INT OBSERVING LOG (ISAAC NEWTON GROUP, LA PALMA)

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TELESCOPE:            INT
DATE:                 20000917
TAPE NR:              INTD4505
OBSERVER:             David James, David Mitchell, Kevin Pearson
PROGRAMME:            Planet Transits in NGC7789
PATT/CAT REF.:        P30+M31
TELESCOPE OPERATOR:   -
SUPPORT ASTRONOMER:   -

TELESCOPE FOCUS:      not specified
CALIBRATE RESULTS:    not specified

INSTRUMENT:           WFC

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

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

DOME OPENED (UT):     19:06
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METEOROLOGICAL PARAMETERS

UT	AirT	Hum%	Wspd	Gust	Wdir	Press	LocT	IntT	Mirr	LocRH	IntRH
20:00	14.6	37	26.4	31.8	283	774.6	15.3	18.6	19.2	33	30
21:00	14.4	32	26.4	30.5	291	774.7	14.9	17.1	19.0	30	28
22:00	14.4	28	27.2	33.2	297	775.3	15.0	16.6	19.0	27	24
23:00	14.4	30	34.6	40.6	268	775.5	15.0	16.2	18.8	28	26
00:00	14.4	25	29.6	34.1	280	775.6	15.0	16.1	18.6	24	23
01:00	14.4	26	30.3	32.6	261	775.5	15.0	15.9	18.5	24	23
02:00	14.5	28	37.9	41.1	273	774.9	14.9	16.1	18.4	25	24
03:00	14.3	28	31.8	38.0	269	774.5	14.8	16.2	18.2	27	25
04:00	14.1	26	37.1	39.3	285	774.0	14.6	16.1	18.2	25	22
05:00	14.0	28	37.1	42.9	274	773.8	14.5	15.9	18.0	27	24
06:00	13.9	28	40.3	43.5	272	773.5	14.5	15.7	17.8	27	25

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SUNSET(UT)            19:22
EVENING TWILIGHT(UT)  20:34
MORNING TWILIGHT(UT)  05:39
SUNRISE(UT)           06:51
MOON'S QUARTER (1-4)  3
DISK % OF ILLUM.      79
DARK TIME             09:05
TWILIGHT TIME         02:24
MOONRISE(UT)          21:45
MOONSET(UT)           No moonset within sunset-sunrise

TIME LOST(WEATHER):   00:00
TIME LOST(TECHNICAL): 00:00
TIME LOST(OTHER):     00:00
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Run no.	Object name	RA	Dec.	Equinox	AM	PA	UT	Exp. T.	Filter	Psys Channel	Binning	Comments
229968	Bias	15:10:00.00	+36:00:00.0	J2000.00	1.043	180.0	15:23:34.0	0.0	Halpha Narrow-ban		1 x 1	

