INT OBSERVING LOG (ISAAC NEWTON GROUP, LA PALMA)

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TELESCOPE:             INT
DATE:                  1999 Mar 15/16
INT TAPE NR:           INTD3987
OBSERVER:              Mike, Celine, Pierre, Guillaume, Nic
PROGRAMME:             WFS
PATT/CAT:              WFS/09
TELESCOPE OPERATOR:    MJI
SUPPORT ASTRONOMER:    -

FOCUS:                 PRIME
INSTRUMENT:            WFC
FILTER WHEEL (PF):     KPNOB,V,R,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 weather all night
OUTSIDE TEMP (deg C):    0.0      (FIRST HALF)
OUTSIDE TEMP (deg C):    0.0      (SECOND HALF)
HUMIDITY (%):           20       (FIRST HALF)
HUMIDITY (%):           20       (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):        1.4       (FIRST HALF)
SEEING (arcsec):        1.4       (SECOND HALF)
AV. SEEING (arcsec):    1.4
NO. SEEING MEASURES:    10

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

DARK HOURS:            09:30
DOME OPEN (UTC):       19:00
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.): 00:00
DK HRS LOST (A&G):     00:00
DK HRS LOST (OTHER):   00:00

COMMENTS:
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Run no.	Object name	RA	Dec.	Equinox	AM	PA	UT	Exp. T.	Filter	Psys	Channel	Binning	Comments
153081	Bias frame	0:00:00.00	+00:00:00.0	A	4.514	179.8	15:42:08.3	0.0	R	Harris	1	1 x 1	
153082	Bias frame	0:00:00.00	+00:00:00.0	A	4.514	179.8	15:42:08.3	0.0	R	Harris	5	1 x 1	
153083	Bias frame	0:00:00.00	+00:00:00.0	A	4.514	179.8	15:42:08.3	0.0	R	Harris	3	1 x 1	
153084	Bias frame	0:00:00.00	+00:00:00.0	A	4.514	179.8	15:42:08.3	0.0	R	Harris	4	1 x 1	

153085	Bias frame	0:00:00.00	+00:00:00.0	A		4.514	179.8	15:44:58.3	0.0	R	Harris	1	1 x 1
153086	Bias frame	0:00:00.00	+00:00:00.0	A		4.514	179.8	15:44:58.3	0.0	R	Harris	5	1 x 1
153087	Bias frame	0:00:00.00	+00:00:00.0	A		4.514	179.8	15:44:58.3	0.0	R	Harris	3	1 x 1
153088	Bias frame	0:00:00.00	+00:00:00.0	A		4.514	179.8	15:44:58.3	0.0	R	Harris	4	1 x 1
153089	Bias frame	0:00:00.00	+00:00:00.0	A		4.514	179.8	15:47:48.1	0.0	R	Harris	1	1 x 1
153090	Bias frame	0:00:00.00	+00:00:00.0	A		4.514	179.8	15:47:48.1	0.0	R	Harris	5	1 x 1
153091	Bias frame	0:00:00.00	+00:00:00.0	A		4.514	179.8	15:47:48.1	0.0	R	Harris	3	1 x 1
153092	Bias frame	0:00:00.00	+00:00:00.0	A		4.514	179.8	15:47:48.1	0.0	R	Harris	4	1 x 1
153093	Bias frame	0:00:00.00	+00:00:00.0	A		4.514	179.8	15:50:39.2	0.0	R	Harris	1	1 x 1
153094	Bias frame	0:00:00.00	+00:00:00.0	A		4.514	179.8	15:50:39.2	0.0	R	Harris	5	1 x 1
153095	Bias frame	0:00:00.00	+00:00:00.0	A		4.514	179.8	15:50:39.2	0.0	R	Harris	3	1 x 1
153096	Bias frame	0:00:00.00	+00:00:00.0	A		4.514	179.8	15:50:39.2	0.0	R	Harris	4	1 x 1
153097	Bias frame	0:00:00.00	+00:00:00.0	A		4.514	179.8	15:53:30.2	0.0	R	Harris	1	1 x 1
153098	Bias frame	0:00:00.00	+00:00:00.0	A		4.514	179.8	15:53:30.2	0.0	R	Harris	5	1 x 1
153099	Bias frame	0:00:00.00	+00:00:00.0	A		4.514	179.8	15:53:30.2	0.0	R	Harris	3	1 x 1
153100	Bias frame	0:00:00.00	+00:00:00.0	A		4.514	179.8	15:53:30.2	0.0	R	Harris	4	1 x 1
153101	Flat field	3:00:00.00	+19:59:59.9	J2000.00		1.373	179.8	19:47:00.6	2.5	B	Kitt Peak	1	1 x 1
153102	Flat field	3:00:00.00	+19:59:59.9	J2000.00		1.373	179.8	19:47:00.6	2.5	B	Kitt Peak	5	1 x 1
153103	Flat field	3:00:00.00	+19:59:59.9	J2000.00		1.373	179.8	19:47:00.6	2.5	B	Kitt Peak	3	1 x 1
