

Intensified Reticon

TO CAM 4/1

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300L

Observer MDP & AJN

Telescope 6" WYETH

Date SEPT 1-2 1987

Disk ORO 1710

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		TH-AR			↓	60s	5187A 80μ slit
		SKYVIEW	0 HA	+35		2m	
		TH-AR			↑	60s	
		TH-AR			↓	60s	
		SKYVIEW	4 hrs W	+35		2m	
		TH-AR			↑	60s	
		TH-AR			↓	60s	
		H 213014	22:25:45.8	17:00:28.3		4m	9.7 / IAU STAR
		TH-AR			↔	60s	
		213014B	22:25:46	17:00:28		10m	9.0 IAU
		TH-AR			↑	60s	
		TH-AR			↓	60s	
		G15644A	16:52:46	-08:15:17		11m	9.1/50 M STAR
		TH-AR			↑	60s	
G15643		G15643	16:52:43	-08:14:30		20m	11.9/15 G15643 M STARS
		TH-AR			↕	60s	
		G15643	16:52:43	-08:14:30		17 1/2 m	clouds start go
		TH-AR			↑	60s	
		TH-AR			↓	60s	
		G224-81	15:44:07	63:00:44		3m	8.9/15 HALO
		TH-AR			↑	60s	
		TH-AR			↓	60s	
		G170-49	17:30:38	23:46:16		14m	8.95/100 HALO
		TH-AR			↑	60s	
		TH-AR			↓	60s	
		G170-56	17:30:05	14:35:15		6.5m	7.7/30 HALO
		TH-AR			↔	60s	
		G183-11	17:52:35	20:16:54		12m	9.9/50 HALO
		TH-AR			↑	60s	
		TH-AR			↓	60s	
		G125-15	21:01:39	02:48:00		3 1/2 m	9.39/50 HALO
		TH-AR			↑	60s	

Intensified Reticon

TO CAM 911

Spectrograph ECHELLE

Log Sheet

RAWRET

Grating 300R

Observer MOP AJN

Telescope 6" Wjoh

Date 1-2 Sept 1987

Disk OR01711

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		Th-Ar			↓	60s	
	G217-30		00:01:50	57:47:24		7m	10.4/15 HALO
		TH-AR			↑	60s	
		TH-AR			↓	60s	
	(8)		21:15:21	-22:45:49		4m	9.7/ "FLORA" ASTEROIDS
		TH-AR			↑	60s	
		TH-AR			↓	60s	
	G192-38		01:02:41	49:11:18		11m	11.0/15 HALO
		Th-Ar			↑	60s	
	G192-40		01:13:34	51:35:48			11.1/20 (G192-46) HALO
		Th-Ar			↑	60s	
	G192-49		01:17:59	51:43:24		2min	7.62/20 HALO
		Th-Ar			↓	60s	
	G73-2		01:27:49	52:29:28		5m	10.0/15 HALO
		Th-Ar			↑	60s	
		TH-AR			↓	60s	
	G192-58		01:28:13	47:44:54		9m	10.1/30 HALO
		Th-Ar			↑	60s	
	G192-51		01:31:18	48:29:06		12m	11.0/20 HALO
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	G188-6		21:30:53	30:08:12		3m	8.0/60 HALO
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	G18-28		22:03:14	12:06:18		6m	9.5/30 HALO
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	G127-33		22:25:40	24:41:00		7m	9.9/15 HALO
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	G130-7		23:42:28	30:03:36		20m	11.7/ HALO Fin
		Th-Ar			↑	60s	

Intensified Reticon

TO CAM 9/2

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 3002

Observer MDP AJN

Telescope 61" Wjzoth

Date 1-2 Sept 1987

Disk ORO 1712

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	
	S166200		02:16:13	-25:44:36			3m	6.3/20 HALO
		TH-AR				↑	60s	
		TH-AR				↓	60s	
	H13008		00:30:42	-11:00:00			5m	9.4/15 HALO
		TH-AR				↑	60s	
		TH-AR				↓	60s	
	G69-1		00:29:55	27:55:18				8.721 HALO
		Th-AR				↑	60s	
		Th-AR				↓	60s	
	G70-14		00:46:08	-01:39:21			9 m	10.8/15 HALO
		Th-AR				↑	60s	
		Th-AR				↓	60s	
	G2-38		01:24:11	11:45:18			20m	11.3/ HAZE (stop & go) HALO Fin
		TH-AR				↑	60s	
		TH-AR				↓	60s	
	G2-46		01:32:14	00:41:36			2 m	6.9/ HALO Fin
		Th-AR				↑	60s	
		Th-AR				↓	60s	
	G3-10		01:35:3	17:34:30			3m	9.4/ HALO ZEIN
		Th-AR				↑	60s	
Th-AR		G17-55				↓	60s	Th-AR
	G1915		05:53:04	58:40:24			13m	10.4/40 HALO
		Th-A				↑	60s	
		Th-A				↓	60s	
	G37-4		02:43:20	25:26:30			2m	7.8/ HALO Fin
		Th-A				↑	60s	
	G36-33		02:45:12	26:51:42			2m	9.6/ HALO Fin
		Th-AR				↑	60s	
	G36-44B		02:52:41	26:40:24			8m	9.7/ Companion to G36-44 HALO Fin
		Th-AR				↑	60s	
	G36-4		02:52:41	26:40:24			2m	8.8/ HALO Fin
	33	Th-AR				↑	60s	

Intensified Reticon

TO CAM 9/13

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300R

Observer MDP AJN

Telescope 61" W 7+th

Date 1-2 Sept 1987

Disk OR01713

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
		2	SKYDOME	4 HRS E	+35	2m	
		3	TH-AR		↑	60s	
		4	TH-AR		↓	60s	
		5	SKYDOME	0 HA	+35	2m	
		6	TH-AR		↑	60s	
		7	FLUORIDS			120M	
		8	INCANDS			80 MIN	
SEPT 2-3		9	TH-AR		↓	60s	5187A 80 μ SLIT
		10	SKYDOME	0 HRS HA	+35	2 MIN	MOSTLY CLOUDY
		11	TH-AR		↑	60s	
		12	TH-AR		↓	60s	
		13	SKYDOME	4 HRS W HA	+35	2 MIN	
		14	TH-AR		↑	60s	
		15	TH-AR		↓	60s	
		16	H136202	15:16:45	01:57:40	2 MIN	5.1 / IAU STUD
		17	TH-AR		↑	60s	
		18	TH-AR		↓	60s	
		19	PCYG	20:15:57	37:52:36	20 MIN	4.8 / ND 1.0 FILT W ALIYA
		20	TH-AR		↑	60s	← MANY STOPS + 60s - CLOUDS
SEPT 3-4		21	TH-AR		↓	60s	5187A 80 μ SLIT
		22	SKYDOME	0 HRS	+35	2m	CLEAR
		23	TH-AR		↑	60s	
		24	TH-AR		↓	60s	
		25	SKYDOME	4 HRS W	+35	2m 14s	
		26	TH-AR		↑	60s	
		27	TH-AR		↓	60s	
		28	H182572	14:22:35	11:50:09	2.5M	5.2 / IAU
		29	TH-AR		↑	60s	
		30	TH-AR		↓	60s	
		31	V SGR	18:28:57	19:09:42	2m	7.1 / CEPHEI
		32	TH-AR		↑	60s	

