INT OBSERVING LOG (ISAAC NEWTON GROUP, LA PALMA)

TELESCOPE: INT
DATE: 20000915
TAPE NR: INTD4503
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): 19:15

METEOROLOGICAL PARAMETERS

UT	AirT	Hum%	Wspd	Gust	Wdir	Press	LocT	IntT	Mirr	LocRH	IntRH
20:00	16.4	22	24.2	29.6	173	773.1	16.9	19.1	18.4	20	18
21:00	16.3	20	25.5	32.7	188	773.5	16.8	18.0	18.3	19	18
22:00	16.1	20	22.0	27.0	133	774.2	16.6	17.5	18.2	18	19
23:00	16.1	24	23.6	26.8	221	774.8	16.7	17.3	18.2	22	21
00:00	15.2	24	17.9	20.1	183	775.0	15.7	17.1	18.2	22	23
01:00	14.8	25	18.2	21.4	151	774.9	15.6	16.7	18.0	23	22
02:00	15.2	24	28.1	31.2	179	774.5	15.8	16.5	18.0	22	21
03:00	15.4	23	19.3	22.8	145	774.4	16.0	16.5	17.9	22	21
04:00	15.2	24	16.7	21.6	141	774.1	15.8	16.4	17.8	22	23
05:00	15.1	24	15.3	19.1	171	773.9	15.6	16.4	17.8	23	22
06:00	15.4	25	14.1	22.6	176	774.0	16.0	16.5	17.6	23	23

SUNSET(UT) 19:24
EVENING TWILIGHT(UT) 20:37
MORNING TWILIGHT(UT) 05:38
SUNRISE(UT) 06:50
MOON'S QUARTER (1-4) 3
DISK % OF ILLUM. 93
DARK TIME 09:01
TWILIGHT TIME 02:25
MOONRISE(UT) 20:32
MOONSET(UT) No moonset within sunset-sunrise

TIME LOST(WEATHER): 00:00
TIME LOST(TECHNICAL): 00:00
TIME LOST(OTHER): 00:00

Run no.	Object name	RA	Dec.	Equinox	AM	PA	UT	Exp. T.	Filter	Psys	Channel	Binning	Comments
229725	Bias frame	0:00:00.00	+00:00:00.0	B1950.00	4.234	180.0	12:41:51.3	0.0	z	Gunn		1 x 1	

