

Intensified Reticon TO CAM 5/2

Spectrograph ECHELLE Log Sheet RAW RET 11

Grating 300L Observer GS

Telescope 61" WYETH Date APR 30 - MAY 1 86 Disk ORD-1002

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	90 ^s	5187A 80 μ SLIT
		2	S101299	14:54:51	16:35:19	9 ^{MIN}	5.8/100 (FOG) M STAR
		3	TH-AR		↑	90 ^s	"HOLD" NY FOG
		4	TH-AR		↓	90 ^s	
		5	SKY-DRAW			6 ^{MIN}	(0416)
		6	TH-AR		↑	90 ^s	
		7	INCAND			120 ^{MIN}	
		8	INCAND			120 ^{MIN}	
		9	INCAND			120 ^{MIN}	
MAY 1-2		10	TH-AR		↓	90 ^s	5187A 80 μ SLIT
		11	G14736	11:14:34	29:50:36	5 ⁿ 32 ^{SEC}	9.7/15 HALOS
		12	TH-AR		↑	90 ^s	
		13	TH-AR		↓	90 ^s	
		14	S138815	12:27:09	-3:02:57	3 1/2 ^{MIN}	9.0/15
		15	TH-AR		↑	90 ^s	
		16	TH-AR		↓	90 ^s	
		17	G6047	12:52:44	08:06:12	6 ^{MIN}	9.9/20
		18	TH-AR		↑	90 ^s	
		19	TH-AR		↓	90 ^s	
		20	+102495	12:56:49	09:30:42	7 ⁿ 03 ^s	9.7/30
		21	TH-AR		↑	90 ^s	
		22	TH-AR		↓	90 ^s	
		23	+182575	13:34:07	18:24:24	5 ^{MIN}	9.8/20
		24	TH-AR		↑	90 ^s	
		25	TH-AR		↓	90 ^s	
		26	H114762	13:09:54	17:46:55	3 ^{MIN}	7.3 IAU STD
		27	TH-AR		↑	90 ^s	
		28	TH-AR		↓	90 ^s	
		29	G135-16 G150-50	14:01:42 18:54:27	22:46:00 25:47:21	4 ^{MIN}	10.2/15 HALOS
		30	TH-AR		↑	90 ^s	
		31					
		32					

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Spectrograph ECHELLE Intensified Reticon TO CAM1
 Grating 300L Log Sheet RAWRET 11
 Telescope 61 WYETH Date MAY 23 1983 Disk ORO 1004
 Observer G^s

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	90 ^s	5187A 80μ SLIT
	GL ₂ 572		14:59:10	45:37:21		4 MIN	9.1/30 M STARS
		3			↑	90 ^s	
		4			↓	90 ^s	
	S101758		15:47:12	12:42:34		2 MIN	6.7/100
		6			↕	90 ^s	
	GL ₂ 600		15:49:45	11:01:25		6 MIN	9.4/30
		8			↑	90 ^s	
		9			↓	90 ^s	
	GL ₂ 638		16:43:14	33:35:54		4 MIN	8.1/50
		11			↕	90 ^s	
	S065595		16:48:50	32:38:14		2 MIN	6.3/100
		13			↑	90 ^s	
		14			↓	90 ^s	
	SKY DWN					6 MIN	(MOSTLY CLOUDY)
		16			↑	90 ^s	
	INCANDS					120 MIN	
	INCANDS					120 MIN	
	INCANDS					120 MIN	
MAY 2-3		20			↓	90 ^s	5187A 80μ SLIT
	SKY DSK					5 ^m	Cloudy
	TH AR				↑	90 ^s	
	TH AR				↓	90 ^s	Clearing
	H89449		10:17:01	19:45:31		2 ^m	IAU RV SID
	TH AR				↑	90 ^s	
	TH AR				↓	90 ^s	Clear
	G147-36		11:14:34	29:50:36		2 ^m	Halo Binaries
	TH AR				↑	90 ^s	
	TH AR				↓	90 ^s	
	S139010		12:49:38.2	-00:39:39		5 ^m	M Stars
	TH AR				↕	90 ^s	
		32					

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TO CAM

Spectrograph ECHELLE Intensified Reticon
 Grating 300L Log Sheet
 Telescope 61" Wyeth Date 2-3 May 86 Observer RAW RET 11
 Disk ORO 1005

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments	
		1	G15 488	12:48:10	-00:29:42		5 ^m	M Stars
		2	Th Ar			↑	90 ^s	
		3	Th Ar			↓	90 ^s	
		4	5043627	11:06:51	43:28:44		2 ^m	M Stars
		5	Th Ar			↑↓	90 ^s	
		6	G15 412A	11:02:43	43:47:39		4 ^m	M Stars
		7	Th Ar			↑	90 ^s	
		8	Th Ar			↓	90 ^s	
		9	5043396	10:31:31.2	45:54:46		2 ^m	M Stars
		10	Th Ar			↑↓	90 ^s	
		11	G15 397	10:28:25	45:47:06		4½ ^m	M Stars
		12	Th Ar			↑	90 ^s	
		13	Th Ar			↓	90 ^s	
		14	G15 338A	09:10:52	52:53:43		4 ^m	M Stars
		15	Th Ar			↑↓	90 ^s	
		16	G15 338B	09:10:54	52:53:46		4½ ^m	M Stars
		17	Th Ar			↑	90 ^s	
		18	Th Ar			↓	90 ^s	
		19	W11450	13:08:51.1	31:05:32		12½ ^m	SA 57 ↓
		20	Th Ar			↑↓	90 ^s	
		21	W13233	13:09:52.8	30:14:29		2½ ^m	
		22	Th Ar			↑↓	90 ^s	
		23	W13777	13:11:18.8	30:02:42		2 ^m	
		24	Th Ar			↑↓	90 ^s	
		25	W13784	13:11:20.2	30:04:58		2 ^m	
		26	Th Ar			↑↓	90 ^s	
		27	W13781	13:11:22.7	30:03:52		5½ ^m	
		28	Th Ar			↑↓	90 ^s	
		29	W11277	13:10:47	31:10:13		8 ^m	
		30	Th Ar			↑↓	90 ^s	
		31	W21656	13:03:31.9	31:18:02		12 ^m	
		32						

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Spectrograph ECHELLE Intensified Reticon TO CAM
 Grating 300L Log Sheet RAW/RET 11
 Telescope 61" Wyeth Date 2-3 May 86 Observer RJD
 Disk ORO 1006