Intensified Reticon

TO CAM 9/3

Spectrograph ECHELLE Log Sheet RAWRET

Grating 300R Observer M Payson

Telescope 61" Wj + th Date 3-4 sept 1957 Disk ORO 1714

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60 ^s	
		2	615604A	11:52:46	-08:15:17	15 ^m	9.1/50 M STAR
		3			↑	60 ^s	
		4			↓	60 ^s	
		5	6140-10	17:44:29	10:08:18	2 ^m	8.5/ HALO fin
		6			↓	60 ^s	
		7	6140-30	17:58:41	11:04:18	3 ^m	9.4/ HALO fin
		8			↑	60 ^s	
		9			↓	60 ^s	
		10	(6)	19:07:18	-18:27:17	4.5 ^m	10.0/ 88 moon AST
		11			↑	60 ^s	
		12			↓	60 ^s	
		13	6141-8	18:23:47	08:45:06	2.5 ^m	7.8/ HALO fin
		14			↑	60 ^s	
		15			↓	60 ^s	
		16	621-22	18:36:36	00:04:30	15 ^m	10.7/ HALO fin
		17			↑	60 ^s	
		18			↓	60 ^s	
		19	6217-8	23:24:15	60:21:06	20 ^m	10.4/60 HALO
		20			↑	60 ^s	
		21			↓	60 ^s	
		22	6216-45	23:25:02	49:59:12	8 ^m	11.0/15 HALO
		23			↑	60 ^s	
		24			↓	60 ^s	
		25	5162947	11:42:21	-17:37:42	4 ^m	9.1/30 HALO
		26			↑	60 ^s	
		27			↓	60 ^s	
		28	692-15	14:33:47	04:39:18	3 ^m	9.2/ HALO fin
		29			↑	60 ^s	
		30	692-16	14:35:19	04:11:54	4 ^m	10.1/ HALO fin
		31			↑	60 ^s	
		32					

Spectrograph ECHELLE Intensified Reticon TO CAM 9/13
 Grating 300L Log Sheet RAWRET
 Telescope 61" Wyath Date 3-4 September 1987 Observer M Payson
 Disk ORO 1715

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
		2	623-3	19:30:28	07:18:00	3m	9.3/ HALO Fin
		3			↑	60s	
		4			↓	60s	
		5	6141-39	18:47:20	13:09:48	2m	8.5/ HALO Fin
		6			↑	60s	
		7			↓	60s	
		8	623-15	19:51:43	01:48:54	3m	8.7/ HALO Fin
		9			↑	60s	
		10			↓	60s	
		11	624-13	20:17:56	05:52:42	4.5m	10.1/ HALO Fin
		12			↓	60s	
		13	627-18	20:28:44	05:02:48	3m	10.1/ HALO Fin
		14			↑	60s	
		15			↓	60s	
		16	6243-63	01:06:30	61:16:48	2.5m	27/100 HALO
		17			↑	60s	
		18			↓	60s	
		19	618-55	22:30:20	10:09:00	2m	9.3/15 HALO
		20			↓	60s	
		21	667-38	22:56:49	11:55:36	4m	8.3/100 HALO
		22			↑	60s	
		23			↓	60s	
		24	5191281	22:35:14	-22:54:12	6m	9.1/30 HALO
		25			↓	60s	
		26	5191333	22:39:17	-21:02:48	7m	9.2/30 HALO
		27			↑	60s	
		28			↓	60s	
		29	6227-37	18:34:48	63:39:18	2.5m	8.0/20 HALO
		30			↑	60s	
		31					
		32					

Intensified Reticon

TO CAM 9/4

Spectrograph ECHELLE

Log Sheet

RAW RET

Grating 3002

Observer M Payson

Telescope 61" Wyeth

Date 3-4 sept 1987

Disk OR01716

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
	6157-21		23:06:29	-02:49:16		4m	1.2/20 HALO
	Th-Ar	3			↑	60s	
	Th-Ar	4			↓	60s	
	5165532		23:07:48	-13:34:54		9m	8.4/100 HALO
	Th-Ar	6			↑	60s	
	Th-Ar	7			↓	60s	
	6128-14		23:23:52	32:54:54		4m	9.5/15 HALO
	Th-Ar	9			↕	60s	
	6130-29		23:56:16	33:27:54		2m	7.8/ HALO F19
	Th-Ar	11			↑	60s	
	Th-Ar	12			↓	60s	
	628-35		23:03:36	04:25:00		2.5m	9.2/15 HALO
	Th-Ar	14			↑	60s	
	Th-Ar	15			↓	60s	
	668-31		23:33:33	15:09:48		2m	7.6/20 HALO
	Th-Ar	17			↑	60s	
	Th-Ar	18			↓	60s	
	6130-10		23:43:38	31:58:12		2.5m	9.1/20 HALO
	Th-Ar	20			↕	60s	
	6130-32		23:57:31	33:54:42		2m	8.5/20 HALO
	Th-Ar	22			↑	60s	
	Th-Ar	23			↓	60s	
	6129-42		23:52:30	20:06:24		3m	8.9/20 HALO
	Th-Ar	25			↑	60s	
	Th-Ar	26			↓	60s	
	6220-13		02:31:47	59:34:30		4m	8.9/30 HALO
	Th-Ar	28			↑	60s	
	Th-Ar	29			↓	60s	
	62-19		01:03:29	01:26:30		6m	9.4/ HALO F19
	Th-Ar	31			↑	60s	
		32					

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Spectrograph ECHELLE Intensified Reticon TO CAM
 Grating 300L Log Sheet RAW/RET
 Telescope 61" W, rth Date 31 sept 1987 Observer H Payson
 Disk 0201717

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	moon's down!
		2	62-50	01:34:14	04:12:24		20m 11.3/ HALO fin
		3			↑	60s	
		4			↓	60s	
		5	270-162	01:07:39	-04:50:18		24m 11.6/15 - HALO
		6			↑	60s	
		7			↓	60s	
		8	6271-11	01:09:34	-00:52:34		14m 11.4/15 HALO
		9			↑	60s	
		10			↓	60s	
		11	6271-57	01:21:29	-07:58:18		12m 11.1/15 HALO
		12			↑	60s	
		13			↓	60s	
		14	-18271	01:34:54	-17:44:12		5m 9.8/20 HALO
		15			↑	60s	
		16			↓	60s	
		17	5129772	02:12:04	-01:25:54		3m 9.0/20 HALO
		18			↑	60s	
		19			↓	60s	
		20	H213014	22:25:45	17:00:28		2m 7.7/ ZAU
		21			↓	60s	
		22	2130MB	22:25:46	17:00:28		12m 9.0/ ZAU
		23			↑	60s	TV stopped functioning 3:35:57
		24				120m	
		25				120MIN	
4-5 Sept. 1987		26			↓	60s	
		27	SKY-EVE	φhrs.	+30°		2m
		28			↑	60s	
		29			↓	60s	
		30	SKY-EVE	4hrs. W	+30°		2m
		31			↑	60s	
		32	/				

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Intensified Reticon

TO CAM

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300L

Observer RPS

Telescope 61" Wyeth

Date 4-5 Sept. 1987

Disk ORO 1718

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	
2	H146051	16:11:43	-03:34:01			2 1/4 m	2.7 IAU standard 0.1 ND
3	Th-Ar				↑	60s	
4	Th-Ar				↓	60s	
5	(1)	17:28:35	-28:03:52			5m	9.3 Asteroid
6	Th-Ar				↑	60s	
7	Th-Ar				↓	60s	
8	GLS 644A	16:52:46	-08:15:17			6.5m	9.1/50 M stars
9	Th-Ar				↑	60s	
10	GLS 643	16:52:43	-08:14:30			20m	11.7/15 M stars
11	Th-Ar				↑	60s	
12	Th-Ar				↓	60s	
13	GLS 638	16:43:14	33:35:54			4m	8.1/50 "
14	Th-Ar				↑	60s	
15	Th-Ar				↓	60s	
16	S065595	16:48:50	32:38:14			2m	6.3/100 "
17	Th-Ar				↑	60s	
18	Th-Ar				↓	60s	
19	GLS 735	18:53:03	08:20:18			9m	10.1/50 "
20	Th-Ar				↑	60s	
21	Th-Ar				↓	60s	
22	GLS 763	19:32:10	04:28:16			5m	9.4/30 "
23	Th-Ar				↑	60s	
24	Th-Ar				↓	60s	
25	S124835	19:33:45	05:58:44			3m	6.7/100 "
26	Th-Ar				↑	60s	
27	Th-Ar				↓	60s	
28	(6)	19:07:28	-18:36:12			3m	10.0 Asteroid
29	Th-Ar				↑	60s	
30	/						
31	/						
32	/						

