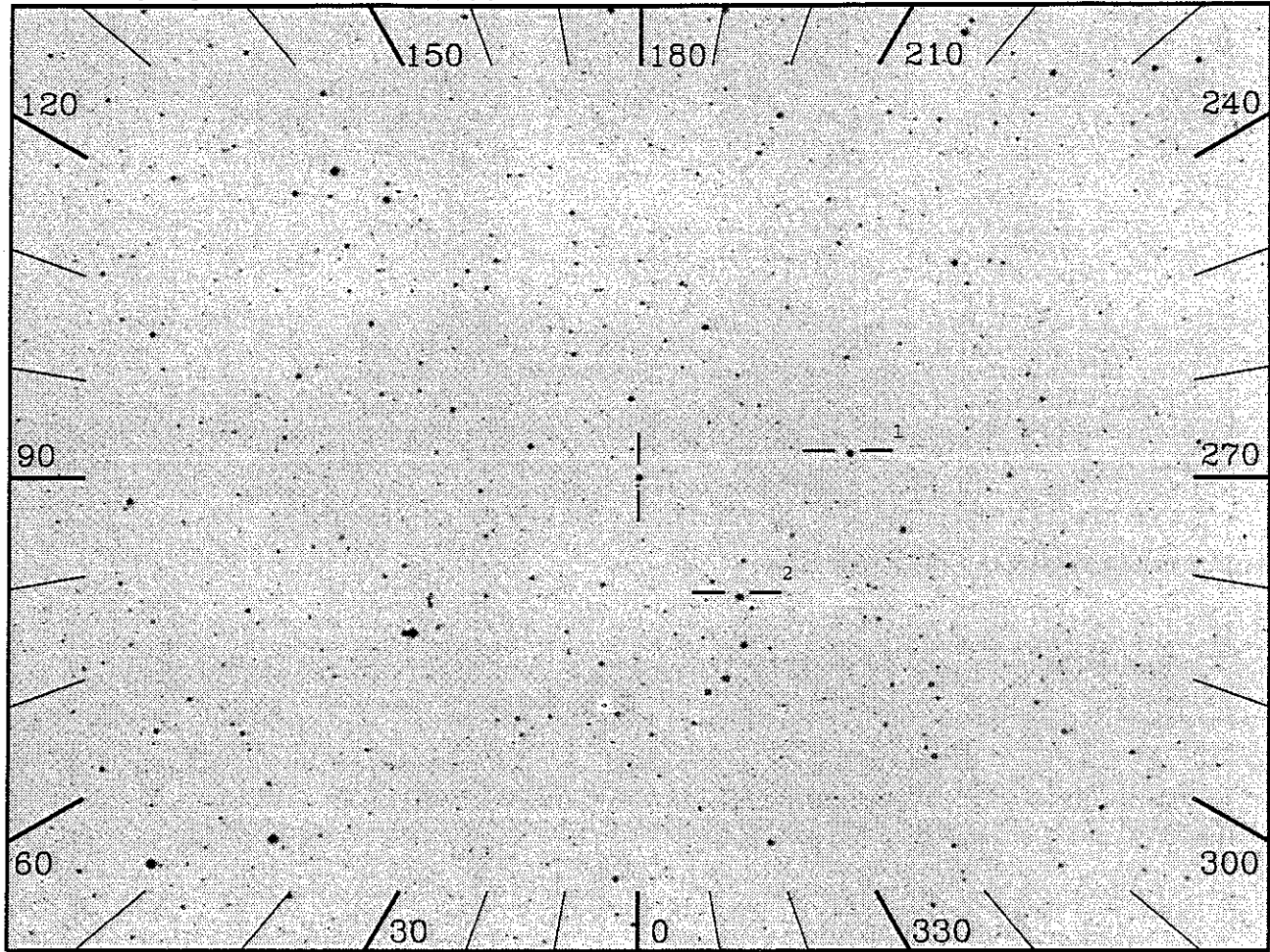


RA 294.9228

DEC 16.6258

NAME HM-SGE

ID 3407-1



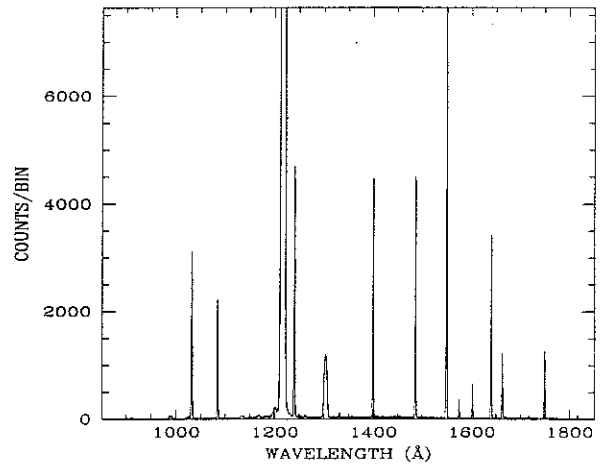
20", 2000(s), Day

OBJECT: 3407 HM-SGE

KEYWORDS: Symbiotic Star, Symbiotic Nova

COMMENTS:

Target is a binary consisting of a Mira of spectral type later than M4III together with a hot star with  $T = 200,000K$ . The Mira has a 527 day period with a range of 11 to 18 in B and for a March flight should be about a magnitude fainter than the target book image.



ID: 3407-1 H=Prime SciPgm= G11

Names: HM-SGE

Info: >M4III V=12.0 m(1500)=13.7

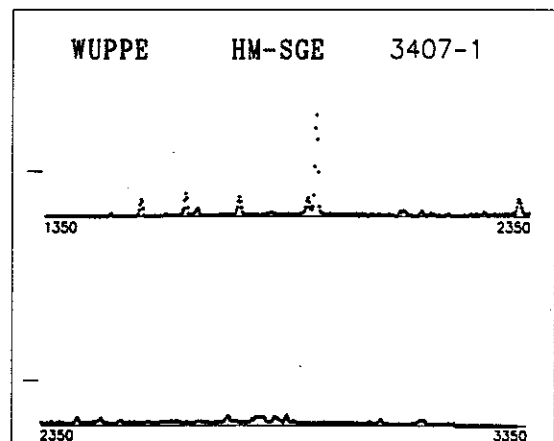
% Pol:

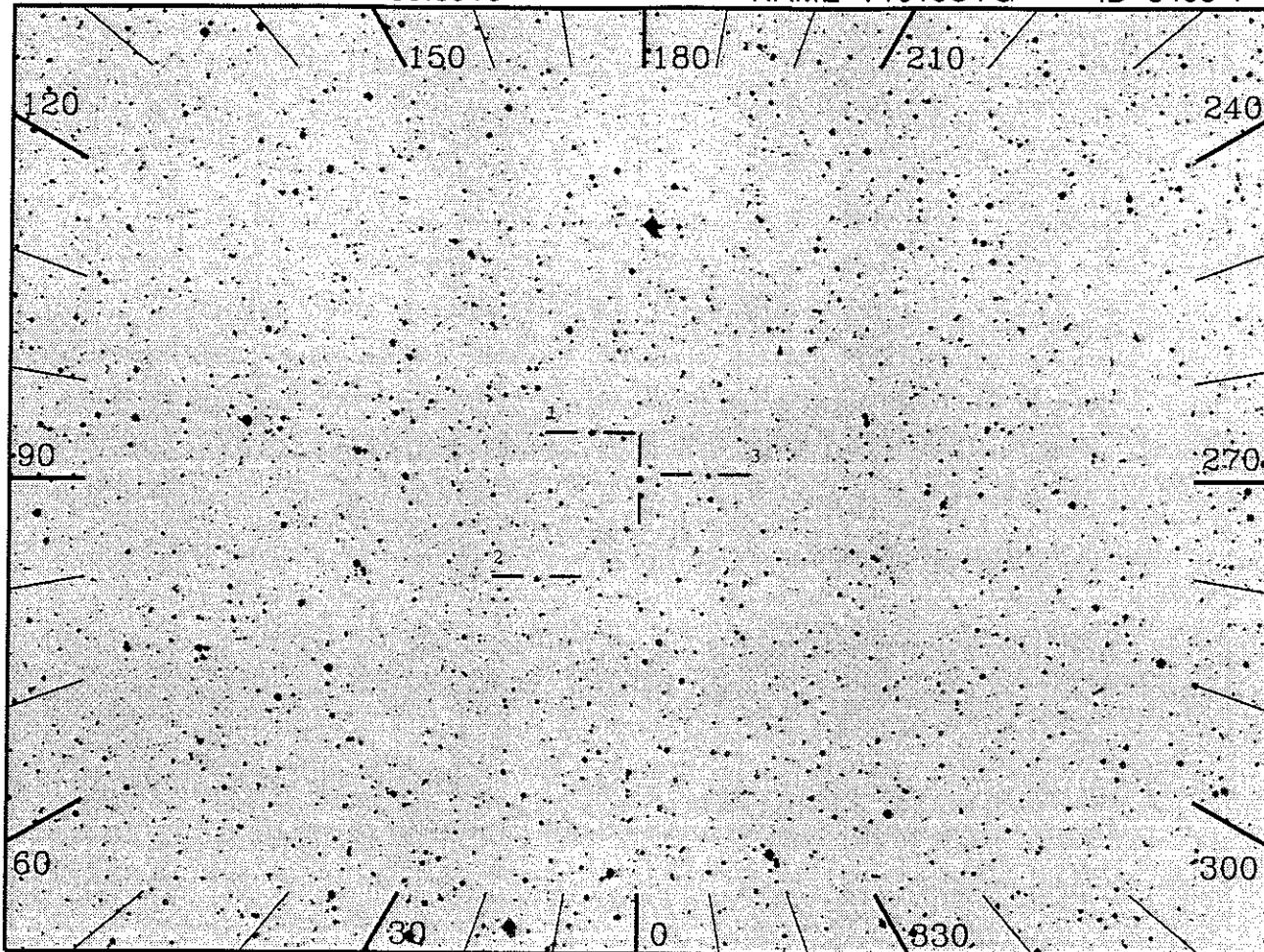
Pos Ang:

Mechanism: Mass transfer effects?

Comments:

m(1500) value is estimated for a Feb '95 launch. Joint HUT/WUPPE guest investigator program.





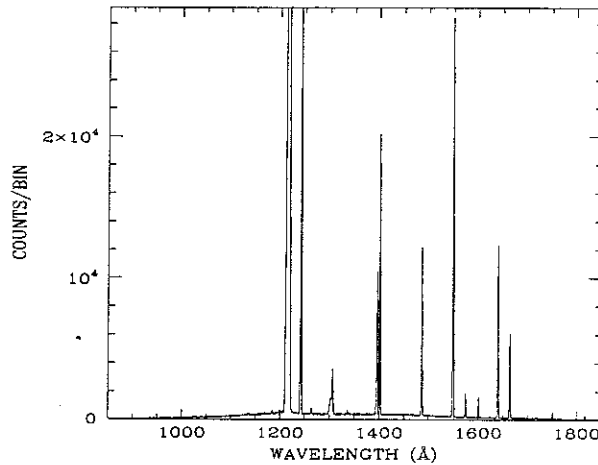
20", 2000(s), Day

OBJECT: 3409 V1016-CYG

KEYWORDS: Symbiotic Star

COMMENTS:

The system consists of a Mira star of late spectral type dominating the visible region and a  $T = 145,000\text{K}$  star dominating the UV. Both the Mira and the binary system should both be close to maximum and the field should look similar to that shown in the target book field. The system varies between B magnitudes of 10 and 17.5 over a period of 472 days. Both continuum and OVI emission were detected with the Voyager UVS.



ID: 3409-1 H=Prime SciPgm= G11

Names: V1016CYG AS373

Info: >M4III V=11.0 m(1500)=10.7

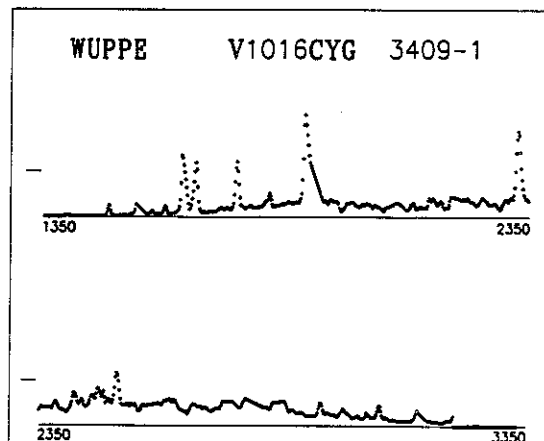
% Pol: 0.3%

Pos Ang: 100

Mechanism: Interstellar

Comments:

U PA=150, I PA=30. Pol rises toward U and I. CIV pumping of FeII at 2549A. m(1500) value is estimated for a Feb '95 launch. Joint HUT/WUPPE guest investigator program.