229969	test flat	15:10:00.00	+35:59:59.9	J2000.00	1.039	180.0	15:27:12.7	5.1	z	Gunn	1 x 1
229970	BIAS	19:19:09.00	+12:22:04.9	B1950.00	1.065	180.0	19:54:21.6	0.0	r	Sloan	1 x 1
229971	BIAS	19:19:09.00	+12:22:04.9	B1950.00	1.064	180.0	19:55:20.3	0.0	r	Sloan	1 x 1
229972	BIAS	19:19:08.99	+12:22:04.9	B1950.00	1.063	180.0	19:56:19.7	0.0	r	Sloan	1 x 1
229973	BIAS	19:19:08.99	+12:22:05.0	B1950.00	1.062	180.0	19:57:17.4	0.0	r	Sloan	1 x 1
229974	BIAS	19:19:09.00	+12:22:05.0	B1950.00	1.061	180.0	19:58:15.1	0.0	r	Sloan	1 x 1
229975	BIAS	19:19:09.00	+12:22:05.0	B1950.00	1.060	180.0	19:59:12.8	0.0	r	Sloan	1 x 1
229976	BIAS	19:19:08.99	+12:22:04.9	B1950.00	1.060	180.0	20:00:10.5	0.0	r	Sloan	1 x 1
229977	BIAS	19:19:09.00	+12:22:05.0	B1950.00	1.059	180.0	20:01:10.3	0.0	r	Sloan	1 x 1
229978	Focus run	19:04:29.83	+08:20:32.1	J2000.00	1.067	180.0	20:24:01.2	10.1	r	Sloan	1 x 1
229979	TEST FOCUS	23:57:30.80	+56:43:41.8	J2000.00	1.806	180.0	20:33:30.1	10.1	r	Sloan	1 x 1
229980	TEST FOCUS	23:57:30.81	+56:43:41.8	J2000.00	1.777	180.0	20:37:58.4	10.1	r	Sloan	1 x 1
229981	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.740	180.0	20:41:37.9	299.8	r	Sloan	1 x 1
229982	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.691	180.0	20:50:19.2	299.8	r	Sloan	1 x 1
229983	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.655	180.0	20:56:58.2	299.8	r	Sloan	1 x 1
229984	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.621	180.0	21:03:39.8	299.8	r	Sloan	1 x 1
229985	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.589	180.0	21:10:22.0	299.8	r	Sloan	1 x 1
229986	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.558	180.0	21:17:02.3	299.9	r	Sloan	1 x 1
229987	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.530	180.0	21:23:42.7	299.8	r	Sloan	1 x 1
229988	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.503	180.0	21:30:23.1	299.8	r	Sloan	1 x 1
229989	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.477	180.0	21:37:02.5	299.8	r	Sloan	1 x 1
229990	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.452	180.0	21:43:42.8	299.8	r	Sloan	1 x 1
229991	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.429	180.0	21:50:23.9	299.9	r	Sloan	1 x 1
229992	BIAS	23:57:30.81	+56:43:41.8	J2000.00	1.415	180.0	21:57:03.8	0.0	r	Sloan	1 x 1
229993	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.401	180.0	21:59:10.5	299.8	r	Sloan	1 x 1
229994	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.380	180.0	22:05:50.8	299.8	r	Sloan	1 x 1
229995	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.361	180.0	22:12:30.7	299.8	r	Sloan	1 x 1
229996	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.343	180.0	22:19:11.4	299.9	r	Sloan	1 x 1
229997	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.325	180.0	22:25:53.4	299.9	r	Sloan	1 x 1
229998	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.309	180.0	22:32:33.3	299.8	r	Sloan	1 x 1
229999	NGC 7789	23:57:30.81	+56:43:41.7	J2000.00	1.294	180.0	22:39:13.4	299.7	r	Sloan	1 x 1
230000	NGC 7789	23:57:30.80	+56:43:41.9	J2000.00	1.279	180.0	22:45:53.8	299.8	r	Sloan	1 x 1
230001	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.266	180.0	22:52:34.0	299.8	r	Sloan	1 x 1
230002	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.253	180.0	22:59:13.7	299.7	r	Sloan	1 x 1
230003	BIAS	23:57:30.81	+56:43:41.8	J2000.00	1.243	180.0	23:07:05.1	0.0	r	Sloan	1 x 1
230004	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.226	180.0	23:14:48.5	299.8	r	Sloan	1 x 1
230005	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.215	180.0	23:21:29.6	299.8	r	Sloan	1 x 1
230006	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.205	180.0	23:28:09.3	299.8	r	Sloan	1 x 1
230007	NGC 7789	23:57:30.81	+56:43:41.7	J2000.00	1.196	180.0	23:34:49.3	299.8	r	Sloan	1 x 1
230008	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.188	180.0	23:41:28.6	299.3	r	Sloan	1 x 1
230009	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.180	180.0	23:48:07.2	299.8	r	Sloan	1 x 1
230010	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.173	180.0	23:54:47.6	299.8	r	Sloan	1 x 1
230011	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.167	180.0	00:01:27.3	299.8	r	Sloan	1 x 1
230012	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.161	180.0	00:08:07.5	299.8	r	Sloan	1 x 1
230013	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.155	180.0	00:14:47.8	299.7	r	Sloan	1 x 1
230014	BIAS	23:57:30.80	+56:43:41.8	J2000.00	1.152	180.0	00:21:36.6	0.0	r	Sloan	1 x 1
230015	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.149	180.0	00:23:21.5	299.8	r	Sloan	1 x 1
230016	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.145	180.0	00:30:01.5	299.8	r	Sloan	1 x 1
230017	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.142	180.0	00:36:44.4	299.8	r	Sloan	1 x 1
230018	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.139	180.0	00:43:23.5	299.9	r	Sloan	1 x 1
230019	NGC 7789	23:57:30.81	+56:43:41.7	J2000.00	1.136	180.0	00:50:04.6	299.9	r	Sloan	1 x 1
230020	NGC 7789	23:57:30.80	+56:43:41.7	J2000.00	1.134	180.0	00:56:45.6	299.7	r	Sloan	1 x 1
230021	NGC 7789	23:57:30.81	+56:43:41.7	J2000.00	1.133	180.0	01:03:25.3	299.8	r	Sloan	1 x 1
230022	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.132	180.0	01:10:05.4	299.7	r	Sloan	1 x 1
230023	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.132	180.0	01:16:46.1	299.7	r	Sloan	1 x 1
230024	NGC 7789	23:57:30.80	+56:43:41.7	J2000.00	1.132	180.0	01:23:28.3	299.8	r	Sloan	1 x 1
230025	BIAS	23:57:30.80	+56:43:41.8	J2000.00	1.133	180.0	01:30:16.8	0.0	r	Sloan	1 x 1
230026	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.133	180.0	01:32:02.9	299.8	r	Sloan	1 x 1
230027	NGC 7789	23:57:30.81	+56:43:41.7	J2000.00	1.135	180.0	01:38:42.3	299.9	r	Sloan	1 x 1
230028	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.137	180.0	01:45:22.2	299.8	r	Sloan	1 x 1
230029	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.139	180.0	01:52:02.4	299.7	r	Sloan	1 x 1
230030	NGC 7789	23:57:30.81	+56:43:41.7	J2000.00	1.142	180.0	01:58:42.4	299.8	r	Sloan	1 x 1