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Intensified Reticon TO CAM
 Spectrograph ECHELLE Log Sheet RAW/RET
 Grating 300L Observer RPS
 Telescope 61" Wyeth Date 4-5 Sept. 1987 Disk ORO 1720

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
					↓	60s	
		(3)	21:46:05	-06:30:08		2m	Asteroid
					↑	60s	
					↓	60s	
		G18-29	22:03:57	05:40:54		5m	10.6/15 HALOS
					↑	60s	
					↓	60s	
		G18-54	22:29:03	01:54:24		7m	10.7/15 "
					↑	60s	
					↓	60s	
		G67-40	22:59:15	11:33:06		5m	10.7/15 "
					↑	60s	
					↓	60s	
		H213014	22:25:46	17:00:28		2m	7.7 IAU standard
					↑	60s	
					↓	60s	
		S147079	00:03:14	-19:56:36		4m	9.7/15 HALOS
					↑	60s	
					↓	60s	
		G72-25	01:38:52	27:25:36		3.5m	8.7/15 HALOS
					↑	60s	
					↓	60s	
		G133-57	01:54:31	41:50:06		3m	9.0/15 "
					↑	60s	
					↓	60s	
		G134-3	02:05:34	44:51:42		3m	10.3/15 "
					↑	60s	
					↓	60s	
		G74-17	02:17:55	42:32:54		3m	9.3/15 "
					↑	60s	

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Intensified Reticon TO CAM
 Spectrograph ECHELLE Log Sheet RAW RET
 Grating 3002 Observer RDS
 Telescope 61" Wyeth Date 4-5 Sept. 1987 Disk ORO 1721

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		Th-Ar			↓	60s	
	G134-40		02:34:26	43:46:42		6.5m	10.7/15 HALOS
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	G74-30		02:30:58	40:04:48		10 1/2 m	11.6/15 "
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	G159-5		01:49:38	-03:03:00		6.5m	10.9/15 "
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	G4-6		02:10:59	11:42:36		5.5	10.6/20 "
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	G2s15A		00:15:41	43:41:37		4m	8.1/ M stars
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	G2s15B		00:15:14	43:44:37		10m	11.0 ID? M stars { Are these coordinates OK? Offset from
		Th-Ar			↑	60s	A gives nothing! B here is the close
		Th-Ar			↓	60s	
	G2s176		04:40:00	18:52:06		8m	9.9/40 " companion: B • A
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	G2s169		04:26:02	21:48:47		3m	8.3 M stars
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	S076586		04:20:45	22:50:59		3m	7.2 "
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	H26162		04:06:15	19:28:43		2m	5.5 IAU standard
		Th-Ar			↑	60s	
	/						
	/						

Intensified Reticon

TO CAM 9/5

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300L

Observer RPS

Telescope 61" Wyeth

Date 4-5 Sept. 1987

Disk ORO 1722

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

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments	
		1			↓	60s		
		2	SKY-DWN	4hrs E	+20°	2m		
		3			↑	60s		
		4			↓	60s		
		5	SKY-DWN	φ hrs	+20°	2m	No Incands - bad power supply	
		6			↑	60s		
5-6 Sept. 1987		7			↓	60s	- high thin clouds -	
		8	SKY-EVE	φ hrs	+30°	2m		
		9			↑	60s		
		10			↓	60s		
		11	SKY-EVE	4.5 hrs W	+30°	2m		
		12			↑	60s		
		13			↓	60s		
		14	H136202	15:16:45	01:57:12		2m	5.1 IAU standard
		15			↑	60s		
		16			↓	60s		
	17	(?)	15:56:25	13:31:14		9m	10.5 Asteroid	
	18			↑	60s			
	19			↓	60s			
	20	G85644A	16:52:46	-08:15:17		11m	9.1/50 Mstars - cut short by clouds	
	21			↑	60s			
	22			↓	60s			
	23	H134646	15:06:53	63:18:27		10m	6.7/400 Mstars	
	24			↑	60s			
	25			↓	60s			
	26	147428	16:18:35	40:22:34		10m	7.9 F stars	
	27			↑	60s			
	28			↓	60s			
	29	151669	16:44:36	55:24:11		10m	7.1 "	
	30			↑	60s			
	31	/						
	32	/						

915

Intensified Reticon

TO CAM

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300L

Observer RDS

Telescope 61" Wyeth

Date 5-6 Sept. 1987

Disk ORO 1723

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		Th-Ar			↓	60s	
	145710		16:07:56	62:36:55		11.5m	8.2 F-stars
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	176894		18:58:55	41:36:46		16m	7.7 "
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	176409		18:55:60	56:40:46		11m	7.0 " Faint companion to SE ₁₀₃ "
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	180005		19:10:30	58:14:10		11m	8.1 "
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	182735		19:21:59.9	56:07:34		13m	7.3 "
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	178739		19:05:53	51:34:37		12m	7.9 "
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	185580		19:35:50	52:11:06		13m	8.0 "
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	186253		19:39:07	59:43:24		12m	7.7 "
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	189207		19:54:30	62:27:48		8m	8.0 "
		Th-Ar			↑	60s	
		Th-Ar			↓	60s	
	192017		20:08:41	60:15:15		12m	7.9 "
		Th-Ar			↑	60s	
		/					
		/					

Intensified Reticon

TO CAM 9/9

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300L

Observer RDS

Telescope 61" Wyeth

Date 5-6 Sept. 1987

Disk ORO 1725

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	Th-Ar		↓	60s	-overcast-
		2	H26162	04:06:15	17:28:43	2m	5.5 IAU standard
		3	Th-Ar		↑	60s	
		4	Th-Ar		↓	60s	
		5	SKY-DWN	4 hrs E	+20°	2m	
		6	Th-Ar		↑	60s	
		7	Th-Ar		↓	60s	
		8	SKY-DWN	φ hrs	+20°	2m	
		9	Th-Ar		↑	60s	
6-7 sept 87		10	Th-Ar		↓	60s	
		11	SKYVIEW	OHA	+30	2m	
		12	Th-Ar		↑	60s	
		13	Th-Ar		↓	60s	
		14	SKYVIEW	4 hrs W	+30	2m	
		15	Th-Ar		↑	60s	
9-10 sept 87		16	Th-Ar		↓	60s	
		17	SKYVIEW	OHA	+10	2m	
		18	Th-Ar		↑	60s	
		19	Th-Ar		↓	60s	
		20	SKYVIEW	4 hrs W	+35	2m	
		21	Th-Ar		↑	60s	
		22	Th-Ar		↓	60s	6563A
		23	Th-Ar	13:17:17	45:47:52	6m	6.5 / ucuu SALLY
		24	Th-Ar		↑	60s	
		25	Th-Ar		↓	60s	
		26	PCyg	20:15:57	37:52:36	20m	4.8 / SALLY
		27	Th-Ar		↑	60s	
		28	Th-Ar		↓	60s	
		29	S49436	20:16:21	40:34:31	3m	5.8 / SALLY
		30	Th-Ar		↑	60s	
		31					
		32					