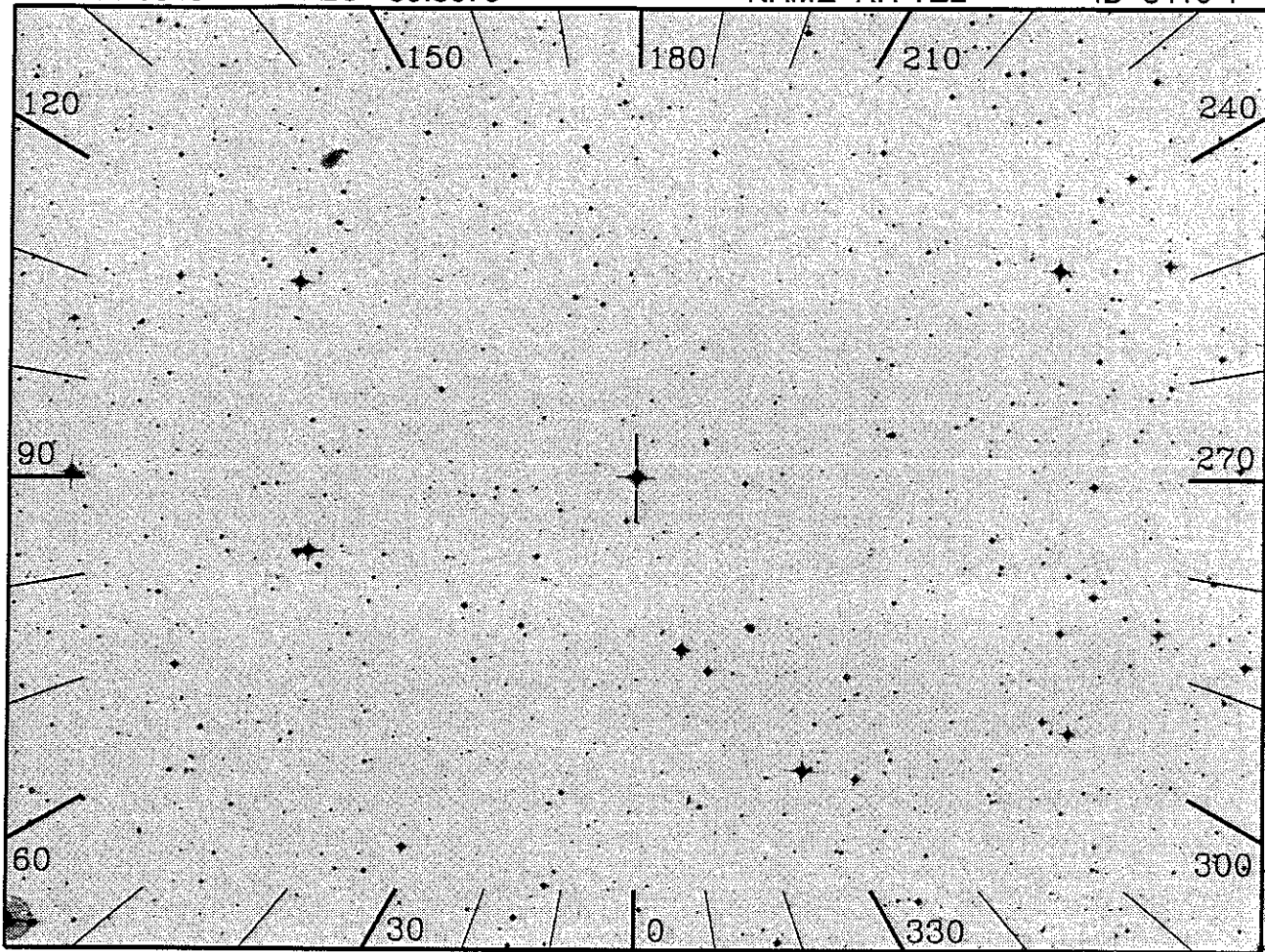


RA 300.0840

DEC -55.8675

NAME RR-TEL

ID 3410-1



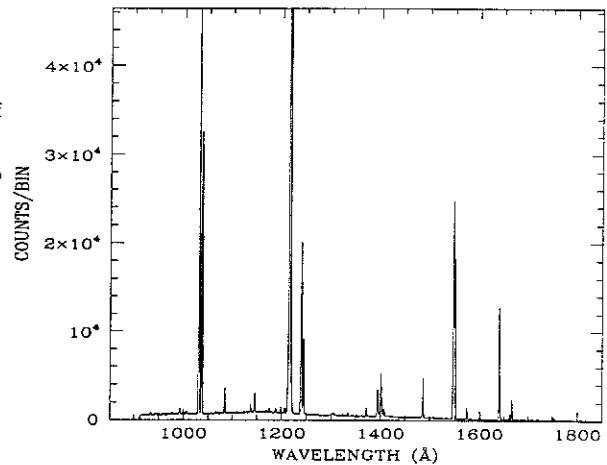
20", 2000(s), Day

OBJECT: 3410 RR-TEL

KEYWORDS: Symbiotic Star

COMMENTS:

Target is a binary system consisting of a red giant of type later than M5 and a hot star with  $T = 140,000$  K. The binary period is 374.2 days with a range of 6.5 to 16.5 (photographic), although a value closer to 11 is more common. The magnitude of the system should be similar to that shown in the target book image. The emission lines in this target are intense, but the Ly-alpha emission has probably been overestimated and probably will have a peak height of about twice that of NV.



ID: 3410-1 H=Prime SciPgm= G11

Names: RR-TEL HEN1811

Info: >M5 V= 9.4 m(1500)=9.4

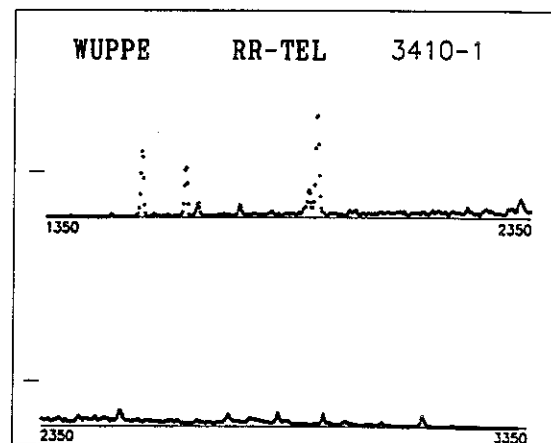
% Pol: 0.24%

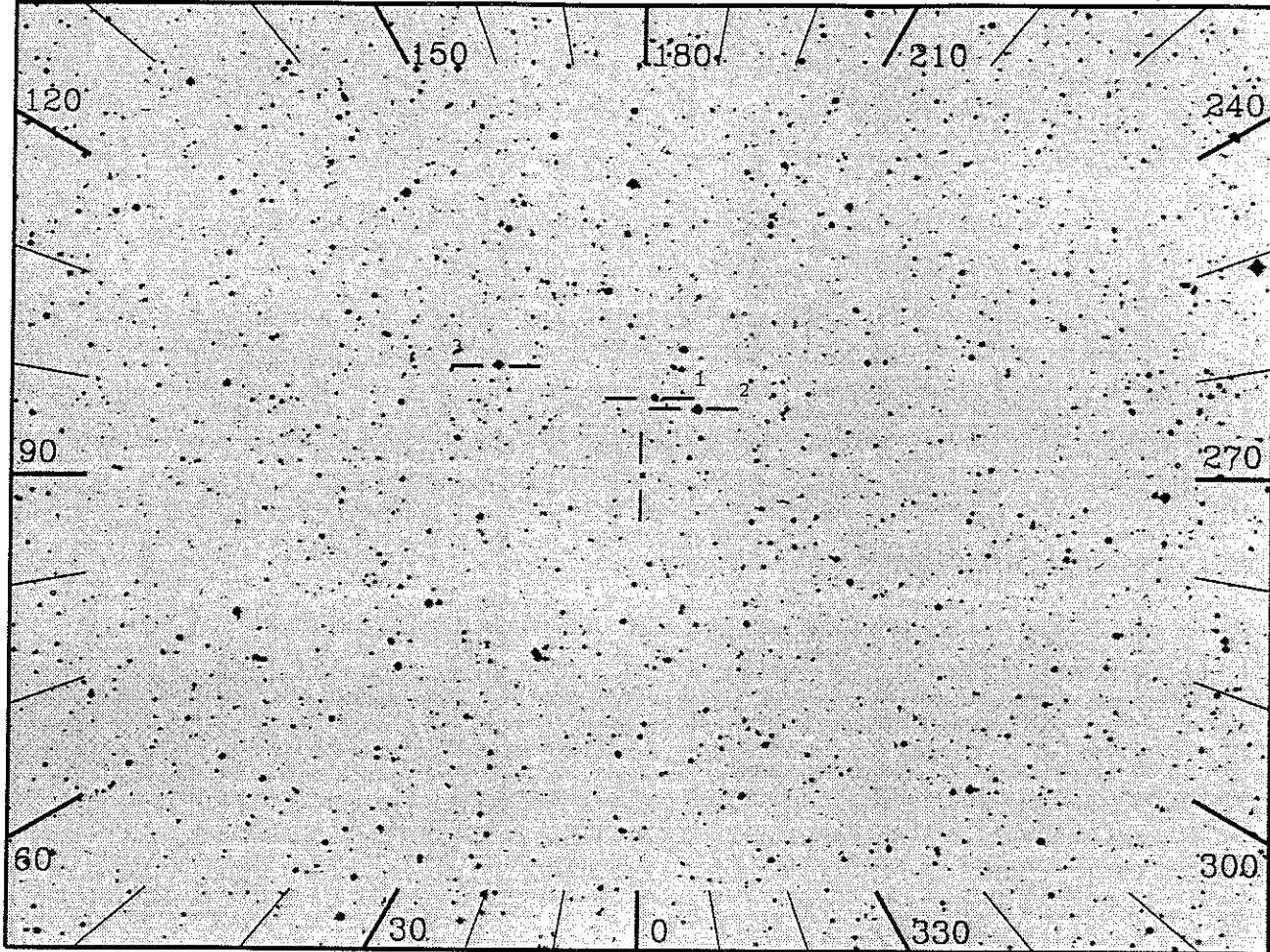
Pos Ang: 103

Mechanism: Mass transfer effects?

Comments:

m(1500) value is estimated for a Feb '95 launch. Joint HUT/WUPPE guest investigator program.





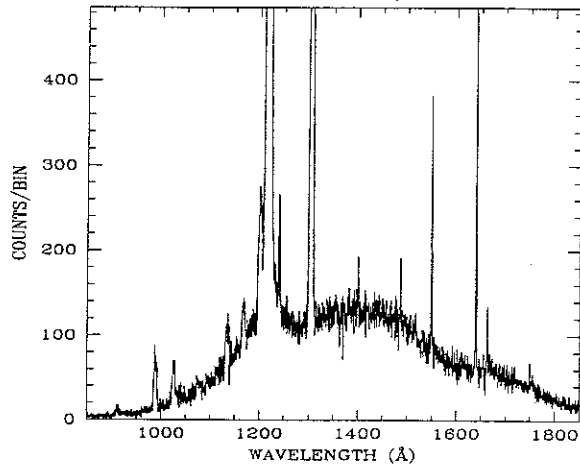
20", 2000(s), Day

OBJECT: 3411 V1329-CYG

KEYWORDS: Symbiotic Star

COMMENTS:

The system consists of a late-type dominating the visible region and a  $T = 145,000\text{K}$  star dominating the UV. The binary should be close to minimum of  $V = 14.0$  and approximately one magnitude fainter than as shown in the target book field. The system varies between B magnitudes of 12 and 18.8 over a period of 554 days and the hotter star undergoes eclipse at minimum. The high ionization lines decrease in strength relative to the low ionization lines during eclipse.



ID: 3411-1 H=Prime SciPgm= G11

Names: V1329CYG HBV475

Info: >M4 V=14.0 m(1500)=11.9

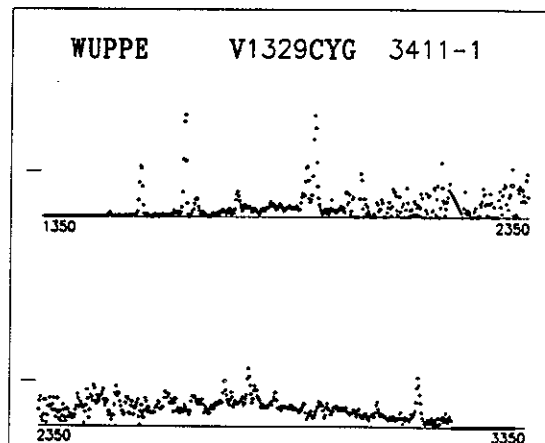
% Pol: 1

Pos Ang: 25

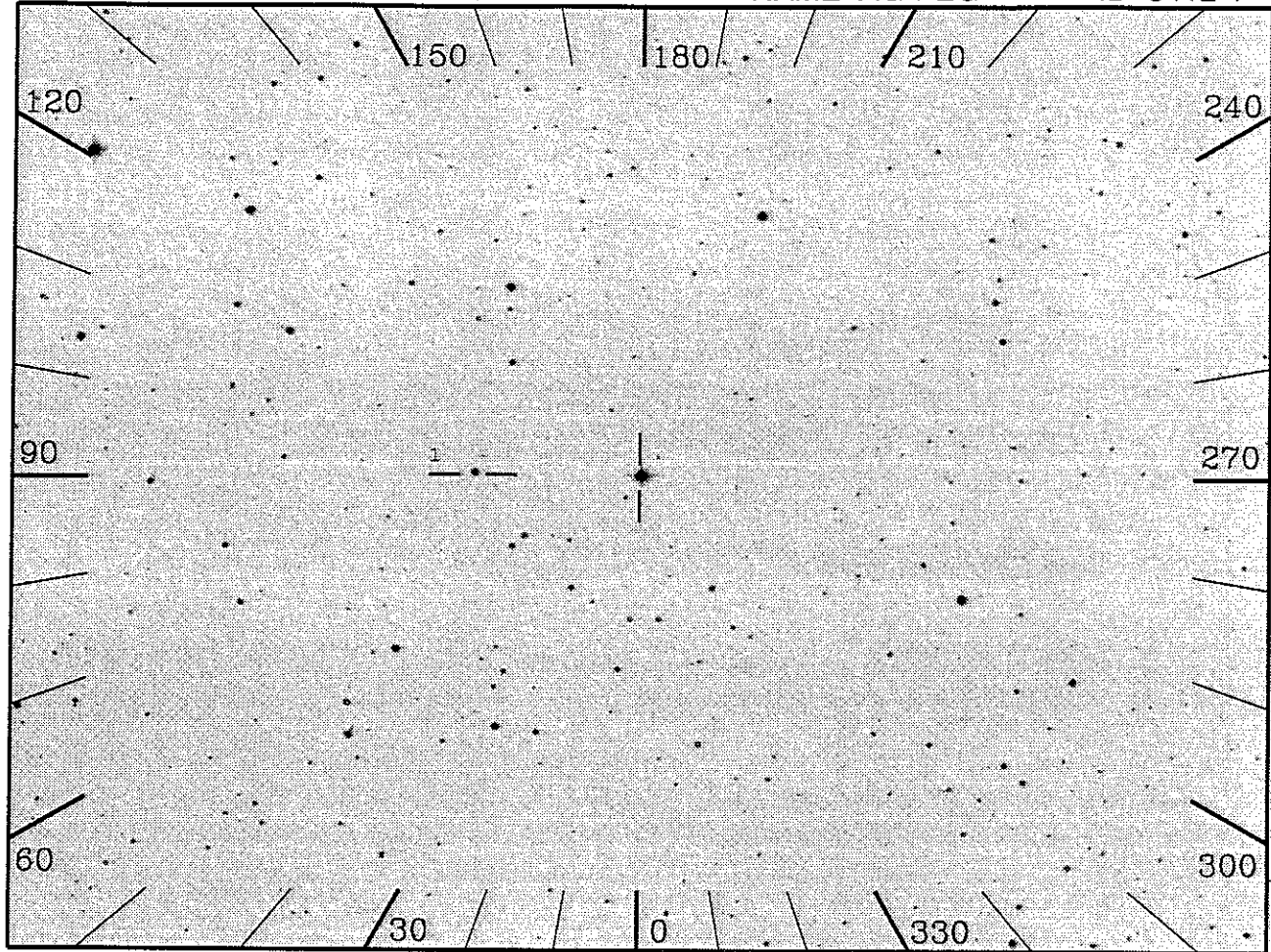
Mechanism: Interstellar

Comments:

Interesting polarization feature in optical spectrum (Garnavich - private communication).  
 OVI and CIV pumping of UV FeII.  
 m(1500) value is estimated for a Feb '95 launch. Joint HUT/WUPPE guest investigator program.