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		ThAr			↓	90 ^s	
	H136202		15:16:45.4	01:57:12		3 ^m	IAU RV std. Clouds
		ThAr			↑	90 ^s	
		ThAr			↓	90 ^s	
	W41153		13:08:27	28:55:58		9 ^m	SA 57 ↓ - Clearing
		ThAr			↑↓	90 ^s	
	W42984		13:09:45.1	28:27:08		7 ^m	
		ThAr			↑↓	90 ^s	
	W44437		13:09:34.3	28:06:23		15 ^m	Clear Again
		ThAr			↑↓	90 ^s	
	W44694		13:07:45.5	28:10:58		6 ^m	
		ThAr			↑↓	90 ^s	
	W61034		12:57:51.3	28:54:38		10 ^m	
		ThAr			↑↓	90 ^s	
	W41099		13:07:46.6	28:51:21		11 ^m	
		ThAr			↑↓	90 ^s	
	W41545		13:12:17.1	28:57:26		9 ^{1/2} ^m	
		ThAr			↑↓	90 ^s	
	W42192		13:13:42.5	28:40:13		12 ^m	
		ThAr			↑	90 ^s	
		ThAr			↓	90 ^s	
	G141-47		18:50:55	10:33:48		10 ^{1/2} ^m	Italo Binaries
		ThAr			↑	90 ^s	
		ThAr			↓	90 ^s	
	G140-53		18:15:25	05:25:54		6 ^{1/2} ^m	
		ThAr			↑	90 ^s	
		ThAr			↓	90 ^s	
	G142-2		18:59:36	15:59:36		4 ^m	
		ThAr			↑	90 ^s	
		ThAr			↓	90 ^s	
	G92-19		19:36:38	-2:43:30		6 ^{1/2} ^m	
		ThAr			↑	90 ^s	

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TO CAM

Spectrograph ECHELLE Intensified Reticon
 Grating 300L Log Sheet
 Telescope 61" Wyeth Date 3-4 May 86 Observer RPS
 Disk ORO 1408

Change....	File	ID	RA	1950.0 Dec	L/R ↑/↓	Exposure	Comments
		1	Th-Ar		↓	90s	
	G114-26	φ8:56:39	-φ3:49:36			15m	9.7/5φ
		3	Th-Ar		↑	90s	
		4	Th-Ar		↓	90s	
	G41-34	φ9:2φ:φ6	11:29:φ6			4m	9.6/15
		6	Th-Ar		↑	90s	
		7	Th-Ar		↓	90s	
	G147-36	11:14:34	29:5φ:36			3m	9.3/15
		9	Th-Ar		↑	90s	
		10	Th-Ar		↓	90s	
	H106516	12:12:36	-1φ:φ1:14			2m	6/20
		12	Th-Ar		↑	90s	
		13	Th-Ar		↓	90s	
	G63-27	13:22:1φ	15:φ7:φ4			18m	11.1/20
		15	Th-Ar		↑	90s	
		16	Th-Ar		↓	90s	
	W1145φ	13:φ9:41	32:21:φ1			13m	7/100 SAS7
		18	Th-Ar		↑	90s	
		19	Th-Ar		↓	90s	
	W11449	13:φ9:41	32:21:φ1			8m	9.4/15
		21	Th-Ar		↑	90s	
		22	Th-Ar		↓	90s	Λ
	(6)	12:54:36	14:09:34			15m	10.9 Asteroid - not sure if this is the asteroid -
		24	Th-Ar		↑	90s	
		25	Th-Ar		↓	90s	
	H114762	13:φ9:55	17:46:55			2m	7.3 IAU Standard
		27	Th-Ar		↑	90s	
		28	Th-Ar		↓	90s	
	G62-44	13:29:φ7	-φ2:φ3:54			2m	7.3/20 HALOS
		30	Th-Ar		↑	90s	
		31					
		32					

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Intensified Reticon

TO CAM

Spectrograph ECHELLE

Log Sheet

RAW RET 11

Grating 300L

Observer RPS

Telescope 61" Wyeth

Date 3-4 MAY 1986

Disk ORO 1409

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	90s	
	G65-22	2	13:59:16	φ9:10:18		20m	11.6/20
	Th-Ar	3			↑	90s	
	Th-Ar	4			↓	90s	
	S183φ72	5	14:56:59	-21:48:27		4m	8.6/20
	Th-Ar	6			↑	90s	clouds
	Th-Ar	7			↓	90s	
	H146φ51	8	16:11:43	-φ3:34:01		5m	2.7 1AU standard ND+2
	Th-Ar	9			↑	90s	(overcast)
	Th-Ar	10	18:50:55	10:33:48	↓	90s	
	S141-47	11	15:45:46	17:38:34		10m	9.2/20 10.5/30 (G141-47)
	Th-Ar	12			↑	90s	
	Th-Ar	13			↓	90s	
	H182572	14	19:22:35	11:50:14		2m	5.2 1AU standard
	Th-Ar	15			↑	90s	
	Th-Ar	16			↓	90s	
	SKY-DUN	17	stow			5m	
	Th-Ar	18			↑	90s	
	INCANDS	19				120 ^m	
	INCANDS	20				120 ^m	
	INCANDS	21				100 ^m	
		22					
		23					
		24					
		25					
		26					
		27					
		28					
		29					
		30					
		31					
		32					



Intensified Reticon

TO CAM 5/13

Spectrograph ECHELLE Log Sheet

Grating 300L Observer DM

Telescope SH Date 5/13-14/86 Disk OR6 1010

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	90 ^s	ZON. 5187A ⁰
		2				5 ^m	
		3			↑	90 ^s	
		4			↓	90 ^s	
		5	H81797	09 25 08	-08 26 29	5 ^m	IAU RV STAND NO=2
		6			↑	90 ^s	
		7			↓	90 ^s	
		8	(1)	10 44 38	21 29 37	3 ^m	ASTEROID STANDARD
		9			↑	90 ^s	
		10			↓	90 ^s	
		11	H92588	10 38 52	-01 28 42	3 ^m	IAU STANDARD
		12			↑	90 ^s	
		13			↓	90 ^s	
		14	TXCVEN	12 42 18	37 02 15	6 ^m	
		15			↑	90 ^s	
		16			↓	90 ^s	
		17	W11450	13 08 51	31 05 32	8 ^m	
		18			↑↓	90 ^s	
		19	W11449	13 08 51	31 05 34	5 ^m	
		20			↑	90 ^s	
		21			↓	90 ^s	
		22	W21939	13 04 52	31 03 24	6 ^m	
		23			↑↓	90 ^s	
		24	W31281	12 57 14	31 17 23	4 ^m	
		25			↑↓	90 ^s	
		26	W34927	13 00 04	30 00 20	16 ^m	
		27			↑	90 ^s	
		28	W40903	13 09 07	29 08 01	3 1/2 ^m	
		29			↑↓	90 ^s	
		30	W60267	12 59 32	29 17 39	8 ^m	BRIGHTER THAN 11.9 ??
		31			↑	90 ^s	
		32					

