

TO CAM **E/1**

Spectrograph ECHELLE Intensified Reticon
 Log Sheet RAWRET
 Grating 3002 Observer na
 Telescope 6" WYETH Date 6/1-2/87 Disk OKO 1594

Change....	File	ID	RA	1950.0 Dec	L/R ↑/↓	Exposure	Comments
		1	TH-AR			60 ^s	5187A 800
		2	SKYEVEN 6 HA	+20		2 ^m	
		3	TH-AR		↑	60 ^s	
		4	TH-AR		↓	60 ^s	
		5	SKYEVEN 4 ¹ / ₂ MKW	+20		2 ^m	
		6	TH-AR		↑	60 ^s	
		7	TH-AR	12 37 37 21 05	↓	60 ^s	HALO
		8	G59-32	12 37 37 21 05		15 ¹ / ₂ ^m	!! BACKGROUND = 10% !!
		9	TH-AR		↑	60 ^s	CLSD IN CLDS
		10	TH-AR		↓	90 ^s	6563A
		11	VCV _n	13 17 17 45 47		15 ^m	SALLY
		12	TH-AR		↑	90 ^s	
		13	TH-AR		↓	60 ^s	5187A
		14	104636	12 00 27 41 21		20 ^m	FSTAR
		15	TH-AR		↑	60 ^s	
		16	104636	" "		10 ^m	
		17	TH-AR		↑	60 ^s	
		18	108100	12 22 30 43 08		4 ^m	
		19	TH-AR		↑	60 ^s	
		20	TH-AR		↓	60 ^s	
		21	+102495	12 56 49 09 31		5 ^m	HALOS
		22	TH-AR		↑	60 ^s	
TH-AR		23	ST01380	15 05 06 17 38	↓	60 ^s	
		24	S101380	15 05 06 17 38		10 ^m	
		25	TH-AR		↑	60 ^s	
		26	TH-AR		↓	60 ^s	
		27	TXCV _n	12 42 18 37 02		5 ^m	SYMBIOTIC
		28	TH-AR		↑	60 ^s	
		29	TH-AR		↓	60 ^s	
		30	GLS 519	13:35:13 35:58:24		5 ^{MIN}	9.1/ H STAR
		31	TH-AR		↑	60 ^s	
		32					

Intensified Reticon TO CAM 6/5

Spectrograph ECHELLE Log Sheet RAW RET

Grating 300L Observer GS

Telescope 6" WYATH Date JUNE 1-2 1987 Disk ORO 1595

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60 ^s	5187A 80μ SLIT
		2	GLG 499	13:03:49	20:59:42	5 ^m	9.4/20 M STARS
		3			↑	60 ^s	
		4			↓	60 ^s	
		5	5082651	13:03:56	22:53:00	2 MIN	5.9/100 INCREASE CLDS
		6			↑	60 ^s	
		7			↓	60 ^s	
		8	(2)	15:46:02	26:39:34	5 MIN	9.4/ ASTEROID
		9			↑	60 ^s	
		10			↓	60 ^s	
		11	G182.7	17:23:01	38:04:54	7 MIN	8.1/100 HALO
		12			↑	60 ^s	
		13			↓	60 ^s	
		14	V433HER	18:20:03	23:25:47	20 MIN	10.5/ SYMBIOTIC
		15			↑	60 ^s	
		16			↓	60 ^s	
		17	SV VUL	19:49:28	27:19:53	4 MIN	7.8/ (Ø 264.6) CEPH
		18			↑	60 ^s	
		19			↓	60 ^s	
		20	X CYG	20:41:27	35:24:24	2 MIN	6.4/ (Ø 100.5)
		21			↑	60 ^s	
		22			↓	60 ^s	
		23	KI CYG	19:48:21	35:33:24	20 MIN	11.0/ SYMBIOTIC
		24			↑	60 ^s	(HOLD CLDS)
		25			↓	60 ^s	
		26	SKYELEM			2	
		27			↑	60 ^s	
		28					
		29					
		30					
		31					
		32					

6/3-4/87

TO CAM 6/5

Spectrograph ECHELLE Intensified Reticon
 Grating 300 l Log Sheet
 Telescope 61" wyeth Date 6/5-6/87 Observer RAW/RET
 Disk ORO 1597

Change....	File	ID	RA	Dec	1950.0 L/R ↑/↓	Exposure	Comments
5187 Å		Th Ar			↓	60 ^s	
		SV Vul	19:49:28	27:19:53		3 ^m	Cepheid
		Th Ar			↑	60 ^s	
		Th Ar			↓	60 ^s	
		CH Cyg	19:23:14	50:08:31		3 ^m	Symbiotic
		Th Ar			↑	60 ^s	
		Th Ar			↓	60 ^s	
		Gls 781	20:03:55	54:18:12		25 ^m	M Stars
		Th Ar			↑	60 ^s	
		Th Ar			↓	60 ^s	
		Gls 735	18:53:03	08:20:18		18 ^m	
		Th Ar			↑	60 ^s	
		Th Ar			↓	60 ^s	
		(1)	18:05:01.7	-24:56:26		4 ^m	Asteroid
		Th Ar			↑	60 ^s	
		Th Ar			↓	60 ^s	
		U Sgr	18:28:57	-19:09:42		3 ^m	Cepheid
		Th Ar			↑	60 ^s	
		Th Ar			↓	60 ^s	
		G178-56	14:53:12	43:13:42		17 ^m	Italo Binaries
		Th Ar			↑↓	60 ^s	
		G178-56	"	"		14 ^m	
		Th Ar			↑	60 ^s	
		Th Ar			↓	60 ^s	
		G190-10	23:05:39	41:55:12		22 ^m	
		Th Ar			↑	60 ^s	
		Th Ar			↓	60 ^s	
		DL Cas	00:27:11	59:56:12		7 ^m	Cepheid
		Th Ar			↑	60 ^s	
		Th Ar			↓	80 ^s	
		P Cyg	20:15:57	37:52:36		2 ^m	H-α Sallie
		Th Ar			↑	90 ^s	