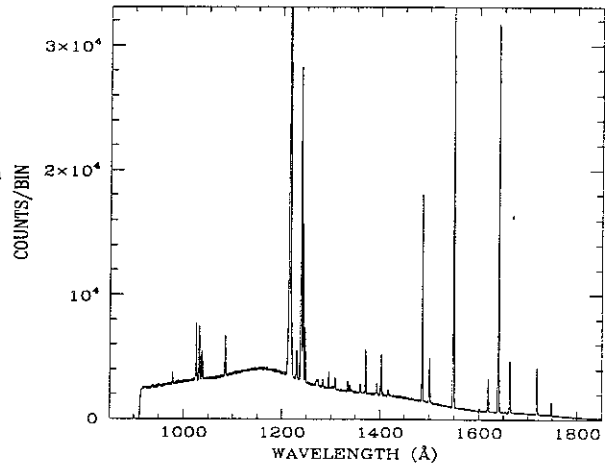
20", 2000(s), Day

OBJECT: 3412 AG-PEG

KEYWORDS: Symbiotic Star

COMMENTS:

Binary star system with M3 III star dominating the visible and T = 100,000K star the UV. Strong OVI 1035 and possibly CIII 977 have been observed together with FUV stellar continuum with Voyager UVS. Target is expected to be near minimum and field should be similar to that shown in target book field. Range is V = 6.0 to 9.4 with a period of 817 days. High ionization lines may be weaker near minimum with respect to low ionization lines. Count rate is expected to be about 2330 cts/s (no airglow) for 750 cm\*\*2 aperture and spectrum shown.



ID: 3412-1 H=Prime SciPgm= G11

Names: AG-PEG HD207757

Info: M3.0III V= 8.9 m(1500)=7.3

% Pol: 0.2

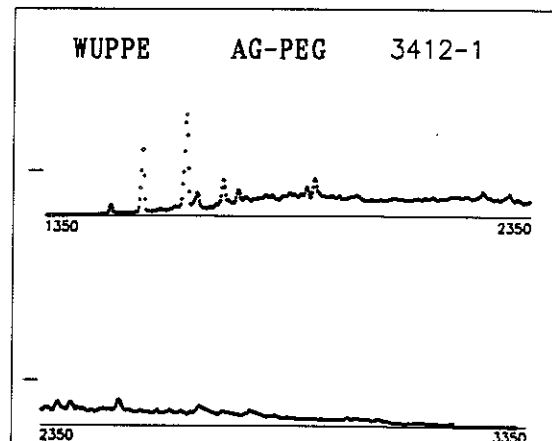
Pos Ang: 105

Mechanism:

Comments:

Pol variable. Lyman-alpha and CIV pumping of UV FeII.

m(1500) value is estimated for a Jan '95 launch. Joint HUT/WUPPE guest investigator program.

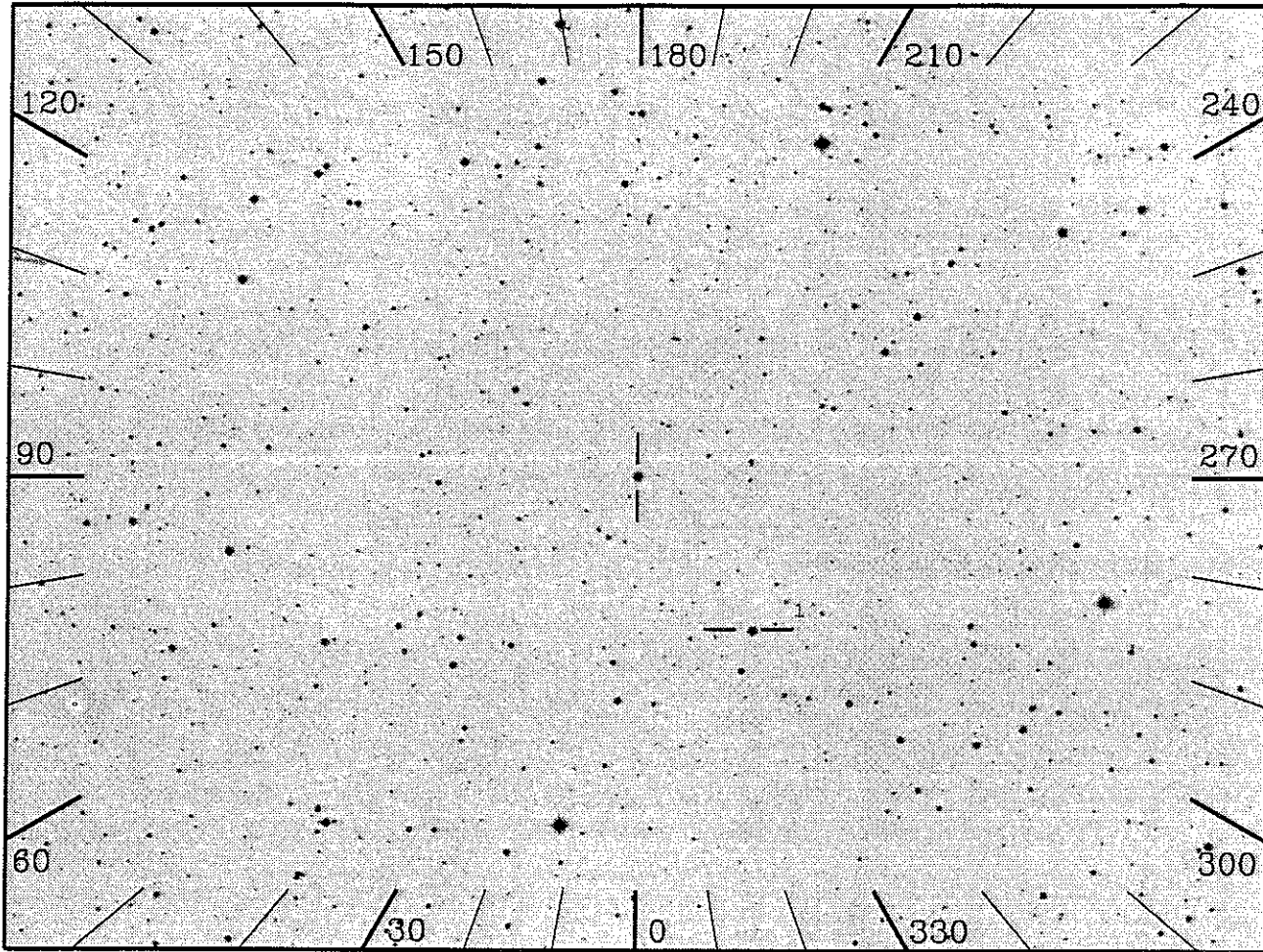


RA 352.8142

DEC 48.5420

NAME Z-AND

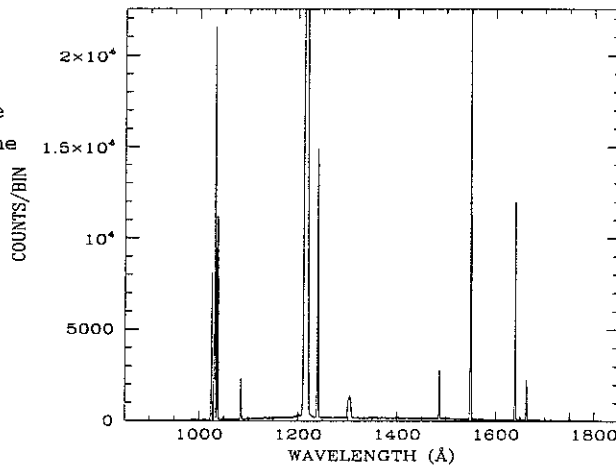
ID 3413-1



20", 2000(s), Day

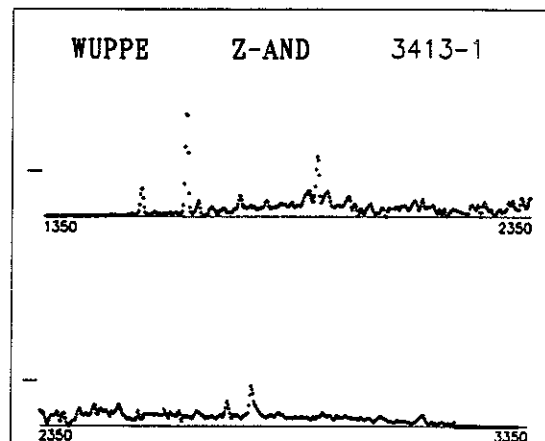
OBJECT: 3413 Z-AND  
 KEYWORDS: Symbiotic Star  
 COMMENTS:

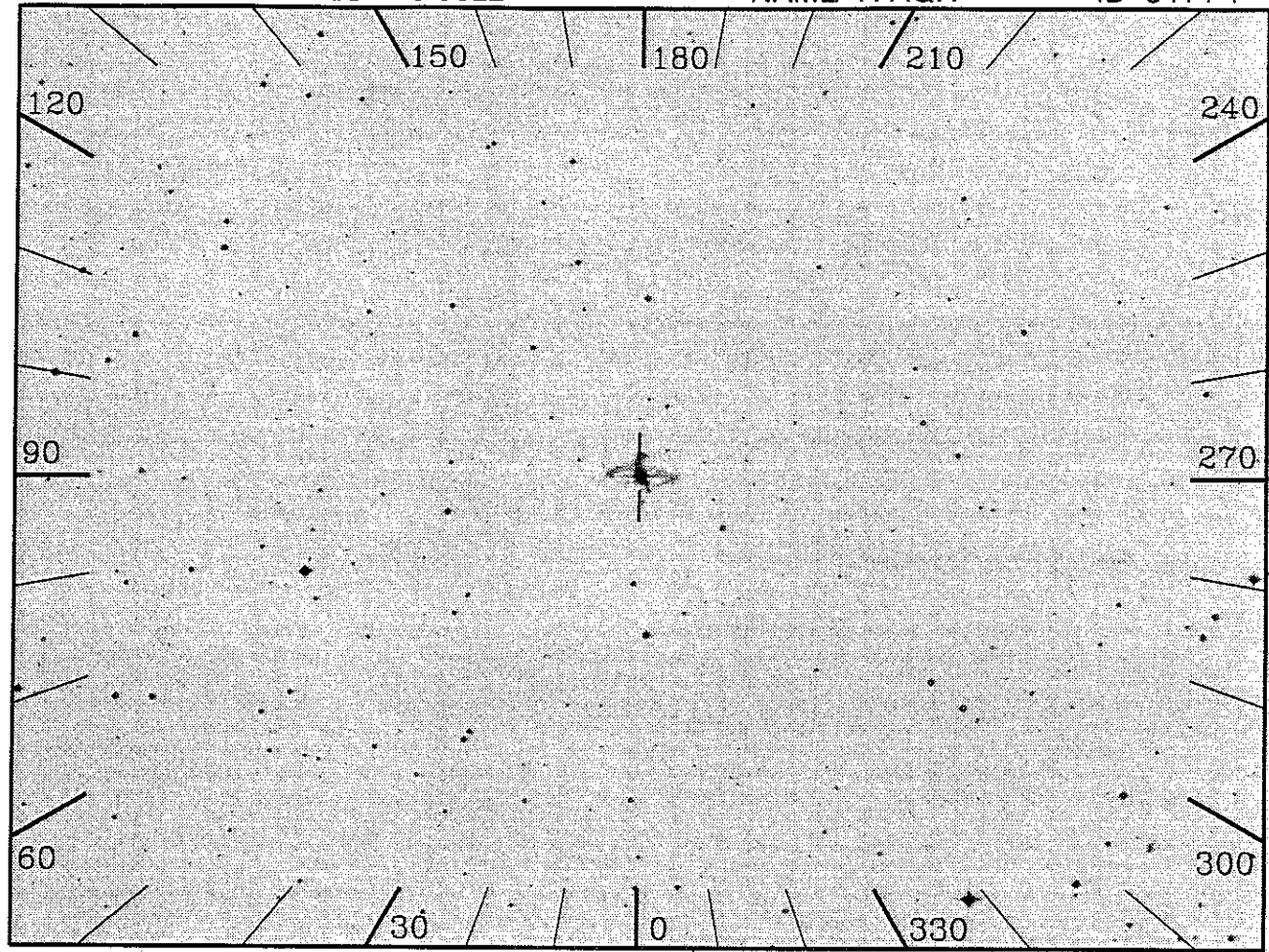
The system consists of a M3.5 III star dominating the visible and a T = 130,000K star dominating the UV. The field is expected to be near maximum and about three magnitudes brighter than shown on the target book page. The magnitude ranges between pg 8.0 and 12.4 with a period of 757 days. The Voyager UVS detected OVI 1035A lines and stellar continuum.



ID: 3413-1 H=Prime SciPgm= G11  
 Names: Z-AND HD221650  
 Info: M3.5III V= 8. m(1500)=11.5  
 % Pol: 1.3  
 Pos Ang: 53  
 Mechanism: Interstellar  
 Comments:

OVI and Lyman-alpha pumping of UV FeII.  
 m(1500) value is estimated for a Feb '95 launch. Joint HUT/WUPPE guest investigator program.





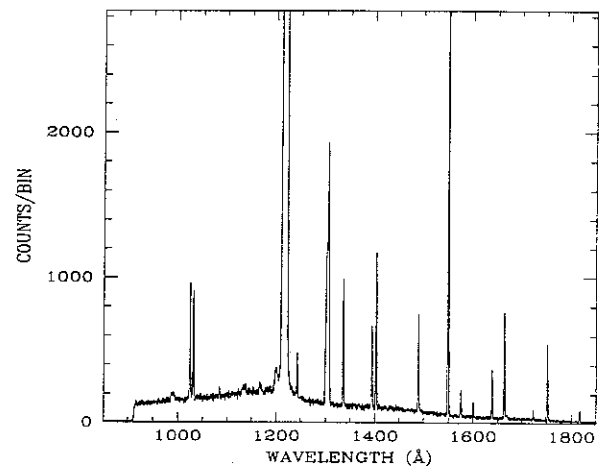
20", 2000(s), Day

OBJECT: 3414 R-AQR

KEYWORDS: Symbiotic Star

COMMENTS:

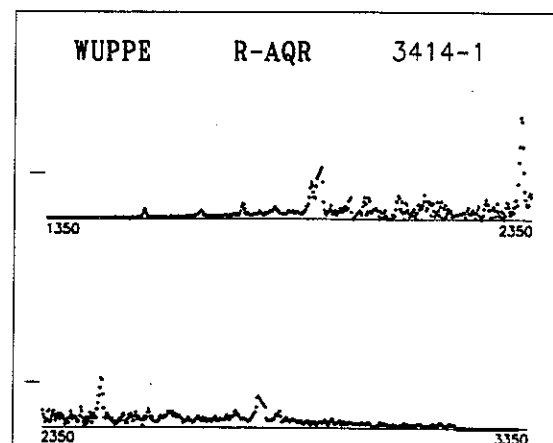
System consists of a Mira M7 III star together with a hot component with a temperature between  $5.0 \times 10^4 \text{K}$  and  $1.5 \times 10^5 \text{K}$  depending on phase. The system is expected to be near minimum and about 3 magnitudes fainter than as shown in the target book field. Voyager UVS data shows both a stellar continuum and OVI 1035A.



ID: 3414-1 H=Prime SciPgm= G11  
 Names: R-AQR HD222800  
 Info: M7III V=10.4 m(1500)=12.3  
 % Pol: 0.50  
 Pos Ang: 172.0  
 Mechanism: Dust scattering  
 Comments:

Pol variable. Sometimes over 10%  
 in UV.

m(1500) value is estimated for a Jan '95  
 launch. Joint HUT/WUPPE guest investigator  
 program.

