

Intensified Reticon

TO CAM 8/1

Spectrograph ECHELLE

Log Sheet

Grating 300L

Date 31 July - 1 Aug. 1987

Observer RAW/RET RPS, AJN

Telescope 61" Wyeth

Date

Disk ORO 1657

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
	G129-42	25:52:30	20:06:24			3m	9/20 HALO
		3			↑	60s	
		4			↓	60s	
	G130-32	23:54:31	53:54:40			2m	8.5/20 HALO
		6			↑	60s	
		7			↓	60s	
	G68-31	23:33:33	18:09:48			2m	7.7/20 HALO
		9			↑	60s	
		10 11			↓	60s	
	H4128	00:41:05	-18:15:39			2m	2.φ IAU standard 0.1ND (watch for sky)
		12 13			↑	60s	
		13 14			↓	60s	
	SKY-DWN	4hrs. E	+30°			2m	Why are counts so low?
		15 16			↑	60s	-sky is late; should be ± 3000 not 1000!!
		16 17			↓	60s	
	SKY-DWN	φ hrs	+30°			2m	OR!
		18 19			↑	60s	
	INCANDS					120''''	
	INCANDS					112''''	
		21 22			↓	60s	S187A -clear-
	SKY-EVE	φ hrs.	+30°			2m	
		23 24			↑	60s	
		24 25			↓	60s	
	SKY-EVE	4.5 hrs W	+30°			2m	
		26 27			↑	60s	
		27 28			↓	60s	
	H1460SI	16:11:43	-05:34:01			2m	2.7 IAU standard 0.1ND
		29 30			↑	60s	
		30 31					
		31 32					
		32 33					

No Dummy

1-2 AUGUST 1987

Intensified Reticon

TO CAM 8/1

Spectrograph ECHELLE

Log Sheet

RAW RET

Grating 300L

Observer RPS

Telescope 61" Wyeth

Date 1-2 AUG. 1987

Disk ORO 1659

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
	G217-24		23:53:39	59:29:12		3m	7.7/20 HALOS
	Th-Ar				↑	60s	
	Th-Ar				↓	60s	
	G217-4		23:18:00	54:12:48		8m	11.5/15 HALOS
	Th-Ar				↑	60s	
	Th-Ar				↓	60s	
	G216-45		23:25:02	49:59:12		10.5m	11.1/15 HALOS
	Th-Ar				↑	60s	
	Th-Ar				↓	60s	
	G24-25		20:37:42	00:22:42		19.5m	10.6/50 "
	Th-Ar				↑	60s	
	Th-Ar				↓	60s	
	G187-40		21:17:46	27:14:18		9m	10.5/30 "
	Th-Ar				↑	60s	
	Th-Ar				↓	60s	
	G18-12		21:57:42	08:07:54		7m	11.0/15 "
	Th-Ar				↑	60s	
	Th-Ar				↓	60s	
	G127-26		22:21:28	24:08:30		5m	10.6/15 "
	Th-Ar				↑	60s	
	Th-Ar				↓	60s	
	(3)		22:11:11	-01:25:54		4m	9.7 Asteroid
	Th-Ar				↑	60s	
	Th-Ar				↓	60s	
	G27-29		22:25:20	-05:32:06		10m	11.2/15 HALOS
	Th-Ar				↑	60s	
	Th-Ar				↓	60s	
	G128-45		23:15:33	31:15:30		15m	11.7/15 "
	Th-Ar				↑	60s	
	/						
	/						

Intensified Reticon
TO CAM 8/3

Spectrograph ECHELLE Log Sheet RAW RET

Grating 300R Observer RPS

Telescope 61" Wyeth Date 1-2 AUG. 1987 Disk ORO 1660

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

1	Th-Ar			↓	60s	
2	G128-11	22:51:04	27:29:30		13.5m	1.5/20 HALOS
3	Th-Ar			↑	60s	
4	Th-Ar			↓	60s	
5	G28-40	23:05:35	08:53:06		12m	11.3/15 "
6	Th-Ar			↑	60s	
7	Th-Ar			↓	60s	
8	G67-49	23:08:15	18:38:18		2m	8.6/20 "
9	Th-Ar			↑	60s	
10	Th-Ar			↓	60s	
11	G68-3	23:10:49	20:40:24		3m	9.8/15 "
12	Th-Ar			↑	60s	
13	Th-Ar			↓	60s	
14	G29-65	23:45:18	03:53:54		2m	7.7/20 "
15	Th-Ar			↑	60s	
16	Th-Ar			↓	60s	
17	G31-16	23:52:59	03:13:36		2m	7.7/20 "
18	Th-Ar			↑	60s	
19	Th-Ar			↓	60s	
20	H4128	00:41:05	78:15:39		2m	2.0 IAU standard
21	Th-Ar			↑	60s	
22	Th-Ar			↓	60s	
23	SKY-DWN	4hrs E	+20°		2m	
24	Th-Ar			↑	60s	
25	Th-Ar			↓	60s	
26	SKY-DWN	φ hrs	+20°		2m	
27	Th-Ar				42	
28	INCAND				120 MIN	
29	INCAND				120 MIN	
30						
31						
32						

TO CAM 8/4

Intensified Reticon

Spectrograph ECHELLE Log Sheet RAW RET

Grating 300R Observer REM MOP

Telescope 61" Date AUG 3-4 1997 Disk ORO 1661

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	TH-AR		↓	60 ^s	5187A
		2	SKY/VEIM			2	
		3	TH-AR		↑	60 ^s	
		4	TH-AR		↓	60 ^s	5187A - 21:27 EST - trouble
		5	6183-11	17:52:35	20:16:54	6m	9.7/50 HALO
		6	TH-AR		↑	60 ^s	
		7	TH-AR		↓	60 ^s	
		8	G205-42	18:52:44	42:55:00	4m	9.9/30 HALO
		9	TH-AR		↑	60 ^s	
		10	TH-AR		↓	60 ^s	CLOUDS (near)
		11	(6)	19:18:53	-13:11:13	3m	9.51 AST
		12	TH-AR		↑	60 ^s	
		13	TH-AR		↓	60 ^s	
		14	H182572	19:22:35	11:50:09	2m	5.21 IAU
		15	TH-AR		↑	60 ^s	
		16	TH-AR		↓	60 ^s	
		17	S162947	19:42:21	-17:37:42	4m	9.1/30 HALO
		18	TH-AR		↑	60 ^s	
		19	TH-AR		↓	60 ^s	
		20	G25-15	21:01:37	01:46:00	2m	7.3/50 HALO
X		21	TH-AR		↑	60 ^s	(same as 19 file)
		22	TH-AR		↓	60 ^s	
		23	G224-21	15:44:07	63:00:48	2m	8.9/15 HALO
		24	TH-AR		↑	60 ^s	
		25	TH-AR		↓	60 ^s	
		26	S127141	21:51:28	06:37:42	2m	6.1/30 HALO
		27	TH-AR		↑	60 ^s	
		28	TH-AR		↓	60 ^s	
		29	G26-38	21:56:12	00:34:18	4m	10.2/15 HALO
		30	TH-AR		↑	60 ^s	
		31					
		32					

TO CAM 814

Intensified Reticon

Spectrograph ECHELLE Log Sheet RAW RET

Grating 3002 Observer M Payson

Telescope 61" W 7th Date 3-4 AUG 27 1987 Disk PRO 1662

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60 ^s	
		2	618-28	22:08:14	11:08:18	3 ^m	7.5/30 HALO
		3			↑	60 ^s	
		4			↓	60 ^s	
		5	214-18A	22:13:08	39:31:36	2 ^m	7.5/20 HALO
		6			↓	60 ^s	
		7	214-18B	22:13:08	39:31:36	16 ^m	12/15 HALO
		8			↑	60 ^s	
		9			↓	60 ^s	
		10	627-33	22:25:40	4:41:00	2 ^m	9.9/15 HALO
		11			↑	60 ^s	
		12			↓	60 ^s	
		13	667-38	22:56:49	11:55:36	3 ^m	8.3/100 HALO
		14			↑	60 ^s	
		15			↓	60 ^s	
		16	657-21	23:06:29	-02:49:18	2 ^m	9.2/20 HALO
		17			↑	60 ^s	
		18			↓	60 ^s	
		19	5165532	23:07:48	-13:34:54	6 ^m	8.4/100 HALO
		20			↑	60 ^s	
		21			↓	60 ^s	
		22	6227-37	18:34:48	63:39:18	2 ^m	8.0/20 HALO
		23			↓	60 ^s	
		24	6227-38	18:34:48	63:39:18	7 ^m	9.0/1 - companion to above - - DL5B?!
		25			↑	60 ^s	
		26			↓	60 ^s	
		27	H3008	00:30:42	-11:00:00	3 ^m	9.4/15 HALO
		28			↑	60 ^s	
		29			↓	60 ^s	
		30	6172-38	01:02:41	49:11:18	6 ^m	11.0/15 HALO
		31			↑	60 ^s	
		32					

Intensified Reticon

TO CAM 8/4

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300 L

AUG

Observer M Payson

Telescope 61" W. J. Th

Date 4-5 JULY 1987

Disk ORO 1664

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

Change....	File	ID	1950.0 RA	Dec	L/R	Exposure	Comments
		1				120m	
		2				63	
		3				1m	RATIO
		4				10m	ND = 13 13,000 CPS/S
		5				10m	ND = 1 400
		6				1m	1.027 4000
		7				1m	
		8				10m	ND = 1 1000
		9				10m	ND = 1 100
		10				1m	1.077 900
		11			↓	60s	8000
		12	SXVEU M	0 HA +35		2m	
		13	TH-AR		↑	60s	
		14	TH-AR		↓	60s	
		15	SXVEU W	1 ^h 5 W +35		2m	
		16	TH-AR		↑	60s	
		17	TH-AR		↓	60s	
		18	H136202	15:16:45 61:57:11		2m	5.1 / 2 AU
		19	TH-AR		↑	60s	
		20	TH-AR		↓	60s	
		21	G60-47	12:52:44 28:06:12		10m	9.9 / 20 HALO
		22	TH-AR		↑	60s	
		23	TH-AR		↓	60s	6563A
		24	VCU n	13:17:17 45:47:22		13.5 m	6.5 / stopped + restarted SALLY
		25	TH-AR		↑	60s	due to clouds c. 3000s
		26	TH-AR		↓	60s	
		27	P Cxg	20:15:57 37:52:36		3m	4.8 / 50% dome occultation SALLY
		28	TH-AR		↑	60s	to reduce counts
		29	TH-AR		↓	60s	
		30	Beta Ar	21:28:56 05:47:32		5m	2.9 / 80% occultation SALLY
		31	TH-AR		↑	60s	
		32					

