INT OBSERVING LOG (ISAAC NEWTON GROUP, LA PALMA)

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TELESCOPE:            INT
DATE:                 20000903
TAPE NR:              INTD4487
OBSERVER:             Mike Irwin & Annette Ferguson
PROGRAMME:            Survey of M31 Halo and outer disk
PATT/CAT REF.:        P8
TELESCOPE OPERATOR:   N/A
SUPPORT ASTRONOMER:   N/A

TELESCOPE FOCUS:      46.10 mm
CALIBRATE RESULTS:    HI 32.91 +/- 3.79, DI -84.02 +/- 1.27, HC  58.34 +/- 2.73, Sky sigma 3.39

INSTRUMENT:           WFC

WFC FILTER WHEEL:     g,V,r,i,z,Ha

WEATHER:              (1st half) GOOD
                      (2nd half) GOOD
CLOUD COVER (%):      (1st half) 0
                      (2nd half) 0
DUST (0-2):           (1st half) 0
                      (2nd half) 0
SEEING (arcsec):      (1st half) 1.2
                      (2nd half) 1.0

DOME OPENED (UT):     19:00
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METEOROLOGICAL PARAMETERS

UT	AirT	Hum%	Wspd	Gust	Wdir	Press	LocT	IntT	Mirr	LocRH	IntRH
20:00	16.2	11	27.3	30.2	246	773.5	16.7	19.5	18.4	9	10
21:00	14.7	13	19.9	23.1	250	773.7	15.3	16.8	17.9	11	11
22:00	14.7	16	28.5	31.9	258	774.0	15.1	16.5	17.9	14	14
23:00	14.2	19	25.7	30.5	280	774.2	15.0	16.1	17.7	16	16
00:00	14.7	13	25.2	27.6	285	774.2	15.3	16.2	17.5	11	11
01:00	14.8	15	28.4	32.7	275	774.1	15.3	16.2	17.5	14	14
02:00	14.4	18	34.8	38.8	272	773.7	14.8	15.6	17.3	17	16
03:00	14.3	18	32.5	33.8	278	773.5	14.6	15.4	17.2	17	16
04:00	15.1	7	35.4	36.8	277	773.2	15.4	15.8	17.1	7	7
05:00	14.6	10	28.9	32.3	282	772.9	15.0	15.9	17.1	9	9
06:00	14.5	14	23.6	27.3	194	772.7	15.2	15.9	17.1	14	13

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SUNSET(UT)            19:39
EVENING TWILIGHT(UT)  20:52
MORNING TWILIGHT(UT)  05:30
SUNRISE(UT)           06:44
MOON'S QUARTER (1-4)  1
DISK % OF ILLUM.      28
DARK TIME             08:38
TWILIGHT TIME         02:27
MOONRISE(UT)          No moonrise within sunset-sunrise
MOONSET(UT)           23:18