153104	Flat field	3:00:00.00	+19:59:59.9	J2000.00		1.373	179.8	19:47:00.6	2.5	B	Kitt Peak	4	1 x 1
153105	Flat field	3:00:04.25	+20:00:00.0	J2000.00		1.388	179.8	19:50:05.5	5.1	B	Kitt Peak	1	1 x 1
153106	Flat field	3:00:04.25	+20:00:00.0	J2000.00		1.388	179.8	19:50:05.5	5.1	B	Kitt Peak	5	1 x 1
153107	Flat field	3:00:04.25	+20:00:00.0	J2000.00		1.388	179.8	19:50:05.5	5.1	B	Kitt Peak	3	1 x 1
153108	Flat field	3:00:04.25	+20:00:00.0	J2000.00		1.388	179.8	19:50:05.5	5.1	B	Kitt Peak	4	1 x 1
153109	Flat field	3:00:04.25	+20:00:59.9	J2000.00		1.404	179.8	19:53:11.0	10.1	B	Kitt Peak	1	1 x 1
153110	Flat field	3:00:04.25	+20:00:59.9	J2000.00		1.404	179.8	19:53:11.0	10.1	B	Kitt Peak	5	1 x 1
153111	Flat field	3:00:04.25	+20:00:59.9	J2000.00		1.404	179.8	19:53:11.0	10.1	B	Kitt Peak	3	1 x 1
153112	Flat field	3:00:04.25	+20:00:59.9	J2000.00		1.404	179.8	19:53:11.0	10.1	B	Kitt Peak	4	1 x 1
153113	Flat field	3:00:04.25	+20:00:59.9	J2000.00		1.421	179.8	19:56:15.5	15.1	r	Sloan	1	1 x 1
153114	Flat field	3:00:04.25	+20:00:59.9	J2000.00		1.421	179.8	19:56:15.5	15.1	r	Sloan	5	1 x 1
153115	Flat field	3:00:04.25	+20:00:59.9	J2000.00		1.421	179.8	19:56:15.5	15.1	r	Sloan	3	1 x 1
153116	Flat field	3:00:04.25	+20:00:59.9	J2000.00		1.421	179.8	19:56:15.5	15.1	r	Sloan	4	1 x 1
153117	Flat field	3:00:04.25	+20:00:00.0	J2000.00		1.440	179.8	19:59:28.1	30.1	r	Sloan	1	1 x 1
153118	Flat field	3:00:04.25	+20:00:00.0	J2000.00		1.440	179.8	19:59:28.1	30.1	r	Sloan	5	1 x 1
153119	Flat field	3:00:04.25	+20:00:00.0	J2000.00		1.440	179.8	19:59:28.1	30.1	r	Sloan	3	1 x 1
153120	Flat field	3:00:04.25	+20:00:00.0	J2000.00		1.440	179.8	19:59:28.1	30.1	r	Sloan	4	1 x 1
153121	Flat field	3:00:00.00	+19:59:59.9	J2000.00		1.462	179.8	20:02:57.0	60.0	r	Sloan	1	1 x 1
153122	Flat field	3:00:00.00	+19:59:59.9	J2000.00		1.462	179.8	20:02:57.0	60.0	r	Sloan	5	1 x 1
153123	Flat field	3:00:00.00	+19:59:59.9	J2000.00		1.462	179.8	20:02:57.0	60.0	r	Sloan	3	1 x 1
153124	Flat field	3:00:00.00	+19:59:59.9	J2000.00		1.462	179.8	20:02:57.0	60.0	r	Sloan	4	1 x 1
153125	Focus run	3:54:31.00	+00:30:50.0	J2000.00		1.493	179.8	20:18:35.8	10.1	B	Kitt Peak	1	1 x 1
153126	Focus run	3:54:31.00	+00:30:50.0	J2000.00		1.493	179.8	20:18:35.8	10.1	B	Kitt Peak	5	1 x 1
153127	Focus run	3:54:31.00	+00:30:50.0	J2000.00		1.493	179.8	20:18:35.8	10.1	B	Kitt Peak	3	1 x 1
153128	Focus run	3:54:31.00	+00:30:50.0	J2000.00		1.493	179.8	20:18:35.8	10.1	B	Kitt Peak	4	1 x 1
153129	Focus run	3:54:30.99	+00:32:34.9	J2000.00		1.539	179.8	20:26:09.4	10.1	r	Sloan	1	1 x 1
153130	Focus run	3:54:30.99	+00:32:34.9	J2000.00		1.539	179.8	20:26:09.4	10.1	r	Sloan	5	1 x 1
153131	Focus run	3:54:30.99	+00:32:34.9	J2000.00		1.539	179.8	20:26:09.4	10.1	r	Sloan	3	1 x 1
153132	Focus run	3:54:30.99	+00:32:34.9	J2000.00		1.539	179.8	20:26:09.4	10.1	r	Sloan	4	1 x 1
153133	sa98-670	6:52:12.00	-00:19:17.0	J2000.00		1.144	179.8	20:36:26.7	10.1	B	Kitt Peak	1	1 x 1
153134	sa98-670	6:52:12.00	-00:19:17.0	J2000.00		1.144	179.8	20:36:26.7	10.1	B	Kitt Peak	5	1 x 1
153135	sa98-670	6:52:12.00	-00:19:17.0	J2000.00		1.144	179.8	20:36:26.7	10.1	B	Kitt Peak	3	1 x 1
153136	sa98-670	6:52:12.00	-00:19:17.0	J2000.00		1.144	179.8	20:36:26.7	10.1	B	Kitt Peak	4	1 x 1
153137	sa98-670	6:52:12.00	-00:19:17.0	J2000.00		1.145	179.8	20:39:38.3	10.1	V	Harris	1	1 x 1
