

Spectrograph ECHELLE

Intensified Reticon

TO CAM 1/1

Grating 3000

Log Sheet

RAW/RET 9

Telescope 61" WYETZDate DEC 30-31 1985Observer GSDisk ORO 834

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|-----------------|------|----|--------------|----------|------------|----------|---|
| | | 1 | | | ↓ | 90° | 5187A 80μ SLIT |
| | | 2 | G41-41 | 09:26:35 | 08:51:24 | 15 MIN | 11.1/100 (END IN CLDS) |
| | | 3 | | | ↑ | 90° | |
| | | 4 | | | | 120" | |
| | | 5 | | | | 120" | |
| | | 6 | | | | 120" | |
| | | 7 | | | | 120" | |
| | | 8 | | | | 65" | |
| DEC 31 - JAN 1 | | 9 | | | ↓ | 90° | 5187A 80μ SLIT |
| | | 10 | | | | 5 MIN | OVERCAST |
| | | 11 | | | ↑ | 90° | |
| JAN 1-2 1986 | | 12 | | | ↓ | 90° | 5187A 80μ SLIT |
| | | 13 | | | | 5 MIN | |
| | | 14 | | | ↑ | 90° | |
| | | 15 | | | ↓ | 60° | 6100A 120μ SLIT |
| 509U | | 16 | HAL 6100 | 22°15.0 | -20°33 | 10 MIN | SLIT ON NUCLEUS - 30" BEFORE ASTRO TWILITE |
| | | 17 | | | ↓ | 60° | |
| 91 | | 18 | HAL 6150 | " | " | 15 MIN | SLIT ON NUCLEUS 20" BEFORE ASTRO TWILITE |
| | | 19 | | | ↓ | 60° | |
| 92 | | 20 | HAL 6200 | " | " | 15 MIN | SLIT ON NUCLEUS |
| | | 21 | | | ↓ | 60° | |
| 93 | | 22 | HAL 6250 | " | " | 15 MIN | SLIT ON NUCLEUS |
| | | 23 | | | ↑ | 60° | |
| | | 24 | | | ↓ | 60° | |
| 94 | | 25 | HAL 6200 | 22°15.0 | -20°33 | 10 MIN | 39° EAST 6° NORTH OF NUCLEUS |
| | | 26 | | | ↓ | 60° | |
| 95 | | 27 | HAL 6200 | " | " | 10 MIN | SLIT 78° EAST 12° NORTH OF NUCLEUS |
| | | 28 | | | ↓ | 60° | |
| 509V | | 29 | HAL 6200 | " | " | 10 MIN | SLIT 36° WEST 6° SOUTH OF NUCLEUS |
| | | 30 | | | ↑ | 60° | |
| | | 31 | | | | | |
| | | 32 | | | | | |

1/1/86

TO CAM

Spectrograph ECHELLE Intensified Reticon
 Log Sheet

Grating 300 Observer um/CS

Telescope 61" WYETH Date JAN 1-2 1985 Disk ORO 835

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----|--------------|----------------------|-----------------------|-----------------|---|
| | | 1 | TH-AR | | ↓ | 60s | 6200A |
| 5097 | | 2 | HAL6200 | 22 ^h 15 | -02 ^o 33 | 15 ^m | SLIT 36" N 216" E (BEST GUESS) FROM JUKUSIS |
| | | 3 | TH-AR | | ↑ | 60s | |
| | | 4 | TH-AR | | ↓ | 60s | 500x500μ SLIT |
| 99 | | 5 | H 3379 | 0 ^h 24 10 | 14 ^o 47:24 | 1 ^m | (5.9) |
| | | 6 | TH-AR | | ↑ | 60s | |
| | | 7 | TH-AR | | ↓ | 30s | |
| 99 | | 8 | 6150479 | " | " | 1 ^m | |
| | | 9 | TH-AR | | ↓ | 60s | |
| 5100 | | 10 | 6250479 | " | " | 1 ^m | |
| | | 11 | TH-AR | | ↓ | 90s | 5187Å 80μ |
| | | 12 | J202 A | φ3:14:24 | 26:φ8:φφ | 16m | Hyades |
| | | 13 | TH-AR | | ↑ | 90s | |
| | | 14 | TH-AR | | ↓ | 90s | |
| | | 15 | L3 | φ3:27:37 | 19:56:φ1 | 11m | |
| | | 16 | TH-AR | | ↑ | 90s | |
| | | 17 | TH-AR | | ↓ | 90s | 10.7 |
| | | 18 | L27 | φ4:12:11 | 22:59:3φ | 6 1/2 m | 10.7 |
| | | 19 | TH-AR | | ↑ | 90s | |
| | | 20 | TH-AR | | ↓ | 90s | |
| | | 21 | H27φ | φ4:19:52 | 16:4φ:32 | 2m | 7.9 |
| | | 22 | TH-AR | | ↑ | 90s | |
| | | 23 | TH-AR | | ↓ | 90s | |
| | | 24 | H361 | φ4:22:54 | 17:54:18 | 2 1/2 m | 9.0 |
| | | 25 | TH-AR | | ↑ | 90s | |
| | | 26 | TH-AR | | ↓ | 90s | |
| | | 27 | H379 | φ4:23:15 | 15:24:44 | 2 1/2 m | 7.5 |
| | | 28 | TH-AR | | ↑ | 90s | |
| | | 29 | TH-AR | | ↓ | 90s | |
| | | 30 | H388 | φ4:23:48 | 16:38:φ8 | 2m | |
| | | 31 | TH-AR | | ↑ | 90s | |
| | | 32 | | | | | |

1/1/86

Intensified Reticon

TO CAM

Spectrograph ECHELLE

Log Sheet

RAW RET 9

Grating 300L

Observer RPS

Telescope 61" Wyeth

Date 1-2 Jan. 1986

Disk ORO 836

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----|--------------|------------|------------|----------|-----------------------------------|
| | | 1 | | | ↓ | 90s | |
| | | 2 | H382 | φ4:23:52 | 16:44:30 | ↓ | 2m Seeing Poor; Haze |
| | | 3 | | | ↑ | 90s | |
| | | 4 | | | ↓ | 90s | |
| | | 5 | L59 | φ4:24:φ2 | 1φ:45:36 | ↓ | 5m |
| | | 6 | | | ↑ | 90s | |
| | | 7 | | | ↓ | 90s | |
| | | 8 | H411 | φ4:24:36 | 19:49:φ4 | ↓ | 6m 10.5 |
| | | 9 | | | ↑ | 90s | |
| | | 10 | | | ↓ | 90s | |
| | | 11 | H441 | φ4:25:59 | 16:1φ:48 | ↓ | 19m 10.7 Increasing Haze → clouds |
| | | 12 | | | ↑ | 90s | |
| | | 13 | | | ↓ | 90s | |
| | | 14 | H26162 | φ4:φ6:15 | 19:28:43 | ↓ | 4m IAU Standard |
| | | 15 | | | ↑ | 90s | |
| | | 16 | | | ↓ | 90s | |
| | | 17 | H66141 | φ7:51:4φ | φ2:28:24 | ↓ | 3m IAU standard |
| | | 18 | | | ↑ | 90s | |
| | | 19 | | | ↓ | 90s | |
| | | 20 | VB131 | φ5:φ6:37 | 27:58:φ8 | ↓ | 6m Hyades - clouds |
| | | 21 | | | ↑ | 90s | |
| | | 22 | | | ↓ | 90s | |
| | | 23 | S43629 | 11:φ6:52 | 44:46:13 | ↓ | 2m MAREK LOW-MASS |
| | | 24 | | | ↑ | 90s | |
| | | 25 | S436φ9 | 11:φ2:59.7 | 43:47:φ2 | ↓ | 8m |
| | | 26 | | | ↑ | 90s | |
| | | 27 | S43629 | 11:φ6:52 | 44:46:13 | ↓ | 2m |
| | | 28 | | | ↑ | 90s | |
| | | 29 | S43627 | 11:φ6:51 | 43:28:45 | ↓ | 2m |
| | | 30 | | | ↑ | 90s | |
| | | 31 | S436φ9 | 11:φ2:59.7 | 43:47:φ2 | ↓ | 9m |
| | | 32 | | | ↑ | 90s | |

sorry Susan!

Spectrograph ECHELLE

Intensified Reticon

TO CAM 1/2

Grating 300L

Log Sheet

RAW RET 9

Telescope 61" WyethDate 1-2 JAN. 1986Observer RPSDisk ORO 837

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments | |
|------------|------|----|--------------|----------|------------|----------|------------------|-----------------------------------|
| | | 1 | 543627 | 11:06:51 | 43:28:45 | | 4m | |
| | | 2 | TH-AR | | | ↑ | 90s | stopped for clouds, 5:30 clearing |
| | | 3 | TH-AR | | | ↓ | 90s | |
| | | 4 | G178-56 | 14:53:12 | 43:13:42 | | 12m | 11ALOS 11.9/15 |
| | | 5 | TH-AR | | | ↑ | 90s | |
| | | 6 | TH-AR | | | ↓ | 90s | |
| | | 7 | G195-34 | 09:34:54 | 58:08:54 | | 13m | 11.8/20 too much sky!! |
| | | 8 | TH-AR | | | ↑ | 90s | |
| | | 9 | TH-AR | | | ↓ | 90s | |
| | | 10 | G165-11 | 13:30:16 | 36:17:42 | | 2m | 8.0/20 |
| | | 11 | TH-AR | | | ↑ | 90s | |
| | | 12 | TH-AR | | | ↓ | 90s | |
| | | 13 | H114762 | 13:09:55 | 17:46:55 | | 2m | IAU standard |
| | | 14 | TH-AR | | | ↑ | 90s | |
| | | 15 | TH-AR | | | ↓ | 90s | |
| | | 16 | SKY-DWN | stow | | | 5m | |
| | | 17 | TH-AR | | | ↑ | 90s | |
| | | 18 | INCAND | | | | 120 ^m | |
| | | 19 | INCAND | | | | 62 ^m | |
| JAN 2-3/86 | | 20 | TH-AR | | | ↓ | 90s | |
| | | 21 | G95-570 | 03 43 37 | 41 17 25 | | 3m | 8.7/30 |
| | | 22 | TH-AR | | | ↑ | 90s | |
| | | 23 | TH-AR | | | ↓ | 90s | |
| | | 24 | 16-1064 | 01 38 20 | 44 19 29 | | 11m | LICK PAIR |
| | | 25 | TH-AR | | | ↑ | 90s | |
| | | 26 | 16-1063 | 01 38 19 | 44 19 37 | | 6m | |
| | | 27 | TH-AR | | | ↑ | 90s | |
| | | 28 | 16-1006 | 01 43 14 | 44 06 49 | | 5m | STOPPED BY CLOUDS |
| | | 29 | TH-AR | | | ↑ | 90s | |
| | | 30 | 16-1006 | " | " | | 10 | THEN CLEAR!, THEN CLOUDS |
| | | 31 | TH-AR | | | ↑ | 90s | |
| | | 32 | | | | | | |

1/3/86

TO CAM

Intensified Reticon

Spectrograph ECHELLE

Log Sheet

RAW RET 9

Grating 3008

Observer dem

Telescope SH

Date 1/2-3/76

Disk ORO 838

| Change.... | File | ID | RA | Dec | 1950.0 L/R ↑/↓ | Exposure | Comments |
|------------|------|----|---------|----------|----------------------|----------|----------------------------------|
| | | 1 | TH-AR | | | 90s | 5187 80μ |
| | | 2 | H26162 | 04 06 15 | 19 28 43 | 3m | IAU RV STANDARD |
| 1/3-4/76 | | 3 | TH-AR | | | 90s | 40μ 6563A |
| | | 4 | TH-AR | | | 90s | |
| | | 5 | λ AND | 23 35 06 | 46 11 14 | 7m | |
| | | 6 | TH-AR | | | 90s | |
| | | 7 | TH-AR | | | 90s | |
| | | 8 | λ ORI | 05 52 28 | 07 23 57 | 3m | MD=1 FILTER |
| | | 9 | TH-AR | | | 90s | |
| | | 10 | TH-AR | | | 90s | 80μ 6563 |
| | | 11 | W ORT | 05 36 33 | 04 06 | 6m | |
| | | 12 | TH-AR | | | 90s | |
| | | 13 | TR-AR | | | 90s | 5187Å 80μ |
| | | 14 | H26162 | 04 06:15 | 19:28:43 | 3m | IAU standard Seeing 8+ |
| | | 15 | TR-AR | | | 90s | |
| | | 16 | TR-AR | | | 90s | Autoguider not holding * on slit |
| | | 17 | VB24 | 04:15:25 | 21:27:31 | 12m | Hyades 5.7 clouds |
| | | 18 | TR-AR | | | 90s | |
| | | 19 | TR-AR | | | 90s | |
| | | 20 | VB33 | 04:17:46 | 14:58:38 | 20m | 5.3 " heavy clouds |
| | | 21 | TR-AR | | | 90s | |
| | | 22 | TR-AR | | | 90s | |
| | | 23 | H388 | 04:23:48 | 16:28:08 | 5m | stops go observing. |
| | | 24 | TR-AR | | | 90s | |
| | | 25 | TR-AR | | | 90s | |
| | | 26 | VB54 | 04:22:23 | 22:10:52 | 11m | 4.2 |
| | | 27 | TR-AR | | | 90s | stopped for clouds |
| | | 28 | TR-AR | | | 90s | |
| | | 29 | +292055 | 10:26:43 | 29:00:06 | 16m | Halos 10.8/20 |
| | | 30 | TR-AR | | | 90s | |
| | | 31 | / | | | | |
| | | 32 | / | | | | |