TIME LOST(WEATHER):   00:00
TIME LOST(TECHNICAL): 02:00
TIME LOST(OTHER):     00:00

COMMENTS:
  Possibly some high level cirrus but could have been photometric
  some problem with filter wheel during twilight flats at start of
  night.  /var getting full caused most of the time loss
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Run no.	Object name	RA	Dec.	Equinox	AM	PA	UT	Exp. T.	Filter	Psys Channel	Binning	Comments
228564	Bias frame	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	13:30:16.5	0.0	r	Sloan	1 x 1	
228565	Bias	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	14:09:22.4	0.0	i	Sloan	1 x 1	
228566	Bias	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	15:33:29.6	0.0	z	Gunn	1 x 1	
228567	Bias	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	15:59:29.7	0.0	i	Sloan	1 x 1	
228571	Dome flat 1	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:10:39.4	1.1	r	Sloan	1 x 1	
228572	Dome flat 2	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:11:38.7	2.1	r	Sloan	1 x 1	
228573	Dome flat 3	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:12:39.0	3.1	r	Sloan	1 x 1	
228574	Dome flat 4	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:13:40.2	4.1	r	Sloan	1 x 1	
228575	Dome flat 5	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:14:42.7	5.1	r	Sloan	1 x 1	
228576	Dome flat 6	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:15:46.5	6.1	r	Sloan	1 x 1	
228577	Dome flat 7	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:16:50.8	7.1	r	Sloan	1 x 1	
228578	Dome flat 8	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:17:56.3	7.6	r	Sloan	1 x 1	
228579	Dome flat 9	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:19:02.8	9.1	r	Sloan	1 x 1	
228580	Dome flat 10	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:20:10.5	10.1	r	Sloan	1 x 1	
228581	Dome flat 11	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:21:19.5	11.1	r	Sloan	1 x 1	
228582	Dome flat 12	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:22:28.5	12.1	r	Sloan	1 x 1	
228583	Dome flat 13	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:23:39.7	13.1	r	Sloan	1 x 1	
228584	Dome flat 14	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:24:51.9	14.1	r	Sloan	1 x 1	
228585	Dome flat 15	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:26:04.8	15.1	r	Sloan	1 x 1	
228586	Dome flat 16	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:27:18.6	16.1	r	Sloan	1 x 1	
228587	Dome flat 17	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:28:33.2	17.1	r	Sloan	1 x 1	
228588	Dome flat 18	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:29:49.0	18.1	r	Sloan	1 x 1	
228589	Dome flat 19	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:31:06.7	19.1	r	Sloan	1 x 1	
228590	Dome flat 20	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:32:25.5	20.1	r	Sloan	1 x 1	
228591	Dome flat 21	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:33:44.5	21.1	r	Sloan	1 x 1	
228592	Dome flat 22	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:35:06.4	22.1	r	Sloan	1 x 1	
228593	Dome flat 23	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:36:28.0	23.1	r	Sloan	1 x 1	