153138	sa98-670	6:52:12.00	-00:19:17.0	J2000.00		1.145	179.8	20:39:38.3	10.1	V	Harris	5	1 x 1
153139	sa98-670	6:52:12.00	-00:19:17.0	J2000.00		1.145	179.8	20:39:38.3	10.1	V	Harris	3	1 x 1
153140	sa98-670	6:52:12.00	-00:19:17.0	J2000.00		1.145	179.8	20:39:38.3	10.1	V	Harris	4	1 x 1
153141	sa98-670	6:52:12.00	-00:19:17.0	J2000.00		1.146	179.8	20:43:57.5	10.1	r	Sloan	1	1 x 1
153142	sa98-670	6:52:12.00	-00:19:17.0	J2000.00		1.146	179.8	20:43:57.5	10.1	r	Sloan	5	1 x 1
153143	sa98-670	6:52:12.00	-00:19:17.0	J2000.00		1.146	179.8	20:43:57.5	10.1	r	Sloan	3	1 x 1
153144	sa98-670	6:52:12.00	-00:19:17.0	J2000.00		1.146	179.8	20:43:57.5	10.1	r	Sloan	4	1 x 1
153145	sa98-670	6:52:12.00	-00:19:17.0	J2000.00		1.147	179.8	20:47:08.7	10.1	i	Sloan	1	1 x 1
153146	sa98-670	6:52:12.00	-00:19:17.0	J2000.00		1.147	179.8	20:47:08.7	10.1	i	Sloan	5	1 x 1

153147	sa98-670		6:52:12.00	-00:19:17.0	J2000.00	1.147	179.8	20:47:08.7	10.1	i	Sloan	3	1 x 1
153148	sa98-670		6:52:12.00	-00:19:17.0	J2000.00	1.147	179.8	20:47:08.7	10.1	i	Sloan	4	1 x 1
153149	wfsngc001		10:00:00.00	-00:00:00.0	J2000.00	1.473	179.8	20:55:59.0	749.4	B	Kitt Peak	1	1 x 1
153150	wfsngc001		10:00:00.00	-00:00:00.0	J2000.00	1.473	179.8	20:55:59.0	749.4	B	Kitt Peak	5	1 x 1
153151	wfsngc001		10:00:00.00	-00:00:00.0	J2000.00	1.473	179.8	20:55:59.0	749.4	B	Kitt Peak	3	1 x 1
153152	wfsngc001		10:00:00.00	-00:00:00.0	J2000.00	1.473	179.8	20:55:59.0	749.4	B	Kitt Peak	4	1 x 1
153153	wfsngc002		10:02:00.00	+00:00:00.0	J2000.00	1.400	179.8	21:13:13.0	749.2	B	Kitt Peak	1	1 x 1
153154	wfsngc002		10:02:00.00	+00:00:00.0	J2000.00	1.400	179.8	21:13:13.0	749.2	B	Kitt Peak	5	1 x 1
153155	wfsngc002		10:02:00.00	+00:00:00.0	J2000.00	1.400	179.8	21:13:13.0	749.2	B	Kitt Peak	3	1 x 1
153156	wfsngc002		10:02:00.00	+00:00:00.0	J2000.00	1.400	179.8	21:13:13.0	749.2	B	Kitt Peak	4	1 x 1
153157	wfsngc003		10:04:00.00	-00:00:00.0	J2000.00	1.338	179.8	21:30:56.1	749.3	B	Kitt Peak	1	1 x 1
153158	wfsngc003		10:04:00.00	-00:00:00.0	J2000.00	1.338	179.8	21:30:56.1	749.3	B	Kitt Peak	5	1 x 1
153159	wfsngc003		10:04:00.00	-00:00:00.0	J2000.00	1.338	179.8	21:30:56.1	749.3	B	Kitt Peak	3	1 x 1
153160	wfsngc003		10:04:00.00	-00:00:00.0	J2000.00	1.338	179.8	21:30:56.1	749.3	B	Kitt Peak	4	1 x 1
153161	wfsngc004		10:06:00.00	-00:00:00.0	J2000.00	1.288	179.8	21:48:11.9	749.2	B	Kitt Peak	1	1 x 1
153162	wfsngc004		10:06:00.00	-00:00:00.0	J2000.00	1.288	179.8	21:48:11.9	749.2	B	Kitt Peak	5	1 x 1
153163	wfsngc004		10:06:00.00	-00:00:00.0	J2000.00	1.288	179.8	21:48:11.9	749.2	B	Kitt Peak	3	1 x 1
153164	wfsngc004		10:06:00.00	-00:00:00.0	J2000.00	1.288	179.8	21:48:11.9	749.2	B	Kitt Peak	4	1 x 1
153165	wfsngc005	B	10:07:59.99	+00:00:00.1	J2000.00	1.245	179.8	22:06:13.9	749.4	B	Kitt Peak	1	1 x 1
153166	wfsngc005	B	10:07:59.99	+00:00:00.1	J2000.00	1.245	179.8	22:06:13.9	749.4	B	Kitt Peak	5	1 x 1
153167	wfsngc005	B	10:07:59.99	+00:00:00.1	J2000.00	1.245	179.8	22:06:13.9	749.4	B	Kitt Peak	3	1 x 1
153168	wfsngc005	B	10:07:59.99	+00:00:00.1	J2000.00	1.245	179.8	22:06:13.9	749.4	B	Kitt Peak	4	1 x 1
153169	wfsngc016	B	10:30:00.00	+00:00:00.2	J2000.00	1.256	179.8	22:23:46.7	749.3	B	Kitt Peak	1	1 x 1
153170	wfsngc016	B	10:30:00.00	+00:00:00.2	J2000.00	1.256	179.8	22:23:46.7	749.3	B	Kitt Peak	5	1 x 1