TO CAM **9/9**

Spectrograph ECHELLE Intensified Reticon
 Log Sheet
 Grating 3002 Observer M Payson
 Telescope 61" Wyeth Date 9-10 Sept 1957 Disk ORO 1726

Change....	File	ID	1950.0 RA	Dec	L/R +/-	Exposure	Comments
		1			↓	60 ^s	<u>505.6A</u>
		2	PCY6	20:15:57	37:52:36	10m	4.8/ SALLY
		3			↓	60 ^s	
		4	S49438	20:16:21	40:34:31	3m	5.8/ SALLY
		5			↑	60 ^s	
		6			↓	60 ^s	<u>5127A</u>
		7	PCY6	20:15:57	37:52:36	10m	4.8/ clouds SALLY
		8			↓	60 ^s	
		9	S49438	20:16:21	40:34:31	3m	5.8/ SALLY
X		10			↑	60 ^s	order change - white exposing
		11			↓	60 ^s	<u>5163A</u>
		12	PCY6	20:15:57	37:52:36	10m	4.8/ SALLY
		13			↑	60 ^s	
		14	S49438	20:16:21	40:34:31	3m	5.8/ SALLY
		15			↑	60 ^s	
		16			↓	60 ^s	<u>5754A</u>
		17	PCY6	20:15:57	37:52:36	10m	4.8/ SALLY
		18			↓	60 ^s	
		19	S49438	20:16:21	40:34:31	3m	5.8/ SALLY
		20			↑	60 ^s	
		21			↓	60 ^s	<u>5876</u>
		22	PCY6	20:15:57	37:52:36	10m	4.8/ SALLY
		23			↓	60 ^s	
		24	S49438	20:16:21	40:34:31	3m	5.8/ SALLY
		25			↑	60 ^s	
		26			↓	60 ^s	<u>6482A</u>
		27	PCY6	20:15:57	37:52:36	10m	4.8/ SALLY
		28			↓	60 ^s	
		29	S49438	20:16:21	40:34:31	3m	5.8/ SALLY
		30			↑	60 ^s	
		31					
		32					

Spectrograph ECHELLE Intensified Reticon TO CAM 919
 Grating 300L Log Sheet RAW/RET
 Telescope 61" Wynth Date 9-10 Sept 1987 Observer M Payson
 Disk OR 01727

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	7h-A1		↓	60s	7165A
	P CY6	2	20:15:57	37:52:36		20m	4.8/ SALLY
		3	7h-A1		↓	60s	
	S49438	4	20:16:21	40:34:31		20m	5.8/ SALLY
		5	7h-A1		↑	60s	
		6	7h-A1		↓	60s	7774A
	P CY6	7	20:15:57	37:52:36		20m	4.8/ SALLY
		8	7h-A1		↓	60s	
	S49438	9	20:16:21	40:34:31		20m	5.8/ SALLY
		10	7h-A1		↑	60s	
		11	7h-A1		↓	60s	7887A?
	P CY6	12	20:15:57	37:52:36		20m	4.8/ → one order red from SALLY
		13	7h-A1		↑	60s	7774A, but does not show feature.
		14	7h-A1		↓	60s	7887A?
	P CY6	15	20:15:57	37:52:36		20m	4.8/ correct wavelength SALLY
		16	7HAR		↓	60s	
	S49438	17	20:16:21	40:34:31		20m	5.8/ SALLY
		18	7HAR		↑	60s	
		19	7HAR		↓	60s	5187
	G5-44	20	03:31:21	22:49:24		4m	9.1/ moon, haze HALO in
		21	7HAR		↓	60s	
	66-20	22	03:34:10	25:49:48		2m	9.1/ HALO in
		23	7HAR		↑	60s	
		24	7H-AR		↓	60s	
	678-44	25	03:35:31	42:14:06		3m	8.9/ HALO in
		26	7H-AR		↓	60s	
	678-47	27	03:40:22	42:22:00		2m	7.4/ HALO in
		28	7H-AR		↓	60s	
	695-57A	29	03:43:36	41:27:25		2m	8.1/20 HALO
		30	7H-AR		↑	60s	
		31					
		32					

Intensified Reticon

TO CAM 9/19

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300R

Observer M Payson

Telescope 61" Wyeth

Date 9-10 sept 1987

Disk ORO 1728

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
	66-26	2	03:36:43	18:13:36		2m	9.01 double line! HALO Cin
	7H-AR	3			↓	60s	
	67-6	4	03:47:31	17:19:42		2m	7.51 HALO Cin
	7H-AR	5			↑	60s	
	7H-AR	6			↓	60s	
	66-40	7	03:53:31	22:32:00		2m	7.81 HALO Cin
	7H-AR	8			↑	60s	
	7H-AR	9			↓	60s	
	639-1	10	04:04:14	37:56:42		2m	7.11 HALO Cin
	7H-AR	11			↓	60s	
	639-5	12	04:15:13	35:52:30		2m	8.31/5 HALO
	7H-AR	13			↑	60s	
	7H-AR	14			↓	60s	
	681-15	15	04:17:22	45:42:18		5m	9.91 HALO Cin
	7H-AR	16			↓	60s	
	681-19	17	04:23:46	46:44:48		2m	6.71 HALO Cin
	7H-AR	18			↓	60s	
	6175-35	19	04:29:34	46:35:48		4m	9.71 HALO Cin
	7H-AR	20			↑	60s	
	7H-AR	21			↓	60s	
	683-18	22	04:31:38	12:38:06		6m	9.71 HALO Cin
	7H-AR	23			↓	60s	
	683-27	24	04:38:48	13:01:36		3m	8.91 HALO Cin
	7H-AR	25			↑	60s	
	7H-AR	26			↓	60s	
	685-13	27	04:41:37	25:50:42		6m	10.11 HALO Cin
	7H-AR	28			↑	60s	
	7H-AR	29			↓	60s	
	683-34	30	04:45:46	18:37:36		2.5m	9.61 very bright! HALO Cin
	7H-AR	31			↑	60s	700 cts p/s
		32					

TO CAM 9/10

Spectrograph ECHELLE Intensified Reticon
 Log Sheet
 Grating 300d Observer M Payson
 Telescope 6" Wyrth Date 9-10 sept 1957 Disk ORO 1729

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60 ^s	
		2	H266162	04:06:14 19:28:43		3 ^m	S.S. IAU
		3			↑	60 ^s	
		4			↓	60 ^s	
		5	SKYDOME	4 ^{hrs} E +35		2 ^m	
		6			↑	60 ^s	
		7			↓	60 ^s	
		8	SKYDOME	0 HA +35		2 ^m	
		9			↑	60 ^s	
		10			↓	60 ^s	
10-11 Sept 57		11	SKYEVIEW	0 HA +35		2 ^m	
		12			↑	60 ^s	
		13			↓	60 ^s	
		14	SKYEVIEW	4 ^{hrs} W +35		2 ^m	
		15			↑	60 ^s	
		16			↓	60 ^s	
		17	H182572	14:22:35 11:50:07		2 ^m	S.S. IAU
		18			↑	60 ^s	
		19			↓	60 ^s	
		20	G15644A	16:52:46 08:15:17		17.5 ^m	9.1/50-100 MSTAR
		21			↓	60 ^s	
		22	G15644A	" "		10 ^m	" "
		23			↑	60 ^s	
		24	G15643	16:52:43 08:14:30		20 ^m	11.7/15 MSTAR
		25			↑	60 ^s	
		26	G15643	" "		14 ^m	" "
		27			↑	60 ^s	
		28			↓	60 ^s	
		29	G217-3	23:17:32 02:27:00		16 ^m	11.71 stop & go HALO F1
		30			↑	60 ^s	
		31					
		32					