Intensified Reticon

TO CAM 8/5

Spectrograph ECHELLE

Log Sheet

RAW RETGrating 300LObserver M PaysonTelescope 61" WyethDate AUG 4-5 July 1967 Disk ORO 1665

Change....	File	ID	1950.0 RA	Dec	L/R +/-	Exposure	Comments
		TH-AR			↓	60 ^s	6563A ↓
	FFA gr		21:58:01	-02:50:00		15m	8.7/ SALLY
	TH-AR				↑	60 ^s	
	TH-AR				↓	60 ^s	
	Alpha gr		22:01:13	-00:33:49		6m	2.9/ same occultation SALLY
	TH-AR				↑	60 ^s	
	TH-AR				↓	60 ^s	
	Len Ar		23:35:06	46:11:14		4m	3.9/ same occultation SALLY
	TH-AR				↑	60 ^s	
	TH-AR				↓	60 ^s	
	H213014		22:25:45	17:00:28		3m	7.7/ IAU
	TH-AR				↓	60 ^s	
	213014B		22:25:46	17:00:28		10m	9.0/ IAU
	TH-AR				↑	60 ^s	
	TH-AR				↓	60 ^s	
	+233860		19:57:18	23:59:54		2m	9.0/15 HALO
	TH-AR				↑	60 ^s	
	TH-AR				↓	60 ^s	
	5189153		20:17:01	-20:04:12		5m	9.1/20 HALO
	TH-AR				↓	60 ^s	
	5189226		20:20:38	-21:31:05		4m	8.6/30 HALO
	TH-AR				↑	60 ^s	
	TH-AR				↓	60 ^s	
	-176036		20:24:27	-16:44:30		22m	10.5/50 HALO
	TH-AR				↓	60 ^s	
	5189600		20:39:56	-20:11:36		14m	7.8/30 HAZE clouds HALO
	TH-AR				↑	60 ^s	
	TH-AR				↓	60 ^s	
	-155781		20:42:48	-14:42:06		22m	10.7/30 HALO
	TH-AR				↓	60 ^s	
	-145890		20:53:23	-13:42:42		14m	10.2/30 HALO
	TH-AR				↑	60 ^s	

Intensified Reticon

TO CAM 8/6

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 3000

Observer GS/MPP/REM

Telescope 6" WYATH

Date AUG 5-6 1987

Disk ORD 1667

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	TH-AR		↓	60 ^s	5187A. 80 μ slit
		2	SKYEVIEW	0 HRS	+35	2 min	OVERCAST
		3	TH-AR		↑	60 ^s	
		4	TH-AR		↓	60 ^s	
		5	SKYEVIEW	4 HRS W	+35	2 min	
		6	TH-AR		↑	60 ^s	
AUG 6-7		7	TH-AR		↓	60 ^s	
		8	SKYEVIEW	0 HRS	+35	2 min	CLEAR
		9	TH-AR		↑	60 ^s	
		10	TH-AR		↓	60 ^s	
		11	SKYEVIEW	4 HRS W	+35	2 min	
		12	TH-AR		↑	60 ^s	
		13	TH-AR		↓	60 ^s	
		14	H146051	16 11 43	-03 34	2"	IAU
		15	TH-AR		↑	60 ^s	
		16	TH-AR		↓	60 ^s	
		17	CV VUL	14:49:28	7:10:53	2"	7.8/ CEPHEI
		18	TH-AR		↑	60 ^s	
		19	TH-AR		↓	60 ^s	
		20	Z LAC	22:38:53	56:34:05	10"	8.9/ CEPHEI
		21	TH-AR		↑	60 ^s	
		22	TH-AR		↓	60 ^s	
		23	L170-56	17:36:05	18:35:15	5"	9.7/30 HALO
		24	TH-AR		↑	60 ^s	
		25	TH-AR		↓	60 ^s	
		26	S065595	8:42:50	32:38:14	2"	6.3/100 MSTAR
		27	TH-AR		↑	60 ^s	
		28	G15632	16:43:14	33:35:54	3"	8.1/50 MSTAR
		29	TH-AR		↑	60 ^s	
		30	TH-AR		↓	60 ^s	
		31	G15644	16:52:46	28:15:17	11"	9.1/50 MSTAR
		32	TH-AR		↑	60 ^s	

Intensified Reticon

TO CAM 8/6

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300R

Observer RFM, MDP

Telescope 41" w, 16"

Date 6-7 August 1987

Disk ORA 1668

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
		2	615725	14:52:03	28:20:18	18m	10.1/50 clouds stop/start
		3			↑	60s	
		4			↓	60s	
		5	615763	14:32:10	04:28:10	8m	9.4/30
		6			↓	60s	
		7	6124435	14:33:45	05:53:44	2m	6.7/100
		8			↑	60s	
		9			↓	60s	
		10	627-28	22:24:01	04:21:10	6m	9.7/15
		11			↑	60s	
		12			↓	60s	
		13	615614	22:30:42	09:19:12	3m	8.7/20
		14			↑	60s	
		15			↓	60s	
		16	618-58	22:32:38	11:37:36	2m	8.6/15
		17			↓	60s	
		18	617-7	22:35:53	14:26:08	8m	10.5/15
		19			↓	60s	
		20	667-8	22:26:00	10:17:10	2.5m	9.5/15
		21			↓	60s	
		22	667-9	22:37:08	11:05:30	6m	10.9/15
		23			↑	60s	
		24			↓	60s	
		25	627-42	22:40:45	06:34:36	7.5m	8.0/20 clouds
		26			↓	60s	
		27	6156-65	22:53:12	08:05:21	2m	8.0/20
		28			↓	60s	
		29	6157-8	22:01:21	05:04:00	2m	8.0/20
		30			↑	60s	
		31					
		32					

Spectrograph ECHELLE Intensified Reticon TO CAM 7/7
 Grating 3002 Log Sheet RAW/RET
 Telescope 61" Wirth Date 6-7 August 1987 Observer ~~0201669~~ M Payson
 Disk 020 1669

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			W	60 ^s	
	628-25	23:03:36	01:25:00			2 ^m	9.2/15 H HALO
	628-37	23:03:59	01:28:00			4 ^m	9.2/15 Z HALO
	TH-AR				W	60 ^s	E
	628-41	23:06:45	01:31:48			4 ^m	8.5/20 C - HALO
	TH-AR				W	60 ^s	
	628-43	23:07:00	01:27:18			7 ^m	9.9/20 J HALO
	TH-AR				W	60 ^s	
	628-48	23:10:27	01:31:54			14 ^m	11.1/15 S HALO
	TH-AR				W	60 ^s	HA
	TH-AR				W	60 ^s	
	213014B	22:25:46	17:00:28			10 ^m	4.01 IAU
	TH-AR				W	60 ^s	
	H213014	22:25:45	17:00:28			2 ^m	7.71 IAU
	TH-AR				W	60 ^s	
	TH-AR				W	60 ^s	
	5165604	23:14:29	-14:06:28			5 ^m	8.1/50 HALO
	TH-AR				W	60 ^s	
	TH-AR				W	60 ^s	
	6128-43	23:14:41	31:27:18			15 ^m	11.2/15 clouds stop 90 HALO
	TH-AR				W	60 ^s	
	6128-64	23:28:52	32:54:54			5 ^m	9.5/15 HALO
	TH-AR				W	60 ^s	3:00 EST. clouds impossible
	INCANDS					120 ^m	
	INCANDS					120 ^m	
	INCANDS					100 ^m	
7-8 Aug	TH-AR					60 ^s	λ 5187
	SKYVIEW	STOW	Position			2 1/2 ^m	Meridian, +35°
	TH-AR					60 ^s	
	TH-AR					60 ^s	
	SKYVIEW	3 ^h W	+35°			4 ^m	
	TH-AR				W	60 ^s	

8/8

Intensified Reticon

Spectrograph ECHELLE TO CAM

Grating 3002 Log Sheet RAW/RET

Telescope 61" Wyeth Date 8/7-8/87 Observer RJD

Disk ORO 1678

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60 ^s	2 5187, 3" wait - clouds
	Gls 820A	2	21:04:54	38:32:06		8 ^m	M Stars, thru clouds
	Th Ar	3			↓	60 ^s	
	Gls 820B	4	21:04:54	38:32:06		5 ^m	fainter, S.E. * of brite pair
	Th Ar	5			↑	60 ^s	
	Th Ar	6			↓	60 ^s	
	H182572	7	19:22:35.1	11:50:09		3 ^m	IAU Rad Vel Std.
	Th Ar	8			↑	60 ^s	
	Th Ar	9			↓	60 ^s	
	X Cyg	10	20:41:27	35:24:24		5 ^m	Cepheid
	Th Ar	11			↑	60 ^s	
	INCANDS	12				120 ^m	Clouds & drizzle
	INCANDS	13				120 ^m	
	INCANDS	14				120 ^m	
8-9 AUG 1987	Th-Ar	15			↓	60s	-cloudy-
	SKY-EVE	16	φ hrs	+30°		2m	
	Th-Ar	17			↑	60s	
	Th-Ar	18			↓	60s	
	SKY-EVE	19	4.5 hrs W	+30°		2m	
	Th-Ar	20			↑	60s	
	H146051	21	16:11:43	-03:34:01		60s 2.7	IAU standard Th-Ar
	Th-Ar	22	16:11:43	-03:34:01		2.5m	2.7 IAU standard H146051
	Th-Ar	23			↑	60s	Th-Ar
	Th-Ar	24			↓	60s	
H136202	25	15:16:45	01:57:12		4m	5.1 IAU standard	
Th-Ar	26			↑	60s	-stopped for clouds-	
Th-Ar	27			↓	60s		
179216	28	19:08:28	35:30:38		12m	7.4 Fstars	
Th-Ar	29			↑	60s		
	30						
	31						
	32						