5187 Å
Hα

Intensified Reticon

TO CAM

Spectrograph ECHELLE Log Sheet

Grating 300l Observer RAWRET

Telescope 61" wyeth Date 6/5-6/87 Disk ORO 1598

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
H α	1	Th-Ar			↓	90 ^s	
	2	LamAnd	23:35:06	46:11:14		6 ^m	H- α Sallie NDI
	3	Th-Ar			↑	90 ^s	
5187 Å	4	Th-Ar			↓	60 ^s	
	5	SKYDWE				2 ^m	3 ^h E, +30 ^a
	6	Th-Ar			↑	60 ^s	
	7	Th-Ar			↓	60 ^s	
	8	SKYDWNM				2 ^m	Meridian, +30 ^a
	9	Th-Ar			↑	60 ^s	
	10	INCANDS				120 ^m	
	11	INCANDS				120 ^m	
	12	INCANDS				30 ^{m/n}	
6-7 June 1987	13	Th-Ar			↓	60s	5187Å -clear-
	14	SKY-EVE	φ hrs	+30 ^a		2m	φ hrs, +30 ^a
	15	Th-Ar			↑	60s	
	16	Th-Ar			↓	60s	
	17	SKY-EVE	4 1/2 hrs W	+30 ^a		2m	4.5 hrs W, +30 ^a
	18	Th-Ar			↑	60s	
	19	Th-Ar			↓	60s	
	20	H89449	10:17:01	19:43:31		2.5m	IAU standard
	21	Th-Ar			↑	60s	
	22	Th-Ar			↓	30s	
	23	H89449	"	"		2m	IAU standard 30sec th-tr
	24	Th-Ar			↑	30s	
	25	Th-Ar			↓	60s	
	26	G59-32	12:37:37	21:05:12		10m	9.0/60 HALO (10% Moon)
	27	Th-Ar			↑	60s	
	28	Th-Ar			↓	60s	
	29	G61-24	12:55:04	18:57:48		12.5m	8.9/100
	30	Th-Ar			↑	60s	
	31	/					
	32	/					

Intensified Reticon

TO CAM

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300L

Observer RPS

Telescope 61" Wyeth

Date 6-7 JUNE 1987

Disk ORO 1599

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

1		Th-Ar			↓	60s	
2		G123-9	12:08:25	44:16:54		8m	10.5/15 HALOS
3		Th-Ar			↑	60s	
4		Th-Ar			↓	60s	
5		LAM-VIR	14:16:24	-13:08:31		4m	4.6/700 M stars
6		Th-Ar			↑	60s	
7		Th-Ar			↓	60s	
8		S 015472	11:16:07	62:27:22		5m	7.0/100 "
9		Th-Ar			↑	60s	
10		Th-Ar			↓	60s	
11		G25430	11:28:22	63:26:00		20m	9.0/40 "
12		Th-Ar			↑	60s	
13		G25430	"	"		10m	"
14		Th-Ar			↑	60s	
15		Th-Ar			↓	60s	
16		(2)	15:42:20	26:36:18		5m	9.4 Asteroid
17		Th-Ar			↑	60s	
18		Th-Ar			↓	60s	
19		H135148	15:10:55	12:38:36		4.5m	9.5/15 HALOS
20		Th-Ar			↑	60s	
21		Th-Ar			↓	60s	
22		G25600	15:49:46	11:01:25		11.5m	9.4/30 M-stars
23		Th-Ar			↑	60s	
24		Th-Ar			↓	60s	
25		S161358	15:49:13	12:42:34		2.5m	6.7/100 "
26		Th-Ar			↑	60s	
27		Th-Ar			↓	60s	
28		G169-13	16:27:49	30:48:06		6.5m	10.2/15 HALOS
29		Th-Ar			↑	60s	
30		Th-Ar			↓	60s	
31		G170-47	17:30:38	23:46:18		12m	9.0/100 "
32		Th-Ar			↑	60s	

6/6

Spectrograph ECHELLE Intensified Reticon TO CAMI
 Grating 300L Log Sheet RAW/RET
 Telescope 61" Wyeth Date 6-7 June 1987 Observer RFS
 Disk ORO1600

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
		2	RSOph	17:47:31	-66:41:40		21.5m 12.0 Kenyon
		3	Th-Ar		↓	60s	
		4	RSOph	"	"	10m	"
		5	Th-Ar		↑	60s	
		6	Th-Ar		↓	60s	
		7	(1)	18:07:09	-25:00:07		2m Asteroid
		8	Th-Ar		↑	60s	
		9	Th-Ar	19:32:10	04:28:16	↓	60s
		10	GLS 763	19:32:29	04:28:18		8m 19/4/30 M stars GLS 763
		11	Th-Ar		↑	60s	
		12	Th-Ar		↓	60s	
		13	S162947	19:42:21	-17:37:42		7m 9.2/30 HALO
		14	Th-Ar		↑	60s	
		15	Th-Ar		↓	60s	
		16	S124835	19:35:34	05:58:40		2m 6.7/100 M star
		17	Th-Ar		↑	60s	
		18	Th-Ar		↓	60s	
		19	7 LAC	22:38:53	56:34:05		3m 8.9 Kephoid
		20	Th-Ar		↑	60s	
		21	Th-Ar		↓	60s	
		22	H213φ14	22:25:46	17:00:28		2m 7.7 IAU standard
		23	Th-Ar		↑	60s	
		24	213014B	"	"	11m	9.2 IAU standard
		25	Th-Ar		↑	60s	
		26	Th-Ar		↓	60s	
		27	S127141	21:51:28	06:37:42		2.5m 6.2/30 HALO (10% sky)
		28	Th-Ar		↑	60s	
		29	Th-Ar		↓	60s	
		30	SKY-DWN	4 1/2 hrs E	+30°		2m
		31	Th-Ar		↑	60s	
		32	/				

Intensified Reticon

TO CAM 6/10

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300R

Observer RPS

Telescope 61" Wyeth

Date 6-7 June 1987

Disk ORO 1601

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	Th-Ar		↓	60s	
		2	SKY-DUN	φ hrs. +30°		2m	
		3	Th-Ar		↑	60s	
		4	INCAIDS			120 ^m	
		5	INCAIDS			120 ^m	
6/9/87		6	TH-AR		↓	60s	5127A
		7	SKYEVEN	0 ^h +40		2m	
		8	TH-AR		↑	60s	
		9	TH-AR		↓	60s	1AU
		10	H136262	15 16 45 01 57		2m	
		11	TH-AR		↑	60s	
		12	TH-AR		↓	60s	
		13	RS BOO	14 31 28 31 59		8m	SOME CLO + MOON, RR 4/2
		14	TH-AR		↑	60s	
		15	TH-AR		↓	60s	CLOS ONLY AT END
		16	RC BOO	" "		7m	←
		17	TH-AR		↑	60s	
		18	TH-AR		↓	60s	
		19	RS BOO	" "		9m	
		20	TH-AR		↑	60s	
6/10-11/87		21	TH-AR		↓	60s	5189
		22	SKYEVEN	0 HA +40		2m	
		23	TH-AR		↑	60s	
		24	TH-AR		↓	90s	6563A
		25	V CVN	13 17 17 45 47		2.0m	SALLY
		26	TH-AR		↑	90s	
		27	TH-AR		↓	60s	5189A
		28	G1623	16 22 39 48 28		10m	MSTAR
		29	TH-AR		↑	60s	
		30	TH-AR		↓	60s	
		31	G2328	10 16 54 20 07		8m	
		32	TH-AR		↑	60s	