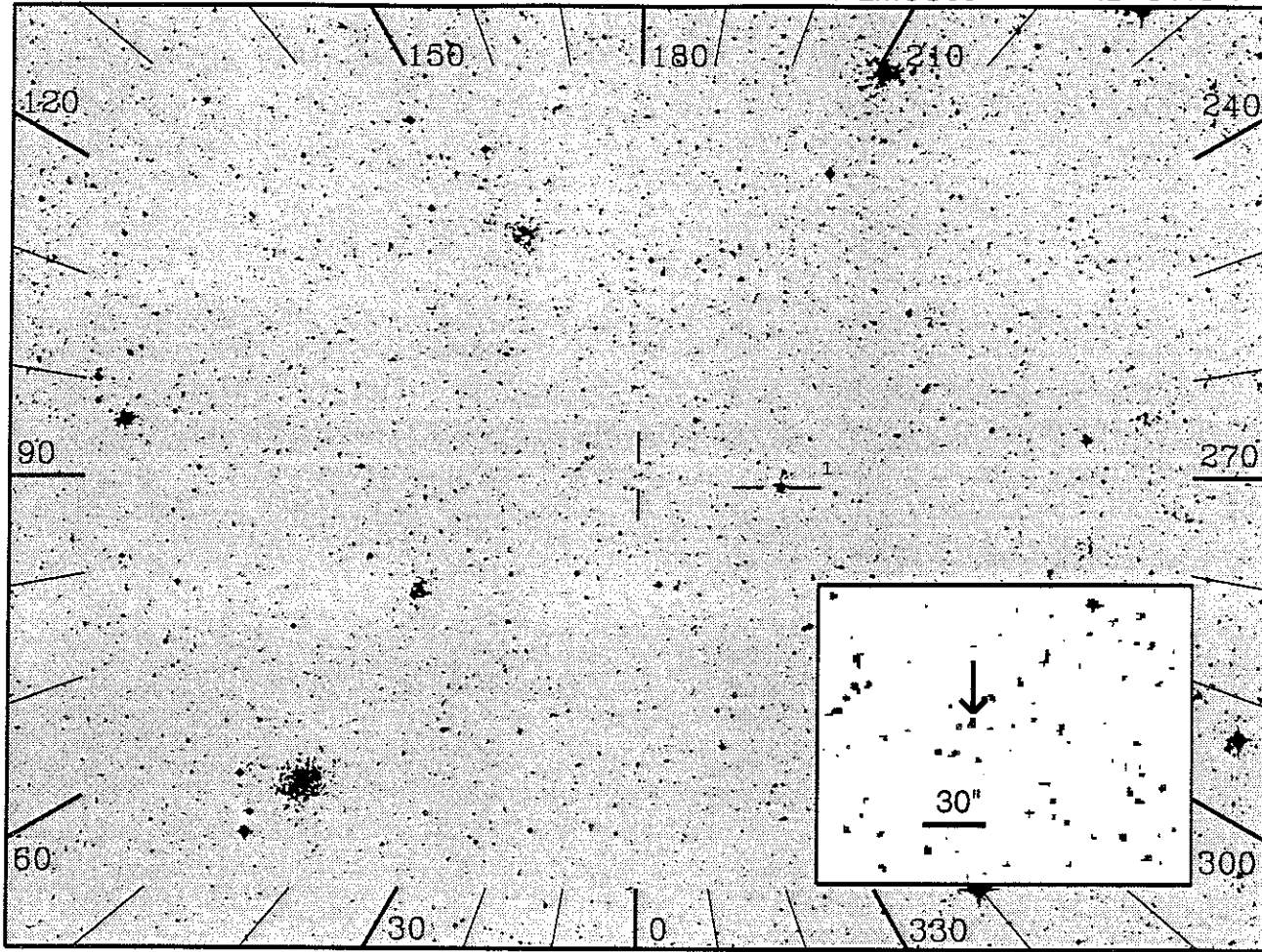


RA 87.2163

DEC -67.6166

NAME LMCS63

ID 3418-1



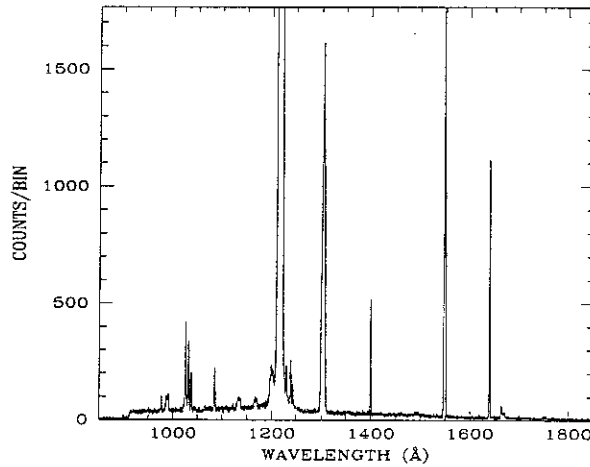
20", 2000(s), Day

OBJECT: 3418 LMCS63

KEYWORDS: Symbiotic Star

COMMENTS:

Binary system consisting of a R giant together with a  
T = 80,000K star dominating the UV region.



ID: 3418-1 H=Prime SciPgm= G11

Names: LMCS63 HV12671

Info: R V=12. m(1500)=13.9

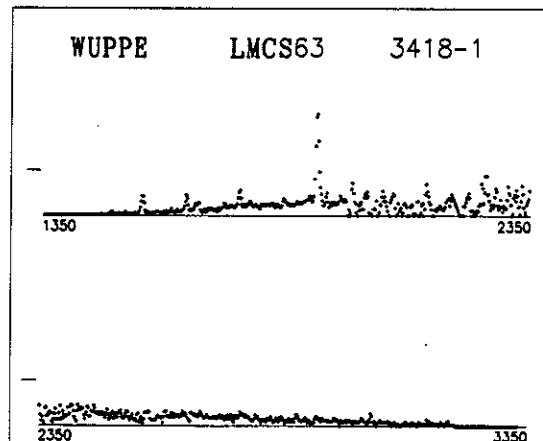
\* Pol:

Pos Ang:

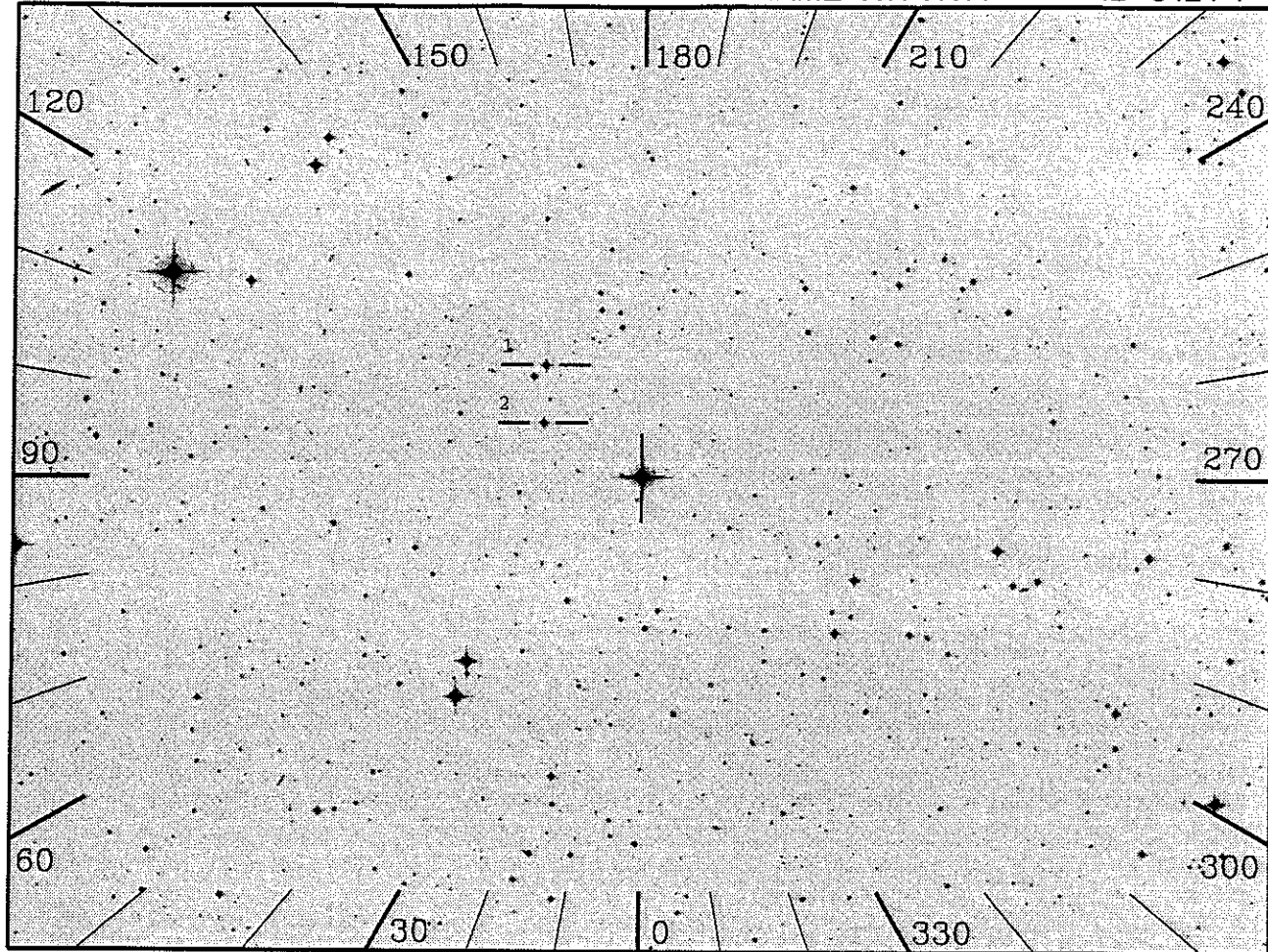
Mechanism:

Comments:

m(1500) value is estimated for a Feb '95  
launch. Joint HUT/WUPPE guest investigator  
program.







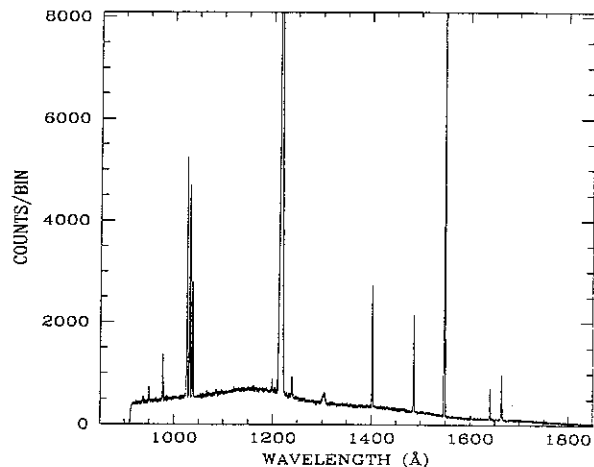
20", 2000(s), Day

OBJECT: 3424 RW-HYA

KEYWORDS: Symbiotic Star

COMMENTS:

System consists of M1 III star dominating the visible and a T = 75,000K star dominating the UV. The system is expected to be approaching minimum and the field should look similar to that shown in the target book image. Strong OVI 1035A lines and stellar continuum were detected by the Voyager UVS instrument.



ID: 3424-1 H=Prime SciPgm= G11

Names: RW-HYA HD117970

Info: M1.1III V=10.0 m(1500)=8.8

% Pol: 0.6%

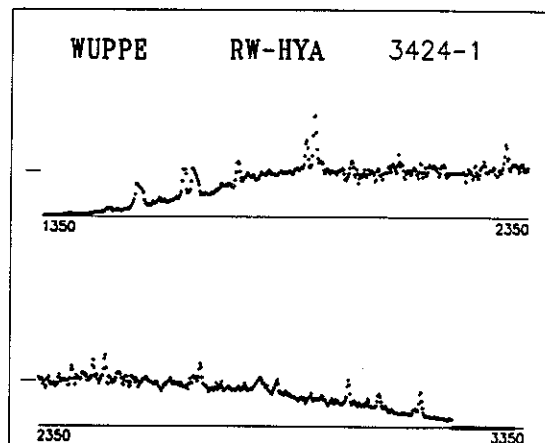
Pos Ang: 60

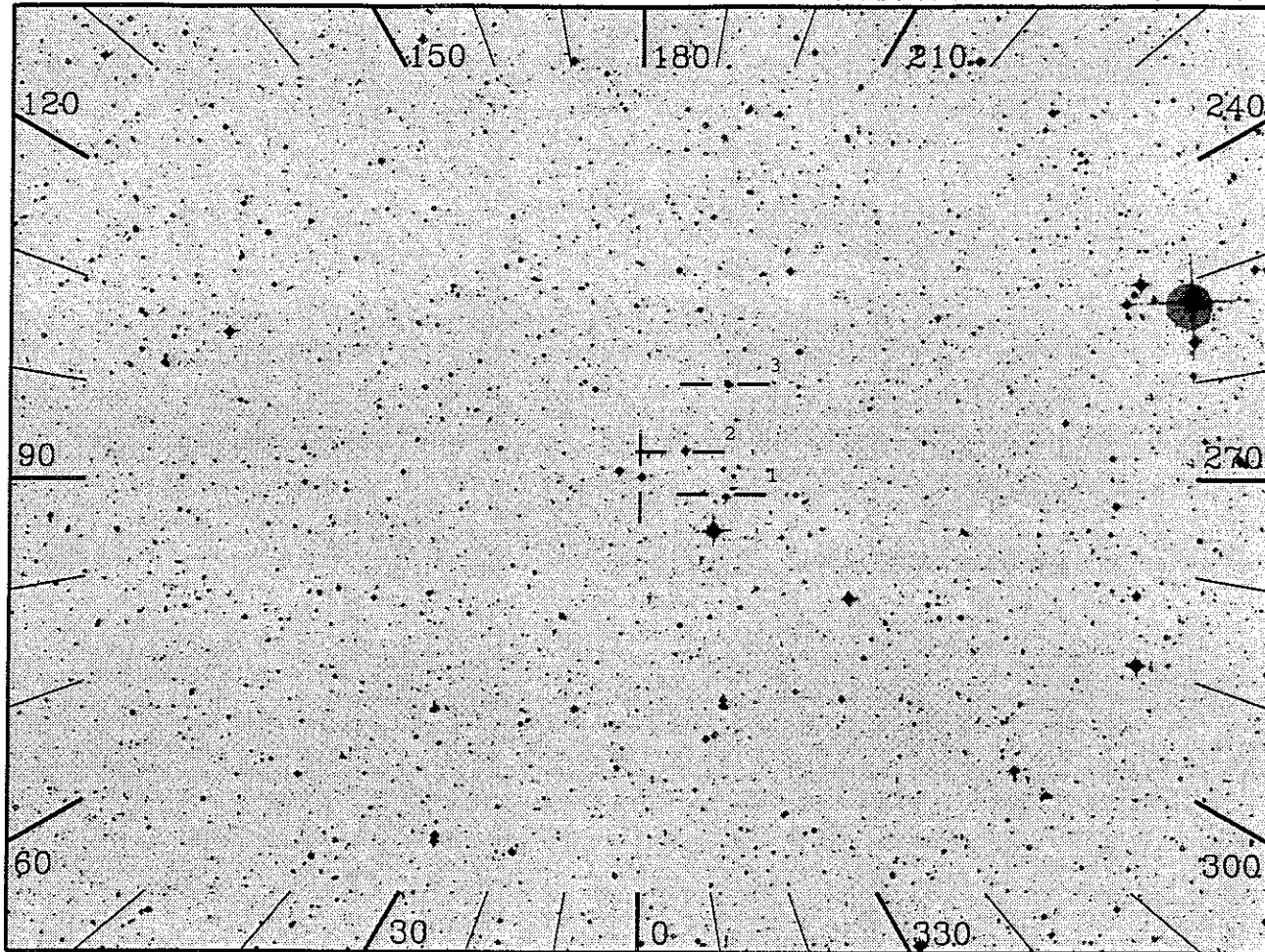
Mechanism:

Comments:

Line effect at H-alpha.

m(1500) value is estimated for a Jan '95 launch. Joint HUT/WUPPE guest investigator program.

