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

TELESCOPE:             INT
DATE:                  1999 Apr 16/17
INT TAPE NR:           INTD4024
OBSERVER:              N. Walton and the team work French
PROGRAMME:             CATI4
PATT/CAT:              CATI4
TELESCOPE OPERATOR:    C. Martin
SUPPORT ASTRONOMER:    N. Walton

FOCUS:                 PRIME
INSTRUMENT:            WFC
FILTER WHEEL (PF):     U,B,V,r,i,Z
CAMERA (IDS):          ---
COLLIMATOR (IDS):      ---
COLL. FOCUS (IDS):     ---
GRATING (IDS):         ---
DETECTOR:              4xEEV
PIXELS:                2K x 4K
PIXEL SIZE (microns):  13.5
WINDOW:                none
BINNING:               none

WEATHER:               Good
OUTSIDE TEMP (deg C):  6.5          (FIRST HALF)
OUTSIDE TEMP (deg C):  6.2          (SECOND HALF)
HUMIDITY (%):          25           (FIRST HALF)
HUMIDITY (%):          25           (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           (FIRST HALF)
SEEING (arcsec):        1           (SECOND HALF)
AV. SEEING (arcsec):
NO. SEEING MEASURES:      -

UTC    TELESCOPE                  CASELLA OUT   CASELLA IN    SEEING
       AZ   EL  Focus  TComp      Temp   Humid  Temp   Humid  Det./TV  Comments

DARK HOURS:            08:26
DOME OPEN (UTC):       19:45
MOON PHASE (D/G/B):        D
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.): 01:48
DK HRS LOST (A&G):    00:00
DK HRS LOST (OTHER):  00:00

COMMENTS:
Time lost due to lost link to MCA and about 6 corrupted images.
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Run no.	Object name	RA	Dec.	Equinox	AM	PA	UT	Exp. T.	Filter	Psys	Channel	Binning	Comments
159795	Bias frame	0:00:00.00	+00:00:00.0	A	1.000	179.7	13:31:36.2	0.0	Unknown	Unknown	1	1 x 1	
159799	Bias frame	0:00:00.00	+00:00:00.0	A	1.000	179.7	14:41:36.8	0.0	U	RGO	1	1 x 1	