Intensified Reticon

TO CAM 6/10

Spectrograph 300f ECHELLE

Log Sheet

RAW RET

Grating 5H

Date 6/10-11/87

Observer ORO 1602

Telescope _____

Date _____

Disk _____

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		TH-AR			↓	60 ^s	STAR
1		GL 380	10 08 19	49 42		2 ^m	NEARBY
2		TH-AR			↑	60 ^s	
3		TH-AR			↓	60 ^s	
4		GL 411	11 00 37	26 17		2 ^m	
5		TH-AR			↑	60 ^s	
6		TH-AR			↓	60 ^s	
7		+222411	11 49 59	22 24		14 ^L	HALO
8		TH-AR			↑	60 ^s	
9		TH-AR			↓	60 ^s	
10		CS7-5	12 10 56	23 33		4 ^m	
11		TH-AR			↑	60 ^s	
12		TH-AR			↓	60 ^s	
13		GL0-47	12 52 44	09 06		10 ^{MIN}	
14		TH-AR			↑	60 ^s	
15		TH-AR			↓	60 ^s	
16		+102495	12:56:49	09:30:42		10 ^{MIN}	97/30
17		TH-AR			↑	60 ^s	
18		TH-AR			↓	60 ^s	
19		5063499	13:19:54	30:33:12		2 1/2 ^{MIN}	69/100
20		TH-AR			↑	60 ^s	
21		GL 509A	13:21:13	29:29:52		1 ^{MIN}	89/30
22		TH-AR			↑	60 ^s	
23		TH-AR			↓	60 ^s	
24		GL 508	13:17:36	45:02:24		6 ^{MIN}	90/50
25		TH-AR			↑	60 ^s	
26		TH-AR			↓	60 ^s	
27		5045241	14:50:17	46:40:58		2 ^{MIN}	71/100
28		TH-AR			↑	60 ^s	
29		TH-AR			↓	60 ^s	
30		GL 522	14:59:10	45:37:21		7 ^{MIN}	91/30
31		TH-AR			↑	60 ^s	
32							

Intensified Reticon

TO CAM 6/10

Spectrograph ECHELLE

Log Sheet

RAWRET

Grating 300

Observer CS

Telescope 6" WYETH

Date JUNE 10-11 1987 Disk ORO 1603

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60 ^s	5187A 80μ SLIT
		2	(2)	15:39:34 26:27:47		4 ^{min}	9.5/ ASTEROID
		3			↑	60 ^s	
		4			↓	60 ^s	
		5	GL 699	17:55:23 04:33:18		8 ^{min}	9.5/ (ALSO UPGRAD) NEARBY
		6			↑	60 ^s	
		7			↓	60 ^s	
		8	SU VUL	19:49:28 27:19:53		4 ^{min}	7.8/ (φ 336.6) CEPH
		9			↑	60 ^s	
		10			↓	60 ^s	
		11	Z LAC	22:38:53 56:34:05		5 ^{min}	8.9 (φ 157.9)
		12			↑	60 ^s	
		13			↓	60 ^s	
		14	Z AND	23:31:15 48:32:32		20 ^{min}	10.0/ SYMBIOTIC
		15			↑	60 ^s	
		16			↓	60 ^s	6563A 80μ SLIT
		17	LAM AND	23:35:06 46:23:16		10 ^{min}	3.7/ (1.0ND FILT) H ALPHA
		18			↑	60 ^s	
		19			↓	60 ^s	
		20	P CYG	20:15:57 37:52:36		6 ^{min}	4.8/ (1.0ND FILT)
		21			↑	60 ^s	
		22			↓	60 ^s	5187A 80μ SLIT
		23	AG PEG	21:48:36 12:23:27		7 ^{min}	8.5/ SYMBIOTIC
		24			↑	60 ^s	
		25			↓	60 ^s	
		26	H 213014	22:25:45 17:00:28		4 ^{min}	7.7/ IAU STND
		27			↕	60 ^s	
		28	H 213014B	22:25:46 17:00:28		5 ^{min}	SEEING MAY NOT BE OK IAU MATR
		29			↑	60 ^s	
		30			↓	60 ^s	
		31	DL CAS	00:27:11 59:56:12		5 ^{min}	10.6/ (φ 81.7) CEPH
		32			↑	60 ^s	

6/12

Intensified Reticon TO CAM
 Spectrograph ECHELLE Log Sheet RAWRET
 Grating 3002 Observer GS
 Telescope 61" WYETH Date JUNE 10-11 1987 Disk ORO 1604

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60 ^s	5187A . 80 μ SLIT
		2	EG AND 00:41:53	40:24:22		5 MIN	7.5/ SYMBIOTIC
		3			↑	60 ^s	
		4			↓	60 ^s	
		5	Z14-18A 22:13:08	39:31:36		2 MIN	7.5/20 HALO
		6			↑	60 ^s	
		7			↓	60 ^s	
		8	G130-10 23:43:38	34:58:12		2 MIN	9.1/20 WATCH DAWN COUNT
		9			↑	60 ^s	
		10			↓	60 ^s	
		11	SKYDUNE 4 HRS HA	+35°		2 MIN	
		12			↑	60 ^s	
		13			↓	60 ^s	
		14	SKYDUN M 0 HRS HA	+35°		2 MIN	
		15			↑	60 ^s	
		16				120 MIN	
		17				120	
		18				120	
12-13 June 1987		19			↓	60s	-prtty cloudy-
		20	H136202 15:16:45	+01:57:12		2.5m	IAU standard
		21			↑	60s	
		22			↓	60s	
		23	H149515 16:03:32	10:49:11		8m	8.5/70 M stars
		24			↑	60s	
		25			↓	60s	
		26	SΦ 65595 16:48:50	32:38:14		2m	6.3/100 " -clear-
		27			↑	60s	
		28			↓	60s	
	29	GLS 638 16:43:14	33:35:54		5m	8.1/50 "	
	30			↑	60s		
	31	/					
	32	/					