228595	Dome flat 25	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:37:58.1	25.1	r	Sloan	1 x 1	
228596	Dome flat 26	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:39:21.6	26.1	r	Sloan	1 x 1	
228597	Dome flat 27	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:40:45.8	27.1	r	Sloan	1 x 1	
228598	Dome flat 28	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:42:11.1	28.1	r	Sloan	1 x 1	
228599	Dome flat 29	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:43:37.7	29.1	r	Sloan	1 x 1	
228600	Dome flat 30	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:45:04.8	30.1	r	Sloan	1 x 1	
228601	Dome flat 31	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:46:33.2	31.1	r	Sloan	1 x 1	
228602	Dome flat 32	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	16:48:04.4	32.1	r	Sloan	1 x 1	
228603	Bias frame	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	18:53:09.0	0.0	r	Sloan	1 x 1	
228604	Bias frame	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	18:53:57.8	0.0	r	Sloan	1 x 1	
228605	Bias frame	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	18:54:42.8	0.0	r	Sloan	1 x 1	
228606	Bias frame	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	18:55:21.9	0.0	r	Sloan	1 x 1	
228607	Bias frame	0:00:00.00	+00:00:00.0	J2000.00	4.265	180.0	18:56:01.4	0.0	r	Sloan	1 x 1	
228608	Flat field	14:59:59.99	+30:00:00.0	J2000.00	1.236	180.0	20:04:22.1	40.1	r	Sloan	1 x 1	
228609	Flat field	15:00:02.30	+30:00:30.0	J2000.00	1.242	180.0	20:06:02.1	55.1	r	Sloan	1 x 1	
228610	Flat field	15:00:02.30	+30:00:30.0	J2000.00	1.249	180.0	20:08:00.4	70.0	r	Sloan	1 x 1	
228611	Flat field	15:00:04.61	+30:01:00.0	J2000.00	1.257	180.0	20:10:12.5	90.0	r	Sloan	1 x 1	
228612	Focus run	18:42:45.00	+00:09:34.0	J2000.00	1.143	180.0	20:42:42.1	10.1	r	Sloan	1 x 1	
228613	sa110-361	18:42:44.99	+00:08:04.0	J2000.00	1.141	180.0	20:47:30.8	10.1	r	Sloan	1 x 1	
228614	sa110-361	18:42:45.00	+00:08:03.9	J2000.00	1.140	180.0	20:49:04.6	10.1	V	Harris	1 x 1	
228615	sa110-361	18:42:45.00	+00:08:03.9	J2000.00	1.140	180.0	20:50:15.8	10.1	i	Sloan	1 x 1	
228616	sa110-361	18:42:44.99	+00:08:03.9	J2000.00	1.140	180.0	20:51:28.9	10.1	z	Gunn	1 x 1	
228617	sa110-361	18:42:45.00	+00:08:04.0	J2000.00	1.140	180.0	20:52:43.8	10.1	g	Sloan	1 x 1	
228618	Pal11 V	19:45:14.39	-08:00:26.0	J2000.00	1.305	180.0	20:57:18.3	100.0	V	Harris	1 x 1	
228619	Pal11 i	19:45:14.40	-08:00:25.9	J2000.00	1.300	180.0	21:00:06.8	100.0	i	Sloan	1 x 1	
228620	N6934 V	20:34:11.50	+07:24:15.0	J2000.00	1.188	180.0	21:06:40.0	100.0	i	Sloan	1 x 1	
228621	N6934 V	20:34:11.50	+07:24:15.0	J2000.00	1.181	180.0	21:09:27.5	100.0	V	Harris	1 x 1	
228622	N7089	21:33:29.30	-00:49:23.1	J2000.00	1.483	180.0	21:14:30.5	100.0	V	Harris	1 x 1	
228623	N7089	21:33:29.29	-00:49:23.0	J2000.00	1.468	180.0	21:17:30.4	98.2	i	Sloan	1 x 1	
228624	sa110-361 V	18:42:45.00	+00:08:03.9	J2000.00	1.144	180.0	21:22:14.6	9.6	V	Harris	1 x 1	
228625	sa110-361 g	18:42:45.00	+00:08:03.9	J2000.00	1.144	180.0	21:23:22.9	10.1	g	Sloan	1 x 1	
228626	sa110-361 i	18:42:45.00	+00:08:03.9	J2000.00	1.145	180.0	21:24:29.6	9.6	i	Sloan	1 x 1	

