INT OBSERVING LOG (ISAAC NEWTON GROUP, LA PALMA)

```
TELESCOPE:            INT
DATE:                 1999 OCT 03/04
INT TAPE NR:          INTD4196
OBSERVER:             Walton + Hodgkin
PROGRAMME:            includes WFS + M31
PATT/CAT:             I/99B/C5
TELESCOPE OPERATOR:   --
SUPPORT ASTRONOMER:   --

FOCUS:                Prime
INSTRUMENT:           WFC
FILTER WHEEL (PF):    U, g', r', i', Z, KPB
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:              Good
OUTSIDE TEMP (deg C):   15            (FIRST HALF)
OUTSIDE TEMP (deg C):   13            (SECOND HALF)
HUMIDITY (%):           30            (FIRST HALF)
HUMIDITY (%):           30            (SECOND HALF)
CLOUD COVER (%):         0            (FIRST HALF)
CLOUD COVER (%):         0            (SECOND HALF)
DUST (0 - 2):            0            (FIRST HALF)
DUST (0 - 2):            0            (SECOND HALF)
SEEING (arcsec):         1.2          (FIRST HALF)
SEEING (arcsec):         1.1          (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:           09:33
DOME OPEN (UTC):      19:00
MOON PHASE (D/G/B):       G
DK HRS LOST (WEATHER):00:00
DK HRS LOST (TELESC): 00:00
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:

SN, WFS, M31 data
----

Run no. Object name             RA         Dec.     Equinox    AM    PA     UT       Exp. T.   Filter      Psys Channel  Binning Comments
 197166 Bias frame           0:00:00.00 +00:00:00.0 A        1.000 180.0 13:20:26.7      0.0        r      Sloan
 197167 Bias                19:19:09.00 +12:22:05.0 B1950.00 1.055 180.0 19:06:45.0      0.0        z       Gunn
 197168 Bias                19:19:08.99 +12:22:05.0 B1950.00 1.054 180.0 19:07:50.8      0.0        z       Gunn
```

197169	Bias	19:19:09.00	+12:22:05.0	B1950.00	1.053	180.0	19:08:49.5	0.0	z	Gunn	
197170	Flat field	19:19:09.00	+12:22:04.7	B1950.00	1.049	180.0	19:15:40.9	4.2	z	Gunn	
197171	Flat field	19:19:09.68	+12:22:14.8	B1950.00	1.048	180.0	19:17:05.3	17.4	z	Gunn	saturated
197172	Z sky	19:19:08.31	+12:21:55.2	B1950.00	1.047	180.0	19:19:18.8	14.1	z	Gunn	
197173	Z sky	19:19:09.00	+12:22:14.8	B1950.00	1.047	180.0	19:20:37.3	20.1	z	Gunn	
197174	Z sky	19:19:08.99	+12:21:55.0	B1950.00	1.046	180.0	19:22:45.6	40.1	z	Gunn	
197175	g sky	19:19:09.34	+12:22:10.0	B1950.00	1.045	180.0	19:25:58.2	22.1	g	Sloan	
197176	g sky	19:19:08.65	+12:21:59.9	B1950.00	1.044	180.0	19:28:13.0	36.1	g	Sloan	