9/14

Intensified Reticon TO CAM
 Spectrograph ECHELLE Log Sheet RAW/RET
 Grating 300R Observer Mark Payson
 Telescope 61" Wyeth Date 10-11 sept 1987 Disk ORA 1730

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	Th-Ar		↓	60s	
		2	H134646	15:06:53	63:18:27	15m	6.7/400 stop +90 MSTAR
		3	Th-Ar		↓	60s	
		4	H134646	"	"	15m	" stop +90 "
		5	Th-Ar		↑	60s	
		6	Th-Ar		↓	60s	
		7	H144284	16:00:57	58:41:59	4m	4.1/300 cloud kill MSTAR
		8	Th-Ar		↑	60s	- stopped by clouds -
114-9/15 1987		9	INCAND		↓	120	
		10	INCAND			60m	
9/14-15 1987		11	Th-Ar		↓	60s	5187A -clear-
		12	SKY-EVE	φ hrs	+20°	2m	
		13	Th-Ar		↑	60s	
		14	Th-Ar		↓	60s	
		15	SKY-EVE	4.5 hrs W	+20°	2.5m	
		16	Th-Ar		↑	60s	Adjusted nutation 0.6 to 0.595; φ hrs
		17	Th-Ar		↓	60s	
		18	G85644A	16:52:46	-08:15:17	165m	9.1/50 Mstars
		19	Th-Ar		↑	60s	
		20	Th-Ar		↓	60s	
		21	(6)	19:10:52	-19:55:10	5m	10.1 Asteroid (?)
		22	Th-Ar		↑	60s	
		23	Th-Ar		↓	60s	
		24	(7)	19:10:09	-16:33:02	5m	10.3 Asteroid
		25	Th-Ar		↑	60s	
		26	Th-Ar		↓	60s	
		27	H182572	19:22:35	11:50:09	2m	5.2 IAU standard
		28	Th-Ar		↑	60s	- Reboot: Erratic RA guiding;
		29	Th-Ar		↓	60s	* moves off slit, then slowly
		30	H134646	15:06:53	63:18:27	5.5m	6.7/400 returns!
		31	Th-Ar		↑	60s	Mstars
		32	/				

9/14

Intensified Reticon

Spectrograph ECHELLE Log Sheet TO CAM

Grating 3002 Observer RPS RAW/RET

Telescope 61" Wyeth Date 14-15 Sept. 1987 Disk ORO 1732

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
		2	G35-24	02:02:10	22:34:00	5.5m	9.5/15 HALOS
		3			↑	60s	
		4			↓	60s	
		5	G72-58	02:05:31	28:04:36	4m	10.0/15 "
		6			↑	60s	
		7	G72-59	02:05:31	28:04:18	8.5m	10.6/15 "
		8			↑	60s	
		9			↓	60s	
		10	S147079	00:03:14	-19:56:36	7m	9.7/15 " - erratic RA guiding.
		11			↑	60s	
		12			↓	60s	
		13	G94-49	02:14:04	27:11:12	6m	10.4/15 "
		14			↑	60s	
		15			↓	60s	
		16	H15061	02:23:16	17:45:48	3m	9.4/15 "
		17			↑	60s	
		18	G94-41	02:25:55	17:35:06	5.5m	10.2/15 "
		19			↑	60s	
		20			↓	60s	
		21	G5-1	02:45:46	22:23:48	6m	10.1/20 "
		22			↑	60s	
		23			↓	60s	
		24	G5-17	03:07:13	15:11:24	5m	9.0/15 "
		25			↑	60s	
		26			↓	60s	
		27	H19390	03:04:49	15:18:42	6m	9.7/15 "
		28			↑	60s	
		29			↓	60s	
		30	S167605	02:07:47	-21:00:00	4m	9.7/15 "
		31			↑	60s	
		32					

9/14

Spectrograph ECHELLE Intensified Reticon TO CAM
 Grating 3002 Log Sheet RAW/RET
 Telescope 61" Wyeth Date 14-15 Sept. 1987 Observer RPS
 Disk ORO 1733

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
	S148474	2	02:31:46	-12:36:01		7.5m	9.8/25 HALOS
		3			↑	60s	
		4			↓	60s	
	G73-67	5	02:31:58	05:14:06		6m	9.8/15 "
		6			↑	60s	
		7			↓	60s	
	S130860	8	03:56:24	-05:36:40		3m	6.0 M stars
		9			↑	60s	
		10			↓	60s	
	G2s156	11	03:52:09	-06:58:24		6m	9.0 "
		12			↑	60s	
		13			↓	60s	
	G2s176	14	04:40:00	18:52:06		12m	9.9/40 "
		15			↑	60s	
		16			↓	60s	
	L81	17	04:38:41	13:07:34		17m	11.2 Hyades Binary
		18			↑	60s	
		19			↓	60s	
	H382	20	04:23:32	16:44:30		2m	8.0 "
		21			↑	60s	
	H388	22	04:23:48	16:38:08		2m	8.0 "
		23			↑	60s	
		24			↓	60s	
	G160-1	25	03:29:58	-08:46:12		2.5m	8.0/15 HALOS Enatic RA
		26			↑	60s	Guiding
		27			↓	60s	
	H26162	28	04:06:15	19:28:43		2m	5.5 IAU standard
		29			↑	60s	
		30					
		31					
		32					

9/15

TO CAM

Intensified Reticon

Spectrograph ECHELLE

Log Sheet

RAW RET

Grating 300L

Observer RPS

Telescope 61" Wyeth

Date 14-15 Sept 1987

Disk ORO 1734

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
		2	SKY-DWN	4 1/2 hrs W +30°		2m	4 1/2 hrs EAST
		3	Th-Ar		↑	60s	
		4	Th-Ar		↓	60s	
		5	SKY-DWN	φ hrs +30°		2m	
		6	Th-Ar		↑	60s	
		7	IN QAA			120	
		8	"			120	
		9	"			90	
15 Sept 1987		10	SCATTER			37"	IN QAA; ROT = 90° CW
		11	SCATTER			30"	CEK ; " "
15-16 Sept. 1987		12	Th-Ar		↓	60s	5187 Å - overcast -
		13	SKY-EVE	φ hrs +20°		2.5m	
		14	Th-Ar		↑	60s	
		15	Th-Ar		↓	60s	
		16	SKY-EVE	4 hrs W +20°		2.5m	
		17	Th-Ar		↑	60s	- clearing -
		18	Th-Ar		↓	60s	
		19	(3)	21:38:57 -08:24:40		5m	9.5 Asteroid
		20	Th-Ar		↑	60s	
		21	Th-Ar		↓	60s	
		22	H213014	22:25:46 17:00:28		3m	7.7 IAU standard
		23	Th-Ar		↑	60s	
		24	Th-Ar		↓	60s	
		25	G 173-10	01:32:56 49:27:24		15m	1.5/15 HALOS
		26	Th-Ar		↑	60s	needs >15cts! checked finding
		27	Th-Ar		↓	60s	chart. Brighter than 11.5.
		28	G 32-56	00:50:35 8:52:36		5m	7.5/15
		29	Th-Ar		↑	60s	
		30					
		31					
		32					

9/16

Spectrograph ECHELLE Intensified Reticon TO CAMI
 Grating 3002 Log Sheet RAW/RET
 Telescope 61" Wynth Date 15-16 Sept 1987 Observer RPS
 Disk ORO 1736