228627	sa110-361 r	18:42:44.99	+00:08:03.9	J2000.00	1.145	180.0	21:25:37.0	10.1	r	Sloan 1 x 1
228628	sa110-361 Z	18:42:45.00	+00:08:04.0	J2000.00	1.146	180.0	21:26:44.2	10.1	z	Gunn 1 x 1
228629	wfsj1637+4116_053	16:43:45.40	+42:15:59.9	J2000.00	1.212	180.0	21:34:42.2	599.5	z	Gunn 1 x 1
228630	wfsj1637+4116_053	16:43:45.40	+42:15:59.9	J2000.00	1.243	180.0	21:45:53.3	599.6	i	Sloan 1 x 1
228631	wfsj1637+4116_053	16:43:45.40	+42:15:59.9	J2000.00	1.278	180.0	21:57:05.4	598.8	r	Sloan 1 x 1
228632	wfsj1637+4116_053	16:43:45.39	+42:16:00.0	J2000.00	1.317	180.0	22:08:23.7	599.5	g	Sloan 1 x 1
228633	wfsj1637+4116_054	16:43:47.60	+42:36:00.0	J2000.00	1.491	180.0	22:47:50.6	599.5	i	Sloan 1 x 1
228634	grb000830	23:34:12.10	+06:20:46.9	J2000.00	1.168	90.0	00:16:48.6	449.2	r	Sloan 1 x 1
228635	grb000830	23:34:12.10	+06:20:47.1	J2000.00	1.151	90.0	00:25:29.7	449.6	r	Sloan 1 x 1
228636	grb000830	23:34:12.09	+06:20:46.9	J2000.00	1.137	90.0	00:34:08.5	449.7	r	Sloan 1 x 1
228637	grb000830	23:34:12.09	+06:20:46.9	J2000.00	1.123	90.0	00:43:50.1	449.6	i	Sloan 1 x 1
228638	grb000830	23:34:12.10	+06:20:47.0	J2000.00	1.112	90.0	00:52:42.6	449.7	i	Sloan 1 x 1
228639	grb000830	23:34:12.09	+06:20:46.9	J2000.00	1.103	90.0	01:01:36.6	449.2	i	Sloan 1 x 1
228640	grb000830	23:34:12.10	+06:20:46.9	J2000.00	1.095	90.0	01:10:39.9	449.7	V	Harris 1 x 1
228641	grb000830	23:34:12.09	+06:20:47.0	J2000.00	1.089	90.0	01:19:37.7	449.6	V	Harris 1 x 1
228642	grb000830	23:34:12.10	+06:20:47.0	J2000.00	1.085	90.0	01:28:31.1	449.7	V	Harris 1 x 1
228643	sa113-163 V	21:42:35.00	+00:16:46.0	J2000.00	1.254	180.0	01:40:02.8	8.5	V	Harris 1 x 1
228644	sa113-163 g	21:42:35.00	+00:16:46.0	J2000.00	1.257	180.0	01:41:12.5	10.1	g	Sloan 1 x 1
228645	sa113-163 i	21:42:35.00	+00:16:46.0	J2000.00	1.260	180.0	01:42:22.4	10.1	i	Sloan 1 x 1
228646	sa113-163 r	21:42:35.00	+00:16:46.0	J2000.00	1.263	180.0	01:43:30.7	10.1	r	Sloan 1 x 1
228647	sa113-163 Z	21:42:34.99	+00:16:45.9	J2000.00	1.266	180.0	01:44:40.7	10.1	z	Gunn 1 x 1
228648	Focus run	0:31:10.26	+38:29:29.6	J2000.00	1.038	180.0	01:51:15.5	10.1	V	Harris 1 x 1
228649	wfsjm31_01	0:31:10.26	+38:27:59.7	J2000.00	1.028	180.0	01:57:03.5	799.4	V	Harris 1 x 1
228650	wfsjm31_01	0:31:10.25	+38:27:59.6	J2000.00	1.021	180.0	02:11:36.9	799.2	i	Sloan 1 x 1
228651	wfsjm31_02 i	0:33:05.44	+38:06:42.5	J2000.00	1.014	180.0	02:32:00.3	799.4	i	Sloan 1 x 1
228652	wfsjm31_02 V	0:33:05.44	+38:06:42.2	J2000.00	1.014	180.0	02:46:56.6	799.2	V	Harris 1 x 1
228653	wfsjm31_03 i	0:31:55.96	+39:01:11.7	J2000.00	1.019	180.0	03:02:50.9	799.4	i	Sloan 1 x 1