Intensified Reticon

TO CAM 8/8

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300R

Observer RPS

Telescope 61" Wyeth

Date 8-9 AUG. 1987

Disk ORO 1671

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	5187A ^o -cloudy-
		2	H182572	19:22:35	11:50:09	2m	5.2 IAU standard
		3			↑	60s	
		4			↓	60s	
		5	H213014	22:25:45	17:00:28	4m	7.7 IAU standard
		6			↕	60s	
		7	213014B	22:25:46	17:00:28	8m	9.5 "
		8			↑	60s	
		9			↓	60s	
		10	z LAC	22:38:53	56:34:05	4.5m	8.9 Cepheid (cut short by clouds)
		11			↑	60s	
		12			↓	60s	
		13	GRS 929	21:27:12	17:25:06	17.5m	10.4/40 M stars (in soul of clouds)
		14			↑	60s	
		15			↓	60s	
		16	204509	21:26:27	10:51:56	2.5m	6.7 F stars
		17			↑	60s	
		18			↓	60s	
		19	204234	21:24:28	10:26:59	6.5m	7.0 "
		20			↑	60s	- stopped for clouds)
		21			↓	60s	
		22	(3)	22:06:500	-02:13:05	3.5m	9.6 Asteroid
		23			↑	60s	
		24			↓	60s	
		25	G19-39	22:16:06	08:11:42	9m	10.4/30 HALOS (watch for Moon)
		26			↑	60s	
		27			↓	60s	
		28	G68-10	23:19:27	16:21:30	2m	8.9/20 HALOS
		29			↑	60s	
		30					
		31					
		32					

TO CAM 8/10

Intensified Reticon

Spectrograph ECHELLE Log Sheet RAW/RET

Grating 300R Observer RPS

Telescope 61" Wyeth Date 8-9 AUG. 1987 Disk ORO 1672

Change....	File	ID	1950.0 RA	Dec	L/R +/-	Exposure	Comments	
		1			↓	60s		
		2	G68-29	23:32:31	25:07:30		7m	10.9/15 HALOS
		3			↑	60s		
		4			↓	60s		
		5	G 128-84	23:33:57	32:45:42		6m	10.1/15 II -
		6			↑	60s		
		7			↓	60s		
		8	G68-30	23:33:12	20:18:18		4.5m	9.1/30 II - clouds again -
		9			↑	60s		-short exposure-
		10			↓	60s		
		11	SKY-DWN	φ hrs	+30°		2m	
		12			↑	60s		
		13			↓	60s		
		14	SKY-DWN	4.5 hrs. E	+30°		2m	(East)
		15			↑	60s		
		16			↓	60s		
		17	SKY-DWN	φ hrs	+30°		2m	
		18			↑	60s		
		19				120 MIN		
		20				60 MIN		
		21			↓	60s		
		22	H213014	22:25:45	17:00:28		2.5m	7.7/ 8 IAU
		23			↓	60s		9
		24	213014B	22:25:46	17:00:28		6m	9d 1 IAU
		25			↑	60s		6
		26			↓	60s		4
		27	G68-30	23:33:12	20:18:18		3m	9.0/30 T HALO
		28			↑	60s		M
		29			↓	60s		0
		30	G29-50	23:33:16	00:10:18		5m	10.1/15 0 HALO
		31			↑	60s		N
		32						!

July 10-11
AUG

TO CAM 8/11

Intensified Reticon

Spectrograph ECHELLE Log Sheet RAW/RET

Grating 300L Observer M Payson

Telescope 61" Wyeth Date 10-11 ~~July~~ AUG 1987 Disk OKO 1674

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60 ^s	
		2	634-36	01:30:13	23:26:30	2 ^m	7.0/30 HALO
		3	TH-AR			60 ^s	
		4	TH-AR			60 ^s	
		5	271-154	01:45:06	03:29:18	2 ^m	8.2/15 HALO
		6	TH-AR			60 ^s	
		7	271-161	01:47:57	06:01:54	3 ^m	7.6/15 HALO
		8	TH-AR			60 ^s	
		9	TH-AR			60 ^s	
		10	671-40	01:50:34	01:34:12	2 ^m	7.4/15 HALO
		11	TH-AR			60 ^s	
		12	TH-AR			60 ^s	
		13	575179	02:07:29	14:34:29	2 ^m	8.7/30 HALO
		14	TH-AR			60 ^s	
		15	TH-AR			60 ^s	
		16	6134-10	02:08:35	45:41:24	3 ^m	9.6/15 HALO
		17	TH-AR			60 ^s	
		18	TH-AR			60 ^s	
		19	64-10	02:14:17	21:09:03	2 ^m	9.0/15 HALO
		20	TH-AR			60 ^s	
		21	64-17	02:14:51	18:10:54	2 ^m	8.8/15 HALO
		22	TH-AR			60 ^s	
		23	673-50	02:20:33	15:11:18	2.5 ^m	9.3/15 HALO
		24	TH-AR			60 ^s	
		25	673-51	02:20:35	15:11:18	2 ^m	8.8/15 HALO
		26	TH-AR			60 ^s	
		27	673-04	02:17:56	13:26:36	2 ^m	8.9/15 HALO
		28	TH-AR			60 ^s	
		29	64-23	02:22:52	11:44:54	2 ^m	7.3/30 HALO
		30	TH-AR			60 ^s	
		31					
		32					

Intensified Reticon

TO CAM 8/81

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 3002

Observer M Payson

Telescope 61" Wyeth

Date 10-11 ~~July~~ AUG 1987

Disk 000 1673

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

Change....	File	ID	1950.0 RA	Dec	L/R	Exposure	Comments
		1			↓	60 ^s	
	630-39		00:01:47	12:40:42		2m	8.6/15 HALO
	7H-AR				↑	60 ^s	
	7H-AR				↓	60 ^s	
	5147600		01:02:56	-13:10:14		2m	7.6/15 HALO
	7H-AR				↑	60 ^s	
	7H-AR				↓	60 ^s	
	270-118		01:05:17	08:30:00		2m	8.4/15 HALO
	7H-AR				↑	60 ^s	
	7H-AR				↓	60 ^s	
	634-3		01:05:30	21:42:42		2m	7.6/15 HALO
	7H-AR				↑	60 ^s	
	7H-AR				↓	60 ^s	
	61-50		01:08:07	10:43:54		4m	9.1/30 HALO
	7H-AR				↑	60 ^s	
	7H-AR				↓	60 ^s	
	270-174		01:10:46	-02:07:42		2m	8.9/15 HALO
	7H-AR				↕	60 ^s	
	270-178		01:11:58	-05:18:42		2m	7.5/15 HALO
	7H-AR				↕	60 ^s	
	6271-70		01:25:54	-08:39:12		3m	1.2/15 HALO
	7H-AR				↕	60 ^s	
	6271-64		01:23:48	-04:55:54		2m	8.1/15 HALO
	7H-AR				↕	60 ^s	
	6271-64		01:25:23	-02:15:00		2m	8.5/15 HALO
	7H-AR				↑	60 ^s	
	7H-AR				↓	60 ^s	
	268-138		01:11:39	-16:41:21		6m	10.0/15 HALO
	7H-AR				↑	60 ^s	
	7H-AR				↓	60 ^s	
	5167076		01:26:24	-24:35:54		4m	8.9/20 HALO
	7H-AR				↑	60 ^s	

Intensified Reticon

TO CAM 8/11

Spectrograph ECHELLE

Log Sheet

RAW RET

Grating 300

Observer M Payson

Telescope 61" Wyath

Date AUG 10-11 1957

Disk OR 1675

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

Change....	File	ID	1950.0 RA	Dec	L/R	Exposure	Comments
		TH-AR			↓	60s	
	636-2R		02:35:31	30:36:18		2m	7.3/30 HALO
	TH-AR				↑	60s	
	TH-AR				↓	60s	
	SKYDOME	4 ^h N		+35		2m	
	TH-AR				↑	60s	
	TH-AR				↓	60s	
	SKYDOME	0 ^h NA		+35		2m	
	TH-AR				↑	60s	
	INCANDS					120m	
	INCANDS					120 MIN	
4UG11-12	TH-AR				↓	60s	
	SKYDOME	0 ^h NA		+35		2m	
	TH-AR				↑	60s	
	TH-AR				↓	60s	
	SKYDOME	4 ^h W		+35		2m	
	TH-AR	4 ^h W		+35	↑	60s	
	TH-AR				↓	60s	
	H116051		16:11:43	-03:31:01		2m	2.7/ IAU
	TH-AR				↑	60s	
	TH-AR				↓	60s	
	H136202		15:16:45	01:57:11		2m	5.1/ IAU
	TH-AR				↑	60s	
	TH-AR				↓	60s	
	H182757		13:34:07	18:24:24		7m	9.8/20 HALO
	TH-AR				↑	60s	
	TH-AR				↓	60s	
	6178-56		11:53:12	13:13:22		17m	11.9/15 HALO
	TH-AR				↑	60s	
	TH-AR				↓	60s	
	(6)		19:13:12	-14:39:56		4m	9.6/ ASTEROID
	TH-AR				↑	60s	

TO CAM 8/12

Intensified Reticon

Spectrograph ECHELLE Log Sheet RAW RET

Grating 300L Observer M Payson

Telescope 61" Wyeth Date 11-12 August 1967 Disk 000 1676

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60 ^s	
		2	6231-52	21:37:51	60:03:12	8 ^m	10.3/30 HALO
		3	TH-AR		↑	60 ^s	
		4	TH-AR		↓	60 ^s	
		5	6230-41	20:36:24	51:32:24	8 ^m	11.0/15 HALO
		6	TH-AR		↑	60 ^s	
		7	TH-AR		↓	60 ^s	
		8	6241-19	22:42:16	64:18:18	2 ^m	7.5/30 HALO
		9	TH-AR		↑	60 ^s	
		10	TH-AR		↓	60 ^s	
		11	6217-3	23:17:32	60:27:00	12 ^m	11.7/15 HALO Fin
		12	TH-AR		↑	60 ^s	
		13	TH-AR		↓	60 ^s	
		14	6130-29	23:56:16	33:27:54	3 ^m	7.8/15 HALO Fin
		15	TH-AR		↑	60 ^s	
		16	TH-AR		↓	60 ^s	
		17	6217-30	00:01:50	57:47:29	7 ^m	10.4/15 HALO
		18	TH-AR		↑	60 ^s	
		19	TH-AR		↓	60 ^s	
		20	6131-59	00:20:23	22:06:00	2 ^m	7.6/15 HALO Fin
		21	TH-AR		↑	60 ^s	
		22	TH-AR		↓	60 ^s	
		23	632-56	00:50:35	14:52:56	6 ^m	9.5/15 HALO Fin
		24	TH-AR		↑	60 ^s	
		25	TH-AR		↓	60 ^s	
		26	6243-58	01:02:15	63:27:18	3 ^m	8.9/15 HALO Fin
		27	TH-AR		↓	60 ^s	
		28	6243-63	01:06:30	61:16:48	4 ^m	7.7/100 HALO
		29	TH-AR		↑	60 ^s	
		30	TH-AR		↓	60 ^s	
		31	664-1	00:29:55	27:55:18	3 ^m	8.7/15 HALO
		32	TH-AR		↑	60 ^s	

