DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
12/30/2017	Sat	6:53:45	-6	116	-22	321	90	10	132	-0.3				29	161	1.5	27	158	-1.8	0	122	0.5
12/30/2017	Sat	6:53:45												Jup 3.4								
12/31/2017	Sun	6:53:54	-6	116	-12	310	96	10	132	-0.3				29	162	1.5	28	159	-1.8	1	122	0.5
12/31/2017	Sun	6:53:54												Jup 3.0								
1/1/2018	Mon	6:54:00	-6	116	-2	300	99	10	132	-0.3				29	162	1.5	28	160	-1.8	1	123	0.5
1/1/2018	Mon	6:54:00												Jup 2.5								
1/2/2018	Tue	6:54:05	-6	116	8	289	100	10	132	-0.4				29	163	1.5	28	161	-1.8	2	124	0.5
1/2/2018	Tue	6:54:05												Jup 2.1								
1/3/2018	Wed	6:54:07	-6	116	17	278	97	9	132	-0.4				29	163	1.5	28	162	-1.8	2	124	0.5
1/3/2018	Wed	6:54:07												Jup 1.6								
1/4/2018	Thr	6:54:07	-6	116	26	266	91	9	132	-0.3				29	164	1.5	28	163	-1.8	2	125	0.5
1/4/2018	Thr	6:54:07												Jup 1.1								
1/5/2018	Fri	6:54:04	-6	116	33	253	83	9	132	-0.3				28	164	1.4	28	163	-1.8	3	125	0.5
1/5/2018	Fri	6:54:04												Jup 0.7								
1/6/2018	Sat	6:53:59	-6	115	38	238	74	8	132	-0.3				28	165	1.4	28	164	-1.8	3	126	0.5
1/6/2018	Sat	6:53:59												Jup 0.3								
1/7/2018	Sun	6:53:52	-6	115	41	221	64	8	132	-0.3				28	165	1.4	28	165	-1.8	4	127	0.5
1/7/2018	Sun	6:53:52												Jup 0.3								
1/8/2018	Mon	6:53:42	-6	115	41	205	54	8	132	-0.3				28	165	1.4	29	166	-1.8	4	127	0.5
1/8/2018	Mon	6:53:42												Jup 0.8								
1/9/2018	Tue	6:53:30	-6	115	39	190	44	7	132	-0.3				28	166	1.4	29	167	-1.8	5	128	0.5
1/9/2018	Tue	6:53:30						Sat 4.5						Jup 1.2								
1/10/2018	Wed	6:53:16	-6	115	35	176	34	7	131	-0.3				28	166	1.4	29	168	-1.9	5	128	0.5
1/10/2018	Wed	6:53:16						Sat 3.3						Jup 1.7								
1/11/2018	Thr	6:52:59	-6	114	31	164	25	7	131	-0.3				28	166	1.4	29	168	-1.9	6	129	0.5
1/11/2018	Thr	6:52:59			Mars 3.8			Sat 2.2						Jup 2.1								
1/12/2018	Fri	6:52:41	-6	114	25	153	17	6	131	-0.3				28	167	1.4	29	169	-1.9	6	130	0.5
1/12/2018	Fri	6:52:41						Sat 1.0						Jup 2.6								
1/13/2018	Sat	6:52:19	-6	114	18	143	11	6	130	-0.3				27	167	1.4	29	170	-1.9	7	130	0.5
1/13/2018	Sat	6:52:19						Sat 0.8						Jup 3.1								
1/14/2018	Sun	6:51:56	-6	114	12	134	6	5	130	-0.3				27	167	1.4	29	171	-1.9	7	131	0.5
1/14/2018	Sun	6:51:56						Sat 1.8						Jup 3.6								
1/15/2018	Mon	6:51:30	-6	113	5	125	2	5	129	-0.3				27	168	1.4	29	172	-1.9	7	131	0.5
1/15/2018	Mon	6:51:30			Mer 4.2			Sat 3.0						Jup 4.0								
1/16/2018	Tue	6:51:02	-6	113	-2	117	0	5	129	-0.3				27	168	1.3	29	173	-1.9	8	132	0.5
1/16/2018	Tue	6:51:02						Sat 4.3						Jup 4.5								
1/17/2018	Wed	6:50:32	-6	113	-9	108	0	4	128	-0.3				27	168	1.3	29	173	-1.9	8	132	0.5
1/17/2018	Wed	6:50:32												Jup 5.0								
1/18/2018	Thr	6:49:59	-6	113	-16	99	2	4	128	-0.3				27	168	1.3	29	174	-1.9	8	133	0.5
1/19/2018	Fri	6:49:25	-6	112	-22	89	6	3	127	-0.3				27	169	1.3	29	175	-1.9	9	134	0.5
1/20/2018	Sat	6:48:48	-6	112	-28	78	11	3	127	-0.3				27	169	1.3	29	176	-1.9	9	134	0.5
1/21/2018	Sun	6:48:08	-6	112	-32	66	18	3	126	-0.3				26	169	1.3	29	176	-1.9	10	135	0.5
1/22/2018	Mon	6:47:27	-6	111	-36	52	26	2	126	-0.3				26	169	1.3	29	177	-1.9	10	135	0.5
1/23/2018	Tue	6:46:44	-6	111	-38	37	36	2	125	-0.4				26	170	1.3	29	178	-1.9	10	136	0.5
1/24/2018	Wed	6:45:58	-6	111	-38	22	46	1	124	-0.4				26	170	1.3	29	179	-1.9	11	136	0.6
1/25/2018	Thr	6:45:10	-6	110	-36	6	57	1	124	-0.4				26	170	1.2	29	179	-1.9	11	137	0.6
1/26/2018	Fri	6:44:21	-6	110	-32	351	68	1	123	-0.4				26	170	1.2	29	180	-1.9	11	137	0.6
1/26/2018	Fri	17:27:42	-6	250	50	125	73				-3	247	-3.9									
1/27/2018	Sat	6:43:29	-6	110	-26	337	78	0	122	-0.4				26	170	1.2	29	181	-1.9	12	138	0.6
1/27/2018	Sat	17:28:58	-6	251	43	108	83				-2	247	-3.9									
1/28/2018	Sun	6:42:35	-6	109	-19	324	87	0	121	-0.5				26	170	1.2	29	182	-2	12	138	0.6
1/28/2018	Sun	17:30:15	-6	251	33	95	91				-2	247	-3.9									
1/29/2018	Mon	6:41:40	-6	109	-12	312	94	0	121	-0.5				26	171	1.2	29	182	-2	12	139	0.6
1/29/2018	Mon	17:31:32	-6	251	23	85	96				-2	248	-3.9									
1/30/2018	Tue	6:40:42	-6	109	-3	300	99	-1	120	-0.5				25	171	1.2	29	183	-2	13	139	0.6
1/30/2018	Tue	17:32:50	-6	252	11	76	100				-2	248	-3.9									
1/31/2018	Wed	6:39:42	-6	108	5	288	100	-1	119	-0.6				25	171	1.2	29	184	-2	13	140	0.6
1/31/2018	Wed	17:34:07	-6	252	0	69	100				-1	248	-3.9									
2/1/2018	Thr	6:38:41	-6	108	13	276	99	-2	118	-0.6				25	171	1.2	29	184	-2	13	140	0.6
2/1/2018	Thr	17:35:25	-6	252	-12	62	97				-1	249	-3.9									
2/2/2018	Fri	6:37:38	-6	107	20	263	94	-2	117	-0.6				25	171	1.2	29	185	-2	13	141	0.6
2/2/2018	Fri	17:36:43	-6	253	-23	54	92				-1	249	-3.9									
2/3/2018	Sat	6:36:33	-6	107	26	250	88	-3	116	-0.7				25	171	1.1	29	186	-2	14	141	0.6
2/3/2018	Sat	17:38:02	-6	253	-33	46	84				-1	249	-3.9									
2/4/2018	Sun	6:35:26	-6	106	30	236	80							25	171	1.1	29	186	-2	14	142	0.6

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
2/4/2018	Sun	17:39:20	-6	254	-43	36	76				-1	250	-3.9									
2/5/2018	Mon	6:34:18	-6	106	32	221	71							25	171	1.1	29	187	-2	14	142	0.6
2/5/2018	Mon	17:40:39	-6	254	-50	23	66				0	250	-3.9									
2/6/2018	Tue	6:33:08	-6	106	33	207	61							25	171	1.1	28	188	-2	14	143	0.6
2/6/2018	Tue	17:41:57	-6	255	-56	7	56				0	250	-3.9									
2/7/2018	Wed	6:31:56	-6	105	32	192	51							25	171	1.1	28	188	-2	15	143	0.6
2/7/2018	Wed	17:43:16	-6	255	-59	347	47				0	251	-3.9									
2/8/2018	Thr	6:30:43	-6	105	30	179	41							24	171	1.1	28	189	-2	15	144	0.6
2/8/2018	Thr	17:44:35	-6	255	-59	326	37				0	251	-3.9									
2/9/2018	Fri	6:29:28	-6	104	27	167	32							24	172	1.1	28	189	-2	15	144	0.6
2/9/2018	Fri	6:29:28			Mars 4.9																	
2/9/2018	Fri	17:45:53	-6	256	-55	308	28				1	251	-3.9									
2/10/2018	Sat	6:28:11	-6	104	22	155	24							24	172	1.1	28	190	-2	15	145	0.6
2/10/2018	Sat	17:47:12	-6	256	-50	294	20				1	252	-3.9									
2/11/2018	Sun	6:26:53	-6	103	17	145	16							24	172	1.1	28	191	-2	16	145	0.6
2/11/2018	Sun	6:26:53			Sat 1.7																	
2/11/2018	Sun	17:48:31	-6	257	-42	283	13				1	252	-3.9									
2/12/2018	Mon	6:25:34	-6	103	12	135	10							24	172	1	28	191	-2.1	16	146	0.6
2/12/2018	Mon	17:49:49	-6	257	-34	275	7				1	253	-3.9									
2/13/2018	Tue	6:24:13	-6	102	6	125	5							24	172	1	28	192	-2.1	16	146	0.6
2/13/2018	Tue	17:51:08	-6	258	-25	268	3				1	253	-3.9									
2/14/2018	Wed	6:22:51	-6	102	0	115	2							24	172	1	28	193	-2.1	16	147	0.6
2/14/2018	Wed	17:52:27	-6	258	-16	262	1				2	253	-3.9									
2/15/2018	Thr	6:21:27	-6	102	-6	105	0							24	172	1	28	193	-2.1	17	147	0.6
2/15/2018	Thr	17:53:45	-6	259	-6	257	0				2	254	-3.9									
2/16/2018	Fri	6:20:02	-6	101	-12	95	0							24	172	1	28	194	-2.1	17	148	0.6
2/16/2018	Fri	17:55:04	-6	259	4	252	1				2	254	-3.9									
2/16/2018	Fri	17:55:04			Ven 3.2																	
2/17/2018	Sat	6:18:36	-6	101	-18	84	3							24	172	1	27	194	-2.1	17	148	0.6
2/17/2018	Sat	17:56:22	-6	260	14	247	5				2	255	-3.9									
2/18/2018	Sun	6:17:08	-6	100	-23	72	7							23	172	1	27	195	-2.1	17	149	0.6
2/18/2018	Sun	17:57:40	-6	260	25	241	10				2	255	-3.9									
2/19/2018	Mon	6:15:39	-6	100	-27	60	13							23	172	0.9	27	195	-2.1	17	149	0.6
2/19/2018	Mon	17:58:58	-6	261	35	234	17				3	255	-3.9									
2/20/2018	Tue	0:06:55	-57	360	-25	304	19										-3	111	-2.1			
2/20/2018	Tue	6:14:09	-6	99	-30	46	21							23	172	0.9	27	196	-2.1	18	150	0.6
2/20/2018	Tue	18:00:16	-6	261	45	225	26				3	256	-3.9									
2/21/2018	Wed	0:06:49	-56	360	-14	297	28										-2	112	-2.1			
2/21/2018	Wed	6:12:38	-6	99	-32	31	31							23	172	0.9	27	197	-2.1	18	150	0.6
2/21/2018	Wed	18:01:34	-6	262	54	211	36	-3	259	-1.6	3	256	-3.9									
2/22/2018	Thr	0:06:41	-56	0	-3	290	39										-1	113	-2.1			
2/22/2018	Thr	6:11:06	-6	98	-32	16	41							23	172	0.9	27	197	-2.1	18	150	0.6
2/22/2018	Thr	18:02:51	-6	262	60	192	47	-2	259	-1.6	3	257	-3.9									
2/23/2018	Fri	0:06:33	-56	360	8	284	50										-1	113	-2.1			
2/23/2018	Fri	6:09:32	-6	98	-30	1	52							23	172	0.9	27	198	-2.1	18	151	0.6
2/23/2018	Fri	18:04:09	-6	263	63	165	58	-1	259	-1.5	4	257	-3.9									
2/24/2018	Sat	0:06:25	-55	0	19	277	61										0	114	-2.1			
2/24/2018	Sat	6:07:58	-6	97	-27	346	64							23	171	0.9	27	198	-2.1	18	151	0.6
2/24/2018	Sat	18:05:26	-6	263	60	138	69	0	260	-1.5	4	258	-3.9									
2/24/2018	Sat	18:05:26						Ven 4.5														
2/25/2018	Sun	0:06:16	-55	0	30	268	72										0	114	-2.1			
2/25/2018	Sun	6:06:22	-6	97	-22	332	74							23	171	0.9	26	199	-2.1	18	152	0.6
2/25/2018	Sun	18:06:43	-6	264	52	118	79	1	260	-1.4	4	258	-3.9									
2/25/2018	Sun	18:06:43						Ven 3.9														
2/26/2018	Mon	0:06:06	-55	0	40	257	82										1	115	-2.1			
2/26/2018	Mon	6:04:45	-6	96	-16	319	84							23	171	0.8	26	199	-2.1	19	152	0.6
2/26/2018	Mon	18:08:00	-6	264	42	105	88	1	260	-1.4	4	259	-3.9									
2/26/2018	Mon	18:08:00						Ven 3.4														
2/27/2018	Tue	0:05:56	-54	0	49	242	90										1	116	-2.2			
2/27/2018	Tue	6:03:08	-6	95	-10	306	92							23	171	0.8	26	200	-2.2	19	153	0.6
2/27/2018	Tue	18:09:17	-6	265	30	96	95	2	261	-1.4	5	259	-3.9									
2/27/2018	Tue	18:09:17						Ven 2.8														
2/28/2018	Wed	0:05:45	-54	0	56	221	96										2	116	-2.2			
2/28/2018	Wed	6:01:29	-6	95	-2	293	97							23	171	0.8	26	201	-2.2	19	153	0.6
2/28/2018	Wed	18:10:33	-6	265	18	89	99	3	261	-1.3	5	260	-3.9									

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
2/28/2018	Wed	18:10:33						Ven 2.3														
3/1/2018	Thr	0:05:33	-53	360	57	196	99										2	117	-2.2			
3/1/2018	Thr	5:59:50	-6	94	4	281	100							23	171	0.8	26	201	-2.2	19	154	0.6
3/1/2018	Thr	18:11:50	-6	266	6	84	100	4	261	-1.3	5	260	-3.9									
3/1/2018	Thr	18:11:50						Ven 1.7														
3/2/2018	Fri	0:05:21	-53	360	53	173	100										3	118	-2.2			
3/2/2018	Fri	5:58:10	-6	94	11	269	100							23	171	0.8	26	202	-2.2	19	154	0.6
3/2/2018	Fri	18:13:06	-6	266	-6	78	99	5	262	-1.2	5	261	-3.9									
3/2/2018	Fri	18:13:06						Ven 1.3														
3/3/2018	Sat	0:05:09	-53	0	46	155	98										4	118	-2.2			
3/3/2018	Sat	5:56:28	-6	93	16	256	97							22	171	0.8	26	202	-2.2	19	155	0.6
3/3/2018	Sat	18:14:22	-6	267	-18	73	95	6	262	-1.2	6	261	-3.9									
3/3/2018	Sat	18:14:22						Ven 1.1														
3/4/2018	Sun	0:04:56	-52	0	37	142	93										4	119	-2.2			
3/4/2018	Sun	5:54:47	-6	93	21	243	92							22	171	0.8	25	203	-2.2	20	155	0.6
3/4/2018	Sun	18:15:38	-6	267	-29	67	89	6	263	-1.2	6	261	-3.9									
3/4/2018	Sun	18:15:38						Ven 1.2														
3/5/2018	Mon	0:04:43	-52	0	28	133	87										5	120	-2.2			
3/5/2018	Mon	5:53:04	-6	92	25	230	85							22	171	0.7	25	203	-2.2	20	155	0.6
3/5/2018	Mon	18:16:54	-6	268	-39	61	81	7	263	-1.1	6	262	-3.9									
3/5/2018	Mon	18:16:54						Ven 1.5														
3/6/2018	Tue	0:04:29	-52	360	18	125	79										5	120	-2.2			
3/6/2018	Tue	5:51:20	-6	92	27	216	77							22	171	0.7	25	204	-2.2	20	156	0.6
3/6/2018	Tue	18:18:10	-6	269	-48	52	73	8	263	-1.1	6	262	-3.9									
3/6/2018	Tue	18:18:10						Ven 1.9														
3/7/2018	Wed	0:04:15	-51	360	8	118	71										6	121	-2.2			
3/7/2018	Wed	0:04:15			Jup 3.4																	
3/7/2018	Wed	5:49:36	-6	91	28	202	68							22	171	0.7	25	204	-2.2	20	156	0.6
3/7/2018	Wed	5:49:36			Jup 3.7																	
3/7/2018	Wed	18:19:26	-6	269	-57	40	64	9	264	-1	6	263	-3.9									
3/7/2018	Wed	18:19:26						Ven 2.3														
3/8/2018	Thr	0:04:00	-51	0	-1	112	61										6	122	-2.2			
3/8/2018	Thr	5:47:52	-6	91	28	189	59							22	171	0.7	25	205	-2.2	20	157	0.6
3/8/2018	Thr	18:20:41	-6	270	-63	22	54	9	265	-1	7	263	-3.9									
3/8/2018	Thr	18:20:41						Ven 2.8														
3/9/2018	Fri	0:03:45	-50	360	-11	106	52										7	122	-2.2			
3/9/2018	Fri	5:46:06	-6	90	26	176	50							22	171	0.7	25	206	-2.2	20	157	0.6
3/9/2018	Fri	18:21:57	-6	270	-66	358	45	10	265	-0.9	7	264	-3.9									
3/9/2018	Fri	18:21:57						Ven 3.1														
3/10/2018	Sat	0:03:30	-50	360	-20	99	42										7	123	-2.2			
3/10/2018	Sat	5:44:20	-6	90	24	164	40							22	171	0.7	24	206	-2.2	20	158	0.6
3/10/2018	Sat	18:23:13	-6	271	-64	334	35	10	266	-0.9	7	264	-3.9									
3/10/2018	Sat	18:23:13						Ven 3.4														
3/11/2018	Sun	0:03:15	-50	0	-29	92	33										8	124	-2.2			
3/11/2018	Sun	5:42:34	-6	89	20	152	31							22	170	0.6	24	207	-2.2	21	158	0.6
3/11/2018	Sun	18:24:28	-6	271	-59	314	27	11	266	-0.8	7	265	-3.9									
3/11/2018	Sun	18:24:28						Ven 3.7														
3/12/2018	Mon	0:02:59	-49	360	-37	83	25										9	124	-2.2			
3/12/2018	Mon	5:40:46	-6	88	16	141	23							22	170	0.6	24	207	-2.2	21	159	0.6
3/12/2018	Mon	18:25:44	-6	272	-52	300	19	11	267	-0.7	8	265	-3.9									
3/12/2018	Mon	18:25:44						Ven 3.9														
3/13/2018	Tue	0:02:43	-49	0	-44	72	17										9	125	-2.2			
3/13/2018	Tue	5:38:59	-6	88	11	130	15							22	170	0.6	24	208	-2.3	21	159	0.6
3/13/2018	Tue	18:26:59	-6	272	-44	291	12	11	268	-0.6	8	266	-3.9									
3/13/2018	Tue	18:26:59						Ven 4.0														
3/14/2018	Wed	0:02:26	-48	360	-50	58	10										10	126	-2.3			
3/14/2018	Wed	5:37:11	-6	87	6	120	9							22	170	0.6	24	208	-2.3	21	159	0.6
3/14/2018	Wed	18:28:15	-6	273	-34	284	6	12	268	-0.4	8	266	-3.9									
3/14/2018	Wed	18:28:15						Ven 4.0														
3/15/2018	Thr	0:02:10	-48	0	-53	41	5										10	127	-2.3			
3/15/2018	Thr	5:35:22	-6	87	1	109	4							22	170	0.6	24	209	-2.3	21	160	0.6
3/15/2018	Thr	18:29:30	-6	273	-24	278	2	12	269	-0.3	8	267	-3.9									
3/15/2018	Thr	18:29:30						Ven 4.0														
3/16/2018	Fri	0:01:53	-48	360	-54	22	2										11	127	-2.3			
3/16/2018	Fri	5:33:33	-6	86	-5	98	1							22	170	0.6	23	209	-2.3	21	160	0.6

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
3/16/2018	Fri	18:30:45	-6	274	-14	273	0	12	270	-0.1	9	267	-3.9									
3/16/2018	Fri	18:30:45						Ven 4.0														
3/17/2018	Sat	0:01:36	-47	0	-52	2	0										11	128	-2.3			
3/17/2018	Sat	5:31:44	-6	86	-10	87	0							22	170	0.5	23	210	-2.3	21	161	0.6
3/17/2018	Sat	18:32:01	-6	275	-2	269	0	11	271	0.1	9	268	-3.9									
3/17/2018	Sat	18:32:01						Ven 3.9														
3/18/2018	Sun	0:01:19	-47	360	-47	346	1										12	129	-2.3			
3/18/2018	Sun	5:29:54	-6	85	-15	76	1							22	170	0.5	23	210	-2.3	21	161	0.6
3/18/2018	Sun	18:33:16	-6	275	8	264	3	11	272	0.3	9	268	-3.9									
3/18/2018	Sun	18:33:16			Ven 4.1			Ven 3.8														
3/19/2018	Mon	0:01:01	-46	360	-40	332	4										12	129	-2.3			
3/19/2018	Mon	5:28:04	-6	85	-20	63	5							22	170	0.5	23	211	-2.3	22	162	0.5
3/19/2018	Mon	18:34:31	-6	276	20	259	7	11	272	0.6	9	269	-3.9									
3/19/2018	Mon	18:34:31						Ven 3.8														
3/20/2018	Tue	0:00:44	-46	0	-31	321	9										13	130	-2.3			
3/20/2018	Tue	5:26:14	-6	84	-24	50	10							22	170	0.5	23	211	-2.3	22	162	0.5
3/20/2018	Tue	18:35:47	-6	276	31	253	14	10	273	0.9	10	269	-3.9									
3/20/2018	Tue	18:35:47						Ven 4.0														
3/21/2018	Wed	0:00:26	-46	360	-21	312	16										13	131	-2.3			
3/21/2018	Wed	5:24:23	-6	83	-27	36	18							22	170	0.5	22	212	-2.3	22	163	0.5
3/21/2018	Wed	18:37:02	-6	277	42	246	23	9	274	1.2	10	270	-3.9									
3/21/2018	Wed	18:37:02						Ven 4.5														
3/22/2018	Thr	0:00:08	-45	0	-11	304	25										14	132	-2.3			
3/22/2018	Thr	5:22:32	-6	83	-28	21	27							22	169	0.5	22	213	-2.3	22	163	0.5
3/22/2018	Thr	18:38:18	-6	277	52	234	33	9	275	1.5	10	270	-3.9									
3/22/2018	Thr	23:59:50	-45	360	0	296	35										14	132	-2.3			
3/23/2018	Fri	5:20:41	-6	82	-28	6	37							22	169	0.4	22	213	-2.3	22	164	0.5
3/23/2018	Fri	18:39:33	-6	278	61	216	44	8	276	1.9	10	271	-3.9									
3/23/2018	Fri	23:59:32	-44	0	10	287	46										15	133	-2.3			
3/24/2018	Sat	5:18:50	-6	82	-26	351	49							22	169	0.4	22	214	-2.3	22	164	0.5
3/24/2018	Sat	5:18:50												Sat 4.9								
3/24/2018	Sat	18:40:48	-6	279	65	189	55	7	277	2.3	10	271	-3.9									
3/24/2018	Sat	23:59:14	-44	360	20	278	57										15	134	-2.3			
3/25/2018	Sun	5:16:58	-6	81	-23	336	60							22	169	0.4	22	214	-2.3	22	164	0.5
3/25/2018	Sun	5:16:58												Sat 4.4								
3/25/2018	Sun	18:42:04	-6	279	64	158	66	5	278	2.7	11	272	-3.9									
3/25/2018	Sun	23:58:56	-44	360	29	268	69										16	135	-2.3			
3/26/2018	Mon	5:15:07	-6	81	-19	322	71							22	169	0.4	21	215	-2.3	22	165	0.5
3/26/2018	Mon	5:15:07												Sat 3.9								
3/26/2018	Mon	18:43:19	-6	280	56	136	77	4	279	3.2	11	272	-3.9									
3/26/2018	Mon	23:58:38	-43	360	38	256	79										16	136	-2.3			
3/27/2018	Tue	5:13:15	-6	80	-14	309	81							22	169	0.4	21	215	-2.3	22	165	0.5
3/27/2018	Tue	5:13:15												Sat 3.4								
3/27/2018	Tue	18:44:35	-6	280	46	122	85	3	280	3.7	11	273	-3.9									
3/27/2018	Tue	23:58:19	-43	0	45	240	87										17	136	-2.3			
3/28/2018	Wed	5:11:23	-6	80	-8	296	89							22	169	0.3	21	216	-2.3	22	166	0.5
3/28/2018	Wed	5:11:23												Sat 2.9								
3/28/2018	Wed	18:45:51	-6	281	35	112	93	1	281	4.3	11	273	-3.9									
3/28/2018	Wed	23:58:01	-43	0	49	221	94										17	137	-2.4			
3/29/2018	Thr	5:09:31	-6	79	-2	284	95							22	169	0.3	21	216	-2.4	23	166	0.5
3/29/2018	Thr	5:09:31												Sat 2.5								
3/29/2018	Thr	18:47:06	-6	281	24	106	97	0	283	4.8	12	274	-3.9									
3/29/2018	Thr	23:57:43	-42	360	49	201	98										18	138	-2.4			
3/30/2018	Fri	5:07:40	-6	78	4	272	99							22	169	0.3	20	217	-2.4	23	167	0.5
3/30/2018	Fri	5:07:40												Sat 2.0								
3/30/2018	Fri	18:48:22	-6	282	12	100	100	-2	284	5.4	12	274	-3.9									
3/30/2018	Fri	23:57:25	-42	0	46	182	100										18	139	-2.4			
3/31/2018	Sat	5:05:48	-6	78	9	260	100							22	169	0.3	20	217	-2.4	23	167	0.5
3/31/2018	Sat	5:05:48												Sat 1.7								
3/31/2018	Sat	18:49:38	-6	282	1	96	99				12	274	-3.9									
3/31/2018	Sat	23:57:07	-41	0	40	166	99										19	140	-2.4			
4/1/2018	Sun	5:03:56	-6	77	14	247	99							22	169	0.3	20	218	-2.4	23	168	0.5
4/1/2018	Sun	5:03:56												Sat 1.4								
4/1/2018	Sun	18:50:54	-6	283	-11	91	97				12	275	-3.9									
4/1/2018	Sun	23:56:49	-41	0	33	153	96										19	141	-2.4			

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
4/2/2018	Mon	5:02:05	-6	77	18	235	95	-3	77	5.9				22	168	0.3	20	218	-2.4	23	168	0.5
4/2/2018	Mon	5:02:05												Sat 1.3								
4/2/2018	Mon	18:52:10	-6	283	-21	86	93				12	275	-3.9									
4/2/2018	Mon	23:56:32	-41	360	25	143	91										20	142	-2.4			
4/3/2018	Tue	5:00:13	-6	76	22	222	90	-2	78	5.6				22	168	0.2	20	219	-2.4	23	169	0.5
4/3/2018	Tue	5:00:13			Jup 3.8									Sat 1.4								
4/3/2018	Tue	18:53:27	-6	284	-32	81	86				13	276	-3.9									
4/3/2018	Tue	23:56:14	-40	0	17	134	85										20	142	-2.4			
4/4/2018	Wed	4:58:22	-6	76	24	209	83	-2	80	5.1				22	168	0.2	19	220	-2.4	23	169	0.5
4/4/2018	Wed	4:58:22												Sat 1.6								
4/4/2018	Wed	18:54:43	-6	285	-41	74	79				13	276	-3.9									
4/4/2018	Wed	23:55:57	-40	360	8	126	77										21	143	-2.4			
4/5/2018	Thr	4:56:31	-6	75	25	196	76	-1	81	4.6				22	168	0.2	19	220	-2.4	23	170	0.5
4/5/2018	Thr	4:56:31												Sat 2.0								
4/5/2018	Thr	18:56:00	-6	285	-50	65	71				13	277	-3.9									
4/5/2018	Thr	23:55:39	-39	360	0	118	69										21	144	-2.4			
4/6/2018	Fri	4:54:40	-6	75	25	183	67	-1	82	4.2				22	168	0.2	19	221	-2.4	23	170	0.5
4/6/2018	Fri	4:54:40												Sat 2.4								
4/6/2018	Fri	18:57:17	-6	286	-58	52	62				13	277	-3.9									
4/6/2018	Fri	23:55:22	-39	0	-9	111	60										22	145	-2.4			
4/7/2018	Sat	4:52:50	-6	74	24	171	58	0	83	3.8				22	168	0.2	18	221	-2.4	23	171	0.5
4/7/2018	Sat	4:52:50			Sat 1.1									Sat 2.9								
4/7/2018	Sat	18:58:34	-6	286	-63	34	52				13	277	-3.9									
4/7/2018	Sat	23:55:06	-39	360	-16	103	50										22	146	-2.4			
4/8/2018	Sun	4:50:59	-6	74	22	159	48	0	84	3.4				22	168	0.1	18	222	-2.4	23	171	0.5
4/8/2018	Sun	4:50:59												Sat 3.4								
4/8/2018	Sun	18:59:51	-6	287	-65	10	43				14	278	-3.9									
4/8/2018	Sun	23:54:49	-38	360	-24	95	41										22	147	-2.4			
4/9/2018	Mon	4:49:09	-6	73	20	147	39	0	85	3				22	168	0.1	18	222	-2.4	23	172	0.5
4/9/2018	Mon	4:49:09												Sat 3.8								
4/9/2018	Mon	19:01:08	-6	287	-63	346	34				14	278	-3.9									
4/9/2018	Mon	23:54:33	-38	360	-31	85	32										23	148	-2.4			
4/10/2018	Tue	4:47:20	-6	72	16	135	30	0	86	2.7				22	168	0.1	18	223	-2.4	23	172	0.5
4/10/2018	Tue	4:47:20												Sat 4.3								
4/10/2018	Tue	19:02:26	-6	288	-58	327	25				14	279	-3.9									
4/10/2018	Tue	23:54:17	-38	0	-37	74	23										23	149	-2.4			
4/11/2018	Wed	4:45:31	-6	72	12	124	21	1	87	2.4				22	168	0.1	17	223	-2.4	23	173	0.5
4/11/2018	Wed	4:45:31												Sat 4.8								
4/11/2018	Wed	19:03:44	-6	288	-50	314	17				14	279	-3.9									
4/11/2018	Wed	23:54:02	-37	0	-42	60	15										24	150	-2.4			
4/12/2018	Thr	4:43:42	-6	71	7	113	14	1	87	2.2				22	168	0	17	224	-2.4	23	173	0.5
4/12/2018	Thr	19:05:01	-6	289	-41	305	10				14	279	-3.9									
4/12/2018	Thr	23:53:46	-37	360	-45	45	9										24	151	-2.4			
4/13/2018	Fri	4:41:54	-6	71	2	102	8	1	88	2				22	168	0	17	224	-2.4	23	174	0.5
4/13/2018	Fri	19:06:20	-6	289	-31	297	5				15	280	-3.9									
4/13/2018	Fri	23:53:31	-37	360	-46	28	4										24	152	-2.4			
4/14/2018	Sat	4:40:06	-6	70	-3	90	3	1	89	1.8				22	168	0	16	225	-2.4	23	174	0.5
4/14/2018	Sat	4:40:06			Mer 4.5																	
4/14/2018	Sat	19:07:38	-6	290	-20	291	1				15	280	-3.9									
4/14/2018	Sat	23:53:17	-36	360	-44	11	1										25	153	-2.4			
4/15/2018	Sun	4:38:19	-6	70	-9	79	1	1	89	1.6				22	168	0	16	226	-2.4	24	175	0.4
4/15/2018	Sun	19:08:56	-6	290	-9	286	0				15	280	-3.9									
4/15/2018	Sun	23:53:02	-36	360	-40	355	0										25	154	-2.5			
4/16/2018	Mon	4:36:32	-6	69	-14	66	0	2	90	1.4				22	168	0	16	226	-2.5	24	175	0.4
4/16/2018	Mon	19:10:15	-6	291	3	281	1				15	281	-3.9									
4/16/2018	Mon	23:52:48	-35	0	-34	340	2										25	155	-2.5			
4/17/2018	Tue	4:34:46	-6	69	-18	53	3	2	90	1.3				22	168	-0.1	16	227	-2.5	24	176	0.4
4/17/2018	Tue	19:11:33	-6	292	14	275	5				15	281	-3.9									
4/17/2018	Tue	23:52:35	-35	360	-26	328	6										26	156	-2.5			
4/18/2018	Wed	4:33:01	-6	68	-22	39	7	2	90	1.1				22	168	-0.1	15	227	-2.5	24	177	0.4
4/18/2018	Wed	19:12:52	-6	292	26	269	12				16	281	-3.9									
4/18/2018	Wed	23:52:22	-35	0	-18	317	13										26	157	-2.5			
4/19/2018	Thr	4:31:16	-6	68	-25	25	15	2	90	1				22	168	-0.1	15	228	-2.5	24	177	0.4
4/19/2018	Thr	19:14:11	-6	293	37	261	20				16	282	-3.9									
4/19/2018	Thr	23:52:09	-34	360	-9	307	22										26	158	-2.5	-3	118	0.4

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
4/20/2018	Fri	4:29:32	-6	67	-26	10	24	2	91	0.9				22	168	-0.1	15	228	-2.5	24	178	0.4
4/20/2018	Fri	19:15:30	-6	293	47	250	30				16	282	-3.9									
4/20/2018	Fri	23:51:57	-34	360	1	297	32										27	159	-2.5	-2	119	0.4
4/21/2018	Sat	4:27:48	-6	67	-26	355	34	2	91	0.8				22	168	-0.1	14	229	-2.5	24	178	0.4
4/21/2018	Sat	19:16:49	-6	294	56	234	41				16	282	-3.9									
4/21/2018	Sat	23:51:45	-34	0	10	287	43										27	160	-2.5	-1	120	0.4
4/22/2018	Sun	4:26:06	-6	66	-25	340	45	2	91	0.8				22	168	-0.2	14	229	-2.5	24	179	0.4
4/22/2018	Sun	19:18:09	-6	294	61	210	52				16	283	-3.9									
4/22/2018	Sun	23:51:33	-33	360	18	277	54										27	161	-2.5	-1	120	0.4
4/23/2018	Mon	4:24:24	-6	66	-22	325	57	2	90	0.7				22	168	-0.2	14	230	-2.5	24	179	0.4
4/23/2018	Mon	19:19:28	-6	295	61	183	63				16	283	-3.9									
4/23/2018	Mon	23:51:22	-33	360	26	265	66										28	162	-2.5	0	121	0.4
4/24/2018	Tue	4:22:43	-6	65	-18	312	68	2	90	0.6				22	168	-0.2	13	231	-2.5	24	180	0.4
4/24/2018	Tue	19:20:47	-6	295	56	160	74				17	283	-3.9									
4/24/2018	Tue	23:51:12	-33	360	32	252	76										28	163	-2.5	0	121	0.4
4/25/2018	Wed	4:21:03	-6	65	-14	299	77	2	90	0.6				22	168	-0.2	13	231	-2.5	24	181	0.4
4/25/2018	Wed	19:22:06	-6	296	48	144	83				17	283	-3.9									
4/25/2018	Wed	23:51:02	-32	0	37	237	84										28	165	-2.5	1	122	0.4
4/26/2018	Thr	4:19:24	-6	64	-9	286	86	2	90	0.5				22	168	-0.3	13	232	-2.5	24	181	0.4
4/26/2018	Thr	19:23:25	-6	296	38	133	90				17	284	-3.9									
4/26/2018	Thr	23:50:52	-32	360	40	221	91										28	166	-2.5	1	123	0.4
4/27/2018	Fri	4:17:46	-6	64	-3	274	93	2	89	0.4				22	168	-0.3	12	232	-2.5	24	182	0.4
4/27/2018	Fri	19:24:45	-6	297	28	125	96				17	284	-3.9									
4/27/2018	Fri	23:50:43	-32	0	40	205	96										29	167	-2.5	2	124	0.4
4/28/2018	Sat	4:16:08	-6	63	2	263	97	2	89	0.4				22	168	-0.3	12	233	-2.5	24	182	0.4
4/28/2018	Sat	19:26:04	-6	297	18	118	99				17	284	-3.9				-2	110	-2.5			
4/28/2018	Sat	23:50:34	-31	360	38	189	99										29	168	-2.5	2	124	0.4
4/29/2018	Sun	4:14:32	-6	63	7	251	99	2	89	0.4				22	168	-0.3	11	233	-2.5	24	183	0.4
4/29/2018	Sun	19:27:23	-6	297	7	113	100				17	284	-3.9				-1	111	-2.5			
4/29/2018	Sun	23:50:26	-31	360	34	175	100										29	169	-2.5	3	125	0.4
4/30/2018	Mon	4:12:57	-6	62	12	240	100	2	88	0.3				22	168	-0.4	11	234	-2.5	24	184	0.4
4/30/2018	Mon	19:28:42	-6	298	-3	107	99				18	285	-3.9				0	112	-2.5			
4/30/2018	Mon	23:50:18	-31	0	29	162	98										29	170	-2.5	3	126	0.4
5/1/2018	Tue	4:11:23	-6	62	16	228	98	2	88	0.3				22	168	-0.4	11	235	-2.5	24	184	0.4
5/1/2018	Tue	19:30:01	-6	298	-13	102	96				18	285	-3.9				1	113	-2.5			
5/1/2018	Tue	23:50:11	-31	360	23	151	95										29	171	-2.5	4	126	0.4
5/2/2018	Wed	4:09:50	-6	61	20	216	94	2	87	0.2				22	168	-0.4	10	235	-2.5	24	185	0.4
5/2/2018	Wed	19:31:20	-6	299	-22	96	91				18	285	-3.9				2	114	-2.5			
5/2/2018	Wed	23:50:05	-30	360	16	141	90										29	173	-2.5	5	127	0.4
5/3/2018	Thr	4:08:19	-6	61	22	204	89	2	86	0.2				22	168	-0.4	10	236	-2.5	23	185	0.4
5/3/2018	Thr	19:32:39	-6	299	-31	89	84				18	285	-3.9				3	115	-2.5			
5/3/2018	Thr	23:49:59	-30	360	10	132	83										29	174	-2.5	5	128	0.3
5/4/2018	Fri	4:06:49	-6	61	24	191	82	2	86	0.2				23	168	-0.5	9	236	-2.5	23	186	0.3
5/4/2018	Fri	4:06:49			Sat 4.7																	
5/4/2018	Fri	19:33:58	-6	300	-40	81	77				18	285	-3.9				3	116	-2.5			
5/4/2018	Fri	23:49:54	-30	0	3	123	75										30	175	-2.5	6	128	0.3
5/5/2018	Sat	4:05:20	-6	60	25	179	74	2	85	0.1				23	169	-0.5	9	237	-2.5	23	187	0.3
5/5/2018	Sat	19:35:16	-6	300	-47	71	68				18	286	-3.9				4	117	-2.5			
5/5/2018	Sat	23:49:49	-29	0	-4	115	67										30	176	-2.5	6	129	0.3
5/6/2018	Sun	4:03:52	-6	60	24	166	65	2	84	0.1				23	169	-0.5	9	238	-2.5	23	187	0.3
5/6/2018	Sun	4:03:52			Mars 2.8																	
5/6/2018	Sun	19:36:35	-6	301	-53	57	59				18	286	-3.9				5	118	-2.5			
5/6/2018	Sun	23:49:44	-29	360	-11	106	58										30	177	-2.5	7	130	0.3
5/7/2018	Mon	4:02:26	-6	59	23	154	56	2	84	0				23	169	-0.5	8	238	-2.5	23	188	0.3
5/7/2018	Mon	19:37:53	-6	301	-57	40	50				18	286	-3.9				6	119	-2.5			
5/7/2018	Mon	23:49:41	-29	360	-17	97	48										30	179	-2.5	7	131	0.3
5/8/2018	Tue	4:01:01	-6	59	21	142	47	2	83	0				23	169	-0.6	8	239	-2.5	23	189	0.3
5/8/2018	Tue	19:39:10	-6	301	-58	20	40				19	286	-3.9				7	120	-2.5			
5/8/2018	Tue	23:49:38	-29	360	-23	86	39										30	180	-2.5	8	131	0.3
5/9/2018	Wed	3:59:37	-6	58	18	130	37	2	82	0				23	169	-0.6	7	239	-2.5	23	189	0.3
5/9/2018	Wed	19:40:28	-6	302	-56	0	31				19	286	-3.9				8	122	-2.5			
5/9/2018	Wed	23:49:35	-28	0	-28	75	29										30	181	-2.5	8	132	0.3
5/10/2018	Thr	3:58:15	-6	58	15	118	28	2	81	-0.1				23	169	-0.6	7	240	-2.5	23	190	0.3
5/10/2018	Thr	19:41:45	-6	302	-51	343	22				19	286	-3.9				9	123	-2.5			
5/10/2018	Thr	23:49:33	-28	360	-32	63	21										30	182	-2.5	9	133	0.3

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
5/11/2018	Fri	3:56:55	-6	58	10	107	19	2	80	-0.1				23	170	-0.6	6	241	-2.5	23	191	0.3
5/11/2018	Fri	19:43:01	-6	303	-43	330	14				19	286	-3.9				10	124	-2.5			
5/11/2018	Fri	23:49:32	-28	0	-35	49	13							-3	118	-0.7	30	184	-2.5	9	134	0.3
5/12/2018	Sat	3:55:36	-6	57	5	95	12	1	79	-0.2				23	170	-0.7	6	241	-2.5	23	191	0.3
5/12/2018	Sat	19:44:18	-6	303	-35	320	7				19	286	-3.9				11	125	-2.5			
5/12/2018	Sat	23:49:31	-28	0	-37	33	6							-2	119	-0.7	30	185	-2.5	10	135	0.3
5/13/2018	Sun	3:54:19	-6	57	0	83	6	1	79	-0.2				23	170	-0.7	5	242	-2.5	23	192	0.3
5/13/2018	Sun	3:54:19			Mer 4.8																	
5/13/2018	Sun	19:45:33	-6	304	-25	311	3				19	286	-3.9				12	126	-2.5			
5/13/2018	Sun	23:49:31	-27	360	-36	17	2							-2	119	-0.7	30	186	-2.5	10	135	0.3
5/14/2018	Mon	3:53:04	-6	56	-6	71	2	1	78	-0.3				23	170	-0.7	5	242	-2.5	23	193	0.3
5/14/2018	Mon	19:46:48	-6	304	-14	303	0				19	286	-3.9				12	127	-2.5			
5/14/2018	Mon	23:49:32	-27	0	-33	2	0							-2	119	-0.7	30	187	-2.5	11	136	0.3
5/15/2018	Tue	3:51:50	-6	56	-11	59	0	1	77	-0.3				23	170	-0.7	5	243	-2.5	23	194	0.3
5/15/2018	Tue	19:48:03	-6	304	-3	295	1				19	287	-3.9				13	128	-2.5			
5/15/2018	Tue	23:49:33	-27	360	-29	347	1							-1	120	-0.8	30	189	-2.5	11	137	0.3
5/16/2018	Wed	3:50:38	-6	56	-17	45	1	1	76	-0.4				23	171	-0.8	4	244	-2.5	22	194	0.3
5/16/2018	Wed	19:49:17	-6	305	8	288	4				19	287	-3.9				14	129	-2.5			
5/16/2018	Wed	23:49:34	-27	360	-23	333	5							-1	120	-0.8	30	190	-2.5	12	138	0.3
5/17/2018	Thr	3:49:28	-6	55	-21	31	5	1	74	-0.4				23	171	-0.8	4	244	-2.5	22	195	0.3
5/17/2018	Thr	19:50:30	-6	305	19	280	10				19	287	-3.9				15	130	-2.5			
5/17/2018	Thr	23:49:36	-26	360	-16	321	11							0	120	-0.8	29	191	-2.5	12	139	0.3
5/18/2018	Fri	3:48:20	-6	55	-24	17	12	1	73	-0.5				23	171	-0.8	3	245	-2.5	22	196	0.3
5/18/2018	Fri	19:51:42	-6	305	29	270	18				19	287	-3.9				16	131	-2.5			
5/18/2018	Fri	23:49:39	-26	0	-9	309	19							0	121	-0.8	29	192	-2.5	13	140	0.3
5/19/2018	Sat	3:47:14	-6	55	-27	2	21	1	72	-0.5				23	171	-0.9	3	245	-2.5	22	196	0.3
5/19/2018	Sat	19:52:53	-6	306	39	258	28				19	287	-3.9				16	133	-2.5			
5/19/2018	Sat	23:49:42	-26	360	-1	297	29							0	121	-0.9	29	193	-2.5	13	140	0.2
5/20/2018	Sun	3:46:09	-6	54	-27	346	31	0	71	-0.6				24	172	-0.9	2	246	-2.5	22	197	0.2
5/20/2018	Sun	19:54:04	-6	306	46	243	38				19	287	-3.9				17	134	-2.5			
5/20/2018	Sun	23:49:46	-26	360	6	286	40							1	122	-0.9	29	195	-2.5	14	141	0.2
5/21/2018	Mon	3:45:07	-6	54	-26	331	42	0	70	-0.7				24	172	-0.9	2	247	-2.5	22	198	0.2
5/21/2018	Mon	19:55:14	-6	306	51	225	50				19	287	-3.9				18	135	-2.5			
5/21/2018	Mon	23:49:50	-26	0	12	275	52							1	122	-0.9	29	196	-2.5	14	142	0.2
5/22/2018	Tue	3:44:06	-6	54	-24	317	53	0	69	-0.7				24	172	-0.9	1	247	-2.5	21	199	0.2
5/22/2018	Tue	19:56:22	-6	307	52	205	61				19	287	-3.9				19	136	-2.5			
5/22/2018	Tue	23:49:55	-25	0	18	263	63							1	122	-1	29	197	-2.5	15	143	0.2
5/23/2018	Wed	3:43:08	-6	53	-21	303	64	0	68	-0.8				24	173	-1	1	248	-2.5	21	199	0.2
5/23/2018	Wed	19:57:30	-6	307	50	185	71				19	286	-3.9				19	137	-2.5			
5/23/2018	Wed	23:50:00	-25	0	23	250	73							2	123	-1	28	198	-2.5	15	144	0.2
5/24/2018	Thr	3:42:11	-6	53	-17	291	74	0	66	-0.9				24	173	-1	0	248	-2.5	21	200	0.2
5/24/2018	Thr	19:58:36	-6	307	44	169	80				19	286	-3.9				20	139	-2.5			
5/24/2018	Thr	23:50:06	-25	0	27	237	82							2	123	-1	28	200	-2.5	16	145	0.2
5/25/2018	Fri	3:41:17	-6	53	-12	279	83	-1	65	-1				24	174	-1	0	249	-2.5	21	201	0.2
5/25/2018	Fri	19:59:41	-6	308	37	156	88				19	286	-3.9				21	140	-2.5			
5/25/2018	Fri	23:50:12	-25	360	30	224	89							2	124	-1	28	201	-2.5	16	146	0.2
5/26/2018	Sat	3:40:25	-6	52	-7	267	90	-1	64	-1.1				24	174	-1.1	-1	250	-2.5	21	202	0.2
5/26/2018	Sat	20:00:45	-6	308	29	145	94				19	286	-3.9				21	141	-2.5			
5/26/2018	Sat	23:50:19	-25	360	31	210	94							3	124	-1.1	28	202	-2.5	16	147	0.2
5/27/2018	Sun	3:39:35	-6	52	-1	256	95	-1	63	-1.1				24	174	-1.1	-2	250	-2.5	20	203	0.2
5/27/2018	Sun	20:01:48	-6	308	21	136	98				19	286	-3.9				22	142	-2.5			
5/27/2018	Sun	23:50:26	-24	0	30	196	98							3	125	-1.1	27	203	-2.5	17	148	0.2
5/28/2018	Mon	3:38:47	-6	52	4	246	99	-1	61	-1.2				24	175	-1.1	-2	251	-2.5	20	203	0.2
5/28/2018	Mon	20:02:49	-6	308	12	129	100				19	286	-3.9				23	143	-2.5			
5/28/2018	Mon	23:50:34	-24	360	29	183	100							4	125	-1.1	27	204	-2.5	17	149	0.2
5/29/2018	Tue	3:38:02	-6	52	9	235	100	-2	60	-1.4				24	175	-1.1	-3	252	-2.5	20	204	0.2
5/29/2018	Tue	20:03:49	-6	309	4	122	100				19	286	-3.9				23	145	-2.5			
5/29/2018	Tue	23:50:42	-24	360	26	171	99							4	126	-1.2	27	205	-2.5	18	150	0.2
5/30/2018	Wed	3:37:18	-6	51	13	225	99	-2	59	-1.5				24	176	-1.2				20	205	0.2
5/30/2018	Wed	20:04:47	-6	309	-5	115	98				19	286	-3.9				24	146	-2.5			
5/30/2018	Wed	23:50:50	-24	0	22	159	97							4	126	-1.2	26	207	-2.5	18	151	0.2
5/31/2018	Thr	3:36:38	-6	51	18	214	97	-3	57	-1.6				24	176	-1.2				19	206	0.2
5/31/2018	Thr	20:05:44	-6	309	-13	107	94				19	286	-3.9				24	147	-2.5			
5/31/2018	Thr	23:50:59	-24	360	18	148	93							5	127	-1.2	26	208	-2.5	18	152	0.2
5/31/2018	Thr	23:50:59			Sat 3.3																	