229726	Bias frame	0:00:00.00	+00:00:00.0	B1950.00	4.234	180.0	12:47:37.0	0.0	z	Gunn	1 x 1
229727	Bias frame	0:00:00.00	+00:00:00.0	B1950.00	4.234	180.0	12:49:30.2	0.0	z	Gunn	1 x 1
229728	Bias frame	0:00:00.00	+00:00:00.0	B1950.00	4.234	180.0	12:54:06.8	0.0	Halpha	Narrow-ban	1 x 1
229729	Bias	0:00:00.00	+00:00:00.0	J2000.00	4.274	180.0	13:23:34.6	0.0	V	Harris	1 x 1
229730	Bias frame	0:00:00.00	+00:00:00.0	J2000.00	4.274	180.0	13:24:39.3	0.0	V	Harris	1 x 1
229731	Bias frame	0:00:00.00	+00:00:00.0	J2000.00	4.274	180.0	13:25:54.2	0.0	V	Harris	1 x 1
229732	Bias	0:00:00.00	+00:00:00.0	J2000.00	4.274	180.0	13:27:37.0	0.0	V	Harris	1 x 1
229733	TEST	0:00:00.00	+00:00:00.0	J2000.00	4.274	180.0	13:44:13.6	1.0	V	Harris	1 x 1
229734	Test	0:00:00.00	+00:00:00.0	J2000.00	4.274	180.0	13:46:05.6	15.1	V	Harris	1 x 1
229735	Bias frame	0:00:00.00	+00:00:00.0	J2000.00	4.274	180.0	13:48:17.9	0.0	V	Harris	1 x 1
229736	BIAS	19:19:08.99	+12:22:04.9	B1950.00	1.074	180.0	19:53:09.3	0.0	r	Sloan	1 x 1
229737	BIAS	19:19:09.00	+12:22:05.0	B1950.00	1.073	180.0	19:54:08.0	0.0	r	Sloan	1 x 1
229738	BIAS	19:19:09.00	+12:22:05.0	B1950.00	1.072	180.0	19:55:07.2	0.0	r	Sloan	1 x 1
229739	BIAS	19:19:09.00	+12:22:04.9	B1950.00	1.071	180.0	19:56:04.9	0.0	r	Sloan	1 x 1
229740	BIAS	19:19:09.00	+12:22:05.0	B1950.00	1.070	180.0	19:57:02.6	0.0	r	Sloan	1 x 1
229741	BIAS	19:19:09.00	+12:22:04.9	B1950.00	1.069	180.0	19:58:00.4	0.0	r	Sloan	1 x 1
229742	BIAS	19:19:08.99	+12:22:04.9	B1950.00	1.068	180.0	19:58:58.1	0.0	r	Sloan	1 x 1
229743	BIAS	19:19:09.00	+12:22:04.9	B1950.00	1.067	180.0	19:59:55.8	0.0	r	Sloan	1 x 1
229744	Focus run	19:04:29.83	+08:20:17.0	J2000.00	1.068	180.0	20:25:02.3	10.1	r	Sloan	1 x 1
229745	TEST JUNK POOH BAG	23:57:30.81	+56:43:41.8	J2000.00	1.846	180.0	20:35:19.1	10.1	r	Sloan	1 x 1
229746	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.803	180.0	20:39:25.8	299.8	r	Sloan	1 x 1
229747	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.756	180.0	20:46:55.7	299.8	r	Sloan	1 x 1
229748	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.716	180.0	20:53:35.4	299.8	r	Sloan	1 x 1
229749	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.679	180.0	21:00:15.3	299.8	r	Sloan	1 x 1
229750	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.644	180.0	21:06:54.9	299.9	r	Sloan	1 x 1
229751	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.611	180.0	21:13:35.2	299.8	r	Sloan	1 x 1
229752	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.579	180.0	21:20:14.7	299.8	r	Sloan	1 x 1
229753	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.550	180.0	21:26:55.1	299.9	r	Sloan	1 x 1
229754	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.521	180.0	21:33:36.4	299.8	r	Sloan	1 x 1
229755	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.495	180.0	21:40:16.5	299.8	r	Sloan	1 x 1
229756	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.469	180.0	21:46:56.7	299.9	r	Sloan	1 x 1
229757	BIAS	23:57:30.80	+56:43:41.8	J2000.00	1.455	180.0	21:53:23.9	0.0	r	Sloan	1 x 1
229758	NGC 7789 - R	23:57:30.80	+56:43:41.9	J2000.00	1.439	180.0	21:55:19.8	299.8	r	Sloan	1 x 1
229759	NGC 7789 - R	23:57:30.80	+56:43:41.7	J2000.00	1.417	180.0	22:01:59.4	299.8	r	Sloan	1 x 1
229760	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.396	180.0	22:08:39.7	299.8	r	Sloan	1 x 1
229761	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.375	180.0	22:15:20.9	299.8	r	Sloan	1 x 1
229762	NGC 7789 - R	23:57:30.82	+56:43:41.8	J2000.00	1.356	180.0	22:22:01.1	299.6	r	Sloan	1 x 1
229763	NGC 7789 - R	23:57:30.81	+56:43:41.7	J2000.00	1.338	180.0	22:28:41.4	299.9	r	Sloan	1 x 1
229764	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.321	180.0	22:35:21.0	299.8	r	Sloan	1 x 1
229765	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.305	180.0	22:42:01.5	299.7	r	Sloan	1 x 1
229766	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.290	180.0	22:48:41.4	299.8	r	Sloan	1 x 1
229767	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.276	180.0	22:55:21.8	299.8	r	Sloan	1 x 1
229768	NGC 7789 - R	23:57:30.81	+56:43:41.7	J2000.00	1.262	180.0	23:02:01.7	299.8	r	Sloan	1 x 1
229769	BIAS	23:57:30.80	+56:43:41.8	J2000.00	1.252	180.0	23:09:60.0	0.0	r	Sloan	1 x 1
229770	NGC 7789 - R	23:57:30.80	+56:43:41.7	J2000.00	1.244	180.0	23:11:50.3	299.8	r	Sloan	1 x 1
229771	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.232	180.0	23:18:29.9	299.8	r	Sloan	1 x 1
229772	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.222	180.0	23:25:09.9	299.8	r	Sloan	1 x 1
229773	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.211	180.0	23:31:50.1	299.8	r	Sloan	1 x 1
229774	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.202	180.0	23:38:29.3	299.7	r	Sloan	1 x 1
229775	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.193	180.0	23:45:11.4	299.8	r	Sloan	1 x 1
229776	NGC 7789 - R	23:57:30.81	+56:43:41.9	J2000.00	1.185	180.0	23:51:51.9	299.9	r	Sloan	1 x 1
229777	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.178	180.0	23:58:32.0	299.8	r	Sloan	1 x 1
229778	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.171	180.0	00:05:13.3	299.8	r	Sloan	1 x 1
229779	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.164	180.0	00:11:53.7	299.8	r	Sloan	1 x 1
229780	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.159	180.0	00:18:33.8	299.9	r	Sloan	1 x 1
229781	BIAS	23:57:30.80	+56:43:41.7	J2000.00	1.155	180.0	00:25:26.7	0.0	r	Sloan	1 x 1
229782	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.152	180.0	00:27:36.3	299.8	r	Sloan	1 x 1
229783	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.147	180.0	00:34:16.0	299.8	r	Sloan	1 x 1
229784	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.144	180.0	00:40:59.3	299.8	r	Sloan	1 x 1
229785	NGC 7789 - R	23:57:30.80	+56:43:41.7	J2000.00	1.140	180.0	00:47:40.9	299.7	r	Sloan	1 x 1
229786	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.138	180.0	00:54:19.6	299.8	r	Sloan	1 x 1
229787	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.135	180.0	01:01:00.5	299.8	r	Sloan	1 x 1