Spectrograph ECHELLE Intensified Reticon TO CAM 9/12
 Grating 300L Log Sheet RAW/RET
 Telescope 61" Wyeath Date 11-12 August 1967 Observer M Payson
 Disk ORO 1677

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60 ^s	
	669-4N	00:33:22	29:43:24			3 ^m	8.9/15 HALO
	TH-AR				↓	60 ^s	
	669-8	00:36:08	30:44:42			3 ^m	9.0/15 HALO
	TH-AR				↓	60 ^s	
	669-21	00:43:57	33:33:12			5 ^m	10.3/15 HALO
	TH-AR				↑	60 ^s	
	TH-AR				↓	60 ^s	
	6171-64	00:31:44	47:38:24			2 ^m	7.3/15 HALO
	TH-AR				↓	60 ^s	
	6172-16	00:35:46	47:21:24			12 ^m	10.9/15 HALO
	TH-AR				↑	60 ^s	
	TH-AR				↓	60 ^s	
	632-46	00:42:43	14:05:24			4 ^m	9.7/15 HALO
	TH-AR				↑	60 ^s	
	TH-AR				↓	60 ^s	
	6172-24	00:47:55	51:06:42			3 ^m	9.6/15 HALO
	TH-AR				↑	60 ^s	
	TH-AR				↓	60 ^s	
	632-53	00:48:36	18:31:12			2 ^m	8.7/15 HALO
	TH-AR				↑	60 ^s	
	TH-AR				↓	60 ^s	
	6172-59	01:29:53	52:46:42			2 ^m	8.4/15 HALO
	TH-AR				↓	60 ^s	
	6172-60	01:31:08	52:34:06			2 ^m	9.5/15 HALO
	TH-AR				↓	60 ^s	
	6173-25	01:47:26	55:40:18			2 ^m	8.9/15 HALO
	TH-AR				↓	60 ^s	
	6219-20	01:42:24	57:35:54			3 ^m	9.5/15 HALO
	TH-AR				↑	60 ^s	

TO CAM 8/12

Spectrograph ECHELLE

Intensified Reticon

Log Sheet

RAWRET

Grating 300L

Observer M Payson

Telescope 61" Wgeth

Date 11-12 August 1987

Disk OR 0 1678

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
		2	6133-35	01:41:27	41:12:48	3m	10.1/15 HALO
		3			↑	60s	
		4			↓	60s	
		5	6220-13	02:31:47	59:34:30	2m	8.9/30 HALO
		6			↑	60s	
		7			↓	60s	
		8	556455	03:23:53	34:15:18	2m	6.7/50 HALO
		9			↑	60s	
		10			↓	60s	
		11	6175-39	04:31:59	55:18:52	2m	8.3/30 HALO
		12			↑	60s	
		13			↓	60s	
		14	6247-44	04:58:49	63:00:12	2m	7.9/15 HALO
		15			↑	60s	
		16	6247-49	04:58:50	63:00:12	2m	7.6/15 HALO
		17			↑	60s	
		18			↓	60s	
		19	696-16	04:58:32	44:58:12	4m	9.8/15 HALO
		20			↓	60s	
		21	696-17	04:58:35	42:22:18	6m	10.2/15 HALO
		22			↑	60s	
		23	696-19	05:01:27	43:14:48	3m	9.5/15 HALO
		24			↓	60s	
		25	696-20	05:01:59	40:11:24	5m	9.6/30 HALO
		26			↑	60s	
		27	681-33	04:41:15	43:06:42	2.5m	8.7/15 HALO
		28			↑	60s	
		29			↓	60s	
		30	6191-55	05:53:04	58:40:24	8m	10.4/40 HALO
		31			↑	60s	
		32					

TO CAM 8/12

Intensified Reticon

Spectrograph ECHELLE Log Sheet RAW/RET

Grating 3002 Observer M Payson

Telescope 61" Wyeth Date 11-12 August 1987 Disk DR 1679

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60 ^s	
		2	SKYDOME	4 HRS E	+35°	2m	
		3	TH-AR		↑	60 ^s	
		4	TH-AR		↓	60 ^s	
		5	SKYDOME	0 HA	+35°	2m	
		6	TH-AR		↑	60 ^s	
		7	INCANDS			120m	
		8	INCANDS			120MIN	
AUG 12-13		9	TH-AR		↓	60 ^s	
		10	SKYDOME	0 HRS	+35°	2MIN	CLEAR
		11	TH-AR		↑	60 ^s	
		12	TH-AR		↓	60 ^s	
		13	SKYDOME	4 HRS W	+35°	2MIN	
		14	TH-AR		↑	60 ^s	
		15	TH-AR		↓	60 ^s	
		16	H136202	15:16:45	01:57:11	2m	5.1/ IAU
		17	TH-AR		↑	60 ^s	
		18	TH-AR		↓	60 ^s	
		19	TR Ven	12:42:18	37:02:15	8m	9.0/ SYMBIOTIC
		20	TH-AR		↑	60 ^s	
		21	TH-AR		↓	60 ^s	
		22	U SGR	18:28:57	-19:09:41	3m	7.1/ CEPH
		23	TH-AR		↑	60 ^s	
		24	TH-AR		↓	60 ^s	
		25	R50 ph	17:47:31	-06:41:40	14m	12.0/ SYMBIOTIC
		26	TH-AR		↑	60 ^s	
		27	TH-AR		↓	60 ^s	
		28	SU WOL	19:09:28	27:19:53	2m	7.8/ CEPH
		29	TH-AR		↑	60 ^s	
		30	TH-AR		↓	60 ^s	
		31	X CY6	20:41:27	35:24:24	2m	6.4/ CEPH
		32	TH-AR		↑	60 ^s	

Spectrograph ECHELLE

Intensified Reticon

TO CAM 8/12

Grating _____

Log Sheet

RAW/RET

Telescope 61" Wye + thDate 12-13 August 1987 Disk OR 0 1680Observer M Payson

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
	Z Lac	22:38:52	56:34:05			3m	6.9/ CEPH
	TH-AR				↑	60s	
	TH-AR				↓	60s	
	V433 Her	18:20:03	23:25:47			15m	10.5/ SYMBIOTICS
	TH-AR				↑	60s	
	TH-AR				↓	60s	> 2" seeing!!!
	CI-Cyg	19:48:21	35:33:24			16m	11.0/ SYMBIOTICS
	TH-AR				⊙	60s	
	1016 Cyg	19:55:20	39:41:30			6m	10.0/ SYMBIOTIC
	TH-AR				↑	60s	
	TH-AR				↓	60s	
	X Cyg	20:41:27	35:24:24			2m	6.4/ in phase again CEPH
	TH-AR				↑	60s	
	TH-AR				↓	60s	
	USGR	18:28:57	19:09:42			2m	7.1/ CEPH
	TH-AR				↑	60s	
	TH-AR				↓	60s	
	HM-Sge	19:39:41	16:37:36			5m	11.0/ SYMBIOTIC
	TH-AR				↑	60s	
	TH-AR				↓	60s	
	AG Peg	21:48:36	12:23:27			4m	8.5/ SYMBIOTIC
	TH-AR				↑	60s	
	TH-AR				↓	60s	
	Z And	23:31:15	48:32:32			11m	10.0/ 1" seeing!!! SYMBIOTIC
	TH-AR				↑	60s	
	TH-AR				↓	60s	6563 A
	Lan And	23:35:06	46:11:14			5m	3.9/ SALLY
	TH-AR				↑	60s	
	TH-AR				↓	60s	
	Alph Agr	22:03:13	00:53:49			3m	2.4/ SALLY
	TH-AR				↑	60s	

Spectrograph ECHELLE Intensified Reticon TO CAM 8/13
 Grating 300L Log Sheet RAW/RET
 Telescope 61" Wyeth Date 11-13 August 1987 Observer M Payson
 Disk ORU 1682

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

1	TH-AR				↓	60 ^s	
2	G15172	04:33:43	52:48:00			4m	6.61 MSTAR
3	TH-AR				↑	60 ^s	
4	TH-AR				↓	60 ^s	
5	UV Aur	05:16:33	32:27:48			3m	10.01 - SYMBIOTIC
6	TH-AR				↑	60 ^s	
7	TH-AR				↓	60 ^s	
8	G152	00:02:35	45:30:30			6m	9.91 MSTAR
9	TH-AR				↓	60 ^s	
10	G154A	00:03:05	45:32:06			3m	8.91 MSTAR
11	TH-AR				↓	60 ^s	
12	G154B	00:03:05	45:32:00			3m	9.01 MSTAR
13	TH-AR				↓	60 ^s	
14	S036250	00:15:41	44:16:52			2m	7.61 MSTAR
15	TH-AR				↓	60 ^s	
16	G1515A	00:15:40	43:44:37			3m	8.11 MSTAR
17	TH-AR				↑	60 ^s	
18	TH-AR				↓	60 ^s	
19	SKYRANE	4H15 E	+35			2m	
20	TH-AR				↑	60 ^s	
21	TH-AR				↓	60 ^s	
22	SKYDOWNM	OHA	+35			2m	
23	TH-AR				↑	60 ^s	
24	INCANDS					120m	
25	INCANDS					120 ^m	
26	TH-AR				↓	60 ^s	
27	SKYDSKM	04A	+35			2m	
28	TH-AR				↑	60 ^s	
29	TH-AR				↓	60 ^s	
30	SKYDSKM	4H15 W	+35			2m	
31	TH-AR				↑	60 ^s	
32							

13-14 August

Spectrograph ECHELLE Intensified Reticon TO CAM 4/13
 Grating 300A Log Sheet RAW RET
 Telescope 61" Wyeth Date 13-14 August 1987 Observer M Payson
 Disk ORO 1683