1/3/86

Intensified Reticon
TO CAM

Spectrograph ECHELLE Log Sheet RAWRET 9

Grating 300L Observer RPS

Telescope 61" Wyeth Date 3-4 JAN 1986 Disk ORO 839

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----|--------------|----------|------------|----------|-------------------------|
| | | 1 | | | ↓ | 90s | |
| | | 2 | G147-19 | 11:02:47 | 38:32:42 | 2m | 8.7/15 Seeing 8+ |
| | | 3 | | | ↑ | 90s | |
| | | 4 | | | ↓ | 90s | |
| | | 5 | G163-54 | 11:07:06 | 02:43:36 | 2m | 7.7/15 |
| | | 6 | | | ↑ | 90s | |
| | | 7 | | | ↓ | 90s | |
| | | 8 | G10-12 | 11:16:40 | 45:57:18 | 4m | 9.3/20 |
| | | 9 | | | ↑ | 90s | |
| | | 10 | | | ↓ | 90s | |
| | | 11 | G45-48 | 11:17:55 | 05:46:36 | 7m | 10.2/15 |
| | | 12 | | | ↑ | 90s | |
| | | 13 | | | ↓ | 90s | |
| | | 14 | H89449 | 10:17:01 | 19:43:31 | 2m | IAU standard |
| | | 15 | | | ↑ | 90s | |
| | | 16 | | | ↓ | 90s | |
| | | 17 | H92588 | 10:58:52 | -01:28:41 | 2m | IAU standard |
| | | 18 | | | ↑ | 90s | |
| | | 19 | | | ↓ | 90s | |
| | | 20 | G56-40 | 11:23:51 | 10:41:54 | 2 1/2 m | 8.7/15 |
| | | 21 | | | ↑ | 90s | |
| | | 22 | | | ↓ | 90s | |
| | | 23 | S99624 | 11:26:33 | 16:39:24 | 2m | 7.7/15 |
| | | 24 | | | ↑ | 90s | |
| | | 25 | | | ↓ | 90s | |
| | | 26 | G57-11 | 11:36:28 | 06:20:12 | 2m | 7.6/15 |
| | | 27 | | | ↑ | 90s | |
| | | 28 | | | ↓ | 90s | |
| | | 29 | G121-12 | 11:42:01 | 25:48:54 | 20m | 10.4/30 Seeing 12+ |
| | | 30 | | | ↑ | 90s | |
| | | 31 | / | | | | |
| | | 32 | / | | | | |

Spectrograph ECHELLE

Intensified Reticon

TO CAM 1/4

Grating 300L

Log Sheet

RAWRET 9

Telescope 61" Wyeth

Date 3-4 JAN 1986

Observer RPS

Disk ORO 840

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----|------------------|---------------------|---------------------|--------------------|-----------------------------|
| | | 1 | TA-Ar | | ↓ | 90s | Seeing Variable i poor 8-12 |
| | | 2 | G10-56 | 11:47:49 | -φφ:58:36 | 7m | 9.2/15 |
| | | 3 | TA-Ar | | ↑ | 90s | |
| TA-Ar → | | 4 | TA-Ar | 11:51:44 | 11:49:46 | ↓ | 90s 9.2/15 |
| | | 5 | -φ12582 | 11:51:04 | -φ1:43:48 | 15m | 9.7/30 |
| | | 6 | TA-Ar | | ↑ | 90s | |
| | | 7 | TA-Ar | | ↓ | 90s | |
| | | 8 | G13-1 | 11:56:29 | -φ4:29:48 | 5m | 9.0/15 |
| | | 9 | TA-Ar | | φ | 90s | |
| | | 10 | TA-Ar | | ↓ | 90s | |
| | | 11 | G11-37 | 12:φ2:41 | -φ1:13:54 | 4m | 8.2/15 |
| | | 12 | TA-Ar | | ↑ | 90s | |
| | | 13 | TA-Ar | | ↓ | 90s | |
| | | 14 | G12-22 | 12:1φ:24 | 1φ:19:12 | 2m | 7.9/15 |
| | | 15 | TA-Ar | | ↑ | 90s | |
| | | 16 | TA-Ar | | ↓ | 90s | |
| | | 17 | G11-45 | 12:φ9:58 | -φ2:48:48 | 2m | 7.4/15 |
| | | 18 | TA-Ar | | ↑ | 90s | |
| | | 19 | TA-Ar | | ↓ | 90s | |
| | | 20 | G123-29 | 12:22:24 | 38:35:48 | 2m | 8.1/20 |
| | | 21 | TA-Ar | | ↑ | 90s | |
| | | 22 | TA-Ar | | ↓ | 90s | |
| | | 23 | S824φ5 | 12:35:1φ | 28:54:18 | 2m | 8.1/15 |
| | | 24 | TA-Ar | | ↑ | 90s | |
| | | 25 | TA-Ar | | ↓ | 90s | |
| | | 26 | H114762 | 13:φ9:55 | 17:46:55 | 2m | IAU standard |
| | | 27 | TA-Ar | | ↑ | 90s | |
| | | 28 | TA-Ar | | ↓ | 90s | |
| | | 29 | SKY-DWN | stow | | 5m | |
| | | 30 | TA-Ar | | ↑ | 90s | |
| | | 31 | INCAND | | | 120 ^{MIN} | |
| | | 32 | INCAND | | | 6 ^{MIN} | |

Intensified Reticon

TO CAM 1/5

Spectrograph ECHELLE

Log Sheet

RAW RET 9

Grating 3002

Observer CS/num

Telescope 61" WYETZ

Date JAN 4-5 1986

Disk ORD 841

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----|--------------|--------------------|---------------------|-------------------|---|
| | | 1 | | | ↓ | 90 ^s | 5187A 80μSLIT |
| | | 2 | | | | 5 ^{MIN} | CLEAR |
| | | 3 | | | ↑ | 90 ^s | |
| | | 4 | | | ↓ | 60 ^s | 6200A 80μSLIT |
| 5101 | | 5 | HALL200 | 22 ^h 05 | -30 ^m 30 | 10 ^{MIN} | SLIT 6 ^s E OF NUCLEUS INCREAS CLDS |
| | | 6 | | | ↑ | 60 ^s | |
| JAN 5-6 | | 7 | | | ↓ | 90 ^s | SLIT 36 ^s E 48 ^s N OF NUCLEUS |
| | | 8 | | | | 5 ^{MIN} | 5187A 80μSLIT |
| | | 9 | | | ↑ | 90 ^s | |
| | | 10 | | | ↓ | 60 ^s | 6300A 80μSLIT |
| 02 | | 11 | HALL700 | 22 ^h 03 | -03 ^m 40 | 5 ^{MIN} | ON NUCLEUS VERY DIFFUSE |
| | | 12 | | | ↕ | 60 ^s | |
| 03 | | 13 | HALL300 | " | " | 10 ^{MIN} | SLIT 27 ^{sec} E OF NUCLEUS |
| | | 14 | | | ↕ | 60 ^s | |
| 04 | | 15 | HALL300 | " | " | 10 ^{MIN} | SLIT 27 ^{sec} S OF NUCLEUS |
| | | 16 | | | ↕ | 60 ^s | |
| 05 | | 17 | HALL300 | " | " | 6 ^{MIN} | SLIT ON NUCLEUS |
| | | 18 | | | ↕ | 60 ^s | |
| 06 | | 19 | HALL300 | " | " | 10 ^{MIN} | SLIT 27 ^s W OF NUCLEUS |
| | | 20 | | | ↕ | 60 ^s | |
| 07 | | 21 | HALL300 | " | " | 10 ^{MIN} | SLIT 27 ^s N OF NUCLEUS |
| | | 22 | | | ↑ | 60 ^s | |
| | | 23 | | | ↓ | 60 ^s | 6200A 80μSLIT |
| 08 | | 24 | HALL200 | " | " | 9 ^{MIN} | SLIT ON NUCLEUS |
| | | 25 | | | ↕ | 60 ^s | |
| 09 | | 26 | HALL200 | " | " | 10 ^{MIN} | SLIT 27 ^s E OF NUCLEUS |
| | | 27 | | | ↕ | 60 ^s | |
| 10 | | 28 | HALL200 | " | " | 10 ^{MIN} | SLIT 27 ^s S OF NUCLEUS |
| | | 29 | | | ↕ | 60 ^s | |
| 5111 | | 30 | HALL200 | " | " | 10 ^{MIN} | SLIT 27 ^s W OF NUCLEUS |
| | | 31 | | | ↑ | 60 ^s | |
| | | 32 | | | | | |

Spectrograph ECHELLE
 Grating 3002
 Telescope 61" WYETH

Intensified Reticon
 Log Sheet
 Date JAN 5-6 1986

TO CAM 1/6
RAW RET 9
 Observer GS/RJD
 Disk ORD 842

| Change.... | File | ID | RA | Dec | 1950.0 | L/R | Exposure | Comments |
|------------|------|----|----------|------------|----------|-----|----------|-------------------------------|
| | | | | | | ↑/↓ | | |
| | | 1 | TH-AR | | | ↓ | 60" | 6200 80μ slit |
| 5112 | | 2 | HAL 6200 | 22° 03' | -03° 40' | | 4 MIN | SLIT ON NUCLEUS (WALL IN WAY) |
| | | 3 | TH-AR | | | ↑ | 60" | |
| | | 4 | TH-AR | | | ↓ | 90" | 5187A 80μ SLIT HALOS |
| | | 5 | G95-57B | 03:43:37 | 41:17:25 | | 3 MIN | 8.8/30 |
| | | 6 | TH-AR | | | ↑ | 90" | |
| | | 7 | TH-AR | | | ↓ | 90" | |
| | | 8 | G214-5 | 21:57:07 | 40:48:12 | | 16" | 11.5/50 |
| | | 9 | TH Ar | | | ↑↓ | 90" | |
| | | 10 | G214-5 | " | " | | 19" | |
| | | 11 | TH Ar | | | ↑↓ | 90" | |
| | | 12 | G214-5 | " | " | | 19" | |
| | | 13 | TH Ar | | | ↑↓ | 90" | |
| | | 14 | G214-5 | " | " | | 22" | |
| | | 15 | TH Ar | | | ↑ | 90" | |
| | | 16 | TH Ar | | | ↓ | 90" | |
| | | 17 | H26162 | 04:06:14.9 | 19:28:43 | | 2" | IAU R.V. Standard |
| | | 18 | TH Ar | | | ↑ | 90" | |
| | | 19 | TH Ar | | | ↓ | 90" | |
| | | 20 | G88-10 | 07:07:21 | 24:25:42 | | 21" | 11.9/60 |
| | | 21 | TH Ar | | | ↑↓ | 90" | |
| | | 22 | G88-10 | " | " | | 23" | |
| | | 23 | TH Ar | | | ↑↓ | 90" | |
| | | 24 | G88-10 | " | " | | 26" | |
| | | 25 | TH Ar | | | ↑ | 90" | |
| 27 | | 27 | G87-45 | 07:29:47 | 31:13:36 | | 23" | 11.4/50 clouds in South |
| 28 | | 28 | TH Ar | | | ↑↓ | 90" | |
| 26 | | 28 | TH Ar | | | ↑ | 90" | |
| | | 29 | G87-45 | " | " | | 25" | |
| | | 30 | TH Ar | | | ↑ | 90" | |
| | | 31 | | | | | | |
| | | 32 | | | | | | |