159803	Bias frame	0:00:00.00	+00:00:00.0	A	1.000	179.7	14:44:30.2	0.0	U	RGO	1	1 x 1	
159807	Bias frame	0:00:00.00	+00:00:00.0	A	1.000	179.7	14:47:23.7	0.0	U	RGO	1	1 x 1	
159811	Bias frame	0:00:00.00	+00:00:00.0	A	1.000	179.7	14:50:14.6	0.0	U	RGO	1	1 x 1	
159815	Bias frame	0:00:00.00	+00:00:00.0	A	1.000	179.7	14:53:04.8	0.0	U	RGO	1	1 x 1	
159819	Bias frame	0:00:00.00	+00:00:00.0	A	1.000	179.7	18:20:40.1	0.0	U	RGO	1	1 x 1	
159823	Bias frame	0:00:00.00	+00:00:00.0	A	1.000	179.7	18:23:30.4	0.0	U	RGO	1	1 x 1	
159827	Flat field	4:25:45.99	+54:09:02.9	B1950.00	1.463	179.7	19:43:52.2	6.6	U	RGO	1	1 x 1	saturated
159831	Flat field	4:25:46.00	+54:09:02.9	B1950.00	1.531	179.7	20:00:03.6	3.4	U	RGO	1	1 x 1	
159835	Flat field	4:25:46.56	+54:09:08.0	B1950.00	1.552	179.7	20:04:37.8	10.2	U	RGO	1	1 x 1	
159839	Flat field	4:25:46.57	+54:08:58.0	B1950.00	1.568	179.7	20:08:01.5	4.6	B	Kitt Peak	1	1 x 1	
159843	Flat field	4:25:45.43	+54:08:57.9	B1950.00	1.584	179.7	20:11:18.4	10.6	B	Kitt Peak	1	1 x 1	
159847	Flat field	4:25:47.70	+54:08:58.0	B1950.00	1.602	179.7	20:14:42.1	23.5	B	Kitt Peak	1	1 x 1	
159851	Flat field	4:25:44.29	+54:08:48.0	B1950.00	1.625	179.7	20:18:22.3	107.8	r	SLOAN	1	1 x 1	
159855	Focus run	9:57:26.00	-00:15:30.5	J2000.00	1.174	179.7	20:39:51.8	10.1	B	Kitt Peak	1	1 x 1	
159859	sa101-427 10s kpB	9:57:26.00	-00:17:15.9	J2000.00	1.168	179.7	20:44:00.4	10.1	B	Kitt Peak	1	1 x 1	
159863	sa101-427 10s r’	9:57:26.00	-00:17:16.0	J2000.00	1.164	179.7	20:47:30.5	9.6	r	SLOAN	1	1 x 1	
159871	wfsngc001 B	10:00:00.00	+00:00:00.1	J2000.00	1.153	179.7	20:56:09.6	399.1	B	Kitt Peak	1	1 x 1	
159875	wfsngc002 B	10:02:00.00	+00:00:00.1	J2000.00	1.147	179.7	21:07:42.5	399.7	B	Kitt Peak	1	1 x 1	
159879	wfsngc003 B	10:03:59.99	+00:00:00.1	J2000.00	1.143	179.7	21:19:16.1	399.8	B	Kitt Peak	1	1 x 1	
159883	wfsngc001 B 2nd	9:59:59.99	+00:00:00.1	J2000.00	1.140	179.7	21:30:48.9	399.7	B	Kitt Peak	1	1 x 1	
159887	wfsngc002 B 2nd	10:02:00.00	+00:00:00.0	J2000.00	1.142	179.7	21:42:10.4	399.8	B	Kitt Peak	1	1 x 1	
159891	wfsngc003 B 2nd	10:04:00.00	+00:00:00.1	J2000.00	1.145	179.7	21:53:32.2	399.7	B	Kitt Peak	1	1 x 1	
159915	wfsngc004 B	10:06:00.00	+00:00:00.0	J2000.00	1.177	179.7	22:33:15.5	399.7	B	Kitt Peak	1	1 x 1	
159924	wfsngc004 B 2nd	10:06:00.00	+00:00:00.0	J2000.00	1.252	179.7	23:12:60.0	399.6	B	Kitt Peak	1	1 x 1	
159928	wfsngc088 r’	12:53:59.99	+00:00:00.1	J2000.00	1.174	179.7	23:29:25.4	299.8	r	SLOAN	1	1 x 1	
159932	wfsngc089 r’	12:56:00.00	-00:00:00.0	J2000.00	1.165	179.7	23:39:13.9	299.7	r	SLOAN	1	1 x 1	moved
159936	wfsngc090 r’	12:58:00.00	+00:00:00.0	J2000.00	1.157	179.7	23:49:03.3	299.9	r	SLOAN	1	1 x 1	
159940	wfsngc089 r’	12:56:00.00	+00:00:00.0	J2000.00	1.149	179.7	23:58:25.5	299.6	r	SLOAN	1	1 x 1	
159944	wfsngc088 r’ 2nd	12:53:59.99	-00:00:00.0	J2000.00	1.143	179.7	00:08:24.6	299.2	r	SLOAN	1	1 x 1	
159948	wfsngc090 r’ 2nd	12:58:00.00	+00:00:00.0	J2000.00	1.142	179.7	00:17:54.6	299.3	r	SLOAN	1	1 x 1	
159952	wfsngc089 r’ 2nd	12:56:00.00	+00:00:00.0	J2000.00	1.140	179.7	00:27:22.2	299.8	r	SLOAN	1	1 x 1	
159956	wfsngc092 r’	13:02:00.00	+00:00:00.1	J2000.00	1.142	179.7	00:44:38.6	299.8	r	SLOAN	1	1 x 1	
159960	wfsngc093 r’	13:04:00.00	-00:00:00.0	J2000.00	1.145	179.7	00:54:24.2	299.7	r	SLOAN	1	1 x 1	