153171	wfsngc016	B	10:30:00.00	+00:00:00.2	J2000.00	1.256	179.8	22:23:46.7	749.3	B	Kitt Peak	3	1 x 1
153172	wfsngc016	B	10:30:00.00	+00:00:00.2	J2000.00	1.256	179.8	22:23:46.7	749.3	B	Kitt Peak	4	1 x 1
153173	wfsngc017	B	10:32:00.00	+00:00:00.3	J2000.00	1.223	179.8	22:40:21.5	749.4	B	Kitt Peak	1	1 x 1
153174	wfsngc017	B	10:32:00.00	+00:00:00.3	J2000.00	1.223	179.8	22:40:21.5	749.4	B	Kitt Peak	5	1 x 1
153175	wfsngc017	B	10:32:00.00	+00:00:00.3	J2000.00	1.223	179.8	22:40:21.5	749.4	B	Kitt Peak	3	1 x 1
153176	wfsngc017	B	10:32:00.00	+00:00:00.3	J2000.00	1.223	179.8	22:40:21.5	749.4	B	Kitt Peak	4	1 x 1
153177	wfsngc018	B	10:34:00.00	-00:00:00.0	J2000.00	1.194	179.8	22:57:36.9	749.4	B	Kitt Peak	1	1 x 1
153178	wfsngc018	B	10:34:00.00	-00:00:00.0	J2000.00	1.194	179.8	22:57:36.9	749.4	B	Kitt Peak	5	1 x 1
153179	wfsngc018	B	10:34:00.00	-00:00:00.0	J2000.00	1.194	179.8	22:57:36.9	749.4	B	Kitt Peak	3	1 x 1
153180	wfsngc018	B	10:34:00.00	-00:00:00.0	J2000.00	1.194	179.8	22:57:36.9	749.4	B	Kitt Peak	4	1 x 1
153181	wfsngc019	B	10:36:00.00	+00:00:00.0	J2000.00	1.174	179.8	23:14:11.9	749.2	B	Kitt Peak	1	1 x 1
153182	wfsngc019	B	10:36:00.00	+00:00:00.0	J2000.00	1.174	179.8	23:14:11.9	749.2	B	Kitt Peak	5	1 x 1
153183	wfsngc019	B	10:36:00.00	+00:00:00.0	J2000.00	1.174	179.8	23:14:11.9	749.2	B	Kitt Peak	3	1 x 1
153184	wfsngc019	B	10:36:00.00	+00:00:00.0	J2000.00	1.174	179.8	23:14:11.9	749.2	B	Kitt Peak	4	1 x 1
153185	wfsngc020	B	10:38:00.00	+00:00:00.1	J2000.00	1.158	179.8	23:30:49.4	749.3	B	Kitt Peak	1	1 x 1
153186	wfsngc020	B	10:38:00.00	+00:00:00.1	J2000.00	1.158	179.8	23:30:49.4	749.3	B	Kitt Peak	5	1 x 1
153187	wfsngc020	B	10:38:00.00	+00:00:00.1	J2000.00	1.158	179.8	23:30:49.4	749.3	B	Kitt Peak	3	1 x 1
153188	wfsngc020	B	10:38:00.00	+00:00:00.1	J2000.00	1.158	179.8	23:30:49.4	749.3	B	Kitt Peak	4	1 x 1
153189	wfsngc031	B	10:59:59.99	+00:00:00.2	J2000.00	1.162	179.8	23:48:01.8	749.1	B	Kitt Peak	1	1 x 1
153190	wfsngc031	B	10:59:59.99	+00:00:00.2	J2000.00	1.162	179.8	23:48:01.8	749.1	B	Kitt Peak	5	1 x 1
153191	wfsngc031	B	10:59:59.99	+00:00:00.2	J2000.00	1.162	179.8	23:48:01.8	749.1	B	Kitt Peak	3	1 x 1
153192	wfsngc031	B	10:59:59.99	+00:00:00.2	J2000.00	1.162	179.8	23:48:01.8	749.1	B	Kitt Peak	4	1 x 1
153193	wfsngc033	B	11:04:00.00	-00:00:00.0	J2000.00	1.151	179.8	00:05:12.1	748.8	B	Kitt Peak	1	1 x 1
153194	wfsngc033	B	11:04:00.00	-00:00:00.0	J2000.00	1.151	179.8	00:05:12.1	748.8	B	Kitt Peak	5	1 x 1
153195	wfsngc033	B	11:04:00.00	-00:00:00.0	J2000.00	1.151	179.8	00:05:12.1	748.8	B	Kitt Peak	3	1 x 1
153196	wfsngc033	B	11:04:00.00	-00:00:00.0	J2000.00	1.151	179.8	00:05:12.1	748.8	B	Kitt Peak	4	1 x 1
153197	wfsngc034	B	11:06:00.00	-00:00:00.0	J2000.00	1.144	179.8	00:21:50.9	749.2	B	Kitt Peak	1	1 x 1
153198	wfsngc034	B	11:06:00.00	-00:00:00.0	J2000.00	1.144	179.8	00:21:50.9	749.2	B	Kitt Peak	5	1 x 1
153199	wfsngc034	B	11:06:00.00	-00:00:00.0	J2000.00	1.144	179.8	00:21:50.9	749.2	B	Kitt Peak	3	1 x 1
153200	wfsngc034	B	11:06:00.00	-00:00:00.0	J2000.00	1.144	179.8	00:21:50.9	749.2	B	Kitt Peak	4	1 x 1
153201	wfsngc035	B	11:08:00.00	-00:00:00.0	J2000.00	1.141	179.8	00:39:30.8	749.3	B	Kitt Peak	1	1 x 1
153202	wfsngc035	B	11:08:00.00	-00:00:00.0	J2000.00	1.141	179.8	00:39:30.8	749.3	B	Kitt Peak	5	1 x 1
153203	wfsngc035	B	11:08:00.00	-00:00:00.0	J2000.00	1.141	179.8	00:39:30.8	749.3	B	Kitt Peak	3	1 x 1