TO CAM 5/15

Intensified Reticon

Spectrograph ECHELLE Log Sheet RAW RET 11

Grating 300L Observer ra

Telescope 517 61" Date 5/13-14/86 Disk ORO 1011

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	90 ^s	5187A 20.2
		2	6147-36	11 14 34 29 50 36		22 ^m	
		3			↑	90 ^s	
		4			↓	90 ^s	
		5	5138815	12 27 10 -03 02 57		2 1/2 ^m	
		6			↑	90 ^s	
		7			↓	90 ^s	
		8	G65-22	13 59 16 09 10 12		8 ^m	
		9			↑	90 ^s	
		10			↓	90 ^s	
		11	U223	11 45 09 01 06 00		13 ^m	
		12			↑	90 ^s	
		13			↓	98 ^s	
		14	U240	12 30 55 09 17 44		20 ^m	
		15			↑	90 ^s	
		16			↓	90 ^s	
		17	U257	13:17:14 35:24:06		16 ^{MIN}	12.1/
		18			↑	90 ^s	
		19	U256	13:17:12 35:24:12		3 ^{MIN}	9.5/
		20			↑	90 ^s	
		21			↓	90 ^s	SYMBIOTIC STRAS
		22	V433HER	18:20:03 23:25:47		20 ^{MIN}	10.5/
		23			↑	90 ^s	
		24			↓	90 ^s	
		25	CH CYG	19:23:14 50:14:35		5 ^{MIN}	7.0/
		26			↑	90 ^s	
		27			↓	90 ^s	
		28	CI CYG	19:48:21 35:33:24		15 ^{MIN}	11.0/
		29			↑	90 ^s	
		30			↓	90 ^s	
		31	1016 CYG	19:55:20 39:41:30		8 ^{MIN}	10.0/
		32			↑	90 ^s	

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Spectrograph ECHELLE Intensified Reticon TO CAM
 Grating 3000 Log Sheet RAW/RET II
 Telescope 61" WYETH Date MAY 13-14 1986 Observer GS
 Disk ORO 1012

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	TH-AR		↓	90°	5187A 80μ slit
		2	NH-56E	19:39:41	16:37:36	10 ^{MIN}	11.0/SYMBIOTIC STARS
		3	TH-AR		↑	90°	
		4	TH-AR		↓	90°	
		5	RS OPH	17:47:31	-6°41:40	12 ^{MIN}	12.0/
		6	TH-AR		↑	90°	
		7	TH-AR		↓	90°	
		8	11-1223	18:49:19	-6°18:30	13 ^{MIN}	11.4/ M-11
		9	TH-AR		↑	90°	
		10	TH-AR		↓	90°	
		11	11- 926	18:48:26	-6°20:02	12 ^{MIN}	?
		12	TH-AR		↑	90°	
		13	TH-AR		↓	90°	
		14	AG PEG	21:48:36	12:23:27	5 ^{MIN}	8.5/ SYMBIOTIC STARS
		15	TH-AR		↑	90°	
		16	TH-AR		↓	90°	
		17	Z AND	23:31:15	49:03:32	6 ^{MIN}	10.0/
		18	TH-AR		↑	90°	
		19	TH-AR		↓	90°	
		20	G210-46	20:58:01	40:03:42	3 ^{MIN}	6.6/300 HALO BINARIES
		21	TH-AR		↑	90°	
		22	TH-AR		↓	90°	
		23	G130-32	23:57:31	33:54:42	2 ^{MIN}	8.5/20 DAWN CREEPING IN
		24	TH-AR		↑	90°	
		25	TH-AR		↓	90°	
		26	SKY DWN			6 ^{MIN}	(0500)
		27	TH-AR		↑	90°	
		28	INCAND			120 ^{MIN}	
		29	INCAND			120 ^{MIN}	
		30	INCAND			90 ^{MIN}	
		31					
		32					

Intensified Reticon

TO CAM 5/14

Spectrograph ECHELLE Log Sheet

Grating 300L Observer Don

Telescope STI Date 5/14-15/86 Disk 1013

Change....	File	ID	RA	Dec	1950.0 L/R ↑/↓	Exposure	Comments
		1			↓	90 ^s	80 ^u 5187
		2				5 ^{min}	
		3			↑	90 ^s	
		4			↓	90 ^s	
		5	H817917	09 25 08 -09 26 27		5 ^m	IAU STANN NO = 2
		6			↑	90 ^s	
		7			↓	90 ^s	
		8	(1)	10 45 12 21 21 13		5 ^m	ASTEROID STAIN
		9			↑	90 ^s	
		10			↓	90 ^s	
		11	W11450	13 08 51 31 05 32		10 1/2 ^m	
		12			↑↓	90 ^s	
		13	W11449	13 08 51 31 05 34		9 ^m	POOR L/R BALANCE
		14			↑↓	90 ^s	
		15	W12971	13 11 12 30 27 28		9 ^m	
		16			↑↓	90 ^s	
		17	W12966	13 11 04 30 27 38		13 ^m	
		18			↑↓	90 ^s	
		19	W34282	13 00 04 30 00 20		8 ^m	
		20			↑↓	90 ^s	
		21	W33435	12 59 50 30 18 39		5 ^m	
		22			↑↓	90 ^s	
		23	W33436	12 59 49 30 17 44		9 1/2 ^m	
		24			↑	90 ^s	
		25			↓	90 ^s	
		26	G59-5	12 10 56 23 32 36		3 ^m	
		27			↑	90 ^s	
		28			↓	90 ^s	
		29	G178-56	14 53 12 43 13 42		15 ^m	
		30			↑	90 ^s	
		31					
		32					