197177	g sky	19:19:15.82	+12:23:44.9	B1950.00	1.043	180.0	19:30:32.6	60.1	g	Sloan	
197178	Focus run	18:42:45.00	+00:10:04.0	J2000.00	1.153	180.0	19:42:43.9	10.1	g	Sloan	
197179	sa110-361 g	18:42:44.99	+00:12:04.0	J2000.00	1.156	180.0	19:45:58.3	10.1	g	Sloan	out focus
197180	sa110-361 g	18:42:45.00	+00:12:03.9	J2000.00	1.159	180.0	19:49:10.9	10.1	g	Sloan	
197181	sa110-361 r	18:42:44.99	+00:12:03.9	J2000.00	1.161	180.0	19:51:23.1	10.1	r	Sloan	
197182	sa110-361 i	18:42:45.00	+00:12:04.0	J2000.00	1.162	180.0	19:52:49.6	10.1	i	Sloan	
197183	sa110-361 Z	18:42:45.00	+00:12:04.0	J2000.00	1.164	180.0	19:54:13.6	10.1	z	Gunn	
197184	sa113-163 g	21:42:35.00	+00:16:46.0	J2000.00	1.341	180.0	19:57:14.3	10.1	g	Sloan	
197185	sa113-163 r	21:42:34.99	+00:16:45.9	J2000.00	1.336	180.0	19:58:38.3	10.1	r	Sloan	
197186	sa113-163 i	21:42:34.99	+00:16:45.9	J2000.00	1.331	180.0	20:00:13.9	10.1	i	Sloan	
197188	sa113-163 Z	21:42:35.00	+00:16:45.9	J2000.00	1.322	180.0	20:02:42.4	10.1	z	Gunn	
197189	wfsj1610+5430_019	16:08:13.20	+53:10:00.0	J2000.00	1.595	180.0	20:37:03.1	599.3	g	Sloan	
197190	wfsj1610+5430_019	16:08:13.19	+53:10:00.0	J2000.00	1.656	180.0	20:48:20.7	598.9	r	Sloan	
197191	wfsj1610+5430_019	16:08:13.18	+53:09:59.9	J2000.00	1.724	180.0	20:59:34.9	599.4	i	Sloan	
197192	wfssgc001 r	21:59:59.99	+00:00:00.1	J2000.00	1.184	180.0	21:15:38.7	599.0	r	Sloan	
197193	wfssgc001 i	22:00:00.00	-00:00:00.0	J2000.00	1.169	180.0	21:26:45.8	599.5	i	Sloan	
197194	wfssgc002 r	22:01:59.99	+00:00:00.3	J2000.00	1.159	180.0	21:38:48.5	599.0	r	Sloan	
197195	wfssgc002 i	22:02:00.00	+00:00:00.0	J2000.00	1.150	180.0	21:50:04.9	599.5	i	Sloan	
197196	wfssgc003 r	22:04:00.00	+00:00:00.0	J2000.00	1.145	180.0	22:01:47.6	599.4	r	Sloan	
197197	wfssgc003 i	22:04:00.00	+00:00:00.0	J2000.00	1.141	180.0	22:14:15.1	599.4	i	Sloan	
197198	wfssgc004 r	22:05:59.99	+00:00:00.0	J2000.00	1.141	180.0	22:25:51.0	599.6	r	Sloan	
197199	wfssgc004 i	22:06:00.00	-00:00:00.0	J2000.00	1.142	180.0	22:36:59.7	599.5	i	Sloan	
197200	wfssgc005 r	22:08:00.00	+00:00:00.1	J2000.00	1.146	180.0	22:49:11.3	599.4	r	Sloan	
197201	wfssgc005 i	22:07:59.99	-00:00:00.0	J2000.00	1.154	180.0	23:00:28.6	599.5	i	Sloan	
197202	sn-fleurie g	23:00:17.60	-00:05:11.8	J2000.00	1.142	180.0	23:14:08.6	1198.1	g	Sloan	
197203	sn-fleurie g	23:00:17.60	-00:05:12.0	J2000.00	1.148	180.0	23:36:48.6	1198.6	g	Sloan	
