INT OBSERVING LOG (ISAAC NEWTON GROUP, LA PALMA)

```
TELESCOPE:              INT
DATE:                   20001121
TAPE NR:                INTD
OBSERVER:               P Bunclark
PROGRAMME:              Wide-Field Survey
PATT/CAT REF.:          WFS9+M31
TELESCOPE OPERATOR:
SUPPORT ASTRONOMER:

TELESCOPE FOCUS:        46.1 mm
CALIBRATE RESULTS:      HI 33.9 +/- 4.8, DI -38.5 +/- 1.6, HC 60.3 +/- 3.4, Sky sigma 4.2

INSTRUMENT:             WFC

WFC FILTER WHEEL:       UgriZV

WEATHER:                (1st half) fair
                        (2nd half) good
CLOUD COVER (%):        (1st half) 0
                        (2nd half) 0
DUST (0-2):             (1st half) 0
                        (2nd half) 0
SEEING (arcsec):        (1st half) 1.6
                        (2nd half) 1.2

DOME OPENED (UT):       19:00
```

METEOROLOGICAL PARAMETERS

LT	AirT	Hum%	Wspd	Gust	Wdir	Press	LocT	IntT	Mirr	LocRH	IntRH
19:00	3.8	49	31.7	35.4	336	770.5	4.6	9.2	9.3	47	50
20:00	4.2	44	43.3	47.8	328	770.5	4.7	7.1	8.7	42	38
21:00	4.5	46	37.3	39.6	326	771.1	5.1	6.2	8.1	47	39
22:00	3.9	13	34.0	40.4	333	770.9	4.5	6.6	8.2	11	15
23:00	3.8	19	34.7	37.7	328	771.1	4.2	6.5	8.0	14	15
00:00	3.4	46	36.6	40.0	344	770.8	3.8	5.7	7.3	43	39
01:00	3.1	56	30.4	33.3	330	770.7	3.9	5.6	6.8	55	47
02:00	3.5	72	36.5	37.7	331	770.3	4.1	6.4	7.8	68	57
03:00	2.8	65	22.7	23.5	321	770.2	3.5	6.4	7.7	58	52
04:00	3.2	74	22.3	24.8	332	769.9	3.7	6.1	7.6	71	59
05:00	3.5	72	26.3	28.0	278	769.4	3.8	5.5	7.5	69	62
06:00	3.5	64	28.0	29.7	312	769.3	3.9	5.4	6.8	68	67
07:00	3.7	68	23.4	26.3	330	769.8	4.3	5.4	7.4	68	63

```
SUNSET(UT)              18:23
EVENING TWILIGHT(UT)    19:38
MORNING TWILIGHT(UT)    06:18
SUNRISE(UT)             07:32
MOON'S QUARTER (1-4)    4
DISK % OF ILLUM.        20
DARK TIME               10:40
TWILIGHT TIME           02:29
MOONRISE(UT)            04:04
MOONSET(UT)             No moonset within sunset-sunrise

TIME LOST(WEATHER):     00:30
TIME LOST(TECHNICAL):   011:00
TIME LOST(OTHER):       00:00
```

COMMENTS:
  Humid start, dec slomo wouldn

Run no.	Object name	RA	Dec.	Equinox	AM	PA	UT	Exp. T.	Filter	Psys Channel	Binning	Comments
236658	File not available deleted											
236659	sa113-163	21:42:35.49	+00:16:45.9	J2000.00	1.217	180.1	20:12:35.8	60.1	U	RGO	1 x 1	
236660	sa113-163	21:42:35.50	+00:16:46.0	J2000.00	1.220	180.1	20:14:40.4	10.1	g	Sloan	1 x 1	
