```
INT OBSERVING LOG (ISAAC NEWTON GROUP, LA PALMA)

TELESCOPE:             INT
DATE:                  1999 OCT 11/12
INT TAPE NR:           INTD4204
OBSERVER:              S. T. Hodgkin
PROGRAMME:             WFS + M31
PATT/CAT:              I/99B/WFS09
TELESCOPE OPERATOR:    --
SUPPORT ASTRONOMER:    --

FOCUS:                 Prime
INSTRUMENT:            WFC
FILTER WHEEL (PF):     U, g', r', i', Z, I(rgo)
CAMERA (IDS):          -
COLLIMATOR (IDS):      -
COLL. FOCUS (IDS):     -
GRATING (IDS):         -
DETECTOR:              -
PIXELS:                4x2154x4200
PIXEL SIZE (microns):  13.5
WINDOW:                -
BINNING:               in X=1, in Y=1

WEATHER:               High humidity
OUTSIDE TEMP (deg C):    4.5             (FIRST HALF)
OUTSIDE TEMP (deg C):    4.5             (SECOND HALF)
HUMIDITY (%):            75              (FIRST HALF)
HUMIDITY (%):            95              (SECOND HALF)
CLOUD COVER (%):                         (FIRST HALF)
CLOUD COVER (%):          0              (SECOND HALF)
DUST (0 - 2):                            (FIRST HALF)
DUST (0 - 2):                            (SECOND HALF)
SEEING (arcsec):         1.1             (FIRST HALF)
SEEING (arcsec):         ---             (SECOND HALF)
AV. SEEING (arcsec):
NO. SEEING MEASURES:      0

UTC    TELESCOPE                  CASELLA OUT   CASELLA IN    SEEING
       AZ   ZD  Focus  TubeTemp  Temp   Humid  Temp   Humid  Det./TV  Comments

DARK HOURS:            09:47
DOME OPEN (UTC):       19:00
MOON PHASE (D/G/B):        D
DK HRS LOST (WEATHER): 4:00
DK HRS LOST (TELESC):  00:00 (focus oscillation)
DK HRS LOST (DOME):    00:00
DK HRS LOST (INSTR.):  00:00
DK HRS LOST (DET.):    00:00
DK HRS LOST (COMPS.):  00:00
DK HRS LOST (A&G):     00:00
DK HRS LOST (OTHER):   00:00

COMMENTS:

High humidity eventually forced us to close - once at 23:@5 for 30 minutes
then finally at 02:22 for therest of the night.

WFS, M31 data
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Run no. Object name              RA         Dec.     Equinox    AM    PA     UT       Exp. T.   Filter      Psys Channel  Binning Comments
 197828 Bias frame           0:00:00.00 +00:00:00.0 A        1.138 180.0 14:47:11.7      0.0        g      Sloan
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197829	Bias	0:00:00.00	+00:00:00.0	A	1.138	180.0	18:34:35.9	0.0	r	Sloan	
197830	Bias	0:00:00.00	+00:00:00.0	A	1.138	180.0	18:35:35.8	0.0	r	Sloan	
197831	Bias	0:00:00.00	+00:00:00.0	A	1.138	180.0	18:36:34.8	0.0	r	Sloan	
197832	skyflat U	17:00:00.00	+41:00:00.0	J2000.00	1.159	180.0	19:08:32.7	20.1	U	RGO	46K counts
197833	skyflat U	16:59:59.11	+40:59:50.0	J2000.00	1.164	180.0	19:10:29.8	40.1	U	RGO	saturated
197834	skyflat U	17:00:00.88	+41:00:10.0	J2000.00	1.168	180.0	19:12:37.2	20.1	U	RGO	
197835	skyflat U	16:59:59.11	+41:00:10.0	J2000.00	1.172	180.0	19:14:11.6	28.6	U	RGO	
197836	skyflat U	17:00:00.88	+40:59:50.0	J2000.00	1.177	180.0	19:16:26.8	0.0	U	RGO	
197837	skyflat g	17:00:00.00	+41:00:00.0	J2000.00	1.184	180.0	19:19:30.1	0.0	g	Sloan	
197838	skyflat g	17:00:00.88	+40:59:49.9	J2000.00	1.188	180.0	19:21:07.5	0.0	g	Sloan	blind open for
197839	skyflat g	16:59:59.11	+41:00:10.0	J2000.00	1.193	180.0	19:22:57.8	0.0	g	Sloan	flats to here
197840	skyflat r	17:00:00.00	+41:00:00.0	J2000.00	1.202	180.0	19:26:18.4	0.0	r	Sloan	too dark
197841	Focus run	18:42:45.00	+00:10:04.0	J2000.00	1.180	180.0	19:36:12.5	0.0	r	Sloan	
197842	Bias	18:42:45.00	+00:12:03.9	J2000.00	1.188	180.0	19:41:28.8	0.0	r	Sloan	
197843	sa110-361 g	18:42:45.00	+00:08:04.1	J2000.00	1.192	180.0	19:42:57.9	0.0	g	Sloan	