Intensified Reticon TO CAM 5/14

Spectrograph ECHELLE Log Sheet RAW RET 11

Grating 3000 300L Observer _____

Telescope 5H 6" Date 5/14-15/86 Disk ORO 1014

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	TH-AR		↓	90 ^s	5187A 20V
		2	G180-66	16 37.47	34 22.30	10 ^m	
		3	TH-AR		↑	90 ^s	
		4	TH-AR		↓	90 ^s	
		5	G208-29	19 30.32	47 28.54	13 ^m	
		6	TH-AR		↑	90 ^s	
		7	TH-AR		↓	90 ^s	
		8	G262-32	20 58.10	64 51	11 1/2 ^m	
		9	TH-AR		↑	90 ^s	
		10	TH-AR		↓	90 ^s	
		11	G230-45	20 38.54	54 02.18	19 ^{MIN}	11.4/20
		12	TH-AR		↑	90 ^s	
		13	TH-AR		↓	90 ^s	M STARS
		14	GLS 644A	16:52:46	-8°15:17	8 ^{MIN}	9.1/50
		15	TH-AR		↓	90 ^s	
→		16	GLS 643	16:52:43	-8°14:30	20 ^{MIN}	11.7/15
→		17	TH-AR		↓	90 ^s	
		18	GLS 643	"	"	10 ^{MIN}	11.7/
		19	TH-AR		↑	90 ^s	
		20	TH-AR		↓	90 ^s	HALOS
		21	G25-15	21:01:37	02:48:00	2 ^{MIN}	7.2/50
		22	TH-AR		↑	90 ^s	
		23	TH-AR		↓	90 ^s	
		24	GLS 62	22:09:06	17:51:12	20 ^{MIN}	9.4/100
		25	TH-AR		↑	90 ^s	
		26	TH-AR		↓	90 ^s	
		27	G190-10	23:05:39	11:35:12	17 ^{MIN}	11.2/20
		28	TH-AR		↑	90 ^s	
		29	TH-AR		↓	90 ^s	6563 A 80M SLIT
		30	LAM AND	23:36:52	16:22:56	15 ^{MIN}	3.9 1.0 ND FILTER Ha
		31	TH-AR		↑	90 ^s	
		32					

Intensified Reticon

TO CAM 5/15

Spectrograph ECHELLE

Log Sheet

RAW RET II

Grating 3002

Observer GS

Telescope 61" WYETH

Date MAY 14-15 1986

Disk ORD 1015

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	TH-AR		↓	90 ^s	6563 A 80 μ SLIT
		2	HD219291	23:15:56 29:29:57		8 1/2 ^{MIN}	6.5/500 GIANTS
		3	TH-AR		↑	90 ^s	
		4	TH-AR		↓	90 ^s	
		5	HD17926	23:01:29 06:20:48		10 ^{MIN}	6.2/500
		6	TH-AR		↑	90 ^s	
		7	TH-AR		↓	90 ^s	
		8	ALPHA AQR	22:03:13 -0°33:49		7 ^{MIN}	2.9/1000 H α ND 1.0 FILTER
		9	TH-AR		↑	90 ^s	
		10	TH-AR		↓	90 ^s	
		11	BETA AQR	21:28:56 -5°47:32		7 ^{MIN}	2.9/1000 ND 1.0 FILT.
		12	TH-AR		↑	90 ^s	
		13	TH-AR		↓	90 ^s	
		14	P CYG	20:15:57 37:52:36		5 ^{MIN}	4.8/1000 ND 1.0 FILT
		15	TH-AR		↑	90 ^s	
		16	TH-AR		↓	90 ^s	5187A 80 μ SLIT
		17	SKY-DWN			5 ^{MIN}	
		18	TH-AR		↑	90 ^s	
		19	INCANDS			120 ^{MIN}	
		20	"			"	
		21	INCAND			"	
5/15-16/ WRONG DATE, TIME		22	TH-AR		↓	90 ^s	
		23	SKY-EVE			5 ^s	
		24	TH-AR		↑	90 ^s	
		25	H81797	09 25 08 -08 26		7 ^m	ND = 2 FILTER IAN STAND
		26	TH-AR		↑	90 ^s	
		27	TH-AR		↓	90 ^s	
		28	(1)	10 45 48 21 12 41		5 ^m	ASTEROID RV STAND
		29	TH-AR		↑	90 ^s	
		30	TH-AR		↑	90^s	
		31	WYETH 23 08 51				
		32					

Intensified Reticon

TO CAM 5/15

Spectrograph ECHELLE

Log Sheet

RAW RET 11

Grating SH 61"

Observer

Telescope

Date

MAY/15-16/86

Disk

ORD 1016

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

Change....	File	ID	1950.0 RA	Dec	L/R	Exposure	Comments
		TH-AR				90s	
1		W11450	13 08 31	31 05 32		13m	
2		TH-AR			↑	90s	
3		W11450	13 08 50	31 05 31		8m	
4		TH-AR			↑	90s	
5		W22329	13 07 07	30 42 01		7 1/2m	
6		TH-AR			↑	90s	
7		W22125	13 06 45	31 06 10		10m	
8		TH-AR			↑	90s	
9		W22002	13 05 01	31 06 51		14m	
10		TH-AR			↑	90s	
11		W20945	13 04 37	31 22 25		4m	
12		TH-AR			↑	90s	
13		TH-AR			↓	90s	
14		W23270	13 04 23	30 02 39		12m	
15		TH-AR			↑	90s	
16		W25011	13 05 59	29 45 17		13m	
17		TH-AR			↑	90s	
18		W25209	13 04 17	29 38 21		9m	
19		TH-AR			↑	90s	
20		W25291	13 03 47	29 42 20		11m	
21		TH-AR			↑	90s	
22		W25301	13 02 47	29 31 36		10 1/2 m	
23		TH-AR			↑	90s	
24		W25389	13 02 51	29 31 59		14 MIN	11.9/15
25		TH-AR			↑	90s	
26		W31860	13 00:09	30:58:15		11 MIN	11.7/15
27		TH-AR			↑	90s	
28		W32007	13:01:28	31:01:30		3 1/2 MIN	8.5/50
29		TH-AR			↑	90s	
30		W33111	13:00:15	30:52:57		2 MIN	7.2/5
31		TH-AR			↑	90s	
32							

5/17

TO CAM

Spectrograph ECHELLE Intensified Reticon
 Log Sheet
 Grating 3000 Observer RAW/RET II
 Telescope 61" Wyeth Date MAY 17-18, 1986 Disk ORD 1018

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	90s	- broken clouds -
		2		stow		5m	
		3			↑	90s	
		4			↓	90s	
		5	H81797	09:25:08 -08:26:25		6m	2.0 IAU standard #2 ND Filter
		6			↑	90s	
		7			↓	90s	
		8	(1)	10:47:03 20:55:34		5m	3.4 Asteroid 1st ♂ nearby.
		9			↑	90s	
		10			↓	90s	
		11	H89449	10:17:01 19:43:31		2m	4.8 IAU standard
		12			↑	90s	
		13			↓	90s	
		14	G147-36	11:14:34 29:50:36		4m	9.3/15 HALOS
		15			↑	90s	
		16			↓	90s	↓
		17	S138815	12:27:10 -03:02:55		6m	9/15
		18			↑	90s	
		19			↓	90s	
		20	H106516	12:12:36 -10:01:14		3m	6.1/20
		21			↑	90s	
		22			↓	90s	9.1/20
		23	G60-47	12:52:11 8:06:12		5m	
		24			↑	90s	
		25			↓	90s	
		26	H102495	12:56:49 09:30:42		7m	9.7/30
		27			↑	90s	
		28			↓	90s	SAS7
		29	W11450	13:08:51 3105:22		10m	7.04/100
		30			↑	90s	↓
		31					
		32					