153204	wfsngc035	B	11:08:00.00	-00:00:00.0	J2000.00	1.141	179.8	00:39:30.8	749.3	B	Kitt Peak	4	1 x 1
153205	wfsngc032	B	11:02:00.00	+00:00:00.1	J2000.00	1.146	179.8	00:56:53.9	749.4	B	Kitt Peak	1	1 x 1
153206	wfsngc032	B	11:02:00.00	+00:00:00.1	J2000.00	1.146	179.8	00:56:53.9	749.4	B	Kitt Peak	5	1 x 1
153207	wfsngc032	B	11:02:00.00	+00:00:00.1	J2000.00	1.146	179.8	00:56:53.9	749.4	B	Kitt Peak	3	1 x 1
153208	wfsngc032	B	11:02:00.00	+00:00:00.1	J2000.00	1.146	179.8	00:56:53.9	749.4	B	Kitt Peak	4	1 x 1

153209	sa104-334	12:42:21.00	-00:40:28.0	J2000.00	1.200	179.8	01:13:32.5	10.1	B	Kitt Peak	1	1 x 1
153210	sa104-334	12:42:21.00	-00:40:28.0	J2000.00	1.200	179.8	01:13:32.5	10.1	B	Kitt Peak	5	1 x 1
153211	sa104-334	12:42:21.00	-00:40:28.0	J2000.00	1.200	179.8	01:13:32.5	10.1	B	Kitt Peak	3	1 x 1
153212	sa104-334	12:42:21.00	-00:40:28.0	J2000.00	1.200	179.8	01:13:32.5	10.1	B	Kitt Peak	4	1 x 1
153213	sa104-334	12:42:21.00	-00:40:27.9	J2000.00	1.195	179.8	01:16:38.4	10.1	V	Harris	1	1 x 1
153214	sa104-334	12:42:21.00	-00:40:27.9	J2000.00	1.195	179.8	01:16:38.4	10.1	V	Harris	5	1 x 1
153215	sa104-334	12:42:21.00	-00:40:27.9	J2000.00	1.195	179.8	01:16:38.4	10.1	V	Harris	3	1 x 1
153216	sa104-334	12:42:21.00	-00:40:27.9	J2000.00	1.195	179.8	01:16:38.4	10.1	V	Harris	4	1 x 1
153217	sa104-334	12:42:20.99	-00:40:27.9	J2000.00	1.190	179.8	01:19:49.7	10.1	i	Sloan	1	1 x 1
153218	sa104-334	12:42:20.99	-00:40:27.9	J2000.00	1.190	179.8	01:19:49.7	10.1	i	Sloan	5	1 x 1
153219	sa104-334	12:42:20.99	-00:40:27.9	J2000.00	1.190	179.8	01:19:49.7	10.1	i	Sloan	3	1 x 1
153220	sa104-334	12:42:20.99	-00:40:27.9	J2000.00	1.190	179.8	01:19:49.7	10.1	i	Sloan	4	1 x 1
153221	sa104-334	12:42:21.00	-00:40:27.9	J2000.00	1.186	179.8	01:23:02.3	10.1	r	Sloan	1	1 x 1
153222	sa104-334	12:42:21.00	-00:40:27.9	J2000.00	1.186	179.8	01:23:02.3	10.1	r	Sloan	5	1 x 1
153223	sa104-334	12:42:21.00	-00:40:27.9	J2000.00	1.186	179.8	01:23:02.3	10.1	r	Sloan	3	1 x 1
153224	sa104-334	12:42:21.00	-00:40:27.9	J2000.00	1.186	179.8	01:23:02.3	10.1	r	Sloan	4	1 x 1
153225	Focus run	12:42:21.00	-00:39:12.9	J2000.00	1.179	179.8	01:29:05.0	10.1	r	Sloan	1	1 x 1
153226	Focus run	12:42:21.00	-00:39:12.9	J2000.00	1.179	179.8	01:29:05.0	10.1	r	Sloan	5	1 x 1
153227	Focus run	12:42:21.00	-00:39:12.9	J2000.00	1.179	179.8	01:29:05.0	10.1	r	Sloan	3	1 x 1
153228		12:42:21.00	-00:39:12.9	J2000.00	1.179	179.8	01:29:05.0	10.1	r	Sloan	4	1 x 1
153229	wfsngc081	12:39:59.99	+00:00:00.1	J2000.00	1.157	179.8	01:34:40.6	598.9	r	Sloan	1	1 x 1
153230	wfsngc081	12:39:59.99	+00:00:00.1	J2000.00	1.157	179.8	01:34:40.6	598.9	r	Sloan	5	1 x 1
153231	wfsngc081	12:39:59.99	+00:00:00.1	J2000.00	1.157	179.8	01:34:40.6	598.9	r	Sloan	3	1 x 1
153232	wfsngc081	12:39:59.99	+00:00:00.1	J2000.00	1.157	179.8	01:34:40.6	598.9	r	Sloan	4	1 x 1
153237	wfsngc082	12:41:59.99	+00:00:00.0	J2000.00	1.147	179.8	01:50:42.7	599.5	r	Sloan	1	1 x 1
153238	wfsngc082	12:41:59.99	+00:00:00.0	J2000.00	1.147	179.8	01:50:42.7	599.5	r	Sloan	5	1 x 1
153239	wfsngc082	12:41:59.99	+00:00:00.0	J2000.00	1.147	179.8	01:50:42.7	599.5	r	Sloan	3	1 x 1
153240	wfsngc082	12:41:59.99	+00:00:00.0	J2000.00	1.147	179.8	01:50:42.7	599.5	r	Sloan	4	1 x 1
153241	wfsngc083 r	12:44:00.00	-00:00:00.1	J2000.00	1.142	179.8	02:05:15.4	599.4	r	Sloan	1	1 x 1
