Sun Oct 18th (Oct 19th UT)	Weather:					Focus: 367					
Observer:	Graduate Student Observational Astronomy Workshop										
Detector:	CCD2										
Read Mode:	bin x2, slow										
Exposure No	Object	RA	Dec	HA	Airmass	Filter	Exp Time (s)	Time (UT)	Notes		
100-110	bias	-	-	-	-	-	0	21:40			
111	dome flat	-	-	-	-	I	4	21:48	dome flat lamps	mirror cover close	
112-116	dome flat	-	-	-	-	I	4	21:52	dome flat lamps	39K count	
117-121	dome flat	-	-	-	-	R	6	21:56	dome flat lamps	39k count	
122-126	dome flat	-	-	-	-	V	25	22:00	dome flat lamps	36k count	
127-131	dome flat	-	-	-	-	B	40	22:12	telescope flat lamps=105	36k count	
132	twiflat				1.08	B	3	1:42	34K		
133	twiflat					B	3	1:43	29		
134	twiflat					B	4	01:4	33		
135	twiflat					V	4				
136	twiflat					V	6		37		
137	twiflat					V	7	1:46	35	may not have moved	
138	twiflat					R	8		45		
139	twiflat					R	8		35		
140	twiflat					R	10		31		
141	twiflat					I	10	1:50	28		
142	twiflat					I	13		28		
143	twiflat					I	17	1:52	27		
144	twiflat				1.06	V	50	1:55	24k	repeat just in case	
145	focus						50			start 355	
146	m57	18:53:35	33:01:45	2:40	1.19	B	300	3:51	ring nebula		
147	m57	18:53:35	33:01:45	2:47	1.21	V	300	3:57			
148	m57	18:53:35	33:01:45	2:53	1.22	R	300	4:03			
149	m57	18:53:35	33:01:45	2:58	1.24	I	300	4:09			
150	ngc 6826	19:44:48	50:31:30	2:15	1.13	B	300	4:17	saturated		
151	ngc 6826	19:44:48	50:31:30	2:22	1.14	B	60	4:24	blinking nebula		
152	ngc 6826	19:44:48	50:31:30	2:24	1.14	B	60	4:26			
153	ngc 6826	19:44:48	50:31:30	2:25	1.14	B	60	4:27			
154	ngc 6826	19:44:48	50:31:30	2:27	1.15	B	60	4:29			
155	ngc 6826	19:44:48	50:31:30	2:28	1.15	B	60	4:30			
156	ngc 6826	19:44:48	50:31:30	2:31	1.15	V	60	4:32			
157	ngc 6826	19:44:48	50:31:30	2:32	1:15	V	60	4:34			
158	ngc 6826	19:44:48	50:31:30	2:33	1.16	V	60	4:35			
159	ngc 6826	19:44:48	50:31:30	2:35	1.16	V	60	4:37			
160	ngc 6826	19:44:48	50:31:30	2:37	1.16	V	60	4:39			
161	ngc 6826	19:44:48	50:31:30	2:38	1.17	R	40	4:40			
162	ngc 6826	19:44:48	50:31:30	2:40	1.17	R	40	4:41			

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163	ngc 6826	19:44:48	50:31:30	2:41	1.17	R	40	4:43			
164	ngc 6826	19:44:48	50:31:30	2:42	1.17	R	40	4:44			
165	ngc 6826	19:44:48	50:31:30	2:43	1.18	R	40	4:45			
166	ngc 6826	19:44:48	50:31:30	2:45	1.18	I	40	4:46			
167	ngc 6826	19:44:48	50:31:30	2:46	1.18	I	40	4:48			
168	ngc 6826	19:44:48	50:31:30	2:47	1.18	I	40	4:49			
169	ngc 6826	19:44:48	50:31:30	2:49	1.19	I	40	4:50			
170	ngc 6826	19:44:48	50:31:30	2:50	1.19	I	40	4:51			
171	ngc 6781	19:18:28	6:32:19	3:20	1.73	B	300	4:57	snowball nebula		
172	ngc 6781	19:18:28	6:32:19	3:27	1.79	B	300	5:03			
173	ngc 6781	19:18:28	6:32:19	3:32	1.83	B	300	5:08			
174	ngc 6781	19:18:28	6:32:19	3:38	1.89	V	300	5:14			
175	ngc 6781	19:18:28	6:32:19	3:43	1.94	V	300	5:19			
176	ngc 6781	19:18:28	6:32:19	3:49	2	V	300	5:25			
177	ngc 6781	19:18:28	6:32:19	3:55	2.08	R	300	5:31			
178	ngc 6781	19:18:28	6:32:19	4:01	2.15	R	300	5:37			
179	ngc 6781	19:18:28	6:32:19	4:06	2.23	R	300	5:42			
180	ngc 6781	19:18:28	6:32:19	4:12	2.33	I	300	5:48			
181	ngc 6781	19:18:28	6:32:19	4:17	2.41	I	300	5:53			
182	ngc 6781	19:18:28	6:32:19	4:23	2.53	I	300	5:59			
183-185	m27	19:59:36	22:43:00	4:03	1.71	B	120	6:24	dumbbell nebula offset		
186-188	m27	19:59:36	22:43:00	4:16	1.79	V	120	6:32			
189-191	m27	19:59:36	22:43:00	4:25	1.88	R	120	6:41			
192-197	NGC514	1:24:04	2:24:04	-0:49:00	1.2	V	120	6:51	pisces galaxy		
198-203	NGC514	1:24:04	2:24:04	-0:32:00	1.11	B	120	7:08			
204-21	NGC514	1:24:04	2:24:04	-0:16:00	1.1	R	120	7:25			
210-212	NGC1275	3:19:48	41:30:42	-1:52:00	1.08	B	300	7:44	perseus a		
213-215	NGC1275	3:19:48	41:30:42	-1:35:54	1.06	V	300	8:01			
216-218	NGC1275	3:19:48	41:30:42	-1:19:00	1.04	R	300	8:17			
so long, farewell, aufwiedersehen, goodnight											
219	M1	5:34:32	22:01:35	-2:41:00	1:27	R	120	9:10	M1 offset no guide		
220-222	M1	5:34:32	22:01:35	-2:34:00	1.24	B	120	9:17	M1 offset		
223-225	M1	5:34:32	22:01:35	-2:26:00	1.22	V	120	9:25	M1 offset		
226-228	M1	5:34:32	22:01:35	-2:18:00	1.2	R	120	9:33	M1 offset		
229-230	M42	5:35:17	-5:23:28	-2:07:00	1.62	B	120	9:44	no guide		
231-233	M42	5:35:17	-5:23:28	-2:01:00	1:59	B	120	9:50			
234-236	M42	5:35:17	-5:23:28	-1:54:00	1.56	V	120	9:58			

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Read Mode:	**bin x2, slow**									
Exposure No	**Object**	**RA**	**Dec**	**HA**	**Airmass**	**Filter**	**Exp Time (s)**	**Time (UT)**	**Notes**	
237-239	M42	5:35:17	-5:23:28	-1:45:00	1.53	R	120	10:03		
240-242	horsehead	5:40:59	-2:27:00	-1:28:00	1.4	B	120	10:28	miss lable offset -30 arcsec dec	
243-245	horsehead	5:40:59	-2:27:00	-1:14:00	1.37	V	120	10:42	offset -30 arcsec dec	
246-248	horsehead	5:40:59	-2:27:00	-1:06:00	1:36	R	120	10:50	offset -30 arcsec dec	
249-251	horsehead	5:40:59	-2:27:00	-0:58:00	1.34	I	120	10:58	offset -30 arcsec dec	