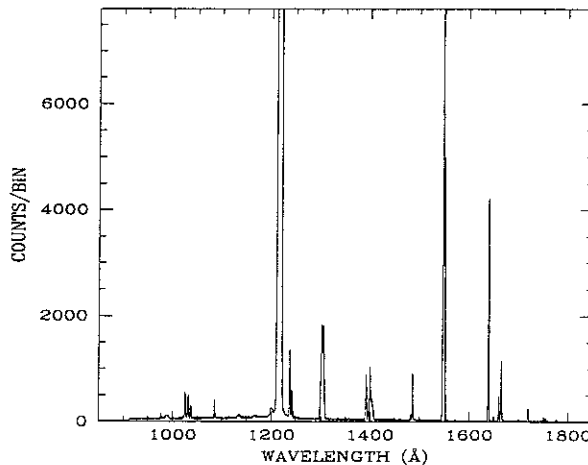




20", 2000(s), Day

OBJECT: 3427 KX-TRA  
 KEYWORDS: Symbiotic Star  
 COMMENTS:

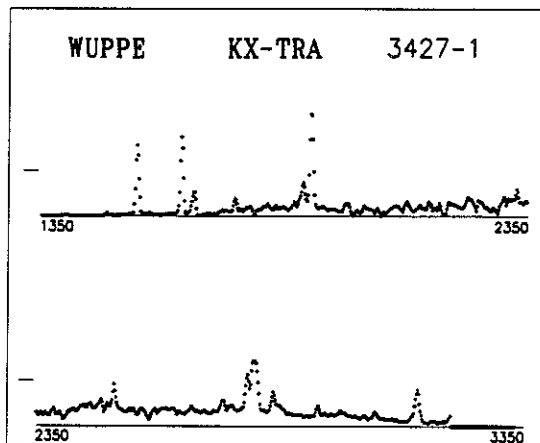
The system is not observed to be variable and the field should look similar to that seen in the target book field. There is some evidence for an increase in the intensity of the high ionization lines between 1980 and 1990. Expected count rate for full aperture is expected to be 100 cts/s (no airglow) for spectrum shown.

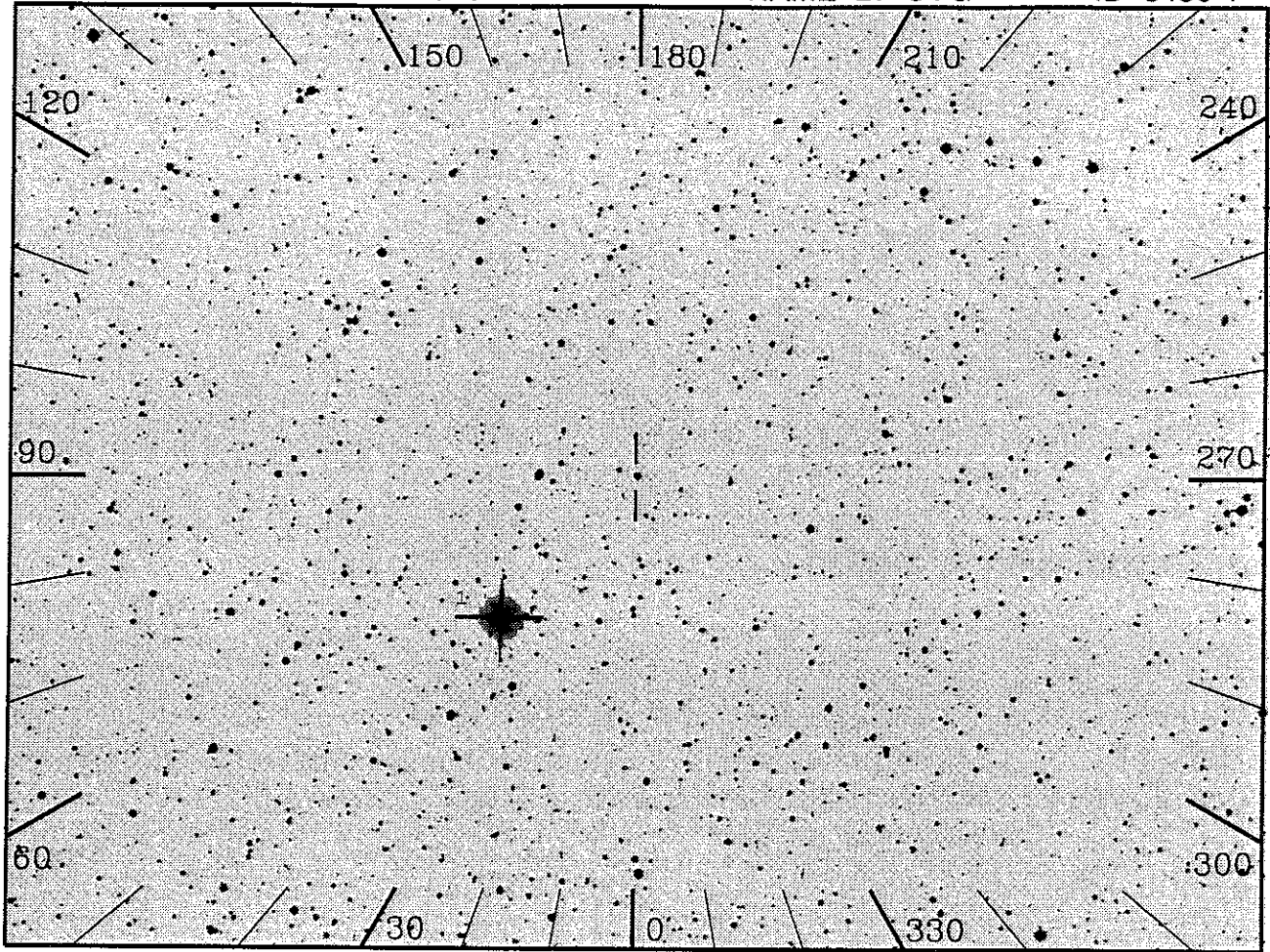


ID: 3427-1 H=Prime SciPgm= G11  
 Names: KX-TRA HEN1242  
 Info: V=12.4 m(1500)=13.5  
 % Pol:

Pos Ang:  
 Mechanism:

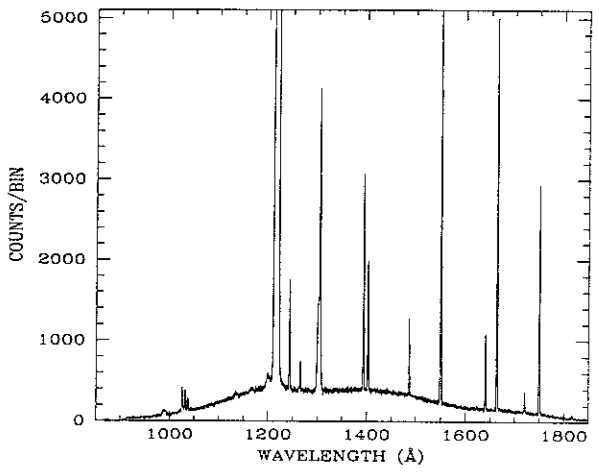
Comments:  
 m(1500) value is estimated for a Jan '95 launch. Joint HUT/WUPPE guest investigator program.



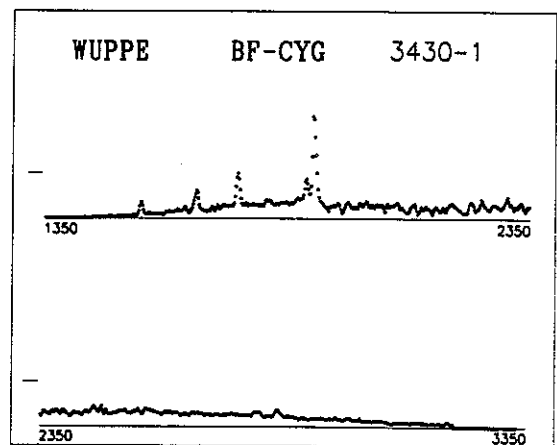


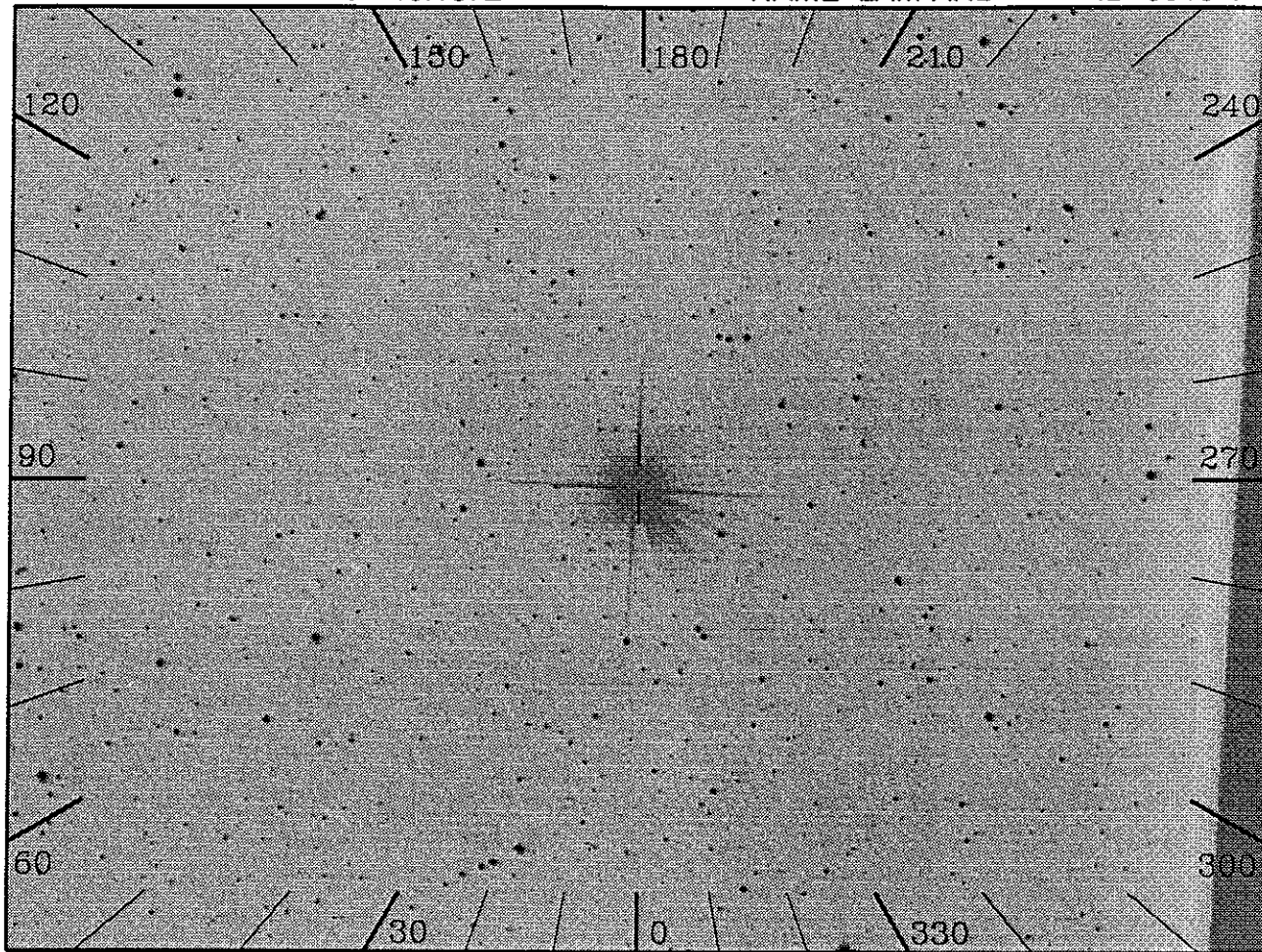
20", 2000(s), Day

OBJECT: 3430 BF-CYG  
 KEYWORDS: Symbiotic Star  
 COMMENTS:  
 Binary consists of M5 III star which dominates the visible and a T = 55,000K star which dominates in the UV. The system is expected to be approaching minimum while the field shown in the target book field is for near maximum. Range has been observed to be in 9.3 to 13.4 (photographic).



ID: 3430-1 H=Prime SciPgm= G11  
 Names: BF-CYG MWC315  
 Info: M5III V=12. m(1500)=10.7  
 % Pol: 0.15%  
 Pos Ang: not defined  
 Mechanism:  
 Comments:  
 m(1500) value is estimated for a Feb '95 launch. Joint HUT/WUPPE guest investigator program.





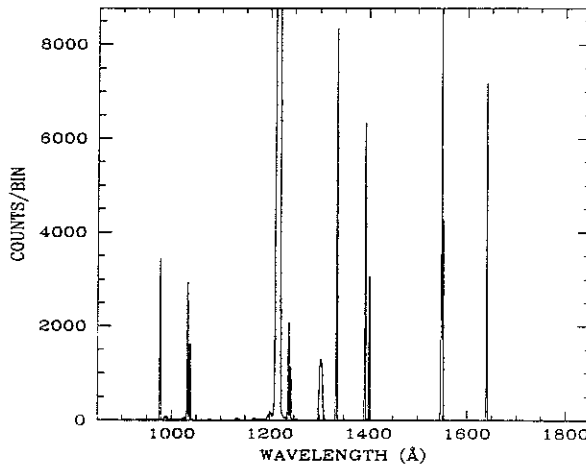
20", 2000(s), Day

OBJECT: 3513 LAM-AND

KEYWORDS: Coronal star

COMMENTS:

This is an active late-type star, an RS CVn binary. Emission line fluxes are based on IUE measurements and solar active regions. The UV flux is variable.