5/17
TO CAM

Spectrograph ECHELLE Intensified Reticon
 Grating 300 line Log Sheet
 Telescope 61" Wyeth Date 17-18 MAY 1986 Observer RPS & CDH
 Disk ORO 1019

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	90s	
	W11449		13:08:50.6	31:05:3		6m	9.36/15
		3			↓	90s	
	W21939		13:04:52.3	31:03:24		8m	10.5/50
		5			↑	90s	
	W34282		13:00:04.3	30:00:2		10m	11.4/20 SW * observed
		7			↓	90s	
	W33436		12:59:49	30:17:44		9m	11.8/15
		9			↑	90s	
		10			↓	90s	
	W33435		12:59:49.9	30:18:39		6m	11.2/15
		12			↓	90s	
	W60267		12:59:52.4	29:17:39		11m	11.7/15
		14			↑	90s	
		15			↓	90s	
	G180-66		16:37:47	34:22:30		9m	11.0/20 HALOS
		17			↑	90s	⊥
		18			↓	90s	
	S101758		15:47:13	+12:42:34		2 1/2 m	6.7/100 M-star
		20			↑	90s	
		21			↓	90s	
	G25600		15:49:46	11:01:25		7m	9.4/30
		23			↑	90s	
		24			↓	90s	9.1/50
	G25644A		16:52:46	-08:15:17		6m	9.1/50
		26			↑	90s	
	G15643		16:52:43	-08:14:30		20m	11.7/15
		28			↑	90s	
	G15643		16:52:43	-8:14:30		7m	11.7/15 (continuation)
		30			↑	90s	
		31					
		32					

Intensified Reticon

TO CAM 5/25

Spectrograph ECHELLE Log Sheet

Grating 300 Observer LUMI

Telescope 5H 61" Date MAY 19-20 1986 Disk ORO 1024

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		TH-AR			↓	90 ^s	5187A 80 μ SLIT
		SKY EVE				5 ^m N	CLEAR (78°)
		TH-AR			↑	90 ^s	
		TH-AR			↓	90 ^s	
		W11450	13 08 51	31 05 32		10 ^m	
		TH-AR			↑↓	90 ^s	
		W11449	13 08 50.6	31 05 34		6 ^m	
		TH-AR			↑	90 ^s	
		TH-AR			↓	90 ^s	
		W11277	13 10 47	31 16 13		5 ^{1/2} m	
		TH-AR			↑	90	
		W13233	13 09 53	30 14 29		2 ^m	
		TH-AR			↑↓	90 ^s	
		W12822	13 13 42	30 31 35		5 ^m	
		TH-AR			↑↓	90 ^s	
		W13796	13 11 55	30 08 51		7 ^m	
		TH-AR			↑↓	90 ^s	
		W14250	13 12 31	30 06 49		4 ^m	
		TH-AR			↑	90 ^s	
		TH-AR			↓	90 ^s	
		W33078	12 59 58	30 37 32		12 ^m	
		TH-AR			↑	90	
		W40480	13 11 44	29 05 28		7 ^m	
		TH-AR			↑	90 ^s	
		W40481	13 11 48	29 05 57		10 ^m	BEWARE! MOON POLLUTION!
		TH-AR			↑↓	90 ^s	
		W44437	13 09 34	28 06 23		13 ^m	
		TH-AR			↑↓	90 ^s	
		W44447	13 09 32	28 07 52		3 ^m	ND = 1 FILTER
		TH-AR			↑↓	90 ^s	
		W51140	13 05 46	28 42 41		9 ^{1/2}	
		TH-AR			↑		

Spectrograph ECHELLE Intensified Reticon TO CAM
 Grating 300L Log Sheet RAWRET 11
 Telescope SH Date 5/19-20/86 Observer DM HAZEL
 Disk ORU 1025

5/26/86

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	TH-AR		↓	90 ^s	5187A 80μ
		2	W60243	12 59 41 29 15 37		3 ^m	
		3	TH-AR		↑	90 ^s	
		4	W52423	13 07 02 27 57 53		4 ^m	
		5	TH-AR		↑	90 ^s	
		6	W51547	13 05 44 28 29 02		7 ^m	
		7	TH-AR		↑	90 ^s	
		8	W61034	12 57 51 28 54 38		11 ^m	
		9	TH-AR		↑	90 ^s	
		10	TH-AR		↓	90 ^s	
		11	W61735	13 02 50 28 39 41		5 ^m	
		12	TH-AR		↑	90 ^s	
		13	W62620	13 01 18 28 23 33		5 ² ^m	
		14	TH-AR		↑	90 ^s	
		15	W62717	13 01 54 28 22 31		9 ^m	
		16	TH-AR		↑	90 ^s	
		17	W64390	13 01 46 27 59 35		19 ^m	
		18	TH-AR		↑	90 ^s	
		19	W61024	12 57 30 28 54 03		4 ^m	
		20	TH-AR		↑	90 ^s	
		21	INCAND			120 ^m	
		22	INCAND			120 ^m	
		23	INCAND			120 ^m	
MAY 25-26		24	TH-AR		↓	90 ^s	5187A 80μ SLIT
		25	SKY EVE			5 ^m	(1930647) PTRY CLDY
		26	TH-AR		↑	90 ^s	
		27	TH-AR		↓		
		28	TH-AR		↓		
		29	LAM-VIR	14:16:23 -B:8:31		11 ^m	HAZEL
		30	TH-AR		↑		
		31					
		32					

Spectrograph ECHELLE Intensified Reticon TO CAM
 Grating 3002 Log Sheet
 Telescope 61" SH Date 28/26 MAY Observer MAZET
 Disk 1026 5/26/86

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	90	
		2	LAM VIR 14:16:24	-13:08:31		7 MIN	Please reduce separately!
		3			↑		
		4	LAM VIR 14:16:24	-13:08:31		8 MIN	" " !!!
		5			↑		
		6			↓		
		7	S01547 11:16:07	+62:27:22		3 MIN	180 / 7.0 M STARS
		8			↑		
		9			↓		
		10	Gk 430 11:28:22	+63:26:00		8 MIN	24 / 9.0 M STARS
		11			↑		
		12			↓		
		13	S065595 16:48:50	32:38:44		2 MIN	300 / 6.3 M STARS
		14			↑		
		15	Gk G38 16:43:14	33:35			M STARS
		16			↑		
		17			↓		
		18	Gk 644A 16:52:46	-08:15:17		8 MIN	40 / 9.1 M STARS
		19			↑		
		20	Gk 643 16:52:43	-08:14:30		13 MIN	10 / 11.7 FULL MOON!!!
		21			↑		30% moon light
		22			↓		
		23	S045246 14:50:17	46:40:54		3 MIN	60 / 7.1
		24			↑		
→ NOT EXPLORED ON THIS		25				120 MIN	clouds all over!
		26				120 MIN	
		27				120 MIN	
		28					
		29					
		30					
		31					
		32					