Spectrograph ECHELLE

Intensified Reticon

TO CAM 1/6

Grating 300P

Log Sheet

RAW RET 9

Telescope 61" WyethDate 1/5-6/86Observer RJDDisk OR0 844Change.... File ID RA Dec 1950.0 L/R ↑/↓ Exposure Comments Halo Binaries

| Change.... | File | ID | RA | Dec | 1950.0 | L/R | ↑/↓ | Exposure | Comments |
|------------|------|----|---------|----------|----------|-----|-----|--------------------|----------|
| | | 1 | | | | | ↓ | 90 ^s | |
| | | 2 | G122-51 | 11:50:18 | 38:01:16 | | | 2 ^m | 6.4/15 |
| | | 3 | TH Ar | | | | ↑ | 90 ^s | |
| | | 4 | TH Ar | | | | ↓ | 90 ^s | |
| | | 5 | G121-56 | 12:03:40 | 27:46:36 | | | 3 ^m | 10.0/15 |
| | | 6 | TH Ar | | | | ↑↓ | 90 ^s | |
| | | 7 | S82207 | 12:13:18 | 29:04:36 | | | 2 ^{1/2} m | 9.3/15 |
| | | 8 | TH Ar | | | | ↑↓ | 90 ^s | |
| | | 9 | S82247 | 12:17:35 | 28:11:06 | | | 7 ^m | 10.2/20 |
| | | 10 | TH Ar | | | | ↑ | 90 ^s | |
| | | 11 | TH Ar | | | | ↓ | 90 ^s | |
| | | 12 | S119116 | 11:52:53 | 09:24:30 | | | 3 ^m | 9.4/20 |
| | | 13 | TH Ar | | | | ↑↓ | 90 ^s | |
| | | 14 | +092574 | 11:59:30 | 09:17:30 | | | 7 ^m | 10.5/20 |
| | | 15 | TH Ar | | | | ↑ | 90 ^s | |
| | | 16 | TH Ar | | | | ↓ | 90 ^s | |
| | | 17 | G12-16 | 12:03:27 | 14:55:48 | | | 3 ^{1/2} m | 10.1/15 |
| | | 18 | TH Ar | | | | ↑↓ | 90 ^s | |
| | | 19 | H107363 | 12:18:02 | 14:01:18 | | | 4 ^m | 9.9/15 |
| | | 20 | TH Ar | | | | ↑ | 90 ^s | |
| | | 21 | TH Ar | | | | ↓ | 90 ^s | |
| | | 22 | G13-35 | 12:23:02 | 01:34:02 | | | 6 ^m | 9.7/30 |
| | | 23 | TH Ar | | | | ↑ | 90 ^s | |
| | | 24 | TH Ar | | | | ↓ | 90 ^s | |
| | | 25 | G202-65 | 16:34:30 | 45:57:54 | | | 17 ^m | 11.2/60 |
| | | 26 | TH Ar | | | | ↑↓ | 90 ^s | |
| | | 27 | G202-65 | " | " | | | 18 ^m | |
| | | 28 | TH Ar | | | | ↑ | 90 ^s | |
| | | 29 | TH Ar | | | | ↓ | 90 ^s | |
| | | 30 | G170-47 | 17:30:38 | 23:46:18 | | | 13 ^m | 9.0/100 |
| | | 31 | TH Ar | | | | ↑ | 90 ^s | |
| | | 32 | | | | | | | |

Intensified Reticon

TO CAM 1/7

Spectrograph ECHELLE

Log Sheet

RAW/RET 9

Grating 300 l

Observer RJD

Telescope 61" Wyeth

Date 1/5-6/86

Disk OR0845

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments | |
|------------|------|----|--------------|-----------------------|------------|-----------------|------------------|--|
| | | 1 | | | ↓ | 90 ^s | 5199 A | |
| | | 2 | V433 Her | 18:20:02.9 | 23:25:47 | | 20 ^m | Kenyon Symbiotic |
| | | 3 | TH-AR | | | ↑ | 90 ^s | Too low at dawn to be useful |
| | | 4 | TH-AR | | | ↓ | 90 ^s | 5187A |
| | | 5 | SKY | | | | 10 ^m | FAV R.V. S.H. Clouds |
| | | 6 | TH-AR | | | ↑ | 90 ^s | |
| | | 7 | Incand | | | | 120 ^m | |
| | | 8 | INCAND | | | | 31 ^m | |
| JAN 6-7 | | 9 | TH-AR | | | ↓ | 60 ^s | 6700 80μ SLIT |
| 5113 | | 10 | HAL 6200 | 22 ^h 01 | -03° 52 | | 6 ^m | SLIT ON NUCLEUS 8" NUCLEUS |
| | | 11 | TH-AR | | | ↕ | 60 ^s | |
| 17 | | 12 | HAL 6200 | " | " | | 10 ^m | SLIT 27 ^{ARC} SEC EAST OF NUCLEUS |
| | | 13 | TH-AR | | | ↕ | 60 ^s | |
| 15 | | 14 | HAL 6200 | " | " | | 10 ^m | SLIT 27 ^{ARC} SEC SOUTH OF NUCLEUS |
| | | 15 | TH-AR | | | ↕ | 60 ^s | |
| 16 | | 16 | HAL 6200 | " | " | | 10 ^m | SLIT 27 ^{ARC} SEC NORTH OF NUCLEUS |
| | | 17 | TH-AR | | | ↕ | 60 ^s | |
| 17 | | 18 | HAL 6200 | " | " | | 10 ^m | SLIT 27 SEC WEST OF NUCLEUS |
| | | 19 | TH-AR | | | ↑ | 60 ^s | |
| | | 20 | TH-AR | | | ↓ | 60 ^s | |
| 18 | | 21 | HAL 6200 | " | " | | 10 ^m | SLIT 54 ^s EAST 6 ^{SEC} SOUTH OF NUCLEUS |
| | | 22 | TH-AR | | | ↕ | 60 ^s | |
| 19 | | 23 | HAL 6200 | " | " | | 10 ^m | SLIT 54 ^s EAST 6 ^{SEC} NORTH OF NUCLEUS |
| | | 24 | TH-AR | | | ↕ | 60 ^s | |
| 5120 | | 25 | HAL 6200 | " | " | | 10 ^m | SLIT 88 ^s EAST 6 ^{SEC} NORTH (WALL INWAY?) |
| | | 26 | TH-AR | | | ↑ | 60 ^s | |
| | | 27 | TH-AR | | | ↓ | 90 ^s | 5187A 80μ SLIT HALOS |
| | | 28 | G 210-46 | 20 ^h 58:01 | 40:03:42 | | 5 ^m | 6.5/300 |
| | | 29 | TH-AR | | | ↑ | 90 ^s | |
| | | 30 | TH-AR | | | ↓ | 90 ^s | |
| | | 31 | G 190-15 | 23:11:16 | 39:08:41 | | 17 ^m | 11.0/50 |
| | | 32 | TH-AR | | | ↓ | 90 ^s | |

↓

TO CAM 1/7

Intensified Reticon

Spectrograph ECHELLE Log Sheet

Grating 300 Observer GS

Telescope 6" WYETH Date JAN 6-7 1986 Disk ORO 846

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----|------------------------|-----------|------------|-------------------|----------------|
| | | 1 | TH-AR | | ↓ | 90° | 5187A 80 μSLIT |
| | | 2 | G190-15 | 2311:16 | 39:08:54 | 18 ^{MIN} | 110/50 |
| | | 3 | TH-AR | | ↑ | 90° | |
| | | 4 | TH-AR | | ↓ | 90° | |
| | | 5 | G216-45 | 23:25:02 | 49:59:12 | 10 ^{MIN} | 11.6/15 |
| | | 6 | TH-AR | | ↑ | 90° | |
| | | 7 | TR-A | | ↓ | 90s | |
| NGC 2204 | | 8 | VSB 234 | 6:34:26 | 9:47:10 | 15m | |
| | | 9 | TR-A | | ↑ | 90s | |
| | | 10 | VSB 87 | 6:38:12.1 | 9:51:34 | 20m | |
| | | 11 | TR-A | | ↑ | 90s | |
| | | 12 | VSB 87 | | | 20m | |
| | | 13 | TR-A | | ↓ | 90s | |
| | | 14 | VSB 87 | | | 20m | |
| | | 15 | TR-A | | ↓ | 90s | |
| | | 16 | VSB 87 | | | 20m | |
| | | 17 | TR-A | | ↑ | 90s | |
| | | 18 | VSB 10 | 6:37:11.7 | 9:57:16 | 20m | |
| | | 19 | TR-A | | ↓ | 90s | |
| | | 20 | VSB 20 | 6:37:21.7 | 9:38:34 | 20m | |
| | | 21 | TR-A | | ↑ | 90s | |
| | | 22 | VSB 20 TR-A | | ↓ | 90s | |
| | | 23 | VSB 20 | | | 30m | |
| | | 24 | TR-A | | ↑ | 90s | |
| | | 25 | TR-A | | ↓ | 90s | |
| | | 26 | VSB 20 | | | 20m | Clouds! |
| | | 27 | TR-A | | ↑ | 90s | |
| | | 28 | TH-AR | | ↓ | 90s | |
| | | 29 | VSB 234 | 6:39:26.1 | 9:47:10 | 20m | |
| | | 30 | TH-AR | | ↑ | 90s | |
| | | 31 | | | | | |
| | | 32 | | | | | |

TO CAM 1/7

RAWRET 9

Spectrograph ECHELLE Intensified Reticon

Grating 3000 Log Sheet

Telescope 61" WYATI Date JAN 6-7 1986 Observer ZVI - GS

Disk ORD 847

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----|--------------|----------|------------|----------|---------------------------------|
| | | 1 | CEV | | ↓ | 90S ↓ | 5187A 80μ SLIT |
| | | 2 | S132259 | 05:31:08 | -03:29:48 | 5 m | 7.0/ FEW CLOS COMP. STAR |
| | | 3 | CEV | | ↑ | 90S ↑ | |
| | | 4 | TH-AR | | ↓ | 90° | |
| | | 5 | S132211 | 05:28:57 | -03:42:20 | 15 MIN | 8.4/ 20 MAX |
| | | 6 | TH-AR | | ↕ | 90° | |
| | | 7 | S132259 | 05:31:08 | -03:29:48 | 10 MIN | 7.0/ COMP. STAR |
| | | 8 | TH-AR | | ↑ | 90° | |
| | | 9 | TH-AR | | ↓ | 90° | |
| | | 10 | HD134416 | 15:06:32 | +63:18:27 | 4 MIN | 6.75/ |
| | | 11 | TH-AR | | ↑ | 90° | |
| | | 12 | TH-AR | | ↓ | 90° | |
| | | 13 | H144284 | 16:00:56 | +58:41:54 | 2 MIN | 4.01/ 5187A 40μ SLIT |
| | | 14 | TH-AR | | ↑ | 90° | |
| | | 15 | TH-AR | | ↓ | 90° | " 80μ SLIT |
| | | 16 | W33433 | 12:59:37 | +30:20:03 | 15 MIN | SN 57 |
| | | 17 | TH-AR | | ↕ | 90° | |
| | | 18 | W33433 | " | " | 15 MIN | |
| | | 19 | TH-AR | | ↕ | 90° | |
| | | 20 | W33436 | 12:59:49 | +30:17:44 | 20 MIN | |
| | | 21 | TH-AR | | ↕ | 90° | |
| | | 22 | W33435 | 12:59:49 | +30:18:39 | 10 MIN | |
| | | 23 | TH-AR | | ↑ | 90° | |
| | | 24 | TH-AR | | ↓ | 90° | |
| | | 25 | W11450 | 13:08:51 | +31:05:32 | 6 MIN | 7.4/ |
| | | 26 | TH-AR | | ↕ | 90° | |
| | | 27 | W11449 | 13:08:50 | +31:05:34 | 15 MIN | 9.4/ W11450 what into the slit. |
| | | 28 | TH-AR | | ↑ | 90° | |
| | | 29 | TH-AR | | ↓ | 90° | |
| | | 30 | W12966 | 13:11:03 | +30:28:38 | 20 MIN | |
| | | 31 | TH-AR | | ↑ | 90° | |
| | | 32 | W12966 | " | " | 10 MIN | |

Spectrograph ECHELLE

Intensified Reticon

TO CAM 1-8

Grating 300g

Log Sheet

RAWRET 9

Telescope 6" WYATIDate JAN 6-7 1986Observer ZVI - GSDisk ORO 848

Change.... File ID 1950.0 RA Dec L/R Exposure Comments

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|-----------|-----------|-----------|---------|--------------------|----------------|
| L | 1 | TH-AR | | | ↓ | 90° | 5187A 80μ SLIT |
| | 2 | W12971 | 13:11:12 | 30:28:28 | | 15 ^{MIN} | |
| | 3 | TH-AR | | | ↑ | 90° | |
| | 4 | TH-AR | | | ↓ | 90° | |
| | 5 | H114762 | 13:09:54 | 17:46:55 | | 3 ^{MIN} | IAU STANDARD |
| | 6 | TH-AR | | | ↑ | 90° | |
| | 7 | TH-AR | | | ↓ | 90° | |
| | 8 | SKY-DWN | | | | 7 ^{MIN} | |
| | 9 | TH-AR | | | ↑ | 90° | |
| | 10 | INCANDS | | | | 120 ^{MIN} | |
| | 11 | " | | | | " | |
| | 12 | INCAND | | | | 120 ^{MIN} | |
| JAN 7-8 | 13 | TH-AR | | | ↓ | 90° | 5187A 80μ SLIT |
| | 14 | SKY-EV | | | | 5 ^{MIN} | |
| | 15 | TH-AR | | | ↑ | 90° | |
| | 16 | TH-AR | | | ↓ | 90° | 6563A 40μ SLIT |
| | 17 | BETA AQR | 21:28:56 | -5:47:32 | | 16 ^{MIN} | ND 1 FILTER |
| | 18 | TH-AR | | | ↑ | 90° | |
| | 19 | TH-AR | | | ↓ | 90° | |
| | 20 | ALPHA AQR | 22:03:13 | -00:33:40 | | 20 ^{MIN} | ND 1 FILTER |
| | 21 | TH-AR | | | ↑ | 90° | |
| | 22 | TH-AR | | | ↓ | 90° | |
| | 23 | LAM AND | 23:35:06 | 46:11:14 | | 25 ^{MIN} | ND 1 FILTER |
| | 24 | TH-AR | | | ↑ | 90° | |
| | 25 | TH-AR | | | ↓ | 90° | 5199A 80μ SLIT |
| | 26 | Z AND | 23:31:15 | 48:32:32 | | 15 ^{MIN} | 10.0/ |
| | 27 | TH-AR | | | ↑ | 90° | |
| | 28 | TH-AR | | | ↓ | 90° | |
| | 29 | EG AND | 00:41:52 | 40:24:22 | | 3 ^{MIN} | 7.5/ |
| | 30 | TH-AR | | | ↑ | 90° | |
| | 31 | | | | | | |
| | 32 | | | | | | |