Change....	File	ID	RA	1950.0 Dec	L/R ↑/↓	Exposure	Comments
		1	Th-Ar		↓	60s	
		2	GS-42	03:28:22	20:56:00	2m	8.1/15 HALOS
		3	Th-Ar		↑	60s	
		4	Th-Ar		↓	60s	
		5	GS-46	03:33:15	16:18:30	2m	7.6/15 "
		6	Th-Ar		↑	60s	
		7	Th-Ar		↓	60s	
		8	H26162	04:06:15	19:28:43	2m	5.5 IAU standard
		9	Th-Ar		↑	60s	
		10	Th-Ar		↓	60s	
		11	SKY-DWN	4.5 hrs E	+30°	2m	
		12	Th-Ar		↑	60s	
		13	Th-Ar		↓	60s	
		14	SKY-DWN	φ hrs	+30°	2m	
		15	Th-Ar		↑	60s	
		16	INCA 20			120	
		17	"			120	
		18	"			111	
16-17 Sept. 1987		19	Th-Ar		↓	60s	S187A - prtty cloudy -
		20	SKY-EVE	φ hrs	+10°	2m	
		21	Th-Ar		↑	60s	
		22	Th-Ar		↓	60s	
		23	SKY-EVE	4 hrs W	+10°	2.5m	
		24	Th-Ar		↑	60s	
		25					
		26					
		27					
		28					
		29					
		30					
		31					
		32					

9/26 ORO-OCT

Intensified Reticon

TO CAM

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300L

Observer RPS

Telescope 61" Wyeth

Date 26-27 Sept. 1987

Disk ORO 1738

Change.... File ID 1950.0 RA Dec L/R Exposure Comments start of Sept-Oct Run

Change....	File	ID	1950.0 RA	Dec	L/R	Exposure	Comments
		1			↓	60s	5187A - pretty cloudy -
	SKY-EVE	φ hrs		+30°		2m	
		2					
	Th-Ar				↑	60s	
		3					
	Th-Ar	4 1/2 hrs W			↓	60s	
		4					
	SKY-EVE	4 1/2 hrs W		+30°		2m	
		5					
	Th-Ar				↑	60s	- clouds -
		6					
	Th-Ar				↓	60s	
		7					
	H146051	16:11:43	-03:34:01			2.5m	2.7 IAU standard 0.1ND
		8					
	Th-Ar				↑	60s	
		9					
	Th-Ar				↓	60s	
		10					
	(6)	19:19:14	-21:11:12			5m	10.3 Asteroid
		11					
	Th-Ar				↑	60s	
		12					
	Th-Ar				↓	60s	
		13					
	(7)	19:15:56	-16:33:20			7m	10.4 Asteroid
		14					
	Th-Ar				↑	60s	
		15					
	Th-Ar				↓	60s	
		16					
	GRS 735	18:53:03	08:20:18			13.5m	10.1/50 M stars (exposure cut shut by clouds)
		17					
	Th-Ar				↑	60s	
		18					
	Th-Ar				↓	60s	
		19					
	GRS 763	19:32:10	04:28:16			6m	9.4/30 "
		20					
	Th-Ar				↑	60s	
		21					
	Th-Ar				↓	60s	
		22					
	S124835	19:38:45	05:53:44			2m	6.7/100 "
		23					
	Th-Ar				↑	60s	
		24					
	Th-Ar				↓	60s	
		25					
	GRS 820A	21:04:54	38:32:06			2.5m	5.2/100 " C4s φ to 1000 m Δt ≈ 1-2sec!!!
		26					
	Th-Ar				↑	60s	
		27					
	Th-Ar				↓	60s	
		28					
	GRS 820B	21:04:54	38:32:06			3.5m	6.0/100
		29					
	Th-Ar				↑	60s	
		30					
	/	31					
	/	32					

9/26

Intensified Reticon

TO CAM1

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300R

Observer RPS

Telescope 61" Wyeth

Date 26-27 Sept. 1987

Disk ORO 1739

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
		2	5164461	21:29:39	-12:29:20	3m	6.9/100 M stars
		3			↑	60s	
		4			↓	60s	CEL-SKY GEAR FAILED
		5	GRS 830	21:27:19	-12:43:46	8m	9.1/40 "
		6			↑	60s	
		7			↓	60s	
		8	GRS 829	21:27:12	17:25:06	18m	10.4/10 "
		9			↑	60s	
		10			↓	60s	
		11	GRS 725A	18:42:18.5	59:34:22	6m	8.9
		12			↑	60s	
		13	GRS 725B	18:42:19.3	59:34:05	9m	9.7
		14			↑	60s	
		15			↓	60s	
		16	GRS 846	21:59:38	01:09:30	6m	9.2 "
		17			↑	60s	
		18			↓	60s	
		19	5127114	21:49:00	00:32:08	4m	6.9 "
		20			↑	60s	
		21			↓	60s	
		22	G18-54	22:29:03	01:54:24	10m	10.7/15 HALOS
		23			↑	60s	
		24			↓	60s	
		25	G18-55	22:30:20	10:09:00	5 1/4 m	9.3/15 "
		26			↑	60s	
		27			↓	60s	
		28	GRS 908	23:46:38	02:07:37	4.5m	9.0 M stars
		29			↑	60s	
		30					
		31					
		32					

9/26

Intensified Reticon

TO CAM

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 3002

Observer RPS

Telescope 61" Wyeth

Date 26-27 Sept 1987

Disk ORO 1740

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		
	5128427		23:49:24	02:39:09		2m	5.9 Mstars	
		Th-Ar			↑	60s		
		Th-Ar			↓	60s		
	G130-29		23:56:16	33:27:54		2m	7.8/15 HALOS	
		Th-Ar			↑	60s		
		Th-Ar			↓	60s		
	-18271		01:34:54	-17:44:12		14m	9.8/20 "	
		Th-Ar			↑	60s		
		Th-Ar			↓	60s		
	G33-30		00:58:27	16:06:18		10m	10.7/30 "	
		Th-Ar			↑	60s	This is not G6-26 as marked on charts but rather the bright * to the Nuth. G6-26 is not 9.0. Was the wrong * observed last month?	
		Th-Ar			↓	60s		
	G6-26?		03:36:43	18:13:36		3m		9.0/30
		Th-Ar			↑	60s		
		Th-Ar			↓	60s		
	L81		04:38:41	13:07:34		20m	11.2 Hyades Binary	
		Th-Ar			↑	60s		
		Th-Ar			↓	60s		
	H441		04:25:59	16:10:48		9m	10.7 "	
		Th-Ar			↑	60s		
		Th-Ar			↓	60s		
	G85176		04:40:00	18:52:06		14m	9.9/40 Mstars	
		Th-Ar			↑	60s		
		Th-Ar			↓	60s		
	G85154		03:43:19	26:03:42		9m	9.6/40 "	
		Th-Ar			↑	60s		
		Th-Ar			↓	60s		
	S076206		03:45:07	24:50:08		2m	6.8/100 "	
		Th-Ar			↑	60s		