236661	sa113-163	21:42:35.50	+00:16:45.9	J2000.00	1.223	180.1	20:15:54.5	10.1	r	Sloan	1 x 1	
236662	sa113-163	21:42:35.50	+00:16:46.0	J2000.00	1.225	180.1	20:17:07.1	10.1	i	Sloan	1 x 1	
236663	sa113-163	21:42:35.50	+00:16:45.9	J2000.00	1.228	180.1	20:18:20.3	20.1	z	Gunn	1 x 1	
236664	sa113-163	21:42:35.50	+00:16:45.9	J2000.00	1.231	180.1	20:19:45.2	10.1	V	Harris	1 x 1	
236666	M31-microfld1	0:44:00.00	+41:34:00.0	J2000.00	1.033	180.1	21:14:07.6	319.8	r	Sloan	1 x 1	
236667	M31-microfld1	0:43:59.99	+41:34:00.0	J2000.00	1.030	180.1	21:20:44.6	319.6	r	Sloan	1 x 1	
236668	M31-microfld1	0:43:59.99	+41:34:00.0	J2000.00	1.028	180.1	21:27:22.0	319.8	i	Sloan	1 x 1	
236669	M31-microfld1	0:44:00.00	+41:34:00.0	J2000.00	1.027	180.1	21:33:59.6	319.8	i	Sloan	1 x 1	
236670	M31-microfld2	0:43:09.99	+40:58:15.0	J2000.00	1.023	180.1	21:41:39.4	319.9	r	Sloan	1 x 1	
236671	M31-microfld2	0:43:10.00	+40:58:15.0	J2000.00	1.023	180.1	21:48:16.5	319.7	r	Sloan	1 x 1	
236672	M31-microfld2	0:43:10.00	+40:58:15.0	J2000.00	1.024	180.1	21:54:53.7	319.8	i	Sloan	1 x 1	
236673	M31-microfld2	0:43:10.00	+40:58:15.0	J2000.00	1.024	180.1	22:01:31.3	319.7	i	Sloan	1 x 1	
236674	wfsj0219-0500_023	2:17:55.80	-05:00:00.0	J2000.00	1.240	180.1	22:24:08.3	599.5	U	RGO	1 x 1	
236678	wfssgc085	0:48:00.00	+00:00:00.0	J2000.00	1.211	180.1	23:08:00.3	599.5	U	RGO	1 x 1	
236679	wfssgc085	0:47:59.99	-00:00:00.0	J2000.00	1.234	180.1	23:19:14.6	599.5	g	Sloan	1 x 1	
236680	wfssgc085	0:48:00.00	-00:00:00.0	J2000.00	1.261	180.1	23:30:29.7	599.4	r	Sloan	1 x 1	
236681	wfssgc085	0:47:59.99	+00:00:00.0	J2000.00	1.292	180.1	23:41:43.2	599.5	i	Sloan	1 x 1	
236682	wfssgc085	0:48:00.00	+00:00:00.0	J2000.00	1.328	180.1	23:52:56.8	599.5	z	Gunn	1 x 1	
236683	wfssgc086	0:50:00.00	+00:00:00.0	J2000.00	1.386	180.1	00:10:07.6	599.0	U	RGO	1 x 1	
236684	wfssgc086	0:49:59.99	-00:00:00.0	J2000.00	1.437	180.1	00:21:20.9	599.5	g	Sloan	1 x 1	
236685	wfssgc086	0:50:00.00	-00:00:00.0	J2000.00	1.494	180.1	00:32:33.1	599.4	r	Sloan	1 x 1	
236686	wfssgc086	0:49:59.99	+00:00:00.0	J2000.00	1.561	180.1	00:43:45.8	599.5	i	Sloan	1 x 1	
236687	wfssgc086	0:50:00.00	+00:00:00.0	J2000.00	1.638	180.1	00:54:58.2	599.4	z	Gunn	1 x 1	
236688	wfsj0801+4019_011	7:57:49.30	+39:18:59.8	J2000.00	1.461	180.1	01:14:49.5	599.4	U	RGO	1 x 1	