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
6/1/2018	Fri	3:35:59	-6	51	21	202	93							24	177	-1.2				19	207	0.2
6/1/2018	Fri	3:35:59			Sat 4.5																	
6/1/2018	Fri	20:06:39	-6	309	-21	100	89				19	286	-3.9				25	148	-2.5			
6/1/2018	Fri	23:51:08	-24	360	13	138	88							5	127	-1.3	26	209	-2.5	19	153	0.2
6/2/2018	Sat	3:35:23	-6	51	24	191	87							24	177	-1.3				19	207	0.2
6/2/2018	Sat	20:07:33	-6	310	-28	91	82				19	285	-4				25	150	-2.5			
6/2/2018	Sat	23:51:18	-24	360	8	128	81							6	128	-1.3	25	210	-2.5	19	154	0.2
6/2/2018	Sat	23:51:18			Mars 2.8																	
6/3/2018	Sun	3:34:50	-6	50	26	179	80							24	178	-1.3				18	208	0.2
6/3/2018	Sun	3:34:50			Mars 2.3																	
6/3/2018	Sun	20:08:25	-6	310	-34	81	74				19	285	-4				26	151	-2.5			
6/3/2018	Sun	23:51:28	-24	0	3	118	73							6	128	-1.3	25	211	-2.4	19	155	0.1
6/4/2018	Mon	3:34:18	-6	50	28	166	72							24	179	-1.3				18	209	0.1
6/4/2018	Mon	20:09:15	-6	310	-40	70	66				19	285	-4				26	152	-2.4			
6/4/2018	Mon	23:51:38	-23	360	-1	109	64							7	129	-1.3	25	212	-2.4	20	156	0.1
6/5/2018	Tue	3:33:50	-6	50	28	154	63							24	179	-1.3				18	210	0.1
6/5/2018	Tue	20:10:03	-6	310	-44	56	56				19	285	-4				27	154	-2.4			
6/5/2018	Tue	23:51:49	-23	0	-7	99	55							7	129	-1.4	24	213	-2.4	20	157	0.1
6/6/2018	Wed	3:33:24	-6	50	27	141	53							24	180	-1.4				17	211	0.1
6/6/2018	Wed	20:10:50	-6	310	-47	41	47				19	285	-4				27	155	-2.4			
6/6/2018	Wed	23:52:00	-23	0	-12	88	45							7	130	-1.4	24	214	-2.4	20	158	0.1
6/7/2018	Thr	3:33:00	-6	50	25	128	43							24	180	-1.4				17	212	0.1
6/7/2018	Thr	20:11:34	-6	310	-47	24	37				19	284	-4				28	156	-2.4			
6/7/2018	Thr	23:52:11	-23	0	-17	77	35							8	131	-1.4	23	216	-2.4	21	159	0.1
6/8/2018	Fri	3:32:39	-6	49	21	116	34							24	181	-1.4				17	212	0.1
6/8/2018	Fri	20:12:17	-6	311	-44	8	27	-2	309	-2	19	284	-4				28	158	-2.4			
6/8/2018	Fri	23:52:23	-23	0	-21	65	25							8	131	-1.5	23	217	-2.4	21	160	0.1
6/9/2018	Sat	3:32:20	-6	49	17	103	24							24	182	-1.5				16	213	0.1
6/9/2018	Sat	20:12:57	-6	311	-40	352	18	-1	308	-1.8	19	284	-4				28	159	-2.4			
6/9/2018	Sat	23:52:35	-23	360	-24	52	17							9	132	-1.5	22	218	-2.4	21	161	0.1
6/10/2018	Sun	3:32:04	-6	49	12	91	15							24	183	-1.5				16	214	0.1
6/10/2018	Sun	20:13:36	-6	311	-33	339	10	-1	307	-1.7	19	284	-4				29	160	-2.4			
6/10/2018	Sun	23:52:47	-23	360	-27	38	9							9	132	-1.5	22	219	-2.4	22	162	0.1
6/11/2018	Mon	3:31:51	-6	49	6	80	8							24	183	-1.5				16	215	0.1
6/11/2018	Mon	20:14:12	-6	311	-25	327	4	0	306	-1.5	19	284	-4				29	161	-2.4	-3	118	0.1
6/11/2018	Mon	23:52:59	-23	0	-28	24	4							9	133	-1.6	21	220	-2.4	22	163	0.1
6/12/2018	Tue	3:31:40	-6	49	0	68	3							24	184	-1.6				15	216	0.1
6/12/2018	Tue	20:14:46	-6	311	-17	316	1	1	306	-1.4	19	283	-4				29	163	-2.4	-2	119	0.1
6/12/2018	Tue	23:53:12	-23	360	-28	8	1							10	134	-1.6	21	221	-2.4	22	164	0.1
6/13/2018	Wed	3:31:32	-6	49	-8	56	0							24	185	-1.6				15	217	0.1
6/13/2018	Wed	20:15:18	-6	311	-7	306	0	2	305	-1.3	19	283	-4				29	164	-2.4	-1	120	0.1
6/13/2018	Wed	23:53:25	-23	360	-26	353	0							10	134	-1.6	20	222	-2.4	22	165	0.1
6/14/2018	Thr	3:31:26	-6	49	-14	43	1							24	186	-1.6				14	218	0.1
6/14/2018	Thr	20:15:48	-6	311	3	296	3	2	304	-1.2	19	283	-4				30	165	-2.4	-1	121	0.1
6/14/2018	Thr	23:53:38	-23	0	-23	338	3							11	135	-1.7	20	223	-2.4	22	166	0.1
6/15/2018	Fri	3:31:23	-6	49	-21	30	4							24	186	-1.7				14	219	0.1
6/15/2018	Fri	20:16:15	-6	311	12	285	8	3	303	-1.1	19	282	-4				30	167	-2.4	0	122	0.1
6/15/2018	Fri	23:53:51	-23	360	-19	323	9							11	136	-1.7	19	224	-2.4	23	167	0.1
6/16/2018	Sat	3:31:22	-6	49	-26	16	10							24	187	-1.7				13	219	0.1
6/16/2018	Sat	20:16:40	-6	311	21	274	16	3	302	-1	18	282	-4				30	168	-2.4	1	122	0.1
6/16/2018	Sat	23:54:04	-23	360	-14	310	17							12	137	-1.7	19	225	-2.4	23	169	0.1
6/17/2018	Sun	3:31:24	-6	49	-30	1	18							24	188	-1.7				13	220	0.1
6/17/2018	Sun	20:17:03	-6	311	29	261	25	4	302	-0.9	18	282	-4				30	169	-2.4	1	123	0.1
6/17/2018	Sun	23:54:17	-23	360	-8	297	27							12	137	-1.8	18	226	-2.4	23	170	0.1
6/18/2018	Mon	3:31:28	-6	49	-32	345	28							23	189	-1.8				12	221	0.1
6/18/2018	Mon	20:17:23	-6	311	35	247	36	5	301	-0.8	18	282	-4				30	170	-2.4	2	124	0.1
6/18/2018	Mon	23:54:30	-23	360	-2	285	37							12	138	-1.8	18	227	-2.4	23	171	0.1
6/19/2018	Tue	3:31:35	-6	49	-33	330	39							23	190	-1.8				12	222	0.1
6/19/2018	Tue	20:17:40	-6	311	39	232	47	5	300	-0.8	18	281	-4				31	172	-2.4	3	125	0.1
6/19/2018	Tue	23:54:43	-23	0	3	274	48							13	139	-1.8	17	228	-2.4	23	172	0.1
6/20/2018	Wed	3:31:45	-6	49	-32	315	50							23	191	-1.8				11	223	0.1
6/20/2018	Wed	20:17:55	-6	311	40	216	58	5	299	-0.7	18	281	-4				31	173	-2.4	3	126	0
6/20/2018	Wed	23:54:56	-22	0	7	262	59							13	140	-1.8	17	229	-2.4	23	173	0
6/21/2018	Thr	3:31:57	-6	49	-29	301	61							23	192	-1.9				11	224	0
6/21/2018	Thr	20:18:08	-6	311	40	200	68	6	298	-0.6	18	281	-4				31	174	-2.4	4	126	0

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
6/21/2018	Thr	23:55:09	-23	360	12	251	69							14	141	-1.9	16	229	-2.4	23	174	0
6/22/2018	Fri	3:32:11	-6	49	-26	288	71							23	193	-1.9				10	225	0
6/22/2018	Fri	20:18:18	-6	311	37	185	77	6	298	-0.6	18	280	-4				31	175	-2.4	4	127	0
6/22/2018	Fri	23:55:22	-23	360	16	239	78							14	141	-1.9	15	230	-2.4	23	175	0
6/23/2018	Sat	3:32:28	-6	49	-21	276	80							23	194	-1.9				10	226	0
6/23/2018	Sat	20:18:25	-6	311	33	171	85	7	297	-0.5	18	280	-4				31	176	-2.3	5	128	0
6/23/2018	Sat	20:18:25			Jup 4.8																	
6/23/2018	Sat	23:55:35	-23	0	19	227	86							14	142	-1.9	15	231	-2.3	23	176	0
6/24/2018	Sun	3:32:47	-6	49	-16	266	87							22	195	-2				9	226	0
6/24/2018	Sun	20:18:30	-6	311	27	159	91	7	296	-0.4	18	279	-4				31	178	-2.3	6	129	0
6/24/2018	Sun	23:55:48	-23	360	22	216	92							15	143	-2	14	232	-2.3	23	177	0
6/25/2018	Mon	3:33:08	-6	49	-10	256	93							22	196	-2				8	227	0
6/25/2018	Mon	20:18:32	-6	311	21	149	96	7	295	-0.4	17	279	-4				31	179	-2.3	6	130	0
6/25/2018	Mon	23:56:00	-23	0	24	203	97							15	144	-2	14	233	-2.3	23	179	0
6/26/2018	Tue	3:33:32	-6	49	-3	246	97							22	197	-2				8	228	0
6/26/2018	Tue	20:18:32	-6	311	15	139	99	7	295	-0.3	17	279	-4.1				31	180	-2.3	7	130	0
6/26/2018	Tue	23:56:13	-23	360	24	191	99							15	145	-2	13	234	-2.3	23	180	0
6/27/2018	Wed	3:33:58	-6	49	3	237	99							21	198	-2				7	229	0
6/27/2018	Wed	20:18:29	-6	311	8	130	100	7	294	-0.3	17	278	-4.1				31	181	-2.3	7	131	0
6/27/2018	Wed	20:18:29			Sat 1.1																	
6/27/2018	Wed	23:56:25	-23	360	24	179	100							16	146	-2.1	12	235	-2.3	23	181	0
6/27/2018	Wed	23:56:25			Sat 1.8																	
6/28/2018	Thr	3:34:26	-6	49	9	228	100							21	199	-2.1				6	230	0
6/28/2018	Thr	3:34:26			Sat 3.0																	
6/28/2018	Thr	20:18:23	-6	311	1	122	99	8	293	-0.2	17	278	-4.1				31	182	-2.3	8	132	0
6/28/2018	Thr	23:56:37	-23	0	24	167	99							16	147	-2.1	12	236	-2.3	23	182	0
6/29/2018	Fri	3:34:57	-6	49	15	219	99							21	200	-2.1				6	231	0
6/29/2018	Fri	20:18:15	-6	311	-6	113	97	8	292	-0.2	17	277	-4.1				31	183	-2.3	8	133	0
6/29/2018	Fri	23:56:49	-23	360	22	155	96							16	148	-2.1	11	236	-2.3	23	183	0
6/30/2018	Sat	3:35:30	-6	49	21	209	96							20	201	-2.1				5	232	0
6/30/2018	Sat	20:18:04	-6	311	-12	104	92	8	292	-0.1	17	277	-4.1				31	184	-2.3	9	134	0
6/30/2018	Sat	23:57:01	-23	0	20	144	92							17	149	-2.2	10	237	-2.3	23	184	0
7/1/2018	Sun	3:36:05	-6	49	26	199	91							20	202	-2.2				4	233	0
7/1/2018	Sun	20:17:50	-6	311	-18	95	87	8	291	-0.1	17	277	-4.1				31	186	-2.3	9	134	0
7/1/2018	Sun	23:57:12	-23	0	17	133	86							17	150	-2.2	10	238	-2.3	23	185	0
7/2/2018	Mon	3:36:42	-6	49	30	188	85							20	203	-2.2				4	234	0
7/2/2018	Mon	20:17:34	-6	311	-24	85	80	8	290	0	17	276	-4.1				31	187	-2.3	10	135	0.1
7/2/2018	Mon	23:57:23	-23	0	13	122	78							17	151	-2.2	9	239	-2.3	23	186	0.1
7/3/2018	Tue	3:37:21	-6	49	34	175	77							19	204	-2.2				3	234	0.1
7/3/2018	Tue	20:17:16	-6	311	-29	73	71	8	290	0	16	276	-4.1				31	188	-2.3	10	136	0.1
7/3/2018	Tue	23:57:34	-23	360	9	111	70							18	152	-2.3	9	240	-2.3	23	188	0.1
7/4/2018	Wed	3:38:02	-6	49	36	162	69							19	205	-2.3				2	235	0.1
7/4/2018	Wed	20:16:55	-6	310	-33	61	62	8	289	0.1	16	275	-4.1				31	189	-2.3	11	137	0.1
7/4/2018	Wed	23:57:45	-23	360	5	101	61							18	153	-2.3	8	240	-2.3	23	189	0.1
7/5/2018	Thr	3:38:45	-6	50	37	148	59							18	206	-2.3				2	236	0.1
7/5/2018	Thr	20:16:31	-6	310	-35	47	52	8	289	0.1	16	275	-4.1				31	190	-2.3	11	138	0.1
7/5/2018	Thr	23:57:55	-23	360	1	90	51							18	154	-2.3	7	241	-2.3	23	190	0.1
7/6/2018	Fri	3:39:30	-6	50	36	133	49							18	207	-2.3				1	237	0.1
7/6/2018	Fri	20:16:05	-6	310	-37	33	42	7	288	0.2	16	274	-4.1				30	191	-2.3	12	138	0.1
7/6/2018	Fri	23:58:05	-23	360	-4	79	40							18	155	-2.3	7	242	-2.3	23	191	0.1
7/7/2018	Sat	3:40:16	-6	50	34	119	38							17	208	-2.4				0	238	0.1
7/7/2018	Sat	20:15:36	-6	310	-36	17	31	7	288	0.2	16	274	-4.1				30	192	-2.3	12	139	0.1
7/7/2018	Sat	23:58:14	-23	360	-9	67	30							19	156	-2.4	6	243	-2.3	23	192	0.1
7/8/2018	Sun	3:41:05	-6	50	29	105	28							17	209	-2.4				0	239	0.1
7/8/2018	Sun	20:15:05	-6	310	-33	2	22	7	287	0.2	16	273	-4.1				30	193	-2.3	13	140	0.1
7/8/2018	Sun	23:58:23	-24	0	-14	55	20							19	157	-2.4	5	244	-2.3	22	193	0.1
7/9/2018	Mon	3:41:55	-6	50	23	93	19							16	211	-2.4				-1	240	0.1
7/9/2018	Mon	20:14:31	-6	309	-29	347	13	7	287	0.3	16	273	-4.1				30	194	-2.2	13	141	0.1
7/9/2018	Mon	23:58:32	-24	360	-19	42	12							19	158	-2.4	5	244	-2.2	22	194	0.1
7/10/2018	Tue	3:42:47	-6	51	16	81	10							16	212	-2.4				-2	241	0.1
7/10/2018	Tue	20:13:55	-6	309	-23	333	6	7	286	0.3	15	272	-4.1				30	194	-2.2	14	141	0.1
7/10/2018	Tue	23:58:40	-24	360	-22	28	5							19	159	-2.5	4	245	-2.2	22	195	0.1
7/11/2018	Wed	3:43:40	-6	51	7	70	4							15	213	-2.5				-3	241	0.1
7/11/2018	Wed	20:13:16	-6	309	-16	320	2	6	286	0.4	15	272	-4.1				30	195	-2.2	14	142	0.1
7/11/2018	Wed	23:58:48	-24	0	-25	13	1							20	160	-2.5	3	246	-2.2	22	196	0.1

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
7/12/2018	Thr	3:44:35	-6	51	-1	59	1							14	214	-2.5						
7/12/2018	Thr	20:12:35	-6	309	-8	308	0	6	285	0.4	15	271	-4.2				30	196	-2.2	14	143	0.1
7/12/2018	Thr	23:58:56	-24	360	-27	357	0							20	162	-2.5	3	246	-2.2	22	197	0.1
7/13/2018	Fri	3:45:32	-6	51	-11	49	0							14	215	-2.5						
7/13/2018	Fri	20:11:52	-6	309	0	296	2	6	285	0.5	15	271	-4.2				29	197	-2.2	15	144	0.1
7/13/2018	Fri	23:59:03	-24	360	-26	342	2							20	163	-2.5	2	247	-2.2	21	198	0.1
7/14/2018	Sat	3:46:30	-6	52	-20	37	3							13	216	-2.5						
7/14/2018	Sat	20:11:06	-6	308	8	284	6	5	285	0.5	15	270	-4.2				29	198	-2.2	15	144	0.1
7/14/2018	Sat	20:11:06			Mer 2.4																	
7/14/2018	Sat	23:59:09	-24	0	-25	326	7							20	164	-2.6	2	248	-2.2	21	199	0.1
7/15/2018	Sun	3:47:29	-6	52	-29	25	8							12	217	-2.6						
7/15/2018	Sun	20:10:18	-6	308	15	271	13	5	284	0.6	15	270	-4.2				29	199	-2.2	15	145	0.1
7/15/2018	Sun	20:10:18			Ven 1.4																	
7/15/2018	Sun	23:59:15	-25	360	-22	312	14							20	165	-2.6	1	249	-2.2	21	200	0.1
7/16/2018	Mon	3:48:30	-6	52	-36	12	16							11	219	-2.6						
7/16/2018	Mon	20:09:28	-6	308	21	258	22	5	284	0.7	15	269	-4.2				29	200	-2.2	16	146	0.1
7/16/2018	Mon	23:59:21	-25	0	-18	298	24							20	166	-2.6	0	249	-2.2	20	201	0.1
7/17/2018	Tue	3:49:31	-6	52	-41	357	25							11	220	-2.6						
7/17/2018	Tue	20:08:36	-6	307	26	245	32	4	284	0.7	14	269	-4.2				29	200	-2.2	16	147	0.1
7/17/2018	Tue	23:59:26	-25	0	-14	285	34							20	167	-2.6	0	250	-2.2	20	202	0.1
7/18/2018	Wed	3:50:34	-6	53	-44	340	35							10	221	-2.6						
7/18/2018	Wed	20:07:41	-6	307	29	231	43	4	284	0.8	14	268	-4.2				28	201	-2.2	16	147	0.1
7/18/2018	Wed	23:59:30	-25	0	-9	273	44							20	169	-2.7	-1	251	-2.2	20	203	0.1
7/19/2018	Thr	3:51:38	-6	53	-45	323	46							9	222	-2.7						
7/19/2018	Thr	20:06:44	-6	307	31	216	53	3	284	0.9	14	268	-4.2	-3	122	-2.7	28	202	-2.2	17	148	0.1
7/19/2018	Thr	23:59:34	-25	0	-4	262	55							20	170	-2.7	-2	251	-2.2	20	204	0.1
7/20/2018	Fri	3:52:43	-6	53	-43	307	57							8	223	-2.7						
7/20/2018	Fri	20:05:45	-6	307	32	202	63	3	284	1	14	267	-4.2	-2	123	-2.7	28	203	-2.2	17	149	0.2
7/20/2018	Fri	20:05:45			Jup 3.4																	
7/20/2018	Fri	23:59:37	-25	0	1	252	65							21	171	-2.7	-2	252	-2.2	19	205	0.2
7/20/2018	Fri	23:59:37			Jup 3.7																	
7/21/2018	Sat	3:53:49	-6	54	-39	293	67							8	224	-2.7						
7/21/2018	Sat	20:04:44	-6	306	30	188	73	2	284	1.1	14	267	-4.2	-2	123	-2.7	28	203	-2.2	17	149	0.2
7/21/2018	Sat	23:59:39	-26	0	6	241	74							21	172	-2.7				19	206	0.2
7/22/2018	Sun	3:54:56	-6	54	-34	281	76							7	225	-2.7						
7/22/2018	Sun	20:03:41	-6	306	28	175	81	2	284	1.2	14	266	-4.2	-1	124	-2.7	28	204	-2.2	18	150	0.2
7/22/2018	Sun	23:59:41	-26	0	11	231	82							21	174	-2.7				19	207	0.2
7/23/2018	Mon	3:56:04	-6	54	-28	270	83							6	226	-2.7						
7/23/2018	Mon	20:02:36	-6	306	24	163	88	1	284	1.3	14	266	-4.2	-1	125	-2.8	27	205	-2.2	18	151	0.2
7/23/2018	Mon	23:59:43	-26	0	15	220	89							21	175	-2.8				18	208	0.2
7/24/2018	Tue	3:57:12	-6	55	-21	261	90							5	227	-2.8						
7/24/2018	Tue	20:01:29	-6	305	20	152	93	1	285	1.5	13	265	-4.2	0	126	-2.8	27	205	-2.2	18	151	0.2
7/24/2018	Tue	20:01:29			Sat 1.7																	
7/24/2018	Tue	23:59:44	-26	360	19	210	94							21	176	-2.8				18	209	0.2
7/24/2018	Tue	23:59:44			Sat 1.2																	
7/25/2018	Wed	3:58:21	-6	55	-13	253	95							4	228	-2.8						
7/25/2018	Wed	20:00:20	-6	305	15	141	97	0	285	1.6	13	265	-4.3	0	126	-2.8	27	206	-2.1	18	152	0.2
7/25/2018	Wed	23:59:44	-27	360	22	198	98							20	177	-2.8				17	210	0.2
7/26/2018	Thr	3:59:31	-6	55	-6	246	98							3	230	-2.8						
7/26/2018	Thr	19:59:09	-6	305	10	131	100	-1	285	1.8	13	264	-4.3	1	127	-2.8	27	207	-2.1	19	153	0.2
7/26/2018	Thr	23:59:43	-27	360	25	187	100							20	178	-2.8				17	211	0.2
7/27/2018	Fri	4:00:42	-6	56	3	239	100							2	231	-2.8						
7/27/2018	Fri	19:57:56	-6	304	4	122	100	-1	286	2	13	264	-4.3	1	128	-2.8	27	207	-2.1	19	154	0.2
7/27/2018	Fri	23:59:42	-27	360	27	175	100							20	180	-2.8				17	212	0.2
7/28/2018	Sat	4:01:53	-6	56	10	231	100							1	232	-2.8						
7/28/2018	Sat	19:56:41	-6	304	-1	112	99	-2	287	2.2	13	263	-4.3	2	129	-2.8	26	208	-2.1	19	154	0.2
7/28/2018	Sat	23:59:41	-27	360	28	162	98							20	181	-2.8				16	213	0.2
7/29/2018	Sun	4:03:05	-6	56	18	224	98							1	233	-2.8						
7/29/2018	Sun	19:55:25	-6	303	-7	102	95	-3	287	2.4	13	262	-4.3	2	129	-2.8	26	209	-2.1	19	155	0.2
7/29/2018	Sun	23:59:38	-27	0	28	150	95							20	182	-2.8				16	214	0.2
7/30/2018	Mon	4:04:17	-6	57	26	216	94							0	234	-2.8						
7/30/2018	Mon	19:54:07	-6	303	-13	92	91				13	262	-4.3	2	130	-2.8	26	209	-2.1	20	156	0.2
7/30/2018	Mon	23:59:36	-28	0	26	137	90							20	183	-2.8				15	215	0.2
7/31/2018	Tue	4:05:30	-6	57	33	206	88							-1	235	-2.8						
7/31/2018	Tue	19:52:48	-6	303	-18	81	84				12	261	-4.3	3	131	-2.8	26	210	-2.1	20	156	0.2

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
7/31/2018	Tue	23:59:32	-28	360	24	125	83							20	185	-2.8				15	216	0.2
8/1/2018	Wed	4:06:43	-6	57	40	195	81							-2	236	-2.8						
8/1/2018	Wed	19:51:27	-6	302	-22	69	76				12	261	-4.3	3	132	-2.8	25	210	-2.1	20	157	0.2
8/1/2018	Wed	23:59:28	-28	360	21	113	75							20	186	-2.8				15	217	0.2
8/2/2018	Thr	19:50:04	-6	302	-26	57	67				12	260	-4.3	4	132	-2.7	25	211	-2.1	20	158	0.2
8/2/2018	Thr	23:59:24	-28	360	16	101	65							20	187	-2.7				14	217	0.2
8/3/2018	Fri	19:48:40	-6	301	-29	44	57				12	260	-4.3	4	133	-2.7	25	212	-2.1	20	158	0.2
8/3/2018	Fri	23:59:18	-29	0	11	90	55							19	188	-2.7				14	218	0.2
8/4/2018	Sat	19:47:14	-6	301	-30	29	46				12	259	-4.3	5	134	-2.7	25	212	-2.1	20	159	0.2
8/4/2018	Sat	23:59:13	-29	360	6	79	44							19	189	-2.7				13	219	0.2
8/5/2018	Sun	19:45:47	-6	301	-30	15	35				12	258	-4.3	5	134	-2.7	24	213	-2.1	21	159	0.2
8/5/2018	Sun	23:59:06	-29	360	0	68	34							19	190	-2.7				13	220	0.2
8/6/2018	Mon	19:44:18	-6	300	-28	359	25				12	258	-4.4	5	135	-2.7	24	213	-2.1	21	160	0.3
8/6/2018	Mon	23:58:59	-30	0	-7	56	23							19	191	-2.7				12	221	0.3
8/7/2018	Tue	19:42:48	-6	300	-25	344	16				11	257	-4.4	6	136	-2.7	24	214	-2.1	21	161	0.3
8/7/2018	Tue	23:58:52	-30	0	-14	44	14							19	193	-2.7				12	222	0.3
8/8/2018	Wed	19:41:17	-6	299	-20	330	8				11	257	-4.4	6	136	-2.6	24	214	-2.1	21	161	0.3
8/8/2018	Wed	23:58:44	-30	0	-20	31	7							18	194	-2.6				11	222	0.3
8/9/2018	Thr	19:39:45	-6	299	-15	316	3				11	256	-4.4	6	137	-2.6	24	215	-2.1	21	162	0.3
8/9/2018	Thr	23:58:35	-30	360	-26	17	2							18	195	-2.6				11	223	0.3
8/10/2018	Fri	19:38:11	-6	298	-8	303	0				11	256	-4.4	7	138	-2.6	23	215	-2	21	163	0.3
8/10/2018	Fri	23:58:26	-31	0	-30	2	0							18	196	-2.6				10	224	0.3
8/11/2018	Sat	19:36:37	-6	298	-1	290	1				11	255	-4.4	7	138	-2.6	23	215	-2	22	163	0.3
8/11/2018	Sat	23:58:16	-31	360	-33	345	1							18	197	-2.6				10	225	0.3
8/12/2018	Sun	19:35:01	-6	297	5	277	4				11	255	-4.4	8	139	-2.6	23	216	-2	22	164	0.3
8/12/2018	Sun	23:58:06	-31	360	-33	329	5							17	198	-2.6				9	225	0.3
8/13/2018	Mon	4:21:43	-6	63	-29	43	6	-1	70	4												
8/13/2018	Mon	19:33:24	-6	297	11	264	10				11	254	-4.4	8	139	-2.5	23	216	-2	22	164	0.3
8/13/2018	Mon	23:57:55	-32	360	-32	313	12							17	199	-2.5				9	226	0.3
8/14/2018	Tue	4:22:58	-6	63	-39	32	13	0	71	3.5												
8/14/2018	Tue	19:31:45	-6	297	17	251	18				10	254	-4.4	8	140	-2.5	22	217	-2	22	165	0.3
8/14/2018	Tue	23:57:44	-32	0	-29	298	20							17	200	-2.5				8	227	0.3
8/15/2018	Wed	4:24:14	-6	64	-47	19	22	1	72	3.1												
8/15/2018	Wed	19:30:06	-6	296	21	238	28				10	253	-4.4	9	141	-2.5	22	217	-2	22	166	0.3
8/15/2018	Wed	23:57:32	-32	0	-24	285	29							16	201	-2.5				8	228	0.3
8/16/2018	Thr	4:25:30	-6	64	-53	3	31	3	73	2.7												
8/16/2018	Thr	19:28:26	-6	296	24	225	38				10	252	-4.5	9	141	-2.5	22	218	-2	22	166	0.3
8/16/2018	Thr	23:57:19	-33	360	-19	273	40							16	202	-2.5				7	228	0.3
8/17/2018	Fri	4:26:45	-6	65	-57	343	41	4	74	2.3												
8/17/2018	Fri	19:26:45	-6	295	26	211	48				10	252	-4.5	9	142	-2.5	22	218	-2	22	167	0.3
8/17/2018	Fri	23:57:06	-33	0	-13	262	50							16	203	-2.5				7	229	0.3
8/18/2018	Sat	4:28:00	-6	65	-56	323	52	5	74	1.9												
8/18/2018	Sat	19:25:03	-6	295	27	198	58				10	251	-4.5	10	142	-2.4	21	218	-2	22	167	0.3
8/18/2018	Sat	23:56:52	-33	0	-7	252	60							16	204	-2.4				6	230	0.3
8/19/2018	Sun	4:29:16	-6	66	-53	305	62	6	75	1.5												
8/19/2018	Sun	19:23:20	-6	294	26	185	67				10	251	-4.5	10	143	-2.4	21	219	-2	22	168	0.3
8/19/2018	Sun	23:56:38	-33	360	-1	243	69							15	205	-2.4				6	231	0.3
8/20/2018	Mon	4:30:31	-6	66	-47	290	71	7	75	1.2												
8/20/2018	Mon	19:21:36	-6	294	24	172	76				9	250	-4.5	10	143	-2.4	21	219	-2	22	169	0.3
8/20/2018	Mon	19:21:36			Sat 3.8																	
8/20/2018	Mon	23:56:24	-34	360	5	234	77							15	206	-2.4				5	231	0.3
8/20/2018	Mon	23:56:24			Sat 2.4																	
8/21/2018	Tue	4:31:46	-6	67	-40	279	79	8	76	0.9												
8/21/2018	Tue	19:19:51	-6	293	22	160	84				9	250	-4.5	10	144	-2.4	21	220	-2	23	169	0.3
8/21/2018	Tue	23:56:09	-34	0	11	224	85							15	207	-2.4				5	232	0.3
8/22/2018	Wed	4:33:01	-6	67	-32	271	86	8	76	0.7												
8/22/2018	Wed	19:18:06	-6	293	18	148	90				9	249	-4.5	11	144	-2.3	21	220	-2	23	170	0.3
8/22/2018	Wed	23:55:53	-34	0	17	215	91							14	207	-2.3				4	233	0.3
8/23/2018	Thr	4:34:15	-6	68	-24	264	92	9	77	0.4												
8/23/2018	Thr	19:16:20	-6	292	14	137	95				9	249	-4.5	11	145	-2.3	20	220	-2	23	170	0.4
8/23/2018	Thr	23:55:37	-35	360	23	205	96							14	208	-2.3				4	233	0.4
8/24/2018	Fri	4:35:30	-6	68	-15	258	96	9	77	0.2												
8/24/2018	Fri	19:14:33	-6	292	10	127	98				9	248	-4.5	11	145	-2.3	20	221	-2	23	171	0.4
8/24/2018	Fri	23:55:21	-35	0	28	194	99							14	209	-2.3				3	234	0.4
8/25/2018	Sat	4:36:44	-6	69	-5	252	99	10	77	0												

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
8/25/2018	Sat	19:12:46	-6	291	5	116	100				9	248	-4.6	12	146	-2.3	20	221	-2	23	171	0.4
8/25/2018	Sat	23:55:04	-36	0	32	182	100							14	210	-2.3				3	235	0.4
8/26/2018	Sun	4:37:58	-6	69	4	247	100	10	78	-0.2												
8/26/2018	Sun	19:10:58	-6	291	1	106	100				8	247	-4.6	12	146	-2.2	20	221	-2	23	172	0.4
8/26/2018	Sun	23:54:47	-36	0	35	168	99							13	211	-2.2				2	235	0.4
8/27/2018	Mon	4:39:12	-6	70	14	242	99	10	78	-0.3												
8/27/2018	Mon	19:09:09	-6	290	-5	95	98				8	247	-4.6	12	147	-2.2	19	222	-1.9	23	172	0.4
8/27/2018	Mon	23:54:29	-36	0	36	154	97							13	212	-2.2				2	236	0.4
8/28/2018	Tue	4:40:26	-6	70	23	236	96	10	78	-0.5												
8/28/2018	Tue	19:07:20	-6	290	-10	84	94				8	246	-4.6	12	147	-2.2	19	222	-1.9	23	173	0.4
8/28/2018	Tue	23:54:11	-37	0	36	140	93							13	212	-2.2				1	237	0.4
8/29/2018	Wed	4:41:40	-6	71	33	229	91	10	78	-0.6												
8/29/2018	Wed	19:05:30	-6	289	-15	73	88				8	246	-4.6	13	147	-2.2	19	222	-1.9	23	173	0.4
8/29/2018	Wed	23:53:53	-37	0	34	126	86							12	213	-2.2				1	237	0.4
8/30/2018	Thr	4:42:53	-6	71	42	220	85	10	78	-0.7												
8/30/2018	Thr	19:03:40	-6	289	-19	61	80				8	245	-4.6	13	148	-2.1	19	223	-1.9	23	174	0.4
8/30/2018	Thr	23:53:35	-37	0	31	112	79							12	214	-2.1				0	238	0.4
8/31/2018	Fri	4:44:06	-6	72	51	208	77	10	78	-0.8												
8/31/2018	Fri	19:01:49	-6	288	-22	48	71				8	245	-4.6	13	148	-2.1	18	223	-1.9	23	175	0.4
8/31/2018	Fri	23:53:16	-38	360	25	99	69							12	215	-2.1				0	239	0.4
9/1/2018	Sat	4:45:19	-6	72	57	191	67	9	78	-0.9												
9/1/2018	Sat	18:59:58	-6	287	-25	35	61				7	245	-4.6	13	149	-2.1	18	223	-1.9	23	175	0.4
9/1/2018	Sat	23:52:56	-38	0	19	88	59							11	215	-2.1				-1	239	0.4
9/2/2018	Sun	4:46:32	-6	73	61	168	57	9	78	-0.9												
9/2/2018	Sun	18:58:07	-6	287	-27	20	50				7	244	-4.6	14	149	-2.1	18	224	-1.9	23	176	0.4
9/2/2018	Sun	23:52:37	-38	0	12	77	48							11	216	-2				-1	240	0.4
9/3/2018	Mon	4:47:45	-6	73	60	142	46	8	78	-1												
9/3/2018	Mon	18:56:15	-6	286	-27	5	39				7	244	-4.6	14	149	-2	18	224	-1.9	23	176	0.4
9/3/2018	Mon	23:52:17	-39	0	4	66	37							11	217	-2				-2	240	0.4
9/4/2018	Tue	4:48:58	-6	74	54	121	35	8	79	-1.1												
9/4/2018	Tue	18:54:23	-6	286	-25	350	28				7	243	-4.7	14	150	-2	18	224	-1.9	23	177	0.4
9/4/2018	Tue	23:51:57	-39	0	-5	56	26							11	217	-2				-3	241	0.4
9/5/2018	Wed	4:50:10	-6	74	45	106	24	7	79	-1.1												
9/5/2018	Wed	18:52:30	-6	285	-23	335	18				7	243	-4.7	14	150	-2	17	225	-1.9	23	177	0.4
9/5/2018	Wed	23:51:37	-39	360	-14	45	17							10	218	-2						
9/6/2018	Thr	4:51:23	-6	75	34	95	15	7	79	-1.2												
9/6/2018	Thr	18:50:38	-6	285	-19	321	10				7	243	-4.7	14	150	-1.9	17	225	-1.9	23	178	0.4
9/6/2018	Thr	23:51:17	-40	360	-22	33	9							10	219	-1.9						
9/7/2018	Fri	4:52:35	-6	75	22	87	7	6	79	-1.2												
9/7/2018	Fri	18:48:45	-6	284	-14	307	4				6	242	-4.7	15	150	-1.9	17	225	-1.9	23	178	0.4
9/7/2018	Fri	23:50:57	-40	0	-30	21	3							10	219	-1.9						
9/8/2018	Sat	4:53:47	-6	76	10	81	2	5	79	-1.2												
9/8/2018	Sat	4:53:47			Mer 5.0																	
9/8/2018	Sat	18:46:52	-6	284	-8	293	1				6	242	-4.7	15	151	-1.9	17	225	-1.9	23	179	0.4
9/8/2018	Sat	23:50:36	-41	0	-36	6	0							10	220	-1.9						
9/9/2018	Sun	4:54:59	-6	77	-2	75	0	4	79	-1.3												
9/9/2018	Sun	18:44:59	-6	283	-2	280	0				6	241	-4.7	15	151	-1.9	16	226	-1.9	23	179	0.4
9/9/2018	Sun	23:50:15	-41	0	-40	349	1							9	221	-1.9						
9/10/2018	Mon	4:56:11	-6	77	-15	69	1	4	79	-1.3												
9/10/2018	Mon	18:43:05	-6	283	4	268	3				6	241	-4.7	15	151	-1.8	16	226	-1.9	23	180	0.4
9/10/2018	Mon	23:49:54	-41	0	-42	331	3							9	221	-1.8						
9/11/2018	Tue	4:57:22	-6	78	-27	63	4	3	79	-1.4												
9/11/2018	Tue	18:41:12	-6	282	9	255	7				6	241	-4.7	15	151	-1.8	16	226	-1.9	23	180	0.4
9/11/2018	Tue	23:49:33	-42	0	-41	314	9							9	222	-1.8						
9/12/2018	Wed	4:58:34	-6	78	-38	56	10	2	79	-1.4												
9/12/2018	Wed	18:39:18	-6	282	14	242	14				5	241	-4.7	16	152	-1.8	16	227	-1.9	23	181	0.5
9/12/2018	Wed	23:49:12	-42	360	-38	298	16							9	222	-1.8						
9/13/2018	Thr	4:59:45	-6	79	-48	46	18	1	80	-1.5												
9/13/2018	Thr	18:37:25	-6	281	18	230	22				5	240	-4.7	16	152	-1.8	16	227	-1.9	23	181	0.5
9/13/2018	Thr	18:37:25			Jup 3.8																	
9/13/2018	Thr	23:48:51	-43	0	-33	284	24							8	223	-1.7						
9/14/2018	Fri	5:00:57	-6	79	-56	33	26	0	80	-1.5												
9/14/2018	Fri	18:35:31	-6	280	21	217	32				5	240	-4.7	16	152	-1.7	15	227	-1.9	23	182	0.5
9/14/2018	Fri	23:48:29	-43	0	-27	272	34							8	224	-1.7						
9/15/2018	Sat	5:02:08	-6	80	-63	14	36	0	80	-1.6												

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
9/15/2018	Sat	18:33:38	-6	280	23	204	41				5	240	-4.7	16	152	-1.7	15	227	-1.9	23	182	0.5
9/15/2018	Sat	23:48:08	-43	0	-20	262	43							8	224	-1.7						
9/16/2018	Sun	5:03:19	-6	80	-65	349	46	-1	80	-1.6												
9/16/2018	Sun	18:31:44	-6	279	24	191	51				4	240	-4.8	16	152	-1.7	15	228	-1.9	23	183	0.5
9/16/2018	Sun	23:47:47	-44	0	-13	253	53							8	225	-1.7						
9/17/2018	Mon	5:04:29	-6	81	-63	325	55	-2	80	-1.7												
9/17/2018	Mon	18:29:51	-6	279	24	178	61				4	239	-4.8	17	153	-1.6	15	228	-1.8	23	183	0.5
9/17/2018	Mon	18:29:51			Sat 4.6																	
9/17/2018	Mon	23:47:25	-44	360	-5	245	63							7	225	-1.6						
9/18/2018	Tue	18:27:57	-6	278	23	166	70				4	239	-4.8	17	153	-1.6	14	228	-1.8	23	184	0.5
9/18/2018	Tue	23:47:04	-44	0	3	237	71							7	226	-1.6						
9/19/2018	Wed	18:26:04	-6	278	21	154	78				4	239	-4.8	17	153	-1.6	14	228	-1.8	23	184	0.5
9/19/2018	Wed	18:26:04			Mars 4.3																	
9/19/2018	Wed	23:46:42	-45	360	10	229	80							7	226	-1.6						
9/19/2018	Wed	23:46:42			Mars 4.1																	
9/20/2018	Thr	18:24:11	-6	277	18	142	85				4	239	-4.8	17	153	-1.6	14	229	-1.8	23	185	0.5
9/20/2018	Thr	23:46:21	-45	0	18	221	87							7	227	-1.6						
9/21/2018	Fri	18:22:18	-6	277	15	131	91				3	239	-4.8	17	153	-1.5	14	229	-1.8	23	185	0.5
9/21/2018	Fri	23:46:00	-46	0	25	212	92							7	227	-1.5						
9/22/2018	Sat	18:20:25	-6	276	11	119	96				3	239	-4.8	18	153	-1.5	14	229	-1.8	23	186	0.5
9/22/2018	Sat	23:45:38	-46	360	32	201	97							6	228	-1.5						
9/23/2018	Sun	18:18:33	-6	276	7	108	99				3	239	-4.8	18	153	-1.5	13	229	-1.8	23	186	0.5
9/23/2018	Sun	23:45:17	-46	0	38	189	99							6	228	-1.5						
9/24/2018	Mon	18:16:41	-6	275	2	97	100				2	239	-4.8	18	154	-1.5	13	230	-1.8	23	187	0.5
9/24/2018	Mon	23:44:56	-47	360	43	175	100							6	229	-1.5						
9/25/2018	Tue	18:14:49	-6	274	-3	86	99				2	239	-4.8	18	154	-1.4	13	230	-1.8	23	187	0.5
9/25/2018	Tue	23:44:36	-47	360	45	159	98							6	229	-1.4						
9/26/2018	Wed	18:12:58	-6	274	-8	75	96				2	239	-4.8	18	154	-1.4	13	230	-1.8	23	188	0.5
9/26/2018	Wed	23:44:15	-48	0	46	141	95							6	230	-1.4						
9/27/2018	Thr	18:11:07	-6	273	-13	63	91	-3	269	-1.1	2	239	-4.8	19	154	-1.4	12	230	-1.8	23	188	0.5
9/27/2018	Thr	23:43:55	-48	360	43	124	89							6	230	-1.4						
9/28/2018	Fri	18:09:16	-6	273	-17	51	84	-3	267	-1.1	1	239	-4.8	19	154	-1.4	12	231	-1.8	23	189	0.5
9/28/2018	Fri	23:43:35	-48	0	38	109	82							5	231	-1.4						
9/29/2018	Sat	18:07:26	-6	272	-21	38	75	-2	266	-1	1	239	-4.8	19	154	-1.3	12	231	-1.8	23	189	0.5
9/29/2018	Sat	23:43:15	-49	360	31	96	73							5	231	-1.3						
9/30/2018	Sun	18:05:36	-6	272	-24	24	65	-2	265	-0.9	1	239	-4.8	19	154	-1.3	12	231	-1.8	23	190	0.5
9/30/2018	Sun	23:42:55	-49	0	23	85	63							5	232	-1.3						
10/1/2018	Mon	18:03:47	-6	271	-25	9	54	-2	264	-0.8	0	239	-4.7	19	154	-1.3	12	231	-1.8	23	190	0.5
10/1/2018	Mon	23:42:36	-49	360	14	75	52							5	232	-1.3						
10/2/2018	Tue	18:01:58	-6	271	-26	354	43	-2	262	-0.8	0	239	-4.7	19	154	-1.3	11	231	-1.8	22	190	0.5
10/2/2018	Tue	23:42:17	-50	0	4	66	40							5	233	-1.3						
10/3/2018	Wed	18:00:10	-6	270	-25	339	32	-2	261	-0.7	0	240	-4.7	20	154	-1.2	11	232	-1.8	22	191	0.5
10/3/2018	Wed	23:41:58	-50	360	-6	57	29							5	233	-1.2						
10/4/2018	Thr	17:58:22	-6	270	-22	325	22	-1	260	-0.7	-1	240	-4.7	20	154	-1.2	11	232	-1.8	22	191	0.5
10/4/2018	Thr	23:41:40	-51	360	-16	48	19							4	234	-1.2						
10/5/2018	Fri	17:56:35	-6	269	-19	310	13	-1	259	-0.6	-1	240	-4.7	20	154	-1.2	11	232	-1.8	22	192	0.5
10/5/2018	Fri	23:41:22	-51	360	-26	38	11							4	234	-1.2						
10/6/2018	Sat	17:54:49	-6	268	-14	297	6	-1	258	-0.6	-1	241	-4.7	20	154	-1.2	10	232	-1.8	22	192	0.5
10/6/2018	Sat	23:41:05	-51	0	-35	26	5							4	235	-1.2						
10/7/2018	Sun	17:53:04	-6	268	-9	283	2	-1	257	-0.5	-2	241	-4.7	20	154	-1.1	10	233	-1.8	22	193	0.5
10/7/2018	Sun	23:40:48	-52	0	-43	12	1							4	235	-1.1						
10/8/2018	Mon	17:51:19	-6	267	-3	271	0	-1	256	-0.5	-2	242	-4.6	21	154	-1.1	10	233	-1.8	22	193	0.5
10/8/2018	Mon	23:40:31	-52	360	-49	355	0							4	235	-1.1						
10/9/2018	Tue	17:49:35	-6	267	2	259	1	-1	254	-0.5	-3	242	-4.6	21	155	-1.1	10	233	-1.8	22	194	0.5
10/9/2018	Tue	17:49:35			Mer 5.0																	
10/9/2018	Tue	23:40:15	-53	360	-51	335	2							4	236	-1.1						
10/10/2018	Wed	17:47:51	-6	266	7	246	5	0	253	-0.4				21	155	-1.1	9	233	-1.8	22	194	0.5
10/10/2018	Wed	23:40:00	-53	0	-50	315	6							4	236	-1.1						
10/11/2018	Thr	17:46:09	-6	266	12	234	10	0	252	-0.4				21	155	-1.1	9	234	-1.8	22	195	0.6
10/11/2018	Thr	17:46:09			Jup 3.1																	
10/11/2018	Thr	23:39:44	-53	0	-47	298	12							4	237	-1						
10/12/2018	Fri	17:44:27	-6	265	16	222	17	0	251	-0.4				21	155	-1	9	234	-1.8	22	195	0.6
10/12/2018	Fri	23:39:30	-54	0	-41	284	19							3	237	-1						
10/13/2018	Sat	17:42:46	-6	265	20	210	25	0	250	-0.3				22	155	-1	9	234	-1.8	22	196	0.6
10/13/2018	Sat	23:39:15	-54	0	-33	273	27							3	238	-1						