197844	sa110-361 r	18:42:45.00	+00:08:03.9	J2000.00	1.194	180.0	19:44:12.4	0.0	r	Sloan	
197845	sa110-361 i	18:42:45.00	+00:08:03.9	J2000.00	1.196	180.0	19:45:29.4	0.0	i	Sloan	
197846	sa110-361 Z	18:42:44.99	+00:08:04.0	J2000.00	1.198	180.0	19:46:46.1	0.0	z	Gunn	
197847	sa110-361 U	18:42:45.00	+00:08:04.0	J2000.00	1.201	180.0	19:48:34.7	0.0	U	RGO	
197848	sa110-361 I	18:42:45.00	+00:08:03.9	J2000.00	1.204	180.0	19:50:17.2	0.0	I	INT-WFC	
197849	Bias	18:42:44.99	+00:08:04.0	J2000.00	1.207	180.0	19:52:01.6	0.0	I	INT-WFC	
197850	wfsj1610+5430_036	16:11:54.00	+55:49:59.8	J2000.00	1.543	180.0	19:56:47.1	0.0	g	Sloan	
197851	wfsj1610+5430_036	16:11:53.99	+55:50:00.0	J2000.00	1.594	180.0	20:08:01.4	0.0	i	Sloan	
197852	wfsj1610+5430_036	16:11:54.00	+55:50:00.1	J2000.00	1.651	180.0	20:19:17.2	0.0	z	Gunn	
197853	wfsj1610+5445 r	16:15:41.92	+55:49:59.5	J2000.00	1.698	180.0	20:31:28.7	0.0	r	Sloan	wfsj1610+5430_45
197854	wfsj1610+5430_045	16:15:41.90	+55:49:59.9	J2000.00	1.765	180.0	20:42:41.3	0.0	g	Sloan	
197855	wfsj2240+0000_013	22:36:48.00	-00:20:00.0	J2000.00	1.229	180.0	20:57:52.2	0.0	r	Sloan	
197856	wfsj2240+0000_014	22:36:48.00	-00:00:00.0	J2000.00	1.200	180.0	21:10:35.7	0.0	r	Sloan	
197857	wfsj2240+0000_015	22:36:48.00	+00:19:59.9	J2000.00	1.178	180.0	21:22:35.3	0.0	r	Sloan	
197858	wfsj2240+0000_016	22:36:48.00	+00:39:59.8	J2000.00	1.159	180.0	21:34:38.1	0.0	r	Sloan	
197859	wfsj2240+0000_017	22:36:47.99	+00:59:59.9	J2000.00	1.144	180.0	21:47:15.5	0.0	r	Sloan	
197860	wfsj2240+0000_018	22:36:47.90	+01:19:59.9	J2000.00	1.133	180.0	21:59:09.5	0.0	r	Sloan	
197861	wfsj2240+0000_022	22:38:56.00	-00:19:59.8	J2000.00	1.146	180.0	22:12:23.0	0.0	r	Sloan	
197862	wfsj2240+0000_023	22:38:55.99	+00:00:00.0	J2000.00	1.140	180.0	22:24:22.4	0.0	r	Sloan	
197863	wfsj2240+0000_024	22:38:55.99	+00:20:00.0	J2000.00	1.138	180.0	22:36:17.9	0.0	r	Sloan	
197864	wfsj2240+0000_025	22:38:56.00	+00:39:59.9	J2000.00	1.139	180.0	22:49:01.6	0.0	r	Sloan	
197865	wfsj2240+0000_026	22:38:56.00	+01:00:00.0	J2000.00	1.144	180.0	23:00:58.9	0.0	r	Sloan	
197866	wfsj2240+0000_027	22:38:56.00	+01:19:59.8	J2000.00	1.150	180.0	23:12:54.2	0.0	r	Sloan	
197867	wfsj2240+0000_031	22:41:04.00	-00:20:00.0	J2000.00	1.247	180.0	00:00:53.3	0.0	r	Sloan	
197869	wfsj2240+0000_031	22:41:04.00	-00:19:59.8	J2000.00	1.302	180.0	00:20:55.7	0.0	r	Sloan	
197871	wfsj2240+0000_032	22:41:04.00	-00:00:00.0	J2000.00	1.349	180.0	00:36:17.7	0.0	r	Sloan	
197872	wfsj2240+0000_033	22:41:04.00	+00:20:00.0	J2000.00	1.395	180.0	00:49:05.9	0.0	r	Sloan	
197874	M31-microfld1	0:44:00.00	+41:34:00.0	J2000.00	1.034	180.0	01:07:17.4	0.0	r	Sloan	
197875	M31-microfld1	0:43:59.99	+41:34:00.0	J2000.00	1.037	180.0	01:14:21.4	358.0	r	Sloan	
197877	m31-microfld1	0:44:00.00	+41:34:00.0	J2000.00	1.045	180.0	01:25:24.9	0.0	g	Sloan	
197878	m31-microfld1	0:43:59.97	+41:34:00.0	J2000.00	1.050	180.0	01:32:27.5	0.0	g	Sloan	
197879	m31-microfld2	0:43:10.00	+40:58:14.9	J2000.00	1.060	180.0	01:45:10.4	0.0	r	Sloan	
197880	m31-microfld2	0:43:10.00	+40:58:14.9	J2000.00	1.068	180.0	01:52:15.8	0.0	r	Sloan	
197881	m31-microfld2	0:43:09.99	+40:58:15.0	J2000.00	1.085	180.0	02:05:30.9	0.0	g	Sloan	
197882	m31-microfld2	0:43:10.00	+40:58:15.0	J2000.00	1.095	180.0	02:12:32.7	0.0	g	Sloan	
197883	Bias	0:00:00.00	+00:00:00.0	J2000.00	1.000	180.0	05:54:24.7	0.0	g	Sloan	
197884	Bias	0:00:00.00	+00:00:00.0	J2000.00	1.000	180.0	05:55:29.0	0.0	g	Sloan	
197885	Bias	0:00:00.00	+00:00:00.0	J2000.00	1.000	180.0	05:56:37.8	0.0	g	Sloan	
197886	Bias	0:00:00.00	+00:00:00.0	J2000.00	1.000	180.0	05:58:01.6	0.0	g	Sloan	
197887	Bias	0:00:00.00	+00:00:00.0	J2000.00	1.000	180.0	05:59:01.9	0.0	g	Sloan	