230031	NGC 7789	23:57:30.81	+56:43:41.7	J2000.00	1.146	180.0	02:05:23.3	299.8	r	Sloan	1 x 1
230032	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.150	180.0	02:12:03.8	299.7	r	Sloan	1 x 1
230033	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.154	180.0	02:18:44.8	299.9	r	Sloan	1 x 1
230034	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.160	180.0	02:25:24.4	299.8	r	Sloan	1 x 1
230035	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.165	180.0	02:32:04.9	299.8	r	Sloan	1 x 1
230036	BIAS	23:57:30.81	+56:43:41.8	J2000.00	1.169	180.0	02:38:37.9	0.0	r	Sloan	1 x 1
230037	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.174	180.0	02:40:46.9	299.8	r	Sloan	1 x 1
230038	NGC 7789	23:57:30.81	+56:43:41.7	J2000.00	1.182	180.0	02:48:39.7	299.8	r	Sloan	1 x 1
230039	NGC 7789	23:57:30.81	+56:43:41.7	J2000.00	1.190	180.0	02:55:22.0	299.8	r	Sloan	1 x 1
230040	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.199	180.0	03:02:02.0	299.8	r	Sloan	1 x 1
230041	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.208	180.0	03:08:42.3	299.8	r	Sloan	1 x 1
230042	NGC 7789	23:57:30.81	+56:43:41.7	J2000.00	1.218	180.0	03:15:22.2	299.9	r	Sloan	1 x 1
230043	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.229	180.0	03:22:02.6	299.8	r	Sloan	1 x 1
230044	NGC 7789	23:57:30.81	+56:43:41.9	J2000.00	1.240	180.0	03:28:43.0	299.8	r	Sloan	1 x 1
230045	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.252	180.0	03:35:22.7	299.8	r	Sloan	1 x 1
230046	NGC 7789	23:57:30.81	+56:43:41.9	J2000.00	1.265	180.0	03:42:03.8	299.8	r	Sloan	1 x 1
230047	BIAS	23:57:30.80	+56:43:41.8	J2000.00	1.273	180.0	03:48:45.4	0.0	r	Sloan	1 x 1
230048	NGC 7789 - V	23:57:30.80	+56:43:41.8	J2000.00	1.280	180.0	03:51:38.7	20.1	V	Harris	1 x 1
230049	NGC 7789 - V	23:57:30.81	+56:43:41.8	J2000.00	1.286	180.0	03:53:53.5	100.0	V	Harris	1 x 1
230050	NGC 7789 - V	23:57:30.81	+56:43:41.8	J2000.00	1.301	180.0	03:57:25.6	499.5	V	Harris	1 x 1
230051	NGC 7789 - I	23:57:30.81	+56:43:41.8	J2000.00	1.317	180.0	04:08:02.0	20.1	i	Sloan	1 x 1
230052	NGC 7789 - I	23:57:30.80	+56:43:41.8	J2000.00	1.325	180.0	04:10:28.0	100.0	i	Sloan	1 x 1
230053	NGC 7789 - I	23:57:30.81	+56:43:41.8	J2000.00	1.343	180.0	04:14:09.3	499.6	i	Sloan	1 x 1
230054	NGC 7789 - R	23:57:30.80	+56:43:41.9	J2000.00	1.361	180.0	04:24:51.3	20.1	r	Sloan	1 x 1
230055	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.369	180.0	04:27:07.4	100.0	r	Sloan	1 x 1
230056	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.390	180.0	04:30:39.6	499.4	r	Sloan	1 x 1