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
10/14/2018	Sun	17:41:06	-6	264	22	198	34	0	249	-0.3				22	155	-1	8	234	-1.8	21	196	0.6
10/14/2018	Sun	17:41:06			Sat 1.6																	
10/14/2018	Sun	23:39:02	-54	360	-25	264	36							3	238	-1						
10/15/2018	Mon	17:39:27	-6	264	24	185	43	0	248	-0.3				22	155	-1	8	235	-1.8	21	197	0.6
10/15/2018	Mon	23:38:49	-55	0	-17	256	46							3	239	-1						
10/16/2018	Tue	17:37:49	-6	263	24	173	53	0	247	-0.3				22	155	-0.9	8	235	-1.8	21	197	0.6
10/16/2018	Tue	23:38:36	-55	0	-8	249	55							3	239	-0.9						
10/17/2018	Wed	17:36:12	-6	263	24	160	62	0	246	-0.3				22	155	-0.9	8	235	-1.8	21	198	0.6
10/17/2018	Wed	23:38:24	-56	0	1	243	64							3	239	-0.9						
10/17/2018	Wed	23:38:24			Mars 3.5																	
10/18/2018	Thr	17:34:36	-6	262	23	148	71	1	245	-0.3				23	155	-0.9	7	235	-1.8	21	198	0.6
10/18/2018	Thr	23:38:13	-56	360	10	236	73							3	240	-0.9						
10/19/2018	Fri	17:33:01	-6	262	21	136	79	1	244	-0.2				23	155	-0.9	7	236	-1.8	21	199	0.6
10/19/2018	Fri	23:38:02	-56	360	19	229	81							3	240	-0.9						
10/20/2018	Sat	17:31:27	-6	261	18	124	86	1	244	-0.2				23	155	-0.8	7	236	-1.8	21	199	0.6
10/20/2018	Sat	23:37:52	-57	0	28	221	88							2	241	-0.8						
10/21/2018	Sun	17:29:55	-6	261	14	112	92	1	243	-0.2				23	155	-0.8	7	236	-1.8	21	200	0.6
10/21/2018	Sun	23:37:42	-57	0	36	212	94							2	241	-0.8						
10/22/2018	Mon	17:28:23	-6	260	9	101	97	1	242	-0.2				24	155	-0.8	6	236	-1.8	21	200	0.6
10/22/2018	Mon	23:37:33	-57	0	44	200	98							2	242	-0.8						
10/23/2018	Tue	17:26:53	-6	260	4	89	99	1	241	-0.2				24	155	-0.8	6	237	-1.7	20	201	0.6
10/23/2018	Tue	23:37:25	-58	0	50	185	100							2	242	-0.8						
10/24/2018	Wed	17:25:24	-6	259	0	78	100	1	240	-0.2				24	155	-0.8	6	237	-1.7	20	201	0.6
10/24/2018	Wed	23:37:18	-58	360	54	165	99							2	243	-0.8						
10/25/2018	Thr	17:23:56	-6	259	-6	66	98	1	239	-0.2				24	155	-0.7	6	237	-1.7	20	202	0.6
10/25/2018	Thr	17:23:56						Jup 4.6														
10/25/2018	Thr	23:37:11	-58	360	54	143	97							2	243	-0.7						
10/26/2018	Fri	17:22:29	-6	258	-12	54	94	2	238	-0.2				24	155	-0.7	5	237	-1.7	20	202	0.6
10/26/2018	Fri	17:22:29						Jup 3.8														
10/26/2018	Fri	23:37:05	-59	360	50	123	92							2	243	-0.7						
10/27/2018	Sat	17:21:04	-6	258	-17	41	87	2	238	-0.2				25	155	-0.7	5	238	-1.7	20	203	0.6
10/27/2018	Sat	17:21:04						Jup 3.3														
10/27/2018	Sat	23:37:00	-59	360	43	106	85							2	244	-0.7						
10/28/2018	Sun	17:19:40	-6	257	-21	28	79	2	237	-0.2				25	155	-0.7	5	238	-1.7	20	203	0.6
10/28/2018	Sun	17:19:40						Jup 3.0														
10/28/2018	Sun	23:36:55	-59	0	34	94	76							2	244	-0.7						
10/29/2018	Mon	17:18:18	-6	257	-24	14	69	2	236	-0.2				25	155	-0.7	4	238	-1.7	20	204	0.6
10/29/2018	Mon	17:18:18						Jup 3.1														
10/29/2018	Mon	23:36:51	-60	0	24	84	66							1	245	-0.6						
10/30/2018	Tue	5:56:06	-6	103	63	215	63				-2	111	-4.3									
10/30/2018	Tue	17:16:57	-6	256	-27	360	58	2	236	-0.2				25	155	-0.6	4	238	-1.7	19	204	0.6
10/30/2018	Tue	17:16:57						Jup 3.6														
10/30/2018	Tue	23:36:48	-60	360	13	76	55							1	245	-0.6						
10/31/2018	Wed	5:57:21	-6	104	65	185	52				-1	112	-4.2									
10/31/2018	Wed	17:15:37	-6	256	-27	344	47	2	235	-0.2				26	155	-0.6	4	239	-1.7	19	205	0.6
10/31/2018	Wed	17:15:37						Jup 4.2														
10/31/2018	Wed	23:36:46	-60	0	2	69	44							1	246	-0.6						
11/1/2018	Thr	5:58:36	-6	104	60	158	41				1	113	-4.2									
11/1/2018	Thr	17:14:19	-6	256	-27	329	35	2	234	-0.2				26	155	-0.6	4	239	-1.7	19	205	0.6
11/1/2018	Thr	17:14:19						Jup 4.9														
11/1/2018	Thr	23:36:45	-61	0	-9	62	32							1	246	-0.6						
11/2/2018	Fri	5:59:51	-6	105	52	140	30				2	114	-4.2									
11/2/2018	Fri	17:13:03	-6	255	-25	315	25	2	234	-0.3				26	155	-0.6	3	239	-1.7	19	206	0.6
11/2/2018	Fri	23:36:45	-61	0	-20	55	22							1	247	-0.6						
11/3/2018	Sat	6:01:06	-6	105	42	128	20				3	115	-4.2									
11/3/2018	Sat	17:11:48	-6	255	-21	301	16	3	233	-0.3				26	155	-0.5	3	240	-1.7	19	206	0.6
11/3/2018	Sat	23:36:45	-61	360	-31	46	14							1	247	-0.5						
11/4/2018	Sun	6:02:22	-6	106	30	120	12				5	116	-4.3									
11/4/2018	Sun	17:10:35	-6	254	-17	287	9	3	233	-0.3				27	155	-0.5	3	240	-1.7	18	207	0.6
11/4/2018	Sun	23:36:46	-62	0	-41	36	7							1	248	-0.5						
11/5/2018	Mon	6:03:37	-6	106	19	114	6				6	116	-4.4									
11/5/2018	Mon	17:09:24	-6	254	-12	275	3	3	232	-0.3				27	155	-0.5	2	240	-1.7	18	208	0.6
11/5/2018	Mon	23:36:48	-62	0	-50	23	2							1	248	-0.5						
11/6/2018	Tue	6:04:52	-6	106	8	108	2				7	117	-4.4									
11/6/2018	Tue	17:08:14	-6	253	-7	263	1	3	232	-0.3				27	155	-0.5	2	241	-1.7	18	208	0.6

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
11/6/2018	Tue	23:36:51	-62	360	-56	6	0							1	248	-0.5						
11/7/2018	Wed	6:06:07	-6	107	-3	103	0				8	118	-4.4									
11/7/2018	Wed	17:07:06	-6	253	0	252	0	3	231	-0.3				27	155	-0.5	2	241	-1.7	18	209	0.6
11/7/2018	Wed	23:36:55	-62	0	-60	343	1							0	249	-0.5						
11/8/2018	Thr	6:07:22	-6	107	-15	98	1				10	119	-4.5									
11/8/2018	Thr	17:06:00	-6	253	5	241	2	3	231	-0.2				28	155	-0.4	1	241	-1.7	18	209	0.6
11/8/2018	Thr	17:06:00			Jup 3.3																	
11/8/2018	Thr	23:36:59	-63	0	-59	320	3							0	249	-0.4						
11/9/2018	Fri	6:08:37	-6	108	-25	92	4				11	120	-4.5									
11/9/2018	Fri	17:04:55	-6	252	10	230	6	3	231	-0.2				28	155	-0.4	1	241	-1.7	17	210	0.6
11/9/2018	Fri	23:37:05	-63	360	-54	301	7							0	250	-0.4						
11/10/2018	Sat	6:09:52	-6	108	-35	86	9				12	121	-4.6									
11/10/2018	Sat	17:03:52	-6	252	15	218	12	3	231	-0.2				28	156	-0.4	1	242	-1.7	17	210	0.6
11/10/2018	Sat	23:37:11	-63	360	-47	287	13							0	250	-0.4						
11/11/2018	Sun	6:11:07	-6	108	-44	78	15				13	122	-4.6									
11/11/2018	Sun	17:02:52	-6	251	19	207	18	3	231	-0.2				29	156	-0.4	0	242	-1.7	17	211	0.6
11/11/2018	Sun	17:02:52			Sat 4.0																	
11/11/2018	Sun	23:37:18	-64	360	-39	277	21							0	251	-0.4						
11/12/2018	Mon	6:12:22	-6	109	-52	67	23				14	123	-4.6									
11/12/2018	Mon	17:01:53	-6	251	23	196	26	3	231	-0.1				29	156	-0.4	0	242	-1.7	17	211	0.6
11/12/2018	Mon	23:37:26	-64	360	-30	269	29							0	251	-0.4						
11/13/2018	Tue	6:13:36	-6	109	-58	52	31				15	124	-4.7									
11/13/2018	Tue	17:00:56	-6	251	25	184	35	3	231	0				29	156	-0.3	0	243	-1.7	17	212	0.6
11/13/2018	Tue	23:37:35	-64	360	-21	262	38							0	252	-0.3						
11/14/2018	Wed	6:14:50	-6	110	-62	32	40				16	125	-4.7									
11/14/2018	Wed	17:00:01	-6	250	27	171	44	3	231	0.1				29	156	-0.3	-1	243	-1.7	16	213	0.6
11/14/2018	Wed	23:37:45	-64	360	-11	257	47							0	252	-0.3						
11/15/2018	Thr	6:16:04	-6	110	-62	10	49				17	125	-4.7									
11/15/2018	Thr	16:59:07	-6	250	28	159	54	2	232	0.2				30	156	-0.3	-1	243	-1.7	16	213	0.6
11/15/2018	Thr	16:59:07			Mars 2.9																	
11/15/2018	Thr	23:37:55	-65	360	-1	252	56							0	253	-0.3						
11/15/2018	Thr	23:37:55			Mars 1.4																	
11/16/2018	Fri	6:17:17	-6	110	-59	349	59				18	126	-4.8									
11/16/2018	Fri	16:58:16	-6	250	28	146	63	2	232	0.3				30	156	-0.3	-1	244	-1.7	16	214	0.6
11/16/2018	Fri	23:38:06	-65	360	8	247	66							-1	253	-0.3						
11/17/2018	Sat	6:18:30	-6	111	-53	334	68				19	127	-4.8									
11/17/2018	Sat	16:57:27	-6	249	26	133	72	2	233	0.6				30	156	-0.3	-2	244	-1.7	16	214	0.6
11/17/2018	Sat	23:38:18	-65	0	18	241	75							-1	254	-0.3						
11/18/2018	Sun	6:19:43	-6	111	-45	322	77				20	128	-4.8									
11/18/2018	Sun	16:56:40	-6	249	24	120	80	2	234	0.8				31	156	-0.3	-2	244	-1.7	15	215	0.6
11/18/2018	Sun	23:38:31	-65	360	28	235	83							-1	254	-0.2						
11/19/2018	Mon	6:20:55	-6	111	-36	313	85				20	129	-4.8									
11/19/2018	Mon	16:55:55	-6	249	20	108	88	1	235	1.1				31	157	-0.2	-2	245	-1.7	15	215	0.6
11/19/2018	Mon	23:38:45	-66	0	38	227	90							-1	255	-0.2						
11/20/2018	Tue	6:22:06	-6	112	-26	306	91				21	130	-4.8									
11/20/2018	Tue	16:55:13	-6	248	15	96	94	1	236	1.5				31	157	-0.2				15	216	0.6
11/20/2018	Tue	23:38:59	-66	360	48	216	95							-1	255	-0.2						
11/21/2018	Wed	6:23:17	-6	112	-16	299	96				22	131	-4.8									
11/21/2018	Wed	16:54:32	-6	248	9	84	98	0	238	2				32	157	-0.2				14	217	0.6
11/21/2018	Wed	23:39:15	-66	360	56	200	99							-1	256	-0.2						
11/22/2018	Thr	6:24:28	-6	112	-5	293	99				22	131	-4.8									
11/22/2018	Thr	16:53:54	-6	248	3	73	100	-1	239	2.6				32	157	-0.2				14	217	0.6
11/22/2018	Thr	23:39:31	-66	360	62	177	100							-1	256	-0.2						
11/23/2018	Fri	6:25:38	-6	112	7	287	100				23	132	-4.8									
11/23/2018	Fri	16:53:17	-6	247	-3	61	99	-2	241	3.3				32	157	-0.2				14	218	0.6
11/23/2018	Fri	23:39:47	-66	0	62	148	98							-2	257	-0.2						
11/24/2018	Sat	6:26:47	-6	113	18	280	98				24	133	-4.9									
11/24/2018	Sat	16:52:43	-6	247	-10	49	96	-2	242	4.2				33	157	-0.1				13	218	0.6
11/24/2018	Sat	16:52:43						Jup 4.8														
11/24/2018	Sat	23:40:05	-67	360	56	124	95							-2	257	-0.1						
11/25/2018	Sun	6:27:55	-6	113	29	272	93				24	134	-4.9									
11/25/2018	Sun	16:52:12	-6	247	-17	37	90							33	158	-0.1				13	219	0.6
11/25/2018	Sun	23:40:23	-67	0	47	108	88							-2	258	-0.1						
11/26/2018	Mon	6:29:03	-6	113	39	261	86				25	135	-4.9									
11/26/2018	Mon	16:51:42	-6	247	-22	24	82							33	158	-0.1				13	220	0.6

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
11/26/2018	Mon	23:40:43	-67	360	36	97	80							-2	258	-0.1						
11/27/2018	Tue	6:30:10	-6	114	48	247	77				25	135	-4.9									
11/27/2018	Tue	16:51:15	-6	246	-27	10	72							34	158	-0.1				12	220	0.6
11/27/2018	Tue	23:41:03	-67	360	24	89	69							-2	259	-0.1						
11/28/2018	Wed	6:31:16	-6	114	54	228	66	-3	114	5.2	25	136	-4.9									
11/28/2018	Wed	6:31:16						Jup 1.5														
11/28/2018	Wed	16:50:50	-6	246	-31	355	62							34	158	-0.1				12	221	0.6
11/28/2018	Wed	23:41:23	-67	360	13	82	58							-2	259	-0.1						
11/29/2018	Thr	6:32:21	-6	114	57	205	55	-1	116	4.2	26	137	-4.9									
11/29/2018	Thr	6:32:21						Jup 3.0														
11/29/2018	Thr	16:50:28	-6	246	-33	340	50							34	159	-0.1				12	222	0.6
11/29/2018	Thr	23:41:44	-68	0	1	77	47							-3	260	0						
11/30/2018	Fri	6:33:25	-6	114	55	182	44	1	117	3.3	26	138	-4.9				-3	116	-1.7			
11/30/2018	Fri	6:33:25						Jup 4.0														
11/30/2018	Fri	16:50:08	-6	246	-33	325	39							35	159	0				11	222	0.6
11/30/2018	Fri	23:42:06	-68	360	-11	72	36							-3	261	0						
12/1/2018	Sat	6:34:28	-6	115	49	164	33	3	118	2.6	26	138	-4.9				-2	117	-1.7			
12/1/2018	Sat	16:49:50	-6	245	-31	310	29							35	159	0				11	223	0.6
12/1/2018	Sat	23:42:29	-68	0	-23	66	26							-3	261	0						
12/2/2018	Sun	6:35:31	-6	115	41	150	23	4	120	1.9	27	139	-4.9				-1	117	-1.7			
12/2/2018	Sun	16:49:35	-6	245	-28	295	19							35	160	0				11	223	0.6
12/3/2018	Mon	6:36:32	-6	115	31	140	15	6	121	1.4	27	140	-4.9				-1	118	-1.7			
12/3/2018	Mon	6:36:32			Ven 4.4																	
12/3/2018	Mon	16:49:22	-6	245	-24	283	12							36	160	0				10	224	0.6
12/4/2018	Tue	6:37:31	-6	115	22	132	8	7	122	1	27	140	-4.9				0	119	-1.7			
12/4/2018	Tue	16:49:11	-6	245	-19	271	6							36	160	0				10	225	0.6
12/5/2018	Wed	6:38:30	-6	115	12	124	3	8	123	0.6	27	141	-4.9				0	119	-1.7			
12/5/2018	Wed	6:38:30			Mer 4.0																	
12/5/2018	Wed	16:49:03	-6	245	-13	260	2							36	161	0.1				9	225	0.5
12/6/2018	Thr	6:39:27	-6	116	2	118	1	9	124	0.3	27	142	-4.8				1	120	-1.7			
12/6/2018	Thr	6:39:27			Jup 2.8																	
12/6/2018	Thr	16:48:57	-6	244	-6	250	0							37	161	0.1				9	226	0.5
12/7/2018	Fri	6:40:23	-6	116	-7	111	0	10	125	0.1	28	142	-4.8				1	121	-1.7			
12/7/2018	Fri	16:48:54	-6	244	1	240	1							37	161	0.1				9	227	0.5
12/8/2018	Sat	6:41:18	-6	116	-17	104	2	10	126	0	28	143	-4.8				2	122	-1.7			
12/8/2018	Sat	16:48:53	-6	244	7	230	3							37	162	0.1				8	227	0.5
12/8/2018	Sat	16:48:53			Sat 3.3																	
12/9/2018	Sun	6:42:11	-6	116	-25	97	5	11	127	-0.2	28	144	-4.8				3	122	-1.7			
12/9/2018	Sun	16:48:54	-6	244	13	221	7							38	162	0.1				8	228	0.5
12/10/2018	Mon	6:43:02	-6	116	-33	89	10	11	127	-0.3	28	144	-4.8				3	123	-1.7			
12/10/2018	Mon	16:48:58	-6	244	19	211	12							38	162	0.1				7	229	0.5
12/11/2018	Tue	6:43:52	-6	116	-40	78	16	11	128	-0.3	28	145	-4.8				4	124	-1.7			
12/11/2018	Tue	16:49:04	-6	244	24	201	19							38	163	0.2				7	229	0.5
12/12/2018	Wed	6:44:41	-6	116	-46	66	24	11	128	-0.4	28	145	-4.8				4	124	-1.7			
12/12/2018	Wed	16:49:13	-6	244	29	190	27							39	163	0.2				6	230	0.5
12/13/2018	Thr	6:45:27	-6	116	-50	52	32	11	129	-0.4	28	146	-4.8				5	125	-1.7			
12/13/2018	Thr	16:49:24	-6	244	33	178	36							39	164	0.2				6	231	0.5
12/14/2018	Fri	6:46:12	-6	117	-52	35	41	11	129	-0.5	28	146	-4.8				5	126	-1.7			
12/14/2018	Fri	16:49:37	-6	243	35	165	45							40	164	0.2				5	231	0.5
12/14/2018	Fri	16:49:37			Mars 4.2																	
12/15/2018	Sat	6:46:55	-6	117	-52	17	51	11	129	-0.5	28	147	-4.8				6	127	-1.7			
12/15/2018	Sat	16:49:52	-6	243	37	151	55							40	165	0.2				5	232	0.5
12/16/2018	Sun	6:47:37	-6	117	-48	1	61	11	130	-0.5	28	147	-4.8				6	127	-1.7			
12/16/2018	Sun	16:50:10	-6	243	36	137	65							40	165	0.2				4	233	0.5
12/17/2018	Mon	6:48:16	-6	117	-43	347	70	10	130	-0.5	28	148	-4.8				7	128	-1.7			
12/17/2018	Mon	6:48:16						Jup 4.3														
12/17/2018	Mon	16:50:30	-6	243	34	123	74							41	166	0.2				4	233	0.5
12/18/2018	Tue	6:48:54	-6	117	-36	334	79	10	130	-0.5	28	148	-4.8				7	129	-1.7			
12/18/2018	Tue	6:48:54						Jup 3.4														
12/18/2018	Tue	16:50:52	-6	243	30	109	83							41	166	0.3				3	234	0.5
12/19/2018	Wed	6:49:29	-6	117	-28	324	87	10	130	-0.5	28	148	-4.7				8	129	-1.8			
12/19/2018	Wed	6:49:29						Jup 2.5														
12/19/2018	Wed	16:51:17	-6	243	25	96	90							41	167	0.3				3	235	0.5
12/20/2018	Thr	6:50:03	-6	117	-18	314	94	10	130	-0.5	28	149	-4.7				8	130	-1.8			
12/20/2018	Thr	6:50:03						Jup 1.6														

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
12/20/2018	Thr	16:51:44	-6	243	18	84	96							42	168	0.3				2	236	0.5
12/21/2018	Fri	6:50:34	-6	117	-9	306	98	9	130	-0.5	28	149	-4.7				8	131	-1.8			
12/21/2018	Fri	6:50:34						Jup 0.9														
12/21/2018	Fri	16:52:12	-6	243	10	73	99							42	168	0.3				2	236	0.5
12/22/2018	Sat	6:51:04	-6	117	2	297	100	9	130	-0.4	27	149	-4.7				9	131	-1.8			
12/22/2018	Sat	6:51:04						Jup 1.2														
12/22/2018	Sat	16:52:43	-6	243	2	62	100							42	169	0.3				1	237	0.5
12/23/2018	Sun	6:51:31	-6	117	12	287	99	8	130	-0.4	27	150	-4.7				9	132	-1.8			
12/23/2018	Sun	6:51:31						Jup 2.1														
12/23/2018	Sun	16:53:16	-6	243	-8	51	98							43	169	0.3				1	238	0.5
12/24/2018	Mon	6:51:56	-6	117	22	277	95	8	130	-0.4	27	150	-4.7				10	133	-1.8			
12/24/2018	Mon	6:51:56						Jup 3.2														
12/24/2018	Mon	16:53:52	-6	243	-17	41	93							43	170	0.4				0	238	0.5
12/25/2018	Tue	6:52:19	-6	117	31	265	89	8	130	-0.4	27	150	-4.7				10	133	-1.8			
12/25/2018	Tue	6:52:19						Jup 4.3														
12/25/2018	Tue	16:54:29	-6	243	-25	29	85							43	171	0.4				-1	239	0.5
12/26/2018	Wed	6:52:40	-6	117	38	251	80	7	130	-0.4	27	151	-4.7				11	134	-1.8			
12/26/2018	Wed	16:55:08	-6	243	-32	16	76							44	172	0.4				-1	240	0.5
12/27/2018	Thr	6:52:59	-6	117	44	234	70	7	130	-0.4	27	151	-4.7				11	135	-1.8			
12/27/2018	Thr	16:55:49	-6	243	-38	2	66							44	172	0.4				-2	240	0.5
12/28/2018	Fri	6:53:15	-6	117	46	215	59	6	130	-0.4	27	151	-4.7				11	136	-1.8			
12/28/2018	Fri	16:56:32	-6	243	-42	346	55							45	173	0.4				-3	241	0.5
12/29/2018	Sat	6:53:30	-6	117	45	197	48	6	129	-0.4	26	151	-4.6				12	136	-1.8			
12/29/2018	Sat	16:57:17	-6	244	-44	329	44							45	174	0.4						
12/30/2018	Sun	6:53:42	-6	116	41	180	37	5	129	-0.4	26	151	-4.6				12	137	-1.8			
12/30/2018	Sun	16:58:04	-6	244	-43	312	33							45	175	0.4						
12/31/2018	Mon	6:53:51	-6	116	35	166	27	5	129	-0.4	26	151	-4.6				13	138	-1.8			
12/31/2018	Mon	16:58:53	-6	244	-40	297	24							46	175	0.5						
1/1/2019	Tue	6:53:59	-6	116	28	155	19	4	129	-0.4	26	152	-4.6				13	138	-1.8			
1/1/2019	Tue	6:53:59			Ven 3.8																	
1/1/2019	Tue	16:59:43	-6	244	-35	284	15							46	176	0.5						
1/2/2019	Wed	6:54:04	-6	116	21	144	11	4	128	-0.4	26	152	-4.6				13	139	-1.8			
1/2/2019	Wed	17:00:35	-6	244	-29	272	9							46	177	0.5						
1/3/2019	Thr	6:54:07	-6	116	13	135	6	3	128	-0.4	25	152	-4.6				14	140	-1.8			
1/3/2019	Thr	6:54:07			Jup 4.0																	
1/3/2019	Thr	17:01:28	-6	244	-22	262	4							46	178	0.5						
1/4/2019	Fri	6:54:07	-6	116	5	127	2	3	128	-0.4	25	152	-4.6				14	140	-1.8			
1/4/2019	Fri	6:54:07			Mer 2.4																	
1/4/2019	Fri	17:02:24	-6	244	-15	254	1							47	179	0.5						
1/5/2019	Sat	6:54:06	-6	116	-2	119	0	3	127	-0.5	25	152	-4.6				14	141	-1.8			
1/5/2019	Sat	6:54:06			Sat 2.1																	
1/5/2019	Sat	17:03:20	-6	244	-7	246	0							47	180	0.5						
1/6/2019	Sun	6:54:01	-6	115	-10	111	0	2	127	-0.5	25	152	-4.6				15	141	-1.8			
1/6/2019	Sun	17:04:19	-6	245	1	238	1							47	180	0.5						
1/7/2019	Mon	6:53:55	-6	115	-17	102	2	2	126	-0.5	24	152	-4.6				15	142	-1.8	-2	119	0.5
1/7/2019	Mon	17:05:18	-6	245	9	231	3							48	181	0.6						
1/8/2019	Tue	6:53:46	-6	115	-24	93	6	1	126	-0.5	24	152	-4.5				15	143	-1.8	-2	119	0.5
1/8/2019	Tue	17:06:19	-6	245	17	223	8							48	182	0.6						
1/9/2019	Wed	6:53:35	-6	115	-30	83	11	1	125	-0.5	24	152	-4.5				15	143	-1.8	-1	120	0.5
1/9/2019	Wed	17:07:21	-6	245	24	215	13							48	183	0.6						
1/10/2019	Thr	6:53:21	-6	115	-35	71	17	1	125	-0.5	24	152	-4.5				16	144	-1.8	-1	120	0.5
1/10/2019	Thr	6:53:21						Sat 4.5														
1/10/2019	Thr	17:08:25	-6	245	32	206	20							48	184	0.6						
1/11/2019	Fri	6:53:05	-6	114	-39	58	25	0	124	-0.6	23	152	-4.5				16	145	-1.8	0	121	0.5
1/11/2019	Fri	6:53:05						Sat 3.2														
1/11/2019	Fri	17:09:29	-6	246	38	196	29							49	185	0.6						
1/12/2019	Sat	6:52:47	-6	114	-41	44	34	0	124	-0.6	23	152	-4.5				16	145	-1.8	0	122	0.5
1/12/2019	Sat	6:52:47						Sat 2.2														
1/12/2019	Sat	17:10:35	-6	246	44	183	38							49	186	0.6						
1/13/2019	Sun	6:52:26	-6	114	-41	29	43	-1	123	-0.6	23	151	-4.5				16	146	-1.8	1	122	0.5
1/13/2019	Sun	6:52:26						Sat 1.6														
1/13/2019	Sun	17:11:42	-6	246	48	168	47							49	187	0.6						
1/14/2019	Mon	6:52:03	-6	114	-40	14	53	-1	122	-0.7	23	151	-4.5				17	146	-1.8	1	123	0.5
1/14/2019	Mon	6:52:03						Sat 2.2														
1/14/2019	Mon	17:12:49	-6	246	49	151	57							49	188	0.7						

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
1/15/2019	Tue	6:51:38	-6	114	-37	360	63	-2	122	-0.7	22	151	-4.5				17	147	-1.8	1	123	0.5
1/15/2019	Tue	6:51:38						Sat 3.3														
1/15/2019	Tue	17:13:58	-6	247	48	132	68							50	189	0.7						
1/16/2019	Wed	6:51:10	-6	113	-32	346	73	-2	121	-0.7	22	151	-4.5				17	148	-1.8	2	124	0.5
1/16/2019	Wed	6:51:10						Sat 4.6														
1/16/2019	Wed	17:15:08	-6	247	44	115	77							50	190	0.7						
1/17/2019	Thr	6:50:40	-6	113	-25	334	82	-3	120	-0.8	22	151	-4.5				17	148	-1.8	2	124	0.5
1/17/2019	Thr	17:16:18	-6	247	37	101	86							50	192	0.7						
1/18/2019	Fri	6:50:08	-6	113	-17	322	90				22	151	-4.4				18	149	-1.8	3	125	0.5
1/18/2019	Fri	6:50:08									Jup 4.4											
1/18/2019	Fri	17:17:29	-6	247	29	89	93							50	193	0.7						
1/19/2019	Sat	6:49:34	-6	112	-9	311	96				21	151	-4.4				18	149	-1.8	3	125	0.5
1/19/2019	Sat	6:49:34									Jup 3.7											
1/19/2019	Sat	17:18:41	-6	248	19	79	98							50	194	0.7						
1/20/2019	Sun	6:48:57	-6	112	0	299	99				21	150	-4.4				18	150	-1.8	3	126	0.5
1/20/2019	Sun	6:48:57									Jup 3.0											
1/20/2019	Sun	17:19:54	-6	248	8	70	100							50	195	0.7						
1/21/2019	Mon	6:48:19	-6	112	9	288	100				21	150	-4.4				18	150	-1.8	4	126	0.5
1/21/2019	Mon	6:48:19									Jup 2.6											
1/21/2019	Mon	17:21:08	-6	248	-3	61	99							51	196	0.8						
1/22/2019	Tue	6:47:38	-6	111	17	276	97				21	150	-4.4				18	151	-1.8	4	127	0.5
1/22/2019	Tue	6:47:38									Jup 2.4											
1/22/2019	Tue	17:22:22	-6	249	-15	53	95							51	197	0.8						
1/23/2019	Wed	6:46:55	-6	111	24	262	92				20	150	-4.4				19	152	-1.8	5	127	0.5
1/23/2019	Wed	6:46:55									Jup 2.6											
1/23/2019	Wed	17:23:36	-6	249	-26	44	89							51	198	0.8						
1/24/2019	Thr	6:46:10	-6	111	30	248	84				20	149	-4.4				19	152	-1.8	5	128	0.5
1/24/2019	Thr	6:46:10									Jup 3.0											
1/24/2019	Thr	17:24:51	-6	249	-36	34	80							51	199	0.8						
1/25/2019	Fri	6:45:22	-6	110	34	232	75				20	149	-4.4				19	153	-1.9	5	128	0.6
1/25/2019	Fri	6:45:22									Jup 3.6											
1/25/2019	Fri	17:26:07	-6	250	-45	21	70							51	200	0.8						
1/26/2019	Sat	6:44:33	-6	110	36	216	64				20	149	-4.4				19	153	-1.9	6	129	0.6
1/26/2019	Sat	6:44:33									Jup 4.4											
1/26/2019	Sat	17:27:23	-6	250	-51	6	59							51	202	0.8						
1/27/2019	Sun	6:43:42	-6	110	35	200	53				19	148	-4.4				19	154	-1.9	6	129	0.6
1/27/2019	Sun	17:28:40	-6	250	-56	346	49							51	203	0.8						
1/28/2019	Mon	6:42:49	-6	109	33	185	43				19	148	-4.3				20	154	-1.9	6	130	0.6
1/28/2019	Mon	17:29:56	-6	251	-56	326	38							51	204	0.8						
1/29/2019	Tue	6:41:54	-6	109	29	172	33				19	148	-4.3				20	155	-1.9	7	130	0.6
1/29/2019	Tue	17:31:14	-6	251	-53	307	29							51	205	0.9						
1/30/2019	Wed	6:40:57	-6	109	24	159	24				18	147	-4.3				20	155	-1.9	7	131	0.6
1/30/2019	Wed	17:32:31	-6	252	-48	291	20							51	206	0.9						
1/31/2019	Thr	6:39:58	-6	108	18	148	16				18	147	-4.3				20	156	-1.9	8	131	0.6
1/31/2019	Thr	6:39:58			Ven 1.5																	
1/31/2019	Thr	17:33:49	-6	252	-41	280	13							51	207	0.9						
2/1/2019	Fri	6:38:57	-6	108	12	138	10				18	146	-4.3				20	156	-1.9	8	131	0.6
2/1/2019	Fri	17:35:07	-6	252	-33	270	7							51	209	0.9						
2/2/2019	Sat	6:37:54	-6	107	6	129	5				18	146	-4.3				20	157	-1.9	8	132	0.6
2/2/2019	Sat	6:37:54			Sat 3.7																	
2/2/2019	Sat	17:36:25	-6	253	-25	263	3							51	210	0.9						
2/3/2019	Sun	6:36:50	-6	107	0	120	2				17	146	-4.3				20	157	-1.9	9	132	0.6
2/3/2019	Sun	17:37:44	-6	253	-16	257	1							51	211	0.9						
2/4/2019	Mon	6:35:44	-6	107	-7	110	0				17	145	-4.3				21	158	-1.9	9	133	0.6
2/4/2019	Mon	17:39:02	-6	254	-7	251	0	-3	250	-1.4				51	212	0.9						
2/5/2019	Tue	6:34:36	-6	106	-13	101	0				17	145	-4.3				21	158	-1.9	9	133	0.6
2/5/2019	Tue	17:40:21	-6	254	3	246	1	-2	250	-1.4				51	213	0.9						
2/6/2019	Wed	6:33:26	-6	106	-18	91	3				17	144	-4.3				21	159	-1.9	9	134	0.6
2/6/2019	Wed	17:41:40	-6	254	12	241	4	-1	250	-1.4				51	214	0.9						
2/7/2019	Thr	6:32:15	-6	105	-23	80	6				16	144	-4.3				21	159	-1.9	10	134	0.6
2/7/2019	Thr	17:42:59	-6	255	21	235	9	0	250	-1.3				51	216	1						
2/8/2019	Fri	6:31:02	-6	105	-28	68	12				16	143	-4.3				21	160	-1.9	10	135	0.6
2/8/2019	Fri	17:44:18	-6	255	31	229	15	0	251	-1.3				51	217	1						
2/9/2019	Sat	6:29:48	-6	104	-31	56	19				16	143	-4.2				21	160	-1.9	10	135	0.6
2/9/2019	Sat	17:45:36	-6	256	40	221	22	1	251	-1.3				51	218	1						

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
2/10/2019	Sun	6:28:32	-6	104	-33	43	27				16	142	-4.2				21	161	-1.9	11	135	0.6
2/10/2019	Sun	17:46:55	-6	256	48	211	31	2	251	-1.2				51	219	1						
2/11/2019	Mon	6:27:14	-6	103	-34	29	36				15	142	-4.2				21	161	-1.9	11	136	0.6
2/11/2019	Mon	17:48:14	-6	257	55	196	41	2	251	-1.2				51	220	1						
2/12/2019	Tue	6:25:55	-6	103	-33	14	46				15	141	-4.2				21	162	-1.9	11	136	0.6
2/12/2019	Tue	17:49:33	-6	257	60	176	51	3	252	-1.2				51	221	1						
2/13/2019	Wed	6:24:34	-6	103	-30	0	57				15	141	-4.2				22	162	-1.9	11	137	0.6
2/13/2019	Wed	17:50:51	-6	258	61	151	62	4	252	-1.2				51	222	1						
2/14/2019	Thr	6:23:12	-6	102	-26	346	67				15	140	-4.2				22	163	-1.9	12	137	0.6
2/14/2019	Thr	6:23:12									Sat 4.3											
2/14/2019	Thr	17:52:10	-6	258	57	128	72	5	252	-1.1				51	223	1						
2/15/2019	Fri	6:21:49	-6	102	-21	333	77				14	140	-4.2				22	163	-2	12	138	0.6
2/15/2019	Fri	6:21:49									Sat 3.3											
2/15/2019	Fri	17:53:28	-6	259	49	110	82	5	253	-1.1				51	224	1						
2/16/2019	Sat	6:20:24	-6	101	-15	320	86				14	139	-4.2				22	164	-2	12	138	0.6
2/16/2019	Sat	6:20:24									Sat 2.3											
2/16/2019	Sat	17:54:46	-6	259	38	98	90	6	253	-1.1				51	226	1.1						
2/17/2019	Sun	6:18:58	-6	101	-8	308	93				14	139	-4.2				22	164	-2	13	138	0.6
2/17/2019	Sun	6:18:58									Sat 1.5											
2/17/2019	Sun	17:56:04	-6	260	27	89	96	7	253	-1.1				50	227	1.1						
2/18/2019	Mon	6:17:31	-6	100	0	295	98				14	138	-4.2				22	165	-2	13	139	0.6
2/18/2019	Mon	6:17:31									Sat 1.1											
2/18/2019	Mon	17:57:22	-6	260	14	82	99	8	254	-1.1				50	228	1.1						
2/19/2019	Tue	6:16:02	-6	100	7	282	100				14	138	-4.2				22	165	-2	13	139	0.6
2/19/2019	Tue	6:16:02									Sat 1.6											
2/19/2019	Tue	17:58:40	-6	261	2	75	100	8	254	-1				50	229	1.1						
2/20/2019	Wed	6:14:32	-6	99	14	269	99				13	137	-4.2				22	166	-2	13	140	0.6
2/20/2019	Wed	6:14:32									Sat 2.4											
2/20/2019	Wed	17:59:58	-6	261	-11	69	97	9	255	-1				50	230	1.1						
2/21/2019	Thr	6:13:01	-6	99	20	255	95				13	137	-4.2				22	166	-2	14	140	0.6
2/21/2019	Thr	6:13:01									Sat 3.4											
2/21/2019	Thr	18:01:16	-6	262	-23	63	92	10	255	-0.9				50	231	1.1						
2/22/2019	Fri	6:11:29	-6	98	25	241	88				13	136	-4.1				22	166	-2	14	140	0.6
2/22/2019	Fri	6:11:29									Sat 4.5											
2/22/2019	Fri	18:02:33	-6	262	-35	56	84	10	256	-0.9				50	232	1.1						
2/23/2019	Sat	6:09:56	-6	98	28	226	80				13	135	-4.1				22	167	-2	14	141	0.6
2/23/2019	Sat	18:03:51	-6	263	-46	47	75	10	257	-0.8				49	233	1.1						
2/24/2019	Sun	6:08:21	-6	97	29	211	70				12	135	-4.1				22	167	-2	14	141	0.6
2/24/2019	Sun	18:05:08	-6	263	-55	35	65	11	257	-0.7				49	234	1.1						
2/25/2019	Mon	6:06:46	-6	97	29	196	60				12	134	-4.1				22	168	-2	14	142	0.6
2/25/2019	Mon	18:06:25	-6	264	-62	16	55	11	258	-0.6				49	235	1.2						
2/26/2019	Tue	6:05:10	-6	96	27	182	49				12	134	-4.1				23	168	-2	15	142	0.6
2/26/2019	Tue	18:07:42	-6	264	-65	352	44	11	259	-0.5				49	236	1.2						
2/27/2019	Wed	6:03:32	-6	96	24	169	39				12	133	-4.1				23	169	-2	15	142	0.6
2/27/2019	Wed	6:03:32			Jup 1.6																	
2/27/2019	Wed	18:08:59	-6	265	-64	326	35	11	260	-0.4				49	237	1.2						
2/28/2019	Thr	6:01:54	-6	95	20	157	30				12	132	-4.1				23	169	-2	15	143	0.6
2/28/2019	Thr	18:10:16	-6	265	-59	306	26	11	261	-0.2				48	238	1.2						
3/1/2019	Fri	6:00:15	-6	95	16	146	22				11	132	-4.1				23	170	-2	15	143	0.6
3/1/2019	Fri	6:00:15			Sat 2.4																	
3/1/2019	Fri	18:11:32	-6	266	-51	293	18	11	261	0				48	239	1.2						
3/2/2019	Sat	5:58:35	-6	94	11	135	15				11	131	-4.1				23	170	-2	16	144	0.6
3/2/2019	Sat	5:58:35			Ven 4.0																	
3/2/2019	Sat	18:12:49	-6	266	-43	284	11	11	262	0.3				48	240	1.2						
3/3/2019	Sun	5:56:54	-6	93	6	125	9				11	130	-4.1				23	170	-2	16	144	0.6
3/3/2019	Sun	18:14:05	-6	267	-34	277	6	10	263	0.5				48	240	1.2						
3/4/2019	Mon	5:55:13	-6	93	1	115	4				11	130	-4.1				23	171	-2.1	16	144	0.6
3/4/2019	Mon	18:15:22	-6	267	-24	271	2	9	264	0.9				47	241	1.2						
3/5/2019	Tue	5:53:30	-6	92	-5	105	1				11	129	-4.1				23	171	-2.1	16	145	0.6
3/5/2019	Tue	18:16:38	-6	268	-15	267	0	8	266	1.2				47	242	1.2						
3/6/2019	Wed	5:51:47	-6	92	-10	95	0				10	128	-4.1				23	172	-2.1	16	145	0.6
3/6/2019	Wed	18:17:54	-6	268	-5	263	0	8	267	1.6				47	243	1.2						
3/7/2019	Thr	5:50:03	-6	91	-15	84	1				10	128	-4.1				23	172	-2.1	17	146	0.6
3/7/2019	Thr	18:19:10	-6	269	6	259	2	6	268	2.1				47	244	1.2						
3/8/2019	Fri	5:48:19	-6	91	-19	73	3				10	127	-4.1				23	173	-2.1	17	146	0.6

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
3/8/2019	Fri	18:20:26	-6	270	16	255	5	5	269	2.5				46	245	1.3						
3/9/2019	Sat	5:46:33	-6	90	-23	61	8				10	126	-4				23	173	-2.1	17	147	0.6
3/9/2019	Sat	18:21:42	-6	270	26	250	11	4	270	3.1				46	246	1.3						
3/10/2019	Sun	5:44:48	-6	90	-26	49	14				10	126	-4				23	174	-2.1	17	147	0.6
3/10/2019	Sun	18:22:57	-6	271	36	245	18	2	271	3.6				46	247	1.3						
3/11/2019	Mon	5:43:01	-6	89	-28	35	21				9	125	-4				23	174	-2.1	17	147	0.6
3/11/2019	Mon	18:24:13	-6	271	46	237	26	1	273	4.2				46	247	1.3						
3/12/2019	Tue	5:41:14	-6	89	-28	22	30				9	124	-4				23	174	-2.1	18	148	0.6
3/12/2019	Tue	18:25:28	-6	272	56	225	36	-1	274	4.8				45	248	1.3						
3/13/2019	Wed	5:39:27	-6	88	-28	7	40				9	124	-4				23	175	-2.1	18	148	0.6
3/13/2019	Wed	18:26:44	-6	272	63	206	46	-3	275	5.3				45	249	1.3						
3/14/2019	Thr	5:37:39	-6	87	-26	353	51	-3	85	5.5	9	123	-4				23	175	-2.1	18	149	0.6
3/14/2019	Thr	18:27:59	-6	273	67	177	57							45	250	1.3						
3/15/2019	Fri	5:35:50	-6	87	-22	339	62	-2	86	5.6	9	122	-4				23	176	-2.1	18	149	0.6
3/15/2019	Fri	18:29:15	-6	273	64	146	68							45	251	1.3						
3/16/2019	Sat	5:34:01	-6	86	-18	326	73	-1	88	5.3	9	122	-4				23	176	-2.1	18	149	0.6
3/16/2019	Sat	18:30:30	-6	274	56	125	78							44	251	1.3						
3/17/2019	Sun	5:32:12	-6	86	-13	312	82	-1	89	4.8	8	121	-4				23	177	-2.1	18	150	0.6
3/17/2019	Sun	18:31:45	-6	274	45	112	87							44	252	1.3						
3/18/2019	Mon	5:30:22	-6	85	-7	299	91	0	90	4.4	8	120	-4				23	177	-2.1	19	150	0.6
3/18/2019	Mon	18:33:00	-6	275	33	103	94							44	253	1.3						
3/19/2019	Tue	5:28:32	-6	85	0	286	96	0	92	3.9	8	119	-4				23	178	-2.2	19	151	0.6
3/19/2019	Tue	18:34:15	-6	276	20	97	98							43	254	1.4						
3/20/2019	Wed	5:26:42	-6	84	6	273	99	1	93	3.4	8	119	-4				23	178	-2.2	19	151	0.6
3/20/2019	Wed	18:35:30	-6	276	7	92	100							43	254	1.4						
3/21/2019	Thr	5:24:51	-6	84	12	260	100	1	94	3	8	118	-4				23	178	-2.2	19	151	0.6
3/21/2019	Thr	18:36:46	-6	277	-6	87	98							43	255	1.4						
3/22/2019	Fri	5:23:00	-6	83	17	246	97	1	95	2.7	8	117	-4				23	179	-2.2	19	152	0.6
3/22/2019	Fri	18:38:01	-6	277	-18	82	94							42	256	1.4						
3/23/2019	Sat	5:21:09	-6	82	21	232	92	2	96	2.4	7	117	-4				23	179	-2.2	19	152	0.6
3/23/2019	Sat	18:39:16	-6	278	-30	77	88							42	256	1.4						
3/24/2019	Sun	5:19:18	-6	82	24	217	84	2	97	2.1	7	116	-4				23	180	-2.2	20	153	0.6
3/24/2019	Sun	18:40:31	-6	278	-41	70	80							42	257	1.4						
3/25/2019	Mon	5:17:26	-6	81	25	203	76	2	98	1.8	7	115	-4				23	180	-2.2	20	153	0.6
3/25/2019	Mon	18:41:47	-6	279	-51	61	71							41	258	1.4						
3/26/2019	Tue	5:15:35	-6	81	25	189	66	2	98	1.6	7	114	-4				23	181	-2.2	20	153	0.6
3/26/2019	Tue	18:43:02	-6	279	-60	47	61							41	258	1.4						
3/27/2019	Wed	5:13:43	-6	80	24	176	57	3	99	1.4	7	114	-4				23	181	-2.2	20	154	0.6
3/27/2019	Wed	18:44:18	-6	280	-66	27	51							41	259	1.4						
3/28/2019	Thr	5:11:51	-6	80	21	163	47	3	99	1.3	7	113	-4				23	182	-2.2	20	154	0.6
3/28/2019	Thr	18:45:34	-6	281	-68	359	41							40	260	1.4						
3/29/2019	Fri	5:10:00	-6	79	18	151	37	3	100	1.1	7	112	-3.9				23	182	-2.2	20	155	0.6
3/29/2019	Fri	5:10:00			Sat 3.9																	
3/29/2019	Fri	18:46:50	-6	281	-65	334	32							40	260	1.4						
3/30/2019	Sat	5:08:08	-6	79	15	140	29	3	100	1	6	111	-3.9				23	183	-2.2	20	155	0.6
3/30/2019	Sat	18:48:06	-6	282	-59	316	24							40	261	1.4						
3/31/2019	Sun	5:06:16	-6	78	11	129	20	3	100	0.9	6	111	-3.9				23	183	-2.2	21	156	0.6
3/31/2019	Sun	18:49:22	-6	282	-51	304	16							39	262	1.4						
4/1/2019	Mon	5:04:25	-6	78	6	118	13	3	101	0.8	6	110	-3.9				23	184	-2.2	21	156	0.6
4/1/2019	Mon	18:50:38	-6	283	-42	296	10							39	262	1.5						
4/2/2019	Tue	5:02:33	-6	77	2	108	8	3	101	0.7	6	109	-3.9				23	184	-2.3	21	157	0.6
4/2/2019	Tue	5:02:33			Ven 4.3																	
4/2/2019	Tue	18:51:54	-6	283	-32	290	5							39	263	1.5						
4/3/2019	Wed	5:00:42	-6	76	-3	97	3	3	101	0.6	6	109	-3.9				23	185	-2.3	21	157	0.6
4/3/2019	Wed	18:53:11	-6	284	-22	285	2							38	263	1.5						
4/3/2019	Wed	23:56:20	-40	0	-49	14	1										-2	119	-2.3			
4/4/2019	Thr	4:58:50	-6	76	-8	87	1	3	101	0.6	6	108	-3.9				23	185	-2.3	21	157	0.6
4/4/2019	Thr	18:54:27	-6	284	-12	281	0							38	264	1.5						
4/4/2019	Thr	23:56:03	-40	0	-45	358	0										-2	120	-2.3			
4/5/2019	Fri	4:56:59	-6	75	-12	76	0	3	100	0.5	6	107	-3.9				23	186	-2.3	21	158	0.6
4/5/2019	Fri	18:55:44	-6	285	-1	277	1							38	265	1.5						
4/5/2019	Fri	23:55:46	-40	0	-40	345	1										-1	121	-2.3			
4/6/2019	Sat	4:55:09	-6	75	-16	64	1	3	100	0.5	6	106	-3.9				23	186	-2.3	21	158	0.6
4/6/2019	Sat	18:57:01	-6	286	9	273	3							37	265	1.5						
4/6/2019	Sat	23:55:29	-39	360	-33	333	4										-1	121	-2.3			