197204	sn-fleurie g	23:00:17.60	-00:05:11.9	J2000.00	1.165	180.0	23:58:33.6	1198.9	g	Sloan	
197205	sn-fleurie r	23:00:17.60	-00:05:12.0	J2000.00	1.194	180.0	00:20:32.0	1198.7	r	Sloan	
197206	M31-microfld1	0:44:00.00	+41:34:00.0	J2000.00	1.027	180.0	00:46:16.1	359.8	r	Sloan	
197207	M31-microfld1	0:43:59.99	+41:34:00.0	J2000.00	1.026	180.0	00:53:20.9	359.2	r	Sloan	
197208	M31-microfld1	0:43:59.99	+41:34:00.0	J2000.00	1.026	180.0	01:00:47.5	359.2	g	Sloan	
197209	M31-microfld1	0:44:00.00	+41:33:59.9	J2000.00	1.026	180.0	01:07:55.9	359.7	g	Sloan	
197210	M31-microfld2	0:43:09.99	+40:58:15.0	J2000.00	1.025	180.0	01:17:33.4	359.3	r	Sloan	
197211	M31-microfld2	0:43:10.00	+40:58:14.9	J2000.00	1.026	180.0	01:24:44.0	359.7	r	Sloan	
197212	M31-microfld2	0:43:10.00	+40:58:15.0	J2000.00	1.029	180.0	01:32:15.6	359.7	g	Sloan	
197213	M31-microfld2	0:43:10.00	+40:58:15.0	J2000.00	1.032	180.0	01:39:23.7	359.3	g	Sloan	
197215	sn-fleurie r	23:00:17.60	-00:05:12.0	J2000.00	1.515	180.0	01:56:59.1	1198.3	r	Sloan	
197216	sn-fleurie r	23:00:17.60	-00:05:12.0	J2000.00	1.660	180.0	02:18:43.6	1198.6	r	Sloan	
197217	sa95-330	3:54:30.99	+00:29:05.0	J2000.00	1.237	180.0	02:42:37.8	10.1	g	Sloan	
197218	sa95-330	3:54:31.00	+00:29:05.0	J2000.00	1.233	180.0	02:44:09.6	10.1	r	Sloan	
197219	sa95-330	3:54:31.00	+00:29:05.0	J2000.00	1.230	180.0	02:45:29.1	8.4	i	Sloan	
197220	sa95-330	3:54:30.99	+00:29:04.9	J2000.00	1.227	180.0	02:46:56.0	10.1	z	Gunn	
197222	wfssgc113 r	1:43:59.99	-00:00:00.0	J2000.00	1.172	180.0	02:54:21.4	599.5	r	Sloan	
197223	wfssgc113 i	1:43:59.99	-00:00:00.0	J2000.00	1.187	180.0	03:05:30.6	599.4	i	Sloan	
197224	wfssgc114 r	1:46:00.00	-00:00:00.0	J2000.00	1.204	180.0	03:18:05.5	598.9	r	Sloan	
197225	wfssgc114i	1:46:00.00	+00:00:00.0	J2000.00	1.237	180.0	03:34:05.3	598.4	i	Sloan	
197226	wfssgc115 r	1:48:00.00	+00:00:00.0	J2000.00	1.263	180.0	03:46:53.4	599.4	r	Sloan	
197227	wfssgc115 i	1:48:00.00	-00:00:00.0	J2000.00	1.310	180.0	04:03:00.3	599.4	i	Sloan	
197228	Bias	1:48:00.00	+00:00:00.0	J2000.00	1.332	180.0	04:14:36.2	0.0	i	Sloan	
197229	wfssgc116 r	1:50:00.00	+00:00:00.0	J2000.00	1.354	180.0	04:17:20.5	599.5	r	Sloan	
197230	wfssgc116 i	1:50:00.00	+00:00:00.0	J2000.00	1.399	180.0	04:28:30.2	599.4	i	Sloan	
197231	wfssgc117 r	1:51:59.99	-00:00:00.0	J2000.00	1.451	180.0	04:41:36.2	599.5	r	Sloan	
197232	wfssgc117 i	1:52:00.00	+00:00:00.1	J2000.00	1.510	180.0	04:52:44.4	599.5	i	Sloan	