9/27

Intensified Reticon

TO CAM

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 300L

Observer RPS

Telescope 61" Wyeth

Date 26-27 Sept. 1987

Disk ORO 1741

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1	Th-Ar		↓	60s	
		2	GRS 69	01:40:10	63:34:24	3.5m	8.4 M stars
		3	Th-Ar		↑	60s	
		4	Th-Ar		↓	60s	
		5	SO11983	01:44:10	63:36:14	2m	5.7 "
		6	Th-Ar		↑	60s	
		7	Th-Ar		↓	60s	
		8	H2662	04:56:15	19:28:43	2m	IAU standard
		9	Th-Ar		↑	60s	
		10	Th-Ar		↓	60s	
		11	SKY-DWN	4hrs E	+20°	2m	
		12	Th-Ar		↑	60s	
		13	Th-Ar		↓	60s	
		14	SKY-DWN	φ hrs	+20°	2m	
		15	Th-Ar		↑	60s	
		16	INCANDS			120m	Nitrogen line blew
		17	INCANDS			120m	
		18	INCANDS			120m	
27-28 Sept. 1987		19	Th-Ar		↓	60s	5187A -clear-
		20	SKY-EVE	φ hrs	+20°	2m	
		21	Th-Ar		↑	60s	
		22	Th-Ar		↓	60s	
		23	SKY-EVE	4hrs W	+20°	2m	
		24	Th-Ar		↑	60s	
		25	Th-Ar		↓	60s	
		26	H182572	19:22:35	11:50:09	2m	5.2 IAU standard
		27	Th-Ar		↑	60s	
		28	Th-Ar		↓	60s	
		29	G140-30	17:58:41	11:04:18	3m	9.4/15 HALO
		30	Th-Ar		↑	60s	
		31	/				
		32	/				

9/27

Intensified Reticon

Spectrograph ECHELLE Log Sheet TO CAM

Grating 300R Observer RPS

Telescope 61" Wyeth Date 27-28 Sept. 1987 Disk ORO 1742

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
		2	G141-8	18:23:47	08:45:06	244x	7.9/15 HALO
		3			↑	60s	CEX-SKY MIRROR
		4			↓	60s	GEAR PROBLEMS Jammed
		5	G25-15	21:01:37	02:48:00	2m	7.4/50 " Stepping motor will not turn off on SKY
		6			↑	60s	
		7			↓	60s	must set by hand
		8	G24-13	20:17:56	05:52:42	6m	10.1/15 "
		9			↑	60s	
		10			↓	60s	
		11	G24-25	20:37:42	00:22:42	19m	10.6/50 "
		12			↑	60s	
		13			↓	60s	
		14	(3)	21:34:12	-10:16 11	3m	9.7 Asteroid
		15			↑	60s	
		16			↓	60s	
		17	S 191333	22:39:17	-21:02:48	11m	9.3/30 HALOS
		18			↑	60s	
		19			↓	60s	
		20	G25960	23:32:26	01:19:42	7m	9.6 M stars
		21			↑	60s	Took CEX-SKY writing up
		22			↓	60s	bad connection!
		23	G130-32	23:57:31	33:54:42	2m	8.5/20 HALOS
		24			↑	60s	
		25			↓	60s	
		26	G25809	20:52:18	61:58:30	4m	8.5 M stars
		27			↑	60s	
		28			↓	60s	
		29	G262-32	20:58:10	64:58:00	17m	10.7/20 HALOS
		30			↑	60s	
		31					
		32					

9/28

Spectrograph ECHELLE Intensified Reticon TO CAM
 Grating 300L Log Sheet RAW/RET
 Telescope 61" Wyeth Date 27-28 Sept. 1987 Observer RPS
 Disk ORO 17-43

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	5187A - clear -
		2	GRS 573	22:44:40	44:04:36	20m	10.2 M stars - overcast -
		3			↓	60s	
		4	GRS 373	"	"	85m 70m	"
		5			↑	60s	
		6			↓	60s	
		7	H 8779	01:23:54	-00:39:29	2m	IAU standard
		8			↑	60s	
		9			↓	60s	
		10	GRS 4A	00:03:05	45:32:16	4m	8.9 M stars
		11			↓	60s	
		12	GRS 4B	00:03:05	45:32:00	4.5m	9.0 "
		13			↓	60s	
		14	GR 32	00:02:35	45:30:30	5.5m	9.9 "
		15			↑	60s	
		16			↓	60s	
		17	S 0362 S0	00:15:41	44:16:52	2m	7.6
		18			↑	60s	
		19			↓	60s	
		20	GRS 15A	00:15:41	43:44:37	3.5m	8.1 "
		21			↑	60s	- RAIN -
		22			↓	60s	
		23	SKY - DRAIN	φ hrs.	-15°	2.5m	
		24			↑	60s	
		25	INCANDS			120m	
		26	INCANDS			120m	
		27	INCANDS			120m	
28-29 Sept. 1987		28			↓	60s	5187A - pretty cldy -
		29	SKY - EVE	φ hrs.	+30°	2.5m	
		30			↑	60s	
		31					
		32					

9/28

Intensified Reticon

TO CAMI

Spectrograph ECHELLE

Log Sheet

RAW/RET

Grating 3002

Observer RPS

Telescope 61" Wyeth

Date 28-29 Sept. 1987

Disk ORO 1745

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
	G129-42	2	23:52:30	20:06:24		7m	9.0/20 HALOS
	Th-Ar	3			↑	60s	
	Th-Ar	4			↓	60s	
	G25172	5	04:33:43	52:48:00		5.5m	3.6 M stars
	Th-Ar	6			↑	60s	
	Th-Ar	7			↓	60s	
	G175-47	8	04:40:06	52:53:36		3m	10.3/15 HALOS
	Th-Ar	9			↑	60s	
	Th-Ar	10			↓	60s	
	G175-26	11	04:13:19	57:04:48		6.5m	10.5/15 "
	Th-Ar	12			↑	60s	
	Th-Ar	13			↓	60s	
	G4-2	14	02:08:40	09:23:18		10m	10.7/15 "
	Th-Ar	15			↑	60s	
	Th-Ar	16			↓	60s	
	G4-44	17	02:49:16	11:10:12		2m	8.4/15 "
	Th-Ar	18			↑	60s	
	Th-Ar	19			↓	60s	
	S021738	20	00:46:19	56:48:10		3.5m	7.1 M stars
	Th-Ar	21			↑	60s	
	Th-Ar	22			↓	60s	
	G2534B	23	00:48:18	57:44:51		3.5m	7.5 "
	Th-Ar	24			↑	60s	
	Th-Ar	25			↓	60s	
	DL CAS	26	00:27:11	59:56:12		5.5m	10.6 Huchra Many #'s, chart?
	Th-Ar	27			↑	60s	
	Th-Ar	28			↓	60s	
	S56455	29	03:23:53	34:15:18		2m	6.7/50 HALOS
	Th-Ar	30			↑	60s	
	/	31					
	/	32					

Intensified Reticon
TO CAM 9/29

Spectrograph ECHELLE Log Sheet RAW/RET

Grating 300R Observer RPS

Telescope 61" Wyeth Date 28-29 Sept 1987 Disk ORO 1746

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
		2	G 81-2	04:00:32	39:36:12		10m 10.7/15 HALOS
		3			↑	60s	
		4			↓	60s	
		5	H 578	04:31:08	15:03:37		3m 85 Hyades Binary
		6			↑	60s	
		7			↓	60s	
		8	G 39-43	04:54:40	34:11:42		2m 82/15 HALOS
		9			↑	60s	
		10			↓	60s	
		11	H 26162	04:06:15	19:28:43		3m 5.5 IAU Standard
		12			↑	60s	
		13			↓	60s	
		14	SKY-DWN	4 hrs E	+20°		2m
		15			↑	60s	
		16			↓	60s	
		17	SKY-DWN	φ hrs	+20°		2m
		18			↑	60s	
		19	INCANDS				120m
		20	INCANDS				120m
		21	INCANDS				120m
		22			↓	60s	
		23	SKYVIEW				2m Stow Position
		24			↑	60s	
		25			↓	60s	
		26	SKYVIEW				2 1/2" 3" W, +31°
		27			↑	60s	
		28			↓	60s	
		29	H 182572	19:22:35.1	11:50:09		2m IAU Rad Vel STD
		30			↑	60s	
		31					
		32					