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
4/7/2019	Sun	4:53:18	-6	74	-20	52	5	3	100	0.4	5	106	-3.9				23	187	-2.3	22	159	0.6
4/7/2019	Sun	18:58:18	-6	286	20	269	8							37	266	1.5						
4/7/2019	Sun	23:55:12	-39	0	-25	323	9										0	122	-2.3			
4/8/2019	Mon	4:51:28	-6	74	-23	39	10	3	100	0.4	5	105	-3.9				23	187	-2.3	22	159	0.6
4/8/2019	Mon	18:59:36	-6	287	31	263	14							37	266	1.5						
4/8/2019	Mon	23:54:56	-38	360	-16	314	15										0	122	-2.3			
4/9/2019	Tue	4:49:38	-6	73	-25	26	17	3	99	0.3	5	104	-3.9				23	188	-2.3	22	160	0.6
4/9/2019	Tue	19:00:53	-6	287	41	256	22							36	267	1.5						
4/9/2019	Tue	23:54:40	-38	0	-7	306	24										1	123	-2.3			
4/10/2019	Wed	4:47:48	-6	73	-25	12	26	3	99	0.3	5	103	-3.9				23	188	-2.3	22	160	0.6
4/10/2019	Wed	19:02:11	-6	288	51	246	32							36	267	1.5						
4/10/2019	Wed	23:54:24	-38	0	3	297	34										1	124	-2.3			
4/11/2019	Thr	4:45:59	-6	72	-25	358	36	3	98	0.3	5	103	-3.9				23	189	-2.3	22	161	0.6
4/11/2019	Thr	4:45:59						Ven 4.8														
4/11/2019	Thr	19:03:28	-6	288	60	229	42							36	268	1.5						
4/11/2019	Thr	23:54:08	-37	0	12	288	44										2	124	-2.3			
4/12/2019	Fri	4:44:10	-6	72	-23	343	47	3	98	0.2	5	102	-3.9				23	189	-2.3	22	161	0.6
4/12/2019	Fri	4:44:10						Ven 4.6														
4/12/2019	Fri	19:04:46	-6	289	65	203	53							35	269	1.5						
4/12/2019	Fri	23:53:52	-37	0	21	279	56										2	125	-2.3			
4/13/2019	Sat	4:42:22	-6	71	-20	329	58	2	97	0.2	5	101	-3.9				23	190	-2.3	22	162	0.5
4/13/2019	Sat	4:42:22						Ven 4.4														
4/13/2019	Sat	19:06:04	-6	289	64	172	65							35	269	1.5						
4/13/2019	Sat	23:53:37	-37	360	29	267	67										3	126	-2.3			
4/14/2019	Sun	4:40:34	-6	70	-16	315	69	2	97	0.2	5	100	-3.9				23	190	-2.3	22	162	0.5
4/14/2019	Sun	4:40:34						Ven 4.3														
4/14/2019	Sun	19:07:22	-6	290	58	148	75							34	270	1.5						
4/14/2019	Sun	23:53:23	-36	360	37	253	77										3	126	-2.3			
4/15/2019	Mon	4:38:46	-6	70	-12	302	79	2	96	0.1	5	100	-3.9				23	191	-2.3	23	163	0.5
4/15/2019	Mon	4:38:46						Ven 4.2														
4/15/2019	Mon	19:08:40	-6	290	48	133	85							34	270	1.5						
4/15/2019	Mon	23:53:08	-36	0	42	237	86										4	127	-2.4			
4/16/2019	Tue	4:36:59	-6	69	-6	289	88	2	95	0.1	5	99	-3.9				22	191	-2.4	23	163	0.5
4/16/2019	Tue	4:36:59						Ven 4.2														
4/16/2019	Tue	19:09:59	-6	291	36	123	92							34	271	1.6						
4/16/2019	Tue	23:52:54	-36	360	44	218	93										4	128	-2.4			
4/17/2019	Wed	4:35:13	-6	69	0	276	94	2	95	0.1	4	98	-3.9				22	192	-2.4	23	164	0.5
4/17/2019	Wed	4:35:13						Ven 4.2														
4/17/2019	Wed	19:11:17	-6	291	24	115	97							33	271	1.6						
4/17/2019	Wed	23:52:40	-35	360	44	198	98										5	128	-2.4			
4/18/2019	Thr	4:33:27	-6	68	5	263	98	2	94	0.1	4	97	-3.9				22	193	-2.4	23	164	0.5
4/18/2019	Thr	4:33:27						Ven 4.2														
4/18/2019	Thr	19:12:36	-6	292	12	110	100							33	272	1.6						
4/18/2019	Thr	23:52:27	-35	360	40	181	100										6	129	-2.4			
4/19/2019	Fri	4:31:42	-6	68	10	250	100	2	93	0	4	97	-3.9				22	193	-2.4	23	165	0.5
4/19/2019	Fri	4:31:42						Ven 4.3														
4/19/2019	Fri	19:13:54	-6	292	0	104	99							33	272	1.6						
4/19/2019	Fri	23:52:14	-34	0	33	166	99										6	130	-2.4			
4/20/2019	Sat	4:29:58	-6	67	15	236	98	2	92	0	4	96	-3.9				22	194	-2.4	23	165	0.5
4/20/2019	Sat	4:29:58						Ven 4.4														
4/20/2019	Sat	19:15:13	-6	293	-12	99	96							32	273	1.6						
4/20/2019	Sat	23:52:01	-34	0	26	153	96										7	131	-2.4			
4/21/2019	Sun	4:28:14	-6	67	18	223	95	2	92	0	4	95	-3.9				22	194	-2.4	23	166	0.5
4/21/2019	Sun	4:28:14						Ven 4.5														
4/21/2019	Sun	19:16:32	-6	293	-23	94	91							32	273	1.6						
4/21/2019	Sun	23:51:49	-34	360	18	142	90										7	131	-2.4			
4/22/2019	Mon	4:26:31	-6	66	21	209	89	1	91	0	4	95	-3.9				22	195	-2.4	23	166	0.5
4/22/2019	Mon	4:26:31						Ven 4.7														
4/22/2019	Mon	19:17:51	-6	294	-33	87	85							31	274	1.6						
4/22/2019	Mon	23:51:37	-33	360	10	133	83										8	132	-2.4			
4/22/2019	Mon	23:51:37			Jup 2.3																	
4/23/2019	Tue	4:24:49	-6	66	22	196	82	1	90	-0.1	4	94	-3.9				22	195	-2.4	23	167	0.5
4/23/2019	Tue	4:24:49			Jup 0.9			Ven 4.9														
4/23/2019	Tue	19:19:10	-6	294	-43	79	76							31	274	1.6						
4/23/2019	Tue	23:51:26	-33	360	2	124	75										8	133	-2.4			

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
4/24/2019	Wed	4:23:08	-6	65	23	183	73	1	89	-0.1	4	93	-3.9				22	196	-2.4	23	167	0.5
4/24/2019	Wed	19:20:29	-6	295	-52	69	67							31	274	1.6						
4/24/2019	Wed	23:51:15	-33	360	-6	116	66										9	134	-2.4			
4/25/2019	Thr	4:21:28	-6	65	22	170	64	1	88	-0.1	4	92	-3.9				22	197	-2.4	24	168	0.5
4/25/2019	Thr	4:21:28			Sat 1.9																	
4/25/2019	Thr	19:21:49	-6	295	-58	54	58							30	275	1.6						
4/25/2019	Thr	23:51:05	-32	360	-14	107	56										9	134	-2.4			
4/26/2019	Fri	4:19:49	-6	64	21	157	54	1	87	-0.2	4	92	-3.9				21	197	-2.4	24	169	0.5
4/26/2019	Fri	19:23:08	-6	296	-63	34	49							30	275	1.6						
4/26/2019	Fri	23:50:56	-32	0	-21	98	47										10	135	-2.4			
4/27/2019	Sat	4:18:10	-6	64	19	145	45	1	86	-0.2	4	91	-3.9				21	198	-2.4	24	169	0.5
4/27/2019	Sat	19:24:27	-6	296	-63	11	39							29	276	1.6						
4/27/2019	Sat	23:50:46	-32	360	-27	88	37										10	136	-2.4			
4/28/2019	Sun	4:16:33	-6	63	16	134	36	1	85	-0.2	4	90	-3.8				21	198	-2.4	24	170	0.5
4/28/2019	Sun	19:25:47	-6	297	-60	350	30							29	276	1.6						
4/28/2019	Sun	23:50:38	-32	0	-32	77	29										11	137	-2.4			
4/29/2019	Mon	4:14:57	-6	63	13	123	27	0	84	-0.3	4	90	-3.8				21	199	-2.4	24	170	0.5
4/29/2019	Mon	19:27:06	-6	297	-54	334	22							29	277	1.6						
4/29/2019	Mon	23:50:30	-31	360	-36	65	20										11	137	-2.4			
4/30/2019	Tue	4:13:21	-6	62	9	112	19	0	83	-0.3	4	89	-3.8				21	200	-2.4	24	171	0.5
4/30/2019	Tue	19:28:25	-6	298	-46	322	14							28	277	1.6						
4/30/2019	Tue	23:50:22	-31	0	-39	52	13										12	138	-2.5			
5/1/2019	Wed	4:11:47	-6	62	5	101	12	0	81	-0.4	4	88	-3.8				21	200	-2.5	24	171	0.5
5/1/2019	Wed	19:29:45	-6	298	-38	313	8							28	278	1.6						
5/1/2019	Wed	23:50:15	-31	360	-41	37	7										12	139	-2.5			
5/2/2019	Thr	4:10:14	-6	62	0	90	7	0	80	-0.4	3	87	-3.8				21	201	-2.5	24	172	0.5
5/2/2019	Thr	4:10:14			Ven 4.1																	
5/2/2019	Thr	19:31:04	-6	299	-28	306	4							28	278	1.6						
5/2/2019	Thr	23:50:08	-30	0	-40	22	3										13	140	-2.5	-2	118	0.5
5/3/2019	Fri	4:08:42	-6	61	-5	79	3	0	79	-0.5	3	87	-3.8				20	202	-2.5	24	173	0.5
5/3/2019	Fri	19:32:23	-6	299	-18	300	1							27	279	1.6						
5/3/2019	Fri	23:50:03	-30	0	-38	8	1										13	141	-2.5	-2	118	0.5
5/4/2019	Sat	4:07:12	-6	61	-9	68	0	0	78	-0.5	3	86	-3.8				20	202	-2.5	24	173	0.5
5/4/2019	Sat	19:33:42	-6	300	-8	295	0							27	279	1.7						
5/4/2019	Sat	23:49:57	-30	360	-33	354	0										14	142	-2.5	-1	119	0.4
5/5/2019	Sun	4:05:43	-6	60	-14	56	0	-1	77	-0.6	3	85	-3.8				20	203	-2.5	24	174	0.4
5/5/2019	Sun	19:35:01	-6	300	3	289	2							26	279	1.7						
5/5/2019	Sun	23:49:52	-29	0	-28	341	2										14	143	-2.5	0	120	0.4
5/6/2019	Mon	4:04:15	-6	60	-18	44	3	-1	75	-0.7	3	85	-3.8				20	204	-2.5	24	175	0.4
5/6/2019	Mon	19:36:19	-6	301	13	283	5							26	280	1.7						
5/6/2019	Mon	23:49:48	-29	360	-21	330	6										14	143	-2.5	0	120	0.4
5/7/2019	Tue	4:02:48	-6	59	-21	31	7	-1	74	-0.7	3	84	-3.8				20	204	-2.5	24	175	0.4
5/7/2019	Tue	19:37:37	-6	301	24	276	11							25	280	1.7						
5/7/2019	Tue	19:37:37			Mars 3.7																	
5/7/2019	Tue	23:49:44	-29	0	-14	319	13										15	144	-2.5	1	121	0.4
5/8/2019	Wed	4:01:23	-6	59	-23	17	14	-1	73	-0.8	3	83	-3.8				19	205	-2.5	24	176	0.4
5/8/2019	Wed	19:38:55	-6	301	34	268	19							25	281	1.7						
5/8/2019	Wed	23:49:41	-29	0	-6	308	21										15	145	-2.5	1	122	0.4
5/9/2019	Thr	3:59:59	-6	58	-25	3	22	-2	71	-0.9	3	83	-3.8				19	205	-2.5	24	177	0.4
5/9/2019	Thr	19:40:13	-6	302	44	257	29							25	281	1.7						
5/9/2019	Thr	23:49:39	-28	360	2	298	31										16	146	-2.5	2	122	0.4
5/10/2019	Fri	3:58:37	-6	58	-25	348	32	-2	70	-1	3	82	-3.8				19	206	-2.5	24	177	0.4
5/10/2019	Fri	19:41:30	-6	302	52	242	39							24	281	1.7						
5/10/2019	Fri	23:49:37	-28	360	9	287	41										16	147	-2.5	2	123	0.4
5/11/2019	Sat	3:57:16	-6	58	-24	334	43	-2	69	-1.1	3	81	-3.8				19	207	-2.5	24	178	0.4
5/11/2019	Sat	19:42:47	-6	303	57	221	51							24	282	1.7						
5/11/2019	Sat	23:49:35	-28	360	17	276	53										17	148	-2.5	3	124	0.4
5/12/2019	Sun	3:55:57	-6	57	-21	319	55	-2	67	-1.2	3	81	-3.8				18	208	-2.5	24	179	0.4
5/12/2019	Sun	19:44:03	-6	303	57	197	62							23	282	1.7						
5/12/2019	Sun	23:49:34	-28	360	23	263	64										17	149	-2.5	3	125	0.4
5/13/2019	Mon	3:54:40	-6	57	-18	305	66	-3	66	-1.3	3	80	-3.8				18	208	-2.5	24	179	0.4
5/13/2019	Mon	19:45:18	-6	303	53	174	73							23	283	1.7						
5/13/2019	Mon	23:49:34	-27	0	28	250	75										17	150	-2.5	4	125	0.4
5/14/2019	Tue	3:53:24	-6	56	-14	292	76				3	79	-3.8				18	209	-2.5	24	180	0.4
5/14/2019	Tue	19:46:33	-6	304	46	157	83							23	283	1.7						

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
5/14/2019	Tue	23:49:34	-27	360	32	235	84										18	151	-2.5	5	126	0.4
5/15/2019	Wed	3:52:10	-6	56	-9	279	85				3	79	-3.8				18	210	-2.5	24	181	0.4
5/15/2019	Wed	19:47:48	-6	304	36	145	90							22	283	1.7						
5/15/2019	Wed	23:49:35	-27	360	34	219	91										18	152	-2.5	5	127	0.4
5/16/2019	Thr	3:50:57	-6	56	-3	266	92				3	78	-3.8				17	210	-2.5	24	181	0.4
5/16/2019	Thr	19:49:02	-6	305	26	135	96							22	284	1.7						
5/16/2019	Thr	23:49:36	-27	0	34	203	97										19	153	-2.5	6	127	0.4
5/17/2019	Fri	3:49:46	-6	55	2	254	97				3	77	-3.8				17	211	-2.5	24	182	0.4
5/17/2019	Fri	19:50:15	-6	305	16	127	99							21	284	1.7						
5/17/2019	Fri	23:49:38	-26	0	31	188	99										19	154	-2.5	6	128	0.4
5/18/2019	Sat	3:48:38	-6	55	7	242	100				3	77	-3.8				17	212	-2.5	24	183	0.4
5/18/2019	Sat	19:51:27	-6	305	5	120	100							21	284	1.7						
5/18/2019	Sat	23:49:40	-26	0	28	173	100										19	155	-2.6	7	129	0.4
5/19/2019	Sun	3:47:31	-6	55	12	230	100				3	76	-3.8				16	212	-2.6	24	184	0.4
5/19/2019	Sun	19:52:38	-6	306	-5	114	98							21	285	1.7						
5/19/2019	Sun	23:49:43	-26	0	23	161	98										20	156	-2.6	7	130	0.4
5/20/2019	Mon	3:46:26	-6	54	16	217	97				3	76	-3.8				16	213	-2.6	24	184	0.4
5/20/2019	Mon	3:46:26			Jup 4.0																	
5/20/2019	Mon	19:53:49	-6	306	-15	107	94							20	285	1.7						
5/20/2019	Mon	23:49:46	-26	360	17	149	94										20	157	-2.6	8	131	0.4
5/21/2019	Tue	3:45:23	-6	54	19	205	93				3	75	-3.8				16	214	-2.6	24	185	0.4
5/21/2019	Tue	19:54:58	-6	306	-24	99	89							20	285	1.7						
5/21/2019	Tue	23:49:51	-26	360	11	139	88										20	158	-2.6	9	131	0.3
5/22/2019	Wed	3:44:21	-6	54	22	192	87				3	74	-3.8				16	215	-2.6	24	186	0.3
5/22/2019	Wed	19:56:07	-6	307	-32	91	82							19	286	1.7						
5/22/2019	Wed	23:49:55	-25	360	5	129	80										21	159	-2.6	9	132	0.3
5/23/2019	Thr	3:43:22	-6	53	24	180	79				3	74	-3.8				15	215	-2.6	24	187	0.3
5/23/2019	Thr	19:57:15	-6	307	-40	81	74	-3	305	-2.1				19	286	1.7						
5/23/2019	Thr	23:50:00	-25	360	0	119	72										21	160	-2.6	10	133	0.3
5/24/2019	Fri	3:42:26	-6	53	24	167	71				3	73	-3.8				15	216	-2.6	24	188	0.3
5/24/2019	Fri	19:58:21	-6	307	-46	69	65	-2	305	-1.9				19	286	1.7						
5/24/2019	Fri	23:50:06	-25	0	-6	110	63										21	161	-2.6	10	134	0.3
5/25/2019	Sat	3:41:31	-6	53	24	155	62				3	73	-3.8				14	217	-2.6	24	188	0.3
5/25/2019	Sat	19:59:27	-6	308	-50	55	55	-1	305	-1.8				18	287	1.7						
5/25/2019	Sat	23:50:12	-25	0	-12	100	54										21	162	-2.6	11	135	0.3
5/26/2019	Sun	3:40:38	-6	52	23	143	52				3	72	-3.8				14	218	-2.6	24	189	0.3
5/26/2019	Sun	20:00:31	-6	308	-52	38	46	0	304	-1.7				18	287	1.7						
5/26/2019	Sun	23:50:18	-25	0	-17	90	44										22	163	-2.6	11	136	0.3
5/27/2019	Mon	3:39:48	-6	52	21	131	43				3	72	-3.8				14	218	-2.6	24	190	0.3
5/27/2019	Mon	20:01:34	-6	308	-52	21	37	1	304	-1.5				17	287	1.7						
5/27/2019	Mon	23:50:26	-25	0	-21	79	35										22	165	-2.6	12	136	0.3
5/28/2019	Tue	3:39:00	-6	52	18	119	34				3	71	-3.8				13	219	-2.6	24	191	0.3
5/28/2019	Tue	20:02:36	-6	308	-49	4	28	2	303	-1.4				17	288	1.7	-3	119	-2.6			
5/28/2019	Tue	23:50:33	-24	0	-25	68	26										22	166	-2.6	12	137	0.3
5/29/2019	Wed	3:38:14	-6	52	15	108	25				3	70	-3.8				13	220	-2.6	23	192	0.3
5/29/2019	Wed	20:03:36	-6	309	-44	350	19	3	303	-1.3				17	288	1.8	-2	120	-2.6			
5/29/2019	Wed	23:50:41	-24	0	-28	56	18										22	167	-2.6	13	138	0.3
5/30/2019	Thr	3:37:30	-6	51	11	97	17				3	70	-3.8				12	221	-2.6	23	193	0.3
5/30/2019	Thr	20:04:35	-6	309	-38	338	12	3	302	-1.2				16	288	1.8	-1	120	-2.6			
5/30/2019	Thr	23:50:50	-24	360	-30	43	11										22	168	-2.6	13	139	0.3
5/31/2019	Fri	3:36:49	-6	51	6	86	10				3	69	-3.8				12	221	-2.6	23	193	0.3
5/31/2019	Fri	20:05:33	-6	309	-30	327	6	4	302	-1.1				16	289	1.8	0	121	-2.6			
5/31/2019	Fri	23:50:59	-24	0	-30	29	5										23	169	-2.6	14	140	0.3
6/1/2019	Sat	3:36:10	-6	51	1	75	5				3	69	-3.8				12	222	-2.6	23	194	0.3
6/1/2019	Sat	20:06:28	-6	309	-21	318	2	5	301	-1				15	289	1.8	1	122	-2.6			
6/1/2019	Sat	23:51:08	-24	360	-30	15	2										23	170	-2.6	14	141	0.3
6/2/2019	Sun	3:35:33	-6	51	-4	63	1				3	68	-3.8				11	223	-2.6	23	195	0.3
6/2/2019	Sun	20:07:23	-6	310	-12	310	0	5	301	-0.9				15	289	1.8	1	123	-2.6			
6/2/2019	Sun	23:51:18	-24	360	-28	1	0										23	171	-2.6	15	142	0.3
6/3/2019	Mon	3:34:59	-6	50	-10	52	0				3	68	-3.8				11	224	-2.6	23	196	0.3
6/3/2019	Mon	20:08:15	-6	310	-2	302	1	6	300	-0.9				15	289	1.8	2	124	-2.6			
6/3/2019	Mon	23:51:28	-24	360	-25	348	1										23	172	-2.6	15	143	0.3
6/4/2019	Tue	3:34:28	-6	50	-15	39	1				3	67	-3.8				10	225	-2.6	23	197	0.3
6/4/2019	Tue	20:09:06	-6	310	7	293	4	7	299	-0.8				14	290	1.8	3	125	-2.6			
6/4/2019	Tue	23:51:38	-23	0	-20	334	4										23	174	-2.6	16	144	0.3

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
6/5/2019	Wed	3:33:58	-6	50	-20	27	5				3	67	-3.8				10	225	-2.6	22	198	0.3
6/5/2019	Wed	20:09:55	-6	310	17	284	9	7	299	-0.7				14	290	1.8	4	126	-2.6			
6/5/2019	Wed	23:51:49	-23	0	-15	322	10										23	175	-2.6	16	144	0.3
6/6/2019	Thr	3:33:32	-6	50	-24	13	11				3	66	-3.8				9	226	-2.6	22	199	0.3
6/6/2019	Thr	20:10:42	-6	310	26	273	17	8	298	-0.6				14	290	1.8	4	127	-2.6			
6/6/2019	Thr	23:52:00	-23	360	-10	309	18										23	176	-2.6	17	145	0.2
6/7/2019	Fri	3:33:08	-6	50	-27	358	20				3	66	-3.8				9	227	-2.6	22	200	0.2
6/7/2019	Fri	20:11:27	-6	310	34	261	27	8	298	-0.6				13	290	1.8	5	128	-2.6			
6/7/2019	Fri	23:52:11	-23	360	-3	297	28										23	177	-2.6	17	146	0.2
6/8/2019	Sat	3:32:46	-6	50	-29	343	30				3	66	-3.8				8	228	-2.6	22	201	0.2
6/8/2019	Sat	20:12:10	-6	311	40	246	37	8	297	-0.5				13	291	1.8	6	129	-2.6			
6/8/2019	Sat	23:52:23	-23	360	2	285	39										23	178	-2.6	17	147	0.2
6/9/2019	Sun	3:32:27	-6	49	-29	328	41				3	65	-3.8				8	229	-2.6	21	201	0.2
6/9/2019	Sun	20:12:51	-6	311	44	229	49	9	297	-0.4				13	291	1.8	6	130	-2.6			
6/9/2019	Sun	23:52:35	-23	360	8	273	51										23	180	-2.6	18	148	0.2
6/10/2019	Mon	3:32:10	-6	49	-27	313	52				3	65	-3.8				7	229	-2.6	21	202	0.2
6/10/2019	Mon	20:13:30	-6	311	45	211	60	9	296	-0.4				12	291	1.8	7	131	-2.6			
6/10/2019	Mon	23:52:47	-23	360	13	261	62										23	181	-2.6	18	149	0.2
6/11/2019	Tue	3:31:56	-6	49	-25	299	64				3	64	-3.8				6	230	-2.6	21	203	0.2
6/11/2019	Tue	20:14:07	-6	311	43	192	71	9	296	-0.3				12	291	1.8	8	132	-2.6			
6/11/2019	Tue	20:14:07						Mars 5.0														
6/11/2019	Tue	23:52:59	-23	0	17	248	72										23	182	-2.6	19	150	0.2
6/12/2019	Wed	3:31:44	-6	49	-21	286	74				3	64	-3.8				6	231	-2.6	20	204	0.2
6/12/2019	Wed	20:14:41	-6	311	39	176	81	10	295	-0.2				11	292	1.8	8	133	-2.6			
6/12/2019	Wed	20:14:41						Mars 4.1														
6/12/2019	Wed	23:53:11	-23	0	21	235	82										23	183	-2.6	19	151	0.2
6/13/2019	Thr	3:31:35	-6	49	-16	273	83				3	63	-3.8				5	232	-2.6	20	205	0.2
6/13/2019	Thr	20:15:13	-6	311	32	163	88	10	295	-0.2				11	292	1.8	9	134	-2.6			
6/13/2019	Thr	20:15:13						Mars 3.3														
6/13/2019	Thr	23:53:24	-23	0	23	221	90										23	184	-2.6	19	152	0.2
6/14/2019	Fri	3:31:29	-6	49	-10	261	91				2	63	-3.8				5	233	-2.6	20	206	0.2
6/14/2019	Fri	20:15:43	-6	311	25	151	94	10	294	-0.1				11	292	1.8	10	135	-2.6			
6/14/2019	Fri	20:15:43						Mars 2.5														
6/14/2019	Fri	23:53:36	-23	360	25	208	95										23	185	-2.6	20	153	0.2
6/15/2019	Sat	3:31:25	-6	49	-4	250	96				2	63	-3.8				4	233	-2.6	20	207	0.2
6/15/2019	Sat	20:16:11	-6	311	17	141	98	10	294	-0.1				10	292	1.8	10	136	-2.6			
6/15/2019	Sat	20:16:11						Mars 1.7														
6/15/2019	Sat	23:53:49	-23	0	25	194	99										23	187	-2.6	20	154	0.2
6/16/2019	Sun	3:31:23	-6	49	2	239	99				2	62	-3.8				3	234	-2.6	19	208	0.2
6/16/2019	Sun	20:16:36	-6	311	9	132	100	10	293	0				10	292	1.8	11	137	-2.6			
6/16/2019	Sun	20:16:36						Mars 1.1														
6/16/2019	Sun	23:54:02	-23	360	24	181	100										23	188	-2.6	20	155	0.2
6/17/2019	Mon	3:31:25	-6	49	7	229	100				2	62	-3.8				3	235	-2.6	19	209	0.2
6/17/2019	Mon	20:16:59	-6	311	1	123	99	10	293	0.1				10	293	1.8	12	138	-2.6			
6/17/2019	Mon	20:16:59						Mars 0.4														
6/17/2019	Mon	23:54:15	-23	360	22	168	99										23	189	-2.6	21	156	0.2
6/18/2019	Tue	3:31:28	-6	49	13	218	99				2	62	-3.8				2	236	-2.6	18	210	0.2
6/18/2019	Tue	20:17:20	-6	311	-7	115	97	10	293	0.1				9	293	1.8	12	139	-2.6			
6/18/2019	Tue	20:17:20						Mars 0.3														
6/18/2019	Tue	23:54:28	-23	360	19	156	96										23	190	-2.6	21	158	0.2
6/18/2019	Tue	23:54:28			Sat 2.2																	
6/19/2019	Wed	3:31:34	-6	49	18	207	96				2	61	-3.8				2	237	-2.6	18	211	0.2
6/19/2019	Wed	3:31:34			Sat 3.4																	
6/19/2019	Wed	20:17:38	-6	311	-15	106	92	10	292	0.2				9	293	1.8	13	140	-2.6			
6/19/2019	Wed	20:17:38						Mars 0.8														
6/19/2019	Wed	23:54:41	-23	0	16	144	92										23	191	-2.6	21	159	0.2
6/20/2019	Thr	3:31:43	-6	49	23	196	91				2	61	-3.8				1	237	-2.6	18	212	0.2
6/20/2019	Thr	20:17:53	-6	311	-22	97	86	10	292	0.3				9	293	1.8	13	141	-2.6			
6/20/2019	Thr	20:17:53						Mars 1.3														
6/20/2019	Thr	23:54:54	-22	360	12	134	85										23	192	-2.6	22	160	0.2
6/21/2019	Fri	3:31:54	-6	49	27	185	84				2	61	-3.8				0	238	-2.6	17	213	0.2
6/21/2019	Fri	20:18:06	-6	311	-28	87	79	9	292	0.3				9	293	1.8	14	142	-2.6			
6/21/2019	Fri	20:18:06						Mars 1.8														
6/21/2019	Fri	23:55:07	-22	0	9	123	78										22	194	-2.6	22	161	0.1
6/22/2019	Sat	3:32:08	-6	49	30	173	77				2	60	-3.8				0	239	-2.6	17	214	0.1

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
6/22/2019	Sat	20:18:17	-6	311	-33	76	71	9	291	0.4				8	293	1.8	14	142	-2.6			
6/22/2019	Sat	20:18:17						Mars 2.2														
6/22/2019	Sat	23:55:20	-23	360	5	113	70										22	195	-2.6	22	162	0.1
6/23/2019	Sun	3:32:24	-6	49	31	160	68				2	60	-3.8				-1	240	-2.6	16	215	0.1
6/23/2019	Sun	20:18:25	-6	311	-37	64	62	9	291	0.4				8	294	1.8	15	143	-2.6	-2	118	0.1
6/23/2019	Sun	20:18:25						Mars 2.6														
6/23/2019	Sun	23:55:33	-23	0	1	103	61										22	196	-2.6	22	163	0.1
6/24/2019	Mon	3:32:43	-6	49	32	147	59				2	60	-3.8				-2	241	-2.6	16	216	0.1
6/24/2019	Mon	20:18:30	-6	311	-39	50	53	9	291	0.5				8	294	1.8	15	144	-2.6	-1	119	0.1
6/24/2019	Mon	20:18:30						Mars 2.9														
6/24/2019	Mon	23:55:46	-23	0	-3	93	51										22	197	-2.6	22	164	0.1
6/25/2019	Tue	3:33:04	-6	49	31	134	50				2	60	-3.8				-3	242	-2.6	15	217	0.1
6/25/2019	Tue	20:18:33	-6	311	-40	36	43	8	291	0.6				7	294	1.8	16	145	-2.6	-1	120	0.1
6/25/2019	Tue	20:18:33						Mars 3.2														
6/25/2019	Tue	23:55:58	-23	360	-8	82	42										22	198	-2.6	23	165	0.1
6/26/2019	Wed	3:33:27	-6	49	29	121	40				2	59	-3.8							15	218	0.1
6/26/2019	Wed	20:18:33	-6	311	-40	21	34	8	291	0.7				7	294	1.8	16	146	-2.6	0	120	0.1
6/26/2019	Wed	20:18:33						Mars 3.4														
6/26/2019	Wed	23:56:11	-23	0	-12	71	32										21	199	-2.6	23	166	0.1
6/27/2019	Thr	3:33:53	-6	49	26	109	31				2	59	-3.8							14	219	0.1
6/27/2019	Thr	20:18:31	-6	311	-37	7	24	7	291	0.7				7	294	1.8	17	147	-2.6	0	121	0.1
6/27/2019	Thr	20:18:31						Mars 3.6														
6/27/2019	Thr	23:56:23	-23	0	-15	60	23										21	200	-2.6	23	167	0.1
6/28/2019	Fri	3:34:21	-6	49	22	97	22				2	59	-3.8							14	220	0.1
6/28/2019	Fri	20:18:26	-6	311	-33	353	16	7	290	0.8				6	294	1.8	17	148	-2.6	1	122	0.1
6/28/2019	Fri	20:18:26						Mars 3.7														
6/28/2019	Fri	23:56:36	-23	0	-19	48	15										21	202	-2.6	23	168	0.1
6/29/2019	Sat	3:34:51	-6	49	16	86	14				2	59	-3.9							13	221	0.1
6/29/2019	Sat	20:18:19	-6	311	-27	341	9	6	290	0.9				6	294	1.8	18	149	-2.6	1	123	0.1
6/29/2019	Sat	20:18:19						Mars 3.8														
6/29/2019	Sat	23:56:48	-23	360	-21	35	8										20	203	-2.6	23	169	0.1
6/30/2019	Sun	3:35:23	-6	49	10	75	7				2	59	-3.9							13	222	0.1
6/30/2019	Sun	20:18:08	-6	311	-21	329	4	6	291	1				6	294	1.8	18	150	-2.6	2	123	0.1
6/30/2019	Sun	20:18:08						Mars 3.8														
6/30/2019	Sun	23:56:59	-23	360	-23	22	3										20	204	-2.6	23	171	0.1
7/1/2019	Mon	3:35:57	-6	49	3	64	2				2	58	-3.9							12	223	0.1
7/1/2019	Mon	20:17:55	-6	311	-13	318	1	5	291	1.1				6	294	1.8	18	151	-2.6	3	124	0.1
7/1/2019	Mon	20:17:55						Mars 3.9														
7/1/2019	Mon	23:57:10	-23	0	-24	8	0										20	205	-2.6	24	172	0.1
7/2/2019	Tue	3:36:33	-6	49	-5	54	0				2	58	-3.9							11	224	0.1
7/2/2019	Tue	20:17:40	-6	311	-5	307	0	5	291	1.3				5	295	1.8	19	152	-2.6	3	125	0.1
7/2/2019	Tue	20:17:40						Mars 3.8														
7/2/2019	Tue	23:57:22	-23	360	-24	353	0										19	206	-2.6	24	173	0.1
7/3/2019	Wed	3:37:12	-6	49	-13	43	1				2	58	-3.9							11	225	0.1
7/3/2019	Wed	20:17:22	-6	311	3	296	2	4	291	1.4				5	295	1.8	19	153	-2.6	4	126	0.1
7/3/2019	Wed	20:17:22			Mars 2.1			Mars 3.8														
7/3/2019	Wed	23:57:33	-23	0	-23	338	3										19	207	-2.6	24	174	0.1
7/4/2019	Thr	3:37:53	-6	49	-20	31	4				2	58	-3.9							10	226	0.1
7/4/2019	Thr	20:17:01	-6	310	11	284	8	3	291	1.5				5	295	1.8	19	154	-2.6	4	126	0.1
7/4/2019	Thr	20:17:01						Mars 3.8														
7/4/2019	Thr	23:57:43	-23	360	-20	324	9										19	208	-2.6	24	175	0.1
7/5/2019	Fri	3:38:35	-6	50	-27	18	10				1	58	-3.9							9	227	0.1
7/5/2019	Fri	20:16:38	-6	310	19	272	15	3	292	1.7				5	295	1.8	20	155	-2.6	5	127	0.1
7/5/2019	Fri	20:16:38						Mars 3.7														
7/5/2019	Fri	23:57:54	-23	360	-17	310	16										18	209	-2.6	24	176	0.1
7/6/2019	Sat	3:39:20	-6	50	-33	4	18				1	58	-3.9							9	227	0.1
7/6/2019	Sat	20:16:13	-6	310	25	259	25	2	292	1.8				4	295	1.8	20	156	-2.6	5	128	0.1
7/6/2019	Sat	20:16:13						Mars 3.7														
7/6/2019	Sat	23:58:04	-23	360	-13	296	26										18	210	-2.6	24	177	0.1
7/7/2019	Sun	3:40:06	-6	50	-37	349	28				1	57	-3.9							8	228	0.1
7/7/2019	Sun	20:15:45	-6	310	30	244	35	1	292	2				4	295	1.8	20	157	-2.5	6	128	0.1
7/7/2019	Sun	20:15:45						Mars 3.8														
7/7/2019	Sun	23:58:13	-23	360	-8	284	37										18	211	-2.5	24	178	0.1
7/8/2019	Mon	3:40:54	-6	50	-39	332	39				1	57	-3.9							7	229	0.1
7/8/2019	Mon	20:15:14	-6	310	33	229	46	1	293	2.2				4	295	1.8	21	158	-2.5	6	129	0.1

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
7/8/2019	Mon	20:15:14						Mars 3.9														
7/8/2019	Mon	23:58:23	-24	360	-3	271	48										17	212	-2.5	24	180	0.1
7/9/2019	Tue	3:41:44	-6	50	-39	316	50				1	57	-3.9							7	230	0.1
7/9/2019	Tue	20:14:41	-6	310	34	213	58	0	293	2.4				4	295	1.8	21	158	-2.5	7	130	0.1
7/9/2019	Tue	20:14:41						Mars 4.1														
7/9/2019	Tue	23:58:31	-24	360	2	259	59										17	213	-2.5	24	181	0.1
7/10/2019	Wed	3:42:35	-6	51	-37	300	61				1	57	-3.9							6	231	0.1
7/10/2019	Wed	20:14:05	-6	309	33	198	68	-1	294	2.6				4	295	1.8	21	159	-2.5	7	130	0.1
7/10/2019	Wed	20:14:05						Mars 4.6														
7/10/2019	Wed	23:58:40	-24	0	6	247	70										16	214	-2.5	24	182	0.1
7/11/2019	Thr	3:43:28	-6	51	-33	286	71				1	57	-3.9							5	232	0.1
7/11/2019	Thr	20:13:27	-6	309	31	183	78	-2	295	2.9				3	295	1.8	21	160	-2.5	8	131	0.1
7/11/2019	Thr	23:58:47	-24	360	10	236	79										16	215	-2.5	24	183	0.1
7/12/2019	Fri	3:44:23	-6	51	-27	273	81				1	57	-3.9							5	233	0.1
7/12/2019	Fri	20:12:46	-6	309	26	170	86	-3	296	3.2				3	295	1.8	21	161	-2.5	8	132	0.1
7/12/2019	Fri	23:58:55	-24	0	14	224	87										15	216	-2.5	24	184	0.1
7/13/2019	Sat	3:45:19	-6	51	-21	262	88				1	57	-3.9							4	234	0.1
7/13/2019	Sat	20:12:03	-6	309	21	157	92							3	295	1.8	22	162	-2.5	9	133	0.1
7/13/2019	Sat	20:12:03			Jup 4.3																	
7/13/2019	Sat	23:59:02	-24	360	18	212	93										15	217	-2.5	24	185	0.1
7/14/2019	Sun	3:46:16	-6	51	-14	253	94				1	57	-3.9							3	235	0.1
7/14/2019	Sun	20:11:18	-6	308	16	146	97							3	295	1.8	22	163	-2.5	9	133	0.1
7/14/2019	Sun	23:59:08	-24	360	20	200	97										14	218	-2.5	24	186	0.1
7/15/2019	Mon	3:47:15	-6	52	-6	244	98				1	57	-3.9							2	236	0.1
7/15/2019	Mon	20:10:31	-6	308	10	136	99							2	295	1.8	22	164	-2.5	10	134	0.1
7/15/2019	Mon	20:10:31			Sat 1.9																	
7/15/2019	Mon	23:59:14	-25	0	22	187	100										14	219	-2.5	24	187	0.1
7/15/2019	Mon	23:59:14			Sat 1.1																	
7/16/2019	Tue	3:48:15	-6	52	2	235	100				0	57	-3.9							2	237	0.1
7/16/2019	Tue	3:48:15			Sat 1.5																	
7/16/2019	Tue	20:09:41	-6	308	4	126	100							2	295	1.8	22	164	-2.5	10	135	0.1
7/16/2019	Tue	23:59:19	-25	360	24	175	100										13	220	-2.5	23	188	0.1
7/17/2019	Wed	3:49:16	-6	52	9	227	100				0	57	-3.9							1	238	0.1
7/17/2019	Wed	20:08:49	-6	308	-2	116	99							2	295	1.8	22	165	-2.5	10	135	0.1
7/17/2019	Wed	23:59:24	-25	360	24	163	98										13	221	-2.5	23	189	0.1
7/18/2019	Thr	3:50:19	-6	53	16	219	98				0	57	-3.9							0	239	0.1
7/18/2019	Thr	20:07:54	-6	307	-9	107	95							2	295	1.8	23	166	-2.5	11	136	0.1
7/18/2019	Thr	23:59:29	-25	360	23	151	95										12	221	-2.5	23	191	0.1
7/19/2019	Fri	3:51:22	-6	53	24	210	94				0	57	-3.9							-1	240	0.1
7/19/2019	Fri	20:06:58	-6	307	-14	97	91							2	295	1.8	23	167	-2.5	11	137	0.1
7/19/2019	Fri	23:59:32	-25	360	22	139	90										12	222	-2.5	23	192	0.1
7/20/2019	Sat	3:52:27	-6	53	30	200	89				0	57	-3.9							-1	241	0.1
7/20/2019	Sat	20:05:59	-6	307	-19	86	84							2	295	1.8	23	168	-2.5	12	137	0.1
7/20/2019	Sat	23:59:36	-25	0	20	127	83										11	223	-2.5	23	193	0.1
7/21/2019	Sun	3:53:32	-6	53	36	190	82				0	57	-3.9							-2	241	0.1
7/21/2019	Sun	20:04:59	-6	306	-24	75	77							1	295	1.8	23	169	-2.5	12	138	0.1
7/21/2019	Sun	23:59:38	-26	0	17	116	76										11	224	-2.5	23	194	0.1
7/22/2019	Mon	3:54:39	-6	54	41	177	74				0	57	-3.9									
7/22/2019	Mon	20:03:56	-6	306	-27	64	68							1	294	1.8	23	169	-2.5	12	139	0.1
7/22/2019	Mon	23:59:40	-26	0	13	105	67										10	225	-2.5	22	195	0.1
7/23/2019	Tue	3:55:46	-6	54	44	163	65				-1	57	-3.9									
7/23/2019	Tue	20:02:51	-6	306	-30	51	59							1	294	1.8	23	170	-2.5	13	139	0.1
7/23/2019	Tue	23:59:42	-26	360	9	95	58										10	226	-2.5	22	196	0.1
7/24/2019	Wed	3:56:55	-6	54	45	148	56				-1	57	-3.9									
7/24/2019	Wed	20:01:45	-6	305	-31	38	49							1	294	1.8	23	171	-2.5	13	140	0.1
7/24/2019	Wed	23:59:43	-26	360	5	84	48										9	226	-2.5	22	197	0.1
7/25/2019	Thr	3:58:04	-6	55	45	132	46				-1	58	-3.9									
7/25/2019	Thr	20:00:36	-6	305	-32	24	39							1	294	1.8	23	172	-2.5	13	140	0.1
7/25/2019	Thr	23:59:43	-26	0	1	73	38										9	227	-2.5	22	198	0.1
7/26/2019	Fri	3:59:14	-6	55	42	117	36	-2	64	4	-1	58	-3.9									
7/26/2019	Fri	19:59:26	-6	305	-30	10	30							1	294	1.8	23	172	-2.4	14	141	0.1
7/26/2019	Fri	23:59:43	-27	0	-5	63	28										8	228	-2.4	21	199	0.1
7/27/2019	Sat	4:00:24	-6	55	36	103	26	-1	65	3.6	-1	58	-3.9									
7/27/2019	Sat	19:58:14	-6	304	-28	356	20							0	294	1.8	24	173	-2.4	14	142	0.1
7/27/2019	Sat	23:59:42	-27	0	-10	51	19										8	229	-2.4	21	200	0.1

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
7/28/2019	Sun	4:01:36	-6	56	29	91	17	0	66	3.2	-1	58	-3.9									
7/28/2019	Sun	19:57:00	-6	304	-24	343	12							0	294	1.8	24	174	-2.4	14	142	0.1
7/28/2019	Sun	23:59:41	-27	360	-15	39	11										7	230	-2.4	21	201	0.2
7/29/2019	Mon	4:02:47	-6	56	21	80	10	1	67	2.9	-2	58	-3.9									
7/29/2019	Mon	19:55:44	-6	304	-18	329	6							0	294	1.8	24	175	-2.4	15	143	0.2
7/29/2019	Mon	23:59:39	-27	0	-20	26	5										7	230	-2.4	21	202	0.2
7/30/2019	Tue	4:04:00	-6	57	11	71	4	2	68	2.5	-2	58	-3.9									
7/30/2019	Tue	19:54:27	-6	303	-12	316	2							0	294	1.8	24	175	-2.4	15	144	0.2
7/30/2019	Tue	23:59:37	-28	360	-24	12	1										6	231	-2.4	20	203	0.2
7/31/2019	Wed	4:05:13	-6	57	1	62	1	3	68	2.2	-2	58	-3.9									
7/31/2019	Wed	4:05:13			Ven 4.6																	
7/31/2019	Wed	19:53:07	-6	303	-6	304	0							0	294	1.8	24	176	-2.4	15	144	0.2
7/31/2019	Wed	23:59:34	-28	360	-27	357	0										5	232	-2.4	20	204	0.2
8/1/2019	Thr	4:06:26	-6	57	-10	53	0	4	69	1.9	-2	59	-3.9									
8/1/2019	Thr	19:51:47	-6	302	2	291	2							0	294	1.8	24	177	-2.4	16	145	0.2
8/1/2019	Thr	19:51:47			Mars 3.2																	
8/1/2019	Thr	23:59:30	-28	0	-29	341	2										5	233	-2.4	20	205	0.2
8/2/2019	Fri	4:07:40	-6	58	-20	44	3	5	70	1.6	-2	59	-3.9									
8/2/2019	Fri	19:50:25	-6	302	8	278	6							-1	293	1.8	24	177	-2.4	16	145	0.2
8/2/2019	Fri	23:59:26	-28	0	-29	325	7										4	233	-2.4	19	206	0.2
8/3/2019	Sat	4:08:54	-6	58	-30	33	8	6	70	1.3	-3	59	-4									
8/3/2019	Sat	19:49:01	-6	302	14	265	13							-1	293	1.8	24	178	-2.4	16	146	0.2
8/3/2019	Sat	23:59:21	-29	0	-27	310	14										4	234	-2.4	19	207	0.2
8/4/2019	Sun	4:10:08	-6	59	-39	21	16	7	71	1.1												
8/4/2019	Sun	19:47:35	-6	301	20	251	22							-1	293	1.8	24	179	-2.4	16	147	0.2
8/4/2019	Sun	23:59:15	-29	0	-24	295	24										3	235	-2.4	19	208	0.2
8/5/2019	Mon	4:11:23	-6	59	-47	6	26	7	71	0.8												
8/5/2019	Mon	19:46:09	-6	301	24	237	32							-1	293	1.8	24	179	-2.4	17	147	0.2
8/5/2019	Mon	23:59:09	-29	360	-19	281	34										3	236	-2.4	18	209	0.2
8/6/2019	Tue	4:12:37	-6	59	-52	348	36	8	71	0.6												
8/6/2019	Tue	19:44:40	-6	300	26	222	43							-1	293	1.8	24	180	-2.4	17	148	0.2
8/6/2019	Tue	23:59:02	-29	360	-14	269	45										2	236	-2.4	18	210	0.2
8/7/2019	Wed	4:13:52	-6	60	-53	327	47	8	72	0.4												
8/7/2019	Wed	19:43:11	-6	300	27	208	54							-1	293	1.8	24	181	-2.4	17	149	0.2
8/7/2019	Wed	23:58:55	-30	360	-9	257	56										2	237	-2.4	18	210	0.2
8/8/2019	Thr	4:15:08	-6	60	-51	308	58	9	72	0.2												
8/8/2019	Thr	19:41:40	-6	299	27	193	65							-1	293	1.8	24	181	-2.4	17	149	0.2
8/8/2019	Thr	23:58:46	-30	0	-2	247	67										1	238	-2.4	17	211	0.2
8/9/2019	Fri	4:16:23	-6	61	-46	291	68	9	72	0.1												
8/9/2019	Fri	19:40:08	-6	299	25	180	74							-2	292	1.8	24	182	-2.4	18	150	0.2
8/9/2019	Fri	19:40:08			Jup 2.3																	
8/9/2019	Fri	23:58:38	-30	360	3	236	76										1	238	-2.4	17	212	0.2
8/9/2019	Fri	23:58:38			Jup 3.5																	
8/10/2019	Sat	4:17:38	-6	61	-40	278	77	9	72	-0.1												
8/10/2019	Sat	19:38:34	-6	298	22	167	83							-2	292	1.8	24	182	-2.4	18	150	0.2
8/10/2019	Sat	23:58:29	-31	0	9	226	84										0	239	-2.4	16	213	0.2
8/11/2019	Sun	4:18:54	-6	62	-32	268	85	10	72	-0.3												
8/11/2019	Sun	19:37:00	-6	298	19	155	90							-2	292	1.8	24	183	-2.3	18	151	0.2
8/11/2019	Sun	19:37:00			Sat 3.6																	
8/11/2019	Sun	23:58:19	-31	0	14	215	91										0	240	-2.3	16	214	0.2
8/11/2019	Sun	23:58:19			Sat 2.1																	
8/12/2019	Mon	4:20:09	-6	62	-23	260	92	10	72	-0.4												
8/12/2019	Mon	19:35:24	-6	298	14	143	95							-2	292	1.8	24	184	-2.3	18	151	0.2
8/12/2019	Mon	23:58:08	-31	0	20	205	95										-1	240	-2.3	16	215	0.2
8/13/2019	Tue	4:21:24	-6	63	-15	253	96	10	72	-0.5												
8/13/2019	Tue	19:33:47	-6	297	10	132	98							-2	292	1.8	24	184	-2.3	19	152	0.2
8/13/2019	Tue	23:57:57	-31	360	24	193	99										-2	241	-2.3	15	216	0.2
8/14/2019	Wed	4:22:40	-6	63	-6	247	99	9	72	-0.6												
8/14/2019	Wed	19:32:09	-6	297	5	122	100							-2	292	1.8	24	185	-2.3	19	153	0.2
8/14/2019	Wed	23:57:46	-32	0	28	182	100										-2	241	-2.3	15	217	0.2
8/15/2019	Thr	4:23:55	-6	64	4	241	100	9	72	-0.7												
8/15/2019	Thr	19:30:30	-6	296	0	112	100							-2	291	1.8	24	185	-2.3	19	153	0.3
8/15/2019	Thr	23:57:34	-32	0	30	169	99													14	217	0.3
8/16/2019	Fri	4:25:11	-6	64	13	235	99	9	72	-0.8												
8/16/2019	Fri	19:28:50	-6	296	-5	101	98							-3	291	1.8	24	186	-2.3	19	154	0.3