228654	wfsjm31_03 V	0:31:55.96	+39:01:11.8	J2000.00	1.025	180.0	03:17:35.0	799.3	V	Harris 1 x 1
228655	wfsjm31_04 i	0:33:51.87	+38:39:50.7	J2000.00	1.032	180.0	03:33:30.8	799.3	i	Sloan 1 x 1
228656	wfsjm31_04 V	0:33:51.86	+38:39:50.8	J2000.00	1.043	180.0	03:48:13.4	799.2	V	Harris 1 x 1
228657	sa92-335 V	0:55:00.00	+00:44:13.0	J2000.00	1.163	180.0	04:04:50.3	9.6	V	Harris 1 x 1
228658	sa92-335 g	0:55:00.00	+00:44:13.0	J2000.00	1.164	180.0	04:05:59.9	9.6	g	Sloan 1 x 1
228659	sa92-335 i	0:55:00.00	+00:44:12.9	J2000.00	1.166	180.0	04:07:08.3	10.1	i	Sloan 1 x 1
228660	sa92-335 r	0:54:59.99	+00:44:13.0	J2000.00	1.167	180.0	04:08:16.8	10.1	r	Sloan 1 x 1
228661	sa92-335 Z	0:55:00.00	+00:44:13.0	J2000.00	1.169	180.0	04:09:25.5	10.1	z	Gunn 1 x 1
228662	wfsjm31_58 i	0:59:10.46	+43:11:31.8	J2000.00	1.060	180.0	04:13:53.3	799.0	i	Sloan 1 x 1
228663	wfsjm31_58 V	0:59:10.46	+43:11:31.9	J2000.00	1.075	180.0	04:29:23.5	799.4	V	Harris 1 x 1
228664	wfsjm31_57 i	0:57:15.26	+43:34:28.5	J2000.00	1.099	180.0	04:45:16.0	799.2	i	Sloan 1 x 1
228665	wfsjm31_57 V	0:57:15.26	+43:34:28.2	J2000.00	1.121	180.0	04:59:57.9	799.3	V	Harris 1 x 1
228666	wfsjm31_56 i	0:55:18.58	+43:57:17.4	J2000.00	1.154	180.0	05:15:30.9	799.4	i	Sloan 1 x 1
228667	wfsjm31_56 V	0:55:18.58	+43:57:17.2	J2000.00	1.185	180.0	05:30:13.3	799.1	V	Harris 1 x 1
228668	sa95-330 V	3:54:30.99	+00:29:05.0	J2000.00	1.142	180.0	05:46:35.0	10.1	V	Harris 1 x 1
228669	sa95-330 g	3:54:31.00	+00:29:05.0	J2000.00	1.141	180.0	05:47:44.1	10.1	g	Sloan 1 x 1
228670	sa95-330 i	3:54:30.99	+00:29:04.9	J2000.00	1.141	180.0	05:48:53.2	9.6	i	Sloan 1 x 1
228671	sa95-330 r	3:54:31.00	+00:29:04.9	J2000.00	1.140	180.0	05:50:02.2	10.1	r	Sloan 1 x 1
228672	sa95-330 Z	3:54:30.99	+00:29:05.0	J2000.00	1.139	180.0	05:51:10.9	10.1	z	Gunn 1 x 1
228673	sa95-330 V	3:54:31.00	+00:29:04.9	J2000.00	1.138	180.0	05:54:37.1	8.5	V	Harris 1 x 1
228674	Flat field	3:30:00.00	+20:00:00.0	J2000.00	1.019	180.0	06:15:39.4	75.0	r	Sloan 1 x 1
228675	Flat field	3:30:02.12	+20:00:30.0	J2000.00	1.020	180.0	06:18:19.7	40.1	r	Sloan 1 x 1
228676	Flat field	3:30:02.12	+20:00:30.0	J2000.00	1.021	180.0	06:20:32.5	30.1	V	Harris 1 x 1
228677	Flat field	3:30:04.25	+20:00:59.8	J2000.00	1.022	180.0	06:22:06.9	20.1	V	Harris 1 x 1
228678	Flat field	3:29:57.87	+19:59:29.9	J2000.00	1.023	180.0	06:23:26.7	15.1	V	Harris 1 x 1
228679	Flat field	3:29:57.87	+19:59:30.0	J2000.00	1.024	180.0	06:25:00.4	6.1	i	Sloan 1 x 1
228680	Flat field	3:30:00.70	+20:00:10.0	J2000.00	1.024	180.0	06:26:04.7	4.1	i	Sloan 1 x 1
228681	Flat field	3:30:04.25	+20:00:59.9	J2000.00	1.025	180.0	06:27:14.4	2.1	i	Sloan 1 x 1