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		TH-AR			↓	60s	
	M136202		15:16:45	61:57:11		2m	5.11 2AU
		TH-AR			↑	60s	
		TH-AR			↓	60s	
	6262-32		20:58:10	64:51:00		6m	10.7/20 stopped at 4.5s - prior HALO
		TH-AR			↑	60s	
		TH-AR			↓	60s	HAAR
	6178-56		14:53:12	43:13:42		22m	11.9/15 cloud HALO
		TH-AR			↑	60s	
		TH-AR			↓	60s	
	11144515		6:03:32	10:49:11		8m	8.5/70 MSTAR
		TH-AR			↑	60s	
		TH-AR			↓	60s	
	615644A		16:52:46	-08:15:17		26m	9.1/100 MSTAR
		TH-AR			↓	60s	
	615643		16:53:53	-08:08:03		9m	11.7/15 stopped by clouds MSTAR
		TH-AR			↑	60s	
		TH-AR			↓	60s	
	H134646		15:06:53	63:18:27		6m	6.7/400 MSTAR
		TH-AR			↑	60s	
		TH-AR			↓	60s	
	H144284		16:00:57	58:41:59		4m	4.1/300 MSTAR
		TH-AR			↑	60s	
		TH-AR			↓	60s	
	615735		18:53:03	08:20:18		15m	10.11 MSTAR
		TH-AR			↑	60s	
		TH-AR			↓	60s	
	(6)		19:11:59	-15:01:02		4m	9.6/ ASTEROID
		TH-AR			↑	60s	
		TH-AR			↓	60s	
	191317		20:06:44	-02:41:48		20m	8.2/400 MSTAR
		TH-AR			↑	60s	

TO CAM 8/14

Spectrograph ECHELLE

Intensified Reticon

Grating 300A

Log Sheet

RAWRET

Telescope 61" W7+TH

Date 13-14 August 1987

Observer M Payson

Disk ORO 1684

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		TH-AR			↓	60 ^s	
	198226		20:45:53	22:16:03		10m	8.01 FSTAR
		TH-AR			↓	60 ^s	
	198346		20:46:50	22:12:14		15m	7.71 FSTAR
		TH-AR			↑	60 ^s	
		TH-AR			↓	60 ^s	
	615725A		18:42:18	59:34:22		6m	8.91 HSTAR
		TH-AR			↕	60 ^s	
	615725B		18:42:19	59:34:05		10m	9.71 HSTAR
		TH-AR			↑	60 ^s	
		TH-AR			↓	60 ^s	
	615830		21:27:19	-12:43:46		10m	9.11/40 HSTAR
		TH-AR			↑	60 ^s	
	6164461		21:29:39	-12:29:20		2m	6.9/40 HSTAR
		TH-AR			↑	60 ^s	
		TH-AR			↓	60 ^s	
	615866		22:36:45	-15:35:36		16m	12.1/15 HSTAR
		TH-AR			↑	60 ^s	
		TH-AR			↑	60 ^s	
	658416		21:59:38	01:09:30		6m	9.21 HSTAR
		TH-AR			↑	60 ^s	
	5127114		21:49:00	00:32:08		2m	6.91 HSTAR
		TH-AR			↑	60 ^s	
		TH-AR			↓	60 ^s	
	6128-80		23:32:31	32:44:54		15m	11.9/15 HALO
		TH-AR			↑	60 ^s	
		TH-AR			↓	60 ^s	
	5191895		23:23:03	-24:12:48		10m	10.1/20 HALO
		TH-AR			↑	60 ^s	
		TH-AR			↓	60 ^s	
	6157-93		23:40:59	-08:11:54		5m	10.1/15 HALO
		TH-AR			↑	60 ^s	

Intensified Reticon TO CAM 8/14
 Spectrograph ECHELLE Log Sheet RAW RET
 Grating 300L Observer RJD
 Telescope 61" Wyeth Date Aug 14-15 1987 Disk OR01686

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
					↓	60 ^s	
						2 ^m	
					↑	60 ^s	
					↓	60 ^s	
						2 ^m	
					↑	60 ^s	
					↓	60 ^s	
						2 ^m	
					↑	60 ^s	
					↓	60 ^s	
						3 ^m	
					↑	60 ^s	
					↓	60 ^s	
						3 ^m	
					↑	60 ^s	
					↓	60 ^s	
						3 ^m	
					↑	60 ^s	
					↓	60 ^s	
						3 ^m	
					↑	60 ^s	
					↓	60 ^s	
						5 ^m	
					↑	60 ^s	
					↓	60 ^s	
						2 ^m	
					↑	60 ^s	
					↓	60 ^s	
						6 ^{1/2} ^m	
					↑	60 ^s	
					↓	60 ^s	
						3 ^m	
					↑	60 ^s	
					↓	60 ^s	
						6 ^{1/2} ^m	
					↓	60 ^s	
					↓	60 ^s	

1	ThAr				↓	60 ^s	
2	SKYOSKM	0 ^h	+35°			2 ^m	
3	ThAr				↑	60 ^s	
4	ThAr				↓	60 ^s	
5	SKYOSKM	3 ^h W	+35°			2 ^m	
6	ThAr				↑	60 ^s	
7	ThAr				↓	60 ^s	
8	H146051	16:11:43	-3:34:01			2 ^m	NQ 1; IAU RV Std
9	ThAr				↑	60 ^s	
10	ThAr				↓	60 ^s	
11	H110897	12:42:37.6	39:33:01			3 ^m	M Stars Mazeh
12	ThAr				↑	60 ^s	
13	ThAr				↓	60 ^s	
14	U Sgr	18:28:57	-19:09:42			3 ^m	Cepheid
15	ThAr				↑	60 ^s	
16	ThAr				↓	60 ^s	
17	SU Vul	19:49:28	27:19:53			2 ^m	
18	ThAr				↑	60 ^s	
19	ThAr				↓	60 ^s	
20	(1)	17:20:38.1	-27:37:34			5 ^m	Asteroid
21	ThAr				↑	60 ^s	
22	ThAr				↓	60 ^s	
23	S101758	15:47:12.8	12:42:34			2 ^m	M Stars Mazeh
24	ThAr				↑	60 ^s	
→ 25	ThAr	15:49:45.6	11:01:25			6 ^{1/2} ^m	Gls 600
26	ThAr				↑	60 ^s	
27	ThAr				↓	60 ^s	
28	U Sgr	18:28:57	-19:09:42			3 ^m	Cepheid
29	ThAr				↑	60 ^s	
30	ThAr				↓	60 ^s	
31	Gls 572	14:59:10	45:37:21			6 ^{1/2} ^m	M Stars
32	ThAr				↓	60 ^s	

Intensified Reticon

TO CAM 8/14

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300L

Observer RJD

Telescope 61" Wye th

Date 8/14-15/87

Disk ORO 1687

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	S045246	14:50:17.4	46:50:52	↑	2 ^{1/2} " M Stars
		2	ThAr		↑	60 ^s	
		3	ThAr		↓	60 ^s	
		4	G178-56	14:53:12	43:13:42		20 ^m Halo Binaries
		5	ThAr		↑	60 ^s	
		6	ThAr		↓	60 ^s	
		7	G1616.2	16:15:59	55:23:48		20 ^m M Stars
		8	ThAr		↑	60 ^s	
		9	ThAr		↓	60 ^s	
		10	(6)	19:11:25.9	-15:12:46		4 ^m Asteroid
		11	ThAr		↑	60 ^s	
		12	ThAr		↓	60 ^s	
		13	G217-8	15:24:15	60:21:06		16 ^m Halo Binaries
		14	ThAr		↑	60 ^s	
		15	ThAr		↓	60 ^s	
		16	DL CAS	00:27:11	59:56:12		7 ^m Cepheid
		17	ThAr		↑	60 ^s	
		18	ThAr		↓	60 ^s	
		19	H213014	22:25:45.8	17:00:28		3 ^m IAU R.V. Std.
		20	ThAr		↑	60 ^s	
		21	H2301415	22:25:46	17:00:28		9 ^m
		22	ThAr		↑	60 ^s	
		23	ThAr		↓	60 ^s	
		24	H140284	16:00:57	58:41:59		2 ^m M Stars. 0.3 NO
		25	ThAr		↑	60 ^s	
		26	ThAr		↓	60 ^s	
		27	H134646	15:06:53	63:18:27		2 ^m
		28	ThAr		↑	60 ^s	
		29	ThAr		↓	60 ^s	
		30	S021738	00:46:18.9	58:48:10		4 ^m
		31	ThAr		↑	60 ^s	
		32					

Intensified Reticon

TO CAM 8/14

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300 l

Observer RJD

Telescope 61" Wyeth

Date 8/14-15/87

Disk ORO 1688

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments	
		1	G1s348	00:46:08	657:33:00		3 ^m	M Stars
		2	ThAr			↑	60 ^s	
		3	ThAr			↓	60 ^s	
		4	S011983	01:44:10	63:36:14		2 ^m	
		5	ThAr			↑↓	60 ^s	
		6	G1s 69	01:40:10	63:34:24		5 ^m 20 ^s	
		7	ThAr			↑	60 ^s	
		8	ThAr			↓	60 ^s	
		9	G29-72	23:47:31	02:35:48		5 ^m	Italo Binaries, Cirrus
		10	ThAr			↑	60 ^s	
		11	ThAr			↓	60 ^s	
		12	217649	22:59:29.2	34:20:38		2 ^m	F Stars - Andersen
		13	ThAr			↑	60 ^s	
		14	ThAr			↓	60 ^s	
		15	218453	23:05:26.7	39:31:35		3 ^m	
		16	ThAr			↑	60 ^s	
		17	ThAr			↓	60 ^s	
		18	218714	23:07:26.2	37:24:58		3 ^m	
		19	ThAr			↑↓	60 ^s	
		20	220285	23:19:54.4	41:02:22		4 ^m	
		21	ThAr			↑	60 ^s	
		22	ThAr			↓	60 ^s	
		23	219712	23:15:16.6	33:46:25		4 ^m	
		24	ThAr			↑	60 ^s	
		25	ThAr			↓	60 ^s	
		26	223867	23:50:38.7	32:07:45		5 ^m	
		27	ThAr			↑	60 ^s	
		28	ThAr			↓	60 ^s	
		29	224771	23:57:57.3	25:33:51		7 ^m	
		30	ThAr			↑	60 ^s	
		31						
		32						

TO CAM 8/14

Intensified Reticon

Spectrograph ECHELLE Log Sheet RAWRET

Grating 3002 Observer RJD

Telescope 61" Wyoth Date 8/14-15/87 Disk ORO 1689

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60 ^s	
		2	22:57:19.9	38:49:51		4 ^m	F Stars
		3			↑	60 ^s	
		4			↓	60 ^s	
		5	20:41:27	35:24:24		2 ^m	Cepheid
		6			↑	60 ^s	
		7			↓	60 ^s	
		8	20:52:18	61:58:30		8 ^m	M Stars
		9			↑	60 ^s	
		10			↓	60 ^s	
		11	22:38:53	56:34:05		5 ^m	Cepheid
		12			↑	60 ^s	
		13			↓	60 ^s	
		14	00:14:28	40:40:18		10 ^m	M Stars
		15			↑	60 ^s	
		16			↓	60 ^s	
		17	03:43:19	26:03:42		7½ ^m	
		18			↓	60 ^s	
		19	03:45:07	24:50:08		2 ^m	
		20			↑	60 ^s	
		21			↓	60 ^s	
		22	01:23:53.6	-0:39:29		2 ^m	IAU R.V. Std.
		23			↑	60 ^s	
		24			↓	60 ^s	
		25	00:41:04.8	-18:15:39		3 ^m	NO 1
		26			↑	60 ^s	
		27			↓	60 ^s	
		28	3 ^h E	+35°		3 ^m	
		29			↑	60 ^s	
		30			↓	60 ^s	
		31	0 ^h	+35°		2 ^m	
		32			↑	60 ^s	