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
8/16/2019	Fri	23:57:21	-32	360	32	157	97													14	218	0.3
8/17/2019	Sat	4:26:26	-6	64	22	229	96	9	72	-0.9												
8/17/2019	Sat	19:27:09	-6	295	-10	91	94							-3	291	1.8	24	186	-2.3	19	154	0.3
8/17/2019	Sat	23:57:08	-33	360	32	144	93													14	219	0.3
8/18/2019	Sun	4:27:41	-6	65	30	222	92	8	72	-1												
8/18/2019	Sun	19:25:27	-6	295	-14	80	89							-3	291	1.8	23	187	-2.3	20	155	0.3
8/18/2019	Sun	23:56:55	-33	0	31	131	88													13	220	0.3
8/19/2019	Mon	4:28:56	-6	65	39	214	86	8	72	-1												
8/19/2019	Mon	19:23:44	-6	294	-18	69	82										23	187	-2.3	20	155	0.3
8/19/2019	Mon	23:56:41	-33	360	29	118	81													13	221	0.3
8/20/2019	Tue	4:30:11	-6	66	46	204	79	7	72	-1.1												
8/20/2019	Tue	19:22:00	-6	294	-22	58	74										23	188	-2.3	20	156	0.3
8/20/2019	Tue	23:56:26	-34	0	25	106	73													12	221	0.3
8/21/2019	Wed	4:31:26	-6	66	53	190	71	6	72	-1.2												
8/21/2019	Wed	19:20:16	-6	293	-24	45	65										23	189	-2.3	20	157	0.3
8/21/2019	Wed	23:56:11	-34	0	20	95	63													12	222	0.3
8/22/2019	Thr	4:32:41	-6	67	57	172	62	6	72	-1.2												
8/22/2019	Thr	19:18:31	-6	293	-26	33	55										23	189	-2.3	20	157	0.3
8/22/2019	Thr	23:55:56	-34	0	15	84	54													11	223	0.3
8/23/2019	Fri	4:33:56	-6	67	59	150	52	5	71	-1.3												
8/23/2019	Fri	19:16:45	-6	292	-27	19	45										23	190	-2.3	20	158	0.3
8/23/2019	Fri	23:55:40	-35	0	9	73	43													11	224	0.3
8/24/2019	Sat	4:35:11	-6	68	56	129	41	4	71	-1.3												
8/24/2019	Sat	19:14:58	-6	292	-26	5	35										23	190	-2.3	21	158	0.3
8/24/2019	Sat	23:55:24	-35	0	2	63	33													10	224	0.3
8/25/2019	Sun	4:36:25	-6	68	49	111	31	3	71	-1.4												
8/25/2019	Sun	19:13:11	-6	291	-24	351	25										23	191	-2.3	21	159	0.3
8/25/2019	Sun	23:55:07	-35	0	-6	52	23													10	225	0.3
8/26/2019	Mon	4:37:39	-6	69	41	98	21	2	71	-1.4												
8/26/2019	Mon	19:11:23	-6	291	-21	337	16										23	191	-2.2	21	159	0.3
8/26/2019	Mon	23:54:50	-36	360	-13	41	14													9	226	0.3
8/27/2019	Tue	4:38:54	-6	69	30	88	13	2	71	-1.5												
8/27/2019	Tue	19:09:35	-6	290	-17	323	8										23	191	-2.2	21	160	0.3
8/27/2019	Tue	23:54:33	-36	0	-21	29	7													9	227	0.3
8/28/2019	Wed	4:40:08	-6	70	19	80	6	1	71	-1.6												
8/28/2019	Wed	19:07:46	-6	290	-12	309	3				-3	286	-3.9				23	192	-2.2	21	160	0.3
8/28/2019	Wed	19:07:46									Mars 2.8											
8/28/2019	Wed	23:54:15	-36	360	-28	16	2													8	227	0.3
8/29/2019	Thr	4:41:21	-6	71	7	74	1	0	71	-1.6												
8/29/2019	Thr	19:05:56	-6	289	-6	295	0				-3	286	-3.9				23	192	-2.2	21	161	0.3
8/29/2019	Thr	19:05:56									Mars 3.5											
8/29/2019	Thr	23:53:57	-37	0	-33	1	0													8	228	0.3
8/30/2019	Fri	4:42:35	-6	71	-6	67	0	-1	71	-1.7												
8/30/2019	Fri	19:04:06	-6	289	1	282	1				-3	285	-3.9				23	193	-2.2	21	161	0.3
8/30/2019	Fri	19:04:06			Ven 4.7						Mars 4.1											
8/30/2019	Fri	23:53:39	-37	360	-37	344	1													7	229	0.3
8/31/2019	Sat	4:43:49	-6	72	-19	61	2	-2	71	-1.8												
8/31/2019	Sat	4:43:49						Mars 4.8														
8/31/2019	Sat	19:02:16	-6	288	6	268	4				-3	284	-3.9				23	193	-2.2	21	162	0.3
8/31/2019	Sat	19:02:16									Mars 4.7											
8/31/2019	Sat	23:53:20	-38	360	-38	326	5													7	230	0.3
9/1/2019	Sun	4:45:02	-6	72	-31	53	7	-3	72	-1.8												
9/1/2019	Sun	4:45:02						Mars 3.4														
9/1/2019	Sun	19:00:25	-6	288	12	255	11				-2	283	-3.9				22	194	-2.2	22	163	0.3
9/1/2019	Sun	23:53:01	-38	360	-37	308	12													6	230	0.4
9/2/2019	Mon	18:58:34	-6	287	16	241	19				-2	283	-3.9				22	194	-2.2	22	163	0.4
9/2/2019	Mon	23:52:42	-38	0	-34	292	21													6	231	0.4
9/3/2019	Tue	18:56:42	-6	287	20	227	29				-2	282	-3.9				22	195	-2.2	22	164	0.4
9/3/2019	Tue	23:52:22	-39	0	-28	278	31													5	232	0.4
9/4/2019	Wed	18:54:50	-6	286	22	213	39				-2	281	-3.9				22	195	-2.2	22	164	0.4
9/4/2019	Wed	23:52:02	-39	360	-22	266	41													5	232	0.4
9/5/2019	Thr	18:52:58	-6	285	23	199	50				-2	280	-3.9				22	196	-2.2	22	165	0.4
9/5/2019	Thr	18:52:58			Jup 3.4																	
9/5/2019	Thr	23:51:42	-39	0	-15	256	52													4	233	0.4
9/6/2019	Fri	18:51:05	-6	285	23	185	60				-2	279	-3.9				22	196	-2.2	22	165	0.4

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
9/6/2019	Fri	23:51:22	-40	0	-8	246	62													4	234	0.4
9/7/2019	Sat	18:49:12	-6	284	22	172	69				-2	279	-3.9				22	196	-2.2	22	166	0.4
9/7/2019	Sat	23:51:01	-40	360	0	237	71													3	234	0.4
9/7/2019	Sat	23:51:01			Sat 4.0																	
9/8/2019	Sun	18:47:19	-6	284	20	160	78	-3	280	-1.4	-2	278	-3.9				22	197	-2.2	22	166	0.4
9/8/2019	Sun	18:47:19						Ven 2.6														
9/8/2019	Sun	23:50:41	-41	0	7	228	80													3	235	0.4
9/9/2019	Mon	18:45:26	-6	283	17	148	85	-2	279	-1.3	-2	277	-3.9				22	197	-2.2	22	167	0.4
9/9/2019	Mon	18:45:26						Ven 1.9														
9/9/2019	Mon	23:50:20	-41	360	14	219	87													2	236	0.4
9/10/2019	Tue	4:55:53	-6	77	-32	272	88							-3	77	1.7						
9/10/2019	Tue	18:43:32	-6	283	14	136	91	-2	277	-1.2	-2	276	-3.9				22	198	-2.2	22	167	0.4
9/10/2019	Tue	18:43:32						Ven 1.4														
9/10/2019	Tue	23:49:59	-41	360	21	210	93													2	236	0.4
9/11/2019	Wed	4:57:04	-6	77	-23	266	94							-3	78	1.7						
9/11/2019	Wed	18:41:39	-6	282	10	125	96	-2	276	-1.1	-1	275	-3.9				22	198	-2.1	23	168	0.4
9/11/2019	Wed	18:41:39						Ven 0.8														
9/11/2019	Wed	23:49:37	-42	360	28	200	97													1	237	0.4
9/12/2019	Thr	4:58:16	-6	78	-13	262	97							-2	78	1.8						
9/12/2019	Thr	18:39:45	-6	282	6	115	99	-2	275	-1	-1	275	-3.9				21	198	-2.1	23	168	0.4
9/12/2019	Thr	18:39:45						Ven 0.4														
9/12/2019	Thr	23:49:16	-42	0	33	189	99													1	237	0.4
9/13/2019	Fri	4:59:27	-6	79	-3	257	99							-2	79	1.8						
9/13/2019	Fri	18:37:52	-6	281	2	104	100	-1	273	-0.9	-1	274	-3.9				21	199	-2.1	23	169	0.4
9/13/2019	Fri	18:37:52						Ven 0.4														
9/13/2019	Fri	23:48:55	-42	0	38	176	100													0	238	0.4
9/14/2019	Sat	5:00:38	-6	79	7	253	100							-2	80	1.8						
9/14/2019	Sat	18:35:58	-6	281	-2	94	99	-1	272	-0.8	-1	273	-3.9				21	199	-2.1	23	169	0.4
9/14/2019	Sat	18:35:58						Ven 0.8														
9/14/2019	Sat	23:48:33	-43	360	41	163	99													0	239	0.4
9/15/2019	Sun	5:01:49	-6	80	17	249	98							-1	80	1.8						
9/15/2019	Sun	18:34:04	-6	280	-7	83	97	-1	271	-0.8	-1	272	-3.9				21	199	-2.1	23	170	0.4
9/15/2019	Sun	18:34:04						Ven 1.3														
9/15/2019	Sun	23:48:12	-43	0	42	148	96													-1	239	0.4
9/16/2019	Mon	5:03:00	-6	80	27	245	95							-1	81	1.8						
9/16/2019	Mon	18:32:11	-6	279	-11	72	92	-1	270	-0.7	-1	271	-3.9				21	200	-2.1	23	170	0.4
9/16/2019	Mon	18:32:11						Ven 1.7														
9/16/2019	Mon	23:47:50	-44	360	42	133	91													-1	240	0.4
9/17/2019	Tue	5:04:10	-6	81	36	239	90							-1	82	1.8						
9/17/2019	Tue	18:30:17	-6	279	-15	61	87	-1	268	-0.7	-1	271	-3.9				21	200	-2.1	23	171	0.4
9/17/2019	Tue	18:30:17						Ven 2.2														
9/17/2019	Tue	23:47:29	-44	360	39	118	85													-2	241	0.4
9/18/2019	Wed	5:05:21	-6	81	46	232	84							0	82	1.8						
9/18/2019	Wed	18:28:24	-6	278	-19	49	79	-1	267	-0.6	-1	270	-3.9				21	201	-2.1	23	171	0.4
9/18/2019	Wed	18:28:24						Ven 2.6														
9/18/2019	Wed	23:47:07	-44	360	34	105	78													-3	241	0.4
9/19/2019	Thr	5:06:32	-6	82	55	221	76							0	83	1.8						
9/19/2019	Thr	18:26:30	-6	278	-21	37	71	0	266	-0.6	-1	269	-3.9				21	201	-2.1	23	172	0.4
9/19/2019	Thr	18:26:30						Ven 3.0														
9/20/2019	Fri	5:07:42	-6	82	63	203	67							0	84	1.8						
9/20/2019	Fri	18:24:37	-6	277	-23	24	61	0	265	-0.5	-1	268	-3.9				21	201	-2.1	23	172	0.4
9/20/2019	Fri	18:24:37						Ven 3.4														
9/21/2019	Sat	5:08:53	-6	83	67	177	57							1	84	1.8						
9/21/2019	Sat	18:22:44	-6	277	-24	10	51	0	264	-0.5	-1	267	-3.9				20	202	-2.1	23	173	0.5
9/21/2019	Sat	18:22:44						Ven 3.8														
9/22/2019	Sun	5:10:03	-6	83	65	147	46							1	85	1.8						
9/22/2019	Sun	18:20:52	-6	276	-24	356	40	0	263	-0.4	0	267	-3.9				20	202	-2.1	23	173	0.5
9/22/2019	Sun	18:20:52						Ven 4.1														
9/23/2019	Mon	5:11:14	-6	84	58	124	35							1	86	1.8						
9/23/2019	Mon	18:18:59	-6	276	-23	342	29	0	261	-0.4	0	266	-3.9				20	202	-2.1	23	174	0.5
9/23/2019	Mon	18:18:59						Ven 4.5														
9/24/2019	Tue	5:12:25	-6	85	48	110	25							1	86	1.8						
9/24/2019	Tue	18:17:07	-6	275	-20	327	19	0	260	-0.4	0	265	-3.9				20	203	-2.1	23	174	0.5
9/24/2019	Tue	18:17:07						Ven 4.8														
9/25/2019	Wed	5:13:35	-6	85	37	101	15							2	87	1.8						

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
9/25/2019	Wed	18:15:15	-6	275	-17	313	11	0	259	-0.3	0	264	-3.9				20	203	-2.1	23	175	0.5
9/26/2019	Thr	5:14:46	-6	86	24	94	8							2	88	1.8						
9/26/2019	Thr	18:13:24	-6	274	-12	299	5	0	258	-0.3	0	263	-3.9				20	204	-2.1	23	175	0.5
9/27/2019	Fri	5:15:56	-6	86	11	88	3							2	88	1.8						
9/27/2019	Fri	18:11:33	-6	273	-7	285	1	1	257	-0.3	0	263	-3.9				20	204	-2.1	23	176	0.5
9/28/2019	Sat	5:17:07	-6	87	-1	84	0							3	89	1.8						
9/28/2019	Sat	18:09:42	-6	273	-1	271	0	1	256	-0.2	0	262	-3.9				20	204	-2	23	176	0.5
9/29/2019	Sun	5:18:18	-6	87	-15	79	1							3	90	1.8						
9/29/2019	Sun	18:07:52	-6	272	5	258	3	1	255	-0.2	0	261	-3.9				19	205	-2	23	177	0.5
9/29/2019	Sun	18:07:52			Mer 4.7																	
9/30/2019	Mon	5:19:29	-6	88	-28	73	5							3	90	1.8						
9/30/2019	Mon	18:06:02	-6	272	10	244	8	1	254	-0.2	0	260	-3.9				19	205	-2	23	177	0.5
10/1/2019	Tue	5:20:39	-6	88	-40	67	11							3	91	1.8						
10/1/2019	Tue	18:04:13	-6	271	14	231	15	1	253	-0.2	0	260	-3.9				19	205	-2	23	178	0.5
10/2/2019	Wed	5:21:50	-6	89	-51	57	19							4	92	1.8						
10/2/2019	Wed	18:02:24	-6	271	18	217	24	1	252	-0.2	0	259	-3.9				19	206	-2	23	178	0.5
10/3/2019	Thr	5:23:01	-6	89	-61	43	28							4	92	1.8						
10/3/2019	Thr	18:00:36	-6	270	20	204	33	1	251	-0.2	0	258	-3.9				19	206	-2	23	179	0.5
10/3/2019	Thr	18:00:36			Jup 2.3																	
10/4/2019	Fri	5:24:12	-6	90	-67	21	38							4	93	1.8						
10/4/2019	Fri	17:58:48	-6	270	22	191	43	1	250	-0.2	1	257	-3.9				19	206	-2	23	179	0.5
10/5/2019	Sat	5:25:23	-6	91	-69	350	48							5	94	1.8						
10/5/2019	Sat	17:57:01	-6	269	22	178	54	1	249	-0.1	1	256	-3.9				19	207	-2	23	180	0.5
10/5/2019	Sat	17:57:01			Sat 2.5																	
10/6/2019	Sun	5:26:34	-6	91	-65	324	58							5	94	1.8						
10/6/2019	Sun	17:55:14	-6	269	22	165	63	1	248	-0.1	1	256	-3.9				19	207	-2	23	181	0.5
10/7/2019	Mon	5:27:46	-6	92	-58	306	68							5	95	1.8						
10/7/2019	Mon	17:53:28	-6	268	21	152	72	1	247	-0.1	1	255	-3.9				18	207	-2	23	181	0.5
10/8/2019	Tue	5:28:57	-6	92	-49	296	76							6	96	1.8						
10/8/2019	Tue	17:51:43	-6	268	18	140	80	1	246	-0.1	1	254	-3.9				18	208	-2	23	182	0.5
10/9/2019	Wed	5:30:08	-6	93	-40	288	84							6	96	1.8						
10/9/2019	Wed	17:49:59	-6	267	16	129	87	2	245	-0.1	1	253	-3.9				18	208	-2	23	182	0.5
10/10/2019	Thr	5:31:20	-6	93	-30	283	90							6	97	1.8						
10/10/2019	Thr	17:48:15	-6	266	12	118	93	2	245	-0.1	1	253	-3.9				18	208	-2	23	183	0.5
10/11/2019	Fri	5:32:32	-6	94	-21	279	95							7	98	1.8						
10/11/2019	Fri	17:46:33	-6	266	9	107	97	2	244	-0.1	1	252	-3.9				18	209	-2	23	183	0.5
10/12/2019	Sat	5:33:44	-6	94	-11	275	98							7	98	1.8						
10/12/2019	Sat	17:44:51	-6	265	5	96	99	2	243	-0.1	1	251	-3.8				18	209	-2	23	184	0.5
10/13/2019	Sun	5:34:56	-6	95	0	272	100							7	99	1.8						
10/13/2019	Sun	17:43:09	-6	265	1	85	100	2	242	-0.1	1	250	-3.8				18	209	-2	23	184	0.5
10/14/2019	Mon	5:36:08	-6	95	10	268	99							7	100	1.8						
10/14/2019	Mon	17:41:29	-6	264	-4	75	99	2	242	-0.1	1	250	-3.8				17	210	-2	23	185	0.5
10/15/2019	Tue	5:37:20	-6	96	21	264	97							8	100	1.8						
10/15/2019	Tue	17:39:50	-6	264	-9	64	96	2	241	-0.1	2	249	-3.8				17	210	-2	23	185	0.5
10/16/2019	Wed	5:38:33	-6	96	31	259	93							8	101	1.8						
10/16/2019	Wed	17:38:12	-6	263	-13	52	91	2	240	-0.1	2	248	-3.8				17	210	-2	23	186	0.5
10/17/2019	Thr	5:39:45	-6	97	41	253	87							8	102	1.8						
10/17/2019	Thr	17:36:34	-6	263	-17	40	84	2	240	-0.1	2	247	-3.8				17	211	-2	23	186	0.6
10/18/2019	Fri	5:40:58	-6	97	51	244	80							9	102	1.8						
10/18/2019	Fri	17:34:58	-6	262	-20	28	76	2	239	-0.1	2	247	-3.8				17	211	-2	23	187	0.6
10/19/2019	Sat	5:42:11	-6	98	60	230	71							9	103	1.8						
10/19/2019	Sat	17:33:23	-6	262	-23	15	66	2	239	-0.1	2	246	-3.8				17	211	-1.9	23	187	0.6
10/20/2019	Sun	5:43:25	-6	98	67	206	61							9	104	1.8						
10/20/2019	Sun	17:31:49	-6	261	-24	1	56	2	238	-0.1	2	245	-3.8				16	212	-1.9	23	188	0.6
10/21/2019	Mon	5:44:38	-6	99	67	173	50							10	105	1.8						
10/21/2019	Mon	17:30:16	-6	261	-25	347	45	2	238	-0.1	2	244	-3.8				16	212	-1.9	23	188	0.6
10/22/2019	Tue	5:45:52	-6	99	62	146	39							10	105	1.8						
10/22/2019	Tue	17:28:44	-6	260	-24	332	34	2	237	-0.1	2	244	-3.8				16	212	-1.9	23	189	0.6
10/23/2019	Wed	5:47:06	-6	100	52	129	28							10	106	1.8						
10/23/2019	Wed	17:27:13	-6	260	-22	317	23	2	237	-0.1	2	243	-3.8				16	213	-1.9	23	189	0.6
10/24/2019	Thr	5:48:20	-6	100	41	119	18							10	107	1.8						
10/24/2019	Thr	17:25:44	-6	259	-19	303	14	2	237	-0.1	2	242	-3.8				16	213	-1.9	23	190	0.6
10/25/2019	Fri	5:49:34	-6	101	28	111	10							11	107	1.8						
10/25/2019	Fri	17:24:16	-6	259	-14	289	7	2	237	0	3	242	-3.8				16	214	-1.9	23	191	0.6
10/26/2019	Sat	5:50:48	-6	101	15	106	4							11	108	1.8						

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
10/26/2019	Sat	5:50:48			Mars 5.0																	
10/26/2019	Sat	17:22:49	-6	258	-9	275	2	2	236	0	3	241	-3.8				15	214	-1.9	23	191	0.6
10/26/2019	Sat	17:22:49						Ven 4.6														
10/27/2019	Sun	5:52:03	-6	102	3	101	1							11	109	1.8						
10/27/2019	Sun	17:21:23	-6	258	-4	262	0	2	237	0.1	3	240	-3.8				15	214	-1.9	23	192	0.6
10/27/2019	Sun	17:21:23						Ven 4.0														
10/28/2019	Mon	5:53:18	-6	102	-10	96	0							12	109	1.8						
10/28/2019	Mon	17:19:59	-6	258	2	249	1	1	237	0.1	3	240	-3.8				15	215	-1.9	23	192	0.6
10/28/2019	Mon	17:19:59						Ven 3.4														
10/29/2019	Tue	5:54:32	-6	103	-22	91	3							12	110	1.8						
10/29/2019	Tue	17:18:37	-6	257	7	236	5	1	237	0.2	3	239	-3.8				15	215	-1.9	22	193	0.6
10/29/2019	Tue	17:18:37						Ven 2.8														
10/30/2019	Wed	5:55:47	-6	103	-34	85	8							12	111	1.8						
10/30/2019	Wed	17:17:15	-6	257	12	224	11	1	237	0.4	3	238	-3.8				15	215	-1.9	22	193	0.6
10/30/2019	Wed	17:17:15						Ven 2.4														
10/31/2019	Thr	5:57:02	-6	104	-45	77	14							12	111	1.8						
10/31/2019	Thr	17:15:56	-6	256	16	211	18	1	238	0.5	3	238	-3.8				14	216	-1.9	22	194	0.6
10/31/2019	Thr	17:15:56			Jup 5.0			Ven 2.5														
11/1/2019	Fri	5:58:17	-6	104	-54	66	23							13	112	1.8						
11/1/2019	Fri	17:14:37	-6	256	20	198	27	1	238	0.7	3	237	-3.8				14	216	-1.9	22	195	0.6
11/1/2019	Fri	17:14:37			Sat 4.2			Ven 3.3														
11/2/2019	Sat	5:59:33	-6	105	-62	49	32							13	113	1.8						
11/2/2019	Sat	17:13:21	-6	255	22	186	36	0	239	1	4	236	-3.8				14	216	-1.9	22	195	0.6
11/2/2019	Sat	17:13:21						Ven 4.4														
11/3/2019	Sun	6:00:48	-6	105	-66	25	42							13	114	1.8						
11/3/2019	Sun	17:12:05	-6	255	24	173	46	0	240	1.3	4	236	-3.8				14	217	-1.9	22	196	0.6
11/4/2019	Mon	6:02:03	-6	105	-66	359	51							13	114	1.8						
11/4/2019	Mon	17:10:52	-6	254	25	160	56	-1	241	1.6	4	235	-3.8				14	217	-1.9	22	196	0.6
11/5/2019	Tue	6:03:18	-6	106	-61	337	61							14	115	1.8						
11/5/2019	Tue	17:09:40	-6	254	24	148	65	-1	242	2.1	4	234	-3.8				13	218	-1.9	22	197	0.6
11/6/2019	Wed	6:04:33	-6	106	-54	322	70							14	116	1.8						
11/6/2019	Wed	17:08:30	-6	254	23	136	74	-2	244	2.6	4	234	-3.8				13	218	-1.9	22	197	0.6
11/7/2019	Thr	6:05:48	-6	107	-46	312	78							14	116	1.8						
11/7/2019	Thr	17:07:21	-6	253	21	124	81	-3	245	3.3	4	233	-3.8				13	218	-1.9	22	198	0.6
11/8/2019	Fri	6:07:03	-6	107	-37	305	85							15	117	1.8						
11/8/2019	Fri	17:06:14	-6	253	18	112	88				5	233	-3.8				13	219	-1.9	21	199	0.6
11/9/2019	Sat	6:08:18	-6	108	-27	299	91							15	118	1.8						
11/9/2019	Sat	17:05:09	-6	252	14	101	94				5	232	-3.8				13	219	-1.9	21	199	0.6
11/10/2019	Sun	6:09:33	-6	108	-17	294	96							15	118	1.8						
11/10/2019	Sun	17:04:06	-6	252	10	90	97				5	232	-3.8				12	220	-1.9	21	200	0.6
11/11/2019	Mon	6:10:47	-6	108	-7	290	99							15	119	1.8						
11/11/2019	Mon	17:03:05	-6	252	5	79	100				5	231	-3.8				12	220	-1.9	21	200	0.6
11/12/2019	Tue	6:12:02	-6	109	3	285	100							15	120	1.8						
11/12/2019	Tue	17:02:05	-6	251	0	69	100				5	230	-3.8				12	220	-1.9	21	201	0.6
11/13/2019	Wed	6:13:16	-6	109	14	280	99	-1	111	4.6				16	121	1.8						
11/13/2019	Wed	17:01:07	-6	251	-6	58	98				5	230	-3.8				12	221	-1.9	21	202	0.6
11/14/2019	Thr	6:14:30	-6	109	24	275	96	0	112	3.7				16	121	1.8						
11/14/2019	Thr	17:00:12	-6	250	-11	46	94				6	229	-3.8				11	221	-1.9	20	202	0.6
11/15/2019	Fri	6:15:43	-6	110	35	268	91	2	113	2.9				16	122	1.8						
11/15/2019	Fri	16:59:18	-6	250	-16	35	88				6	229	-3.9				11	222	-1.9	20	203	0.6
11/16/2019	Sat	6:16:57	-6	110	45	258	84	4	114	2.2				16	123	1.7						
11/16/2019	Sat	16:58:27	-6	250	-21	22	80				6	228	-3.9				11	222	-1.9	20	204	0.6
11/17/2019	Sun	6:18:10	-6	110	53	245	75	5	115	1.6				17	123	1.7						
11/17/2019	Sun	16:57:37	-6	249	-25	9	71				6	228	-3.9				11	223	-1.9	20	204	0.6
11/18/2019	Mon	6:19:23	-6	111	60	225	65	7	116	1.1				17	124	1.7						
11/18/2019	Mon	16:56:50	-6	249	-27	355	60				6	227	-3.9				10	223	-1.9	20	205	0.6
11/19/2019	Tue	6:20:35	-6	111	62	198	54	8	117	0.7				17	125	1.7						
11/19/2019	Tue	16:56:04	-6	249	-29	340	49				6	227	-3.9				10	223	-1.9	20	206	0.6
11/19/2019	Tue	16:56:04									Jup 4.8											
11/20/2019	Wed	6:21:47	-6	111	58	173	42	9	118	0.4				17	125	1.7						
11/20/2019	Wed	16:55:21	-6	248	-29	325	38				7	226	-3.9				10	224	-1.9	19	206	0.6
11/20/2019	Wed	16:55:21									Jup 3.8											
11/21/2019	Thr	6:22:58	-6	112	51	154	31	10	119	0.1				17	126	1.7						
11/21/2019	Thr	16:54:40	-6	248	-28	310	27				7	226	-3.9				9	224	-1.9	19	207	0.6
11/21/2019	Thr	16:54:40									Jup 2.9											

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
11/22/2019	Fri	6:24:09	-6	112	41	141	21	10	120	-0.1				18	127	1.7						
11/22/2019	Fri	16:54:01	-6	248	-25	295	17				7	225	-3.9				9	225	-1.9	19	208	0.6
11/22/2019	Fri	16:54:01									Jup 2.1											
11/23/2019	Sat	6:25:19	-6	112	30	132	12	11	121	-0.2				18	127	1.7						
11/23/2019	Sat	16:53:24	-6	247	-20	281	9				7	225	-3.9				9	225	-1.9	19	208	0.6
11/23/2019	Sat	16:53:24									Jup 1.5											
11/24/2019	Sun	6:26:28	-6	113	18	124	6	11	121	-0.3				18	128	1.7						
11/24/2019	Sun	6:26:28			Mars 3.9																	
11/24/2019	Sun	16:52:50	-6	247	-15	268	4				8	225	-3.9				8	226	-1.8	18	209	0.6
11/24/2019	Sun	16:52:50									Jup 1.5											
11/25/2019	Mon	6:27:37	-6	113	7	117	2	11	122	-0.4				18	129	1.7						
11/25/2019	Mon	16:52:18	-6	247	-9	256	1				8	224	-3.9				8	226	-1.8	18	210	0.6
11/25/2019	Mon	16:52:18									Jup 2.1											
11/26/2019	Tue	6:28:45	-6	113	-5	111	0	12	122	-0.5				18	130	1.7						
11/26/2019	Tue	16:51:48	-6	247	-2	244	0				8	224	-3.9				8	227	-1.8	18	210	0.6
11/26/2019	Tue	16:51:48									Jup 2.9											
11/27/2019	Wed	6:29:53	-6	114	-16	105	1	12	123	-0.5				18	130	1.7						
11/27/2019	Wed	16:51:20	-6	246	4	233	2				8	223	-3.9				7	227	-1.8	18	211	0.6
11/27/2019	Wed	16:51:20									Jup 3.8											
11/28/2019	Thr	6:30:59	-6	114	-26	98	5	12	123	-0.6				19	131	1.7						
11/28/2019	Thr	16:50:55	-6	246	10	222	7				8	223	-3.9				7	228	-1.8	17	212	0.6
11/28/2019	Thr	16:50:55			Ven 2.2						Jup 4.8											
11/29/2019	Fri	6:32:05	-6	114	-36	89	10	11	124	-0.6				19	132	1.7						
11/29/2019	Fri	16:50:32	-6	246	16	211	13				9	223	-3.9				7	228	-1.8	17	212	0.6
11/29/2019	Fri	16:50:32			Sat 2.0																	
11/30/2019	Sat	6:33:09	-6	114	-44	79	17	11	124	-0.6				19	132	1.7						
11/30/2019	Sat	16:50:12	-6	246	21	199	20				9	222	-3.9				6	229	-1.8	17	213	0.6
12/1/2019	Sun	6:34:13	-6	115	-51	66	25	11	124	-0.6				19	133	1.7						
12/1/2019	Sun	16:49:53	-6	245	25	187	29				9	222	-3.9				6	229	-1.8	16	214	0.6
12/2/2019	Mon	6:35:15	-6	115	-56	49	34	11	125	-0.6				19	133	1.7						
12/2/2019	Mon	16:49:37	-6	245	29	175	38				9	222	-3.9				6	230	-1.8	16	214	0.6
12/3/2019	Tue	6:36:16	-6	115	-58	30	43	10	125	-0.6				19	134	1.7						
12/3/2019	Tue	16:49:24	-6	245	31	163	47				10	221	-3.9				5	230	-1.8	16	215	0.6
12/4/2019	Wed	6:37:16	-6	115	-56	10	53	10	125	-0.6				19	135	1.7						
12/4/2019	Wed	16:49:13	-6	245	32	150	57				10	221	-3.9				5	231	-1.8	15	216	0.6
12/5/2019	Thr	6:38:15	-6	115	-52	354	62	10	125	-0.6				20	135	1.7						
12/5/2019	Thr	16:49:04	-6	245	32	137	66				10	221	-3.9				5	231	-1.8	15	217	0.6
12/6/2019	Fri	6:39:13	-6	115	-46	340	71	9	126	-0.6				20	136	1.7						
12/6/2019	Fri	16:48:57	-6	244	30	124	75				10	220	-3.9				4	232	-1.8	15	217	0.6
12/7/2019	Sat	6:40:09	-6	116	-39	330	79	9	126	-0.6				20	137	1.7						
12/7/2019	Sat	16:48:53	-6	244	27	111	82				11	220	-3.9				4	232	-1.8	14	218	0.6
12/7/2019	Sat	16:48:53									Sat 4.2											
12/8/2019	Sun	6:41:04	-6	116	-30	321	87	8	126	-0.6				20	137	1.7						
12/8/2019	Sun	16:48:52	-6	244	23	100	89				11	220	-3.9				3	233	-1.8	14	219	0.6
12/8/2019	Sun	16:48:52									Sat 3.2											
12/9/2019	Mon	6:41:57	-6	116	-21	313	93	8	126	-0.6				20	138	1.7						
12/9/2019	Mon	16:48:52	-6	244	18	88	95				11	220	-3.9				3	233	-1.8	14	220	0.6
12/9/2019	Mon	16:48:52									Sat 2.4											
12/10/2019	Tue	6:42:49	-6	116	-12	306	97	7	126	-0.6				20	138	1.7						
12/10/2019	Tue	16:48:55	-6	244	12	78	98				12	220	-3.9				3	234	-1.8	13	220	0.6
12/10/2019	Tue	16:48:55									Sat 1.8											
12/11/2019	Wed	6:43:39	-6	116	-2	300	99	7	126	-0.6				20	139	1.7						
12/11/2019	Wed	16:49:01	-6	244	6	67	100				12	219	-3.9				2	234	-1.8	13	221	0.6
12/11/2019	Wed	16:49:01									Sat 1.9											
12/12/2019	Thr	6:44:27	-6	116	8	292	100	6	126	-0.6				20	140	1.7						
12/12/2019	Thr	16:49:09	-6	244	-1	57	99				12	219	-3.9				2	235	-1.8	12	222	0.6
12/12/2019	Thr	16:49:09									Sat 2.5											
12/13/2019	Fri	6:45:14	-6	116	18	285	98	6	126	-0.6				20	140	1.7						
12/13/2019	Fri	16:49:19	-6	244	-9	46	96				12	219	-3.9				1	235	-1.8	12	223	0.6
12/13/2019	Fri	16:49:19									Sat 3.4											
12/14/2019	Sat	6:45:59	-6	117	27	276	94	5	126	-0.6				20	141	1.7						
12/14/2019	Sat	16:49:31	-6	243	-16	36	91				13	219	-3.9				1	236	-1.8	12	223	0.6
12/14/2019	Sat	16:49:31									Sat 4.4											
12/15/2019	Sun	6:46:43	-6	117	36	264	87	5	126	-0.6				20	141	1.7						
12/15/2019	Sun	16:49:46	-6	243	-23	24	84				13	219	-3.9				1	237	-1.8	11	224	0.6

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
12/16/2019	Mon	6:47:25	-6	117	44	250	78	4	126	-0.6				20	142	1.6						
12/16/2019	Mon	16:50:03	-6	243	-29	11	74				13	219	-3.9				0	237	-1.8	11	225	0.6
12/17/2019	Tue	6:48:04	-6	117	49	233	68	4	126	-0.6				20	142	1.6						
12/17/2019	Tue	16:50:23	-6	243	-34	357	64				14	219	-3.9				0	238	-1.8	10	226	0.6
12/18/2019	Wed	6:48:42	-6	117	51	212	57	3	125	-0.6				20	143	1.6						
12/18/2019	Wed	16:50:45	-6	243	-38	341	53				14	218	-3.9				-1	238	-1.8	10	226	0.6
12/19/2019	Thr	6:49:19	-6	117	49	192	46	3	125	-0.6				20	143	1.6						
12/19/2019	Thr	16:51:09	-6	243	-39	325	41				14	218	-3.9				-1	239	-1.8	9	227	0.6
12/20/2019	Fri	6:49:53	-6	117	43	174	35	2	125	-0.6				20	144	1.6						
12/20/2019	Fri	16:51:35	-6	243	-38	308	30				15	218	-3.9				-2	239	-1.8	9	228	0.6
12/21/2019	Sat	6:50:25	-6	117	36	160	24	2	125	-0.6				21	144	1.6						
12/21/2019	Sat	16:52:03	-6	243	-35	293	20				15	218	-3.9				-2	240	-1.8	8	229	0.6
12/22/2019	Sun	6:50:55	-6	117	27	148	15	1	125	-0.6				21	145	1.6						
12/22/2019	Sun	16:52:34	-6	243	-30	279	12				15	218	-3.9							8	229	0.6
12/23/2019	Mon	6:51:23	-6	117	18	139	8	1	124	-0.7				21	145	1.6						
12/23/2019	Mon	16:53:07	-6	243	-24	266	6				16	218	-3.9							7	230	0.6
12/24/2019	Tue	6:51:49	-6	117	9	130	3	0	124	-0.7				21	146	1.6						
12/24/2019	Tue	16:53:41	-6	243	-16	255	2				16	218	-3.9							7	231	0.6
12/25/2019	Wed	6:52:13	-6	117	0	122	0	0	124	-0.7				21	146	1.6						
12/25/2019	Wed	6:52:13			Mer 2.2																	
12/25/2019	Wed	16:54:18	-6	243	-9	246	0				16	218	-3.9							6	232	0.6
12/26/2019	Thr	6:52:35	-6	117	-10	113	0	0	124	-0.7				21	147	1.6						
12/26/2019	Thr	16:54:57	-6	243	0	236	1				17	218	-3.9							6	232	0.6
12/27/2019	Fri	6:52:54	-6	117	-19	105	2	-1	123	-0.8				21	147	1.6						
12/27/2019	Fri	16:55:38	-6	243	7	228	3				17	219	-3.9							5	233	0.6
12/28/2019	Sat	6:53:11	-6	117	-27	96	6	-1	123	-0.8				21	148	1.6						
12/28/2019	Sat	16:56:21	-6	243	15	219	8				17	219	-3.9							4	234	0.6
12/28/2019	Sat	16:56:21			Ven 2.2																	
12/29/2019	Sun	6:53:26	-6	117	-33	85	11	-2	122	-0.8				21	148	1.6						
12/29/2019	Sun	16:57:05	-6	243	22	210	14				18	219	-4							4	235	0.6
12/30/2019	Mon	6:53:39	-6	116	-39	73	18	-2	122	-0.9				21	148	1.6						
12/30/2019	Mon	6:53:39						Jup 4.6														
12/30/2019	Mon	16:57:52	-6	244	29	200	22				18	219	-4							3	235	0.5
12/31/2019	Tue	6:53:49	-6	116	-43	60	26	-3	122	-0.9				20	149	1.6						
12/31/2019	Tue	6:53:49						Jup 3.2														
12/31/2019	Tue	16:58:40	-6	244	35	189	30				18	219	-4							3	236	0.5
1/1/2020	Wed	6:53:57	-6	116	-45	45	35							20	149	1.6						
1/1/2020	Wed	16:59:30	-6	244	40	177	39				19	219	-4							2	237	0.5
1/2/2020	Thr	6:54:03	-6	116	-46	29	44							20	149	1.6	-3	120	-1.8			
1/2/2020	Thr	17:00:21	-6	244	43	163	48				19	219	-4							1	238	0.5
1/3/2020	Fri	6:54:06	-6	116	-44	14	54							20	150	1.6	-2	120	-1.8			
1/3/2020	Fri	17:01:14	-6	244	45	148	58				19	220	-4							1	239	0.5
1/4/2020	Sat	6:54:07	-6	116	-40	0	63							20	150	1.6	-2	121	-1.8			
1/4/2020	Sat	17:02:09	-6	244	44	132	67				20	220	-4							0	239	0.5
1/5/2020	Sun	6:54:06	-6	116	-35	348	72							20	150	1.5	-1	121	-1.8			
1/5/2020	Sun	17:03:05	-6	244	41	117	76				20	220	-4							0	240	0.5
1/6/2020	Mon	6:54:02	-6	116	-29	337	81							20	151	1.5	-1	122	-1.8			
1/6/2020	Mon	17:04:03	-6	245	37	104	84				20	220	-4							-1	241	0.5
1/7/2020	Tue	6:53:56	-6	115	-21	326	88							20	151	1.5	0	122	-1.8			
1/7/2020	Tue	17:05:02	-6	245	30	92	91				21	220	-4							-2	242	0.5
1/8/2020	Wed	6:53:47	-6	115	-13	317	94							20	151	1.5	0	123	-1.8			
1/8/2020	Wed	17:06:03	-6	245	22	81	96				21	221	-4							-2	242	0.5
1/9/2020	Thr	6:53:37	-6	115	-5	307	98							20	152	1.5	0	123	-1.8			
1/9/2020	Thr	17:07:04	-6	245	14	72	99				21	221	-4									
1/10/2020	Fri	6:53:23	-6	115	4	298	100							20	152	1.5	1	123	-1.8			
1/10/2020	Fri	17:08:07	-6	245	4	63	100				22	221	-4									
1/11/2020	Sat	6:53:08	-6	115	13	287	99							20	152	1.5	1	124	-1.8			
1/11/2020	Sat	17:09:11	-6	246	-6	54	98				22	222	-4									
1/12/2020	Sun	6:52:50	-6	114	21	276	96							20	152	1.5	2	124	-1.8			
1/12/2020	Sun	17:10:17	-6	246	-16	45	94				22	222	-4									
1/13/2020	Mon	6:52:30	-6	114	28	263	90							20	153	1.5	2	125	-1.8			
1/13/2020	Mon	17:11:23	-6	246	-26	36	87				23	222	-4									
1/14/2020	Tue	6:52:07	-6	114	34	248	82							20	153	1.5	2	125	-1.8			
1/14/2020	Tue	17:12:31	-6	246	-35	25	78				23	223	-4									
1/15/2020	Wed	6:51:43	-6	114	38	232	72							20	153	1.5	3	126	-1.8			

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
1/15/2020	Wed	17:13:39	-6	247	-43	11	67				23	223	-4									
1/16/2020	Thr	6:51:16	-6	113	39	215	61							20	153	1.5	3	126	-1.8			
1/16/2020	Thr	17:14:49	-6	247	-49	355	56				24	223	-4									
1/17/2020	Fri	6:50:46	-6	113	38	197	50							20	153	1.5	3	127	-1.8			
1/17/2020	Fri	17:15:59	-6	247	-52	335	45				24	224	-4									
1/18/2020	Sat	6:50:15	-6	113	34	182	39							20	153	1.5	4	127	-1.8			
1/18/2020	Sat	17:17:10	-6	247	-52	315	34	-2	243	-1.2	24	224	-4									
1/19/2020	Sun	6:49:41	-6	112	29	168	28							20	154	1.5	4	127	-1.9	-3	117	0.5
1/19/2020	Sun	17:18:22	-6	248	-48	297	24	-2	243	-1.2	25	225	-4									
1/20/2020	Mon	6:49:05	-6	112	22	156	19							20	154	1.4	4	128	-1.9	-2	117	0.5
1/20/2020	Mon	6:49:05			Mars 3.2																	
1/20/2020	Mon	17:19:35	-6	248	-42	282	15	-1	243	-1.2	25	225	-4									
1/21/2020	Tue	6:48:27	-6	112	15	145	11							19	154	1.4	5	128	-1.9	-2	118	0.5
1/21/2020	Tue	17:20:48	-6	248	-34	270	9	0	243	-1.1	25	225	-4									
1/22/2020	Wed	6:47:47	-6	112	8	134	6							19	154	1.4	5	129	-1.9	-1	118	0.5
1/22/2020	Wed	17:22:02	-6	249	-26	261	4	0	243	-1.1	26	226	-4.1									
1/23/2020	Thr	6:47:05	-6	111	1	125	2							19	154	1.4	5	129	-1.9	-1	119	0.6
1/23/2020	Thr	17:23:17	-6	249	-17	253	1	1	243	-1.1	26	226	-4.1									
1/24/2020	Fri	6:46:20	-6	111	-7	115	0							19	154	1.4	6	130	-1.9	0	119	0.6
1/24/2020	Fri	17:24:32	-6	249	-7	247	0	1	243	-1.1	26	227	-4.1									
1/25/2020	Sat	6:45:34	-6	111	-14	105	1							19	154	1.4	6	130	-1.9	0	120	0.6
1/25/2020	Sat	17:25:48	-6	250	2	240	1	2	243	-1.1	27	227	-4.1									
1/25/2020	Sat	17:25:48			Mer 2.5																	
1/26/2020	Sun	6:44:45	-6	110	-20	95	3							19	154	1.4	6	130	-1.9	0	120	0.6
1/26/2020	Sun	17:27:04	-6	250	11	234	4	3	243	-1.1	27	228	-4.1									
1/27/2020	Mon	6:43:55	-6	110	-25	85	7							19	154	1.4	7	131	-1.9	1	121	0.6
1/27/2020	Mon	17:28:21	-6	250	20	228	9	3	243	-1	27	228	-4.1									
1/28/2020	Tue	6:43:02	-6	109	-30	73	12							19	155	1.4	7	131	-1.9	1	121	0.6
1/28/2020	Tue	17:29:38	-6	251	29	221	15	4	243	-1	28	229	-4.1									
1/29/2020	Wed	6:42:07	-6	109	-33	61	19							19	155	1.4	7	131	-1.9	1	121	0.6
1/29/2020	Wed	17:30:55	-6	251	38	213	23	5	243	-1	28	229	-4.1									
1/30/2020	Thr	6:41:11	-6	109	-35	48	27							19	155	1.4	7	132	-1.9	2	122	0.6
1/30/2020	Thr	17:32:12	-6	251	45	203	31	5	244	-1	28	230	-4.1									
1/31/2020	Fri	6:40:12	-6	108	-36	34	36							19	155	1.4	8	132	-1.9	2	122	0.6
1/31/2020	Fri	17:33:30	-6	252	52	190	40	6	244	-1	29	230	-4.1									
2/1/2020	Sat	6:39:12	-6	108	-35	20	45							19	155	1.4	8	133	-1.9	3	123	0.6
2/1/2020	Sat	17:34:48	-6	252	57	173	50	7	244	-1	29	231	-4.1									
2/2/2020	Sun	6:38:10	-6	108	-33	7	55							19	155	1.4	8	133	-1.9	3	123	0.6
2/2/2020	Sun	17:36:06	-6	253	58	152	59	7	245	-1	29	232	-4.1									
2/3/2020	Mon	6:37:06	-6	107	-29	354	65							19	155	1.3	9	133	-1.9	3	124	0.6
2/3/2020	Mon	17:37:24	-6	253	56	131	69	8	245	-1	29	232	-4.1									
2/4/2020	Tue	6:36:00	-6	107	-24	342	74							19	155	1.3	9	134	-1.9	4	124	0.6
2/4/2020	Tue	17:38:43	-6	254	51	113	78	9	245	-0.9	30	233	-4.1									
2/5/2020	Wed	6:34:52	-6	106	-19	330	83							19	155	1.3	9	134	-1.9	4	124	0.6
2/5/2020	Wed	17:40:01	-6	254	43	100	86	9	246	-0.9	30	233	-4.1									
2/6/2020	Thr	6:33:43	-6	106	-12	318	90							18	155	1.3	9	134	-1.9	4	125	0.6
2/6/2020	Thr	17:41:20	-6	254	33	89	93	10	246	-0.9	30	234	-4.1									
2/7/2020	Fri	6:32:32	-6	105	-5	307	96							18	155	1.3	10	135	-1.9	5	125	0.6
2/7/2020	Fri	17:42:39	-6	255	22	81	98	10	247	-0.8	31	235	-4.1									
2/8/2020	Sat	6:31:19	-6	105	3	295	99							18	155	1.3	10	135	-1.9	5	126	0.6
2/8/2020	Sat	17:43:57	-6	255	10	74	100	10	248	-0.8	31	235	-4.1									
2/9/2020	Sun	6:30:05	-6	105	10	283	100							18	154	1.3	10	135	-1.9	5	126	0.6
2/9/2020	Sun	17:45:16	-6	256	-1	68	99	11	248	-0.7	31	236	-4.2									
2/10/2020	Mon	6:28:49	-6	104	17	270	98							18	154	1.3	10	136	-1.9	6	126	0.6
2/10/2020	Mon	17:46:34	-6	256	-14	61	96	11	249	-0.6	31	236	-4.2									
2/11/2020	Tue	6:27:32	-6	104	23	256	93							18	154	1.3	11	136	-1.9	6	127	0.6
2/11/2020	Tue	17:47:53	-6	257	-26	55	89	11	250	-0.4	32	237	-4.2									
2/12/2020	Wed	6:26:13	-6	103	27	241	85							18	154	1.3	11	136	-1.9	6	127	0.6
2/12/2020	Wed	17:49:12	-6	257	-38	46	81	11	251	-0.3	32	238	-4.2									
2/13/2020	Thr	6:24:53	-6	103	30	225	76							18	154	1.3	11	137	-1.9	7	128	0.6
2/13/2020	Thr	17:50:30	-6	258	-48	36	71	10	252	-0.1	32	238	-4.2									
2/14/2020	Fri	6:23:31	-6	102	31	209	65							18	154	1.3	11	137	-1.9	7	128	0.6
2/14/2020	Fri	17:51:49	-6	258	-57	20	60	10	253	0.2	32	239	-4.2									
2/15/2020	Sat	6:22:08	-6	102	29	194	54							18	154	1.2	11	137	-1.9	7	128	0.6
2/15/2020	Sat	17:53:07	-6	258	-63	358	49	9	254	0.5	33	239	-4.2									