6/12

Intensified Reticon TO CAM
 Spectrograph ECHELLE Log Sheet RAW RET
 Grating 300L Observer RPS
 Telescope 61" Wyeth Date 12-13 June 1987 Disk ORO 1605

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			√	60s	
		2	+φ13476	15:20:08	φ1: 26:30	14m	9.5/40 HALOS
		3	Th-Ar		↑	60s	
		4	Th-Ar		↓	45s	
		5	GRS 562	14:44:03	16:42:30	9m	9.3 M stars
		6	Th-Ar		↑	45s	
		7	Th-Ar		↓	45s	
		8	S1φ1299	14:54:52	16:35:19	2m	5.8 "
		9	Th-Ar		↑	45s	
		10	Th-Ar		↓	45s	
		11	S78332	14:20:02	29:39:50	5m	6.6 "
		12	Th-Ar		↑	45s	
		13	Th-Ar		↓	45s	
		14	GRS 546	14:19:46	29:51:28	10m	8.5 "
		15	Th-Ar		↑	45s	
		16	Th-Ar		↓	45s	
		17	(2)	15:38:19	26:21:50	5.5m	9.5 Asteroid
		18	Th-Ar		↑	45s	
		19	Th-Ar		↓	45s	
		20	GL 628	16:27:31	-12:32:18	17m	10.1 Nearby (Kenyon) + Upgren U347
		21	Th-Ar		↑	45s	(Maybe too much Moon with
		22	Th-Ar		↓	45s	haze moving in)
		23	194φ32	20:20:17	28:55:41	15m	8.2 F-stars
		24	Th-Ar		↑	45s	
		25	Th-Ar		↓	45s	
		26	195231	20:27:02	28:11:29	14m	7.6 "
		27	Th-Ar		↑	45s	
		28	Th-Ar		↓	45s	
		29	194595	20:23:31	26:32:23	19m	8.2 " - clouds -
		30	Th-Ar		↑	45s	
		31	/				
		32	/				

Intensified Reticon

TO CAM 4/15

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 3002

Observer RPS

Telescope 61" Wyeth

Date 12-13 June 1987

Disk ORO 1606

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	Th-Ar		↓	45s	-overcast-
		2	H182572	19:22:35	11:50:09	2m	5.2 IAU standard
		3	Th-Ar		↑	45s	-stopped by clouds-
		4	Th-Ar		↓	45s	
		5	183752	19:27:42	36:10:52	12m	6.6 F stars
		6	Th-Ar		↑	45s	
		7	Th-Ar		↓	45s	
		8	202880	21:15:38	39:00:00	6m	6.9 "
		9	Th-Ar		↑	45s	
		10	Th-Ar		↓	45s	
		11	213014B	22:25:46	17:00:28	9.5m	9.0 IAU standard
		12	Th-Ar		↑	45s	-lost in the clouds!-
		13	Th-Ar		↓	45s	
		14	G25820A	21:04:54	38:32:06	3m	5.2/100 M stars
		15	Th-Ar		↑	45s	
		16	G25820B	21:04:54	38:32:06	5m	6.0/100 " (20% sky)
		17	Th-Ar		↑	45s	clouds - probably No Good.
		18	Th-Ar		↓	45s	
		19	SKY-DWN	4.5hrs E	+30°	2m	
		20	Th-Ar		↑	45s	
		21	Th-Ar		↓	45s	
		22	SKY-DWN	φ hrs.	+30°	2m	
		23	Th-Ar		↑	45s	
		24	INCANDS			120"m	
		25	INCANDS			120"m	
		26					
		27					
		28					
		29					
		30					
		31					
		32					

Intensified Reticon

TO CAM

Spectrograph ECHELLE Log Sheet

Grating _____ Observer Dave Latham

Telescope Wyeth Date 14-15 June 1987 Disk 1607

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
	1	PH 9.800					Brazil II warm dark
	2	PH 0.500					
	3	PH 1.000					
	4	PH 1.500					
	5	PH 2.500					
	6	PH 4.000					
	7	PH 6.000					
	8	PH 0.700					
15-16 June	9	PH 0.700					Optonics 310 at 3.1 500nm
	10	PH 1.000					cold
	11	PH 1.500					
	12	PH 2.500					
	13	PH 4.000					
	14	PH 8.000					
	15	DK 8.000					
	16	PH 0.700					with ORO timing board
17	PH 0.000					with Optonics 310 aligned	
18	PH 1.500					with UPS or Retem & Tubes	
	19	PH 2.500					
	20	PH 4.000					
	21	DK 2.500					
	22	DK 1.000					
	23	DK 1.500					
16-17 June	24	PH 0.700					Front = 4.0 MCP = 2
	25	PH 1.000					New timing board
	26	PH 1.500					Brazil I cold
	27	PH 2.500					
	28	PH 4.000					
	29	PH 7.000					
	30						
	31						
	32						

Intensified Reticon

TO CAM 6/15

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300 P

Observer Andersen

Telescope 61"

Date June 14-15, 87 Disk ARO 1610

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
		2		+20°		3m	Dawn sky, on meridian.
		3			↑	60s	
		4				120 ^{MIN}	
		5				120 ^{MIN}	
4/5-16		6			↓	60s	
		7		+30		2+ ^{hr}	
		8			↑	60s	
		9			↓	60s	6563A°
		10	13 17 17	45 47		10 ^{hr}	SALLY
		11			↑	60s	
		12			↓	60s	5127
		13	13 34 07	12 24		5 ^{hr}	HA 40
		14			↑	60s	
		15			↓	60s	
		16	13 22 10	15 07		20 ^{hr}	
		17			↑	60	
		18			↓	60 ²⁰	
		19	15 58 22	45 53		13 ^{hr}	
		20			↑	60	
		21			↓	60	
		22	15 07 29	-16 08		5 ^{hr}	
		23			↑	60	
		24	15 07 28	-16 13		8 ^{hr}	
		25			↑	60	
		26			↓	60	
50		27	15 49 48	05 26		11 ^{hr}	
		28			↑	60	
		29			↓	60	
		30	16 17 43	22 46		16 ^{MAX}	11.5/20
		31			↑	60s	
		32			↓	60s	