Intensified Reticon

TO CAM 8/15

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300 l

Observer RJD

Telescope 61" Wyeth

Date 8/14-15/87

Disk ORO 169φ

1950.0

L/R

Change.... File ID RA Dec ↑/↓ Exposure Comments

AUG 15-16

Change....	File	ID	RA	Dec	↑/↓	Exposure	Comments
		1	INCANOS			120 ^m	
		2	INCANOS			120 ^m	
AUG 15-16		3	Th Ar		↓	60 ^s	
		4	SKYDSKM	0 ^h	+35°	2 ^m	
		5	Th Ar		↑	60 ^s	
		6	Th Ar		↓	60 ^s	
		7	SKYDSKM	3 1/2 ^h W	+35°	2 ^m	
		8	Th Ar		↑	60 ^s	
		9	Th Ar		↓	60 ^s	
		10	H146051	16:11:43	-3:34:01	2 ^m	IAU Rad Vel Std-ND1
		11	Th Ar		↑	60 ^s	
		12	Th Ar		↓	60 ^s	
		13	H110897	12:42:37.6	39:33:01	2 ^m	M Stars
		14	Th Ar		↑	60 ^s	
		15	Th Ar		↓	60 ^s	
		16	H144515	16:03:32	10:49:11	4 ^h	
		17	Th Ar		↑	60 ^s	
		18	Th Ar		↓	60 ^s	
		19	Z LAC	22:38:53	56:34:05	6 ^h	Cepheid
		20	Th Ar		↑	60 ^s	
		21	Th Ar		↓	60 ^s	
		22	G15644A	16:52:46	-8:15:17	8 1/2 ^m	M Stars
		23	Th Ar		↑	60 ^s	
		24	Th Ar		↓	60 ^s	
		25	(1)	17:20:46.1	-27:38:54	5 ^h	Asteroid
		26	Th Ar		↑	60 ^s	
		27	Th Ar		↓	60 ^s	1/4 ^h Interruption -
		28	G1623	16:22:39	48:28:24	20 ^m	fix R.A. Controller
		29	Th Ar		↑	60 ^s	M Stars Latham/Mazeh
		30	Th Ar		↓	60 ^s	
		31	H182572	19:21:35.1	11:50:09	2 ^m	IAU Rad Vel Std
		32	Th Ar		↑	60 ^s	

Intensified Reticon

TO CAM 8/15

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 3002

Observer RJD

Telescope 61" wyeth

Date 8/15-16/87

Disk ORO 1691

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60 ^s	
	U SGR	2	18:28:57	-19:09:42		3 ^m	Cepheid
		3			↑	60 ^s	
		4			↓	60 ^s	
[G18-60	5	22:33:05	05:07:06		2 ^m	Hydro Binaries
		6			↕	60 ^s	
	G18-60	7	"	"		5 ^m	Weak Lines
		8			↑	60 ^s	
		9			↓	60 ^s	
	G28-17	10	22:48:13	01:36:18		2 ^m	
		11			↑	60 ^s	
		12			↓	60 ^s	
	G28-45	13	23:08:17	00:08:30		2 ^m	
		14			↑	60 ^s	
		15			↓	60 ^s	
	G29-21	16	23:16:21	05:08:00		2 ^m	
		17			↑	60 ^s	
		18			↓	60 ^s	
	G29-48	19	23:32:49	01:56:42		2 ^m	
		20			↑	60 ^s	
		21			↓	60 ^s	
	G30-34	22	23:56:13	08:57:54		2 ^m	
		23			↑	60 ^s	
		24			↓	60 ^s	
	G15 69	25	01:40:10	63:34:24		5 ^m	M Stars
		26			↑	60 ^s	
		27			↓	60 ^s	
	G244-59	28	02:12:58	64:43:30		2 ^m	Hydro Binaries
		29			↑	60 ^s	
		30			↓	60 ^s	
	G246-11	31	02:44:25	62:41:18		6 ^m	
		32			↑	60 ^s	

Intensified Reticon

TO CAM 8/15

Spectrograph ECHELLE

Log Sheet

RAW/RET
RJD

Grating 300L

Observer

Telescope 61" Wye th

Date 8/15-16/87

Disk ORO 1692

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		Th Ar			↓	60 ^s	
	G129-44		23:53:06	21:32:24		3 ^m	Halo Binaries
		Th Ar			↑	60 ^s	
		Th Ar			↓	60 ^s	
	G30-24		23:48:07	17:04:54		5 ^m	
		Th Ar			↑	60 ^s	
		Th Ar			↓	60 ^s	
	273-152		23:49:55	-7:41:06		5 ^m	
		Th Ar			↑	60 ^s	
		Th Ar			↓	60 ^s	
	(3)		22:01:47	-3:10:06		3 ^m	Asteroid
		Th Ar			↑	60 ^s	
		Th Ar			↓	60 ^s	
	G15781		20:03:55	54:18:12		20 ^m	M Stars
		Th Ar			↕	60 ^s	
	G15781		"	"		20 ^m	
		Th Ar			↕	60 ^s	
	G15781		"	"		20 ^m	
		Th Ar			↕	60 ^s	
	G15781		"	"		20 ^m	
		Th Ar			↕	60 ^s	
	G15781		"	"		20 ^m	
		Th Ar			↑	60 ^s	
		Th Ar			↓	60 ^s	
	G30-46		00:05:38	14:43:48		6 ^m	Halo Binaries
		Th Ar			↑	60 ^s	
		Th Ar			↓	60 ^s	
	+106		00:07:03	11:29:06		3 ^m	
		Th Ar			↑	60 ^s	
		Th Ar			↓	60 ^s	
	S166375		00:32:21	-22:09:24		4 ^m	
		Th Ar			↑	60 ^s	

Intensified Reticon

TO CAM

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300 l

Observer RJD

Telescope 61" Wyeth

Date 8/15-16/87

Disk ORO 1693

1950.0

L/R

Change.... File ID RA Dec ↑/↓ Exposure Comments

1	ThAr				↓	60 ^s	
2	G1-4	00:25:06	04:33:48			6 ^m	Halo Binaries
3	ThAr				↑	60 ^s	
4	ThAr				↓	60 ^s	
5	G31-46	00:20:43	-0:06:00			4 ^{1/2} ^m	
6	ThAr				↓	60 ^s	
7	G31-41	00:15:20	00:06:00			2 ^m	
8	ThAr				↑	60 ^s	
9	ThAr				↓	60 ^s	
10	G1-9	00:36:37	02:51:18			2 ^m	
11	ThAr				↑	60 ^s	
12	ThAr				↓	60 ^s	
13	H8779	01:23:536	-0:39:29			2 ^m	IAC R.V. STD
14	ThAr				↑	60 ^s	
15	ThAr				↓	60 ^s	
16	H4128	00:41:04.8	-18:15:39			2 ^m	
17	ThAr				↑	60 ^s	ND 1 filter ↗
18	ThAr				↓	60 ^s	
19	SKYDOME	3 ^{1/2} ^h E	+35°			3 ^m	
20	ThAr				↑	60 ^s	
21	ThAr				↓	60 ^s	
22	SKYDOME	0 ^h	+35°			2 ^m	
23	ThAr				↑	60 ^s	
24	INCANDS					120 ^m	
25	INCANDS					120 ^m	
26	Th-Ar				↓	60s	5187A - clear hut -
27	SKY-EVE	4 ^h	+35°			2m	
28	Th-Ar				↑	60s	
29	Th-Ar	4.5h W			↓	60s	
30	SKY-EVE	4.5h W	+35°			2m	
31	Th-Ar				↑	60s	
32							

16-17 August 1987

Intensified Reticon TO CAM

Spectrograph ECHELLE Log Sheet RAW/RET

Grating 3002 Observer RPS

Telescope 61" Wyeth Date 16-17 AUG. 1987 Disk ORO 1694

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
		2	H110897	12:42:38	39:33:01	2.5m	6.0' Mstars
		3			↑	60s	
		4			↓	60s	
		5	H144515	16:03:32	10:47:11	4.5	8.5' Mstars
		6			↑	60s	
		7			↓	60s	
		8	G25643	16:52:43	-08:14:30	20.5m	11.7/15 "
		9			↑	60s	
		10	G25643	"	"	17m	" "
		11			↑	60s	
		12	G25644A	16:52:46	-08:15:17	12m	9.1/50 "
		13			↑	60s	
		14			↓	60s	
		15	H144284	16:00:57	58:41:59	3m	4.1/300 "
		16			↑	60s	
		17			↓	60s	
		18	H134646	15:06:53	63:18:29	4.5m	6.7/400 "
		19			↑	60s	
		20			↓	60s	
		21	G2623	16:22:39	48:28:24	12m	10.3/30 "
		22			↑	60s	
		23			↓	60s	
		24	(6)	19:10:26	-15:33:49	4m	9.7 Asteroid
		25			↑	60s	
		26			↓	60s	
		27	(7)	19:14:58	-16:12:42	4.5m	9.8 Asteroid
		28			↑	60s	
		29			↓	60s	
		30	H182572	19:22:35	11:50:09	2m	5.2 IAU standard
		31			↑	60s	
		32	/				