Intensified Reticon TO CAM 1-8

Spectrograph ECHELLE Log Sheet RAW/RET 9

Grating 3000 Observer GS

Telescope 6" WYATT Date JAN 7-8 1986 Disk ORO 849

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----|------------------|---------------------|------------|----------|---------------------------|
| | | 1 | TH-AR | | ↓ | 90° | 5199A 80μ slit |
| | | 2 | AX-AR | 01:33:06 54:00:19 | | 20 min | 11.0/ |
| | | 3 | TH-AR | | ↑ | 90° | |
| | | 4 | TH-AR | | ↓ | 90° | |
| | | 5 | UV-AR | 05:18:33 32:27:48 | | 15 min | 10.0/ |
| | | 6 | TH-AR | | ↑ | 90° | |
| | | 7 | TH-AR | | ↓ | | 5187A 80μ slit |
| | | 8 | S021738 | 00:46:13.9 56:48:10 | | 8 min | |
| | | 9 | TH-AR | | N | | |
| | | 10 | S21732B | 00:46:08 57:33:00 | | 3 min | probably S21732A! |
| | | 11 | TH-AR | | N | | |
| | | 12 | S21732B | - " - " - | | 8 min | No autoguiding this time |
| | | 13 | TH-AR | | N | | |
| | | 14 | S21738 | 00:46:13.9 56:48:10 | | 8 min | |
| | | 15 | TH-AR | | ↑ | | |
| | | 16 | TH-AR | | ↓ | | |
| | | 17 | S21657 | 00:40:25 56:15:37 | | 8 min | Vary seeing |
| | | 18 | TH-AR | | N | | |
| | | 19 | S21732B | 00:46:08 57:33:00 | | 7 min | No autoguiding bad seeing |
| | | 20 | TH-AR | | N | | Some light from S21732A |
| | | 21 | S21657 | 00:40:25 56:15:37 | | 8 min | Questionable |
| | | 22 | TH-AR | | ↑ | | |
| | | 23 | TH-AR | | ↓ | | |
| (9) | | 24 | S036242 | 00:15:14.3 44:18:01 | | 7 min | |
| | | 25 | TH-AR | | N | | |
| (10) | | 26 | S036248 | 00:15:40 43:44:35 | | 15 min | |
| | | 27 | TH-AR | | N | | |
| (9) | | 28 | S036242 | 00:15:14.3 44:18:01 | | 7 min | |
| | | 29 | TH-AR | | ↑ | | |
| | | 30 | TH-AR | | | | |
| | | 31 | | | | | |
| | | 32 | | | | | |

TO CAM 1-8

Intensified Reticon

Spectrograph ECHELLE Log Sheet RAW/RET 9

Grating 3000 Observer Z MAZCH

Telescope L1" WYETI Date JAN 7-8 1986 Disk 000850

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----|----------------------------|------------|------------|-----------------|---------------|
| | | 1 | TH-AR | | ↓ | 90 ^s | 5187A 80μSLIT |
| | | 2 | S132170 | 05:26:54 | -03:29:05 | | 6.1/ |
| | | 3 | TH-AR | | ↓ | | |
| | | 4 | S13221 TH-AR | 05:28:57 | -03:42:20 | | 20 min 8.4/ |
| | | 5 | TH-AR | | ↑ | 90 ^s | |
| | | 6 | TH-AR | | ↓ | 90 ^s | |
| | | 7 | S132170 | 05:26:54 | -03:29:05 | | 5 min |
| | | 8 | TH-AR | | ↑ | 90 ^s | |
| | | 9 | TH-AR | | ↓ | 90 ^s | |
| | | 10 | H100018A | 9:47:54 | +4:34:42 | | 3 min |
| | | 11 | TH-AR | | ↑ | 90 ^s | |
| | | 12 | TH-AR | | ↓ | 90 ^s | |
| | | 13 | H100018A | 11:28:07 | +4:33:51 | | 6 min 6.9/ |
| | | 14 | TH-AR | | ↑ | 90 ^s | |
| | | 15 | TH-AY | | ↓ | 90 ^s | |
| | | 16 | W33433 | 22: | | 22 min | |
| | | 17 | TH-AY | | ↑ | | 86 73 |
| | | 18 | W33433 | 12:59:37.4 | 30:20:03 | | 11 min |
| | | 19 | TH-AY | 2 | | | |
| | | 20 | W33436 | 12:59:49.4 | 30:17:44 | | 25 min 86 1/2 |
| | | 21 | TH-AY | | ↑ | | |
| | | 22 | TH-AY | | ↓ | | |
| | | 23 | W33784 | 13:11:20 | 30:04:58 | | 3 min |
| | | 24 | TH-AY | | ↑ | 90 ^s | |
| | | 25 | W33777 | 13:11:18 | 30:07:42 | | 4 min |
| | | 26 | TH-AY | | ↑ | | |
| | | 27 | W33781 | 13:11:27 | 30:05:52 | | |
| | | 28 | TH-AY | | ↑ | | |
| | | 29 | | | | | |
| | | 30 | | | | | |
| | | 31 | | | | | |
| | | 32 | | | | | |

Intensified Reticon

TO CAM 1/17

Spectrograph ECHELLE

Log Sheet

RAW/RET 10

Grating 3000

Observer DA

Telescope 61" WYETI

Date JAN 16-17 1986

Disk ORO 852

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----|--------------|-----|------------|--------------------------------------|---|
| | | 1 | | | ↓ | 90 ^s | 5199A 70 ^s |
| | | 2 | | | | 3 ^m | |
| | | 3 | | | ↑ | 90 ^s | |
| | | 4 | | | ↓ | 90 ^s | |
| | | 5 | | | | 3 ^m | |
| | | 6 | | | ↑ | 90 ^s | |
| | | 7 | | | ↓ | 90 ^s | |
| | | 8 | | | | 4 ^m | |
| | | 9 | | | ↑ | 90 ^s | |
| | | 10 | | | ↓ | 90 ^s | |
| | | 11 | | | | 10 ^{MIN} | 5197A 81 ^s 11.2/15 |
| | | 12 | | | ↓ | 90 ^s | |
| | | 13 | | | | 9 ^{MIN} | 10.2/10 |
| | | 14 | | | ↑ | 90 ^s | |
| | | 15 | | | ↓ | 90 ^s 14 ^{MIN} | 10.1/15 (ABOUT 11.8) NW OF PAIR |
| | | 16 | | | | | |
| | | 17 | | | ↓ | 90 ^s | |
| | | 18 | | | | 5 ^{MIN} | 10.1/15 SE OF PAIR |
| | | 19 | | | ↑ | 90 ^s | |
| | | 20 | | | ↓ | 90 ^s | |
| | | 21 | | | | 8 ^{MIN} | 10.1/15 SW OBJECT |
| | | 22 | | | ↑ | 90 ^s | |
| | | 23 | | | ↓ | 90 ^s | GRAPHICS SCORE PROBLEMS (DEC. FROM) |
| | | 24 | | | | 10 ^{MIN} | 10.1/15 NE OBJECT |
| | | 25 | | | ↑ | 90 ^s | |
| | | 26 | | | ↓ | 90 ^s | |
| | | 27 | | | | 8 ^{MIN} | 9.3/15 FAINTER SOUTH WEST |
| | | 28 | | | ↑ | 90 ^s | |
| | | 29 | | | ↓ | 6 ^{MIN} | 9.3/15 NORTHEAST BRITER ← CO-ORDS WRONG |
| | | 30 | | | ↑ | 90 ^s | |
| | | 31 | | | | | |
| | | 32 | | | | | |

Spectrograph ECHELLE Intensified Reticon
 Grating 300 Log Sheet
 Telescope 61" W/ETH Date JAN 16-17 1986

TO CAM 1/17
RAW RET 10

Observer nm/gs
 Disk ORO 853

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----|--------------|----------|------------|----------------------|---------------------|
| | | 1 | | | ↓ | 90 ^s | 5.87 A 82N SLIT |
| | | 2 | G220-13 | 2:31:47 | 59°34' | 3 ^{MIN} | 8.9/30 |
| | | 3 | TH-AR | | ↑ | 90 ^s | |
| | | 4 | TH-AR | | ↓ | 90 ^s | |
| | | 5 | G95-57A | 03:43:36 | 41:17:25 | 2 ^{MIN} | 8.2/15 SW of PAIR |
| | | 6 | TH-AR | | ↕ | 90 ^s | |
| | | 7 | G95-57B | 03:43:37 | 41:17:25 | 3 ^{MIN} | 8.7/30 NE of PAIR |
| | | 8 | TH-AR | | ↑ | 90 ^s | |
| | | 9 | TH-AR | | ↓ | 90 ^s | |
| | | 10 | G99-31W | 05:42:11 | 09:13:42 | 15 ^{MIN} | 11.8/15 WEST OBJECT |
| | | 11 | TH-AR | | ↑ | 90 ^s | |
| | | 12 | TH-AR | | ↓ | 90 ^s | |
| | | 13 | S133165 | 06:19:35 | -05:25:48 | 4 ^{MIN} | 8.0/100 |
| | | 14 | TH-AR | | ↑ | 90 ^s | |
| | | 15 | TH-AR | | ↓ | 90 ^s | |
| → | | 16 | G88-10 | 07:07:21 | 24:25:42 | 20 ^{MIN} | 11.86/60 |
| → | | 17 | TH-AR | | ↕ | 90 ^s | |
| → | | 18 | G88-10 | " | " | 20 ^{MIN} | 11.86/ |
| | | 19 | TH-AR | | ↕ | 90 ^s | |
| → | | 20 | G88-10 | " | " | 20 ^{MIN} | 11.86/ |
| | | 21 | TH-AR | | ↑ | 90 ^s | |
| | | 22 | TH-AR | | ↓ | 90 ^s | |
| → | | 23 | G27-45 | 07 29 47 | 31 32 | 20 ^{MIN} | |
| → | | 24 | TH-AR | | ↕ | 90 ^s | |
| | | 25 | G27-45 | | | 25 ^{MIN} | |
| | | 26 | TH-AR | | ↑ | 90 ^s | |
| | | 27 | TH-AR | | ↓ | 90 ^s | |
| | | 28 | G27-47 | 07 32 15 | 36 04 | 9 1/2 ^{MIN} | |
| | | 29 | TH-AR | | ↑ | 90 ^s | |
| | | 30 | TH-AR | | ↓ | 90 ^s | |
| → | | 31 | G41-41 | 09 26 35 | 08 51 | 20 ^{MIN} | |
| | | 32 | TH-AR | | ↕ | | |

1/17/86

Intensified Reticon

TO CAM

Spectrograph ECHELLE

Log Sheet

RAW RET 10

Grating 3000

Observer nan/RPS

Telescope 61" WYKOT

Date 1/16-17/86

Disk ORO 854

Change.... File ID 1950.0 RA Dec L/R Exposure Comments

| Change.... | File | ID | 1950.0 | RA | Dec | L/R | Exposure | Comments | |
|------------|------|----|--------|---------|----------|----------|----------|----------|-----------------------|
| | | 1 | | G41-41 | 09 26 15 | 08 51 | | 20m | 5187A TOP |
| | | 2 | | TH-AR | | | ↑ | 90s | |
| | | 3 | | G41-41 | " | " | | 20m | |
| | | 4 | | TH-AR | | | ↑ | 90s | |
| | | 5 | | TH-AR | | | ↓ | 90s | |
| | | 6 | | W12966 | 13 11 04 | 30 29 | | 22m | |
| | | 7 | | TH-AR | | | ↑ | 90s | |
| | | 8 | | W12971 | 13 11 12 | 30 29 | | 10m | |
| | | 9 | | TH-AR | | | ↑ | 90s | |
| | | 10 | | TH-AR | | | ↓ | 90s | |
| | | 11 | | H114762 | 13 09 54 | 17 47 | | 3m | IAUSTD |
| | | 12 | | TH-AR | | | ↑ | 90s | |
| | | 13 | | TH-AR | | | ↓ | 90s | |
| | | 14 | | MORNSKY | | | | 8m | |
| | | 15 | | TH-AR | | | ↑ | 90s | |
| | | 16 | | INCAND | | | | 120m | |
| | | 17 | | INCAND | | | | 107m | |
| JAN 17/18 | | 18 | | TH-AR | | | ↓ | 90s | 5187A 80% (overcast) |
| | | 19 | | KY-LNG | | | | 5m | |
| | | 20 | | TH-AR | | | ↑ | 90s | |
| | | 21 | | TH-AR | | | ↓ | 90s | |
| | | 22 | | (1) | 11:26:43 | 8:55:47 | | 5 1/2 m | Asteroid (1) |
| | | 23 | | TH-AR | | | ↑ | 90s | |
| | | 24 | | TH-AR | | | ↓ | 90s | |
| | | 25 | | H89449 | 10 17 41 | 19 43 31 | | 2m | IAU standard |
| | | 26 | | TH-AR | | | ↑ | 90s | |
| | | 27 | | TH-AR | | | ↓ | 90s | |
| | | 28 | | G43-3 | 19 46 12 | 18 59 18 | | 20m | 8/50 8' seeing clouds |
| | | 29 | | TH-AR | | | ↑ | 90s | |
| | | 30 | | G43-3 | " | " | | 10m | |
| | | 31 | | TH-AR | | | ↑ | 90s | |
| | | 32 | | / | | | | | (overcast) |