Intensified Reticon TO CAM 5/26

Spectrograph ECHELLE Log Sheet RAW RET 11

Grating 300 Observer slm

Telescope SH Date 5/26-27/86 Disk ORO 1027

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	TH-AR		↓	90 ^s	80W 5187
		2	SKY-ZVF	09 25 08	-082627	5 ^m	
		3	TH-AR		↑	90 ^s	
		4	H81797	09 25 08	-082627	10 ^m	IND = 2 FILTER
		5	TH-AR		↑	90 ^s	
		6	T(TH-AR		↓	90 ^s	
		7	(1)	11 01 35	20 15 19	10 ^m	ASTEROID
		8	TH-AR		↑	90 ^s	
		9	TH-AR		↓	90 ^s	
		10	G147-36	11 14 34	29 50 36	3 ^m	
		11	TH-AR		↑	90 ^s	
		12	TH-AR		↓	90 ^s	
		13	S138815	12 27 10	-03 02 54	3 ^m	
		14	TH-AR		↑	90 ^s	
		15	TH-AR		↓	90 ^s	
		16	W1450	13 08 51.1	31 05 32	17 ^m	
		17	TH-AR		↑	90 ^s	
		18	W31281	12 57 14	31 17 23	9 ^m	
		19	TH-AR		↑	90 ^s	
		20	W40903	13 09 07	29 08 01	8 ^m	
		21	TH-AR		↑	90 ^s	
		22	TH-AR		↓	90 ^s	
		23	G15499	13 03 49	20 59 42	6 ^m	
		24	TH-AR		↑	90 ^s	
		25	082651	13 03 57	22 53 00	3 ^m	
		26	TH-AR		↑	90 ^s	
		27	TH-AR		↓	90 ^s	
		28	G180-66	16 37 47	34 22 30	14 ^m	
		29	TH-AR		↑	90 ^s	
		30	TH-AR		↓	90 ^s	
		31	U241	12 38 26	15 39 11	4	
		32	TH-AR		↑	90 ^s	

TO CAM 5/26
RAW RET 11

Spectrograph ECHELLE Intensified Reticon
Log Sheet

Grating 3001

Observer DA / AS

Telescope 5H 61"

Date 5/26-27/76

Disk ORO 1028

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

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
					↓	90 ^s	C197. 80/
						5 ^M 02 ^s	SPACE MOTIONS
					↑	90 ^s	
					↓	90 ^s	
						4 ^M 11 ^N	9.5/
					↑	90 ^s	
					↓	90 ^s	
						6 ^M 44 ^{SC}	10.7/
					↑	90 ^s	
					↓	90 ^s	
						3 ^M 11 ^N	9.9/
					↑	90 ^s	
					↓	90 ^s	
						6 ^M 11 ^N	9.7/
					↑	90 ^s	
					↓	90 ^s	
						7 ^M 11 ^N	7.6/
					↑	90 ^s	
					↓	90 ^s	
						12 ^M 11 ^N	11.0/
					↑	90 ^s	
					↓	8 ^M 04 ^S	10.8/
					↑	90 ^s	
					↓	90 ^s	
						3 ^M 11 ^N	9.1/
					↑	90 ^s	
					↓	90 ^s	
						2 ^M 11 ^N	8.6/
					↑	90 ^s	
					↓	90 ^s	
						9 ^M 11 ^N	11.0/20 HALO SIGNATURES
					↑	90 ^s	

TO CAM 5/27

Intensified Reticon

Spectrograph ECHELLE Log Sheet RAW/RET 11

Grating 3000 Observer GS

Telescope 61" WYETH Date MAY 26-27 1986 Disk ORO 1029

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	TH-AR		↓	90 ^s	5187A 80μ SLIT
	G141-19	18:30:59	13:07:18			9 MIN	10.6/30 HALO BINARIES
		3	TH-AR		↑	90 ^s	
		4	TH-AR		↓	90 ^s	
	11-1223	18:48:19	-6°18:30			15 MIN	11.4/ M II
		6	TH-AR		↑	90 ^s	
	11-916	18:48:17	-6°21:01			12 MIN	
		8	TH-AR		↑	90 ^s	
		9	TH-AR		↓	90 ^s	
	G210-46	20:58:01	40:03:42			2 1/2 MIN	6.6/300 HALO BINARIES
		11	TH-AR		↑	90 ^s	
		12	TH-AR		↓	90 ^s	
	G130-32	23:57:31	33:54:42			2 1/2 MIN	8.5/20
		14	TH-AR		↑	90 ^s	
		15	TH-AR		↓	90 ^s	6563 A 80μ SLIT
	LAM AND	23:35:06	46:11:14			6 MIN	3.9/ (1.0 ND FILT) Hα PROFILES
		17	TH-AR		↑	90 ^s	
		18	TH-AR		↓	90 ^s	
	P CYG	20:15:57	37:52:30			5 MIN	4.8/ 1.0 ND FILTER
		20	TH-AR		↑	90 ^s	
		21	TH-AR		↓	90 ^s	
	BETA AQR	21:28:56	-5°47:32			6 MIN	2.9/ 1.0 ND FILTER
		23	TH-AR		↑	90 ^s	
		24	TH-AR		↓	90 ^s	
	ALPHA AQR	22:03:13	-0°33:49			4 MIN	2.4/ 1.0 ND FILTER
		26	TH-AR		↑	90 ^s	
		27	TH-AR		↓	90 ^s	5187A 80μ SLIT
	SKY DWN					5 MIN	(044505T)
		29	TH-AR		↑	90 ^s	
	INCANOS					120 MIN	
	INCAMI					120	
	INCANA					62	

TO CAM 5/28

Spectrograph ECHELLE Intensified Reticon
 Log Sheet RAWRET 11
 Grating 300L Observer GS
 Telescope 6' WYETH Date MAY 27/28 1986 Disk ORU 1030