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
2/16/2020	Sun	6:20:44	-6	101	27	179	43							18	154	1.2	12	138	-1.9	8	129	0.6
2/16/2020	Sun	17:54:26	-6	259	-64	330	38	9	255	0.8	33	240	-4.2									
2/17/2020	Mon	6:19:18	-6	101	23	166	33							18	154	1.2	12	138	-1.9	8	129	0.6
2/17/2020	Mon	17:55:44	-6	259	-60	307	28	8	256	1.2	33	241	-4.2									
2/18/2020	Tue	6:17:51	-6	100	18	153	24							18	154	1.2	12	138	-1.9	8	129	0.6
2/18/2020	Tue	6:17:51			Mars 0.3																	
2/18/2020	Tue	17:57:02	-6	260	-53	290	19	7	258	1.6	33	241	-4.2									
2/19/2020	Wed	6:16:23	-6	100	12	142	15							18	154	1.2	12	139	-1.9	8	130	0.6
2/19/2020	Wed	6:16:23			Jup 3.4																	
2/19/2020	Wed	17:58:20	-6	260	-44	279	12	6	259	2.1	33	242	-4.2									
2/20/2020	Thr	6:14:53	-6	99	6	131	9							18	153	1.2	13	139	-1.9	9	130	0.6
2/20/2020	Thr	6:14:53			Sat 2.5																	
2/20/2020	Thr	17:59:38	-6	261	-34	272	6	4	260	2.7	34	243	-4.2									
2/21/2020	Fri	6:13:23	-6	99	1	121	4							18	153	1.2	13	139	-1.9	9	131	0.6
2/21/2020	Fri	18:00:56	-6	261	-25	266	2	3	262	3.3	34	243	-4.2									
2/22/2020	Sat	6:11:51	-6	98	-5	111	1							18	153	1.2	13	140	-1.9	9	131	0.7
2/22/2020	Sat	18:02:14	-6	262	-15	261	0	1	263	3.9	34	244	-4.2									
2/23/2020	Sun	6:10:18	-6	98	-11	101	0							18	153	1.2	13	140	-1.9	10	131	0.7
2/23/2020	Sun	18:03:32	-6	262	-5	257	0	0	264	4.5	34	245	-4.2									
2/24/2020	Mon	6:08:44	-6	97	-16	90	1							18	153	1.2	13	140	-1.9	10	132	0.7
2/24/2020	Mon	18:04:49	-6	263	5	253	2	-2	266	5.1	35	245	-4.3									
2/25/2020	Tue	6:07:09	-6	97	-20	79	3	-3	94	5.2				17	153	1.2	14	140	-2	10	132	0.7
2/25/2020	Tue	18:06:06	-6	264	15	249	5				35	246	-4.3									
2/26/2020	Wed	6:05:33	-6	96	-24	68	8	-2	96	5.3				17	153	1.1	14	141	-2	10	132	0.7
2/26/2020	Wed	18:07:24	-6	264	25	244	10				35	247	-4.3									
2/27/2020	Thr	6:03:56	-6	96	-26	56	13	-1	97	5				17	152	1.1	14	141	-2	11	133	0.7
2/27/2020	Thr	18:08:41	-6	265	35	239	17				35	247	-4.3									
2/28/2020	Fri	6:02:18	-6	95	-28	43	20	0	98	4.5				17	152	1.1	14	141	-2	11	133	0.7
2/28/2020	Fri	18:09:57	-6	265	44	232	24				35	248	-4.3									
2/29/2020	Sat	6:00:39	-6	95	-29	31	28	0	100	4				17	152	1.1	14	142	-2	11	133	0.7
2/29/2020	Sat	18:11:14	-6	266	53	223	33				35	249	-4.3									
3/1/2020	Sun	5:58:59	-6	94	-29	17	38	1	101	3.5				17	152	1.1	14	142	-2	11	134	0.7
3/1/2020	Sun	18:12:31	-6	266	61	208	42				36	249	-4.3									
3/2/2020	Mon	5:57:19	-6	94	-27	4	47	2	102	3				17	152	1.1	15	142	-2	12	134	0.7
3/2/2020	Mon	18:13:47	-6	267	66	185	52				36	250	-4.3									
3/3/2020	Tue	5:55:37	-6	93	-24	351	57	2	104	2.6				17	152	1.1	15	143	-2	12	135	0.7
3/3/2020	Tue	18:15:03	-6	267	67	155	63				36	250	-4.3									
3/4/2020	Wed	5:53:55	-6	93	-21	338	67	2	105	2.2				17	151	1.1	15	143	-2	12	135	0.7
3/4/2020	Wed	18:16:19	-6	268	61	129	72				36	251	-4.3									
3/5/2020	Thr	5:52:12	-6	92	-16	326	77	3	106	1.9				17	151	1.1	15	143	-2	12	135	0.7
3/5/2020	Thr	18:17:35	-6	268	52	113	82				36	252	-4.3									
3/6/2020	Fri	5:50:28	-6	91	-10	313	86	3	107	1.7				17	151	1.1	15	143	-2	13	136	0.7
3/6/2020	Fri	18:18:51	-6	269	41	102	90				36	252	-4.3									
3/7/2020	Sat	5:48:44	-6	91	-4	301	93	4	107	1.4				17	151	1	16	144	-2	13	136	0.7
3/7/2020	Sat	18:20:07	-6	269	29	95	96				36	253	-4.3									
3/8/2020	Sun	5:46:58	-6	90	2	288	98	4	108	1.2				17	151	1	16	144	-2	13	136	0.7
3/8/2020	Sun	18:21:23	-6	270	16	89	99				37	254	-4.4									
3/9/2020	Mon	5:45:13	-6	90	8	274	100	4	109	1.1				17	150	1	16	144	-2	13	137	0.7
3/9/2020	Mon	18:22:38	-6	270	3	84	100				37	254	-4.4									
3/10/2020	Tue	5:43:26	-6	89	14	261	99	4	109	0.9				17	150	1	16	145	-2	14	137	0.7
3/10/2020	Tue	18:23:54	-6	271	-11	80	97				37	255	-4.4									
3/11/2020	Wed	5:41:39	-6	89	19	246	95	4	109	0.8				17	150	1	16	145	-2	14	137	0.7
3/11/2020	Wed	5:41:39												Jup 4.8								
3/11/2020	Wed	18:25:09	-6	272	-24	75	92				37	256	-4.4									
3/12/2020	Thr	5:39:52	-6	88	23	231	88	4	110	0.7				17	150	1	16	145	-2	14	138	0.7
3/12/2020	Thr	5:39:52												Jup 4.3								
3/12/2020	Thr	18:26:24	-6	272	-36	69	84				37	256	-4.4									
3/13/2020	Fri	5:38:04	-6	88	25	215	80	4	110	0.6				17	150	1	17	146	-2	14	138	0.7
3/13/2020	Fri	5:38:04												Jup 3.8								
3/13/2020	Fri	18:27:40	-6	273	-48	61	75				37	257	-4.4									
3/14/2020	Sat	5:36:16	-6	87	25	200	70	4	110	0.5				17	149	1	17	146	-2	14	138	0.7
3/14/2020	Sat	5:36:16												Jup 3.3								
3/14/2020	Sat	18:28:55	-6	273	-58	48	64				37	257	-4.4									
3/15/2020	Sun	5:34:27	-6	87	24	186	59	4	110	0.5				17	149	1	17	146	-2	15	139	0.7
3/15/2020	Sun	5:34:27												Jup 2.7								

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
3/15/2020	Sun	18:30:10	-6	274	-66	28	54				37	258	-4.4									
3/16/2020	Mon	5:32:37	-6	86	22	172	49	4	110	0.4				17	149	1	17	147	-2	15	139	0.7
3/16/2020	Mon	5:32:37												Jup 2.2								
3/16/2020	Mon	18:31:25	-6	274	-70	358	43				37	259	-4.4									
3/17/2020	Tue	5:30:48	-6	85	19	159	39	4	110	0.4				17	149	0.9	17	147	-2.1	15	140	0.7
3/17/2020	Tue	5:30:48												Jup 1.7								
3/17/2020	Tue	18:32:41	-6	275	-67	328	33				37	259	-4.4									
3/18/2020	Wed	5:28:58	-6	85	15	147	29	4	110	0.3				17	148	0.9	17	147	-2.1	15	140	0.7
3/18/2020	Wed	5:28:58			Jup 2.7									Jup 1.3								
3/18/2020	Wed	18:33:56	-6	275	-60	308	24				37	260	-4.4									
3/19/2020	Thr	5:27:08	-6	84	10	135	20	4	110	0.3				17	148	0.9	18	147	-2.1	16	140	0.7
3/19/2020	Thr	5:27:08												Jup 0.9								
3/19/2020	Thr	18:35:11	-6	276	-51	296	16				37	260	-4.4									
3/20/2020	Fri	5:25:17	-6	84	6	124	13	4	109	0.2				17	148	0.9	18	148	-2.1	16	141	0.7
3/20/2020	Fri	5:25:17												Jup 0.7								
3/20/2020	Fri	18:36:27	-6	277	-42	288	10				37	261	-4.5									
3/21/2020	Sat	5:23:26	-6	83	1	114	7	4	109	0.2				17	148	0.9	18	148	-2.1	16	141	0.7
3/21/2020	Sat	5:23:26												Jup 0.9								
3/21/2020	Sat	18:37:42	-6	277	-32	283	5				38	262	-4.5									
3/22/2020	Sun	5:21:35	-6	83	-3	103	3	4	109	0.2				17	147	0.9	18	148	-2.1	16	141	0.7
3/22/2020	Sun	5:21:35												Jup 1.3								
3/22/2020	Sun	18:38:58	-6	278	-22	278	2				38	262	-4.5									
3/23/2020	Mon	5:19:44	-6	82	-8	93	1	4	108	0.2				17	147	0.9	18	149	-2.1	16	142	0.7
3/23/2020	Mon	5:19:44												Jup 1.8								
3/23/2020	Mon	18:40:13	-6	278	-12	275	0				38	263	-4.5									
3/24/2020	Tue	5:17:53	-6	82	-12	82	0	3	108	0.1				17	147	0.9	18	149	-2.1	17	142	0.7
3/24/2020	Tue	5:17:53												Jup 2.3								
3/24/2020	Tue	18:41:29	-6	279	-1	272	1				38	263	-4.5									
3/25/2020	Wed	5:16:01	-6	81	-16	71	1	3	107	0.1				17	147	0.9	19	149	-2.1	17	143	0.7
3/25/2020	Wed	5:16:01												Jup 2.9								
3/25/2020	Wed	18:42:44	-6	279	8	268	3				38	264	-4.5									
3/26/2020	Thr	5:14:10	-6	80	-19	60	4	3	107	0.1				17	146	0.8	19	150	-2.1	17	143	0.7
3/26/2020	Thr	5:14:10												Sat 3.4								
3/26/2020	Thr	18:44:00	-6	280	18	265	6				38	264	-4.5									
3/27/2020	Fri	5:12:18	-6	80	-22	48	9	3	106	0.1				17	146	0.8	19	150	-2.1	17	143	0.7
3/27/2020	Fri	5:12:18												Sat 2.8								
3/27/2020	Fri	18:45:16	-6	280	28	261	12				38	265	-4.5									
3/28/2020	Sat	5:10:27	-6	79	-24	36	15	3	105	0.1				17	146	0.8	19	150	-2.1	17	144	0.7
3/28/2020	Sat	5:10:27												Sat 2.2								
3/28/2020	Sat	18:46:32	-6	281	39	255	19				37	265	-4.5									
3/29/2020	Sun	5:08:35	-6	79	-25	23	22	3	105	0.1				17	146	0.8	19	151	-2.1	18	144	0.7
3/29/2020	Sun	5:08:35												Sat 1.7								
3/29/2020	Sun	18:47:48	-6	282	48	248	27				37	266	-4.5									
3/30/2020	Mon	5:06:43	-6	78	-25	10	31	2	104	0				17	146	0.8	19	151	-2.1	18	144	0.7
3/30/2020	Mon	5:06:43												Sat 1.2								
3/30/2020	Mon	18:49:04	-6	282	58	237	36				37	267	-4.5									
3/31/2020	Tue	5:04:51	-6	78	-24	357	41	2	103	0				17	145	0.8	19	151	-2.1	18	145	0.7
3/31/2020	Tue	5:04:51												Sat 0.9								
3/31/2020	Tue	18:50:20	-6	283	65	218	46				37	267	-4.5									
4/1/2020	Wed	5:03:00	-6	77	-21	344	51	2	102	0				17	145	0.8	20	152	-2.1	18	145	0.7
4/1/2020	Wed	5:03:00												Sat 1.0								
4/1/2020	Wed	18:51:36	-6	283	69	187	57				37	268	-4.6									
4/2/2020	Thr	5:01:08	-6	77	-18	331	61	2	101	0				17	145	0.8	20	152	-2.1	18	146	0.7
4/2/2020	Thr	5:01:08												Sat 1.4								
4/2/2020	Thr	18:52:53	-6	284	66	155	68				37	268	-4.6									
4/3/2020	Fri	4:59:17	-6	76	-14	317	72	2	101	0				17	145	0.8	20	152	-2.2	19	146	0.7
4/3/2020	Fri	4:59:17												Sat 2.0								
4/3/2020	Fri	18:54:09	-6	284	57	134	78				37	269	-4.6									
4/4/2020	Sat	4:57:26	-6	75	-10	304	82	1	100	0				17	144	0.7	20	153	-2.2	19	146	0.7
4/4/2020	Sat	4:57:26												Sat 2.6								
4/4/2020	Sat	18:55:26	-6	285	46	122	87				37	269	-4.6									
4/5/2020	Sun	4:55:35	-6	75	-4	291	90	1	99	-0.1				17	144	0.7	20	153	-2.2	19	147	0.7
4/5/2020	Sun	4:55:35												Sat 3.2								
4/5/2020	Sun	18:56:42	-6	285	34	113	94				37	270	-4.6									
4/6/2020	Mon	4:53:44	-6	74	1	278	96	1	98	-0.1				17	144	0.7	20	154	-2.2	19	147	0.7

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
4/6/2020	Mon	4:53:44												Sat 3.8								
4/6/2020	Mon	18:57:59	-6	286	21	107	98				37	270	-4.6									
4/7/2020	Tue	4:51:54	-6	74	7	264	99	1	97	-0.1				18	144	0.7	20	154	-2.2	19	148	0.7
4/7/2020	Tue	4:51:54												Sat 4.4								
4/7/2020	Tue	18:59:16	-6	287	8	102	100				37	271	-4.6									
4/8/2020	Wed	4:50:04	-6	73	12	250	100	1	96	-0.1				18	143	0.7	21	154	-2.2	20	148	0.7
4/8/2020	Wed	19:00:33	-6	287	-6	97	98				36	271	-4.6									
4/9/2020	Thr	4:48:14	-6	73	16	235	97	1	95	-0.2				18	143	0.7	21	155	-2.2	20	149	0.7
4/9/2020	Thr	19:01:51	-6	288	-19	93	94				36	272	-4.6									
4/10/2020	Fri	4:46:24	-6	72	19	221	92	0	94	-0.2				18	143	0.7	21	155	-2.2	20	149	0.6
4/10/2020	Fri	19:03:08	-6	288	-31	87	87				36	272	-4.6									
4/11/2020	Sat	4:44:35	-6	72	21	206	84	0	93	-0.2				18	143	0.7	21	155	-2.2	20	149	0.6
4/11/2020	Sat	19:04:26	-6	289	-43	80	79				36	273	-4.6									
4/12/2020	Sun	4:42:47	-6	71	22	191	75	0	92	-0.3				18	142	0.6	21	156	-2.2	20	150	0.6
4/12/2020	Sun	19:05:44	-6	289	-53	70	69				36	273	-4.6									
4/13/2020	Mon	4:40:59	-6	71	21	177	65	0	90	-0.3				18	142	0.6	21	156	-2.2	21	150	0.6
4/13/2020	Mon	19:07:02	-6	290	-61	54	59				35	274	-4.7									
4/14/2020	Tue	4:39:11	-6	70	20	164	55	0	89	-0.4				18	142	0.6	21	157	-2.2	21	151	0.6
4/14/2020	Tue	19:08:20	-6	290	-67	31	49				35	274	-4.7									
4/15/2020	Wed	4:37:24	-6	70	17	151	45	-1	88	-0.4				18	142	0.6	22	157	-2.2	21	151	0.6
4/15/2020	Wed	4:37:24			Sat 3.5																	
4/15/2020	Wed	19:09:38	-6	291	-67	2	39				35	275	-4.7									
4/16/2020	Thr	4:35:38	-6	69	14	139	35	-1	87	-0.4				18	141	0.6	22	158	-2.2	21	152	0.6
4/16/2020	Thr	4:35:38			Mars 4.3																	
4/16/2020	Thr	19:10:57	-6	291	-63	338	30				35	275	-4.7									
4/17/2020	Fri	4:33:52	-6	69	11	128	26	-1	86	-0.5				18	141	0.6	22	158	-2.2	21	152	0.6
4/17/2020	Fri	19:12:16	-6	292	-56	323	21				34	276	-4.7									
4/18/2020	Sat	4:32:07	-6	68	7	117	18	-1	84	-0.6				18	141	0.6	22	158	-2.3	21	153	0.6
4/18/2020	Sat	19:13:34	-6	292	-47	312	14				34	276	-4.7									
4/19/2020	Sun	4:30:22	-6	67	3	106	12	-2	83	-0.6				18	141	0.6	22	159	-2.3	22	153	0.6
4/19/2020	Sun	19:14:53	-6	293	-38	305	8				34	276	-4.7									
4/20/2020	Mon	4:28:39	-6	67	0	95	6	-2	82	-0.7				18	140	0.5	22	159	-2.3	22	154	0.6
4/20/2020	Mon	19:16:12	-6	293	-29	299	4				33	277	-4.7									
4/21/2020	Tue	4:26:56	-6	66	-5	85	3	-2	80	-0.7				19	140	0.5	22	160	-2.3	22	154	0.6
4/21/2020	Tue	19:17:32	-6	294	-19	295	1				33	277	-4.7									
4/22/2020	Wed	4:25:14	-6	66	-9	74	1	-2	79	-0.8				19	140	0.5	23	160	-2.3	22	155	0.6
4/22/2020	Wed	19:18:51	-6	294	-9	291	0				33	278	-4.7									
4/23/2020	Thr	4:23:32	-6	65	-12	63	0	-3	78	-0.9				19	140	0.5	23	161	-2.3	22	155	0.6
4/23/2020	Thr	19:20:10	-6	295	1	286	1				32	278	-4.7									
4/24/2020	Fri	4:21:52	-6	65	-16	52	2	-3	76	-1				19	140	0.5	23	161	-2.3	22	156	0.6
4/24/2020	Fri	19:21:30	-6	295	11	282	4				32	279	-4.7									
4/25/2020	Sat	4:20:12	-6	64	-19	40	5							19	139	0.5	23	162	-2.3	23	156	0.6
4/25/2020	Sat	19:22:49	-6	296	21	277	8				31	279	-4.7									
4/26/2020	Sun	4:18:34	-6	64	-21	28	10							19	139	0.5	23	162	-2.3	23	157	0.6
4/26/2020	Sun	19:24:09	-6	296	31	271	15				31	280	-4.7									
4/27/2020	Mon	4:16:56	-6	64	-22	15	17							19	139	0.5	23	163	-2.3	23	157	0.6
4/27/2020	Mon	19:25:28	-6	297	41	264	22				30	280	-4.7									
4/28/2020	Tue	4:15:20	-6	63	-23	2	26							19	139	0.4	23	163	-2.3	23	158	0.6
4/28/2020	Tue	4:15:20															Sat 5.0					
4/28/2020	Tue	19:26:48	-6	297	50	253	32				30	281	-4.7									
4/29/2020	Wed	4:13:44	-6	63	-23	349	35							19	139	0.4	23	164	-2.3	23	158	0.6
4/29/2020	Wed	4:13:44															Sat 5.0					
4/29/2020	Wed	19:28:07	-6	298	58	237	42				29	282	-4.7									
4/30/2020	Thr	4:12:10	-6	62	-21	335	46							20	138	0.4	24	164	-2.3	23	159	0.6
4/30/2020	Thr	4:12:10															Sat 4.9					
4/30/2020	Thr	19:29:26	-6	298	62	213	53				29	282	-4.7									
5/1/2020	Fri	4:10:36	-6	62	-19	321	57							20	138	0.4	24	165	-2.4	24	159	0.6
5/1/2020	Fri	4:10:36															Sat 4.9					
5/1/2020	Fri	19:30:45	-6	299	62	186	64				28	283	-4.7									
5/2/2020	Sat	4:09:04	-6	61	-16	308	68							20	138	0.4	24	165	-2.4	24	160	0.6
5/2/2020	Sat	4:09:04															Sat 4.9					
5/2/2020	Sat	19:32:04	-6	299	56	163	75				28	283	-4.7									
5/3/2020	Sun	4:07:33	-6	61	-12	294	78							20	138	0.4	24	166	-2.4	24	161	0.6
5/3/2020	Sun	4:07:33															Sat 4.9					
5/3/2020	Sun	19:33:23	-6	300	46	147	84				27	284	-4.7									

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
5/4/2020	Mon	4:06:04	-6	60	-7	281	87							20	138	0.4	24	167	-2.4	24	161	0.6
5/4/2020	Mon	4:06:04															Sat 4.8					
5/4/2020	Mon	19:34:41	-6	300	35	136	92				26	284	-4.7									
5/5/2020	Tue	4:04:35	-6	60	-1	267	94							20	138	0.4	24	167	-2.4	24	162	0.6
5/5/2020	Tue	4:04:35															Sat 4.8					
5/5/2020	Tue	19:36:00	-6	300	24	127	97				26	285	-4.7									
5/6/2020	Wed	4:03:08	-6	59	4	254	98							20	137	0.3	24	168	-2.4	24	162	0.6
5/6/2020	Wed	4:03:08															Sat 4.8					
5/6/2020	Wed	19:37:18	-6	301	11	120	100				25	286	-4.7									
5/7/2020	Thr	4:01:43	-6	59	9	240	100							21	137	0.3	24	168	-2.4	24	163	0.6
5/7/2020	Thr	4:01:43															Sat 4.8					
5/7/2020	Thr	19:38:35	-6	301	0	114	99	-2	300	-2	24	286	-4.7									
5/7/2020	Thr	23:49:41	-29	0	26	167	99										-3	116	-2.4			
5/8/2020	Fri	4:00:18	-6	59	13	226	98							21	137	0.3	24	169	-2.4	24	164	0.5
5/8/2020	Fri	4:00:18															Sat 4.8					
5/8/2020	Fri	19:39:53	-6	302	-13	107	96	-1	299	-1.9	23	287	-4.7									
5/8/2020	Fri	23:49:38	-28	360	20	154	95										-2	117	-2.4			
5/9/2020	Sat	3:58:56	-6	58	17	212	94							21	137	0.3	24	170	-2.4	25	164	0.5
5/9/2020	Sat	3:58:56															Sat 4.8					
5/9/2020	Sat	19:41:10	-6	302	-24	100	90	0	299	-1.7	22	287	-4.7									
5/9/2020	Sat	23:49:36	-28	360	12	142	89										-2	117	-2.4			
5/10/2020	Sun	3:57:35	-6	58	19	199	88							21	137	0.3	24	170	-2.4	25	165	0.5
5/10/2020	Sun	3:57:35															Sat 4.7					
5/10/2020	Sun	19:42:27	-6	303	-34	92	83	1	299	-1.6	22	288	-4.7									
5/10/2020	Sun	23:49:34	-28	360	5	132	82										-1	118	-2.4			
5/10/2020	Sun	23:49:34															Sat 4.9					
5/11/2020	Mon	3:56:15	-6	57	21	185	80							21	137	0.3	25	171	-2.4	25	166	0.5
5/11/2020	Mon	3:56:15															Sat 4.7					
5/11/2020	Mon	19:43:43	-6	303	-43	82	74	2	299	-1.5	21	289	-4.6									
5/11/2020	Mon	23:49:33	-28	360	-2	122	73										0	119	-2.4	-3	115	0.5
5/11/2020	Mon	23:49:33			Jup 3.3												Sat 4.8					
5/12/2020	Tue	3:54:57	-6	57	22	171	71							21	137	0.3	25	172	-2.4	25	166	0.5
5/12/2020	Tue	3:54:57			Jup 3.1												Sat 4.7					
5/12/2020	Tue	19:44:58	-6	303	-51	69	65	3	299	-1.4	20	289	-4.6									
5/12/2020	Tue	23:49:32	-27	360	-9	112	63										0	119	-2.4	-2	115	0.5
5/12/2020	Tue	23:49:32															Sat 4.7					
5/13/2020	Wed	3:53:41	-6	57	21	158	61							22	136	0.2	25	172	-2.4	25	167	0.5
5/13/2020	Wed	3:53:41															Sat 4.7					
5/13/2020	Wed	19:46:14	-6	304	-56	53	55	4	298	-1.3	19	290	-4.6									
5/13/2020	Wed	23:49:32	-27	0	-16	102	53										1	120	-2.4	-1	116	0.5
5/13/2020	Wed	23:49:32															Sat 4.6					
5/14/2020	Thr	3:52:26	-6	56	20	145	51							22	136	0.2	25	173	-2.4	25	168	0.5
5/14/2020	Thr	3:52:26															Sat 4.7					
5/14/2020	Thr	19:47:28	-6	304	-58	33	45	4	298	-1.2	18	291	-4.6									
5/14/2020	Thr	23:49:33	-27	360	-21	91	43										1	121	-2.5	-1	117	0.5
5/14/2020	Thr	23:49:33															Sat 4.6					
5/15/2020	Fri	3:51:13	-6	56	18	133	42							22	136	0.2	25	174	-2.5	25	168	0.5
5/15/2020	Fri	3:51:13			Mars 4.9												Sat 4.7					
5/15/2020	Fri	19:48:42	-6	304	-57	13	36	5	298	-1.1	17	292	-4.5									
5/15/2020	Fri	23:49:34	-27	0	-26	80	34										2	122	-2.5	0	117	0.5
5/15/2020	Fri	23:49:34															Sat 4.6					
5/16/2020	Sat	3:50:02	-6	55	15	122	32							22	136	0.2	25	174	-2.5	25	169	0.5
5/16/2020	Sat	3:50:02															Sat 4.7					
5/16/2020	Sat	19:49:56	-6	305	-53	356	27	6	298	-1	16	293	-4.5									
5/16/2020	Sat	23:49:36	-26	0	-29	69	25										2	122	-2.5	0	118	0.5
5/16/2020	Sat	23:49:36															Sat 4.6					
5/17/2020	Sun	3:48:53	-6	55	12	111	24							22	136	0.2	25	175	-2.5	25	170	0.5
5/17/2020	Sun	3:48:53															Sat 4.7					
5/17/2020	Sun	19:51:08	-6	305	-47	342	19	7	297	-1	15	293	-4.5									
5/17/2020	Sun	23:49:38	-26	360	-32	57	18										3	123	-2.5	1	119	0.5
5/17/2020	Sun	23:49:38															Sat 4.6					
5/18/2020	Mon	3:47:46	-6	55	9	100	16							23	136	0.2	25	176	-2.5	26	171	0.5
5/18/2020	Mon	3:47:46															Sat 4.7					
5/18/2020	Mon	19:52:20	-6	306	-40	331	12	8	297	-0.9	14	294	-4.5									
5/18/2020	Mon	23:49:41	-26	0	-33	44	11										4	124	-2.5	2	120	0.5

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
5/18/2020	Mon	23:49:41															Sat 4.6					
5/19/2020	Tue	3:46:40	-6	54	5	89	10							23	136	0.2	25	177	-2.5	26	171	0.5
5/19/2020	Tue	3:46:40															Sat 4.7					
5/19/2020	Tue	19:53:31	-6	306	-32	323	7	8	297	-0.8	13	295	-4.4									
5/19/2020	Tue	19:53:31						Ven 4.8														
5/19/2020	Tue	23:49:45	-26	360	-33	31	6										4	124	-2.5	2	120	0.5
5/19/2020	Tue	23:49:45															Sat 4.7					
5/20/2020	Wed	3:45:37	-6	54	1	79	5							23	136	0.1	25	177	-2.5	26	172	0.5
5/20/2020	Wed	3:45:37															Sat 4.7					
5/20/2020	Wed	19:54:41	-6	306	-23	315	3	9	297	-0.7	11	296	-4.4									
5/20/2020	Wed	19:54:41						Ven 2.8														
5/20/2020	Wed	23:49:49	-26	0	-32	18	2										5	125	-2.5	3	121	0.5
5/20/2020	Wed	23:49:49															Sat 4.7					
5/21/2020	Thr	3:44:35	-6	54	-4	68	2							23	136	0.1	25	178	-2.5	26	173	0.5
5/21/2020	Thr	3:44:35															Sat 4.7					
5/21/2020	Thr	19:55:50	-6	307	-14	309	0	9	296	-0.6	10	297	-4.3									
5/21/2020	Thr	19:55:50						Ven 1.0														
5/21/2020	Thr	23:49:54	-25	0	-30	5	0										5	126	-2.5	3	122	0.5
5/21/2020	Thr	23:49:54															Sat 4.7					
5/22/2020	Fri	3:43:36	-6	53	-8	58	0							24	136	0.1	25	179	-2.5	26	174	0.5
5/22/2020	Fri	3:43:36															Sat 4.7					
5/22/2020	Fri	19:56:59	-6	307	-5	302	0	10	296	-0.6	9	298	-4.3									
5/22/2020	Fri	19:56:59						Ven 1.7														
5/22/2020	Fri	23:49:59	-25	360	-26	353	0										6	127	-2.5	4	122	0.5
5/22/2020	Fri	23:49:59															Sat 4.7					
5/23/2020	Sat	3:42:39	-6	53	-12	46	1							24	136	0.1	25	180	-2.5	26	175	0.5
5/23/2020	Sat	3:42:39															Sat 4.7					
5/23/2020	Sat	19:58:06	-6	307	4	296	2	10	296	-0.5	8	299	-4.2									
5/23/2020	Sat	19:58:06			Ven 4.3			Ven 3.6														
5/23/2020	Sat	23:50:04	-25	0	-22	341	2										6	127	-2.5	4	123	0.5
5/23/2020	Sat	23:50:04															Sat 4.7					
5/24/2020	Sun	3:41:43	-6	53	-16	35	3							24	136	0.1	25	180	-2.5	26	175	0.5
5/24/2020	Sun	3:41:43															Sat 4.7					
5/24/2020	Sun	19:59:11	-6	307	14	289	6	11	296	-0.4	7	300	-4.2									
5/24/2020	Sun	23:50:10	-25	0	-17	330	7										7	128	-2.5	5	124	0.5
5/24/2020	Sun	23:50:10															Sat 4.7					
5/25/2020	Mon	3:40:50	-6	52	-20	23	7							24	136	0.1	25	181	-2.5	26	176	0.5
5/25/2020	Mon	3:40:50															Sat 4.7					
5/25/2020	Mon	20:00:16	-6	308	23	281	12	11	295	-0.3	5	301	-4.1									
5/25/2020	Mon	23:50:17	-25	360	-11	319	13										8	129	-2.5	6	125	0.5
5/25/2020	Mon	23:50:17															Sat 4.7					
5/26/2020	Tue	3:39:59	-6	52	-22	10	14							25	136	0.1	25	182	-2.5	26	177	0.5
5/26/2020	Tue	3:39:59															Sat 4.7					
5/26/2020	Tue	20:01:20	-6	308	32	272	19	11	295	-0.3	4	302	-4									
5/26/2020	Tue	23:50:24	-25	360	-5	308	21										8	130	-2.5	6	125	0.4
5/26/2020	Tue	23:50:24															Sat 4.7					
5/27/2020	Wed	3:39:11	-6	52	-24	357	22							25	136	0	25	183	-2.5	26	178	0.4
5/27/2020	Wed	3:39:11															Sat 4.8					
5/27/2020	Wed	20:02:22	-6	308	40	260	28	11	295	-0.2	3	303	-4.1									
5/27/2020	Wed	23:50:31	-24	0	1	297	30										9	131	-2.5	7	126	0.4
5/27/2020	Wed	23:50:31															Sat 4.8					
5/28/2020	Thr	3:38:24	-6	52	-25	343	32							25	136	0	25	184	-2.5	26	179	0.4
5/28/2020	Thr	3:38:24															Sat 4.8					
5/28/2020	Thr	20:03:22	-6	309	46	245	39	12	295	-0.1	2	304	-4.1									
5/28/2020	Thr	23:50:39	-24	0	7	286	40										9	131	-2.5	7	127	0.4
5/28/2020	Thr	23:50:39															Sat 4.8					
5/29/2020	Fri	3:37:40	-6	51	-25	329	42							25	136	0	25	185	-2.6	26	180	0.4
5/29/2020	Fri	3:37:40															Sat 4.8					
5/29/2020	Fri	20:04:22	-6	309	50	227	50	12	295	0	1	305	-4.1									
5/29/2020	Fri	23:50:48	-24	0	12	274	52										10	132	-2.6	8	128	0.4
5/29/2020	Fri	23:50:48															Sat 4.8					
5/30/2020	Sat	3:36:58	-6	51	-24	314	53							26	136	0	25	186	-2.6	26	180	0.4
5/30/2020	Sat	3:36:58															Sat 4.8					
5/30/2020	Sat	20:05:19	-6	309	50	206	61	12	294	0.1	-1	306	-4.2									
5/30/2020	Sat	23:50:56	-24	360	17	261	63										10	133	-2.6	9	129	0.4

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
5/30/2020	Sat	23:50:56															Sat 4.8					
5/31/2020	Sun	3:36:18	-6	51	-21	300	65							26	136	0	25	186	-2.6	26	181	0.4
5/31/2020	Sun	3:36:18															Sat 4.8					
5/31/2020	Sun	20:06:15	-6	309	47	186	72	12	294	0.1	-2	307	-4.2									
5/31/2020	Sun	23:51:05	-24	360	22	248	74										11	134	-2.6	9	129	0.4
5/31/2020	Sun	23:51:05															Sat 4.8					
6/1/2020	Mon	3:35:41	-6	51	-17	286	75							26	136	0	25	187	-2.6	26	182	0.4
6/1/2020	Mon	3:35:41															Sat 4.9					
6/1/2020	Mon	20:07:10	-6	309	41	170	82	12	294	0.2												
6/1/2020	Mon	23:51:15	-24	360	25	233	84										12	135	-2.6	10	130	0.4
6/1/2020	Mon	23:51:15															Sat 4.9					
6/2/2020	Tue	3:35:07	-6	50	-13	273	85							27	136	0	24	188	-2.6	26	183	0.4
6/2/2020	Tue	3:35:07															Sat 4.9					
6/2/2020	Tue	20:08:02	-6	310	32	156	90	11	294	0.3												
6/2/2020	Tue	23:51:25	-24	360	26	218	91										12	136	-2.6	10	131	0.4
6/2/2020	Tue	23:51:25															Sat 4.9					
6/3/2020	Wed	3:34:34	-6	50	-7	260	92							27	136	-0.1	24	189	-2.6	26	184	0.4
6/3/2020	Wed	3:34:34															Sat 4.9					
6/3/2020	Wed	20:08:53	-6	310	23	145	96	11	294	0.4												
6/3/2020	Wed	23:51:35	-23	0	26	202	97										13	137	-2.6	11	132	0.4
6/3/2020	Wed	23:51:35															Sat 4.9					
6/4/2020	Thr	3:34:04	-6	50	-1	247	97							27	136	-0.1	24	190	-2.6	26	185	0.4
6/4/2020	Thr	3:34:04															Sat 4.9					
6/4/2020	Thr	20:09:42	-6	310	13	135	99	11	294	0.5												
6/4/2020	Thr	23:51:45	-23	0	25	187	100										13	138	-2.6	11	133	0.4
6/4/2020	Thr	23:51:45															Sat 4.9					
6/5/2020	Fri	3:33:37	-6	50	4	235	100							28	136	-0.1	24	191	-2.6	26	186	0.4
6/5/2020	Fri	3:33:37															Sat 5.0					
6/5/2020	Fri	20:10:30	-6	310	3	126	100	11	294	0.6												
6/5/2020	Fri	23:51:56	-23	360	22	173	100										14	138	-2.6	12	134	0.4
6/5/2020	Fri	23:51:56															Sat 5.0					
6/6/2020	Sat	3:33:12	-6	50	10	223	99							28	136	-0.1	24	192	-2.6	26	187	0.4
6/6/2020	Sat	3:33:12															Sat 5.0					
6/6/2020	Sat	20:11:15	-6	310	-7	118	98	10	294	0.7												
6/6/2020	Sat	23:52:07	-23	0	18	160	97										14	139	-2.6	12	135	0.4
6/7/2020	Sun	3:32:49	-6	50	15	210	97							28	136	-0.1	24	193	-2.6	26	188	0.4
6/7/2020	Sun	20:11:58	-6	311	-16	109	93	10	294	0.8												
6/7/2020	Sun	23:52:19	-23	360	14	147	92										15	140	-2.6	13	135	0.4
6/8/2020	Mon	3:32:29	-6	49	19	197	91				-2	56	-4.1	29	137	-0.1	24	194	-2.6	25	189	0.4
6/8/2020	Mon	20:12:40	-6	311	-24	99	87	10	294	0.9												
6/8/2020	Mon	23:52:30	-23	360	9	135	86										15	141	-2.6	14	136	0.4
6/8/2020	Mon	23:52:30			Sat 4.3																	
6/9/2020	Tue	3:32:12	-6	49	23	185	85				-2	57	-4.1	29	137	-0.1	23	195	-2.6	25	190	0.4
6/9/2020	Tue	20:13:19	-6	311	-32	89	79	9	294	1												
6/9/2020	Tue	23:52:42	-23	360	5	124	78										16	142	-2.6	14	137	0.4
6/10/2020	Wed	3:31:57	-6	49	25	172	76				-1	59	-4	29	137	-0.2	23	196	-2.6	25	191	0.4
6/10/2020	Wed	20:13:56	-6	311	-38	77	70	9	294	1.1												
6/10/2020	Wed	23:52:54	-23	0	0	114	69										16	143	-2.6	15	138	0.4
6/11/2020	Thr	3:31:45	-6	49	27	159	68				0	60	-4	30	137	-0.2	23	197	-2.6	25	192	0.4
6/11/2020	Thr	20:14:31	-6	311	-42	64	61	8	294	1.3												
6/11/2020	Thr	23:53:07	-23	360	-5	103	60										17	144	-2.6	15	139	0.3
6/12/2020	Fri	3:31:35	-6	49	27	146	58				0	61	-4.1	30	137	-0.2	23	198	-2.6	25	193	0.3
6/12/2020	Fri	20:15:04	-6	311	-45	49	51	7	295	1.4												
6/12/2020	Fri	23:53:19	-23	360	-9	93	50										17	145	-2.6	16	140	0.3
6/13/2020	Sat	3:31:28	-6	49	26	133	48				1	62	-4.2	30	138	-0.2	22	199	-2.6	25	194	0.3
6/13/2020	Sat	20:15:35	-6	311	-45	34	42	7	295	1.6												
6/13/2020	Sat	23:53:32	-23	0	-13	83	40										17	146	-2.6	16	141	0.3
6/14/2020	Sun	3:31:24	-6	49	25	121	39				2	63	-4.2	31	138	-0.2	22	200	-2.6	24	195	0.3
6/14/2020	Sun	20:16:03	-6	311	-44	19	33	6	295	1.7												
6/14/2020	Sun	23:53:45	-23	360	-16	72	31										18	147	-2.7	17	142	0.3
6/15/2020	Mon	3:31:22	-6	49	22	110	30				2	64	-4.3	31	138	-0.2	22	201	-2.7	24	196	0.3
6/15/2020	Mon	20:16:29	-6	311	-40	5	24	5	296	1.9												
6/15/2020	Mon	23:53:58	-23	0	-19	61	23							-3	95	-0.3	18	148	-2.7	17	143	0.3
6/16/2020	Tue	3:31:23	-6	49	18	99	22				3	65	-4.3	31	138	-0.3	22	202	-2.7	24	197	0.3
6/16/2020	Tue	20:16:53	-6	311	-36	353	16	4	296	2.1												

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
6/16/2020	Tue	23:54:11	-23	360	-21	50	15							-2	95	-0.3	19	149	-2.7	17	144	0.3
6/17/2020	Wed	3:31:26	-6	49	14	88	14				3	67	-4.4	32	139	-0.3	21	203	-2.7	24	198	0.3
6/17/2020	Wed	20:17:14	-6	311	-30	342	10	3	297	2.3												
6/17/2020	Wed	23:54:24	-23	0	-23	38	9							-2	95	-0.3	19	150	-2.7	18	145	0.3
6/18/2020	Thr	3:31:32	-6	49	9	77	8				4	68	-4.4	32	139	-0.3	21	204	-2.7	24	199	0.3
6/18/2020	Thr	20:17:33	-6	311	-23	331	5	3	297	2.5												
6/18/2020	Thr	23:54:37	-23	0	-24	25	4							-1	95	-0.3	19	151	-2.7	18	146	0.3
6/19/2020	Fri	3:31:40	-6	49	4	67	4				5	69	-4.4	33	139	-0.3	21	205	-2.7	23	200	0.3
6/19/2020	Fri	3:31:40			Ven 1.5																	
6/19/2020	Fri	20:17:49	-6	311	-16	322	1	2	298	2.7												
6/19/2020	Fri	23:54:50	-22	360	-24	13	1							-1	95	-0.3	20	152	-2.7	19	147	0.3
6/20/2020	Sat	3:31:51	-6	49	-1	57	1				5	70	-4.5	33	140	-0.3	20	206	-2.7	23	201	0.3
6/20/2020	Sat	20:18:03	-6	312	-8	313	0	1	299	3												
6/20/2020	Sat	23:55:03	-22	360	-23	360	0							0	95	-0.3	20	154	-2.7	19	148	0.3
6/21/2020	Sun	3:32:04	-6	49	-8	47	0				6	70	-4.5	33	140	-0.3	20	207	-2.7	23	202	0.3
6/21/2020	Sun	20:18:14	-6	311	0	304	1	0	299	3.3												
6/21/2020	Sun	20:18:14			Mer 4.3																	
6/21/2020	Sun	23:55:16	-23	360	-22	347	1							0	95	-0.4	20	155	-2.7	20	149	0.3
6/22/2020	Mon	3:32:19	-6	49	-14	36	2				7	71	-4.5	34	140	-0.4	19	208	-2.7	22	203	0.3
6/22/2020	Mon	20:18:23	-6	311	8	294	4	-1	300	3.6												
6/22/2020	Mon	23:55:29	-23	0	-19	334	5							1	96	-0.4	21	156	-2.7	20	150	0.3
6/23/2020	Tue	3:32:38	-6	49	-20	25	5				7	72	-4.6	34	141	-0.4	19	210	-2.7	22	204	0.3
6/23/2020	Tue	20:18:29	-6	311	16	284	9	-2	301	3.9												
6/23/2020	Tue	23:55:42	-23	0	-16	321	10							1	96	-0.4	21	157	-2.7	20	151	0.3
6/24/2020	Wed	3:32:58	-6	49	-25	12	11				8	73	-4.6	35	141	-0.4	19	211	-2.7	22	206	0.3
6/24/2020	Wed	23:55:55	-23	0	-12	309	18							1	96	-0.4	21	158	-2.7	21	152	0.3
6/25/2020	Thr	3:33:21	-6	49	-30	359	19				9	74	-4.6	35	142	-0.4	18	212	-2.7	21	207	0.3
6/25/2020	Thr	23:56:08	-23	0	-8	296	27							2	96	-0.4	22	159	-2.7	21	153	0.3
6/26/2020	Fri	3:33:46	-6	49	-33	344	29				9	75	-4.6	36	142	-0.4	18	213	-2.7	21	208	0.3
6/26/2020	Fri	23:56:20	-23	0	-4	284	38							2	96	-0.4	22	160	-2.7	21	154	0.2
6/27/2020	Sat	3:34:13	-6	49	-35	329	40				10	75	-4.6	36	142	-0.4	17	214	-2.7	21	209	0.2
6/27/2020	Sat	23:56:33	-23	0	1	272	49							3	96	-0.5	22	161	-2.7	22	155	0.2
6/28/2020	Sun	3:34:43	-6	49	-34	313	51				11	76	-4.6	36	143	-0.5	17	215	-2.7	20	210	0.2
6/28/2020	Sun	20:18:21	-6	311	37	213	59										-2	118	-2.7			
6/28/2020	Sun	23:56:45	-23	360	5	259	61							3	97	-0.5	22	162	-2.7	22	156	0.2
6/29/2020	Mon	3:35:15	-6	49	-32	298	63				11	77	-4.7	37	143	-0.5	16	216	-2.7	20	211	0.2
6/29/2020	Mon	20:18:11	-6	311	36	196	70										-2	118	-2.7			
6/29/2020	Mon	23:56:56	-23	0	10	246	72							4	97	-0.5	23	164	-2.7	22	157	0.2
6/30/2020	Tue	3:35:49	-6	49	-28	283	73				12	77	-4.7	37	144	-0.5	15	217	-2.7	19	212	0.2
6/30/2020	Tue	20:17:59	-6	311	32	180	80										-1	119	-2.7			
6/30/2020	Tue	23:57:08	-23	0	13	233	82							4	97	-0.5	23	165	-2.7	23	158	0.2
7/1/2020	Wed	3:36:25	-6	49	-23	270	83				13	78	-4.7	38	144	-0.5	15	218	-2.7	19	213	0.2
7/1/2020	Wed	20:17:44	-6	311	26	166	89										0	120	-2.7			
7/1/2020	Wed	23:57:19	-23	360	17	220	90							5	97	-0.5	23	166	-2.7	23	159	0.2
7/2/2020	Thr	3:37:03	-6	49	-16	258	91				13	79	-4.7	38	145	-0.5	14	219	-2.7	18	214	0.2
7/2/2020	Thr	20:17:27	-6	311	19	154	95										0	120	-2.7			
7/2/2020	Thr	23:57:30	-23	0	19	206	96							5	97	-0.5	23	167	-2.7	23	160	0.2
7/3/2020	Fri	3:37:43	-6	49	-9	247	96				14	79	-4.7	39	146	-0.5	14	220	-2.7	18	215	0.2
7/3/2020	Fri	20:17:07	-6	310	12	142	99										1	121	-2.7	-2	116	0.2
7/3/2020	Fri	23:57:41	-23	360	20	192	99							6	97	-0.6	23	168	-2.7	23	161	0.2
7/4/2020	Sat	3:38:25	-6	50	-1	236	99				14	80	-4.7	39	146	-0.6	13	221	-2.7	17	216	0.2
7/4/2020	Sat	20:16:44	-6	310	5	132	100										1	122	-2.7	-2	117	0.2
7/4/2020	Sat	23:57:51	-23	360	21	179	100							6	98	-0.6	24	169	-2.7	24	163	0.2
7/5/2020	Sun	3:39:09	-6	50	6	226	100				15	80	-4.7	40	147	-0.6	12	222	-2.7	17	217	0.2
7/5/2020	Sun	20:16:19	-6	310	-2	121	99										2	123	-2.7	-1	117	0.2
7/5/2020	Sun	20:16:19			Jup 4.2																	
7/5/2020	Sun	23:58:01	-23	0	21	165	99							7	98	-0.6	24	171	-2.7	24	164	0.2
7/5/2020	Sun	23:58:01			Sat 3.5																	
7/6/2020	Mon	3:39:54	-6	50	14	216	98				16	81	-4.7	40	148	-0.6	12	223	-2.7	16	218	0.2
7/6/2020	Mon	3:39:54			Sat 3.2																	
7/6/2020	Mon	20:15:52	-6	310	-10	111	96										2	123	-2.7	-1	118	0.2
7/6/2020	Mon	23:58:11	-23	0	19	152	95							7	98	-0.6	24	172	-2.7	24	165	0.2
7/7/2020	Tue	3:40:42	-6	50	21	206	94	-3	60	3.8	16	81	-4.7	40	148	-0.6	11	224	-2.7	15	220	0.2
7/7/2020	Tue	20:15:21	-6	310	-16	101	91										3	124	-2.7	0	118	0.2
7/7/2020	Tue	23:58:20	-24	360	18	140	90							8	98	-0.6	24	173	-2.7	24	166	0.2