1/18

Spectrograph ECHELLE

Intensified Reticon

TO CAM

Grating 300L

Log Sheet

RAW/RET 10

Telescope WYETH

Date 1/17-18/86

Observer RPS / DWL

Disk ORO 855

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|--------------|------|----|-----------|------------|-----------|----------|-------------------------|
| | | 1 | | | ↓ | 90s | |
| | | 2 | G147-58 | 11:27:43 | 36:07:44 | | 13m 9.9/20 clouds |
| | | 3 | Th-Ar | | ↑ | 90s | |
| | | 4 | Th-Ar | | ↓ | 90s | |
| | | 5 | H106516 | 12:12:36 | -10:01:14 | | 2m 6.1/20 |
| | | 6 | Th-Ar | | ↑ | 90s | |
| | | 7 | Th-Ar | | ↓ | 90s | |
| | | 8 | S63020 | 12:26:38 | 31:40:00 | | 3m 7.9/20 13 |
| | | 9 | Th-Ar | | ↑ | 90s | Set, guiding failed |
| | | 10 | Th-Ar | | ↓ | 90s | Offsetter failed. |
| | | 11 | SKY | | | 7m | |
| | | 12 | Th-Ar | | ↑ | 90s | |
| | | 13 | ITICAND | | | 120m | |
| | | 14 | " | | | 100 | |
| 1/18-19/86 ↓ | | 15 | Th-Ar | | ↓ | 90s | 5187 80μ slit |
| | | 16 | SKY | | | 5m | Thin clouds |
| | | 17 | Th-Ar | | ↑ | 90s | |
| | | 18 | Th-Ar | | ↓ | 90s | |
| | | 19 | G210-46 | 20:58:01 | 40:03:42 | | 4m 6.5/300 Thin clouds |
| | | 20 | Th-Ar | | ↑ | 90s | |
| | | 21 | Th-Ar | | ↓ | 90s | |
| | | 22 | G216-45 | 23:25:02 | 49:59:12 | | 9m 11.1/15 some clouds |
| | | 23 | Th-Ar | | ↑ | 90s | |
| | | 24 | Th-Ar | | ↓ | 90s | |
| | | 25 | G128-45 | 23:15:39 | 31:15:30 | | 13m 11.7/15 more clouds |
| | | 26 | Th-Ar | | ↑ | 90s | |
| | | 27 | Th-Ar | | ↓ | 90s | |
| | | 28 | H213014 | 22:25:45.8 | 17:00:28 | | 4m 7.7 IAU STD |
| | | 29 | Th-Ar | | ↑ | 90s | |
| | | 30 | Th-Ar | | ↓ | 90s | |
| | | 31 | G18-28 | 22:03:14 | 12:08:18 | | 10m 9.6/30 4/17 |
| | | 32 | Th-Ar | | ↑ | 90s | |

1/18

TO CAM

Spectrograph ECHELLE Intensified Reticon
 Log Sheet RAWRET 10
 Grating 300 Observer DWL
 Telescope WYETH Date 1/18-19/86 Disk ORO 856

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----|--------------|----------|------------|----------|----------|
| | | 1 | | | ↓ | 90s | |
| | | 2 | G18-59 | 22:30:20 | 10:09:00 | 4m | 9.4/15 |
| | | 3 | Th-Av | | ↑ | 90s | |
| | | 4 | Th-Av | | ↓ | 90s | |
| | | 5 | G67-38 | 22:56:49 | 11:55:36 | 4m | 8.4/30 |
| | | 6 | Th-Av | | ↑ | 90s | |
| | | 7 | Th-Av | | ↓ | 90s | |
| | | 8 | G68-31 | 23:33:33 | 18:09:48 | 2m | 7.7/20 |
| | | 9 | Th-Av | | ↑ | 90s | |
| | | 10 | Th-Av | | ↓ | 90s | |
| | | 11 | G129-42 | 23:52:30 | 20:06:24 | 3m | 8.9/20 |
| | | 12 | Th-Av | | ↑ | 90s | |
| | | 13 | Th-Av | | ↓ | 90s | |
| | | 14 | G130-32 | 23:57:31 | 33:54:42 | 2m | 8.5/20 |
| | | 15 | Th-Av | | ↑ | 90s | |
| | | 16 | Th-Av | | ↓ | 90s | |
| | | 17 | G217-8 | 23:24:15 | 60:21:06 | 17m | 10.5/60 |
| | | 18 | Th-Av | | ↑ | 90s | |
| | | 19 | Th-Av | | ↓ | 90s | |
| | | 20 | G243-63 | 01:06:30 | 61:16:48 | 2m | 7.7/100 |
| | | 21 | Th-Av | | ↑ | 90s | |
| | | 22 | Th-Av | | ↓ | 90s | |
| | | 23 | G243-21 | 00:19:28 | 61:44:54 | 3m | 9.7/15 |
| | | 24 | Th-Av | | ↑ | 90s | |
| | | 25 | Th-Av | | ↓ | 90s | |
| | | 26 | G171-57 | 00:22:23 | 45:24:48 | 3m | 9.6/20 |
| | | 27 | Th-Av | | ↑ | 90s | |
| | | 28 | Th-Av | | ↓ | 90s | |
| | | 29 | G171-58 | 00:22:26 | 47:46:12 | | 7.5/50 |
| | | 30 | Th-Av | | ↑ | | |
| | | 31 | | | | | |
| | | 32 | | | | | |

14/27

Spectrograph ECHELLE Intensified Reticon
 Grating 300L Log Sheet
 Telescope WYETH Date 1/18-19/86

TO CAM 1/21
RAW RET 10
 Observer DWL
 Disk ORO 858

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----|--------------|--------------------|------------|-----------------|-------------------------------|
| | | 1 | TH-AR | | ↓ | 90s | |
| | | 2 | G220-13 | 02:31:47 +59:34:20 | | 4m | 8.9/30 27 21/34 |
| | | 3 | TH-AR | | ↑ | 90s | |
| | | 4 | TH-AR | | ↓ | 90s | |
| | | 5 | G95-57A | 03:43:36 +41:17:25 | | 2m | 8.2/15 - SW |
| | | 6 | TH-AR | | ↓ | 90s | |
| | | 7 | G95-57B | 03:43:37 +41:17:25 | | 3m | 8.8/30 NE |
| | | 8 | TH-AR | | ↑ | 90s | HALT BY HEAVY |
| | | 9 | INCAND | | | 120 MIN | CLOUDS |
| | | 10 | INCAND | | | " | TELESCOPE DRIVE WAS " ON " |
| | | 11 | INCAND | | | " | |
| | | 12 | INCAND | | | " | |
| | | 13 | INCAND | | | 42 MIN | |
| JAN 20/21 | | 14 | TH-AR | | ↓ | 90 ^s | 5187A 80μ SLIT |
| | | 15 | SKY-EVE | | | 5 MIN | (OVERCAST) |
| | | 16 | TH-AR | | ↑ | 90 ^s | |
| JAN 21/22 | | 17 | TH-AR | | ↓ | 90 ^s | 5187A 80μ SLIT |
| | | 18 | SKY-EVE | | | 5 MIN | (CLEAR) |
| | | 19 | TH-AR | | ↑ | 90 ^s | |
| | | 20 | TH-AR | | ↓ | 90 ^s | |
| | | 21 | H87-79 | 1:23:53 -00:39:29 | | 3 MIN | (G.1) 1 AU STANDARD |
| | | 22 | TH-AR | | ↑ | 90 ^s | |
| | | 23 | TH-AR | | ↓ | 90 ^s | |
| | | 24 | 1016 CYG | 19 55 20 39 42 | | 17m | 5199A FOU |
| | | 25 | TH-AR | | TH | 90 ^s | |
| | | 26 | 1016 CYG | " " | | 90m | |
| | | 27 | TH-AR | | ↑ | 90 ^s | |
| | | 28 | TH-AR | | ↓ | 90 ^s | 6563A 40μ |
| | | 29 | λ AND | 23 35 06 46 " | | 18m | NO = 1 FILTER |
| | | 30 | TH-AR | | ↑ | 90 ^s | |
| | | 31 | | | | | |
| | | 32 | | | | | |

Spectrograph ECHELLE

Intensified Reticon

TO CAM 1/21

Grating 300L

Log Sheet

RAW/RET 10

Telescope 5H

Date 1/21-22/81

Observer DL

Disk ORD 859

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----|-----------------|--------|------------|-----------------|---------------|
| | | 1 | | | ↓ | 90 ^s | 6563-A 40A |
| | | 2 | E AUR 04 57 23 | 43 45 | | 9 ^m | ND = 1 FILTER |
| | | 3 | | | ↑ | 90 ^s | |
| | | 4 | | | ↓ | 90 ^s | |
| | | 5 | L AUR 05 13 00 | 45 57 | | 9 ^m | ND = 2 FILTER |
| | | 6 | | | ↑ | 90 ^s | |
| | | 7 | | | ↓ | 90 ^s | |
| | | 8 | L ORI 05 54 25 | 07 24 | | 7 ^m | ND = 2 FILTER |
| | | 9 | | | ↑ | 90 ^s | |
| | | 10 | | | ↓ | 90 ^s | |
| | | 11 | W ORI 05 36 33 | 04 06 | | 10 ^m | 6563 70A |
| | | 12 | | | ↑ | 90 ^s | |
| | | 13 | | | ↓ | 90 ^s | 5127 70A |
| | | 14 | (18) 06 31 09 | 11 22 | | 6 ^m | |
| | | 15 | | | ↑ | 90 ^s | |
| | | 16 | | | ↓ | 90 ^s | |
| | | 17 | S13115 06 19 35 | -05 26 | | 4 ^m | |
| | | 18 | | | ↑ | 90 ^s | |
| | | 19 | | | ↓ | 90 ^s | |
| | | 20 | G87-47 07 32 15 | 36 04 | | 12 ^m | |
| | | 21 | | | ↑ | 90 ^s | |
| | | 22 | | | ↓ | 90 ^s | |
| | | 23 | H23229 03 59 53 | 35 09 | | 3 ^m | |
| | | 24 | | | ↑ | 90 ^s | |
| | | 25 | | | ↓ | 90 ^s | |
| | | 26 | G7-20 04 02 47 | 10 55 | | 15 ^m | |
| | | 27 | | | ↑ | 90 ^s | |
| | | 28 | | | ↓ | 90 ^s | |
| | | 29 | G82-5 04 12 29 | -05 45 | | 2 ^m | |
| | | 30 | | | ↑ | 90 ^s | |
| | | 31 | | | | | |
| | | 32 | | | | | |

Intensified Reticon

TO CAM 1-22

Spectrograph ECHELLE

Log Sheet

RAW RET 10

Grating 300L

Observer GS

Telescope 61" WY171

Date JAN 21-22 1986

Disk DRD 861

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----|--------------|----------|------------|-----------------|---------------------------|
| | | 1 | | | ↓ | 90 ^s | 5187 A. 80 μ SLIT |
| | | 2 | G114-48 | 9:11:12 | -3:41:18 | | 7 MIN 10.6/15 |
| | | 3 | | | ↑ | 90 ^s | |
| | | 4 | | | ↓ | 90 ^s | |
| → | | 5 | G48-29 | 09:38:08 | 01:14:30 | | 20 MIN 10.4/100 THIN CLDS |
| → | | 6 | | | ↕ | 90 ^s | |
| | | 7 | G48-29 | " | " | | 20 MIN " |
| | | 8 | | | ↑ | 90 ^s | |
| | | 9 | | | ↓ | 90 ^s | |
| | | 10 | G53-30 | 10:09:56 | -00:23:12 | | 4 MIN 10.2/15 CLEAR |
| | | 11 | | | ↑ | 90 ^s | |
| | | 12 | | | ↓ | 90 ^s | |
| | | 13 | G44-45 | 10:50:48 | 10:00:24 | | 10 MIN 10.1/30 |
| | | 14 | | | ↑ | 90 ^s | |
| | | 15 | | | ↓ | 90 ^s | |
| | | 16 | G147-36 | 11:14:34 | 29:50:36 | | 4 MIN 7.7/15 |
| | | 17 | | | ↑ | 90 ^s | |
| | | 18 | | | ↓ | 90 ^s | |
| | | 19 | H114762 | 13:09:54 | 17:46:55 | | 3 MIN 7.3 IAU STANDARD |
| | | 20 | | | ↑ | 90 ^s | |
| | | 21 | | | ↓ | 90 ^s | |
| | | 22 | W11449 | 13:08:50 | 31:05:34 | | 7 MIN 9.3/15 SA 57 |
| | | 23 | | | ↕ | 90 ^s | |
| | | 24 | W11450 | 13:08:51 | 31:05:32 | | 3 MIN 7.0/15 |
| | | 25 | | | ↕ | 90 ^s | |
| | | 26 | W13777 | 13:11:18 | 30:02:42 | | 2 MIN 8.6/20 |
| | | 27 | | | ↕ | 90 ^s | |
| | | 28 | W13781 | 13:11:22 | 30:03:52 | | 5 MIN 10.7/15 |
| | | 29 | | | ↕ | 90 ^s | |
| | | 30 | W13784 | 13:11:20 | 30:04:58 | | 2 MIN 7.7/15 |
| | | 31 | | | ↑ | 90 ^s | |
| | | 32 | | | | | |