SUBTRACT
1 HR FROM
CLOCK



Intensified Reticon

TO CAM 6/15

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300

Observer GS

Telescope 61" WYETH

Date JUNE 15-16 1987

Disk ORD 1611

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
	1	G168-22	15:59:08	23:13:00	↑	6 MIN	10.6/15 HALOS
	2	TH-AR			↑	60 ^s	
	3	TH-AR			↓	60 ^s	
	4	S102213	16:27:55	11:06:24		2 1/2 MIN	9.0/20
	5	TH-AR			↑	60 ^s	
	6	TH-AR			↓	60 ^s	
	7	G180-66	16:37:47	34:22:30		10 MIN	11.0/20
	8	TH-AR			↑	60 ^s	
	9	TH-AR			↓	60 ^s	
	10	G169-44	17:03:06	28:06:18		15 MIN	11.7/15
	11	TH-AR			↑	60 ^s	
	12	TH-AR			↓	60 ^s	
	13	S660050	17:24:48	31:06:00		3 MIN	11.5/15 "SW ON TV SCREEN"
	14	TH-AR			↑	60 ^s	
	15	TH-AR			↓	60 ^s	
	16	G181-43	17:22:14	37:19:42		2 MIN	8.9/15
	17	TH-AR			↑	60 ^s	
	18	TH-AR			↓	60 ^s	
	19	G188-43	18:09:47	32:10:00		10 MIN	11.1/15
	20	TH-AR			↑	60 ^s	
	21	TH-AR			↓	60 ^s	
	22	(Z)	15:36:31	26:10:33		3 MIN	9.5/ ASTEROID
	23	TH-AR			↑	60 ^s	
	24	TH-AR			↓	60 ^s	
	25	GL 628	16:27:31	-12:32:18		15 MIN	10.1/ (ALSO U347) NEARBY
	26	TH-AR			↑	60 ^s	
	27	TH-AR			↓	60 ^s	
	28	USGR	18:28:57	-19:09:42		3 MIN	7.1/ (Ø 131.3) THIN CLDS CEPH ← FORGOT PAST
	29	TH-AR			↑	60 ^s	
	30	TH-AR			↓	60 ^s	
	31	H171496	18:33:04	-24:28:42		5 MIN	8.5/30 HALOS
	32	TH-AR			↑	60 ^s	

SUBTRACT
THIS ON 2000
↕

Intensified Reticon

TO CAM 6/15

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300 L

Observer GS

Telescope 61" WYETH

Date JUNE 15-16 1987

Disk ORD 1612

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	TH-AR		↓	60 ^s	5187A 80 μ SLIT
		2	5187556	18:57:03	-23:07:51	4 1/2 ^{MIN}	8.8/20 HALOS
		3	TH-AR		↑	60 ^s	
		4	TH-AR		↓	60 ^s	
		5	5187970	19:16:31	-20:31:06	6 ^{MIN}	9.5/15
		6	TH-AR		↑	60 ^s	
		7	TH-AR		↓	60 ^s	
		8	SV VUL	19:49:28	27:19:53	2 ^{MIN}	7.8/ CEFH
		9	TH-AR		↑	60 ^s	
		10	TH-AR		↓	60 ^s	
		11	G23-1	19:25:55	13:53:54	2 ^{MIN}	8.9/15 HALOS
		12	TH-AR		↑	60 ^s	
		13	TH-AR		↓	60 ^s	
		14	587333	19:30:29	26:17:05	9 ^{MIN}	9.3/100
		15	TH-AR		↑	60 ^s	
		16	TH-AR		↓	60 ^s	
		17	1184499	19:31:35	33:05:21	2 ^{MIN}	6.6/30
		18	TH-AR		↑	60 ^s	
		19	TH-AR		↓	60 ^s	
		20	G23-6	19:32:33	11:18:48	2 ^{MIN}	7.9/20
		21	TH-AR		↑	60 ^s	
		22	TH-AR		↓	60 ^s	
		23	+014042	19:33:12	01:37:12	6 ^{MIN}	10.0/15
		24	TH-AR		↑	60 ^s	
		25	TH-AR		↓	60 ^s	
		26	G92-23	19:40:02	08:02:00	3 ^{MIN}	8.9/20
		27	TH-AR		↑	60 ^s	
		28	TH-AR		↓	60 ^s	
		29	5105417	19:52:47	10:36:15	3 ^{MIN}	8.8/30
		30	TH-AR		↑	60 ^s	
		31					
		32					

Intensified Reticon TO CAM 6/16

Spectrograph ECHELLE Log Sheet RAW/RET

Grating 300l Observer G^s

Telescope 61" WYTH Date JUNE 15-16 1987 Disk ORO 1613

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

 RA Dec ↑/↓

1	TH-AR			↓	60 ^s	5187A 80μ SLIT
2	G92-39	19:53:40	04:10:18		3 MIN	9.1/15 VIALOS
3	TH-AR			↑	60 ^s	
4	TH-AR			↓	60 ^s	
5	H213014	22:25:45	17:00:28		2 MIN	7.7/ IAU STND
6	TH-AR			↕	60 ^s	
7	Z13014B	"	"		3 MIN	WATCH DAWN CREEP
8	TH-AR			↑	60 ^s	
9	TH-AR			↓	60 ^s	
10	SKYDUNE	4 HRS HA	+25°		2 MIN	THIN CLDS
11	TH-AR			↑	60 ^s	
12	TH-AR			↓	60 ^s	
13	SKYDWNM	0 HRS HA	+25°		2 MIN	
14	TH-AR			↑	60 ^s	
15	TH-AR			↓	60	
16	134193	15 06 12	-11 36		20 ^h	FSTAR
17	TH-AR			↑	60	
18	TH-AR			↓	60	
19	135282	15 11 49	-05 46			
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

6/16/87

Spectrograph ECHELLE Intensified Reticon TO CAM
 Log Sheet RAW/RET
 Grating _____ Observer D. W. LaTham
 Telescope Wyeth Date 16-17 June 1987 Disk ORO 1614