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60 ^{sec}	5187A 80 μ SLIT
		2				17min	LATE START - OVERCAST
		3			↑	90 ^{sec}	
		4			↓	90 ^{sec}	(2300MS)
		5	W11450	13:08:51 31:05:32		20min	7.0/100 (HY CLDS) SA 5-7
		6			↑	90 ^s	
		7			↓	90 ^s	
		8	+182757	13:34:07 18:24:24		8min	9.8/20 NO CHART HALOS
		9			↑	90 ^s	
		10			↓	90 ^s	
		11	+182890	14:29:53 17:38:12		11min	9.8/30
		12			↑	90 ^s	
		13			↓	90 ^s	
		14	S101380	15:05:06 17:38:30		6min	9.2/20
		15			↑	90 ^s	OVERCAST
		16	INCANDS			120min	
		17	INDIANHS			120	
		18	INCANDS			120	
5/28-9/86		19			✕	90 ^s	
		20	SKY-EVE	09 25 07 -08 26 27		5m	THIN CIRRUS
		21			↑	90 ^s	
		22	H81797	" "		3m	ND = 1 FILTER
		23			↑	90 ^s	
		24			↓	90 ^s	
		25	(1)	1055 12 19 15 00		5m	ASTEROID
		26			↑	90 ^s	
		27			↓	90 ^s	
		28	W11450	13 08 51 31 05 32		9m	
		29			↑	90 ^s	
		30	W11449	13 02 50 31 05 34	↓	90 ^s	THICKER CIRRUS
		31	W11449	13 02 50 31 05 34		13m	
		32			↑	90 ^s	

TO CAM 5/28

Spectrograph ECHELLE Intensified Reticon
 Log Sheet RAWRET 11
 Grating 300L Observer RA
 Telescope SH Date 5/22-29/86 Disk ORO 1031

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
					↓	90 ^s	
						20 ^m	
					↑	90 ^s	
					↓	90 ^s	
						7 ^m	
					↑	90 ^s	
						3 ^m	} ONLY 2 TH-AR
					↑	90 ^s	
					↓	90	
						12 ^m	
					↑	90 ^s	
					↓	90 ^s	
						7 ^m	
					↑	90 ^s	
					↓	90 ^s	
						2 ^m	
					9L	90 ^s	
						2 ^m	
					↑	90 ^s	
					↓	90 ^s	
						5 ^{MIN}	10.9/
					↑	90 ^s	
					↓	5 ^{MIN}	10.0/
					↑	90 ^s	
					↓	90 ^s	
						7 1/2 ^{MIN}	9.3/
					↑	90 ^s	
					↓	90 ^s	
						3 ^{MIN}	9.2/
					↑	90 ^s	

TO CAM 5/28

RAWRET 11

Spectrograph ECHELLE Intensified Reticon
 Log Sheet
 Grating 300 Observer G^s
 Telescope 6" WYETA Date MAY 28-29 1986 Disk ORO 1032

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	90 ^s	5187A 80μ SLIT
		2	G202-25	15:58:22	45:52:48	13 ^{MIN}	11.1/15 HALO BINARIES
		3			↑	90 ^s	
		4			↓	90 ^s	
		5	S66051	17:24:50	31:07:03	2 ^{MIN}	8.5/30
		6			↑	90 ^s	
		7			↓	90 ^s	
		8	G170-56	17:36:05	18:35:15	7½ ^{MIN}	9.7/30
		9			↑	90 ^s	
		10			↓	90 ^s	
		11	G183-11	17:52:35	20:16:54	15 ^{MIN}	9.7/50
		12			↑	90 ^s	
		13			↓	90 ^s	
		14	G205-42	18:52:44	42:55:00	7 ^{MIN}	9.9/30
		15			↑	90 ^s	
		16			↓	90 ^s	
		17	G125-5	19:20:00	35:56:48	16 ^{MIN}	11.2/20
		18			↑	90 ^s	
		19			↓	90 ^s	
		20	G142-2	18:59:36	15:59:36	8 ^{MIN}	10.3/15
		21			↑	90 ^s	
		22			↓	90 ^s	
		23	11-1223	18:48:19	-6°18:30	18 ^{MIN}	11.4/ M-11
		24			↑	90 ^s	
		25	11-916	18:48:17	-6°21:01	15 ^{MIN}	
		26			↑	90 ^s	
		27	11-926	18:48:26	-6°20:02	12 ^{MIN}	
		28			↑	90 ^s	
		29			↓	90 ^s	
		30	G18-5	21:51:39	04:44:30	3 ^{MIN}	9.2/15
		31			↑	90 ^s	
		32					

TO CAM 5/30

RAW RET 11

Spectrograph ECHELLE Intensified Reticon
 Log Sheet
 Grating 3000 Observer GS
 Telescope 61" WYETH Date MAY 28-29 1986 Disk ORO 1033

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	90°	5187A 80 μSLIT
	G130-32	23:57:31	33:54:42			2 MIN	8.5/20 DAWN CREEPING IN
		3			↑	90°	
		4			↓	90°	
	H182572	19:22:35	11:50:10			2 MIN	5.2 1 AU STANDARD
		6			↑	90°	
		7			↓	90°	
	SKY DWN					5 MIN	
		9			↑	90°	
	INCAND					120 MIN	
	INCAND					"	
	INCAND					"	
5/29-30		13			↓	90°	
	SKY-EVE	10 17 01	19 43			5 m	
		15			↑	90°	
		16			↓	90°	
	H89449	10 17 01	19 43 31			5 m	1 AU KV STANDARD
		18			↑	90°	
		19			↓	90°	
	(1)	1056 02	19 05 26			6 m	ASTEROIDS
		21			↑	90°	
		22			↓	90°	
	W11449	13 08 51	31 05 39			12 m	
		24			↓	90°	
	W11450	13 08 51	31 05 32			16 m	
		26			↑	90°	
	W11450					16 m	
		28			↑	90	HOLD FOR CLOS
		29			↓	90°	
	G210-46	20:58:01	40:03:42			10 MIN	6.5/300 FIALOS
		31			↑	90°	
		32					

TO CAM 5/30

Intensified Reticon

Spectrograph ECHELLE Log Sheet RAW RET 11

Grating 300 Observer G^S

Telescope 6" WYETH Date MAY 29/30 1986 Disk ORO 1034

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	TH-AR		↓	90 ^s	5187A 80μ SLIT
		2	5125806	20:23:46	09:17:35	17 ^{MIN}	8.3/50 HALOS (HY CORR)
		3	TH-AR		↑	90 ^s	
		4	TH-AR		↓	90 ^s	
		5	6130-32	23:57:31	33:54:42	20 ^{MIN}	8.5/20
		6	TH-AR		↑	90 ^s	
		7	TH-AR		↓	90 ^s	6563A 80μ SLIT
		8	LAM AQR	23:35:06	46:11:14	7 ^{MIN}	3.9/ VIA PROFILES
		9	TH-AR		↑	90 ^s	
		10	TH-AR		↓	90 ^s	
		11	ALFA AQR	22:03:13	-00:33:49	7 ^{MIN}	2.9/
		12	TH-AR		↑	90 ^s	
		13	TH-AR		↓	90 ^s	
		14	BETA AQR	21:28:56	-50:47:32	7 ^{MIN}	2.9/
		15	TH-AR		↑	90 ^s	
		16	TH-AR		↓	90 ^s	
		17	1 CY6	20:15:57	37:52:36	3 ^{MIN}	4.8/
		18	TH-AR		↑	90 ^s	
		19	TH-AR		↓	90 ^s	5187A 80μ SLIT
		20	625-15	21:01:37	02:48:00	6 ^{MIN}	7.3/50 HALOS (END BY CLOS)
		21	TH-AR		↑	90 ^s	
		22	TH-AR		↓	90 ^s	
		23	SKY DWN			6 ^{MIN}	
		24	TH-AR		↑	90 ^s	
		25	INCAND			120 ^{MIN}	
		26	INCAND			120 ^{MIN}	
		27	INCAND			120 ^{MIN}	
		28					
		29					
		30					
		31					
		32					