TO CAM 1-22

Spectrograph ECHELLE Intensified Reticon
 Log Sheet RAWRET 10
 Grating 300 Observer GS
 Telescope 6" WYETH Date JAN 21-22 1986 Disk ORO 862

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----|--------------|----------|------------|----------|-------------------------|
| | | 1 | | | ↓ | 90° | 5187A 80μSLIT |
| | | 2 | W12971 | 13:11:02 | 30:28:28 | | 8 MIN 11.4/15 SA 57 |
| | | 3 | | | ↕ | 90° | |
| | | 4 | W12966 | 13:11:03 | 30:28:38 | | 19 MIN 11.9/20 |
| | | 5 | | | ↕ | 90° | |
| | | 6 | W42576 | 13:08:30 | 28:37:18 | | 2 MIN 8.8/30 |
| | | 7 | | | ↕ | 90° | |
| | | 8 | W42574 | 13:08:38 | 28:36:49 | | 12 MIN 11.7/15 |
| | | 9 | | | ↕ | 90° | |
| | | 10 | W42640 | 13:08:29 | 28:34:13 | | 10 MIN 11.7/15 |
| | | 11 | | | ↕ | 90° | |
| | | 12 | W33435 | 12:59:49 | 30:18:39 | | 6 MIN 11.2/15 |
| | | 13 | | | ↕ | 90° | |
| | | 14 | W33433 | 12:59:37 | 30:20:03 | | 20 MIN 11.4/30 |
| | | 15 | | | ↕ | 90° | |
| | | 16 | W33433 | " | " | | 10 MIN " |
| | | 17 | | | ↕ | 90° | |
| | | 18 | W33436 | 12:59:48 | 30:17:44 | | 20 MIN 11.7/20 |
| | | 19 | | | ↑ | 90° | |
| | | 20 | | | ↓ | 90° | |
| | | 21 | G14-54 | 13:25:44 | -00:34:30 | | 2 MIN 7.4/20 |
| | | 22 | | | ↑ | 90° | |
| | | 23 | | | ↓ | 90° | 6563 A 80μSLIT HI ALPHA |
| | | 24 | FK COM | 13:28:25 | 24:29:25 | | 9 MIN 8.2/300E |
| | | 25 | | | ↑ | 90° | |
| | | 26 | | | ↓ | 90° | |
| | | 27 | VEVEN | 13:17:17 | 45:47:22 | | 4 MIN 6.5/500C |
| | | 28 | | | ↑ | 90° | |
| | | 29 | | | ↓ | 90° | 5187A 80μSLIT HALOS |
| | | 30 | G170-47 | 17:30:38 | 23:46:18 | | 6 MIN 8.9/100 |
| | | 31 | | | ↑ | 90° | |
| | | 32 | | | | | |

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TO CAM 1/23

Intensified Reticon

Spectrograph ECHELLE Log Sheet RAW RET 10

Grating 3000 Observer GS

Telescope 6" WYETH Date JAN 21-22 1986 Disk ORO 863

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----------|--------------|-----------|------------|-----------------|-------------------|
| | 1 | TH-AR | | | ↓ | 90 ^s | 5187A 80μ SLIT |
| | 2 | H136202 | 15:16:45 | 01:57:11 | | 2 MIN | 5.1 1 AU STANDARD |
| | 3 | TH-AR | | | ↑ | 90 ^s | |
| | 4 | TH-AR | | | ↓ | 90 ^s | |
| | 5 | SKY DAWN | | | | 5 MIN | FEW CLDS |
| | 6 | TH-AR | | | ↑ | 90 ^s | |
| | 7 | INCAND | | | | 120 MIN | |
| | 8 | INCAND | | | | 120 MIN | |
| | 9 | INCAND | | | | 20 MIN | |
| JAN 21-23 | 10 | TH-AR | | | ↓ | 90 ^s | 5187A 80μ SLIT |
| | 11 | SKY ECL | | | | 5 MIN | MODEST OVERCAST |
| | 12 | TH-AR | | | ↑ | 90 ^s | |
| | 13 | TH-AR | | | ↓ | 90 ^s | CLEARING AT 0030 |
| | 14 | G9-47 | 09:03:52 | 20:42:36 | | 3 MIN | 7.7/15 |
| | 15 | TH-AR | | | ↑ | 90 ^s | |
| | 16 | TH-AR | | | ↓ | 90 ^s | |
| | 17 | G114-26 | 08:56:39 | -03:49:36 | | 5 MIN | 9.7/30 |
| | 18 | TH-AR | | | ↕ | 90 ^s | |
| | 19 | TH-AR | | | ↓ | 90 ^s | |
| | 20 | G41-34 | 09:20:06 | 11:29:06 | | 2 MIN | 9.6/15 |
| | 21 | TH-AR | | | ↑ | 90 ^s | |
| | 22 | TH-AR | | | ↓ | 90 ^s | |
| | 23 | G41-41 | 09:26:35 | 08:51:24 | | 20 MIN | 11.1/100 |
| | 24 | TH-AR | | | ↕ | 90 ^s | |
| | 25 | G41-41 | " | " | | 20 MIN | 11.1/100 |
| | 26 | TH-AR | | | ↑ | 90 ^s | |
| | 27 | TH-AR | | | ↓ | 90 ^s | |
| | 28 | G43-3 | 09:46:12 | 13:59:18 | | 2 MIN | 8.3/50 |
| | 29 | TH-AR | | | ↑ | 90 ^s | |
| | 30 | | | | | | |
| | 31 | | | | | | |
| | 32 | | | | | | |

TO CAM 1/23

RAW RET 10

Spectrograph ECHELLE Intensified Reticon

Grating 300 Log Sheet

Telescope 6" W 1171 Date JAN 22-23 1986 Observer GS

Disk ORD 864

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|----------|----|--------------|-----------|------------|-----------------|------------------|
| | | 1 | | | ↓ | 90 ^s | 5187A. 80 μ SLIT |
| | G147-58 | 2 | 11:27:43 | 36:07:00 | | 3 MIN | 7.9/20 |
| | | 3 | | | ↑ | 90 ^s | |
| | | 4 | | | ↓ | 90 ^s | |
| | 563020 | 5 | 12:26:38 | 31:40:00 | | 2 MIN | 7.9/20 |
| | | 6 | | | ↑ | 90 ^s | |
| | | 7 | | | ↓ | 90 ^s | |
| | H106516 | 8 | 12:12:36 | -10:01:14 | | 2 MIN | 6.1/20 |
| | | 9 | | | ↑ | 90 ^s | |
| | | 10 | | | ↓ | 90 ^s | |
| | # 1 AST. | 11 | 11:26:32 | 19:31:38 | | 3 MIN | 7.7 ASTEROID |
| | | 12 | | | ↑ | 90 ^s | |
| | | 13 | | | ↓ | 90 ^s | |
| | W11449 | 14 | 13:08:50 | 31:05:34 | | 5 MIN | 9.36/15 SA 57 |
| | | 15 | | | ↕ | 90 ^s | |
| | W11450 | 16 | 13:08:51 | 31:05:32 | | 2 MIN | 7.04/15 |
| | | 17 | | | ↕ | 90 ^s | |
| | W12966 | 18 | 13:11:03 | 30:28:38 | | 20 MIN | 11.9/20 |
| | | 19 | | | ↓ | 90 ^s | |
| | W12971 | 20 | 13:11:12 | 30:28:28 | | 8 MIN | 11.3/15 |
| | | 21 | | | ↑ | 90 ^s | |
| | W13777 | 22 | 13:11:18 | 30:02:42 | | 2 MIN | 8.5/20 |
| | | 23 | | | ↕ | 90 ^s | |
| | W13781 | 24 | 13:11:22 | 30:03:52 | | 4 MIN | 10.7/15 |
| | | 25 | | | ↕ | 90 ^s | |
| | W13784 | 26 | 13:11:20 | 30:04:58 | | 2 MIN | 7.2/15 |
| | | 27 | | | ↕ | 90 ^s | |
| | W42574 | 28 | 13:08:38 | 28:36:49 | | 10 MIN | 11.7/15 |
| | | 29 | | | ↑ | 90 ^s | |
| | W42576 | 30 | 13:08:30 | 28:37:18 | | 2 MIN | 8.8/30 |
| | | 31 | | | ↑ | 90 ^s | |
| | | 32 | | | | | |

Spectrograph ECHELLE Intensified Reticon TO CAM 1/23
 Grating 300 Log Sheet RAW RET 10
 Telescope 6" WYETH Date JAN 22-23 1986 Observer GS
 Disk ORO 865

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|---------|----|--------------|----------|------------|-------------------|---------------------|
| | | 1 | TH-AR | | ↓ | 90 ^s | 5187A. 80μs. IT |
| | W42640 | 2 | 13:08:29 | 28:34:13 | | 9 MIN | 11.7/15 SA 57 |
| | | 3 | TH-AR | | ↓ | 90 ^s | |
| | W33433 | 4 | 12:59:37 | 30:20:03 | | 17 MIN | 11.4/30 |
| | | 5 | TH-AR | | ↓ | 90 ^s | |
| | W33435 | 6 | 12:59:49 | 30:18:39 | | 6 MIN | 11.2/15 |
| | | 7 | TH-AR | | ↓ | 90 ^s | |
| | W33436 | 8 | 12:59:48 | 30:17:44 | | 12 MIN | 11.7/20 |
| | | 9 | TH-AR | | ↑ | 90 ^s | |
| | | 10 | TH-AR | | ↓ | 90 ^s | |
| | H114762 | 11 | 13:09:54 | 17:46:55 | | 3 MIN | 7.3 (1 AU STANDARD) |
| | | 12 | TH-AR | | ↑ | 90 ^s | |
| | | 13 | TH-AR | | ↓ | 90 ^s | (HALOS) |
| | G61-24 | 14 | 12:55:04 | 18:57:48 | | 5 MIN | 8.9/50 |
| | | 15 | TH-AR | | ↑ | 90 ^s | |
| | | 16 | TH-AR | | ↓ | 90 ^s | |
| | H182757 | 17 | 13:34:07 | 18:24:24 | | 3 MIN | 9.8/20 |
| | | 18 | TH-AR | | ↑ | 90 ^s | |
| | | 19 | TH-AR | | ↓ | 90 ^s | |
| | G166-45 | 20 | 14:46:50 | 25:54:48 | | 20 MIN | 9.7/200 |
| | | 21 | TH-AR | | ↑ | 90 ^s | |
| | | 22 | TH-AR | | ↓ | 90 ^s | |
| | S101380 | 23 | 15:05:06 | 17:38:30 | | 1 ^m 23 | 9.2/20 |
| | | 24 | TH-AR | | ↑ | 90 ^s | |
| | | 25 | TH-AR | | ↓ | 90 ^s | |
| | H135148 | 26 | 15:10:55 | 12:38:36 | | 2 MIN | 9.5/15 DAWNS COMING |
| | | 27 | TH-AR | | ↑ | 90 ^s | |
| | | 28 | TH-AR | | ↓ | 90 ^s | |
| | | 29 | SKY DAWN | | | 6 MIN | |
| | | 30 | TH-AR | | ↑ | 90 ^s | |
| | | 31 | IN CAND | | | 120 MIN | |
| | | 32 | IN CAND | | | " | |

Spectrograph ECHELLE

Intensified

Reticon

TO CAM 1/24

Grating 3008

Log Sheet

RAW/RET 10

Telescope SHDate 1/23-24/76Observer ALDisk ORD 867

Change.... File ID 1950.0 RA Dec L/R Exposure Comments
 ↑/↓

| Change.... | File | ID | 1950.0 RA | Dec | L/R | Exposure | Comments |
|------------|---------|----------|-----------|-----|-----|--------------------|----------------------------|
| | | | | | ↑/↓ | | |
| 1 | TH-AR | | | | ↓ | 90 ^s | 5177 800 |
| 2 | S021738 | 00 46 19 | 56 48 | | | 3 ^m | |
| 3 | TH-AR | | | | ↓ | 90 ^s | |
| 4 | S21732 | 00 46 08 | 57 33 | | | 3 ^m | |
| 5 | TH-AR | | | | ↑ | 90 ^s | |
| 6 | S021738 | 00 46 19 | 56 48 | | | 3 ^m | |
| 7 | TH-AR | | | | ↑ | 90 ^s | |
| 8 | TH-AR | | | | ↓ | 90 ^s | |
| 9 | S021657 | 00 40 25 | 56 16 | | | 3 ^m | |
| 10 | TH-AR | | | | ↑ | 90 ^s | |
| 11 | S021732 | 00 46 09 | 57 33 | | | 3 ^m | |
| 12 | TH-AR | | | | ↑ | 90 ^s | |
| 13 | S021657 | 00 40 25 | 56 16 | | | 3 ^m | |
| 14 | TH-AR | | | | ↑ | 90 ^s | |
| 15 | TH-AR | | | | ↓ | 90 ^s | |
| 16 | G37-21 | 03 05 28 | 26 09 | | | 3 ^m | |
| 17 | TH-AR | | | | ↑ | 90 ^s | |
| 18 | TH-AR | | | | ↓ | 90 ^s | |
| 19 | S56455 | 03 23 53 | 24 15 | | | 2 ^m | |
| 20 | TH-AR | | | | ↑ | 90 ^s | |
| 21 | TH-AR | | | | ↓ | 90 ^s | |
| 22 | G90-25 | 07 50 22 | 30 46 | | | 3 ^{MIN} | |
| 23 | TH-AR | | | | ↑ | 90 ^s | |
| 24 | TH-AR | | | | ↓ | 90 ^s | (65) |
| 25 | G41-5 | 08:50:33 | 09:36:48 | | | 15 ^{MIN} | 11.2/15 |
| 26 | TH-AR | | | | ↑ | 90 ^s | ← TH-AR AMPLITUDE PROBLEMS |
| 27 | INCAND | | | | | 120 ^{MIN} | |
| 28 | ↓ | | | | | | |
| 29 | | | | | | | |
| 30 | ↓ | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |