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	PH 0.700				Brazil I
		2	PH 0.000				ORO Board
		3	PH 1.500				old
		4	PH 2.500				Front 4.0V MCP 2
		5	PH 4.000				Optimis 310 at 3.1
		6	PH 6.000				500 nm 109.7 cm
		7	PH 0.700				New Board
		8	PH 1.000				
		9	PH 1.500				
		10	PH 2.500				
		11	PH 4.000				
		12	PH 6.000				
		13	DK 1.000				
		14	DK 2.500				
		15	DK 1.500				
		16					
		17					
		18					
		19					
		20					
		21					
		22					
		23					
		24					
		25					
		26					
		27					
		28					
		29					
		30					
		31					
		32					

TO CAM 6/16

Spectrograph ECHELLE Intensified Reticon
 Log Sheet
 Grating 300L Observer Jan
 Telescope SH Date 6/16-17/87 Disk ORO 1614

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

Change....	File	ID	1950.0 RA	Dec	L/R	Exposure	Comments
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16	TH-AR				↓	60 ^s	
17	134193	15 06 12	-11 36			20 ^s	FSIAR
18	TH-AR				↑	60 ^s	
19	TH-AR				↓	60 ^s	
20	135282	15 11 49	-05 46			20	
21	TH-AR				↑	60 ^s	
22	135282	"	"			20	
23	TH-AR				↑	60	
24	135282	"	"			20	
25	TH-AR				↑	60	
26	135809	15 14 38	-04 00			6 ¹ / ₂	
27	TH-AR				↑	60	
28	TH-AR				↓	60 ^s	
29	150017	16:27:05	-08:20:39			20 ^m / _v	7.4/400 (PASS CLDS)
30	TH-AR				↑	60 ^s	
31							
32							

Intensified Reticon

TO CAM 6/16

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 3000

Observer GS

Telescope 61" WYETI

Date JUNE 16-17 1957

Disk ORD 1514

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60 ^s	5187 A 80 μ SLIT
		2	151783	16:46:52	00:58:35	15 MIN	7.2/ F STAR
		3			↑	60 ^s	
		4			↓	60 ^s	
		5	154945	17:06:10	-05:07:42	17 MIN	8.4/
		6			↑	60 ^s	
		7			↓	60 ^s	
		8	155714	17:10:34	07:48:22	3 MIN	6.8/
		9			↑	60 ^s	
		10			↓	60 ^s	
		11	156458	17:15:05	01:47:42	5 MIN	6.7/
		12			↑	60 ^s	
		13			↓	60 ^s	
		14	156539	17:15:34	03:11:53	7 MIN	6.7/
		15			↑	60 ^s	
		16			↓	60 ^s	
		17	160295	17:36:27	02:41:08	15 MIN	7.7/
		18			↑	60 ^s	
		19			↓	60 ^s	
		20	169309	18:21:31	01:28:17	20 MIN	7.9/
		21			↑	60 ^s	
		22			↓	60 ^s	
		23	(1)	17:54:42	-25:35:36	3 MIN	8.1/ ASTEROID
		24			↑	60 ^s	
		25			↓	60	
		26	U SGR	18:28:57	-19:09:42	3 MIN	7.1/ (φ 185.9) CEPH.
		27			↑	60 ^s	
		28			↓	60 ^s	
		29	SV VUL	19:49:28	27:19:53	3 MIN	7.8/ (φ 24.9)
		30			↑	60 ^s	
		31					
		32					

Intensified Reticon

TO CAM 6/16

Spectrograph ECHELLE

Log Sheet

RAWRET

Grating 300

Observer GS

Telescope 6" WYETH

Date JUNE 16-17 1987

Disk ORO 1616

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60 ^s	5187A .80 μ SLIT
		2	185661	19:37:17	22:08:26	10 ^{MIN}	7.2/ F STAR
		3			↑	60 ^s	
		4			↓	60 ^s	
		5	G140-44	18:09:14	14:54:06	14 ^{MIN}	11.5/15 HALO
		6			↑	60 ^s	
		7			↓	60 ^s	
		8	G25-15	21:01:37	02:48:00	2 ^{MIN}	9.3/50
		9			↑	60 ^s	
		10			↓	60 ^s	
		11	G18-28	22:03:14	12:08:18	5 ^{MIN}	9.5/30
		12			↑	60 ^s	
		13			↓	60 ^s	
		14	G127-33	22:25:40	24:41:00	4 ^{MIN}	9.9/15
		15			↑	60 ^s	
		16			↓	60 ^s	
		17	G67-38	22:56:49	11:55:36	2 ^{MIN}	8.3/30
		18			↑	60 ^s	
		19			↓	60 ^s	
		20	Z13014B	22:25:46	17:00:28	6 ^{MIN}	9.0/ IAU STAND
		21			↕	60 ^s	
		22	H213014	"	"	2 ^{MIN}	7.7/ IAU STAND
		23			↑	60 ^s	
		24			↓	60 ^s	
		25	X-CYG	20:41:27	35:24:24	2 ^{MIN}	6.4/ (φ 72.5) CEPH
		26			↑	60 ^s	
		27			↓	60 ^s	
		28	SKYDWN E	4 ^{HRS} EAST HA	+25°	3 ^{MIN}	
		29			↑	60 ^s	
		30			↓	60 ^s	
		31	SKYDWN M	0 ^{HRS} HA	+25°	2 ^{MIN}	
		32			↑	60 ^s	

Intensified Reticon

TO CAM 6/17

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300R

Observer GS/Morsey, MDP

Telescope 6" WYETH

Date JUNE 16-17 1987

Disk ORO 147

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	INCANDS			120 MIN	5187A 80μ slit
		2	INCANDS			120 MIN	
		3	INCANDS			120 MIN	
6/17-18		4	TH-AR		↓	60s	
21		5	H114726	13:09:54	17:46:55	3m	seeing bad. IAU
		6	TH-AR		↑	60s	
		7	TH-AR		↓	60s	
		8	H136202	15:16:45	01:57:11	2m	IAU
		9	TH-AR		↑	60s	
		10	TH-AR		↓	60s	
		11	H146051	16:11:43	-03:34:01	3m	IAU
		12	TH-AR		↑	60s	
		13	TH-AR		↓	60s	
		14	(2)	15:35:28	26:02:03	4m	Asteroid
		15	TH-AR		↑	60s	
		16	TH-AR		↓	60s	
		17	654-32	12:37:37	21:05:12	12m	Halo
		18	TH-AR		↑	60s	
		19	TH-AR		↓	60s	
		20	H102495	12:56:49	09:30:42	12m	Halo 9.72
		21	TH-AR		↑	60s	
		22	TH-AR		↓	60s	MDP in hot seat!
		23	G123-9	12:08:25	44:16:54	8m	HALOS 10.5
		24	TH-AR		↑	60s	
		25	TH-AR		↓	60s	
		26	G178-56	14:53:12	43:13:42	15m	HALO 11.94 ← did this (no chart) LID OK?
		27	TH-AR		↑	60s	
		28	TH-AR		↓	60s	
		29	G202-25	15:58:22	45:52:48	8m	11.1
		30	TH-AR		↑	60s	
		31					
		32					