Intensified Reticon

TO CAM 8/16

Spectrograph ECHELLE

Log Sheet

RAWRET

Grating 300L

Observer RPS

Telescope 61" Wyeth

Date 16-17 AUG. 1987

Disk CR0 1696

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	Th-Ar		↓	60s	
	222192	23:35:58	-13:59:18			10m	8.1 Fstars
		3	Th-Ar		↑	60s	
		4	Th-Ar		↓	60s	
	222950	23:42:47	-13:57:32			10m	8.1 Fstars
		6	Th-Ar		↑	60s	
		7	Th-Ar		↓	60s	
	224512	23:56:00	-14:24:15			8m	8.1 "
		9	Th-Ar		↑	60s	
		10	Th-Ar		↓	60s	
	S166160	φφ:13:44	-22:51:18			5m	9.6/15 HALOS
		12	Th-Ar		↑	60s	
		13	Th-Ar		↓	60s	
	-20170	00:54:42	-20:06:18			5.5m	10.3/15 "
		15	Th-Ar		↑	60s	
		16	Th-Ar		↓	60s	
	MVA550	21:37:19	57:26:15			15m	11.7 Larry Manschull/TR37
		18	Th-Ar		↑	60s	
		19	Th-Ar		↓	60s	
	G173-57	02:28:49	45:39:12			10.5m	11.3/15 HALOS
		21	Th-Ar		↑	60s	
		22	Th-Ar		↓	60s	
	G33-9	φφ:42:56	16:42:00			7m	10.6/20 "
		24	Th-Ar		↑	60s	
		25	Th-Ar		↓	60s	
	G1-28	00:48:14	10:05:24			5m	10.5/15 "
		27	Th-Ar		↑	60s	
		28	Th-Ar		↓	60s	
	H8779	φ1:23:54	-00:39:29			3m	6.4 IAU standard
		30	Th-Ar		↑	60s	
		31	/				
		32	/				

Intensified Reticon

TO CAM 8/17

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 3002

Observer RDS

Telescope 61" Wyeth

Date 16-17 Aug. 1987

Disk ORO 1697

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		Th-Ar			↓	60s	
	H4128		00:41:05	-18:15:39		2m	H4128 IAU standard 0.1ND
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	SKY-DWN		4 1/4 hrs E	+25°		2m	
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	SKY-DWN		φ hrs	+25°		2m	
		Th-Ar			↓	60s	
	SKY-DWN		φ hrs	+25°		2m	
		Th-Ar			↑	60s	
	INCAND					120	
	INCAND					113	
AUG 17-18	TH-AR				↓	60 ^s	5187A 80μSLIT
	SKYDWN		0 hrs	+30°		2 MIN	HY HAZE
	TH-AR				↑	60 ^s	
	TH-AR				↓	60 ^s	
	SKYDWN		4 HRS W	+30		2 MIN	
	TH-AR				↑	60 ^s	
	TH-AR				↓	60 ^s	
	H176202		15:16:45	01:57:11		2 1/2 MIN	5.1 IAU STD
	TH-AR				↑	60 ^s	
	TH-AR				↓	60 ^s	
	H110897		12:42:37	39:33:00		5 MIN	5.9 M STAR
	TH-AR				↑	60 ^s	
	Th-Ar				↓	60s	
	GRS644A		16:52:46	-08:15:17		20m	9.1/50 Mstars
	Th-Ar				↓	60s	
	GRS644A		"	"		10m	"
	Th-Ar				↑	60s	
	/						
	/						

8/17

Intensified Reticon

TO CAM1

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300R

Observer RPS

Telescope 61" Wyeth

Date 17-18 AUG. 1987

Disk ORD 1698

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
		2	17 18 36	18:34:22	-04:35:34	10m	7.9 Estars
		3			↑	60s	
		4			↓	60s	
		5	172506	18:38:01	02:38:12	10m	7.8 "
		6			↑	60s	
		7			↓	60s	
		8	177005	18:59:27	35:33:03	7m	"
		9			↑	60s	
		10			↓	60s	
		11	181656	19:17:59	36:40:12	10m	7.4 "
		12			↑	60s	
		13			↓	60s	
		14	182285	19:23:39	07:05:48	10m	8.0 "
		15			↑	60s	
		16			↓	60s	
		17	(6)	19:09:59	-15:44:14	8m	9.7 Asteroid
		18			↑	60s	
		19			↓	60s	
		20	(7)	19:14:21	-16:13:38	12m	9.9 " (increasing haze)
		21			↑	60s	
		22			↓	60s	
		23	H182572	19:22:35	11:50:09	2.5m	5.2 IAU standard
		24			↑	60s	
		25			↓	60s	
		26	191260	20:06:08	20:04:19	6m	7.9 Estars
		27			↑	60s	
		28			↓	60s	
		29	190004	19:59:54	24:47:40	10m	5.3 "
		30			↑	60s	
		31					
		32					

8/17

Intensified Reticon TO CAM
 Spectrograph ECHELLE Log Sheet RAW/RET
 Grating 3002 Observer RPS
 Telescope 61" Wyeth Date 17-18 AUG. 1987 Disk ORD 1699

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
		2	1955 44	20:28:50	36:13:32	7m	8.0 F stars
		3			↑	60s	
		4			↓	60s	
		5	198627	20:48:36	30:12:59	10m	8.0 " Very close pair -
		6			↑	60s	maybe some distribution from
		7			↓	60s	secondary.
		8	206655	21:40:28	41:35:26	7m	8.0 F stars
		9			↑	60s	
		10			↓	60s	
		11	207182	21:44:03	42:09:22	4.5m	8.1 "
		12			↑	60s	
		13			↓	60s	
		14	209919	22:03:46	41:43:05	6m	8.2 "
		15			↑	60s	
		16			↓	60s	
		17	210607	22:08:31	40:00:55	10m	8.1 "
		18			↑	60s	
		19			↓	60s	
		20	215306	22:41:27	27:25:20	10m	8.1 "
		21			↑	60s	
		22			↓	60s	
		23	217385	22:57:37	20:57:09	10m	8.1 "
		24			↑	60s	
		25			↓	60s	
		26	G1-51	01:08:17	09:17:48	3m	7.3/15 HALOS
		27			↑	60s	
		28			↓	60s	
		29	G33-48	01:13:53	09:21:42	4.5m	8.8/15 HALO - not sure of
		30			↑	60s	identification.
		31					haze; clouds
		32					

Intensified Reticon

TO CAM 8/18

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300R

Observer RPS

Telescope 61" Wyeth

Date 17-18 AUG. 1987

Disk ORO1700

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	Th-Ar		↓	60s	
	G33-56	2	01:22:11	18:14:30		3.5m	8.5/15 HALOS
	Th-Ar	3			↑	60s	-clouds-
	Th-Ar	4			↓	60s	
	G714	5	01:05:31	28:36:06		8m	6.8 Fstars
	Th-Ar	6			↑	60s	
	Th-Ar	7			↓	60s	
	11284	8	01:48:26	24:24:17		10m	6.9 Fstars
	Th-Ar	9			↑	60s	
	Th-Ar	10			↓	60s	
	H4128	11	00:41:05	-18:15:39		2m	2.0 IAU standard 0.1ND
	Th-Ar	12			↑	60s	
	Th-Ar	13			↓	60s	
	SKY-DWN	14	4hrs. E	ϕ°		2m	
	Th-Ar	15			↑	60s	
	Th-Ar	16			↓	60s	
	SKY-DWN	17	ϕ hrs	ϕ°		2m	
	Th-Ar	18			↑	60s	
	IN CAN	19				120	
	IN CAN	20				100	
AUG 18-19	TH-AR	21			↓	60 ^s	5187A 80 μSLIT
	SKYVIEW	22	0 HRS	+30 ^o		2 MIN	FEW WISPY CLDS
	TH-AR	23			↑	60 ^s	
	TH-AR	24			↓	60 ^s	
	SKYVIEW	25	4 HRS WNA	+30		2 MIN	
	TH-AR	26			↑	60 ^s	
	Th-Ar	27			↓	60s	
	H136202	28	15:16:45	01:57:12		2.5m	5.1 IAU standard
	Th-Ar	29			↑	60s	
	/	30					
	/	31					
	/	32					

8/18

Intensified Reticon

TO CAM

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300R

Observer RPS

Telescope 61" Wyeth

Date 18-19 Aug. 1987

Disk ORD 1701

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
		2	H110897	12:42:37	39:33:00	2.5m	6.0 Mstars
		3			↑	60s	
		4			↓	60s	
		5	(2)	15:42:09	16:39:11	5m	10.3 Asteroid
		6			↑	60s	
		7			↓	60s	
		8	(1)	17:21:19	-27:42:47	4m	9.0 Asteroid - in the trees!
		9			↑	60s	
		10			↓	60s	
		11	H144515	16:03:32	10:49:11	8m	8.5/70 Mstars
		12			↑	60s	
		13			↓	60s	
		14	GRS644A	16:52:46	-08:15:17	20m	9.1/50 Mstars
		15			↑	60s	
		16			↓	60s	
		17	G178-S6	14:53:12	43:13:42	17m	11.9/15 HALOS - tough!!
		18			↑	60s	
		19			↓	60s	
		20	H144284	16:00:57	58:41:54	2m	4.1/300 Mstars
		21			↑	60s	
		22			↓	60s	
		23	H134646	15:06:53	63:18:27	5.5m	6.7/400 Mstars
		24			↑	60s	
		25			↓	60s	
		26	G217-8	23:24:15	60:21:06	26m	10.5/60 HALOS
		27			↑	60s	
		28			↓	60s	
		29	H182572	19:22:35	11:50:09	2m	5.2 IAU Standard
		30			↑	60s	
		31					
		32					

8/18

Intensified Reticon TO CAM
 Spectrograph ECHELLE Log Sheet RAW/RET
 Grating 300R Observer RPS
 Telescope 61" Wyeth Date 18-19 AUG. 1987 Disk ORO 1702

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
		2	(7)	19:13:46	-16:14:35		7.5m 9.9 Asteroid (many object to pick from!!)
		3			↑	60s	
		4			↓	60s	
		5	(6)	19:09:32	-15:55:01		5.5m 9.7 Asteroid
		6			↑	60s	
		7			↓	60s	
		8	H213014	22:25:46	17:00:28		4m 7.7 IAU standard
		9			↑	60s	
		10	213014B	22:25:46	17:00:28		4m 9.0 "
		11			↑	60s	
		12			↓	60s	
		13	199227	20:53:15	25:02:15		10m 8.0 Fstars
		14			↑	60s	
		15			↓	60s	
		16	198627	20:48:36	30:12:59		10m 8.0 " (Faint, close secondary)
		17			↑	60s	
		18			↓	60s	
		19	197872	20:56:38	40:30:10		10m 8.1 "
		20			↑	60s	
		21			↓	60s	
		22	200742	21:02:17	31:28:13		8.5m 8.1 "
		23			↑	60s	
		24			↓	60s	
		25	203031	21:16:48	25:52:40		10m 8.2 "
		26			↑	60s	
		27			↓	60s	
		28	204831	21:28:12	28:46:06		10m 8.0 "
		29			↑	60s	
		30					
		31					
		32					

8/18

Spectrograph ECHELLE Intensified Reticon TO CAM
 Grating 3002 Log Sheet RAW/RET
 Telescope 61" Wyeth Date 18-19 AUG. 1987 Observer RPS
 Disk ORO 1703