Intensified Reticon TO CAM 1-28

Spectrograph ECHELLE Log Sheet RAWRET 10

Grating 300l Observer RJD

Telescope 61" Wyeth Date 1/24-25/86 Disk ORO 869

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|---------|----|--------------|-----------|------------|--------------------|----------------------------|
| | | | | | ↓ | 90 ^s | |
| | G103-58 | | 06:43:09 | 35:55:48 | | 3 1/4 ^m | |
| | | | | | ↑ | 90 ^s | |
| | | | | | ↓ | 90 ^s | |
| | G88-13 | | 07:10:24 | 17:31:18 | | 5 3/4 ^m | |
| | | | | | ↑ | 90 ^s | |
| | | | | | ↓ | 90 ^s | |
| | ASTR 02 | | 05:38:08 | -27:37:58 | | 6 1/2 ^m | Asteroid #2 m = 8.3 |
| | | | | | ↑ | 90 ^s | Partially Obscured by tree |
| | | | | | ↓ | 90 ^s | |
| | G107-59 | | 07:12:14 | 45:07:54 | | 2 ^m | |
| | | | | | ↑ | 90 ^s | |
| | | | | | ↓ | 90 ^s | |
| | G220-13 | | 02:31:47 | 59:34:30 | | 4 ^m | |
| | | | | | ↑ | 90 ^s | |
| | | | | | ↓ | 90 ^s | |
| | G196-42 | | 10:43:06 | 58:44:06 | | 11 ^m | Clouds coming from west |
| | | | | | ↑↓ | 90 ^s | |
| | G196-49 | | 10:48:59 | 58:38:12 | | 5 1/2 ^m | Clouds all over sky |
| | | | | | ↑ | 90 ^s | |
| | | | | | ↓ | 90 ^s | long Interruption - Clouds |
| | H66141 | | 07:59:40 | 02:28:24 | | 2 ^m | IAU R.V. STD. |
| | | | | | ↑ | 90 ^s | |
| | | | | | ↓ | 90 ^s | Wait for less clouds |
| | G43-3 | | 09:46:12 | 13:59:18 | | 8 1/2 ^m | |
| | | | | | ↑ | 90 ^s | Clouded out! |
| | | | | | | 120 ^m | |
| | | | | | | 120 ^m | |
| | | | | | | 120 ^m | |
| | | | | | | 91 ^m | |
| | | | | | | | |
| | | | | | | | |

5187A
Halo Binaries

TO CAM 1-28

Intensified Reticon

Spectrograph ECHELLE Log Sheet RAW RET 10

Grating 300 L Observer GS

Telescope 61" WYETH Date JAN 27/28 1986 Disk ORO 870

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----|--------------|----------|------------|----------|---------------------------|
| | | 1 | | | ↓ | 90° | 5187A 80μSLIT |
| | | 2 | | | | 5 min | (CLEAR) |
| | | 3 | | | ↑ | 90° | |
| | | 4 | | | ↓ | 90° | |
| | | 5 | H 8779 | 01:23:53 | -00:39:29 | 3 min | 6.4 |
| | | 6 | | | ↑ | 90° | |
| | | 7 | | | ↓ | 90° | 6563 A 40μSLIT |
| | | 8 | ALPH ORI | 05:52:28 | 07:28:58 | 6 min | 0.8 1 ND FILTER (HY.CLDS) |
| | | 9 | | | ↑ | 90° | |
| JAN 28-29 | | 10 | | | ↓ | 90° | 5187A 80μSLIT |
| | | 11 | | | | 5 min | THIN CLDS |
| | | 12 | | | ↑ | 90° | |
| | | 13 | | | ↓ | 90° | |
| | | 14 | GLS 338A | 09:10:52 | 52:53:43 | 7 min | |
| | | 15 | | | ↓ | 90° | |
| | | 16 | GLS 338B | 09:10:57 | 52:53:46 | | |
| | | 17 | | | ↑ | 90° | |
| | | 18 | | | ↓ | 90° | |
| | | 19 | S076588 | 04:20:44 | 22:50:59 | 5 min | |
| | | 20 | | | ↑ | 90° | |
| | | 21 | GLS 169 | 04:26:02 | 21:48:47 | 8 min | |
| | | 22 | | | ↓ | 90° | |
| | | 23 | S076588 | 04:20:44 | 22:50:59 | 3 | |
| | | 24 | | | ↑ | 90° | |
| | | 25 | | | ↓ | 90° | |
| | | 26 | GLS 176 | 04:40:00 | 18:52:06 | | |
| | | 27 | | | ↑ | 90° | |
| | | 28 | | | ↓ | | |
| | | 29 | S043396 | 10:32:32 | +45:54:46 | 3 min | |
| | | 30 | | | ↓ | | |
| | | 31 | GLS 397 | 10:28:25 | 45:47:06 | | |
| | | 32 | | | | | |

TO CAM 1-28

RAW RET 10

Spectrograph ECHELLE Intensified Reticon

Grating 3002 Log Sheet

Telescope 61" WJETH Date JAN 28/29 1986 Observer GS+TM

Disk ORO 871

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----|--------------|-----------|------------|----------|-----------------------|
| | | 1 | Th-Ar | | ↑ | 90s | 5187A 80μ SLIT |
| | | 2 | Th-Ar | | ↓ | 90s | |
| | | 3 | H0852179 | 04:49:54 | 04:34:52 | 10 min | Triple |
| | | 4 | Th-Ar | | ↑ | 90s | |
| | | 5 | Th-Ar | | ↓ | 90s | |
| | | 6 | H1000R3 | 11:28:7.9 | +41:33:57 | 8 min | Triple STOP/GO |
| | | 7 | Th-Ar | | ↑ | 90s | |
| | | 8 | Th-Ar | | ↓ | 90s | |
| | | 9 | H134646 | 15:06:53 | -63:13:27 | 8 min | Triple |
| | | 10 | Th-Ar | | ↑ | 90s | |
| | | 11 | Th-Ar | | ↓ | 90s | |
| | | 12 | H044284 | 6:0:57 | 58:41:54 | 5 min | Triple |
| | | 13 | Th-Ar | | ↑ | 90s | |
| | | 14 | H044284 | 6:0:57 | 58:40:54 | 10 min | Reduce Separately 1/2 |
| | | 15 | Th-Ar | | ↑ | 90s | |
| | | 16 | Th-Ar | | ↓ | 90s | |
| | | 17 | H106516 | 12:12:36 | -10:01:04 | 2 min | 6.1/20 HALOS |
| | | 18 | Th-Ar | | ↑ | 90s | |
| | | 19 | Th-Ar | | ↓ | 90s | |
| | | 20 | G63020 | 12:26:38 | 31:40:00 | 2 min | 7.9/20 |
| | | 21 | Th-Ar | | ↑ | 90s | |
| | | 22 | Th-Ar | | ↓ | 90s | |
| | | 23 | G147-58 | 11:27:43 | 36:07:00 | 8 min | 9.9/20 |
| | | 24 | Th-Ar | | ↑ | 90s | |
| | | 25 | Th-Ar | | ↓ | 90s | |
| | | 26 | GLS 338A | 09:10:52 | 32:53:48 | 5 min | |
| | | 27 | Th-Ar | | ↓ | 90s | |
| | | 28 | GLS 338B | 09:10:54 | 32:53:46 | 6 min | |
| | | 29 | Th-Ar | | ↑ | | |
| | | 30 | | | | | |
| | | 31 | | | | | |
| | | 32 | | | | | |

Spectrograph ECHELLE Intensified Reticon
 Log Sheet

TO CAM 1/30
 RAW/RET 10

Grating 3000

Observer _____

Telescope 6" WIRTH

Date JAN 30-31
1986

Disk ARD 873

Change.... File ID RA Dec L/R Exposure Comments

| Change.... | File | ID | RA | Dec | L/R | Exposure | Comments |
|------------|------|----|----------|-----------------|-----|-----------------|----------------|
| | | 1 | | | ↓ | 90 ^s | 5187A 80μ SLIT |
| | | 2 | | | | 5 MIN | |
| | | 3 | | | ↑ | 90 ^s | |
| | | 4 | | | ↓ | 90 ^s | 6512A TV |
| | | 5 | α AGR | 22 03 13 -00 34 | | 10 ^h | NB=1 FILTER |
| | | 6 | | | ↑ | 90 ^s | |
| | | 7 | | | ↓ | 90 ^s | |
| | | 8 | W ORI | 05 26 33 04 06 | | 3 ^h | |
| | | 9 | | | ↑ | 90 ^s | |
| | | 10 | | | ↓ | 90 ^s | 5187A TV |
| | | 11 | G214-5 | 21 57 07 40 48 | | 20 ^h | |
| | | 12 | | | ↑ | 90 ^s | |
| | | 13 | G214-5 | " " | | 20 ^h | |
| | | 14 | | | ↑ | 90 ^s | |
| | | 15 | | | ↓ | 90 ^s | |
| | | 16 | G190-15 | 23 11 16 39 09 | | 20 ^h | |
| | | 17 | | | ↑ | 90 ^s | |
| | | 18 | | | ↓ | 90 ^s | 5199A TV |
| | | 19 | AX PER | 01 33 06 54 00 | | 16 ^h | |
| | | 20 | | | ↑ | 90 ^s | |
| | | 21 | | | ↓ | 90 ^s | |
| | | 22 | UV AVR | 05 18 33 32 28 | | 5 ^h | |
| | | 23 | | | ↑ | 90 ^s | |
| | | 24 | | | ↓ | 90 ^s | 5187A TV |
| | | 25 | (18) | 06 25 52 13 07 | | 7 ^h | ASTEROID |
| | | 26 | | | ↑ | 90 ^s | |
| | | 27 | | | ↓ | 90 ^s | |
| | | 28 | S021737 | 00 46 19 56 47 | | 3 ^h | |
| | | 29 | | | ↑ | 90 ^s | |
| | | 30 | S021732B | 00 46 09 57 33 | | 3 ^h | |
| | | 31 | | | ↑ | 90 ^s | |
| | | 32 | S021657 | 00 46 25 56 16 | | 3 ^h | |

NEXT DISC ↑

Intensified Reticon TO CAM 1/31

Spectrograph ECHELLE Log Sheet RAWRET 10

Grating 3000 Observer RM

Telescope 61" SH Date 1/30-31/86 Disk ORO 874

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----|--------------|----------|------------|-------------------|----------------------------------|
| | | 1 | TH-AR | | ↑ | 90 ^s | 5187A 80μ |
| | | 2 | TH-AR | | ↓ | 90 ^s | |
| | | 3 | U105 | 05 33 44 | 11 18 | 3 ^m | |
| | | 4 | TH-AR | | ↑ | 90 ^s | |
| | | 5 | TH-AR | | ↓ | 90 ^s | |
| | | 6 | U104 | 05 28 55 | -03 41 | 3 ^m | |
| | | 7 | TH-AR | | ↑ | 90 ^s | |
| | | 8 | TH-AR | | ↓ | 90 ^s | |
| | | 9 | U103 | 05 28 34 | -03 22 | 3 ^m | |
| | | 10 | TH-AR | | ↑ | 90 ^s | |
| | | 11 | TH-AR | | ↓ | 90 ^s | |
| | | 12 | U101 | 05 25 57 | -03 32 | 3 ^m | |
| | | 13 | TH-AR | | ↑ | 90 ^s | |
| | | 14 | TH-AR | | ↓ | 90 ^s | |
| | | 15 | U102 | 05 27 43 | -03 28 | 20 ^m | |
| | | 16 | TH-AR | | ↑ | 90 ^s | |
| | | 17 | U102 | " | " | 15 ^m | |
| | | 18 | TH-AR | | ↑ | 90 ^s | |
| | | 19 | TH-AR | | ↓ | 90 ^s | |
| | | 20 | G14758 | 11:27:43 | 36:07:00 | 54 ^{min} | 9.9/20 (6s) HALOS |
| | | 21 | TH-AR | | ↑ | 90 ^s | |
| | | 22 | TH-AR | | ↓ | 90 ^s | |
| | | 23 | SG3020 | 12:26:38 | 31:40:00 | 24 ^{min} | 7.9/20 |
| | | 24 | TH-AR | | ↑ | 90 ^s | |
| | | 25 | TH-AR | | ↓ | 90 ^s | |
| | | 26 | TXCVEN | 12:42:18 | 37:02:15 | 15 ^{min} | 5199A 80μ SLIT (SYMBIOTIC) |
| | | 27 | TH-AR | | ↑ | 90 ^s | END IN OVERCAST |
| | | 28 | TH-AR | | ↓ | 90 ^s | 5187A 80μ SLIT HALOS |
| | | 29 | G41-34 | 09:20:06 | 11:29:06 | 3 ^{min} | 9.6/15 HY CLDS (END IN OVERCAST) |
| | | 30 | TH-AR | | ↑ | 90 ^s | |
| | | 31 | | | | | |
| | | 32 | | | | | |