197233	wfsj0354+0010_014	3:51:00.00	+00:09:59.8	J2000.00	1.180	180.0	05:08:25.2	599.4	r	Sloan	

197234	wfsj0354+0010_015	3:50:59.99	+00:30:00.0	J2000.00	1.199	180.0	05:22:57.8	599.5	r Sloan
197235	wfsj0354+0010_016	3:51:00.00	+00:50:00.0	J2000.00	1.218	180.0	05:34:59.2	599.0	r Sloan
197236	wfsj0354+0010_017	3:50:59.99	+01:10:00.0	J2000.00	1.242	180.0	05:47:00.2	599.5	r Sloan
197237	sa98-670	6:52:12.00	-00:19:17.0	J2000.00	1.209	180.0	05:58:21.2	10.1	g Sloan
197238	sa98-670	6:52:12.00	-00:19:17.0	J2000.00	1.206	180.0	05:59:46.4	10.1	r Sloan
197239	sa98-670	6:52:12.00	-00:19:17.0	J2000.00	1.204	180.0	06:01:12.1	10.1	i Sloan
197240	sa98-670	6:52:12.00	-00:19:17.0	J2000.00	1.201	180.0	06:02:39.6	9.7	z Gunn
197241	sa95-330 g	3:54:31.00	+00:29:04.9	J2000.00	1.277	180.0	06:05:16.7	10.1	g Sloan
197242	sa95-330 r	3:54:31.00	+00:29:04.9	J2000.00	1.280	180.0	06:06:34.6	10.1	r Sloan
197243	sa95-330 i	3:54:31.00	+00:29:05.0	J2000.00	1.284	180.0	06:07:50.6	10.1	i Sloan
197244	sa95-330 Z	3:54:30.99	+00:29:05.0	J2000.00	1.288	180.0	06:09:05.8	10.1	z Gunn
197245	sa98-670 g	6:52:11.99	-00:19:17.0	J2000.00	1.180	180.0	06:16:55.2	4.1	g Sloan
197246	sa98-670 r	6:52:12.00	-00:19:16.9	J2000.00	1.178	180.0	06:18:03.2	4.1	r Sloan
197247	sa98-670 i	6:52:12.00	-00:19:17.0	J2000.00	1.177	180.0	06:19:11.8	4.1	i Sloan
197248	sa98-670 Z	6:52:12.00	-00:19:17.0	J2000.00	1.176	180.0	06:20:22.0	4.1	z Gunn
197249	sky i	4:25:46.00	+54:09:03.0	B1950.00	1.163	180.0	06:24:34.1	140.0	i Sloan
197250	sky i	4:25:47.13	+54:09:13.1	B1950.00	1.167	180.0	06:28:22.5	80.0	i Sloan
197251	sky i	4:25:44.86	+54:09:03.0	B1950.00	1.170	180.0	06:31:05.4	50.0	i Sloan
197252	sky i	4:25:47.13	+54:08:52.8	B1950.00	1.172	180.0	06:33:03.9	35.1	i Sloan
197253	sky r	4:25:46.00	+54:09:03.0	B1950.00	1.176	180.0	06:35:26.5	27.1	r Sloan
197254	sky r	4:25:45.43	+54:08:58.3	B1950.00	1.177	180.0	06:36:58.6	10.3	r Sloan
197255	sky r	4:25:46.57	+54:09:07.9	B1950.00	1.179	180.0	06:38:20.5	8.1	r Sloan
197256	sky r	4:25:46.57	+54:09:08.0	B1950.00	1.181	180.0	06:39:32.3	6.1	r Sloan
197257	sky r	4:25:45.99	+54:08:43.1	B1950.00	1.183	180.0	06:40:44.8	4.1	r Sloan
197258	Bias	4:25:46.00	+54:08:42.9	B1950.00	1.185	180.0	06:42:25.7	0.0	r Sloan
197259	Bias	4:25:46.00	+54:08:43.0	B1950.00	1.187	180.0	06:43:31.7	0.0	r Sloan
197260	Bias	4:25:46.00	+54:08:43.0	B1950.00	1.188	180.0	06:44:34.9	0.0	r Sloan