ID: 3513-1 W=Prime SciPgm= W51

Names: LAM-AND HD222107

Info: G8III-IV V= 3.9 Wupmag=7.09

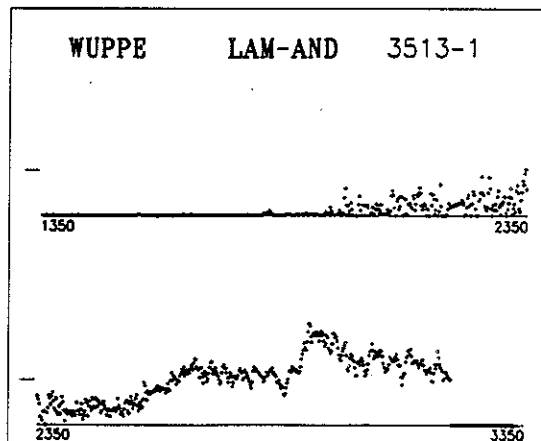
% Pol: 0.01

Pos Ang: 22.0

Mechanism: e-scattering from active regions

Comments:

Has one of the most active chromospheres known, as shown by extremely strong CaII H and K em lines. e-scattering might be greatly enhanced above such regions, and their semi-random distribution and changing aspect resulting from rotation might lead to variable pol.



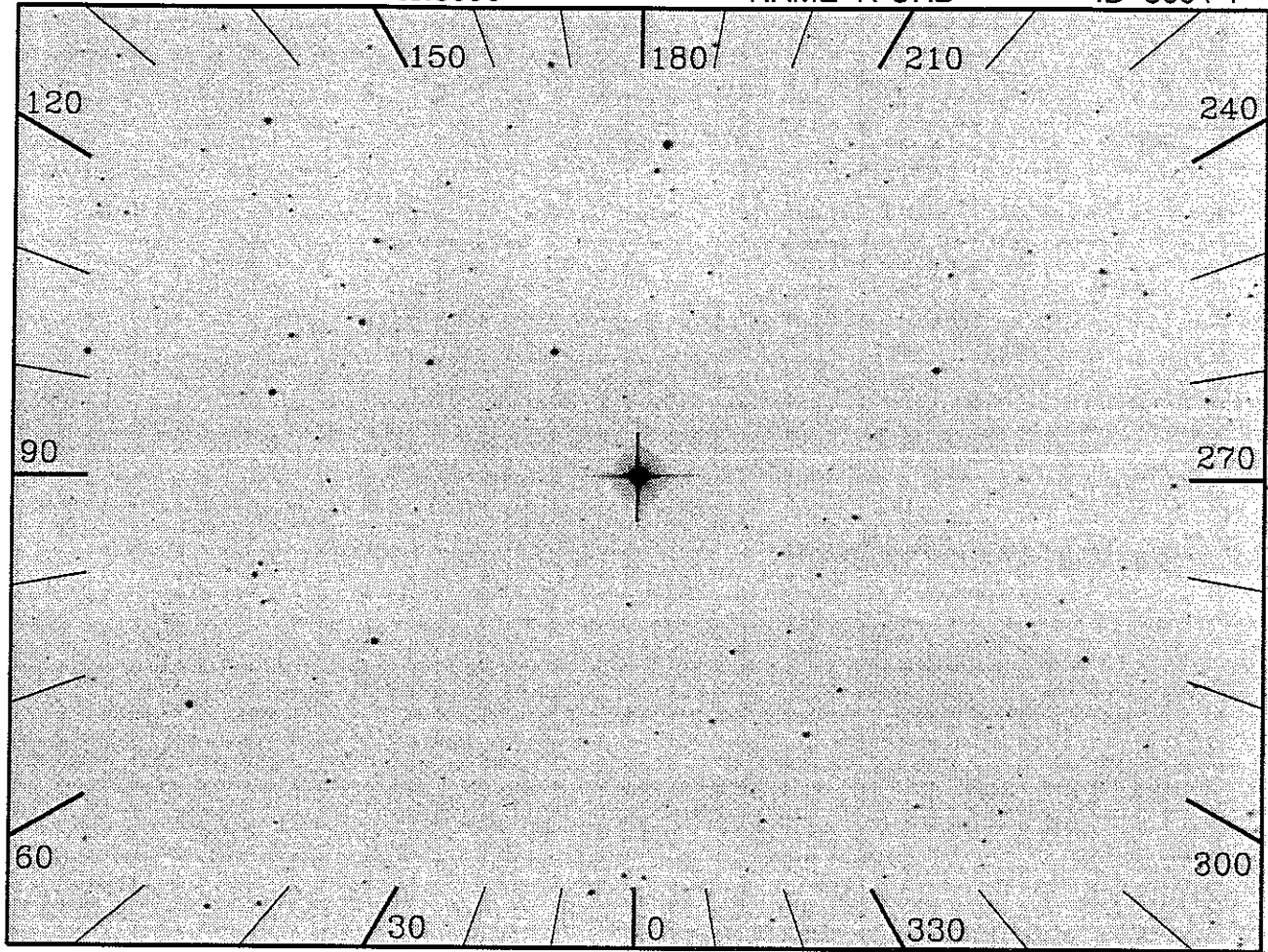


RA 236.6279

DEC 28.3090

NAME R-CRB

ID 3604-1



20", 1000(s), Night

OBJECT: R-CRB

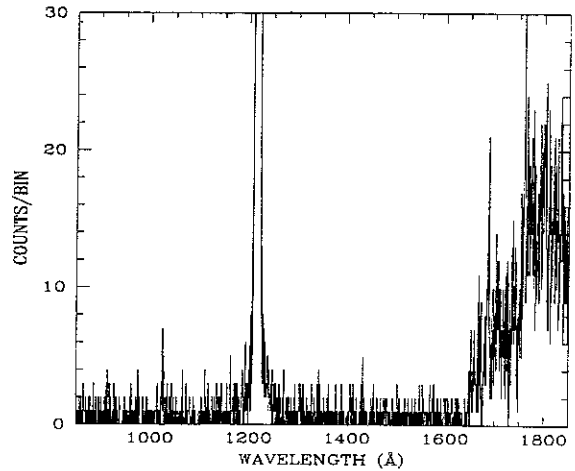
KEYWORDS: Variable star

COMMENTS:

6.99 < V < 5.71 B-V=0.6 E(B-V)=0 spectype=G0Iab:pe

Flux\_1800 = 6e-14

Initial\_expected\_rate = 4 cts/sec



ID: 3604-1 W=Prime SciPgm= W23

Names: R-CRB HD141527

Info: G0Iep V= 5.8 Wupmag=7.97

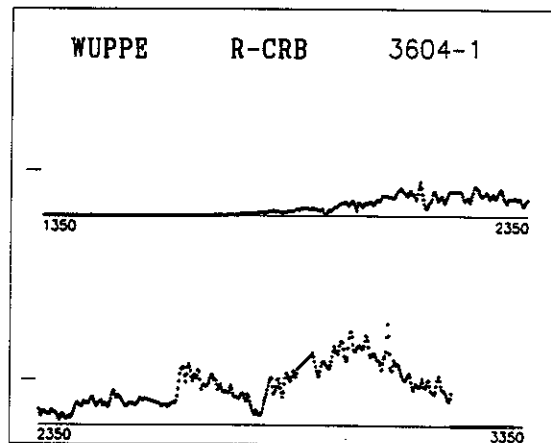
% Pol: 0.26

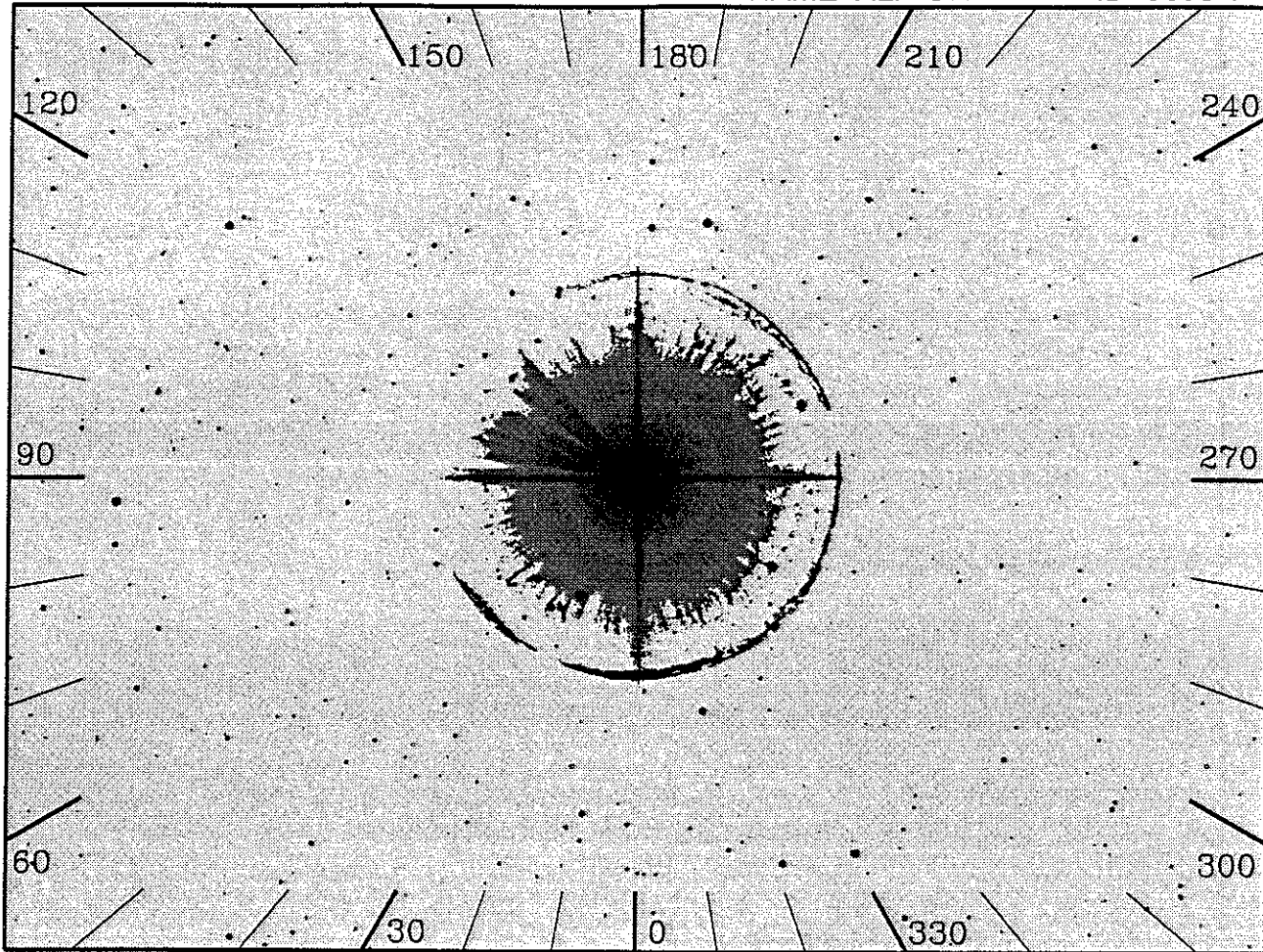
Pos Ang: 98.0

Mechanism: Dust scattering

Comments:

Polarization, position angle, and brightness varies. Eruptive variable. Minimum light generally means maximum polarization.





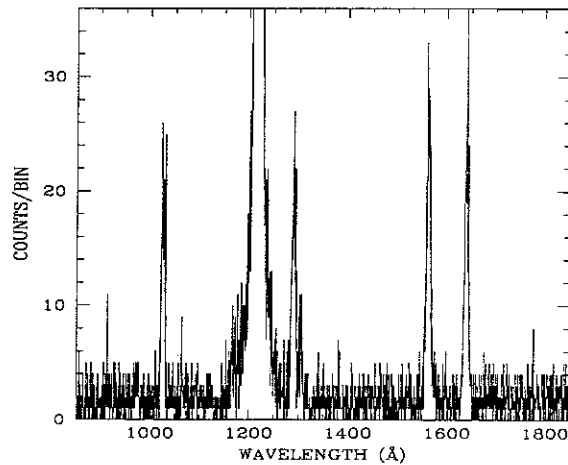
20", 2000(s), Night

OBJECT: 3606 ALF-ORI

KEYWORDS: Late-type star

COMMENTS:

Cool Giant star. No UV continuum is expected.  
Emission lines at 1290, 1562 and 1640 Angstroms based on IUE. An offset will be performed to obtain airglow through a different slit.



ID: 3606-1 W=Prime SciPgm= W31

Names: ALF-ORI HD39801

Info: M1.5Ia V= 0.8 Wupmag=5.23

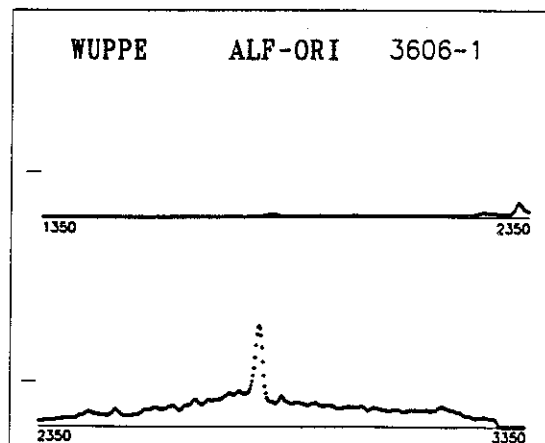
% Pol: 0.65 (ASTRO-1)

Pos Ang: 45.0 (ASTRO-1)

Mechanism: Rayleigh scattering in photosphere and scattering by circumstellar dust.

Comments:

Observed during Astro-1; good pol. Variable pol observed at PBO, from 0% to 0.7%. PA varies. Variable luminosity, period about 1 year. Pol increases towards the blue. Should see pol structure across TiO bands.