153242	wfsngc083 r	12:44:00.00	-00:00:00.1	J2000.00	1.142	179.8	02:05:15.4	599.4	r	Sloan	5	1 x 1
153243	wfsngc083 r	12:44:00.00	-00:00:00.1	J2000.00	1.142	179.8	02:05:15.4	599.4	r	Sloan	3	1 x 1
153244	wfsngc083 r	12:44:00.00	-00:00:00.1	J2000.00	1.142	179.8	02:05:15.4	599.4	r	Sloan	4	1 x 1
153249	wfsngc085 r	12:48:00.00	+00:00:00.0	J2000.00	1.140	179.8	02:22:04.1	599.5	r	Sloan	1	1 x 1
153250	wfsngc085 r	12:48:00.00	+00:00:00.0	J2000.00	1.140	179.8	02:22:04.1	599.5	r	Sloan	5	1 x 1
153251	wfsngc085 r	12:48:00.00	+00:00:00.0	J2000.00	1.140	179.8	02:22:04.1	599.5	r	Sloan	3	1 x 1
153252	wfsngc085 r	12:48:00.00	+00:00:00.0	J2000.00	1.140	179.8	02:22:04.1	599.5	r	Sloan	4	1 x 1
153261	wfsngc096 r	13:10:00.00	-00:00:00.0	J2000.00	1.141	179.8	02:39:04.6	599.1	r	Sloan	1	1 x 1
153262	wfsngc096 r	13:10:00.00	-00:00:00.0	J2000.00	1.141	179.8	02:39:04.6	599.1	r	Sloan	5	1 x 1
153263	wfsngc096 r	13:10:00.00	-00:00:00.0	J2000.00	1.141	179.8	02:39:04.6	599.1	r	Sloan	3	1 x 1
153264	wfsngc096 r	13:10:00.00	-00:00:00.0	J2000.00	1.141	179.8	02:39:04.6	599.1	r	Sloan	4	1 x 1
153269	wfsngc098 r	13:14:00.00	-00:00:00.0	J2000.00	1.141	179.8	02:56:15.0	599.5	r	Sloan	1	1 x 1
153270	wfsngc098 r	13:14:00.00	-00:00:00.0	J2000.00	1.141	179.8	02:56:15.0	599.5	r	Sloan	5	1 x 1
153271	wfsngc098 r	13:14:00.00	-00:00:00.0	J2000.00	1.141	179.8	02:56:15.0	599.5	r	Sloan	3	1 x 1
153272	wfsngc098 r	13:14:00.00	-00:00:00.0	J2000.00	1.141	179.8	02:56:15.0	599.5	r	Sloan	4	1 x 1
153273	wfsngc097 r	13:12:00.00	-00:00:00.0	J2000.00	1.148	179.8	03:11:06.6	599.7	r	Sloan	1	1 x 1
153274	wfsngc097 r	13:12:00.00	-00:00:00.0	J2000.00	1.148	179.8	03:11:06.6	599.7	r	Sloan	5	1 x 1
153275	wfsngc097 r	13:12:00.00	-00:00:00.0	J2000.00	1.148	179.8	03:11:06.6	599.7	r	Sloan	3	1 x 1
153276	wfsngc097 r	13:12:00.00	-00:00:00.0	J2000.00	1.148	179.8	03:11:06.6	599.7	r	Sloan	4	1 x 1
153277	wfsngc099 r	13:16:00.00	-00:00:00.0	J2000.00	1.156	179.8	03:26:43.1	599.5	r	Sloan	1	1 x 1
153278	wfsngc099 r	13:16:00.00	-00:00:00.0	J2000.00	1.156	179.8	03:26:43.1	599.5	r	Sloan	5	1 x 1
153279	wfsngc099 r	13:16:00.00	-00:00:00.0	J2000.00	1.156	179.8	03:26:43.1	599.5	r	Sloan	3	1 x 1
153280	wfsngc099 r	13:16:00.00	-00:00:00.0	J2000.00	1.156	179.8	03:26:43.1	599.5	r	Sloan	4	1 x 1
153281	wfsngc100 r	13:18:00.00	-00:00:00.0	J2000.00	1.168	179.8	03:41:05.3	599.5	r	Sloan	1	1 x 1
153282	wfsngc100 r	13:18:00.00	-00:00:00.0	J2000.00	1.168	179.8	03:41:05.3	599.5	r	Sloan	5	1 x 1
153283	wfsngc100 r	13:18:00.00	-00:00:00.0	J2000.00	1.168	179.8	03:41:05.3	599.5	r	Sloan	3	1 x 1
153284	wfsngc100 r	13:18:00.00	-00:00:00.0	J2000.00	1.168	179.8	03:41:05.3	599.5	r	Sloan	4	1 x 1
153285	wfsngc111 r	13:40:00.00	-00:00:00.0	J2000.00	1.161	179.8	03:56:46.0	599.5	r	Sloan	1	1 x 1
153286	wfsngc111 r	13:40:00.00	-00:00:00.0	J2000.00	1.161	179.8	03:56:46.0	599.5	r	Sloan	5	1 x 1
153287	wfsngc111 r	13:40:00.00	-00:00:00.0	J2000.00	1.161	179.8	03:56:46.0	599.5	r	Sloan	3	1 x 1
153288	wfsngc111 r	13:40:00.00	-00:00:00.0	J2000.00	1.161	179.8	03:56:46.0	599.5	r	Sloan	4	1 x 1
153289	wfsngc112 r	13:42:00.00	-00:00:00.1	J2000.00	1.175	179.8	04:11:14.6	599.5	r	Sloan	1	1 x 1
153290	wfsngc112 r	13:42:00.00	-00:00:00.1	J2000.00	1.175	179.8	04:11:14.6	599.5	r	Sloan	5	1 x 1

153291	wfsngc112	r	13:42:00.00	-00:00:00.1	J2000.00	1.175	179.8	04:11:14.6	599.5	r	Sloan	3	1 x 1	