236689	wfsj0801+4019_011	7:57:49.30	+39:19:00.0	J2000.00	1.406	180.1	01:26:02.3	599.5	g	Sloan	1 x 1	
236690	wfsj0801+4019_011	7:57:49.29	+39:18:59.9	J2000.00	1.356	180.1	01:37:15.2	599.4	r	Sloan	1 x 1	
236691	wfsj0801+4019_011	7:57:49.30	+39:19:00.0	J2000.00	1.312	180.1	01:48:27.4	599.5	i	Sloan	1 x 1	
236692	wfsj0801+4019_011	7:57:49.29	+39:18:59.9	J2000.00	1.271	180.1	01:59:42.7	599.1	z	Gunn	1 x 1	
236693	wfsj0801+4019_012	7:57:48.20	+39:39:00.2	J2000.00	1.233	180.1	02:11:53.8	599.7	U	RGO	1 x 1	
236694	wfsj0801+4019_012	7:57:48.20	+39:39:00.0	J2000.00	1.201	180.1	02:23:06.8	599.5	g	Sloan	1 x 1	
236695	wfsj0801+4019_012	7:57:48.20	+39:38:59.9	J2000.00	1.173	180.1	02:34:19.9	599.4	r	Sloan	1 x 1	
236696	wfsj0801+4019_012	7:57:48.20	+39:38:59.9	J2000.00	1.148	180.1	02:45:33.4	599.4	i	Sloan	1 x 1	
236697	wfsj0801+4019_012	7:57:48.19	+39:38:59.9	J2000.00	1.125	180.1	02:56:45.6	599.4	z	Gunn	1 x 1	
236698	wfsj0801+4019_016	7:57:43.57	+40:58:59.8	J2000.00	1.039	180.1	04:09:45.6	599.5	U	RGO	1 x 1	
236699	wfsj0801+4019_016	7:57:43.59	+40:59:00.0	J2000.00	1.032	180.1	04:20:57.2	599.5	g	Sloan	1 x 1	
236700	wfsj0801+4019_016	7:57:43.60	+40:59:00.0	J2000.00	1.028	180.1	04:32:10.0	599.3	r	Sloan	1 x 1	
236701	wfsj0801+4019_016	7:57:43.60	+40:58:59.9	J2000.00	1.025	180.1	04:43:22.2	599.4	i	Sloan	1 x 1	
236702	wfsj0801+4019_016	7:57:43.59	+40:58:59.9	J2000.00	1.023	180.1	04:54:34.0	599.5	z	Gunn	1 x 1	
236704	wfsj0801+4019_017	7:57:42.31	+41:18:59.9	J2000.00	1.026	180.1	05:15:23.7	599.6	U	RGO	1 x 1	
236705	wfsj0801+4019_017	7:57:42.30	+41:19:00.0	J2000.00	1.030	180.1	05:26:36.7	598.9	g	Sloan	1 x 1	
236706	wfsj0801+4019_017	7:57:42.30	+41:18:59.9	J2000.00	1.035	180.1	05:37:50.5	599.4	r	Sloan	1 x 1	
236707	wfsj0801+4019_017	7:57:42.29	+41:19:00.0	J2000.00	1.042	180.1	05:49:03.6	599.5	i	Sloan	1 x 1	
236708	wfsj0801+4019_017	7:57:42.30	+41:19:00.0	J2000.00	1.050	180.1	06:00:17.7	599.5	z	Gunn	1 x 1	
236709	wfsjsextans_015	7:57:42.30	+41:19:00.0	J2000.00	1.060	180.1	06:13:34.4	299.8	V	Harris	1 x 1	
236710	wfsjsextans_014	7:57:42.30	+41:19:00.0	J2000.00	1.068	180.1	06:20:44.7	299.8	V	Harris	1 x 1	
236711	sa101-427	9:57:26.50	-00:17:17.7	J2000.00	1.156	180.1	06:28:23.6	20.1	U	RGO	1 x 1	
236712	sa101-427	9:57:26.50	-00:17:17.9	J2000.00	1.155	180.1	06:29:47.0	10.1	g	Sloan	1 x 1	