6/17 TO CAM

Spectrograph ECHELLE

Intensified Reticon

Log Sheet

RAW RET

Grating 300L

Observer JAM MDP

Telescope 61"

Date June 18-18 1947

Disk ORO 1618

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60S	
		2	5101380	15:05:06	17:38:30		12m 9.2 HALO
		3			↑	60S	
		4			↓	60S	
		5	H135148	15:10:55	12:38:36		4m 9.5 HALO
		6			↑	60S	
		7			↓	60S	
		8	+013070	15:20:08	01:26:30		12m 9.5 HALO
		9			↑	60S	
		10			↓	60S	
		11	U SGR	18:28:57	-19:09:42		3m 7.0 CEPH
		12			↑	60S	
		13			↓	60S	
		14	G169-13	16:27:49	30:48:06		5m 10.2 HALO
		15			↑	60S	
		16			↓	60S	
		17	G182-7	17:23:01	38:04:54		4m 8.1 HALO
		18			↑	60S	
		19			↓	60S	
		20	G170-47	17:30:38	23:46:18		10m 9.1 HALO
		21			↑	60S	
		22			↓	60S	
		23	S162947	19:42:21	-17:37:42		5m 9.2 HALO
		24			↑	60S	
H-α		25			↓	60S	
		26	PCYG	20:15:57	37:52:36		8m 4.8 H-α (1.0ND(4))
		27			↑	60S	
		28			↓	60S	
		29	LAM AND	23:35:06	46:11:14		5m 3.9 H-α (1.0ND(4))
		30			↑	60S	
		31					
		32					

Intensified Reticon

TO CAM 6.19

Spectrograph ECHELLE Log Sheet RAW/RET

Grating 3000 Observer GS/JAMI MDP

Telescope 61" Wyeth Date 6/17-18/87 Disk OKO 1619

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	TH-AR			60s	(JUNK)
		2	TH-AR		↓	60s	yawn...
		3	SKYDOME	4 ^h E HA	+25	2m	
		4	TH-AR		↑	60s	
		5	TH-AR		↓	60s	
		6	SKYDOME	ZENITH	+20	2m	
		7	TH-AR		↑	60s	
		8	INCANOS			120m	
		9	INCANOS				
		10	PH0.700			100s	Son of Red Hot
		11	PH1.000				Optonics 600um 109.7cm
		12	PH1.500				2,1 cooled.
		13	PH2.500				3.8V front, MCP = 1
		14	PH4.00				
		15	PH6.00				
		16	PH0.700				Remounted Reticon
		17	PH1.000				counts went up ~ 2x
		18	PH1.500				500 nm with blue filter
		19	PH2.500				3.6V front, MCP = 1
		20	PH4.000				
		21	PH6.000				
		22	PH9.800				
		23	PH8.00				
		24	ABS400				
		25	ABS450				
		26	ABS500				
		27	ABS600				
		28	ABS650				ABS 650
		29	ABS700				ABS 720
		30	ABS800				
		31	ABS900				
		32					

Intensified Reticon

TO CAM 6.19

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 3000

Observer GS, MOP

Telescope 61" Wyeth

Date 16/18/87

Disk ORO 1620

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	DK 2.500			500s	
		2	DK 1.000			500s	
		3	DK 1.500			500s	
		4	DK 2.500			500s	
		5	Bar			22m	
		6	Th-Ar		↓	60s	
		7	S04328	10:16:21	48:38:52	2.5m	6.1/100 Mstars
		8	Th-Ar		↓	60s	
		9	G15 380	10:08:13	49:42:09	2m	6.6/100 Mstar
		10	Th-Ar		↑	60s	
		11	Th-Ar		↓	60s	
		12	S043396	10:32:32	45:54:46	3m	7.5/100 Mstar.
		13	Th-Ar		↓	60s	
		14	G15 397	10:28:25	45:47:06	8m	8.9/40 Mstar
		15	Th-Ar		↑	60s	
		16	Th-Ar		↓	60s	
		17	G15 644A	16:52:46	-08:15:17	12 min	9.1/50 Mstar
		18	TH-AR		↑	60s	
		19	TH-AR		↓	60s	
		20	(2)	15:34:56	25:57:10	5 min	9.5/ ASTEROID
		21	TH-AR		↑	60s	→ Nova crashed 2X ←
		22	G19-27	17:28:49	-02:30:06	2 min	8.1/20 Halo
		23	TH-AR		↑	60s	
		24	TH-AR		↓	60s	
		25	G15 415	17:44:43	-08:45:30	20 min	10.6/50
		26	TH-AR		↑	60s	
		27	TH-AR		↓	60s	
		28	S160955	17:55:50	-13:05:02	3 min	9.6/15
		29	TH-AR		↑	60s	
		30					
		31					
		32					