153292	wfsngc112	r	13:42:00.00	-00:00:00.1	J2000.00	1.175	179.8	04:11:14.6	599.5	r	Sloan	4	1 x 1	
153293	wfsngc113	r	13:43:59.99	-00:00:00.1	J2000.00	1.193	179.8	04:25:45.6	598.9	r	Sloan	1	1 x 1	
153294	wfsngc113	r	13:43:59.99	-00:00:00.1	J2000.00	1.193	179.8	04:25:45.6	598.9	r	Sloan	5	1 x 1	
153295	wfsngc113	r	13:43:59.99	-00:00:00.1	J2000.00	1.193	179.8	04:25:45.6	598.9	r	Sloan	3	1 x 1	
153296	wfsngc113	r	13:43:59.99	-00:00:00.1	J2000.00	1.193	179.8	04:25:45.6	598.9	r	Sloan	4	1 x 1	
153297	wfsngc114	r	13:46:00.00	-00:00:00.3	J2000.00	1.216	179.8	04:40:15.6	599.4	r	Sloan	1	1 x 1	
153298	wfsngc114	r	13:46:00.00	-00:00:00.3	J2000.00	1.216	179.8	04:40:15.6	599.4	r	Sloan	5	1 x 1	
153299	wfsngc114	r	13:46:00.00	-00:00:00.3	J2000.00	1.216	179.8	04:40:15.6	599.4	r	Sloan	3	1 x 1	
153300	wfsngc114	r	13:46:00.00	-00:00:00.3	J2000.00	1.216	179.8	04:40:15.6	599.4	r	Sloan	4	1 x 1	
153301	wfsngc115	r	13:48:00.00	-00:00:00.3	J2000.00	1.242	179.8	04:54:40.7	599.5	r	Sloan	1	1 x 1	
153302	wfsngc115	r	13:48:00.00	-00:00:00.3	J2000.00	1.242	179.8	04:54:40.7	599.5	r	Sloan	5	1 x 1	
153303	wfsngc115	r	13:48:00.00	-00:00:00.3	J2000.00	1.242	179.8	04:54:40.7	599.5	r	Sloan	3	1 x 1	
153304	wfsngc115	r	13:48:00.00	-00:00:00.3	J2000.00	1.242	179.8	04:54:40.7	599.5	r	Sloan	4	1 x 1	
153305	wfsngc126	r	14:10:00.00	-00:00:00.0	J2000.00	1.228	179.8	05:10:10.6	599.4	r	Sloan	1	1 x 1	
153306	wfsngc126	r	14:10:00.00	-00:00:00.0	J2000.00	1.228	179.8	05:10:10.6	599.4	r	Sloan	5	1 x 1	
153307	wfsngc126	r	14:10:00.00	-00:00:00.0	J2000.00	1.228	179.8	05:10:10.6	599.4	r	Sloan	3	1 x 1	
153308	wfsngc126	r	14:10:00.00	-00:00:00.0	J2000.00	1.228	179.8	05:10:10.6	599.4	r	Sloan	4	1 x 1	
153309	wfsngc127	r	14:12:00.00	-00:00:00.1	J2000.00	1.257	179.8	05:24:34.2	599.4	r	Sloan	1	1 x 1	
153310	wfsngc127	r	14:12:00.00	-00:00:00.1	J2000.00	1.257	179.8	05:24:34.2	599.4	r	Sloan	5	1 x 1	
153311	wfsngc127	r	14:12:00.00	-00:00:00.1	J2000.00	1.257	179.8	05:24:34.2	599.4	r	Sloan	3	1 x 1	
153312	wfsngc127	r	14:12:00.00	-00:00:00.1	J2000.00	1.257	179.8	05:24:34.2	599.4	r	Sloan	4	1 x 1	
153313	wfsngc128	r	14:14:00.00	-00:00:00.1	J2000.00	1.291	179.8	05:38:52.0	599.5	r	Sloan	1	1 x 1	
153314	wfsngc128	r	14:14:00.00	-00:00:00.1	J2000.00	1.291	179.8	05:38:52.0	599.5	r	Sloan	5	1 x 1	
153315	wfsngc128	r	14:14:00.00	-00:00:00.1	J2000.00	1.291	179.8	05:38:52.0	599.5	r	Sloan	3	1 x 1	
153316	wfsngc128	r	14:14:00.00	-00:00:00.1	J2000.00	1.291	179.8	05:38:52.0	599.5	r	Sloan	4	1 x 1	
153317	wfsngc129	r	14:16:00.00	-00:00:00.0	J2000.00	1.333	179.8	05:53:45.7	599.5	r	Sloan	1	1 x 1	
153318	wfsngc129	r	14:16:00.00	-00:00:00.0	J2000.00	1.333	179.8	05:53:45.7	599.5	r	Sloan	5	1 x 1	
153319	wfsngc129	r	14:16:00.00	-00:00:00.0	J2000.00	1.333	179.8	05:53:45.7	599.5	r	Sloan	3	1 x 1	
153320	wfsngc129	r	14:16:00.00	-00:00:00.0	J2000.00	1.333	179.8	05:53:45.7	599.5	r	Sloan	4	1 x 1	
153321	wfsngc130	r	14:17:59.99	-00:00:00.1	J2000.00	1.380	179.8	06:08:13.2	599.5	r	Sloan	1	1 x 1	
153322	wfsngc130	r	14:17:59.99	-00:00:00.1	J2000.00	1.380	179.8	06:08:13.2	599.5	r	Sloan	5	1 x 1	
153323	wfsngc130	r	14:17:59.99	-00:00:00.1	J2000.00	1.380	179.8	06:08:13.2	599.5	r	Sloan	3	1 x 1	
153324	wfsngc130	r	14:17:59.99	-00:00:00.1	J2000.00	1.380	179.8	06:08:13.2	599.5	r	Sloan	4	1 x 1	
153329	sa107-602		15:39:19.00	-00:15:28.9	J2000.00	1.194	179.8	06:23:50.4	0.0	r	Sloan	1	1 x 1	MCA timing FU