TO CAM 1/31

RAW/RET 10

Spectrograph ECHELLE Intensified Reticon

Grating 300L Log Sheet

Telescope 61" WYETH Date JAN 30-31 1986 Observer GS

Disk ORO 875

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----|--------------------|----------|------------|----------|-------------------------|
| | | 1 | | | ↓ | 90° | 5187A. 80H SLIT |
| | | 2 | 5:47:58 | 11:27:43 | | 3 MIN | 9.9/20 HALOS |
| | | 3 | | | ↑ | 90° | |
| | | 4 | | | ↓ | 90° | |
| | | 5 | W11449 | 13:08:50 | | 6 MIN | 9.3/25 SAST |
| | | 6 | | | ↕ | 90° | |
| | | 7 | W11450 | 13:08:51 | | 3 MIN | 7.0/15 |
| | | 8 | | | ↕ | 90° | |
| | | 9 | W12966 | 13:11:03 | | 17 MIN | 11.9/20 |
| | | 10 | | | ↕ | 90° | |
| | | 11 | W12971 | 13:12:12 | | 7 MIN | 11.3/15 |
| | | 12 | | | ↕ | 90° | |
| | | 13 | W13777 | 13:11:18 | | 2 MIN | 8.5/20 |
| | | 14 | | | ↕ | 90° | |
| | | 15 | W13781 | 13:11:22 | | 6 MIN | 10.7/15 |
| | | 16 | | | ↕ | 90° | |
| | | 17 | W13784 | 13:11:20 | | 2 MIN | 7.2/15 (CLOS) |
| | | 18 | | | ↑ | 90° | - HOLD - |
| | | 19 | | | ↓ | 90° | |
| | | 20 | H136202 | 15:16:45 | | 2 MIN | IAU STANDARD |
| | | 21 | | | ↑ | 90° | |
| | | 22 | | | ↓ | 60° | ← NOTE SHORT TH-AR |
| GLS 644A | | 23 | 5:52:46 | 16:52:46 | | 5 MIN | 9.1 10% OF COUNT = DAWN |
| | | 24 | | | ↑ | 90° | |
| | | 25 | | | ↓ | 90° | |
| | | 26 | | | | 6 MIN | |
| | | 27 | | | ↑ | 90° | |
| | | 28 | | | | 120 MIN | |
| | | 29 | | | | 120 min | |
| | | 30 | | | | 62 min | |
| | | 31 | | | | | |
| | | 32 | | | | | |

4/31

Spectrograph ECHELLE Intensified Reticon TO CAM
 Grating 3000 Log Sheet RAW/RET 10
 Telescope 511 61" Date JAN 31 FEB 1 1986 Observer RPS
 Disk ORO 276

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----|--------------|-------------------|------------|-----------------|---------------------|
| | | 1 | | | ↓ | 90 ^s | 5187A .80 μ SLIT |
| | | 2 | | | | 5 min | (MOSTLY CLOUD) |
| | | 3 | | | ↑ | 90 ^s | |
| | | 4 | | | ↓ | 90s | |
| | | 5 | H 26162 | 04:06:15 19:28:43 | | 2m | IAU standard |
| | | 6 | Th-Ar | | ↑ | 90s | |
| | | 7 | Th-Ar | | ↓ | 90s | |
| | | 8 | H 382 | 04:23:32 16:44:29 | | 5 1/2 m | 8.0 Hyades Binaries |
| | | 9 | Th-Ar | | ↑ | 90s | stop = 90 |
| | | 10 | Th-Ar | | ↓ | 90s | |
| | | 11 | H 388 | 04:23:48 16:38:07 | | 2m | 8.0 |
| | | 12 | Th-Ar | | ↑ | 90s | |
| | | 13 | Th-Ar | | ↓ | 90s | |
| | | 14 | H 270 | 04:19:52 16:40:30 | | 2m | 7.9 |
| | | 15 | Th-Ar | | ↑ | 90s | |
| | | 16 | Th-Ar | | ↓ | 90s | |
| | | 17 | H 379 | 04:23:15 15:27:43 | | 2 1/2 m | 7.5 |
| | | 18 | Th-Ar | | ↑ | 90s | |
| | | 19 | Th-Ar | | ↓ | 90s | |
| | | 20 | H 411 | 04:24:36 14:09:00 | | 7m | 10.4 |
| | | 21 | Th-Ar | | ↑ | 90s | |
| | | 22 | Th-Ar | | ↓ | 90s | |
| | | 23 | H 417 | 04:24:57 14:18:27 | | 4m | 9.5 |
| | | 24 | Th-Ar | | ↑ | 90s | |
| | | 25 | Th-Ar | | ↓ | 90s | |
| | | 26 | H 441 | 04:25:59 16:10:48 | | 16m | 10.7 |
| | | 27 | Th-Ar | | ↑ | 90s | |
| | | 28 | Th-Ar | | ↓ | 90s | |
| | | 29 | L 81 | 04:38:41 13:07:34 | | 18m | 11.2 Double-line |
| | | 30 | Th-Ar | | ↑ | 90s | |
| | | 31 | / | | | | |
| | | 32 | / | | | | |

2/1

TO CAM

Spectrograph ECHELLE Intensified Reticon
 Grating 300L Log Sheet
 Telescope 61" Date 31 Jan - 1 Feb. 1986 Observer RPS
 Disk ORO 878

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|---------|----------|--------------|-----|------------|----------|-----------------------|
| | | | | | ↓ | 90s | |
| | G146-71 | 16:51:15 | 39:47:46 | | | 9m | 10.3/30 |
| | Th-Ar | | | | ↑ | 90s | |
| | Th-Ar | | | | ↓ | 90s | |
| | G161-59 | 09:38:49 | -04:43:18 | | | 12m | 11.5/15 |
| | Th-Ar | | | | ↑ | 90s | |
| | Th-Ar | | | | ↓ | 90s | |
| | +222411 | 11:48:59 | 22:23:36 | | | 4 1/2 | 9.3/50 why 50 counts? |
| | Th-Ar | | | | ↑ | 90s | |
| | Th-Ar | | | | ↓ | 90s | |
| | H92588 | 10:38:52 | -01:28:42 | | | 2m | IAU standard |
| | Th-Ar | | | | ↑ | 90s | |
| | Th-Ar | | | | ↓ | 90s | |
| | (1) | 11:24:33 | 20:36:46 | | | 2m | Asteroid |
| | Th-Ar | | | | ↑ | 90s | |
| | Th-Ar | | | | ↓ | 90s | |
| | G147-58 | 11:27:43 | 36:07:04 | | | 5 1/2 m | 9.9/20 |
| | Th-Ar | | | | ↑ | 90s | |
| | Th-Ar | | | | ↓ | 90s | |
| | G122-51 | 11:50:46 | 38:04:39 | | | 2m | 6.4/15 |
| | Th-Ar | | | | ↑ | 90s | |
| | Th-Ar | | | | ↓ | 90s | |
| | G59-5 | 12:10:56 | 23:32:36 | | | 3 1/2 m | 9.4/15 |
| | Th-Ar | | | | ↑ | 90s | |
| | Th-Ar | | | | ↓ | 90s | |
| | H107363 | 12:18:02 | 14:01:18 | | | 5 1/2 m | 9.9/15 |
| | Th-Ar | | | | ↑ | 90s | |
| | Th-Ar | | | | ↓ | 90s | |
| | H107752 | 12:20:21 | 11:52:54 | | | 13m | 10.0/30 |
| | Th-Ar | | | | ↑ | 90s | |
| | / | | | | | | |
| | / | | | | | | |

211
TO CAM

Spectrograph ECHELLE Intensified Reticon
 Grating 300R Log Sheet
 Telescope 61" Date 31 Jan - 1 Feb 1986 Observer RPS
 Disk ORO 879

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|---------|----|-----------|----------|------------|----------|-------------------------------------|
| | | 1 | | | ↓ | 90s | |
| | 660-47 | 2 | 12:52:44 | 08:06:12 | | 10 1/2 m | 9.9/30 |
| | | 3 | | | ↑ | 90s | |
| | | 4 | | | ↓ | 90s | |
| | W13781 | 5 | 13:11:23 | 30:03:52 | | 8 1/2 m | 10.7/15 SAS7 WIDE PAIRS |
| | | 6 | | | ↕ | 90s | |
| | W13784 | 7 | 13:11:20 | 30:04:58 | | 2m | 7.4/15 |
| | | 8 | | | ↕ | 90s | |
| | W13777 | 9 | 13:11:19 | 30:02:42 | | 3 1/2 | 8.5/20 |
| | | 10 | | | ↑ | 90s | |
| | | 11 | | | ↓ | 90s | |
| | W33435 | 12 | 12:59:50 | 30:18:39 | | 11m | 11.2/15 |
| | | 13 | | | ↕ | 90s | |
| | W33433 | 14 | 12:59:38 | 30:20:03 | | 15m | 11.4/30 |
| | | 15 | | | ↕ | 90s | |
| | W33436 | 16 | 12:59:49 | 30:17:44 | | 18m | 11.7/20 |
| | | 17 | | | ↑ | 90s | |
| | | 18 | | | ↓ | 90s | |
| | W11450 | 19 | 13:08:51 | 31:05:32 | | 4m | 7/15 |
| | | 20 | | | ↕ | 90s | |
| | W11449 | 21 | 13:08:51 | 31:05:34 | | 8m | 9.3/15 Some spill over from W11450! |
| | | 22 | | | ↑ | 90s | very close pair |
| | | 23 | | | ↓ | 90s | |
| | W42574 | 24 | 13:08:39 | 28:36:49 | | 15m | 11.7/15 |
| | | 25 | | | ↕ | 90s | |
| | W42640 | 26 | 13:08:30 | 28:34:13 | | 15m | 11.7/15 |
| | | 27 | | | ↕ | 90s | |
| | W42576 | 28 | 13:08:31 | 28:37:18 | | 4m | 8.8/30 |
| | | 29 | | | ↑ | 90s | |
| | | 30 | | | ↓ | 90s | |
| | H114762 | 31 | 13:09:55 | 17:46:55 | | 2m | IAU standard |
| | | 32 | | | ↑ | 90s | |

Spectrograph ECHELLE

Intensified Reticon

TO CAM 2-2Grating 3002

Log Sheet

RAW/RET 10Telescope 60"Date 31 JAN -
1 Feb. 1986Observer RPSDisk ORO 880

| Change.... | File | ID | 1950.0 RA | Dec | L/R ↑/↓ | Exposure | Comments |
|------------|------|----|--------------|----------|------------|----------|---------------------------------|
| | | 1 | | | ↓ | 90s | |
| | | 2 | H136202 | 15:16:45 | 01:57:12 | | 2m IAU Standard (check for sky) |
| | | 3 | | | ↑ | 90s | |
| | | 4 | | | ↓ | 90s | |
| | | 5 | DWN-SKY | stow | | 5m | |
| | | 6 | | | ↑ | 90s | |
| | | 7 | | | | 120 MIN | |
| | | 8 | | | | 79 MIN | |
| FEB 2-3 | | 9 | | | ↓ | 90s | 5187A 80 μ SLIT |
| | | 10 | | | | 5 MIN | |
| | | 11 | | | ↑ | 90s | |
| | | 12 | | | ↓ | | |
| | | 13 | S 021 788 | 00:46:19 | 56:48:10 | | 3 MIN |
| | | 14 | | | ↓ | | |
| | | 15 | GLS 348 | 00:46:08 | 57:33:42 | | 4 MIN |
| | | 16 | | | ↓ | | |
| | | 17 | S 021 788 | 00:46:19 | 56:48:10 | | 2 MIN |
| | | 18 | | | ↑ | | |
| | | 19 | | | ↓ | | |
| | | 20 | S 076 588 | 04:20:45 | 22:50:59 | | 2 MIN |
| | | 21 | | | ↓ | | |
| | | 22 | GLS 169 | 04:26:02 | 21:48:57 | | 8 MIN |
| | | 23 | | | ↓ | | |
| | | 24 | S 076 588 | | | | 2 MIN |
| | | 25 | | | ↑ | | |
| | | 26 | | | ↓ | | |
| | | 27 | GLS 176 | 04:40:00 | 18:52: | | 79 MIN 79 42 cuts/px |
| | | 28 | | | ↑ | | |
| | | 29 | | | | | |
| | | 30 | | | | | |
| | | 31 | | | | | |
| | | 32 | | | | | |