6/18-19

Intensified Reticon

TO CAM 6.19

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 3000

Observer CS/MDC

Telescope 61" WYETH

Date JUNE 18-19 1987

Disk ORD 1171

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60 ^s	5187A - 80/15
		2	G140-53	18:15:25	05:25:54	6 min	10.9/15 HALO
		3	TH-AR		↑	60 ^s	
		4	TH-AR		↓	60 ^s	
		5	SV VUL	19:49:28	27:19:53	2 min	7.8/
		6	TH-AR		↑	60 ^s	
		7	TH-AR		↓	60 ^s	
		8	Z LAC	22:38:53	56:34:05	2 1/2 min	8.9/
		9	TH-AR		↑	60 ^s	
		10	TH-AR		↓	60 ^s	
		11	G190-10	23:05:39	41:35:12	12 min	11.2/20 HALO
		12	TH-AR		↑	60 ^s	
		13	TH-AR		↓	60 ^s	
		14	G190-20	23:10:20	43:49:18 43:49:47	2 min	7.3/20 HALO
		15	TH-AR		↑	60 ^s	
		16	TH-AR		↓	60 ^s	
		17	H1213014	22:25:45	17:00:28	2 min	7.7/
		18	TH-AR		↑	60 ^s	LOW STND
		19	213014B	22:25:46	7:00:28	4 1/2 min	9.2/
		20	TH-AR		↑	60 ^s	LOW STND
		21	TH-AR		↓	60 ^s	
		22	S90296	22:08:38	24:14:30	2 min	8.6/20 HALO
		23	TH-AR		↑	60 ^s	
		24	TH-AR		↓	60 ^s	
		25	G127-12	22:13:35	24:40:48	2 min	8.9/15 HALO
		26	TH-AR		↑	60 ^s	
		27	TH-AR		↓	60 ^s	
		28	G127-43	22:36:22	25:18:36	4 min	10.0/15 HALO
		29	TH-AR		↑	60 ^s	telescope slanted for 5 sec
		30	TH-AR		↓	60 ^s	
		31	G216-45	23:25:02	49:59:12	8 min	10.1/15 HALO
		32	TH-AR		↑	60 ^s	

Intensified Reticon

TO CAM 6/19

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300

Observer GS / MDP

Telescope 61" WYETH

Date JUNE 18-19 1967

Disk ORO 1622

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60 ^s	5187.A SO4 SLIT
	G130-32	2	23:57:31	33:54:42		2 ^{min}	8.9/20 HALO
	TH-AR	3			↑	60 ^s	
	TH-AR	4			↓	60 ^s	
	G12942	5	23:52:30	20:06:24		2 ^{min}	8.9/20 HALO
	TH-AR	6			↑	60 ^s	
	TH-AR	7			↓	60 ^s	
	G29-20	8	23:15:28	08:48:12		2 1/2 ^{min}	9.2/20 HALO
	TH-AR	9			↑	60 ^s	
	TH-AR	10			↓	60 ^s	
	SKYDUNE	11	4 ^{hrs} E HA	+25°		3 ^{min}	PTLY CLOUDY
	TH-AR	12			↑	60 ^s	
	TH-AR	13			↓	60 ^s	
	SKYDUNUM	14	0 HR HA			3 ^m	
	TH-AR	15			↑	60 ^s	
	INCANDS	16				120 ^{min}	
	INCANDS	17				120 ^{min}	
	INCANDS	18				120 ^{min}	
	INCANDS	19				120 ^{min}	
6/19-20	TH-AR	20			↓	SKYDUNE 60 ^s	
	SKYDUNE	21				60 ^s	
	TH-AR	22			↑	60 ^s	
	TH-AR	23			↓	60 ^s	
	SKYDUNE	24				2 ^m	
	TH-AR	25			↑	60 ^s	
	TH-AR	26			↓	60 ^s	
	H89449	27	10:17:01	19:43:31		2 ^m	4.8/ IAU
	TH-AR	28			↑	60 ^s	
	TH-AR	29			↓	60 ^s	
	W31640	30	12:57:53	31:03:16		2 ^m	4.8/ SA57
	TH-AR	31			↑		
		32					

Intensified Reticon

TO CAM 6/20

Spectrograph ECHELLE

Log Sheet

RAWRET

Grating 3002

Observer RJD, MDP

Telescope 61" Wyeth

Date 6/19-20/87

Disk ORO 1625

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

1		TH Ar			↓	60 ^s	
2		SKYDOME				3 ^m	3" E, +25°
3		TH Ar			↑	60 ^s	
4		TH Ar			↓	60 ^s	
5		SKYDOME				2 ^m	+25°, Meridian
6		TH Ar			↑	60 ^s	
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							

7/4

Intensified Reticon

TO CAM

Spectrograph ECHELLE

Log Sheet

RAW RET

Grating _____

Observer D.W. Latham

Telescope Wyeth

Date 21 June 1987

Disk ORO 1626

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
	1	PH0.500					ORO intensifiers & boards
	2	PH0.700					Optanis 310 @ 600nm
	3	PH1.000					110 cm 2.1
	4	PH1.500					4.2V MCP = 4
	5	PH2.500					
	6	PH4.000					
	7	ABS 310					filter ↓
	8	ABS 400					
	9	ABS 450					
	10	ABS 500					filter ↑
	11	ABS 600					no filter ↓
	12	ABS 650					
	13	ABS 720					
	14	ABS 800					
	15	ABS 900					
	16	DK1300					
	17						
	18						
	19						
	20						
	21						
	22						
	23						
	24						
	25						
	26						
	27						
	28						
	29						
	30						
	31						
	32						

7/4

Intensified Reticon TO CAM
 Spectrograph ECHELLE Log Sheet RAW/RET
 Grating 300L 1987 Observer GS MDR JAM
 Telescope Wyath Date 30 June - 1 July Disk ORO 1627

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	TH-AR		↓	60s	
		2	SKY	4W	+24	2m	
		3	TH-AR		↑	60s	This night washed out, repeatedly!
		4	TH-AR		↓	60s	
		5	SKY	OHA	+35	4m	
		6	TH-AR		↑	60s	
		7	TH-AR	OHA	+43	2 ^{MIN}	938 cross dispersion Flux tests
		8	TH-A	OHA	-20	2 ^{MIN}	939.1 " " Flux
		9	TH-A ₁	4WHA	0	2m	936.3 Flux
		10	TH-A ₁	4EHA	0	2m	943.5 Flux
		11	TH-A ₁	OHA	+43	2m	938 - so is irreproducible
		12	TH-AR	4WHA		60s	
		13	SKYEVEN	ZENITH	+40	2m	
		14	TH-AR		↑	60s	high clouds...
		15	TH-AR		↓	60s	
		16	SKYEVEN	4HRS.W	+40	2m	
		17	TH-AR		↑	60s	
		18	TH-AR		↓	60s	
		19	1114762	3:09:54	17:46:55	3m	7.3 IAU
		20	TH-AR		↑	60s	
		21	TH-AR		↓	60s	
		22	559-32	12:37:37	21:05:12	8m	9.0 HALO
		23	TH-AR		↑	60s	
		24	TH-AR		↓	60s	
		25	1102495	12:56:49	09:30:42	10m	9.7 HALO
		26	TH-AR		↑	60s	
		27	TH-AR		↓	60s	
		28	560-47	7:52:44	08:06:12	6m	9.9 HALO
		29	TH-AR		↑	60s	
		30					
		31					
		32					

7/1 7/2

JULY 4/5