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
7/8/2020	Wed	3:41:31	-6	50	27	195	89	-2	61	3.4	17	82	-4.7	41	149	-0.6	10	225	-2.7	15	221	0.2
7/8/2020	Wed	20:14:49	-6	310	-22	90	84										3	125	-2.7	0	119	0.2
7/8/2020	Wed	23:58:29	-24	0	15	128	83							8	98	-0.6	24	174	-2.7	24	167	0.2
7/9/2020	Thr	3:42:22	-6	50	32	184	82	-1	62	3.1	17	82	-4.7	41	150	-0.6	10	226	-2.7	14	222	0.2
7/9/2020	Thr	20:14:14	-6	309	-26	78	76										4	126	-2.7	1	120	0.2
7/9/2020	Thr	23:58:37	-24	0	12	117	75							9	99	-0.7	24	175	-2.7	25	168	0.2
7/10/2020	Fri	3:43:15	-6	51	36	171	73	0	63	2.8	18	83	-4.7	42	150	-0.7	9	227	-2.7	14	223	0.2
7/10/2020	Fri	20:13:36	-6	309	-30	66	67										4	126	-2.7	1	120	0.2
7/10/2020	Fri	23:58:45	-24	0	9	106	66							9	99	-0.7	24	176	-2.7	25	169	0.2
7/11/2020	Sat	3:44:09	-6	51	39	158	64	1	64	2.5	18	83	-4.7	42	151	-0.7	8	228	-2.7	13	224	0.2
7/11/2020	Sat	20:12:56	-6	309	-33	54	58										5	127	-2.8	2	121	0.2
7/11/2020	Sat	23:58:53	-24	0	5	95	57							10	99	-0.7	24	178	-2.8	25	170	0.2
7/12/2020	Sun	3:45:04	-6	51	40	143	55	2	65	2.2	19	83	-4.7	43	152	-0.7	8	229	-2.8	12	225	0.2
7/12/2020	Sun	20:12:14	-6	309	-34	41	49										5	128	-2.8	2	122	0.1
7/12/2020	Sun	23:59:00	-24	360	2	85	47							10	99	-0.7	24	179	-2.8	25	171	0.1
7/13/2020	Mon	3:46:01	-6	51	40	129	46	3	65	1.9	19	84	-4.7	43	153	-0.7	7	230	-2.8	12	226	0.1
7/13/2020	Mon	20:11:29	-6	308	-34	27	39										6	128	-2.8	3	122	0.1
7/13/2020	Mon	23:59:06	-24	360	-2	75	38							11	100	-0.7	24	180	-2.8	25	173	0.1
7/14/2020	Tue	3:47:00	-6	52	37	116	36	3	66	1.7	20	84	-4.7	43	154	-0.7	6	232	-2.8	11	227	0.1
7/14/2020	Tue	20:10:42	-6	308	-32	14	30										6	129	-2.8	3	123	0.1
7/14/2020	Tue	23:59:12	-24	360	-6	64	29							11	100	-0.8	24	181	-2.8	25	174	0.1
7/15/2020	Wed	3:48:00	-6	52	33	103	27	4	67	1.5	20	85	-4.7	44	154	-0.8	5	233	-2.8	10	228	0.1
7/15/2020	Wed	20:09:53	-6	308	-29	1	22										7	130	-2.8	4	124	0.1
7/15/2020	Wed	23:59:18	-25	360	-10	54	20							12	100	-0.8	24	182	-2.8	25	175	0.1
7/16/2020	Thr	3:49:01	-6	52	28	92	19	5	67	1.3	21	85	-4.7	44	155	-0.8	4	233	-2.8	10	229	0.1
7/16/2020	Thr	20:09:02	-6	308	-25	349	14										7	130	-2.8	4	124	0.1
7/16/2020	Thr	23:59:23	-25	0	-14	43	13							12	100	-0.8	24	183	-2.8	25	176	0.1
7/17/2020	Fri	3:50:03	-6	52	21	81	12	6	68	1	21	85	-4.7	45	156	-0.8	4	234	-2.8	9	230	0.1
7/17/2020	Fri	3:50:03			Ven 3.7																	
7/17/2020	Fri	20:08:08	-6	307	-21	337	8										8	131	-2.7	5	125	0.1
7/17/2020	Fri	23:59:28	-25	360	-17	31	7							12	100	-0.8	24	185	-2.7	25	177	0.1
7/18/2020	Sat	3:51:07	-6	53	14	72	6	6	68	0.9	22	86	-4.7	45	157	-0.8	3	235	-2.7	8	231	0.1
7/18/2020	Sat	20:07:12	-6	307	-15	326	3										8	132	-2.7	5	125	0.1
7/18/2020	Sat	23:59:32	-25	360	-21	19	2							13	101	-0.8	24	186	-2.7	25	178	0.1
7/19/2020	Sun	3:52:11	-6	53	6	63	2	7	68	0.7	22	86	-4.6	45	158	-0.8	2	236	-2.7	7	232	0.1
7/19/2020	Sun	20:06:15	-6	307	-9	314	0										9	133	-2.7	6	126	0.1
7/19/2020	Sun	23:59:36	-25	360	-23	5	0							13	101	-0.9	24	187	-2.7	25	179	0.1
7/20/2020	Mon	3:53:17	-6	53	-3	54	0	7	68	0.5	23	86	-4.6	46	159	-0.9	1	237	-2.7	7	233	0.1
7/20/2020	Mon	20:05:15	-6	306	-2	303	0										9	133	-2.7	6	127	0.1
7/20/2020	Mon	23:59:39	-26	360	-25	352	0							14	101	-0.9	23	188	-2.7	25	180	0.1
7/21/2020	Tue	3:54:23	-6	54	-12	45	1	8	68	0.4	23	86	-4.6	46	160	-0.9	1	238	-2.7	6	234	0.1
7/21/2020	Tue	20:04:12	-6	306	5	292	3										10	134	-2.7	7	127	0.1
7/21/2020	Tue	23:59:41	-26	360	-25	337	3							14	101	-0.9	23	189	-2.7	25	181	0.1
7/22/2020	Wed	3:55:31	-6	54	-21	36	4	8	69	0.2	24	87	-4.6	46	161	-0.9	0	239	-2.7	5	235	0.1
7/22/2020	Wed	20:03:08	-6	306	11	280	7										10	135	-2.7	7	128	0.1
7/22/2020	Wed	23:59:43	-26	0	-24	323	8							15	102	-0.9	23	190	-2.7	25	183	0.1
7/23/2020	Thr	3:56:39	-6	54	-30	25	10	8	69	0.1	24	87	-4.6	47	162	-0.9	-1	240	-2.7	4	236	0.1
7/23/2020	Thr	20:02:02	-6	305	17	267	15										10	135	-2.7	8	129	0.1
7/23/2020	Thr	23:59:44	-26	0	-23	308	16							15	102	-0.9	23	191	-2.7	25	184	0.1
7/24/2020	Fri	3:57:48	-6	55	-38	12	17	8	69	-0.1	24	87	-4.6	47	163	-0.9	-2	241	-2.7	3	237	0.1
7/24/2020	Fri	20:00:54	-6	305	22	253	24										11	136	-2.7	8	129	0.1
7/24/2020	Fri	23:59:45	-26	0	-20	295	25							16	102	-1	23	192	-2.7	25	185	0.1
7/25/2020	Sat	3:58:58	-6	55	-44	357	27	8	69	-0.2	25	88	-4.6	47	165	-1				3	238	0.1
7/25/2020	Sat	19:59:44	-6	305	25	239	34										11	137	-2.7	8	130	0.1
7/25/2020	Sat	23:59:45	-27	360	-16	281	36							16	102	-1	23	194	-2.7	25	186	0.1
7/26/2020	Sun	4:00:08	-6	55	-48	339	38	8	68	-0.3	25	88	-4.6	48	166	-1				2	239	0.1
7/26/2020	Sun	19:58:33	-6	304	28	224	46										12	137	-2.7	9	130	0.1
7/26/2020	Sun	23:59:44	-27	0	-11	268	47							17	103	-1	22	195	-2.7	25	187	0.1
7/27/2020	Mon	4:01:19	-6	56	-49	320	49	8	68	-0.4	26	88	-4.6	48	167	-1				1	240	0.1
7/27/2020	Mon	19:57:19	-6	304	28	208	57										12	138	-2.7	9	131	0.1
7/27/2020	Mon	23:59:43	-27	360	-6	256	59							17	103	-1	22	196	-2.7	25	188	0.1
7/28/2020	Tue	4:02:31	-6	56	-47	301	61	8	68	-0.5	26	88	-4.6	48	168	-1				0	241	0.1
7/28/2020	Tue	19:56:04	-6	304	27	193	68										12	139	-2.7	10	131	0.1
7/28/2020	Tue	23:59:41	-27	0	0	244	70							18	103	-1	22	197	-2.7	25	189	0.1
7/29/2020	Wed	4:03:43	-6	57	-42	285	71	8	68	-0.6	26	88	-4.6	49	169	-1				0	241	0.1

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
7/29/2020	Wed	19:54:47	-6	303	24	179	78										13	139	-2.7	10	132	0.1
7/29/2020	Wed	23:59:38	-28	360	5	232	79							18	104	-1.1	22	198	-2.7	24	190	0.1
7/30/2020	Thr	4:04:56	-6	57	-35	272	81	8	68	-0.7	27	89	-4.6	49	171	-1.1				-1	242	0.1
7/30/2020	Thr	19:53:28	-6	303	21	165	86										13	140	-2.7	10	133	0.1
7/30/2020	Thr	23:59:35	-28	360	11	221	88							19	104	-1.1	21	199	-2.7	24	191	0.1
7/31/2020	Fri	4:06:09	-6	57	-26	261	89	8	67	-0.8	27	89	-4.5	49	172	-1.1				-2	243	0.1
7/31/2020	Fri	19:52:07	-6	302	16	152	93										13	141	-2.7	11	133	0.1
7/31/2020	Fri	23:59:31	-28	360	16	209	94							19	104	-1.1	21	200	-2.7	24	192	0.1
8/1/2020	Sat	4:07:22	-6	58	-17	252	95	7	67	-0.9	27	89	-4.5	49	173	-1.1						
8/1/2020	Sat	19:50:45	-6	302	11	140	97										14	141	-2.7	11	134	0.2
8/1/2020	Sat	19:50:45			Jup 3.2																	
8/1/2020	Sat	23:59:27	-28	0	20	196	98							20	105	-1.1	21	201	-2.7	24	193	0.2
8/1/2020	Sat	23:59:27			Jup 4.4																	
8/2/2020	Sun	4:08:36	-6	58	-8	244	98	7	67	-1	28	89	-4.5	50	175	-1.1						
8/2/2020	Sun	19:49:22	-6	302	5	129	100										14	142	-2.7	11	134	0.2
8/2/2020	Sun	23:59:22	-29	0	23	184	100							20	105	-1.1	21	202	-2.7	24	194	0.2
8/3/2020	Mon	4:09:50	-6	59	2	237	100	6	66	-1	28	89	-4.5	50	176	-1.1						
8/3/2020	Mon	19:47:57	-6	301	0	118	100										14	142	-2.7	12	135	0.2
8/3/2020	Mon	23:59:17	-29	360	26	171	99							21	105	-1.2	20	203	-2.7	24	195	0.2
8/4/2020	Tue	4:11:04	-6	59	11	230	99	6	66	-1.1	28	90	-4.5	50	177	-1.2						
8/4/2020	Tue	19:46:30	-6	301	-6	107	98										15	143	-2.7	12	136	0.2
8/4/2020	Tue	23:59:10	-29	360	27	158	97							21	106	-1.2	20	204	-2.7	23	196	0.2
8/5/2020	Wed	4:12:19	-6	59	20	223	97	5	66	-1.2	29	90	-4.5	50	179	-1.2						
8/5/2020	Wed	19:45:02	-6	300	-11	96	94										15	144	-2.7	12	136	0.2
8/5/2020	Wed	23:59:04	-29	360	28	145	93							22	106	-1.2	20	205	-2.7	23	197	0.2
8/6/2020	Thr	4:13:34	-6	60	29	215	92	4	65	-1.3	29	90	-4.5	50	180	-1.2						
8/6/2020	Thr	19:43:33	-6	300	-15	85	88										15	144	-2.7	13	137	0.2
8/6/2020	Thr	23:58:56	-30	0	27	132	87							22	106	-1.2	19	206	-2.7	23	198	0.2
8/7/2020	Fri	4:14:49	-6	60	37	206	86	4	65	-1.3	29	90	-4.5	50	182	-1.2						
8/7/2020	Fri	19:42:02	-6	299	-19	74	82										16	145	-2.7	13	137	0.2
8/7/2020	Fri	23:58:48	-30	0	25	120	80							23	107	-1.2	19	207	-2.7	23	199	0.2
8/8/2020	Sat	4:16:04	-6	61	44	196	79	3	65	-1.4	30	90	-4.5	50	183	-1.2						
8/8/2020	Sat	19:40:30	-6	299	-22	63	74										16	146	-2.7	13	138	0.2
8/8/2020	Sat	23:58:40	-30	360	22	108	72							23	107	-1.3	19	208	-2.7	22	200	0.2
8/8/2020	Sat	23:58:40			Mars 1.6																	
8/9/2020	Sun	4:17:19	-6	61	50	182	71	2	65	-1.5	30	91	-4.5	51	185	-1.3						
8/9/2020	Sun	4:17:19			Mars 1.6																	
8/9/2020	Sun	19:38:57	-6	299	-25	51	65										16	146	-2.7	14	138	0.2
8/9/2020	Sun	23:58:31	-31	0	18	97	63							24	107	-1.3	18	209	-2.7	22	201	0.2
8/10/2020	Mon	4:18:35	-6	62	54	166	62	1	64	-1.5	30	91	-4.5	51	186	-1.3						
8/10/2020	Mon	19:37:23	-6	298	-26	38	56										16	147	-2.7	14	139	0.2
8/10/2020	Mon	23:58:21	-31	0	14	86	54							24	108	-1.3	18	210	-2.7	22	202	0.2
8/11/2020	Tue	4:19:50	-6	62	55	147	52	1	64	-1.6	30	91	-4.4	51	188	-1.3						
8/11/2020	Tue	19:35:48	-6	298	-27	26	46										17	147	-2.7	14	139	0.2
8/11/2020	Tue	23:58:11	-31	360	9	76	44							25	108	-1.3	17	211	-2.7	22	203	0.2
8/12/2020	Wed	4:21:06	-6	62	53	129	43	0	64	-1.7	31	91	-4.4	51	189	-1.3						
8/12/2020	Wed	19:34:11	-6	297	-26	13	37										17	148	-2.7	15	140	0.2
8/12/2020	Wed	23:58:00	-31	0	4	66	35							25	108	-1.4	17	212	-2.7	21	204	0.2
8/13/2020	Thr	4:22:21	-6	63	49	112	33	-1	64	-1.8	31	91	-4.4	51	191	-1.4						
8/13/2020	Thr	19:32:33	-6	297	-25	360	27										17	149	-2.7	15	141	0.2
8/13/2020	Thr	23:57:49	-32	0	-2	56	26							26	109	-1.4	17	213	-2.7	21	205	0.2
8/14/2020	Fri	4:23:37	-6	63	42	99	24	-2	64	-1.9	31	91	-4.4	51	192	-1.4						
8/14/2020	Fri	19:30:55	-6	296	-22	347	19										17	149	-2.7	15	141	0.2
8/14/2020	Fri	23:57:37	-32	360	-9	46	17							26	109	-1.4	16	213	-2.7	21	206	0.2
8/15/2020	Sat	4:24:53	-6	64	34	89	16	-3	64	-2	31	92	-4.4	51	194	-1.4						
8/15/2020	Sat	4:24:53			Ven 3.5																	
8/15/2020	Sat	19:29:15	-6	296	-18	334	11										18	150	-2.7	15	142	0.2
8/15/2020	Sat	23:57:25	-32	0	-15	35	10							27	110	-1.4	16	214	-2.7	20	207	0.2
8/16/2020	Sun	4:26:08	-6	64	24	80	9				31	92	-4.4	51	195	-1.4						
8/16/2020	Sun	19:27:34	-6	295	-14	321	5										18	150	-2.6	16	142	0.2
8/16/2020	Sun	23:57:12	-33	0	-21	23	4							27	110	-1.4	15	215	-2.6	20	208	0.2
8/17/2020	Mon	4:27:24	-6	65	13	73	4				32	92	-4.4	50	197	-1.5						
8/17/2020	Mon	19:25:53	-6	295	-9	309	1										18	151	-2.6	16	143	0.2
8/17/2020	Mon	23:56:59	-33	0	-26	10	1							28	111	-1.5	15	216	-2.6	20	209	0.2
8/18/2020	Tue	4:28:39	-6	65	2	66	1				32	92	-4.4	50	198	-1.5						

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
8/18/2020	Tue	19:24:10	-6	294	-3	296	0										18	152	-2.6	16	143	0.2
8/18/2020	Tue	19:24:10			Mer 2.7																	
8/18/2020	Tue	23:56:45	-33	0	-31	356	0							28	111	-1.5	14	217	-2.6	19	210	0.2
8/19/2020	Wed	4:29:54	-6	66	-9	59	0				32	92	-4.4	50	200	-1.5						
8/19/2020	Wed	19:22:27	-6	294	3	283	2										18	152	-2.6	16	144	0.2
8/19/2020	Wed	23:56:31	-34	360	-34	340	2							29	112	-1.5	14	218	-2.6	19	211	0.2
8/20/2020	Thr	4:31:10	-6	66	-21	52	3				32	92	-4.4	50	202	-1.5						
8/20/2020	Thr	19:20:43	-6	293	8	270	6	-3	291	-1.6							19	153	-2.6	17	144	0.2
8/20/2020	Thr	23:56:16	-34	360	-35	323	7							29	112	-1.5	14	219	-2.6	18	212	0.2
8/21/2020	Fri	4:32:25	-6	67	-33	45	8				32	93	-4.4	50	203	-1.5						
8/21/2020	Fri	19:18:58	-6	293	13	257	12	-2	289	-1.5							19	153	-2.6	17	145	0.3
8/21/2020	Fri	23:56:01	-34	360	-34	307	14							30	113	-1.6	13	219	-2.6	18	213	0.3
8/22/2020	Sat	4:33:39	-6	67	-43	34	16				32	93	-4.4	49	205	-1.6						
8/22/2020	Sat	19:17:12	-6	292	17	243	21	-2	288	-1.4							19	154	-2.6	17	145	0.3
8/22/2020	Sat	23:55:46	-35	0	-30	291	23							30	113	-1.6	13	220	-2.6	18	213	0.3
8/23/2020	Sun	4:34:54	-6	68	-53	20	25				32	93	-4.3	49	206	-1.6						
8/23/2020	Sun	19:15:26	-6	292	20	228	32	-2	287	-1.3							19	154	-2.6	17	146	0.3
8/23/2020	Sun	23:55:30	-35	360	-25	277	34							31	114	-1.6	12	221	-2.6	17	214	0.3
8/24/2020	Mon	4:36:09	-6	68	-60	0	36				33	93	-4.3	49	208	-1.6						
8/24/2020	Mon	19:13:39	-6	291	22	213	43	-1	285	-1.2							19	155	-2.6	18	146	0.3
8/24/2020	Mon	23:55:13	-35	0	-19	264	45							31	114	-1.6	12	222	-2.6	17	215	0.3
8/25/2020	Tue	4:37:23	-6	69	-62	335	47				33	93	-4.3	49	210	-1.6						
8/25/2020	Tue	19:11:51	-6	291	23	199	54	-1	284	-1.1							19	156	-2.6	18	147	0.3
8/25/2020	Tue	23:54:56	-36	0	-13	253	56							32	115	-1.7	11	223	-2.6	16	216	0.3
8/26/2020	Wed	4:38:37	-6	69	-59	309	58				33	94	-4.3	48	211	-1.7						
8/26/2020	Wed	19:10:02	-6	290	22	184	65	-1	282	-1							20	156	-2.6	18	147	0.3
8/26/2020	Wed	23:54:39	-36	360	-5	242	67							32	116	-1.7	11	223	-2.6	16	217	0.3
8/27/2020	Thr	4:39:51	-6	70	-53	291	69				33	94	-4.3	48	213	-1.7						
8/27/2020	Thr	19:08:13	-6	290	20	171	75	-1	281	-0.9							20	157	-2.6	18	148	0.3
8/27/2020	Thr	23:54:21	-36	360	2	232	77							33	116	-1.7	10	224	-2.6	16	218	0.3
8/28/2020	Fri	4:41:05	-6	70	-44	278	78				33	94	-4.3	48	214	-1.7						
8/28/2020	Fri	19:06:24	-6	289	18	157	83	-1	280	-0.8							20	157	-2.6	18	149	0.3
8/28/2020	Fri	19:06:24			Jup 2.3																	
8/28/2020	Fri	23:54:03	-37	0	9	222	85							33	117	-1.7	10	225	-2.6	15	218	0.3
8/28/2020	Fri	23:54:03			Jup 3.1																	
8/29/2020	Sat	4:42:19	-6	71	-35	269	86				33	94	-4.3	47	216	-1.7						
8/29/2020	Sat	19:04:34	-6	289	14	145	90	0	279	-0.8							20	158	-2.6	19	149	0.3
8/29/2020	Sat	23:53:44	-37	0	16	211	91							34	117	-1.8	9	226	-2.6	15	219	0.3
8/30/2020	Sun	4:43:32	-6	71	-25	262	93				33	94	-4.3	47	217	-1.8						
8/30/2020	Sun	19:02:43	-6	288	10	133	95	0	277	-0.7							20	158	-2.6	19	150	0.3
8/30/2020	Sun	23:53:26	-37	0	23	201	96							34	118	-1.8	9	226	-2.6	14	220	0.3
8/31/2020	Mon	4:44:45	-6	72	-15	257	97				33	95	-4.3	46	219	-1.8						
8/31/2020	Mon	19:00:53	-6	288	6	122	99	0	276	-0.6							20	159	-2.6	19	150	0.3
8/31/2020	Mon	23:53:07	-38	360	28	189	99							35	119	-1.8	8	227	-2.6	14	221	0.3
9/1/2020	Tue	4:45:58	-6	73	-4	252	99				33	95	-4.3	46	220	-1.8						
9/1/2020	Tue	18:59:01	-6	287	2	110	100	0	275	-0.6							21	159	-2.6	19	151	0.3
9/1/2020	Tue	23:52:47	-38	360	33	177	100							36	120	-1.8	8	228	-2.6	13	222	0.3
9/2/2020	Wed	4:47:11	-6	73	6	247	100				33	95	-4.3	45	222	-1.8						
9/2/2020	Wed	18:57:10	-6	287	-2	100	99	0	273	-0.5							21	160	-2.5	19	151	0.3
9/2/2020	Wed	23:52:28	-39	360	37	164	99							36	120	-1.9	7	228	-2.5	13	222	0.3
9/3/2020	Thr	4:48:23	-6	74	16	243	98				33	95	-4.3	45	223	-1.9						
9/3/2020	Thr	18:55:18	-6	286	-7	89	97	1	272	-0.5							21	160	-2.5	20	152	0.3
9/3/2020	Thr	23:52:08	-39	0	38	150	96							37	121	-1.9	7	229	-2.5	12	223	0.3
9/4/2020	Fri	4:49:36	-6	74	26	238	95				33	95	-4.3	44	225	-1.9						
9/4/2020	Fri	18:53:25	-6	286	-11	78	92	1	271	-0.4							21	161	-2.5	20	152	0.3
9/4/2020	Fri	23:51:48	-39	360	38	135	91							37	122	-1.9	6	230	-2.5	12	224	0.3
9/5/2020	Sat	4:50:48	-6	75	36	232	90				33	96	-4.2	43	226	-1.9						
9/5/2020	Sat	18:51:33	-6	285	-15	67	87	1	270	-0.4							21	161	-2.5	20	153	0.3
9/5/2020	Sat	23:51:27	-40	0	37	121	85							38	123	-1.9	6	231	-2.5	12	225	0.3
9/5/2020	Sat	23:51:27			Mars 1.4																	
9/6/2020	Sun	4:52:00	-6	75	45	225	84				33	96	-4.2	43	228	-1.9						
9/6/2020	Sun	4:52:00			Mars 3.0																	
9/6/2020	Sun	18:49:40	-6	285	-18	56	80	1	269	-0.3							21	162	-2.5	20	153	0.3
9/6/2020	Sun	23:51:07	-40	360	33	108	78							38	123	-2	5	231	-2.5	11	225	0.3
9/7/2020	Mon	4:53:12	-6	76	54	215	76				33	96	-4.2	42	229	-2						

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
9/7/2020	Mon	18:47:47	-6	284	-20	44	72	1	268	-0.3							21	162	-2.5	20	154	0.3
9/7/2020	Mon	23:50:46	-40	0	29	97	70							39	124	-2	5	232	-2.5	11	226	0.3
9/8/2020	Tue	4:54:24	-6	76	61	200	68				33	96	-4.2	41	231	-2						
9/8/2020	Tue	18:45:54	-6	283	-22	32	63	1	266	-0.3							21	163	-2.5	20	154	0.4
9/8/2020	Tue	23:50:25	-41	360	23	86	61							39	125	-2	4	233	-2.5	10	227	0.4
9/9/2020	Wed	4:55:36	-6	77	65	177	59				33	97	-4.2	41	232	-2						
9/9/2020	Wed	18:44:00	-6	283	-23	19	53	1	265	-0.2							21	163	-2.5	21	155	0.4
9/9/2020	Wed	23:50:04	-41	360	17	76	51							40	126	-2	4	233	-2.5	10	228	0.4
9/10/2020	Thr	4:56:47	-6	77	66	150	49				33	97	-4.2	40	233	-2						
9/10/2020	Thr	18:42:07	-6	282	-23	7	43	1	264	-0.2							22	164	-2.5	21	155	0.4
9/10/2020	Thr	23:49:43	-42	360	9	67	41							40	127	-2.1	3	234	-2.5	9	228	0.4
9/11/2020	Fri	4:57:59	-6	78	61	126	39				33	97	-4.2	39	235	-2.1						
9/11/2020	Fri	18:40:13	-6	282	-22	353	34	1	263	-0.2							22	164	-2.5	21	156	0.4
9/11/2020	Fri	23:49:22	-42	0	2	57	31							41	128	-2.1	3	234	-2.5	9	229	0.4
9/12/2020	Sat	4:59:10	-6	78	53	110	29				33	98	-4.2	39	236	-2.1						
9/12/2020	Sat	18:38:20	-6	281	-20	340	24	1	262	-0.2							22	165	-2.5	21	156	0.4
9/12/2020	Sat	23:49:01	-42	0	-7	48	22							41	129	-2.1	2	235	-2.5	8	230	0.4
9/13/2020	Sun	5:00:21	-6	79	43	99	20				33	98	-4.2	38	237	-2.1						
9/13/2020	Sun	18:36:26	-6	281	-18	327	15	1	261	-0.1							22	165	-2.5	21	157	0.4
9/13/2020	Sun	23:48:39	-43	0	-16	39	14							42	130	-2.1	2	236	-2.5	8	230	0.4
9/14/2020	Mon	5:01:33	-6	80	32	92	12				33	98	-4.2	37	239	-2.1						
9/14/2020	Mon	18:34:33	-6	280	-14	313	8	2	260	-0.1							22	166	-2.5	21	157	0.4
9/14/2020	Mon	23:48:18	-43	0	-24	28	7							42	131	-2.2	1	236	-2.5	7	231	0.4
9/15/2020	Tue	5:02:44	-6	80	20	86	6				33	98	-4.2	36	240	-2.2						
9/15/2020	Tue	18:32:39	-6	280	-10	300	3	2	259	-0.1							22	166	-2.5	22	158	0.4
9/15/2020	Tue	23:47:57	-43	360	-32	15	2							43	132	-2.2	1	237	-2.5	7	232	0.4
9/16/2020	Wed	5:03:55	-6	81	7	81	2				33	99	-4.2	35	241	-2.2						
9/16/2020	Wed	18:30:46	-6	279	-5	286	0	2	258	-0.1							22	167	-2.5	22	158	0.4
9/16/2020	Wed	23:47:35	-44	360	-39	0	0							43	134	-2.2	0	238	-2.5	6	232	0.4
9/17/2020	Thr	5:05:06	-6	81	-6	76	0				33	99	-4.2	34	243	-2.2						
9/17/2020	Thr	18:28:52	-6	279	1	272	1	2	257	-0.1							22	167	-2.4	22	159	0.4
9/17/2020	Thr	23:47:14	-44	360	-44	343	1							44	135	-2.2	0	238	-2.4	6	233	0.4
9/18/2020	Fri	5:06:16	-6	82	-19	71	2				33	99	-4.2	33	244	-2.2						
9/18/2020	Fri	18:26:59	-6	278	6	259	4	2	256	-0.1							22	168	-2.4	22	159	0.4
9/18/2020	Fri	18:26:59			Mer 4.9																	
9/18/2020	Fri	23:46:53	-45	360	-45	323	5							44	136	-2.2	-1	239	-2.4	5	234	0.4
9/19/2020	Sat	5:07:27	-6	82	-32	66	6				33	100	-4.2	32	245	-2.3						
9/19/2020	Sat	18:25:06	-6	277	10	245	10	2	255	-0.1							22	168	-2.4	22	160	0.4
9/19/2020	Sat	23:46:31	-45	360	-44	303	12							45	137	-2.3	-1	239	-2.4	5	234	0.4
9/20/2020	Sun	5:08:38	-6	83	-44	58	14				33	100	-4.2	31	246	-2.3						
9/20/2020	Sun	18:23:13	-6	277	14	231	18	2	254	-0.1							22	169	-2.4	22	160	0.4
9/20/2020	Sun	23:46:10	-45	0	-39	286	20							45	139	-2.3	-2	240	-2.4	4	235	0.4
9/21/2020	Mon	5:09:49	-6	83	-56	47	23				33	100	-4.1	30	248	-2.3						
9/21/2020	Mon	18:21:20	-6	276	18	216	28	2	253	-0.1							23	169	-2.4	22	161	0.4
9/21/2020	Mon	23:45:49	-46	0	-32	272	31							46	140	-2.3	-2	241	-2.4	3	236	0.4
9/22/2020	Tue	5:10:59	-6	84	-65	29	33				33	101	-4.1	30	249	-2.3						
9/22/2020	Tue	18:19:28	-6	276	20	202	39	2	253	-0.1							23	170	-2.4	22	161	0.4
9/22/2020	Tue	23:45:28	-46	0	-24	260	41							46	141	-2.3	-3	241	-2.4	3	236	0.4
9/23/2020	Wed	5:12:10	-6	84	-70	358	44				32	101	-4.1	28	250	-2.3						
9/23/2020	Wed	18:17:36	-6	275	21	188	50	2	252	0							23	170	-2.4	23	162	0.4
9/23/2020	Wed	23:45:07	-47	0	-16	250	52							47	143	-2.4				2	237	0.4
9/24/2020	Thr	5:13:20	-6	85	-68	325	55				32	101	-4.1	27	251	-2.4						
9/24/2020	Thr	18:15:44	-6	275	20	174	60	2	251	0							23	171	-2.4	23	162	0.4
9/24/2020	Thr	18:15:44			Jup 3.9																	
9/24/2020	Thr	23:44:46	-47	360	-7	241	63							47	144	-2.4				2	238	0.4
9/25/2020	Fri	5:14:31	-6	86	-61	303	65				32	102	-4.1	26	252	-2.4						
9/25/2020	Fri	18:13:52	-6	274	19	161	70	2	250	0							23	171	-2.4	23	163	0.4
9/25/2020	Fri	18:13:52			Sat 3.9																	
9/25/2020	Fri	23:44:26	-47	360	3	233	73							48	146	-2.4				1	238	0.4
9/26/2020	Sat	5:15:41	-6	86	-51	290	75				32	102	-4.1	25	253	-2.4						
9/26/2020	Sat	18:12:01	-6	274	17	148	79	2	249	0							23	172	-2.4	23	163	0.4
9/26/2020	Sat	23:44:05	-48	360	11	225	81							48	147	-2.4				1	239	0.4
9/27/2020	Sun	5:16:52	-6	87	-41	282	83				32	103	-4.1	24	255	-2.4						
9/27/2020	Sun	18:10:10	-6	273	15	136	87	2	249	0							23	172	-2.4	23	164	0.5
9/27/2020	Sun	23:43:45	-48	0	20	217	88							48	149	-2.4				0	240	0.5

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
9/28/2020	Mon	5:18:02	-6	87	-31	277	90				32	103	-4.1	23	256	-2.4						
9/28/2020	Mon	18:08:19	-6	273	12	124	93	2	248	0							23	173	-2.4	23	164	0.5
9/28/2020	Mon	23:43:25	-49	0	28	208	94							49	151	-2.5				0	240	0.5
9/29/2020	Tue	5:19:13	-6	88	-21	272	95				32	103	-4.1	22	257	-2.5						
9/29/2020	Tue	18:06:29	-6	272	8	113	97	2	247	0							23	173	-2.4	23	165	0.5
9/29/2020	Tue	23:43:05	-49	0	35	197	97							49	152	-2.5				-1	241	0.5
9/30/2020	Wed	5:20:23	-6	88	-11	269	98				32	104	-4.1	21	258	-2.5						
9/30/2020	Wed	18:04:40	-6	271	4	102	99	2	247	0							23	174	-2.4	23	166	0.5
9/30/2020	Wed	23:42:46	-49	360	41	185	99							49	154	-2.5				-1	241	0.5
10/1/2020	Thr	5:21:34	-6	89	0	266	100				31	104	-4.1	20	259	-2.5						
10/1/2020	Thr	18:02:51	-6	271	1	91	100	2	246	0				-3	78	-2.5	23	174	-2.4	23	166	0.5
10/1/2020	Thr	23:42:27	-50	0	46	171	100							50	156	-2.5				-2	242	0.5
10/2/2020	Fri	5:22:45	-6	89	10	262	99				31	105	-4.1	19	260	-2.5						
10/2/2020	Fri	18:01:02	-6	270	-3	80	99	2	246	0				-2	79	-2.5	23	175	-2.3	23	167	0.5
10/2/2020	Fri	23:42:08	-50	0	49	155	98							50	158	-2.5				-2	243	0.5
10/2/2020	Fri	23:42:08			Mars 1.8																	
10/3/2020	Sat	5:23:56	-6	90	20	259	97				31	105	-4.1	18	261	-2.5						
10/3/2020	Sat	5:23:56			Mars 3.6																	
10/3/2020	Sat	17:59:14	-6	270	-8	70	96	2	245	0				-2	79	-2.5	23	175	-2.3	24	167	0.5
10/3/2020	Sat	23:41:49	-50	360	49	138	95							50	159	-2.5						
10/4/2020	Sun	5:25:07	-6	90	31	255	94				31	105	-4.1	16	262	-2.5						
10/4/2020	Sun	17:57:27	-6	269	-11	59	91	1	245	0				-1	80	-2.5	23	175	-2.3	24	168	0.5
10/4/2020	Sun	23:41:31	-51	360	47	122	90							50	161	-2.6						
10/5/2020	Mon	5:26:18	-6	91	41	250	89				31	106	-4.1	15	264	-2.6						
10/5/2020	Mon	17:55:40	-6	269	-15	48	85	1	244	0				-1	81	-2.6	23	176	-2.3	24	168	0.5
10/5/2020	Mon	23:41:13	-51	360	43	107	84							51	163	-2.6						
10/6/2020	Tue	5:27:29	-6	92	50	243	82				31	106	-4.1	14	265	-2.6						
10/6/2020	Tue	17:53:55	-6	268	-17	36	78	1	244	0.1				0	81	-2.6	23	176	-2.3	24	169	0.5
10/6/2020	Tue	23:40:56	-52	0	36	95	76							51	165	-2.6						
10/7/2020	Wed	5:28:40	-6	92	59	232	74				30	107	-4.1	13	266	-2.6						
10/7/2020	Wed	17:52:09	-6	268	-20	24	69	1	244	0.1				0	82	-2.6	23	177	-2.3	24	169	0.5
10/7/2020	Wed	23:40:39	-52	0	29	85	67							51	167	-2.6						
10/8/2020	Thr	5:29:52	-6	93	67	213	65				30	107	-4.1	12	267	-2.6						
10/8/2020	Thr	17:50:25	-6	267	-21	12	60	1	244	0.1				1	83	-2.6	23	177	-2.3	24	170	0.5
10/8/2020	Thr	23:40:23	-52	360	21	76	58							51	169	-2.6						
10/9/2020	Fri	5:31:03	-6	93	70	183	55				30	108	-4.1	11	268	-2.6						
10/9/2020	Fri	17:48:41	-6	267	-22	359	50	1	244	0.2				2	83	-2.6	23	178	-2.3	24	170	0.5
10/9/2020	Fri	23:40:07	-53	360	11	68	48							51	171	-2.6						
10/10/2020	Sat	5:32:15	-6	94	67	151	45				30	108	-4.1	9	269	-2.6						
10/10/2020	Sat	17:46:58	-6	266	-22	346	40	1	244	0.3				2	84	-2.6	23	178	-2.3	24	171	0.5
10/10/2020	Sat	23:39:51	-53	360	2	60	37							51	173	-2.6						
10/11/2020	Sun	5:33:27	-6	94	60	130	35				30	108	-4	8	270	-2.6						
10/11/2020	Sun	17:45:16	-6	266	-21	332	29	0	244	0.3				3	85	-2.6	23	179	-2.3	24	171	0.5
10/11/2020	Sun	23:39:36	-53	0	-9	53	27							51	175	-2.6						
10/12/2020	Mon	5:34:39	-6	95	49	117	25				30	109	-4	7	271	-2.6						
10/12/2020	Mon	17:43:35	-6	265	-19	318	20	0	244	0.5				3	85	-2.6	23	179	-2.3	24	172	0.5
10/12/2020	Mon	23:39:22	-54	360	-19	45	18							51	177	-2.6						
10/13/2020	Tue	5:35:51	-6	95	37	109	15				29	109	-4	6	272	-2.6						
10/13/2020	Tue	17:41:54	-6	265	-16	304	11	0	244	0.6				4	86	-2.6	23	180	-2.3	24	172	0.5
10/13/2020	Tue	23:39:08	-54	0	-30	35	10							51	179	-2.6						
10/14/2020	Wed	5:37:04	-6	96	25	103	8				29	110	-4	5	273	-2.6						
10/14/2020	Wed	17:40:15	-6	264	-12	290	5	0	245	0.7				4	86	-2.6	23	180	-2.3	24	173	0.5
10/14/2020	Wed	23:38:54	-55	0	-40	24	4							51	181	-2.6						
10/15/2020	Thr	5:38:17	-6	96	12	98	3				29	110	-4	3	274	-2.6						
10/15/2020	Thr	17:38:36	-6	264	-7	276	1	-1	246	0.9				5	87	-2.6	23	181	-2.3	24	174	0.5
10/15/2020	Thr	23:38:42	-55	0	-48	8	1							51	183	-2.6						
10/16/2020	Fri	5:39:29	-6	97	-1	94	0				29	111	-4	2	275	-2.6						
10/16/2020	Fri	17:36:59	-6	263	-2	262	0	-1	246	1.2				5	88	-2.6	23	181	-2.3	24	174	0.5
10/16/2020	Fri	23:38:29	-55	360	-54	347	0							51	185	-2.6						
10/17/2020	Sat	5:40:43	-6	97	-15	90	1				29	111	-4	1	276	-2.6						
10/17/2020	Sat	17:35:22	-6	262	3	248	2	-2	247	1.5				6	88	-2.5	23	182	-2.2	24	175	0.5
10/17/2020	Sat	23:38:18	-56	360	-55	323	3							51	187	-2.5						
10/18/2020	Sun	5:41:56	-6	98	-28	85	5				28	112	-4	0	278	-2.5						
10/18/2020	Sun	17:33:47	-6	262	8	234	7	-2	248	1.8				7	89	-2.5	23	182	-2.2	24	175	0.5
10/18/2020	Sun	23:38:07	-56	0	-52	300	9							51	189	-2.5						

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
10/19/2020	Mon	5:43:09	-6	98	-41	78	11				28	112	-4	-1	279	-2.5						
10/19/2020	Mon	17:32:13	-6	261	13	221	15	-3	249	2.3				7	90	-2.5	23	182	-2.2	24	176	0.5
10/19/2020	Mon	23:37:56	-56	360	-45	282	17							51	191	-2.5						
10/20/2020	Tue	5:44:23	-6	99	-52	69	19				28	113	-4	-2	280	-2.5						
10/20/2020	Tue	17:30:39	-6	261	16	207	24							8	90	-2.5	23	183	-2.2	25	176	0.6
10/20/2020	Tue	23:37:47	-57	0	-36	269	26							50	192	-2.5						
10/21/2020	Wed	5:45:36	-6	99	-62	54	29				28	113	-4									
10/21/2020	Wed	17:29:07	-6	260	19	193	34							8	91	-2.4	23	183	-2.2	25	177	0.6
10/21/2020	Wed	23:37:38	-57	360	-26	259	37							50	194	-2.4						
10/22/2020	Thr	5:46:50	-6	100	-69	28	39				28	114	-4									
10/22/2020	Thr	17:27:36	-6	260	21	180	44							9	92	-2.4	23	184	-2.2	25	178	0.6
10/22/2020	Thr	17:27:36			Sat 4.1																	
10/22/2020	Thr	23:37:29	-57	0	-16	252	47							50	196	-2.4						
10/23/2020	Fri	5:48:04	-6	100	-69	355	50				27	114	-4									
10/23/2020	Fri	17:26:07	-6	260	22	166	55							10	92	-2.4	23	184	-2.2	25	178	0.6
10/23/2020	Fri	23:37:21	-58	360	-6	245	58							50	198	-2.4						
10/24/2020	Sat	5:49:18	-6	101	-64	328	60				27	114	-4									
10/24/2020	Sat	17:24:38	-6	259	21	153	65							10	93	-2.4	23	185	-2.2	25	179	0.6
10/24/2020	Sat	23:37:14	-58	0	4	239	67							49	200	-2.4						
10/25/2020	Sun	5:50:33	-6	101	-56	313	70				27	115	-4									
10/25/2020	Sun	17:23:11	-6	259	20	140	74							11	94	-2.3	23	185	-2.2	25	179	0.6
10/25/2020	Sun	23:37:08	-59	360	14	233	76							49	202	-2.3						
10/26/2020	Mon	5:51:47	-6	102	-47	303	78				27	115	-4									
10/26/2020	Mon	17:21:45	-6	258	18	128	82							11	94	-2.3	23	186	-2.2	25	180	0.6
10/26/2020	Mon	23:37:02	-59	0	23	226	84							49	203	-2.3						
10/27/2020	Tue	5:53:01	-6	102	-37	297	86	-2	104	4.9	26	116	-4									
10/27/2020	Tue	17:20:21	-6	258	16	117	89							12	95	-2.3	23	186	-2.2	25	181	0.6
10/27/2020	Tue	23:36:58	-59	0	32	219	90							48	205	-2.3						
10/28/2020	Wed	5:54:16	-6	103	-27	292	92	0	105	4	26	116	-4									
10/28/2020	Wed	17:18:57	-6	257	13	105	94							13	96	-2.2	23	187	-2.2	25	181	0.6
10/28/2020	Wed	23:36:53	-60	0	41	210	95							48	207	-2.2						
10/29/2020	Thr	5:55:31	-6	103	-17	288	96	2	106	3.2	26	117	-4									
10/29/2020	Thr	17:17:36	-6	257	9	95	98							13	96	-2.2	23	187	-2.2	25	182	0.6
10/29/2020	Thr	17:17:36			Mars 4.7																	
10/29/2020	Thr	23:36:50	-60	360	49	199	98							47	208	-2.2						
10/30/2020	Fri	5:56:45	-6	104	-7	285	99	3	107	2.4	26	117	-4									
10/30/2020	Fri	17:16:15	-6	256	5	84	100							14	97	-2.2	23	188	-2.2	25	182	0.6
10/30/2020	Fri	23:36:47	-60	360	55	184	100							47	210	-2.2						
10/31/2020	Sat	5:58:00	-6	104	3	281	100	5	108	1.8	25	118	-4									
10/31/2020	Sat	17:14:57	-6	256	1	73	100							14	97	-2.1	23	188	-2.2	25	183	0.6
10/31/2020	Sat	23:36:46	-60	360	59	165	100							47	212	-2.1						
11/1/2020	Sun	5:59:15	-6	104	13	278	99	6	109	1.3	25	118	-4									
11/1/2020	Sun	17:13:40	-6	255	-3	63	98							15	98	-2.1	23	189	-2.2	25	184	0.6
11/1/2020	Sun	23:36:45	-61	360	59	143	98							46	213	-2.1						
11/2/2020	Mon	6:00:30	-6	105	23	273	97	8	110	0.8	25	119	-4									
11/2/2020	Mon	17:12:24	-6	255	-8	52	95							16	99	-2.1	23	189	-2.2	25	184	0.6
11/2/2020	Mon	17:12:24															Sat 5.0					
11/2/2020	Mon	23:36:45	-61	0	56	123	94							46	215	-2.1						
11/3/2020	Tue	6:01:45	-6	105	33	268	92	9	111	0.5	25	119	-4									
11/3/2020	Tue	17:11:10	-6	254	-12	42	90							16	99	-2	23	190	-2.1	25	185	0.6
11/3/2020	Tue	17:11:10															Sat 4.9					
11/3/2020	Tue	23:36:45	-61	0	50	107	88							45	216	-2						
11/4/2020	Wed	6:03:00	-6	106	43	262	87	10	111	0.2	24	120	-4									
11/4/2020	Wed	17:09:58	-6	254	-16	31	83							17	100	-2	23	191	-2.1	25	185	0.6
11/4/2020	Wed	17:09:58															Sat 4.8					
11/4/2020	Wed	23:36:47	-62	0	42	96	81							45	218	-2						
11/5/2020	Thr	6:04:15	-6	106	52	252	79	10	112	0	24	120	-4									
11/5/2020	Thr	17:08:47	-6	254	-20	19	75							17	100	-2	23	191	-2.1	25	186	0.6
11/5/2020	Thr	17:08:47															Sat 4.7					
11/5/2020	Thr	23:36:49	-62	0	32	86	73							44	219	-2						
11/6/2020	Fri	6:05:30	-6	107	60	237	71	11	113	-0.2	24	121	-4									
11/6/2020	Fri	17:07:38	-6	253	-23	6	66							18	101	-1.9	23	192	-2.1	24	187	0.6
11/6/2020	Fri	17:07:38															Sat 4.6					
11/6/2020	Fri	23:36:52	-62	0	22	79	64							44	220	-1.9						
11/7/2020	Sat	6:06:45	-6	107	65	214	61	11	114	-0.4	24	121	-4									

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
11/7/2020	Sat	17:06:31	-6	253	-25	353	56							19	102	-1.9	23	192	-2.1	24	187	0.6
11/7/2020	Sat	17:06:31															Sat 4.5					
11/7/2020	Sat	23:36:56	-63	360	12	73	53							43	222	-1.9						
11/8/2020	Sun	6:08:00	-6	107	66	184	50	11	114	-0.5	23	122	-4									
11/8/2020	Sun	17:05:25	-6	252	-26	339	45							19	102	-1.9	23	193	-2.1	24	188	0.6
11/8/2020	Sun	17:05:25															Sat 4.5					
11/8/2020	Sun	23:37:01	-63	360	1	67	43							43	223	-1.9						
11/9/2020	Mon	6:09:15	-6	108	60	159	40	12	115	-0.6	23	122	-4									
11/9/2020	Mon	17:04:22	-6	252	-26	325	35							20	103	-1.8	23	193	-2.1	24	189	0.6
11/9/2020	Mon	17:04:22															Sat 4.4					
11/9/2020	Mon	23:37:07	-63	360	-11	61	32							42	224	-1.8						
11/10/2020	Tue	6:10:30	-6	108	51	142	29	12	115	-0.6	23	122	-3.9									
11/10/2020	Tue	17:03:20	-6	252	-24	310	24							20	103	-1.8	23	194	-2.1	24	189	0.6
11/10/2020	Tue	17:03:20															Sat 4.3					
11/10/2020	Tue	23:37:14	-63	360	-23	55	22							42	226	-1.8						
11/11/2020	Wed	6:11:45	-6	109	40	132	19	12	116	-0.7	23	123	-3.9									
11/11/2020	Wed	17:02:20	-6	251	-22	296	15							21	104	-1.8	23	194	-2.1	24	190	0.6
11/11/2020	Wed	17:02:20															Sat 4.2					
11/11/2020	Wed	23:37:21	-64	360	-35	47	13							41	227	-1.8						
11/12/2020	Thr	6:12:59	-6	109	28	124	11	11	116	-0.7	22	123	-3.9									
11/12/2020	Thr	17:01:22	-6	251	-18	281	7							22	104	-1.7	23	195	-2.1	24	191	0.6
11/12/2020	Thr	17:01:22															Sat 4.1					
11/12/2020	Thr	23:37:30	-64	360	-46	37	6							41	228	-1.7						
11/13/2020	Fri	6:14:13	-6	109	15	117	4	11	117	-0.7	22	124	-3.9									
11/13/2020	Fri	6:14:13			Mer 4.3																	
11/13/2020	Fri	17:00:26	-6	250	-12	268	2							22	105	-1.7	23	195	-2.1	24	191	0.6
11/13/2020	Fri	17:00:26															Sat 4.0					
11/13/2020	Fri	23:37:39	-64	360	-56	21	1							40	229	-1.7						
11/14/2020	Sat	6:15:27	-6	110	3	112	1	11	117	-0.7	22	124	-3.9									
11/14/2020	Sat	16:59:32	-6	250	-7	254	0							23	106	-1.7	22	196	-2.1	24	192	0.6
11/14/2020	Sat	16:59:32															Sat 3.9					
11/14/2020	Sat	23:37:49	-65	360	-63	357	0							40	230	-1.7						
11/15/2020	Sun	6:16:41	-6	110	-10	106	0	11	117	-0.7	21	125	-3.9									
11/15/2020	Sun	16:58:40	-6	250	0	241	1							23	106	-1.6	22	197	-2.1	24	193	0.6
11/15/2020	Sun	16:58:40															Sat 3.8					
11/15/2020	Sun	23:38:00	-65	0	-64	326	2							39	232	-1.6						
11/16/2020	Mon	6:17:54	-6	110	-23	100	3	10	118	-0.7	21	125	-3.9									
11/16/2020	Mon	16:57:50	-6	249	6	228	5							24	107	-1.6	22	197	-2.1	24	194	0.6
11/16/2020	Mon	16:57:50															Sat 3.7					
11/16/2020	Mon	23:38:12	-65	360	-58	299	6							39	233	-1.6						
11/17/2020	Tue	6:19:07	-6	111	-35	92	8	10	118	-0.7	21	125	-3.9									
11/17/2020	Tue	16:57:02	-6	249	12	216	11							24	107	-1.6	22	198	-2.1	24	194	0.6
11/17/2020	Tue	16:57:02															Sat 3.6					
11/17/2020	Tue	23:38:24	-65	360	-49	283	13							38	234	-1.6						
11/18/2020	Wed	6:20:20	-6	111	-45	82	15	9	118	-0.7	21	126	-3.9									
11/18/2020	Wed	16:56:16	-6	249	17	203	19							25	108	-1.5	22	198	-2.1	24	195	0.6
11/18/2020	Wed	16:56:16															Sat 3.5					
11/18/2020	Wed	23:38:38	-65	0	-39	272	21							38	235	-1.5						
11/19/2020	Thr	6:21:32	-6	111	-54	69	24	9	119	-0.7	20	126	-3.9									
11/19/2020	Thr	16:55:33	-6	248	21	190	28							26	108	-1.5	22	199	-2.1	23	196	0.6
11/19/2020	Thr	16:55:33															Sat 3.4					
11/19/2020	Thr	23:38:52	-66	360	-28	264	31							37	236	-1.5						
11/20/2020	Fri	6:22:43	-6	112	-60	50	34	8	119	-0.7	20	126	-3.9									
11/20/2020	Fri	16:54:51	-6	248	25	177	38							26	109	-1.5	22	200	-2.1	23	196	0.6
11/20/2020	Fri	16:54:51															Sat 3.3					
11/20/2020	Fri	23:39:07	-66	0	-18	259	41							36	237	-1.5						
11/21/2020	Sat	6:23:54	-6	112	-63	26	44	8	119	-0.7	20	127	-3.9									
11/21/2020	Sat	16:54:12	-6	248	27	164	48							27	109	-1.4	22	200	-2.1	23	197	0.6
11/21/2020	Sat	16:54:12															Sat 3.2					
11/21/2020	Sat	23:39:23	-66	360	-7	254	51							36	238	-1.4						
11/22/2020	Sun	6:25:04	-6	112	-61	3	54	7	119	-0.7	19	127	-3.9									
11/22/2020	Sun	16:53:34	-6	248	28	151	58							27	110	-1.4	22	201	-2.1	23	198	0.6
11/22/2020	Sun	16:53:34															Sat 3.1					
11/22/2020	Sun	23:39:39	-66	360	4	250	61							35	239	-1.4						
11/23/2020	Mon	6:26:14	-6	113	-55	344	63	7	119	-0.7	19	128	-3.9									