Intensified Reticon TO CAM 5/30

Spectrograph ECHELLE Log Sheet RAW/RET 12

Grating 300 Observer RJD

Telescope 61" WYETH Date MAY 30-31 1986 Disk OKO 1035

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	TH-AR		↓	90 ^s	5187A 80μsct
		2	SKY EUT	10:17:01	19:43:31	5 ^m	(LT HAZE)
		3	TH-AR		↑	90 ^s	
		4	H89449	10:17:01	19:43:31	2 ^m	IAU Std.
		5	ThAr		↑	90 ^s	
		6	ThAr		↓	90 ^s	
		7	G122-51	11:50:06	38:04:39	2 ^m	Italo Binaries
		8	ThAr		↑	90 ^s	
		9	ThAr		↓	90 ^s	
		10	G14-54	13:25:44	-00:34:30	2 ^m	
		11	ThAr		↑	90 ^s	
		12	ThAr		↓	90 ^s	
		13	G43-3	09:46:12	13:59:18	7 ^m	
		14	ThAr		↑	90 ^s	
		15	ThAr		↓	90 ^s	
		16	G58-25	10:48:48	20:32:57	2 ^m	
		17	ThAr		↑	90 ^s	
		18	ThAr		↓	90 ^s	
		19	G44-45	10:50:48	10:00:24	12 ^m	
		20	ThAr		↑	90 ^s	
		21	ThAr		↓	90 ^s	
		22	H97916	11:13:19	02:21:36	12 ^m	
		23	ThAr		↑↓	90 ^s	
		24	H97916	"	"	14 ^m	
		25	ThAr		↑	90 ^s	
		26	ThAr		↓	90 ^s	
		27	G147-36	11:14:34	29:50:36	2 ^m	
		28	ThAr		↑	90 ^s	
		29	ThAr		↓	90 ^s	
		30	S138815	12:27:09.6	-3:02:57	3 ^m	lightning in South
		31	ThAr		↑	90 ^s	
		32					

TO CAM 5/31

Spectrograph ECHELLE Intensified Reticon
 Grating 300 l Log Sheet RAW/RET 12
 Telescope 61" Wyeth Date 30-31/MAY/86 Observer RJD
 Disk ORO 1036

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	90 ^s	
		2				3 ^m	Asteroid m _v = 8.3
		3			↑	90 ^s	
		4			↓	90 ^s	SA57
		5	W11450	13:08:51.1	31:05:32	12 ^m	
		6			↑↓	90 ^s	
		7	W11449	13:08:50.6	31:05:34	7 ^m	
		8			↑↓	90 ^s	
		9	W12971	13:11:12.2	30:28:28	9 ^m	
		10			↑↓	90 ^s	
		11	W12966	13:11:03.8	30:28:38	13 ^m	
		12			↑↓	90 ^s	
		13	W12966	"	"	10 ^m	
		14			↑↓	90 ^s	
		15	W34282	13:00:04.3	30:00:20	13 ^m	
		16			↑↓	90 ^s	
		17	W33436	12:59:48.6	30:17:44	15 ^m	
		18			↑↓	90 ^s	
		19	W33435	12:59:49.9	30:18:39	10 ^m	
		20			↑↓	90 ^s	
		21	W60267	12:59:32.4	29:17:39	18 ^m	
		22			↑↓	90 ^s	
		23	W31281	12:57:14.4	31:17:23	9 ¹ / ₂ ^m	
		24			↑↓	90 ^s	
		25	W40903	13:09:06.6	29:08:01	14 ^m	
		26			↑↓	90 ^s	
		27	W23083	13:02:33.6	30:26:51	13 ^m	
		28			↑↓	90 ^s	
		29	W23083	13:02:33.6	30:26:51	15 ^m	
		30			↑↓	90 ^s	ID swapped? ↓
		31	W23082	13:02:25.5	30:26:43	16 ^m	
		32					

5/31

Spectrograph ECHELLE Intensified Reticon TO CAM
 Grating 300 l Log Sheet RAWRET 12
 Telescope 61" Wyeth Date 30-31 May 1986 Observer RJD
 Disk ORO 1037

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
						90 ^s	
L		TH Ar			↑↓	13 ^m	SAS7
	W23082	13:02:25.5	30:26:43			90 ^s	
		TH Ar			↑	90 ^s	
		TH Ar			↓	90 ^s	
	G180-66	16:37:47	34:22:30			11 ^m	Halo Binaries
		TH Ar			↑	90 ^s	
		TH Ar			↓	90 ^s	
	11-1223	18:48:19	-6:18:30			15 ^m	M11 Mathieu
[TH Ar			↑↓	90 ^s	
	11-1223	"	"			14 ^m	
		TH Ar			↑	90 ^s	
		TH Ar			↓	90 ^s	
	H182572	19:22:35.1	11:50:10			2 ^m	IAU Rad. Vel. Std.
		TH Ar			↑	90 ^s	
		TH Ar			↓	90 ^s	
	G25-15	21:01:37	02:48:00			2 ^m	Halo Binaries. Dawn
		TH Ar			↑	90 ^s	
		TH Ar			↓	90 ^s	
	DAUNSKY					7 ^m	
		TH Ar			↑	90 ^s	
		Incands				120 ^m	
		INCAND				94 ^m	
31 May - 1 June		Th-Ar			↓	90s	
	SKY-EVE	10:19:04	119:33			5m	sky near H89449
		Th-Ar			↑	90s	- clouds -
		Th-Ar			↓	90s	
	H89449	10:17:01	19:43:31			3m	IAU standard - thru clouds 4.8
		Th-Ar			↑	90s	- clouds -
		Th-Ar			↓	90s	
	W1145φ	13:08:51	31:05:32			14m	7.0/100 SAS7 (slip-go)
		Th-Ar			↑	90s	(cut exposure short - blunder 1.5 hrs)