230057	BIAS	23:57:30.80	+56:43:41.8	J2000.00	1.408	180.0	04:40:32.6	0.0	r	Sloan	1 x 1
230058	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.422	180.0	04:42:32.4	299.9	r	Sloan	1 x 1
230059	NGC 7789	23:57:30.81	+56:43:41.8	J2000.00	1.445	180.0	04:49:15.9	299.8	r	Sloan	1 x 1
230060	NGC 7789	23:57:30.80	+56:43:41.8	J2000.00	1.469	180.0	04:55:55.6	299.3	r	Sloan	1 x 1
230061	BIAS	23:57:30.81	+56:43:41.8	J2000.00	1.484	180.0	05:02:21.8	0.0	r	Sloan	1 x 1
230062	M31-microfld1	0:43:59.99	+41:33:59.9	J2000.00	1.287	180.0	05:06:21.7	319.9	r	Sloan	1 x 1
230063	M31-microfld1	0:44:00.00	+41:33:59.9	J2000.00	1.312	180.0	05:13:23.4	319.8	r	Sloan	1 x 1
230064	M31-microfld1	0:44:00.00	+41:33:59.9	J2000.00	1.338	180.0	05:20:23.6	319.8	i	Sloan	1 x 1
230065	M31-microfld1	0:44:00.00	+41:34:00.0	J2000.00	1.366	180.0	05:27:23.6	319.2	i	Sloan	1 x 1
230066	M31-microfld2	0:43:10.00	+40:58:14.9	J2000.00	1.405	180.0	05:35:33.4	319.9	r	Sloan	1 x 1
230067	M31-microfld2	0:43:09.99	+40:58:15.0	J2000.00	1.439	180.0	05:42:34.3	319.8	r	Sloan	1 x 1
230068	M31-microfld2	0:43:09.99	+40:58:15.0	J2000.00	1.474	180.0	05:49:35.9	319.8	i	Sloan	1 x 1
230069	M31-microfld2	0:43:10.00	+40:58:14.9	J2000.00	1.512	180.0	05:56:36.6	319.8	i	Sloan	1 x 1
230070	FLAT	4:25:45.99	+54:09:02.9	B1950.00	1.113	180.0	06:20:54.4	60.1	r	Sloan	1 x 1
230071	FLAT	4:25:47.13	+54:09:12.9	B1950.00	1.114	180.0	06:24:06.7	30.1	r	Sloan	1 x 1
230072	FLAT	4:25:48.27	+54:09:22.8	B1950.00	1.115	180.0	06:26:30.2	15.1	r	Sloan	1 x 1
230073	FLAT	4:25:49.41	+54:09:33.0	B1950.00	1.116	180.0	06:28:21.3	8.1	r	Sloan	1 x 1
230074	FLAT	4:25:50.55	+54:09:43.0	B1950.00	1.117	180.0	06:30:02.3	5.1	r	Sloan	1 x 1
230075	FLAT	4:25:51.69	+54:09:52.8	B1950.00	1.117	180.0	06:31:42.1	4.1	r	Sloan	1 x 1
230076	FLAT	4:25:52.83	+54:10:03.0	B1950.00	1.118	180.0	06:33:21.6	2.6	r	Sloan	1 x 1
230077	FLAT	4:25:53.97	+54:10:12.8	B1950.00	1.119	180.0	06:35:02.1	2.1	r	Sloan	1 x 1
230078	FLAT	4:25:55.11	+54:10:23.0	B1950.00	1.120	180.0	06:36:41.0	2.1	r	Sloan	1 x 1
230079	FLAT	4:25:56.25	+54:10:33.0	B1950.00	1.121	180.0	06:38:15.3	1.0	r	Sloan	1 x 1
230080	BIAS	0:00:00.00	+00:00:00.0	B1950.00	1.122	180.0	06:42:58.5	0.0	r	Sloan	1 x 1
230081	BIAS	0:00:00.00	+00:00:00.0	B1950.00	1.122	180.0	06:43:55.8	0.0	r	Sloan	1 x 1
230082	BIAS	0:00:00.00	+00:00:00.0	B1950.00	1.122	180.0	06:44:53.2	0.0	r	Sloan	1 x 1
230083	BIAS	0:00:00.00	+00:00:00.0	B1950.00	1.122	180.0	06:45:50.5	0.0	r	Sloan	1 x 1
230084	BIAS	0:00:00.00	+00:00:00.0	B1950.00	1.122	180.0	06:46:47.8	0.0	r	Sloan	1 x 1
230085	BIAS	0:00:00.00	+00:00:00.0	B1950.00	1.122	180.0	06:47:45.1	0.0	r	Sloan	1 x 1