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	Th-Ar		↓	60s	
		2	205075	21:29:58	33:58:52	↓	10m 8.0 F star
		3	Th-Ar		↑	60s	
		4	Th-Ar		↓	60s	
		5	G70-14	00:46:08	-01:39:24	↓	9.5m 10.9/15 HALOS-
		6	Th-Ar		↑	60s	
		7	Th-Ar		↓	60s	
		8	270-159	01:07:11	-03:55:36	↓	14m 11.1/15 " - clouds -
		9	Th-Ar		↑	60s	
		10	Th-Ar	01:29:17	34:18:12	↓	60s - stopped by clouds -
G27-12		11	G70-14	01:29:17	34:18:12	↓	10m 10.9/15 " G27-12
		12	Th-Ar		↑	60s	
		13	Th-Ar		↓	60s	
		14	G71-33	01:42:38	03:15:48	↓	18m 10.6/50 "
		15	Th-Ar		↑	60s	
		16	Th-Ar		↓	60s	
		17	G3-28	01:54:15	11:25:12	↓	5m 10.6/15 "
		18	Th-Ar		↑	60s	
		19	Th-Ar		↓	60s	
		20	H9779	01:23:54	-00:39:29	↓	2m 6.4 IAU standard
		21	Th-Ar		↑	60s	
		22	Th-Ar		↓	60s	
		23	H4128	00:41:05	-18:15:39	↓	2m 2.0 IAU standard
		24	Th-Ar		↑	60s	
		25	Th-Ar		↓	60s	
		26	SKY-DWN	4hrs E	+10°	↓	2m
		27	Th-Ar		↑	60s	
		28	Th-Ar		↓	60s	
		29	SKY-DWN	φ hrs	+10°	↓	2m
		30	Th-Ar		↑	60s	
		31					
		32					

8/19

Intensified Reticon

TO CAM

Spectrograph ECHELLE

Log Sheet

RAW RET

Grating 3002

Observer RPS

Telescope 61" Wyeth

Date 18-19 AUG. 1987

Disk ORO 1704

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

Change....	File	ID	RA	Dec	L/R	Exposure	Comments
		1			↓	60s	
		2		+30°		2m	
		3			↑	60s	
		4				120 MIN	
		5				120 MIN	
AUG 19-20		6			↓	60s	5187A 80μ SLIT
		7		+30		2 MIN	CLEAR
		8			↑	60s	
		9			↓	60s	
		10		+30		2 MIN	
		11			↑	60s	
		12			↓	60s	
		13	H136202	15:16:45 01:57:11		2 MIN	5.1 / 1 AU STAND
		14			↑	60s	
		15			↓	60s	
		16	H110897	12:42:38 39:33:01		5m	6.0 stop! go - clouds -
		17			↑	60s	
		18	H110897	" "		3m	M stars
		19			↑	60s	
		20			↓	60s	
		21	G2s644A	16:52:46 -08:15:17		13m	9.1/50 "
		22			↑	60s	
		23			↓	60s	
		24	128901	14:36:07 52:14:47		5.5m	8.0 F stars
		25			↑	60s	
		26			↓	60s	
		27	127823	14:30:07 51:14:25		9m	8.0 "
		28			↑	60s	
		29			↓	60s	
		30	H12121	15:16:21 03:17:32		6m	5.07.9 " - stopped by clouds
		31	182775	19:28:16 16:41:45	↑	60s	
		32					

Intensified Reticon

TO CAM 8/20

Spectrograph ECHELLE

Log Sheet

RAW RET

Grating 3002

Observer RPS

Telescope 61" Wyeth

Date 19-20 AUG. 1987

Disk ORO 1705

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	Th-Ar		↓	60s	
	185206	2	19:35:15	12:34:31		8m	7.9 Fstars
		3	Th-Ar		↑	60s	
		4	Th-Ar		↓	60s	
	H182572	5	19:22:35	11:50:10		2m	5.2 IAU standard
		6	Th-Ar		↑	60s	-rain-
		7	Th-Ar		↓	60s	
	G271-75	8	01:27:17	-07:46:00		17m	10.7/15 HALOS
		9	Th-Ar		↑	60s	
		10	Th-Ar		↓	60s	
	G2-47	11	01:32:37	05:23:00		12m	10.8/15 HALOS
		12	Th-Ar		↑	60s	
		13	Th-Ar		↓	60s	
	G191-55	14	05:53:04	58:40:24		17m	10.5/10 HALOS - watch
		15	Th-Ar		↑	60s	for sky!
		16	Th-Ar		↓	60s	
	H8779	17	01:23:53	-00:39:29		2.5m	6.4 IAU standard - cloudy
		18	Th-Ar		↑	60s	
		19	Th-Ar		↓	60s	
	SKY-DWN	20	4hrs E	+20°		2m	
		21	Th-Ar		↑	60s	
		22	Th-Ar		↓	60s	
	SKY-DWN	23	φ hrs	+20°		2m	
		24	Th-Ar		↑	60s	
	INCANDS	25				120"IN	
	INCANDS	26				97"IN	
		27					
		28					
		29					
		30					
		31					
		32					

TO CAM 8/30

Intensified Reticon

Spectrograph ECHELLE Log Sheet RAW/RET

Grating 300L Observer RPS ~~BT~~

Telescope 61" Wyeth Date ²⁴⁻³⁰ ~~30-31~~ AUG 1987 Disk ORO 1706

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
		2	H4128	00:41:05	-18:15:39	2m	2.0 IAU standard clearing just before dawn
		3	Th-Ar		↑	60s	0.1 ND
		4	Th-Ar		↓	60s	
		5	H26162	04:06:15	19:28:43	2m	5.5 IAU standard
		6	Th-Ar		↑	60s	
		7	Th-Ar		↓	60s	
		8	SKY-DWN	4 1/2 hrs E	+30°	2m	
		9	Th-Ar		↑	60s	
		10	Th-Ar		↓	60s	
		11	SKY-DWN	φ hrs	+30°	120s	
		12	Th-Ar		↑	60s	
		13	INCANDS			120 MIN	
		14	INCANDS			105 MIN	
8/30-31		15	TH-AR		↓	60s	
		16	SKY-EVEN	0 hrs	+35	2m	
		17	TH-AR		↑	60s	
		18	TH-AR		↓	60s	
		19	SKY-EVEN	4 hrs W	+35	2m	
		20	TH-AR		↑	60s	
		21	TH-AR		↓	60s	
		22	H182572	19:22:35	11:50:09	2m	5.2 IAU
		23	TH-AR		↑	60s	
		24	TH-AR		↓	60s	6563A
		25	VLV n	13:17:17	45:47:22	8m	6.5 IAU SALLY
		26	TH-AR		↑	60s	
		27	TH-AR		↓	60s	
		28	PCYG	20:15:57	32:52:36	10m	4.8/1000 SALLY
		29	TH-AR		↑	60s	
		30	TH-AR		↓	60s	5187A
		31	U156114A	16:52:16	-05:15:17	20m	7.1/100 MSIAA
		32	TH-AR		↑	60s	

Intensified Reticon

TO CAM 8/31

Spectrograph ECHELLE

Log Sheet

RAW RET

Grating 300L

Observer M Payson

Telescope 61" Wyeth

Date 30-31 August 1987

Disk ORO 1707

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
	61s 643	16:52:43	08:14:30			20m	11.7/15
		2			↓	60s	
	61s 643	"	"			20m	11.7/15 Part II
		3			↑	60s	
		4			↓	60s	
	6202-25	5:58:22	45:52:08			12m	11.0/15
		5			↑	60s	
		6			↓	60s	
	6169-13	16:27:49	30:48:06			6m	10.2/15
		7			↑	60s	
		8			↓	60s	
	6142-2	16:59:36	15:59:36			6m	10.3/15
		9			↑	60s	
		10			↓	60s	
	624-25	20:37:42	00:22:42			20m	10.5/50
		11			↑	60s	
		12			↓	60s	
		13			↓	60s	
		14			↑	60s	
		15			↓	60s	
		16			↑	60s	
		17			↓	60s	
	Beta Agr	21:28:56	08:47:32			5m	2.9/
		18			↑	60s	
		19			↓	60s	
	FF Agr	21:58:01	02:59:00			15m	8.7/
		20			↓	60s	
	A'ob Agr	22:03:13	00:33:49			5m	2.9/
		21			↑	60s	
		22			↓	60s	
	LamAnd	23:35:06	46:11:14			5m	3.9/
		23			↑	60s	
		24			↓	60s	
		25			↓	60s	
		26			↑	60s	
		27			↓	60s	
	(8)	21:16:55	22:34:58			6m	9.6/
		28			↑	60s	
		29			↓	60s	
		30			↑	60s	
		31			↑	60s	
		32					

MSTAR

MSTAR

HALO

HALO

HALO

HALO

~~6563A~~

SALLY

SALLY

SALLY

SALLY

~~5187A~~

A5T

TO CAM 9/1

Intensified Reticon

Spectrograph ECHELLE Log Sheet RAW RET

Grating 300 Observer M Payson

Telescope 61" w/ath Date 30-31 August 1987 Disk ORO 1709

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

1		TH-AR			↓	60s	
2	694-70		02:25:20	25:37:30		4m	7.31 HALO CIA
3		TH-AR			↑	60s	
4		TH-AR			↓	60s	
5	673-57		02:23:23	05:33:12		2m	7.9/15 - HALO
6		TH-AR			↑	60s	
7		TH-AR			↓	60s	
8	671-27		01:34:22	01:39:00		3m	8.8/20 HALO
9		TH-AR			↑	60s	
10		TH-AR			↓	60s	
11	556455		03:23:53	34:15:18		2m	6.7/50 HALO
12		TH-AR			↑	60s	
13		TH-AR			↓	60s	6563A
14	Alph Ori		05:52:28	07:23:48		5m	0.81 SALLY
15		TH-AR			↑	60s	
16		TH-AR			↓	60s	5187A
17	SKYDOME	4 hrs E		+35		2m	
18		TH-AR			↑	60s	
19		TH-AR			↓	60s	
20	SKYDOME	OHA		+35		2m	
21		TH-AR			↑	60s	
22		Incand				120m	
23		INCANDS				66 MIN	
24		TH-AR			↓	60s	
25	SKYVIEW	OHA		+35		2m	
26		TH-AR			↑	60s	
27		TH-AR			↓	60s	
28	SKYVIEW	4 hrs W		+35		2m	
29		TH-AR			↑	60s	
30							
31							
32							

31 Aug -
1 Sept