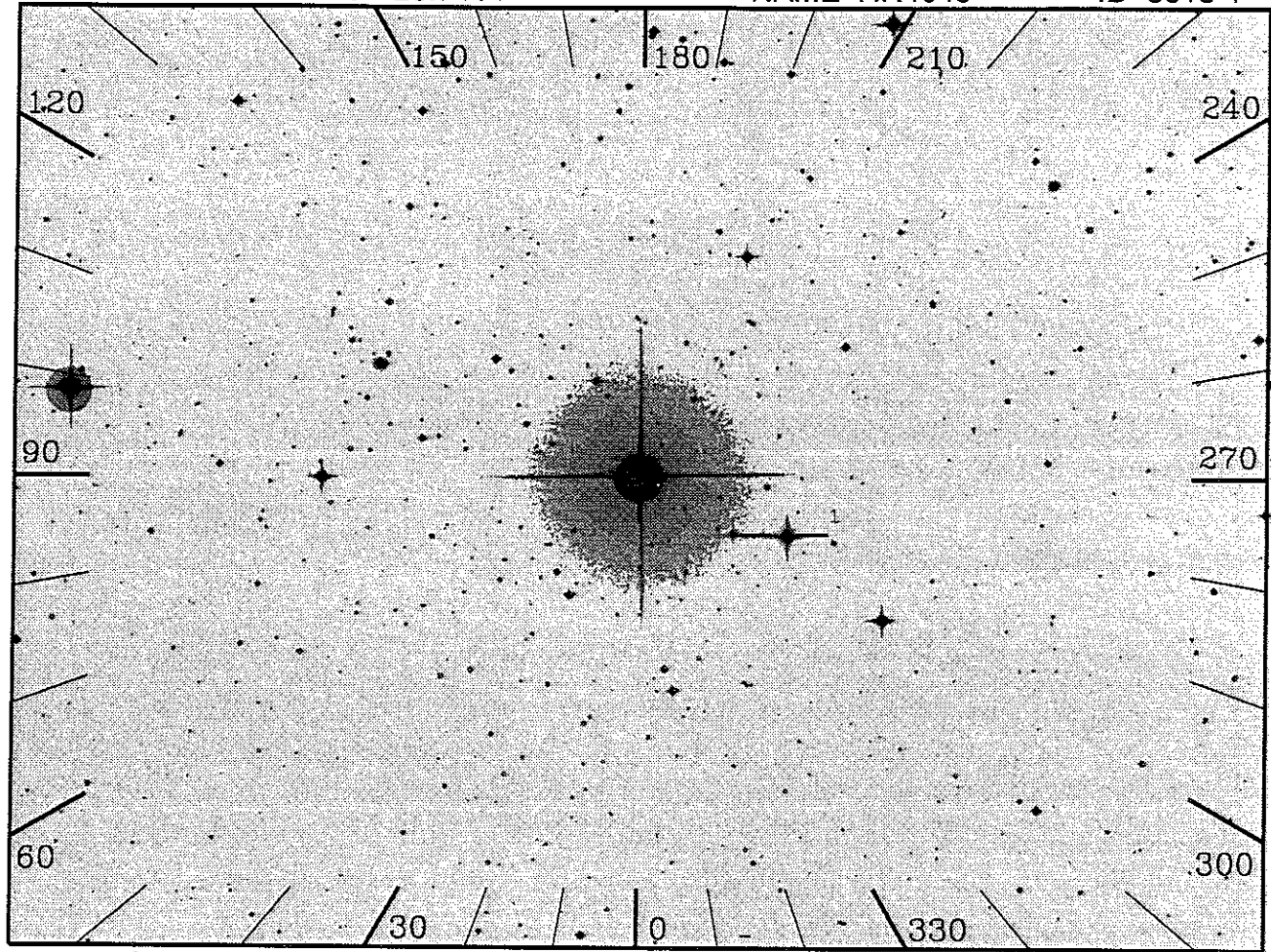


RA 153.9579

DEC -28.7414

NAME HR4049

ID 3613-1



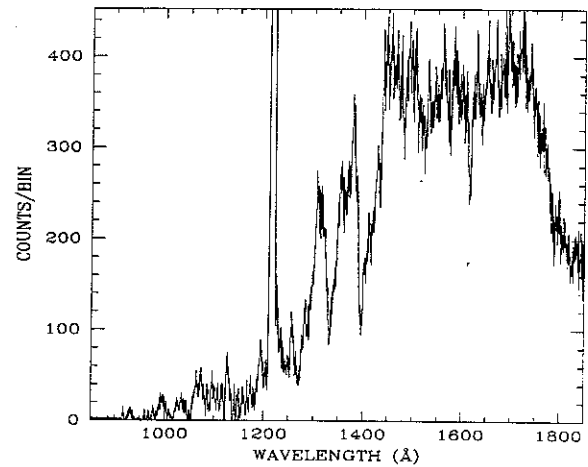
20, 2000(s), Night

OBJECT: 3613 HR4049

KEYWORDS: Highly Evolved Transition Star: Metal Poor

COMMENTS:

B9 type ensures good FUV flux.



ID: 3613-1 W=Prime SciPgm= W34

Names: HR4049 HD89353

Info: B9.5Ib V= 5.3 Wupmag=7.49

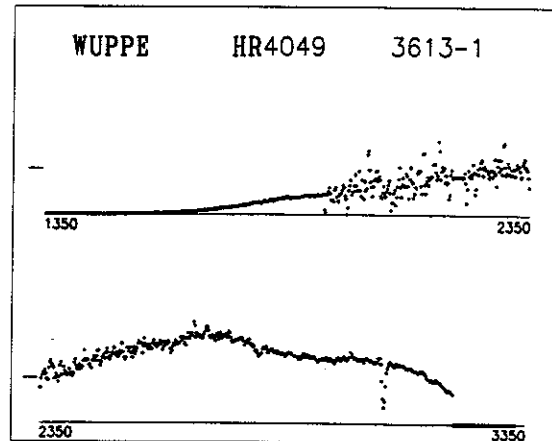
% Pol: 0.30

Pos Ang: 55.0

Mechanism: Dust scattering in unresolved nebula

Comments:

Roll angle of 150 degrees to maximize pol in U band. Indication of pol rising to UV. May have hot companion. Observed at PBO, pol const but PA varies in wavelength. Slightly variable. Proto-planetary nebula; heavily reddened B star.

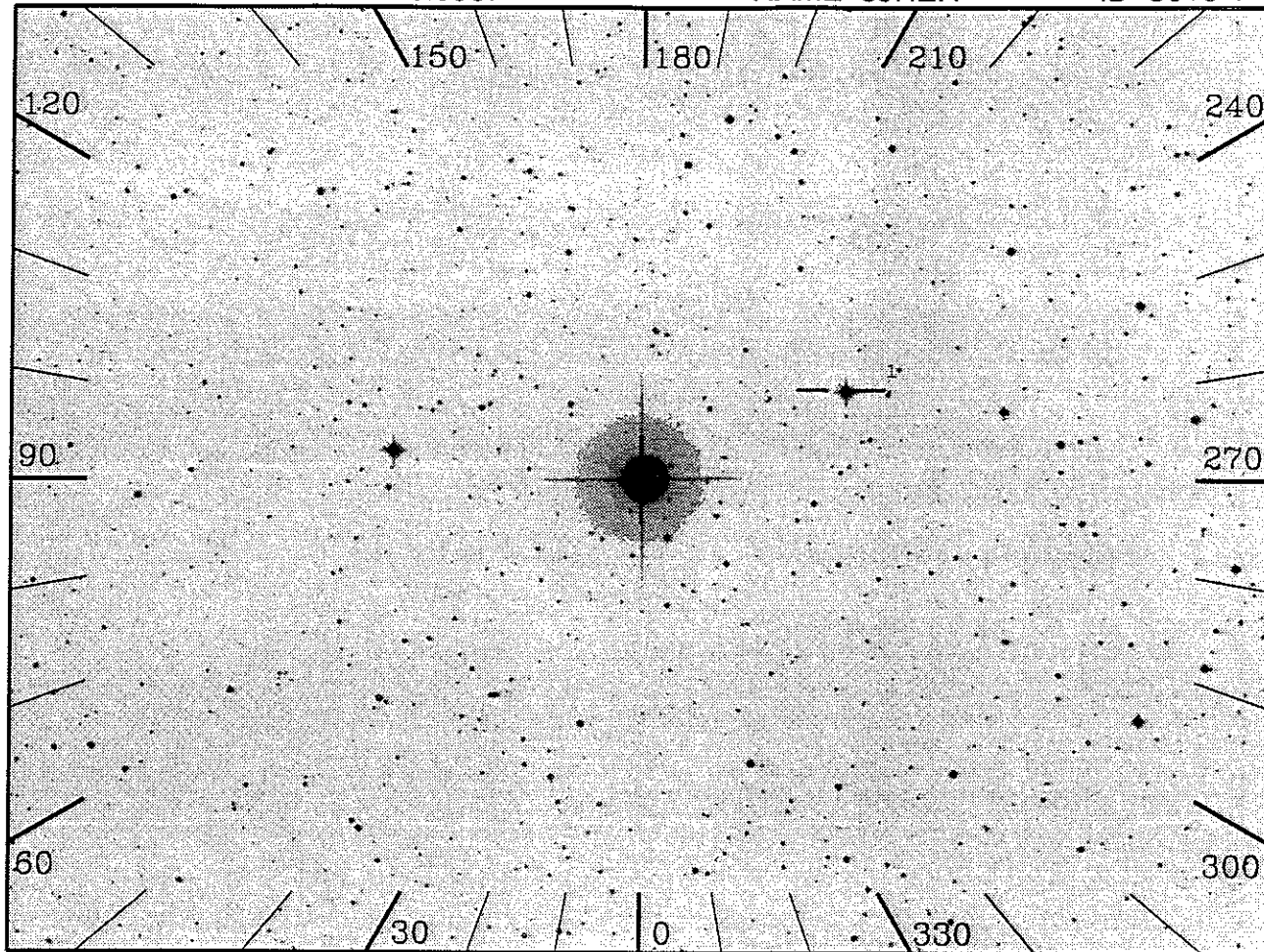


RA 268.3502

DEC 26.0567

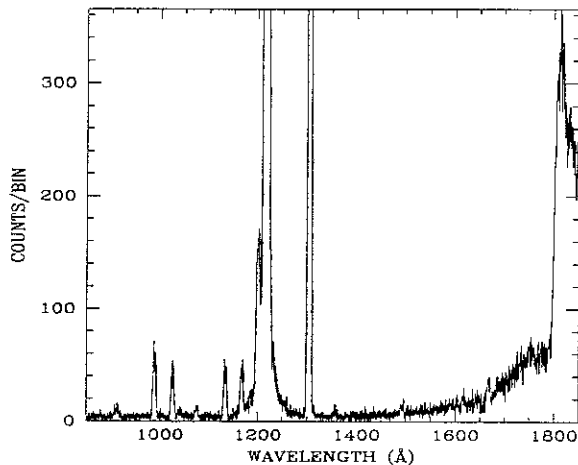
NAME 89HER

ID 3618-1

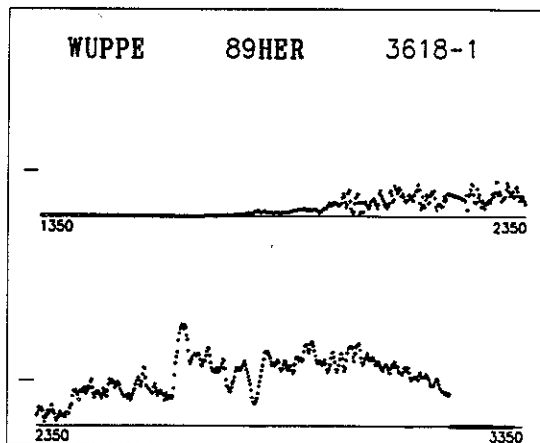


20, 2000(s), Day

OBJECT: 3618 89HER  
 KEYWORDS: Highly Evolved Transition Star: Metal Poor  
 COMMENTS:  
 F type ensures poor FUV flux.



ID: 3618-1 W=Prime SciPgm= W34  
 Names: 89HER HD163506  
 Info: F2 Ia V= 5.5 Wupmag=7.75  
 % Pol: 0.8  
 Pos Ang: 80.0.  
 Mechanism: Dust scattering in unresolved nebula  
 Comments:  
 Observed at PBO; pol varies from 0.26% at 71 deg to 0.96% at 76 deg. PA can go to 98 deg. Slightly variable.



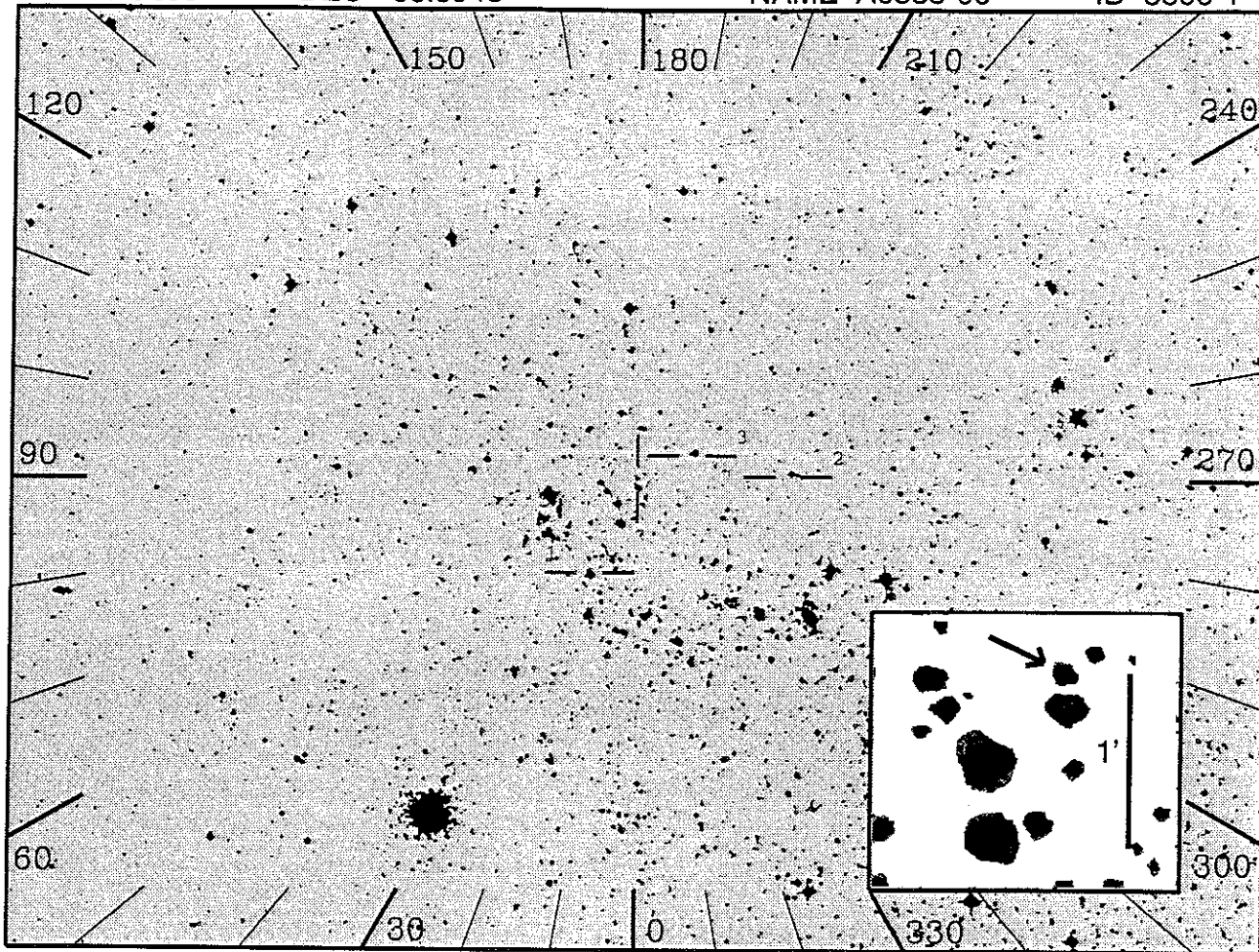


RA 83.9283

DEC -66.8943

NAME A0538-66

ID 3806-1



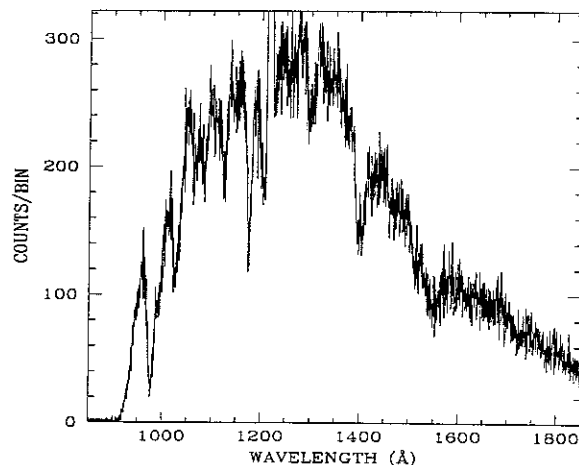
20", 2000(s), Night

OBJECT: 3806 A0538-66

KEYWORDS: X-ray Binary, Be star

COMMENTS:

Be star with variable magnitude (13-15) and spectral type (O9-B1). In the optically fainter state, it show Eddington Luminosity X-ray outbursts every 16.668 days with strong, broad UV emission lines. The simulation pertains to quiescence in the optically brighter state. In its optically fainter state, the continuum is half as bright and emission lines appear. In outburst, the continuum is twice as bright and very strong, broad emission lines appear. It is important to avoid contamination by the brighter B star about 13" S of the target.