229788	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.134	180.0	01:07:40.6	299.9	r	Sloan	1 x 1
229789	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.133	180.0	01:14:19.8	299.8	r	Sloan	1 x 1
229790	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.132	180.0	01:21:00.3	299.8	r	Sloan	1 x 1
229791	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.132	180.0	01:27:41.5	299.8	r	Sloan	1 x 1
229792	BIAS	23:57:30.81	+56:43:41.8	J2000.00	1.132	180.0	01:36:26.2	0.0	r	Sloan	1 x 1
229793	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.133	180.0	01:38:10.5	299.9	r	Sloan	1 x 1
229794	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.134	180.0	01:44:50.4	299.7	r	Sloan	1 x 1
229795	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.136	180.0	01:51:31.3	299.8	r	Sloan	1 x 1
229796	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.138	180.0	01:58:10.8	299.9	r	Sloan	1 x 1
229797	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.141	180.0	02:04:51.7	299.7	r	Sloan	1 x 1
229798	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.145	180.0	02:11:32.1	299.8	r	Sloan	1 x 1
229799	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.149	180.0	02:18:11.6	299.8	r	Sloan	1 x 1
229800	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.153	180.0	02:24:50.7	299.9	r	Sloan	1 x 1
229801	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.158	180.0	02:31:30.6	299.8	r	Sloan	1 x 1
229802	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.164	180.0	02:38:11.7	299.8	r	Sloan	1 x 1
229803	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.170	180.0	02:44:52.0	299.7	r	Sloan	1 x 1
229804	BIAS	23:57:30.81	+56:43:41.7	J2000.00	1.180	180.0	02:57:09.0	0.0	r	Sloan	1 x 1
229805	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.185	180.0	02:58:49.0	299.8	r	Sloan	1 x 1
229806	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.193	180.0	03:05:36.2	299.8	r	Sloan	1 x 1
229807	NGC 7789 - R	23:57:30.80	+56:43:41.8	J2000.00	1.202	180.0	03:12:15.9	299.8	r	Sloan	1 x 1
229808	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.212	180.0	03:18:57.8	299.8	r	Sloan	1 x 1
229809	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.222	180.0	03:25:44.6	299.9	r	Sloan	1 x 1
229810	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.233	180.0	03:32:25.5	299.8	r	Sloan	1 x 1
229811	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.244	180.0	03:39:05.7	299.8	r	Sloan	1 x 1
229812	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.257	180.0	03:45:44.9	299.6	r	Sloan	1 x 1
229813	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.270	180.0	03:52:24.7	299.8	r	Sloan	1 x 1
229814	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.284	180.0	03:59:05.3	299.9	r	Sloan	1 x 1
229815	NGC 7789 - R	23:57:30.81	+56:43:41.7	J2000.00	1.298	180.0	04:05:45.0	299.7	r	Sloan	1 x 1
229816	BIAS	23:57:30.81	+56:43:41.8	J2000.00	1.326	180.0	04:19:40.2	0.0	r	Sloan	1 x 1
229817	NGC 7789 - V	23:57:30.81	+56:43:41.9	J2000.00	1.338	180.0	04:24:13.7	20.1	V	Harris	1 x 1
229818	NGC 7789 - V	23:57:30.81	+56:43:41.8	J2000.00	1.347	180.0	04:26:57.7	100.0	V	Harris	1 x 1