236713	sa101-427	9:57:26.49	-00:17:18.0	J2000.00	1.155	180.1	06:31:01.0	10.1	r	Sloan	1 x 1	
236714	sa101-427	9:57:26.50	-00:17:18.0	J2000.00	1.154	180.1	06:32:13.7	10.1	i	Sloan	1 x 1	
236715	sa101-427	9:57:26.50	-00:17:18.0	J2000.00	1.153	180.1	06:33:27.8	20.1	z	Gunn	1 x 1	
236716	sa101-427	9:57:26.49	-00:17:18.0	J2000.00	1.152	180.1	06:34:52.6	10.1	V	Harris	1 x 1	
236717	Sky background	10:10:09.99	+28:00:00.0	J2000.00	1.002	180.1	06:59:47.8	150.0	V	Harris	1 x 1	
236718	Sky background	10:10:12.26	+28:00:29.9	J2000.00	1.001	180.1	07:03:56.8	60.1	V	Harris	1 x 1	
236719	Sky background	10:10:14.53	+28:01:00.0	J2000.00	1.001	180.1	07:07:38.8	20.1	V	Harris	1 x 1	
236720	Sky background	10:10:12.26	+28:00:30.0	J2000.00	1.000	180.1	07:09:24.4	20.1	g	Sloan	1 x 1	
236721	Sky background	10:10:10.00	+28:00:00.0	J2000.00	1.000	180.1	07:11:34.3	5.1	g	Sloan	1 x 1	
236722	Sky background	10:10:10.00	+28:00:00.1	J2000.00	1.000	180.1	07:12:42.8	4.1	r	Sloan	1 x 1	

236723	Sky background	10:10:12.26	+28:00:29.9	J2000.00	1.000	180.1	07:13:51.6	4.1	r	Sloan	1 x 1
236724	Sky background	10:10:14.53	+28:00:59.7	J2000.00	1.000	180.1	07:15:04.8	3.1	r	Sloan	1 x 1
236725	Sky background	10:10:14.53	+28:01:00.0	J2000.00	1.000	180.1	07:16:14.0	3.1	i	Sloan	1 x 1
236726	Sky background	10:10:12.26	+28:00:29.9	J2000.00	1.000	180.1	07:17:26.4	1.1	i	Sloan	1 x 1
236727	Sky background	10:10:10.00	+28:00:00.1	J2000.00	1.000	180.1	07:18:34.0	1.2	i	Sloan	1 x 1
236728	Sky background	10:10:10.00	+28:00:00.0	J2000.00	1.000	180.1	07:19:44.3	1.0	z	Gunn	1 x 1
236729	Sky background	10:10:12.26	+28:00:30.0	J2000.00	1.000	180.1	07:21:06.6	1.1	z	Gunn	1 x 1
236730	Sky background	10:10:12.26	+28:00:30.0	J2000.00	1.000	180.1	07:22:15.9	1.1	z	Gunn	1 x 1
236731	Sky background	10:10:14.53	+28:00:59.8	J2000.00	1.001	180.1	07:23:18.9	1.0	U	RGO	1 x 1
236732	Sky background	10:10:12.26	+28:00:30.0	J2000.00	1.001	180.1	07:24:28.2	2.1	U	RGO	1 x 1
236733	Bias	0:00:00.00	+00:00:00.0	J2000.00	4.537	180.1	07:31:02.5	0.0	U	RGO	1 x 1
236734	Bias	0:00:00.00	+00:00:00.0	J2000.00	4.537	180.1	07:31:41.6	0.0	U	RGO	1 x 1
236735	Bias	0:00:00.00	+00:00:00.0	J2000.00	4.537	180.1	07:32:34.0	0.0	U	RGO	1 x 1
236736	Bias	0:00:00.00	+00:00:00.0	J2000.00	4.537	180.1	07:33:14.9	0.0	U	RGO	1 x 1
236737	Bias	0:00:00.00	+00:00:00.0	J2000.00	4.537	180.1	07:33:54.3	0.0	U	RGO	1 x 1