ID: 3806-1 W=Prime SciPgm= W32

Names: A0538-66

Info: B2 V=12 Wupmag=10.9

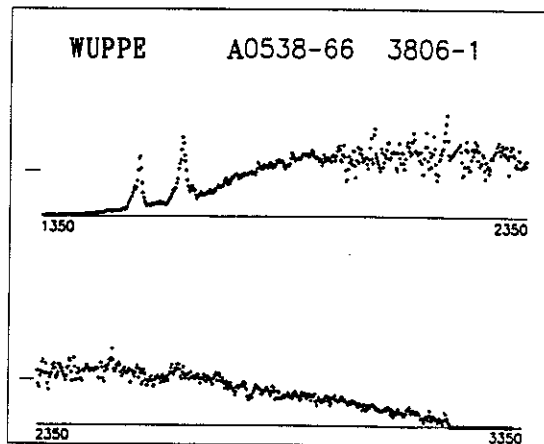
% Pol: 0.2 - 1.1%

Pos Ang: 62 - 170

Mechanism: Electron scattering

Comments:

Only interested in observing this object during outburst. Predicted time of outburst given by  $N = (JD - 2443423.96) / 16.6515$ . (N=integer)

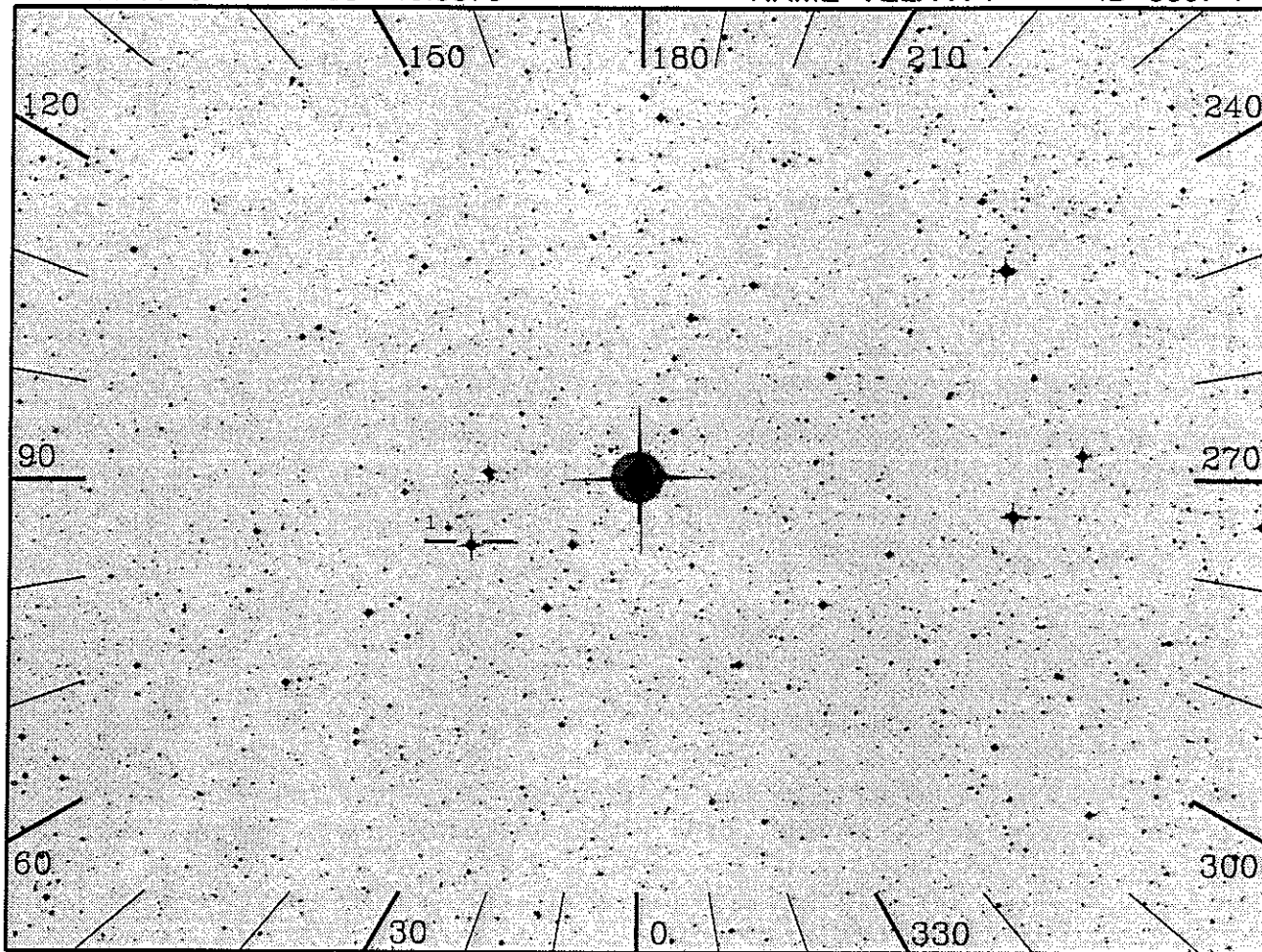


RA 135.0549

DEC -40.3570

NAME VELA-X-1

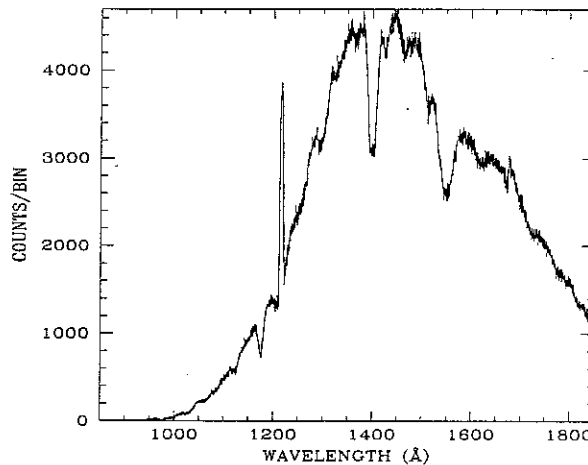
ID 3807-1



20", 1000(s), Day

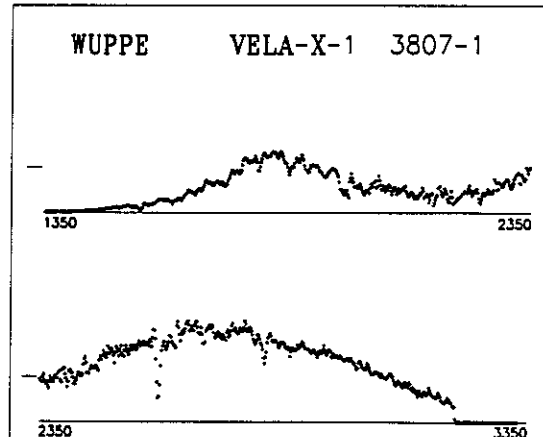
OBJECT: 3807 VELA-X-1  
 KEYWORDS: X-ray Binary; B star  
 COMMENTS:

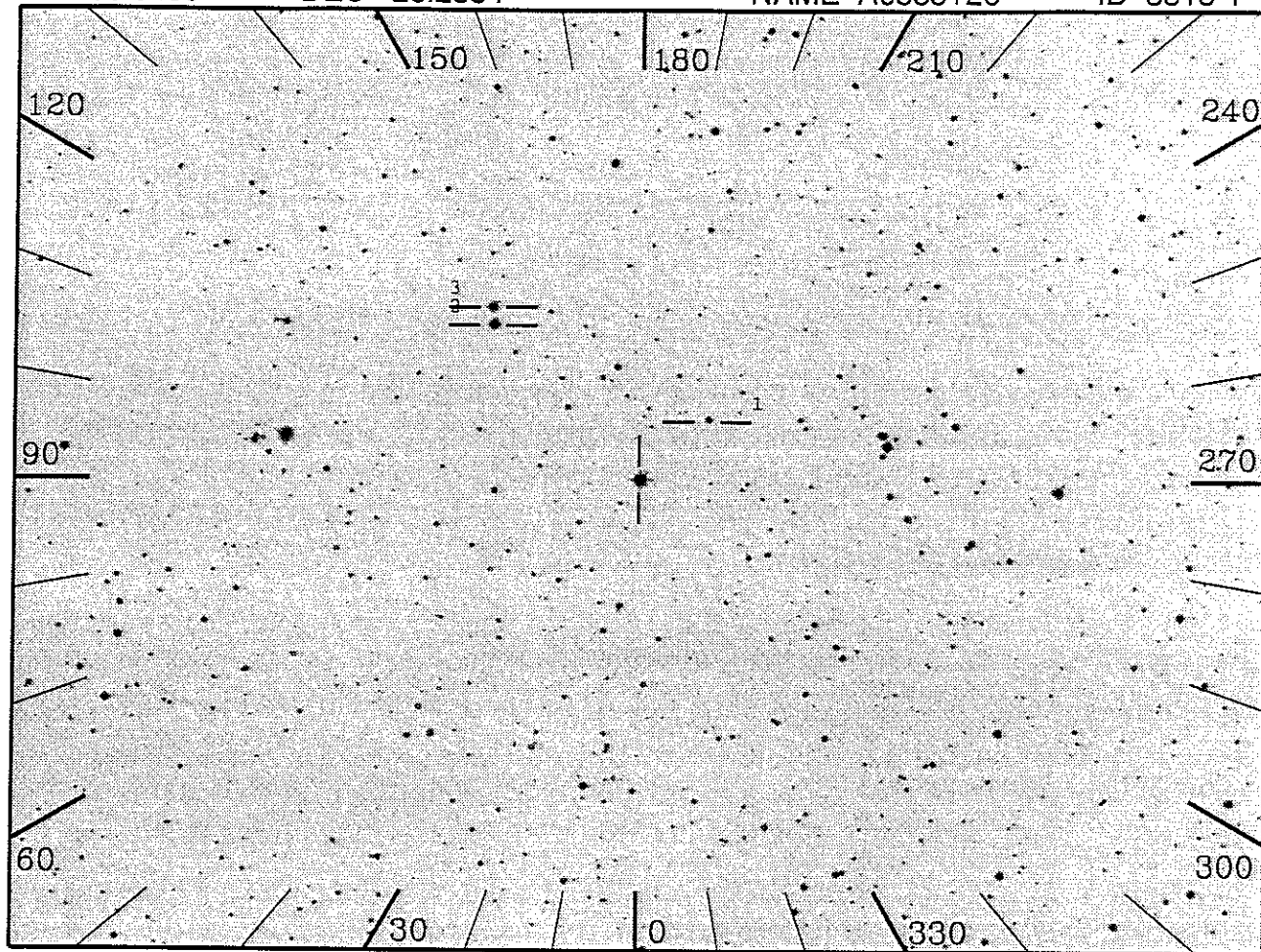
This star is very bright at longer wavelengths, but it is fairly heavily reddened. The IUE spectrum shows strong P Cygni emission at 1550 Angstroms which is not in the Kurucz simulated spectrum. The goal of the observation is a possible O VI P Cygni feature at 1034 Angstroms.



ID: 3807-1 W=Prime SciPgm= W32  
 Names: VELA-X-1 HD77581  
 Info: B0.5Ibe V= 6.8 Wupmag=6.82  
 % Pol: 3.72  
 Pos Ang: 83.0  
 Mechanism: Electron scattering  
 Comments:

Pol is up to 6.3% in UV. Ideally required obs is at phase=0.25, quadrature. Would prefer two obs of target, one at phase=0.25 and other at phase=0.0, 0.5, or 0.75.  
 N=(JD-2441249.355)/8.9647.





20", 1000(s), Day

OBJECT: A0535+26

KEYWORDS: X-ray pulsar + Be binary

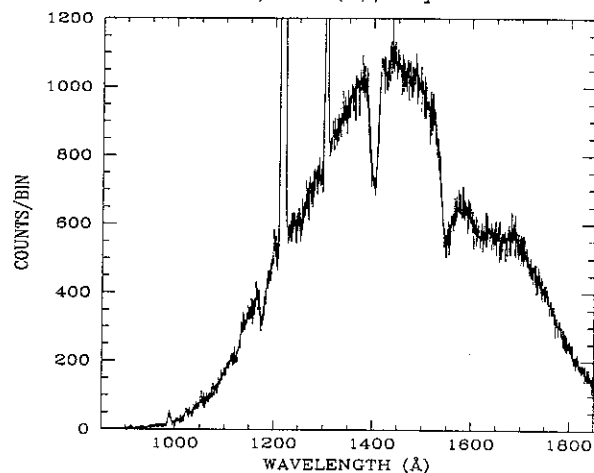
COMMENTS:

V=9.39 B-V=0.45 E(B-V)=0.75 spectype=09.7IIE

Flux<sub>1490</sub> = 9.64e-13

Initial\_expected\_rate = 907 cts/sec

UV flux does not change during X-ray outburst



ID: 3818-1 W=Prime SciPgm= W32

Names: A00535+26 HD245770

Info: 09IIE V= 9.4 Wupmag=8.92

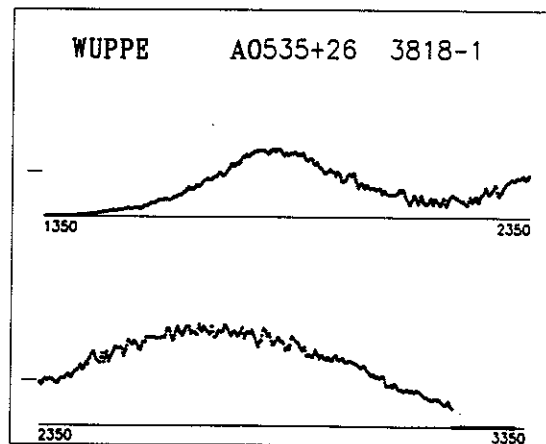
% Pol: 0.86

Pos Ang: 170.0

Mechanism: Electron scattering

Comments:

X-ray transient, which undergoes X-ray outbursts. Several periods have been suggested. Ideally, this target should be observed during periastron, but do not consider this an ephemeris target unless outburst occurs.



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