229819	NGC 7789 - V	23:57:30.80	+56:43:41.8	J2000.00	1.366	180.0	04:30:26.6	499.7	V	Harris	1 x 1
229820	NGC 7789 - I	23:57:30.80	+56:43:41.8	J2000.00	1.385	180.0	04:40:53.5	20.1	i	Sloan	1 x 1
229821	NGC 7789 - I	23:57:30.81	+56:43:41.8	J2000.00	1.394	180.0	04:43:12.4	100.0	i	Sloan	1 x 1
229822	NGC 7789 - I	23:57:30.81	+56:43:41.8	J2000.00	1.416	180.0	04:46:43.4	499.6	i	Sloan	1 x 1
229823	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.438	180.0	04:57:30.3	20.1	r	Sloan	1 x 1
229824	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.449	180.0	04:59:46.5	100.0	r	Sloan	1 x 1
229825	NGC 7789 - R	23:57:30.81	+56:43:41.8	J2000.00	1.474	180.0	05:03:18.1	499.5	r	Sloan	1 x 1
229826	M31-microfld1	0:44:00.00	+41:34:00.0	J2000.00	1.296	180.0	05:16:53.3	319.7	r	Sloan	1 x 1
229827	M31-microfld1	0:44:00.00	+41:33:59.9	J2000.00	1.321	180.0	05:23:53.8	319.7	r	Sloan	1 x 1
229828	M31-microfld1	0:44:00.00	+41:33:59.9	J2000.00	1.348	180.0	05:30:55.1	319.9	i	Sloan	1 x 1
229829	M31-microfld1	0:43:59.99	+41:34:00.0	J2000.00	1.377	180.0	05:37:54.7	319.8	i	Sloan	1 x 1
229830	M31-microfld2	0:43:10.01	+40:58:15.2	J2000.00	1.417	180.0	05:46:01.5	319.7	r	Sloan	1 x 1
229831	M31-microfld2	0:43:09.99	+40:58:15.0	J2000.00	1.451	180.0	05:53:01.7	319.3	r	Sloan	1 x 1
229832	M31-microfld2	0:43:10.00	+40:58:15.0	J2000.00	1.488	180.0	06:00:02.7	319.7	i	Sloan	1 x 1
229833	M31-microfld2	0:43:10.00	+40:58:14.9	J2000.00	1.527	180.0	06:07:04.7	319.8	i	Sloan	1 x 1
229834	FLAT - R	4:25:46.00	+54:09:03.0	B1950.00	1.110	180.0	06:20:41.8	55.1	r	Sloan	1 x 1
229835	FLAT - R	4:25:47.13	+54:09:12.9	B1950.00	1.111	180.0	06:23:03.2	24.1	r	Sloan	1 x 1
229836	FLAT - R	4:25:48.27	+54:09:22.9	B1950.00	1.112	180.0	06:25:03.4	14.1	r	Sloan	1 x 1
229837	FLAT - R	4:25:49.41	+54:09:32.9	B1950.00	1.112	180.0	06:26:53.6	10.1	r	Sloan	1 x 1
229838	FLAT - R	4:25:50.55	+54:09:42.9	B1950.00	1.113	180.0	06:28:36.6	7.1	r	Sloan	1 x 1
229839	FLAT - R	4:25:51.69	+54:09:52.9	B1950.00	1.114	180.0	06:30:20.0	4.1	r	Sloan	1 x 1
229840	FLAT - R	4:25:52.83	+54:10:02.8	B1950.00	1.114	180.0	06:31:59.6	2.6	r	Sloan	1 x 1
229841	FLAT - R	4:25:53.97	+54:10:12.9	B1950.00	1.115	180.0	06:33:37.7	2.1	r	Sloan	1 x 1
229842	FLAT - R	4:25:55.11	+54:10:23.0	B1950.00	1.115	180.0	06:35:10.4	1.1	r	Sloan	1 x 1
229843	FLAT - R	4:25:56.25	+54:10:32.8	B1950.00	1.116	180.0	06:36:44.4	1.0	r	Sloan	1 x 1
229844	BIAS	4:25:57.39	+54:10:43.0	B1950.00	1.117	180.0	06:38:19.4	0.0	r	Sloan	1 x 1
229845	BIAS	4:25:57.39	+54:10:42.9	B1950.00	1.117	180.0	06:39:17.1	0.0	r	Sloan	1 x 1
229847	BIAS	0:00:00.00	+00:00:00.0	B1950.00	2.899	180.0	06:45:48.1	0.0	r	Sloan	1 x 1
229848	BIAS	0:00:00.00	+00:00:00.0	B1950.00	2.899	180.0	06:47:02.0	0.0	r	Sloan	1 x 1
229849	BIAS	0:00:00.00	+00:00:00.0	B1950.00	2.899	180.0	06:48:09.7	0.0	r	Sloan	1 x 1
229850	BIAS	0:00:00.00	+00:00:00.0	B1950.00	2.899	180.0	06:49:07.7	0.0	r	Sloan	1 x 1

229851	BIAS	0:00:00.00	+00:00:00.0	B1950.00	2.899	180.0	06:50:05.5	0.0	r	Sloan	1 x 1
229852	BIAS	0:00:00.00	+00:00:00.0	B1950.00	2.899	180.0	06:51:03.1	0.0	r	Sloan	1 x 1