29-30 Sept
1987
RJD

9/30

Intensified Reticon TO CAMI
 Spectrograph ECHELLE Log Sheet RAW/RET
 Grating 300L Observer RJD
 Telescope 61" Wyeth Date 9/29-30/87 Disk ORO 1748

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60 ^s	
		2	G142-2	18:57:36	15:52:36		5.25 ^m Halo Binaries
		3	ThAr		↑	60 ^s	
		4	ThAr		↓	60 ^s	
		5	S162747	19:42:21	-17:37:42		6 ^m
		6	ThAr		↑	60 ^s	
		7	ThAr		↓	60 ^s	
		8	(3)	21:33:46.6	-10:32:40		3 ^m Asteroid
		9	ThAr		↑	60 ^s	
		10	ThAr		↓	60 ^s	
		11	G25-15	21:01:37	02:48:00		2 ^m Halo Binaries
		12	ThAr		↑	60 ^s	
		13	ThAr		↓	60 ^s	
		14	G18-55	22:30:20	10:09:00		3 ^m
		15	ThAr		↑	60 ^s	
		16	ThAr		↓	60 ^s	
		17	S171333	22:39:17	-21:02:48		9 ^m
		18	ThAr		↑	60 ^s	
		19	ThAr	INCANDS		↓	120 ^m
		20	ThAr	INCANDS			120 ^m Clouds!
		21	INCANDS		↓	120 ^m	
		22	INCANDS			120 ^m	
30 Sept - 1 Oct 1987		23	ThAr		↓	60 ^s	S187A - pretty cloudy -
		24	(3)	21:33:36	-10:41:03		5 ^m Asteroid
		25	ThAr		↑	60 ^s	
		26	ThAr		↓	60 ^s	
		27	H213014	22:25:46	17:00:28		4 ^m 7.7 1AU standard
		28	ThAr		↑	60 ^s	
		29	ThAr		↓	60 ^s	
		30	G67-38	22:56:49	11:55:36		11 ^m 8.4/100
		31	ThAr		↑	60 ^s	
		32					

9/30

Intensified Reticon
TO CAM

Spectrograph ECHELLE Log Sheet RAW RET

Grating 300R Observer RPS

Telescope 61" Wyeth Date 30 Sept - 1 Oct 1987 Disk ORO 1749

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
		2	G127-33	22:25:40	24:41:00		5m 10.0/15 HALO
		3	Th-Ar		↑	60s	
		4	Th-Ar		↓	60s	
		5	G157-21	23:06:29	-02:49:18		5.5m 9.3/20 "
		6	Th-Ar		↑	60s	
		7	Th-Ar		↓	60s	
		8	G69-1	00:29:55	27:55:18		2m 8.7/15 "
		9	Th-Ar		↑	60s	
		10	Th-Ar		↓	60s	
		11	S166200	00:18:13	-25:44:36		3.5m 8.3/20 "
		12	Th-Ar		↑	60s	
		13	Th-Ar		↓	60s	
		14	H3008	00:30:42	-11:00:00		5.5m 9.5/15 "
		15	Th-Ar		↑	60s	
		16	Th-Ar		↓	60s	
		17	G2-19	01:03:29	01:26:30		3m 9.5/15 "
		18	Th-Ar		↑	60s	
		19	Th-Ar		↓	60s	
		20	G2-46	01:32:14	00:41:36		2m 6.9/15 "
		21	Th-Ar		↑	60s	
		22	Th-Ar		↓	60s	
		23	G71-27	01:39:22	01:39:00		3m 8.8/20 "
		24	Th-Ar		↑	60s	
		25	Th-Ar		↓	60s	
		26	G1-51	01:08:17	09:17:48		3.5m 9.3/15 "
		27	Th-Ar		↑	60s	
		28	Th-Ar		↓	60s	
		29	G33-48	01:13:53	09:21:42		3.25m 8.8/15 "
		30	Th-Ar		↑	60s	
		31	/				
		32	/				

9/30

Spectrograph ECHELLE Intensified Reticon TO CAM
 Grating 3002 Log Sheet RAW/RET
 Telescope 61" Wyeth Date 30 Sept - 1 Oct 1987 Observer RPS
 Disk OR01750

Change....	File	ID	1950.0 RA	Dec	L/R ↑/↓	Exposure	Comments
		1			↓	60s	
		2	G2-38	01:24:17	11:45:18	↓	12m 11.4/15 HALOS
		3			↑	60s	
		4			↓	60s	
		5	G191-55	05:53:04	58:40:24	↓	12.5m 10.5/40 "
		6			↑	60s	
		7			↓	60s	
		8	H270	04:19:52	16:40:32	↓	2m 7.9 Hyades Binny
		9			↑	60s	
		10			↓	60s	
		11	H361	04:22:54	17:54:18	↓	2.5m "
		12			↑	60s	
		13			↓	60s	
		14	H544	04:29:58	15:54:05	↓	2m A
		15			↑	60s	
		16			↓	60s	
		17	G39-18	04:29:21	38:12:00	↓	8.5m 11/15 HALO
		18			↑	60s	
		19			↓	60s	
		20	G39-23	04:30:05	33:57:00	↓	8m 11.0/15 "
		21			↑	60s	
		22			↓	60s	
		23	G8-40	04:29:29	26:21:36	↓	10m 10.7/15 "
		24			↑	60s	
		25			↓	60s	
		26	G8-46	04:34:53	19:58:12	↓	13m 11.0/15 "
		27			↑	60s	
		28			↓	60s	
		29	G84-29	04:58:39	04:02:24	↓	10m 9.8/15 "
		30			↑	60s	
		31					
		32					

10/1

Spectrograph ECHELLE Intensified Reticon TO CAM1
 Grating 3002 Log Sheet RAW/RET
 Telescope 61" Wyeth Date 30 Sept - 1 Oct 1987 Observer RPS
 Disk ORO 1751

Change....	File	ID	RA	Dec	1950.0 L/R ↑/↓	Exposure	Comments
		1			↓	60s	
		2	G83-50	04:59:20	14:00:54	2.25m	8.2/15 HALO
		3			↑	60s	
		4			↓	60s	
		5	H26162	04:06:15	19:28:43	2m	5.5 IAU standard
		6			↑	60s	
		7			↓	60s	
		8	H66141	07:59:40	02:28:24	2m	4.4 IAU standard
		9			↑	60s	
		10			↓	60s	
		11	SKY-DWN	4hrs E	+20°	2m	
		12			↑	60s	
		13			↓	60s	
		14	SKY-DWN	φ hrs	+20°	2m	
		15			↑	60s	
		16	IN HANDS			120m	
1-2 Oct 1987		17			↓	60s	S187A - pretty cldy-
		18	SKY-EVE	φ hrs	+30°	2m	
		19			↑	60s	
		20			↓	60s	
		21	SKY-EVE	4 1/2 hrs W	+30°	2m	
		22			↑	60s	
		23			↓	60s	
		24	H146051	16:11:43	-03:34:01	3m	2.7 IAU standard G.INDO
		25			↑	60s	
		26			↓	60s	
		27	(1)	17:52:17	-28:29:56	7m	9.6 Asteroid - Probably No Good - in the area -
		28			↑	60s	
		29			↓	60s	
		30	G140-46	18:09:56	5:23:36	9m	11.4/15 HALO 15% background
		31			↑	60s	
		32					