153330	sa107-602		15:39:19.00	-00:15:28.9	J2000.00	1.194	179.8	06:23:50.4	0.0	r	Sloan	5	1 x 1	|
153331	sa107-602		15:39:19.00	-00:15:28.9	J2000.00	1.194	179.8	06:23:50.4	0.0	r	Sloan	3	1 x 1	all standards
153332	sa107-602		15:39:19.00	-00:15:28.9	J2000.00	1.194	179.8	06:23:50.4	0.0	r	Sloan	4	1 x 1	nominally 10s
153333	sa107-602		15:39:19.00	-00:15:28.9	J2000.00	1.199	179.8	06:26:59.5	0.0	B	Kitt Peak	1	1 x 1	|
153334	sa107-602		15:39:19.00	-00:15:28.9	J2000.00	1.199	179.8	06:26:59.5	0.0	B	Kitt Peak	5	1 x 1	MCA timing FU
153335	sa107-602		15:39:19.00	-00:15:28.9	J2000.00	1.199	179.8	06:26:59.5	0.0	B	Kitt Peak	3	1 x 1	MCA timing FU
153336	sa107-602		15:39:19.00	-00:15:28.9	J2000.00	1.199	179.8	06:26:59.5	0.0	B	Kitt Peak	4	1 x 1	MCA timing FU
153337	sa107-602		15:39:19.00	-00:15:29.0	J2000.00	1.205	179.8	06:30:57.8	0.0	V	Harris	1	1 x 1	MCA timing FU
153338	sa107-602		15:39:19.00	-00:15:29.0	J2000.00	1.205	179.8	06:30:57.8	0.0	V	Harris	5	1 x 1	MCA timing FU
153339	sa107-602		15:39:19.00	-00:15:29.0	J2000.00	1.205	179.8	06:30:57.8	0.0	V	Harris	3	1 x 1	MCA timing FU
153340	sa107-602		15:39:19.00	-00:15:29.0	J2000.00	1.205	179.8	06:30:57.8	0.0	V	Harris	4	1 x 1	MCA timing FU
153341	sa107-602		15:39:19.00	-00:15:29.0	J2000.00	1.212	179.8	06:34:28.9	0.0	i	Sloan	1	1 x 1	MCA timing FU
153342	sa107-602		15:39:19.00	-00:15:29.0	J2000.00	1.212	179.8	06:34:28.9	0.0	i	Sloan	5	1 x 1	MCA timing FU
153343	sa107-602		15:39:19.00	-00:15:29.0	J2000.00	1.212	179.8	06:34:28.9	0.0	i	Sloan	3	1 x 1	MCA timing FU
153344	sa107-602		15:39:19.00	-00:15:29.0	J2000.00	1.212	179.8	06:34:28.9	0.0	i	Sloan	4	1 x 1	MCA timing FU
153345	Flat field		20:00:02.20	+25:00:00.0	J2000.00	1.283	179.8	06:43:12.5	0.0	i	Sloan	1	1 x 1	
153346	Flat field		20:00:02.20	+25:00:00.0	J2000.00	1.283	179.8	06:43:12.5	0.0	i	Sloan	5	1 x 1	
153347	Flat field		20:00:02.20	+25:00:00.0	J2000.00	1.283	179.8	06:43:12.5	0.0	i	Sloan	3	1 x 1	
153348	Flat field		20:00:02.20	+25:00:00.0	J2000.00	1.283	179.8	06:43:12.5	0.0	i	Sloan	4	1 x 1	
153349	Flat field		20:00:04.41	+24:59:59.9	J2000.00	1.268	179.8	06:47:12.9	0.0	r	Sloan	1	1 x 1	
153350	Flat field		20:00:04.41	+24:59:59.9	J2000.00	1.268	179.8	06:47:12.9	0.0	r	Sloan	5	1 x 1	
153351	Flat field		20:00:04.41	+24:59:59.9	J2000.00	1.268	179.8	06:47:12.9	0.0	r	Sloan	3	1 x 1	
153352	Flat field		20:00:04.41	+24:59:59.9	J2000.00	1.268	179.8	06:47:12.9	0.0	r	Sloan	4	1 x 1	
153353	Flat field		20:00:00.01	+25:01:00.2	J2000.00	1.256	179.8	06:50:32.4	0.0	r	Sloan	1	1 x 1	
153354	Flat field		20:00:00.01	+25:01:00.2	J2000.00	1.256	179.8	06:50:32.4	0.0	r	Sloan	5	1 x 1	
153355	Flat field		20:00:00.01	+25:01:00.2	J2000.00	1.256	179.8	06:50:32.4	0.0	r	Sloan	3	1 x 1	
153356	Flat field		20:00:00.01	+25:01:00.2	J2000.00	1.256	179.8	06:50:32.4	0.0	r	Sloan	4	1 x 1	

```
153357 Flat field          20:00:00.00 +24:59:59.9 J2000.00 1.245 179.8 06:53:38.5      0.0        r      Sloan    1      1 x 1
153358 Flat field          20:00:00.00 +24:59:59.9 J2000.00 1.245 179.8 06:53:38.5      0.0        r      Sloan    5      1 x 1
153359 Flat field          20:00:00.00 +24:59:59.9 J2000.00 1.245 179.8 06:53:38.5      0.0        r      Sloan    3      1 x 1
153360 Flat field          20:00:00.00 +24:59:59.9 J2000.00 1.245 179.8 06:53:38.5      0.0        r      Sloan    4      1 x 1
```