159964	wfsngc094 r’	13:05:59.99	-00:00:00.1	J2000.00	1.149	179.7	01:04:11.8	299.2	r	SLOAN	1	1 x 1	trailed
159968	wfsngc092 r’ 2nd	13:02:00.00	+00:00:00.0	J2000.00	1.160	179.7	01:14:15.0	299.9	r	SLOAN	1	1 x 1	corrupted
159972	wfsngc093 r’ 2nd	13:03:59.99	-00:00:00.0	J2000.00	1.169	179.7	01:24:29.9	299.8	r	SLOAN	1	1 x 1	
159976	wfsngc094 r’	13:05:59.99	-00:00:00.0	J2000.00	1.180	179.7	01:35:45.9	299.8	r	SLOAN	1	1 x 1	
159980	wfsngc092 r’ 2nd	13:02:00.00	+00:00:00.0	J2000.00	1.201	179.7	01:45:14.5	299.3	r	SLOAN	1	1 x 1	
159984	wfsngc094 r’ 2nd	13:06:00.00	+00:00:00.0	J2000.00	1.214	179.7	01:56:14.0	299.8	r	SLOAN	1	1 x 1	corrupted
159988	wfsngc094 r’ 2nd	13:05:59.99	+00:00:00.0	J2000.00	1.233	179.7	02:05:20.1	299.7	r	SLOAN	1	1 x 1	
159992	wfsngc095 r’	13:08:00.00	-00:00:00.0	J2000.00	1.253	179.7	02:16:05.7	299.9	r	SLOAN	1	1 x 1	
159996	wfsngc097 r’	13:12:00.00	+00:00:00.0	J2000.00	1.271	179.7	02:26:47.3	299.9	r	SLOAN	1	1 x 1	
160000	wfsngc101 r’	13:19:59.99	+00:00:00.0	J2000.00	1.279	179.7	02:37:46.5	299.7	r	SLOAN	1	1 x 1	corrupted
160004	wfsngc095 r’ 2nd	13:08:00.00	-00:00:00.0	J2000.00	1.355	179.7	02:48:45.8	299.8	r	SLOAN	1	1 x 1	ccd2+4 at 99%
160008	wfsngc097 r’ 2nd	13:11:59.99	-00:00:00.0	J2000.00	1.380	179.7	02:59:07.6	299.6	r	SLOAN	1	1 x 1	
160012	wfsngc101 r’ 2nd	13:20:00.00	+00:00:00.0	J2000.00	1.393	179.7	03:10:12.2	299.8	r	SLOAN	1	1 x 1	corrupted
160016	wfsngc101 r’ 2nd	13:20:00.00	-00:00:00.0	J2000.00	1.442	179.7	03:20:50.6	299.7	r	SLOAN	1	1 x 1	
160020	wfsngc121 r’	14:00:00.00	-00:00:00.0	J2000.00	1.325	179.7	03:32:18.1	299.8	r	SLOAN	1	1 x 1	
160024	wfsngc122 r’	14:02:00.00	+00:00:00.0	J2000.00	1.353	179.7	03:42:05.5	299.7	r	SLOAN	1	1 x 1	
160028	wfsngc123 r’	14:03:59.99	+00:00:00.0	J2000.00	1.385	179.7	03:52:00.7	299.8	r	SLOAN	1	1 x 1	
160032	wfsngc121 r’ 2nd	13:59:59.99	-00:00:00.0	J2000.00	1.449	179.7	04:02:12.7	299.9	r	SLOAN	1	1 x 1	
160036	wfsngc122 r’ 2nd	14:02:00.00	+00:00:00.0	J2000.00	1.490	179.7	04:12:01.5	299.8	r	SLOAN	1	1 x 1	
160040	wfsngc123 r’ 2nd	14:04:00.00	+00:00:00.0	J2000.00	1.535	179.7	04:21:53.2	299.7	r	SLOAN	1	1 x 1	corrupted
160044	wfsngc101 r’	13:20:00.00	-00:00:00.0	J2000.00	2.010	179.7	04:31:40.3	299.8	r	SLOAN	1	1 x 1	
160048	wfsngc123 r’ 2nd	14:04:00.00	+00:00:00.0	J2000.00	1.677	179.7	04:42:26.2	299.8	r	SLOAN	1	1 x 1	
160052	wfsngc126 r’	14:10:00.00	+00:00:00.0	J2000.00	1.730	179.7	04:52:17.8	599.4	r	SLOAN	1	1 x 1	
160056	wfsj1610+5430_013	16:04:32.00	+54:10:00.0	J2000.00	1.162	179.7	05:06:07.1	599.5	r	SLOAN	1	1 x 1	
160060	wfsj1610+5430_014	16:04:29.40	+54:30:00.1	J2000.00	1.183	179.7	05:19:46.7	599.5	r	SLOAN	1	1 x 1	
160064	sa110-361 r’	18:42:45.00	+00:08:04.1	J2000.00	1.158	179.7	05:32:47.0	9.6	r	SLOAN	1	1 x 1	
160068	sa110-361 B	18:42:44.99	+00:08:03.9	J2000.00	1.155	179.7	05:36:17.2	10.1	B	Kitt Peak	1	1 x 1	
160072	wfsj1610+5430_015	16:04:26.60	+54:49:59.9	J2000.00	1.223	179.7	05:42:55.8	599.4	r	SLOAN	1	1 x 1	x2 sky
160076	Flat field	19:19:08.99	+12:22:05.0	B1950.00	1.061	179.7	06:05:18.0	140.0	r	SLOAN	1	1 x 1	

160080	Flat field	19:19:09.68	+12:22:14.8	B1950.00	1.057	179.7	06:10:58.8	45.1	r	SLOAN	1	1 x 1
160084	Flat field	19:19:08.31	+12:21:54.9	B1950.00	1.055	179.7	06:14:55.1	16.1	r	SLOAN	1	1 x 1
160100	Flat field	19:19:09.00	+12:21:54.9	B1950.00	1.051	179.7	06:21:38.8	1.6	r	SLOAN	1	1 x 1