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
11/23/2020	Mon	16:52:59	-6	247	28	138	67							28	110	-1.4	21	201	-2.1	23	199	0.6
11/23/2020	Mon	16:52:59															Sat 3.0					
11/23/2020	Mon	23:39:57	-67	360	14	245	70							35	240	-1.4						
11/24/2020	Tue	6:27:23	-6	113	-48	332	72	6	120	-0.7	19	128	-3.9									
11/24/2020	Tue	16:52:27	-6	247	26	125	76							28	111	-1.3	21	202	-2.1	23	199	0.6
11/24/2020	Tue	16:52:27															Sat 2.9					
11/24/2020	Tue	23:40:15	-67	0	24	241	78							34	241	-1.3						
11/25/2020	Wed	6:28:31	-6	113	-40	322	80	6	120	-0.7	19	128	-3.9									
11/25/2020	Wed	16:51:56	-6	247	24	113	83							29	112	-1.3	21	203	-2	23	200	0.6
11/25/2020	Wed	16:51:56															Sat 2.8					
11/25/2020	Wed	23:40:33	-67	0	34	235	85							34	242	-1.3						
11/26/2020	Thr	6:29:38	-6	113	-31	315	87	5	120	-0.7	18	129	-3.9									
11/26/2020	Thr	16:51:28	-6	246	21	102	90							30	112	-1.3	21	203	-2	22	201	0.6
11/26/2020	Thr	16:51:28															Sat 2.7					
11/26/2020	Thr	23:40:53	-67	0	44	229	91							33	243	-1.3						
11/27/2020	Fri	6:30:45	-6	114	-22	309	93	5	120	-0.7	18	129	-3.9									
11/27/2020	Fri	16:51:02	-6	246	17	91	95							30	113	-1.2	21	204	-2	22	202	0.6
11/27/2020	Fri	16:51:02															Sat 2.6					
11/27/2020	Fri	23:41:13	-67	360	53	219	96							33	244	-1.2						
11/28/2020	Sat	6:31:50	-6	114	-13	303	97	4	120	-0.7	18	129	-3.9									
11/28/2020	Sat	16:50:38	-6	246	12	80	98							31	113	-1.2	21	205	-2	22	202	0.6
11/28/2020	Sat	16:50:38															Sat 2.5					
11/28/2020	Sat	23:41:34	-67	360	60	205	99							32	245	-1.2						
11/29/2020	Sun	6:32:55	-6	114	-3	298	99	4	120	-0.7	17	129	-3.9									
11/29/2020	Sun	16:50:17	-6	246	7	70	100							31	114	-1.2	20	205	-2	22	203	0.6
11/29/2020	Sun	16:50:17															Sat 2.4					
11/29/2020	Sun	23:41:56	-68	0	66	183	100							32	246	-1.2						
11/30/2020	Mon	6:33:58	-6	114	6	293	100	3	120	-0.8	17	130	-3.9									
11/30/2020	Mon	16:49:58	-6	245	1	60	100							32	114	-1.1	20	206	-2	22	204	0.6
11/30/2020	Mon	16:49:58															Sat 2.3					
11/30/2020	Mon	23:42:18	-68	360	67	154	99							31	246	-1.1						
12/1/2020	Tue	6:35:01	-6	115	16	287	99	3	120	-0.8	17	130	-3.9									
12/1/2020	Tue	16:49:41	-6	245	-5	50	98							32	115	-1.1	20	207	-2	21	205	0.6
12/1/2020	Tue	16:49:41															Sat 2.2					
12/1/2020	Tue	23:42:41	-68	360	63	129	97							31	247	-1.1						
12/2/2020	Wed	6:36:02	-6	115	25	280	96	2	120	-0.8	16	130	-3.9									
12/2/2020	Wed	16:49:27	-6	245	-11	40	94							33	115	-1.1	20	207	-2	21	206	0.6
12/2/2020	Wed	16:49:27															Sat 2.0					
12/2/2020	Wed	23:43:04	-68	360	55	112	92							30	248	-1.1						
12/3/2020	Thr	6:37:02	-6	115	34	272	91	2	120	-0.8	16	130	-3.9									
12/3/2020	Thr	16:49:15	-6	245	-17	30	88							34	116	-1	20	208	-2	21	206	0.6
12/3/2020	Thr	16:49:15															Sat 1.9					
12/3/2020	Thr	23:43:28	-68	360	45	101	86							30	249	-1						
12/4/2020	Fri	6:38:01	-6	115	43	261	84	1	120	-0.8	16	131	-3.9									
12/4/2020	Fri	16:49:06	-6	245	-22	19	80							34	117	-1	19	209	-2	21	207	0.6
12/4/2020	Fri	16:49:06															Sat 1.8					
12/4/2020	Fri	23:43:53	-68	0	35	93	78							29	250	-1						
12/5/2020	Sat	6:38:59	-6	115	50	247	75	1	120	-0.8	16	131	-3.9									
12/5/2020	Sat	16:48:59	-6	244	-27	7	71							35	117	-1	19	209	-2	20	208	0.6
12/5/2020	Sat	16:48:59															Sat 1.7					
12/5/2020	Sat	23:44:18	-68	0	24	88	69							29	251	-1						
12/6/2020	Sun	6:39:56	-6	116	54	229	66	0	120	-0.9	15	131	-3.9									
12/6/2020	Sun	16:48:54	-6	244	-31	353	61							35	118	-0.9	19	210	-2	20	209	0.6
12/6/2020	Sun	16:48:54															Sat 1.6					
12/6/2020	Sun	23:44:44	-69	360	12	83	58							28	252	-0.9						
12/7/2020	Mon	6:40:51	-6	116	55	207	55	0	120	-0.9	15	131	-3.9									
12/7/2020	Mon	16:48:52	-6	244	-34	339	50							36	118	-0.9	19	211	-2	20	210	0.6
12/7/2020	Mon	16:48:52															Sat 1.5					
12/7/2020	Mon	23:45:10	-69	0	0	79	47							28	252	-0.9						
12/8/2020	Tue	6:41:44	-6	116	52	186	44	-1	120	-0.9	15	131	-3.9									
12/8/2020	Tue	16:48:52	-6	244	-35	323	39							36	119	-0.9	19	212	-2	19	210	0.6
12/8/2020	Tue	16:48:52															Sat 1.4					
12/8/2020	Tue	23:45:37	-69	360	-12	74	36							27	253	-0.9						
12/9/2020	Wed	6:42:37	-6	116	46	168	33	-1	120	-1	14	132	-3.9									
12/9/2020	Wed	16:48:55	-6	244	-34	307	28							37	120	-0.9	18	212	-2	19	211	0.6

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
12/9/2020	Wed	16:48:55															Sat 1.3					
12/9/2020	Wed	23:46:04	-69	0	-25	69	25							27	254	-0.8						
12/10/2020	Thr	6:43:27	-6	116	37	154	23	-2	120	-1	14	132	-3.9									
12/10/2020	Thr	16:49:00	-6	244	-31	292	18							38	120	-0.8	18	213	-2	19	212	0.6
12/10/2020	Thr	16:49:00															Sat 1.2					
12/10/2020	Thr	23:46:32	-69	360	-37	63	16							26	255	-0.8						
12/11/2020	Fri	6:44:16	-6	116	27	143	13	-3	120	-1	14	132	-3.9									
12/11/2020	Fri	16:49:07	-6	244	-26	277	10							38	121	-0.8	18	214	-2	18	213	0.6
12/11/2020	Fri	16:49:07															Sat 1.1					
12/11/2020	Fri	23:47:00	-69	360	-49	55	8							26	255	-0.8						
12/12/2020	Sat	6:45:04	-6	116	16	134	6				13	132	-3.9									
12/12/2020	Sat	6:45:04			Ven 3.4																	
12/12/2020	Sat	16:49:17	-6	244	-20	263	4							39	121	-0.8	17	214	-2	18	214	0.6
12/12/2020	Sat	16:49:17															Sat 1.0					
12/12/2020	Sat	23:47:28	-69	0	-60	40	3							25	256	-0.8						
12/13/2020	Sun	6:45:50	-6	117	5	126	2				13	132	-3.9									
12/13/2020	Sun	16:49:29	-6	243	-13	251	1							39	122	-0.7	17	215	-2	18	215	0.6
12/13/2020	Sun	16:49:29															Sat 0.9					
12/13/2020	Sun	23:47:57	-69	360	-68	14	0							25	257	-0.7						
12/14/2020	Mon	6:46:34	-6	117	-6	118	0				13	132	-3.9									
12/14/2020	Mon	16:49:43	-6	243	-5	240	0							40	123	-0.7	17	216	-2	17	215	0.6
12/14/2020	Mon	16:49:43															Sat 0.8					
12/14/2020	Mon	23:48:26	-69	0	-69	337	1							25	258	-0.7						
12/15/2020	Tue	6:47:16	-6	117	-17	109	1				12	132	-3.9									
12/15/2020	Tue	16:50:00	-6	243	3	229	2							40	123	-0.7	17	217	-2	17	216	0.6
12/15/2020	Tue	16:50:00															Sat 0.6					
12/15/2020	Tue	23:48:55	-69	360	-63	307	4							24	258	-0.7						
12/16/2020	Wed	6:47:57	-6	117	-27	100	5				12	132	-3.9									
12/16/2020	Wed	16:50:19	-6	243	11	218	7							41	124	-0.6	16	217	-2	17	217	0.6
12/16/2020	Wed	16:50:19															Sat 0.5					
12/16/2020	Wed	23:49:25	-69	0	-53	291	9							24	259	-0.6						
12/17/2020	Thr	6:48:35	-6	117	-36	89	11				12	132	-3.9									
12/17/2020	Thr	16:50:40	-6	243	19	208	14							42	125	-0.6	16	218	-2	16	218	0.6
12/17/2020	Thr	16:50:40															Sat 0.4					
12/17/2020	Thr	23:49:54	-69	0	-43	282	16							23	260	-0.6						
12/18/2020	Fri	6:49:12	-6	117	-43	76	18				11	132	-3.9									
12/18/2020	Fri	16:51:04	-6	243	25	196	22							42	125	-0.6	16	219	-2	16	219	0.6
12/18/2020	Fri	16:51:04															Sat 0.3					
12/18/2020	Fri	23:50:24	-69	360	-32	276	24							23	261	-0.6						
12/19/2020	Sat	6:49:47	-6	117	-48	61	27				11	132	-3.9									
12/19/2020	Sat	16:51:30	-6	243	31	184	31							43	126	-0.6	15	220	-2	15	220	0.6
12/19/2020	Sat	16:51:30															Sat 0.2					
12/19/2020	Sat	23:50:54	-69	0	-21	271	34							22	261	-0.6						
12/20/2020	Sun	6:50:19	-6	117	-50	44	37				11	132	-3.9									
12/20/2020	Sun	16:51:57	-6	243	35	172	41							43	127	-0.5	15	220	-2	15	220	0.6
12/20/2020	Sun	16:51:57															Sat 0.1					
12/20/2020	Sun	23:51:24	-69	360	-10	268	43							22	262	-0.5						
12/21/2020	Mon	6:50:50	-6	117	-50	27	46				11	132	-3.9									
12/21/2020	Mon	16:52:27	-6	243	38	158	50							44	127	-0.5	14	221	-2	14	221	0.6
12/21/2020	Mon	16:52:27															Sat 0.1					
12/21/2020	Mon	23:51:53	-69	0	1	264	53							21	263	-0.5						
12/22/2020	Tue	6:51:18	-6	117	-48	10	56				10	132	-3.9									
12/22/2020	Tue	16:53:00	-6	243	40	144	60							44	128	-0.5	14	222	-2	14	222	0.6
12/22/2020	Tue	16:53:00															Sat 0.2					
12/22/2020	Tue	23:52:23	-69	0	11	261	62							21	263	-0.5						
12/23/2020	Wed	6:51:45	-6	117	-43	356	65				10	132	-3.9									
12/23/2020	Wed	16:53:34	-6	243	39	130	69							45	129	-0.5	14	223	-2	14	223	0.6
12/23/2020	Wed	16:53:34															Sat 0.3					
12/23/2020	Wed	23:52:53	-69	0	21	258	71							21	264	-0.4						
12/24/2020	Thr	6:52:09	-6	117	-37	345	74				10	132	-3.9									
12/24/2020	Thr	16:54:10	-6	243	37	116	77							46	130	-0.4	13	224	-2	13	224	0.6
12/24/2020	Thr	16:54:10															Sat 0.4					
12/24/2020	Thr	23:53:23	-69	0	32	253	79							20	265	-0.4						
12/25/2020	Fri	6:52:31	-6	117	-30	335	82				9	132	-3.9									
12/25/2020	Fri	16:54:48	-6	243	33	104	85							46	130	-0.4	13	224	-2	13	225	0.6

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																							
12/25/2020	Fri	16:54:48															Sat 0.5					
12/25/2020	Fri	23:53:52	-69	360	42	248	86							20	265	-0.4						
12/26/2020	Sat	6:52:51	-6	117	-23	326	88				9	132	-3.9									
12/26/2020	Sat	16:55:29	-6	243	28	92	91							47	131	-0.4	12	225	-2	12	226	0.6
12/26/2020	Sat	16:55:29															Sat 0.6					
12/26/2020	Sat	23:54:22	-69	360	52	241	92							19	266	-0.4						
12/27/2020	Sun	6:53:08	-6	117	-15	318	94				9	132	-3.9									
12/27/2020	Sun	16:56:11	-6	243	22	82	96							47	132	-0.3	12	226	-2	12	226	0.6
12/27/2020	Sun	16:56:11															Sat 0.7					
12/27/2020	Sun	23:54:51	-69	0	61	228	97							19	267	-0.3						
12/28/2020	Mon	6:53:23	-6	117	-7	310	98				8	132	-3.9									
12/28/2020	Mon	16:56:55	-6	243	15	72	99							48	133	-0.3	12	227	-2	11	227	0.6
12/28/2020	Mon	16:56:55															Sat 0.8					
12/28/2020	Mon	23:55:20	-69	0	68	207	99							19	267	-0.3						
12/29/2020	Tue	6:53:36	-6	116	2	302	100				8	132	-3.9									
12/29/2020	Tue	16:57:40	-6	244	8	64	100	-3	238	-1				48	134	-0.3	11	227	-2	11	228	0.6
12/29/2020	Tue	16:57:40															Sat 0.9					
12/29/2020	Tue	23:55:49	-69	360	70	175	100							18	268	-0.3						
12/30/2020	Wed	6:53:47	-6	116	10	294	100				8	132	-3.9									
12/30/2020	Wed	16:58:28	-6	244	0	55	99	-2	238	-1				49	135	-0.3	11	228	-2	10	229	0.6
12/30/2020	Wed	16:58:28															Sat 1.0					
12/30/2020	Wed	23:56:18	-69	360	66	143	99							18	269	-0.3						
12/31/2020	Thr	6:53:56	-6	116	18	285	98				8	131	-3.9									
12/31/2020	Thr	16:59:17	-6	244	-9	47	96	-2	238	-1				50	135	-0.2	10	229	-2	9	230	0.6
12/31/2020	Thr	16:59:17															Sat 1.2					
12/31/2020	Thr	23:56:45	-69	0	58	124	95							17	269	-0.2						
1/1/2021	Fri	6:54:01	-6	116	26	275	94				7	131	-3.9									
1/1/2021	Fri	17:00:07	-6	244	-17	38	91	-1	237	-1				50	136	-0.2	10	230	-2	9	231	0.6
1/1/2021	Fri	17:00:07															Sat 1.3					
1/1/2021	Fri	23:57:13	-69	0	47	113	89							17	270	-0.2						
1/2/2021	Sat	6:54:05	-6	116	33	263	88				7	131	-3.9									
1/2/2021	Sat	17:01:00	-6	244	-26	28	84	-1	237	-1				51	137	-0.2	9	231	-2	8	231	0.6
1/2/2021	Sat	17:01:00															Sat 1.4					
1/2/2021	Sat	23:57:41	-69	0	36	106	82							17	270	-0.2						
1/3/2021	Sun	6:54:06	-6	116	39	248	80				7	131	-3.9									
1/3/2021	Sun	17:01:54	-6	244	-34	17	76	0	237	-0.9				51	138	-0.2	9	231	-2	8	232	0.6
1/3/2021	Sun	17:01:54															Sat 1.5					
1/3/2021	Sun	23:58:08	-69	0	24	101	73							16	271	-0.2						
1/4/2021	Mon	6:54:05	-6	116	42	232	70				7	131	-3.9									
1/4/2021	Mon	17:02:50	-6	244	-41	4	66	0	237	-0.9				52	139	-0.1	8	232	-2	7	233	0.6
1/4/2021	Mon	17:02:50															Sat 1.6					
1/4/2021	Mon	23:58:35	-68	360	12	96	63							16	272	-0.1						
1/5/2021	Tue	6:54:02	-6	116	43	214	59				6	130	-3.9									
1/5/2021	Tue	17:03:47	-6	245	-46	348	55	1	237	-0.9				52	140	-0.1	8	233	-1.9	6	234	0.6
1/5/2021	Tue	17:03:47															Sat 1.7					
1/5/2021	Tue	23:59:01	-68	360	0	93	51							16	272	-0.1						
1/6/2021	Wed	6:53:57	-6	115	41	197	48				6	130	-3.9									
1/6/2021	Wed	17:04:46	-6	245	-48	330	43	1	236	-0.9				53	141	-0.1	7	234	-1.9	6	235	0.6
1/6/2021	Wed	17:04:46						Sat 4.9									Sat 1.8					
1/6/2021	Wed	23:59:27	-68	360	-13	89	40							15	273	-0.1						
1/7/2021	Thr	6:53:49	-6	115	36	181	37				6	130	-3.9									
1/7/2021	Thr	17:05:46	-6	245	-48	310	32	2	236	-0.9				53	142	-0.1	7	234	-1.9	5	236	0.6
1/7/2021	Thr	17:05:46						Sat 3.5									Sat 1.9					
1/7/2021	Thr	23:59:53	-68	0	-25	84	29							15	273	-0.1						
1/8/2021	Fri	6:53:39	-6	115	30	166	26				5	130	-3.9									
1/8/2021	Fri	17:06:48	-6	245	-44	292	22	2	236	-0.9				54	143	0	6	235	-1.9	5	237	0.6
1/8/2021	Fri	17:06:48						Sat 2.3									Sat 2.1					
1/9/2021	Sat	0:00:18	-68	0	-38	78	19							14	274	0						
1/9/2021	Sat	6:53:26	-6	115	22	154	17				5	129	-3.9									
1/9/2021	Sat	17:07:51	-6	245	-38	277	13	3	236	-0.9				54	144	0	6	236	-1.9	4	237	0.6
1/9/2021	Sat	17:07:51						Sat 1.6									Sat 2.2					
1/10/2021	Sun	0:00:42	-68	0	-50	70	11							14	275	0						
1/10/2021	Sun	6:53:11	-6	115	13	143	9				5	129	-3.9									
1/10/2021	Sun	17:08:55	-6	246	-30	264	6	3	236	-0.9				55	145	0	5	237	-1.9	3	238	0.6
1/10/2021	Sun	17:08:55						Jup 1.7									Sat 2.3					

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
1/11/2021	Mon	0:01:06	-68	0	-61	57	5							14	275	0						
1/11/2021	Mon	6:52:54	-6	114	5	132	3				5	129	-3.9									
1/11/2021	Mon	6:52:54			Ven 3.5																	
1/11/2021	Mon	17:10:00	-6	246	-21	254	2	4	236	-0.9				55	146	0	4	238	-1.9	3	239	0.6
1/11/2021	Mon	17:10:00						Jup 1.4									Sat 2.4					
1/12/2021	Tue	0:01:30	-67	360	-69	32	1							13	276	0						
1/12/2021	Tue	6:52:35	-6	114	-4	122	1				4	128	-3.9									
1/12/2021	Tue	17:11:07	-6	246	-11	245	0	5	236	-0.9				56	148	0	4	238	-1.9	2	240	0.6
1/12/2021	Tue	17:11:07						Jup 2.2									Sat 2.5					
1/13/2021	Wed	0:01:53	-67	360	-70	355	0							13	276	0.1						
1/13/2021	Wed	6:52:13	-6	114	-13	112	0				4	128	-3.9									
1/13/2021	Wed	17:12:14	-6	246	0	237	1	5	236	-0.9				56	149	0.1	3	239	-1.9	1	241	0.6
1/13/2021	Wed	17:12:14			Sat 3.7			Jup 3.3									Sat 2.6					
1/14/2021	Thr	0:02:15	-67	360	-65	325	2							13	277	0.1						
1/14/2021	Thr	6:51:49	-6	114	-20	101	2				4	128	-3.9									
1/14/2021	Thr	17:13:22	-6	246	9	230	4	6	236	-0.9				57	150	0.1	3	240	-1.9	1	241	0.6
1/14/2021	Thr	17:13:22						Jup 4.6									Sat 2.6					
1/15/2021	Fri	0:02:36	-67	360	-56	308	5							13	277	0.1						
1/15/2021	Fri	6:51:23	-6	113	-27	90	7				4	127	-3.9									
1/15/2021	Fri	17:14:32	-6	247	19	222	9	6	236	-0.9				57	151	0.1	2	241	-1.9	0	242	0.6
1/15/2021	Fri	17:14:32															Sat 2.7					
1/16/2021	Sat	0:02:57	-67	0	-46	298	11							12	278	0.1						
1/16/2021	Sat	6:50:54	-6	113	-32	77	13				3	127	-3.9									
1/16/2021	Sat	17:15:42	-6	247	28	214	16	7	237	-0.9				58	152	0.1	2	241	-1.9	-1	243	0.6
1/16/2021	Sat	17:15:42															Sat 2.8					
1/17/2021	Sun	0:03:17	-67	360	-35	292	18							12	278	0.1						
1/17/2021	Sun	6:50:23	-6	113	-36	64	20				3	127	-3.9									
1/17/2021	Sun	17:16:53	-6	247	36	205	24	7	237	-0.9				58	154	0.2	1	242	-1.9	-1	244	0.6
1/17/2021	Sun	17:16:53															Sat 3.0					
1/18/2021	Mon	0:03:36	-66	0	-24	287	26							12	279	0.2						
1/18/2021	Mon	6:49:50	-6	113	-38	50	29				3	126	-3.9									
1/18/2021	Mon	17:18:05	-6	248	43	194	33	8	237	-0.8				58	155	0.2	1	243	-1.9	-2	245	0.6
1/18/2021	Mon	17:18:05															Sat 3.2					
1/19/2021	Tue	0:03:55	-66	0	-14	283	35							11	279	0.2						
1/19/2021	Tue	6:49:14	-6	112	-39	35	38				3	126	-3.9									
1/19/2021	Tue	17:19:17	-6	248	49	180	42	8	238	-0.8				59	156	0.2	0	244	-1.9	-3	246	0.6
1/19/2021	Tue	17:19:17															Sat 3.5					
1/20/2021	Wed	0:04:13	-66	0	-3	280	45							11	280	0.2						
1/20/2021	Wed	6:48:37	-6	112	-38	21	47				3	125	-3.9									
1/20/2021	Wed	17:20:30	-6	248	53	164	51	9	238	-0.8				59	158	0.2	-1	244	-1.9			
1/20/2021	Wed	17:20:30															Sat 3.8					
1/21/2021	Thr	0:04:30	-66	360	7	277	54							11	281	0.2						
1/21/2021	Thr	6:47:57	-6	112	-35	8	57				2	125	-3.9									
1/21/2021	Thr	17:21:44	-6	249	55	146	61	9	238	-0.8				60	159	0.2	-1	245	-1.9			
1/21/2021	Thr	17:21:44															Sat 4.1					
1/22/2021	Fri	0:04:46	-66	0	17	273	63							11	281	0.3						
1/22/2021	Fri	6:47:15	-6	111	-31	356	66				2	124	-3.9									
1/22/2021	Fri	17:22:59	-6	249	53	128	70	10	239	-0.7				60	160	0.3	-2	246	-1.9			
1/22/2021	Fri	17:22:59															Sat 4.2					
1/23/2021	Sat	0:05:02	-65	0	28	269	72							10	282	0.3						
1/23/2021	Sat	6:46:31	-6	111	-26	345	75				2	124	-3.9									
1/23/2021	Sat	17:24:14	-6	249	49	112	78	10	240	-0.7				60	162	0.3	-3	247	-1.9			
1/23/2021	Sat	17:24:14															Sat 4.3					
1/24/2021	Sun	0:05:16	-65	360	38	263	80							10	282	0.3						
1/24/2021	Sun	6:45:45	-6	111	-20	334	82				2	123	-3.9									
1/24/2021	Sun	17:25:29	-6	250	42	99	86	10	240	-0.6				61	163	0.3						
1/25/2021	Mon	0:05:30	-65	0	48	256	87							10	282	0.3						
1/25/2021	Mon	6:44:57	-6	110	-14	324	89				1	123	-3.9									
1/25/2021	Mon	17:26:45	-6	250	34	88	92	10	241	-0.5				61	165	0.3						
1/26/2021	Tue	0:05:43	-65	360	57	244	93							9	283	0.3						
1/26/2021	Tue	6:44:06	-6	110	-7	314	95				1	122	-3.9									
1/26/2021	Tue	17:28:01	-6	250	25	80	96	10	242	-0.3				61	166	0.3						
1/27/2021	Wed	0:05:55	-64	0	65	224	97							9	283	0.4						
1/27/2021	Wed	6:43:14	-6	110	0	304	98				1	122	-3.9									
1/27/2021	Wed	17:29:18	-6	251	15	73	99	10	243	-0.1				62	168	0.4						

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
1/28/2021	Thr	0:06:07	-64	0	68	194	100							9	284	0.4						
1/28/2021	Thr	6:42:20	-6	109	7	294	100				1	121	-3.9									
1/28/2021	Thr	17:30:35	-6	251	5	66	100	9	244	0.1				62	169	0.4						
1/29/2021	Fri	0:06:18	-64	0	65	163	100							9	284	0.4						
1/29/2021	Fri	6:41:24	-6	109	14	283	99				1	121	-3.9									
1/29/2021	Fri	17:31:52	-6	251	-6	60	98	9	245	0.3				62	171	0.4						
1/30/2021	Sat	0:06:27	-63	0	57	142	97							9	285	0.4						
1/30/2021	Sat	6:40:26	-6	108	20	271	96				1	120	-3.9									
1/30/2021	Sat	17:33:09	-6	252	-17	54	94	8	246	0.7				62	172	0.4						
1/31/2021	Sun	0:06:36	-63	360	46	129	92							8	285	0.4						
1/31/2021	Sun	6:39:26	-6	108	26	257	91				0	120	-3.9							-3	114	0.6
1/31/2021	Sun	17:34:27	-6	252	-28	46	87	7	248	1.1				63	174	0.4						
2/1/2021	Mon	0:06:45	-63	360	34	121	85							8	286	0.4						
2/1/2021	Mon	6:38:24	-6	108	30	243	83				0	119	-3.9							-2	114	0.6
2/1/2021	Mon	17:35:45	-6	253	-38	38	79	6	249	1.5				63	175	0.5						
2/2/2021	Tue	0:06:52	-63	360	22	115	77							8	286	0.5						
2/2/2021	Tue	6:37:20	-6	107	32	227	74				0	119	-3.9							-2	115	0.6
2/2/2021	Tue	6:37:20									Sat 4.2											
2/2/2021	Tue	17:37:03	-6	253	-48	26	69	5	250	2.1				63	177	0.5						
2/3/2021	Wed	0:06:59	-62	360	10	110	66							8	287	0.5						
2/3/2021	Wed	6:36:15	-6	107	32	211	63				0	118	-3.9							-1	115	0.6
2/3/2021	Wed	6:36:15									Sat 3.1											
2/3/2021	Wed	17:38:22	-6	253	-56	10	58	4	252	2.6				63	179	0.5						
2/4/2021	Thr	0:07:04	-62	360	-2	105	55							7	287	0.5						
2/4/2021	Thr	6:35:08	-6	106	31	195	52				0	117	-3.9							-1	116	0.6
2/4/2021	Thr	6:35:08									Sat 2.0											
2/4/2021	Thr	17:39:40	-6	254	-61	347	47	2	253	3.3				63	180	0.5						
2/5/2021	Fri	0:07:09	-62	0	-15	100	44							7	288	0.5						
2/5/2021	Fri	6:33:59	-6	106	27	180	41				-1	117	-3.9							-1	116	0.6
2/5/2021	Fri	6:33:59									Sat 0.9											
2/5/2021	Fri	17:40:59	-6	254	-61	320	36	1	255	4				64	182	0.5						
2/6/2021	Sat	0:07:14	-61	360	-27	95	33							7	288	0.5						
2/6/2021	Sat	6:32:48	-6	106	22	166	30				-1	116	-3.9							0	116	0.6
2/6/2021	Sat	6:32:48									Sat 0.5											
2/6/2021	Sat	17:42:18	-6	255	-56	298	25	-1	256	4.7				64	184	0.6						
2/7/2021	Sun	0:07:17	-61	360	-38	88	23							7	288	0.6						
2/7/2021	Sun	6:31:36	-6	105	16	153	20				-1	116	-3.9				-3	112	-1.9	0	117	0.6
2/7/2021	Sun	6:31:36									Sat 1.5											
2/7/2021	Sun	17:43:37	-6	255	-48	282	16							64	185	0.6						
2/8/2021	Mon	0:07:20	-61	0	-49	78	14							7	289	0.6						
2/8/2021	Mon	6:30:22	-6	105	10	142	12	-3	103	5.2	-1	115	-3.9				-2	112	-2	0	117	0.7
2/8/2021	Mon	6:30:22									Sat 2.6											
2/8/2021	Mon	17:44:55	-6	256	-39	271	9							64	187	0.6						
2/9/2021	Tue	0:07:22	-60	360	-58	63	7							7	289	0.6						
2/9/2021	Tue	6:29:07	-6	104	3	130	6	-1	104	5	-1	114	-3.9				-2	112	-2	1	117	0.7
2/9/2021	Tue	6:29:07									Jup 2.1											
2/9/2021	Tue	17:46:14	-6	256	-28	263	4							64	189	0.6						
2/10/2021	Wed	0:07:23	-60	360	-65	40	3							6	290	0.6						
2/10/2021	Wed	6:27:50	-6	104	-3	119	2	0	106	4.5	-1	114	-3.9				-2	113	-2	1	118	0.7
2/10/2021	Wed	6:27:50									Jup 1.2											
2/10/2021	Wed	17:47:33	-6	256	-17	257	1							64	190	0.6						
2/11/2021	Thr	0:07:23	-60	360	-66	11	0							6	290	0.6						
2/11/2021	Thr	6:26:32	-6	103	-10	108	0	0	107	3.9	-2	113	-3.9				-1	113	-2	1	118	0.7
2/11/2021	Thr	6:26:32									Jup 0.4											
2/11/2021	Thr	17:48:52	-6	257	-7	251	0							64	192	0.6						
2/12/2021	Fri	0:07:23	-59	0	-62	345	0							6	290	0.6						
2/12/2021	Fri	6:25:12	-6	103	-16	97	1	1	109	3.3	-2	112	-3.9				-1	113	-2	2	119	0.7
2/12/2021	Fri	6:25:12						Ven 4.8			Jup 1.1											
2/12/2021	Fri	17:50:11	-6	257	5	247	2							64	194	0.7						
2/13/2021	Sat	0:07:22	-59	0	-54	328	3							6	291	0.7						
2/13/2021	Sat	6:23:51	-6	102	-21	85	4	2	110	2.8	-2	112	-3.9				-1	113	-2	2	119	0.7
2/13/2021	Sat	6:23:51						Jup 4.1			Jup 2.0											
2/13/2021	Sat	17:51:29	-6	258	15	242	5							64	195	0.7						
2/14/2021	Sun	0:07:20	-59	360	-45	317	7							6	291	0.7						
2/14/2021	Sun	6:22:28	-6	102	-25	73	8	3	111	2.4	-2	111	-3.9				0	114	-2	2	119	0.7

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
2/14/2021	Sun	6:22:28						Jup 3.7			Jup 3.0											
2/14/2021	Sun	17:52:48	-6	258	25	237	11							64	197	0.7						
2/15/2021	Mon	0:07:17	-58	0	-35	309	12							6	292	0.7						
2/15/2021	Mon	6:21:04	-6	101	-28	60	14	3	113	2	-2	110	-3.9				0	114	-2	3	120	0.7
2/15/2021	Mon	6:21:04						Jup 3.5			Jup 4.0											
2/15/2021	Mon	17:54:06	-6	259	35	231	18							64	199	0.7						
2/16/2021	Tue	0:07:14	-58	0	-25	303	19							5	292	0.7						
2/16/2021	Tue	6:19:39	-6	101	-30	48	21	4	114	1.7	-3	110	-3.9				0	114	-2	3	120	0.7
2/16/2021	Tue	6:19:39						Jup 3.6														
2/16/2021	Tue	17:55:25	-6	259	45	224	25							64	200	0.7						
2/17/2021	Wed	0:07:10	-58	360	-15	298	28							5	292	0.7						
2/17/2021	Wed	6:18:12	-6	100	-30	35	30	4	115	1.4	-3	109	-3.9				0	114	-2	3	120	0.7
2/17/2021	Wed	6:18:12						Jup 3.8														
2/17/2021	Wed	17:56:43	-6	260	53	214	34							64	202	0.7						
2/18/2021	Thr	0:07:05	-57	360	-5	293	36							5	293	0.7						
2/18/2021	Thr	6:16:44	-6	100	-30	22	39	5	116	1.2							1	114	-2	4	121	0.7
2/18/2021	Thr	6:16:44						Jup 4.0														
2/18/2021	Thr	17:58:01	-6	260	61	200	43							64	204	0.8						
2/18/2021	Thr	17:58:01			Mars 3.9																	
2/19/2021	Fri	0:07:00	-57	360	5	289	46							5	293	0.8						
2/19/2021	Fri	0:07:00			Mars 4.3																	
2/19/2021	Fri	6:15:15	-6	99	-28	9	48	5	116	1							1	115	-2	4	121	0.7
2/19/2021	Fri	6:15:15						Jup 4.3														
2/19/2021	Fri	17:59:19	-6	261	65	178	53							64	205	0.8						
2/20/2021	Sat	0:06:53	-57	0	15	284	55							5	293	0.8						
2/20/2021	Sat	6:13:45	-6	99	-25	357	57	5	117	0.8							1	115	-2	4	121	0.7
2/20/2021	Sat	6:13:45						Jup 4.4														
2/20/2021	Sat	18:00:37	-6	261	66	151	62							64	207	0.8						
2/21/2021	Sun	0:06:47	-56	0	25	278	64							5	294	0.8						
2/21/2021	Sun	6:12:13	-6	98	-22	345	67	5	117	0.7							2	115	-2	5	122	0.7
2/21/2021	Sun	6:12:13						Sat 4.2														
2/21/2021	Sun	18:01:55	-6	262	62	127	71							64	208	0.8						
2/22/2021	Mon	0:06:39	-56	360	35	272	73							5	294	0.8						
2/22/2021	Mon	6:10:40	-6	98	-17	333	76	5	118	0.6							2	115	-2	5	122	0.7
2/22/2021	Mon	6:10:40						Sat 4.1														
2/22/2021	Mon	18:03:12	-6	262	54	111	80							64	210	0.8						
2/23/2021	Tue	0:06:31	-56	0	44	262	82							4	295	0.8						
2/23/2021	Tue	6:09:06	-6	97	-12	322	84	6	118	0.5							2	116	-2	5	122	0.7
2/23/2021	Tue	6:09:06						Sat 4.1														
2/23/2021	Tue	18:04:29	-6	263	45	100	87							64	211	0.8						
2/24/2021	Wed	0:06:22	-55	360	53	249	89							4	295	0.8						
2/24/2021	Wed	6:07:32	-6	97	-7	311	91	6	118	0.4							2	116	-2	5	123	0.7
2/24/2021	Wed	6:07:32						Sat 4.1														
2/24/2021	Wed	18:05:47	-6	263	34	92	93							63	213	0.9						
2/25/2021	Thr	0:06:13	-55	0	59	230	95							4	295	0.9						
2/25/2021	Thr	6:05:56	-6	96	0	299	96	6	119	0.3							3	116	-2	6	123	0.7
2/25/2021	Thr	6:05:56						Jup 4.0														
2/25/2021	Thr	18:07:04	-6	264	23	86	98							63	214	0.9						
2/26/2021	Fri	0:06:03	-55	0	62	204	98							4	296	0.9						
2/26/2021	Fri	6:04:19	-6	96	5	287	99	6	119	0.3							3	116	-2	6	123	0.7
2/26/2021	Fri	6:04:19						Jup 3.7														
2/26/2021	Fri	18:08:20	-6	264	11	81	100							63	216	0.9						
2/27/2021	Sat	0:05:52	-54	360	58	178	100							4	296	0.9						
2/27/2021	Sat	6:02:41	-6	95	11	275	100	6	119	0.2							3	116	-2	6	124	0.7
2/27/2021	Sat	6:02:41						Jup 3.4														
2/27/2021	Sat	18:09:37	-6	265	-1	77	99							63	217	0.9						
2/28/2021	Sun	0:05:41	-54	0	51	158	99							4	296	0.9						
2/28/2021	Sun	6:01:02	-6	95	16	262	98	5	119	0.2							3	117	-2	7	124	0.7
2/28/2021	Sun	6:01:02						Jup 2.9														
2/28/2021	Sun	18:10:54	-6	265	-14	72	96							63	219	0.9						
3/1/2021	Mon	0:05:30	-53	360	41	144	95							4	296	0.9						
3/1/2021	Mon	5:59:23	-6	94	20	248	93	5	118	0.1							4	117	-2	7	124	0.7
3/1/2021	Mon	5:59:23						Jup 2.4														
3/1/2021	Mon	18:12:10	-6	266	-27	68	90							62	220	0.9						
3/2/2021	Tue	0:05:18	-53	0	29	134	88							4	297	0.9						

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
3/2/2021	Tue	5:57:42	-6	94	24	233	86	5	118	0.1							4	117	-2	7	125	0.7
3/2/2021	Tue	5:57:42						Jup 1.8														
3/2/2021	Tue	18:13:26	-6	267	-39	61	82							62	221	0.9						
3/3/2021	Wed	0:05:05	-53	0	18	127	80							3	297	0.9						
3/3/2021	Wed	5:56:01	-6	93	25	217	78	5	118	0.1							4	117	-2	8	125	0.7
3/3/2021	Wed	5:56:01						Jup 1.2														
3/3/2021	Wed	18:14:43	-6	267	-51	53	72							62	223	1						
3/4/2021	Thr	0:04:52	-52	0	6	120	70							3	297	1						
3/4/2021	Thr	5:54:19	-6	93	25	202	67	5	118	0.1							4	117	-2	8	125	0.7
3/4/2021	Thr	5:54:19						Jup 0.6														
3/4/2021	Thr	18:15:59	-6	268	-61	39	62							62	224	1						
3/5/2021	Fri	0:04:39	-52	360	-6	113	59							3	298	1						
3/5/2021	Fri	5:52:36	-6	92	24	187	56	5	117	0.1							5	118	-2	8	126	0.7
3/5/2021	Fri	5:52:36						Jup 0.4														
3/5/2021	Fri	18:17:15	-6	268	-68	14	50							62	225	1						
3/6/2021	Sat	0:04:25	-51	360	-18	107	48							3	298	1						
3/6/2021	Sat	5:50:52	-6	92	21	172	45	5	117	0.1							5	118	-2	8	126	0.7
3/6/2021	Sat	5:50:52						Jup 1.0														
3/6/2021	Sat	18:18:31	-6	269	-70	339	39							61	227	1						
3/7/2021	Sun	0:04:11	-51	0	-28	99	37							3	298	1						
3/7/2021	Sun	5:49:08	-6	91	17	159	34	4	116	0							5	118	-2	9	126	0.7
3/7/2021	Sun	5:49:08						Jup 1.8														
3/7/2021	Sun	18:19:47	-6	269	-64	310	29							61	228	1						
3/8/2021	Mon	0:03:56	-51	0	-38	90	26							3	299	1						
3/8/2021	Mon	5:47:23	-6	90	13	146	24	4	116	0							5	118	-2	9	127	0.7
3/8/2021	Mon	5:47:23						Jup 2.7														
3/8/2021	Mon	18:21:02	-6	270	-56	293	19							61	229	1						
3/9/2021	Tue	0:03:42	-50	360	-47	78	18							3	299	1						
3/9/2021	Tue	5:45:37	-6	90	8	134	16	4	115	0							6	118	-2	9	127	0.7
3/9/2021	Tue	5:45:37						Jup 3.6														
3/9/2021	Tue	18:22:18	-6	270	-45	283	12							61	230	1						
3/10/2021	Wed	0:03:26	-50	0	-54	62	10							3	299	1						
3/10/2021	Wed	5:43:51	-6	89	3	123	9	4	115	0							6	119	-2	9	127	0.7
3/10/2021	Wed	5:43:51						Jup 4.5														
3/10/2021	Wed	18:23:34	-6	271	-35	277	6							60	231	1						
3/11/2021	Thr	0:03:11	-50	0	-58	41	5							3	299	1.1						
3/11/2021	Thr	5:42:05	-6	89	-2	111	4	3	114	0							6	119	-2	10	127	0.7
3/11/2021	Thr	18:24:49	-6	271	-24	272	2							60	232	1.1						
3/12/2021	Fri	0:02:55	-49	0	-58	19	2							3	300	1.1						
3/12/2021	Fri	5:40:17	-6	88	-8	100	1	3	113	0							6	119	-2	10	128	0.7
3/12/2021	Fri	18:26:05	-6	272	-13	269	0							60	234	1.1						
3/13/2021	Sat	0:02:39	-49	360	-54	359	0							2	300	1.1						
3/13/2021	Sat	5:38:30	-6	88	-12	89	0	3	113	0							7	119	-2	10	128	0.7
3/13/2021	Sat	18:27:21	-6	273	-2	266	1							59	235	1.1						
3/14/2021	Sun	0:02:22	-48	360	-48	344	1							2	300	1.1						
3/14/2021	Sun	5:36:41	-6	87	-16	77	1	3	112	0							7	119	-2	11	128	0.7
3/14/2021	Sun	18:28:36	-6	273	9	262	3							59	236	1.1						
3/15/2021	Mon	0:02:06	-48	0	-41	332	3							2	301	1.1						
3/15/2021	Mon	5:34:53	-6	87	-19	65	4	3	111	0							7	119	-2	11	129	0.8
3/15/2021	Mon	18:29:51	-6	274	19	259	7							59	237	1.1						
3/16/2021	Tue	0:01:49	-48	360	-32	323	8							2	301	1.1						
3/16/2021	Tue	5:33:04	-6	86	-22	54	9	2	110	0							7	120	-2	11	129	0.8
3/16/2021	Tue	18:31:07	-6	274	29	255	12							58	238	1.1						
3/17/2021	Wed	0:01:32	-47	0	-23	316	14							2	301	1.1						
3/17/2021	Wed	5:31:14	-6	86	-24	41	15	2	109	-0.1							8	120	-2	11	129	0.8
3/17/2021	Wed	18:32:22	-6	275	39	251	19							58	239	1.1						
3/18/2021	Thr	0:01:14	-47	360	-14	309	21							2	301	1.1						
3/18/2021	Thr	5:29:24	-6	85	-24	29	22	2	108	-0.1							8	120	-2	12	130	0.8
3/18/2021	Thr	18:33:37	-6	275	49	244	27							58	240	1.2						
3/19/2021	Fri	0:00:57	-46	360	-5	303	29							2	302	1.2						
3/19/2021	Fri	5:27:34	-6	84	-24	17	31	2	108	-0.1							8	120	-2	12	130	0.8
3/19/2021	Fri	18:34:53	-6	276	58	234	36							57	241	1.2						
3/19/2021	Fri	18:34:53			Mars 3.6																	
3/20/2021	Sat	0:00:39	-46	0	4	297	38							2	302	1.2						
3/20/2021	Sat	5:25:44	-6	84	-23	4	40	1	107	-0.1							8	120	-2	12	130	0.8

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
3/20/2021	Sat	18:36:08	-6	276	66	217	45							57	242	1.2						
3/21/2021	Sun	0:00:21	-46	360	13	291	47							2	302	1.2						
3/21/2021	Sun	5:23:53	-6	83	-22	352	49	1	106	-0.1							9	121	-2	12	131	0.8
3/21/2021	Sun	18:37:23	-6	277	71	189	55							57	242	1.2						
3/22/2021	Mon	0:00:03	-45	0	23	283	57							2	302	1.2						
3/22/2021	Mon	5:22:02	-6	83	-19	340	59	1	105	-0.1							9	121	-2	13	131	0.8
3/22/2021	Mon	18:38:39	-6	278	69	156	64							56	243	1.2						
3/22/2021	Mon	23:59:45	-45	360	31	275	66							1	303	1.2						
3/23/2021	Tue	5:20:11	-6	82	-15	328	69	1	104	-0.2							9	121	-2	13	131	0.8
3/23/2021	Tue	18:39:54	-6	278	62	132	74							56	244	1.2						
3/23/2021	Tue	23:59:27	-44	360	40	263	76							1	303	1.2						
3/24/2021	Wed	5:18:19	-6	82	-11	316	78	0	103	-0.2							9	121	-2	13	132	0.8
3/24/2021	Wed	18:41:10	-6	279	52	118	83							56	245	1.2						
3/24/2021	Wed	23:59:09	-44	0	47	249	84							1	303	1.2						
3/25/2021	Thr	5:16:28	-6	81	-7	303	86	0	102	-0.2							10	121	-2	13	132	0.8
3/25/2021	Thr	18:42:25	-6	279	41	110	90							55	246	1.2						
3/25/2021	Thr	23:58:51	-44	360	51	230	91							1	303	1.2						
3/26/2021	Fri	5:14:36	-6	81	-1	291	93	0	101	-0.2							10	122	-2	14	132	0.8
3/26/2021	Fri	18:43:40	-6	280	29	104	96							55	247	1.2						
3/26/2021	Fri	23:58:33	-43	360	52	208	97							1	304	1.2						
3/27/2021	Sat	5:12:44	-6	80	3	278	98	0	99	-0.3							10	122	-2	14	133	0.8
3/27/2021	Sat	18:44:56	-6	280	16	99	99							54	248	1.3						
3/27/2021	Sat	23:58:15	-43	0	49	187	99							1	304	1.3						
3/28/2021	Sun	5:10:53	-6	79	8	265	100	0	98	-0.3							10	122	-2.1	14	133	0.8
3/28/2021	Sun	18:46:12	-6	281	3	95	100							54	248	1.3						
3/28/2021	Sun	23:57:56	-42	0	42	169	99							1	304	1.3						
3/29/2021	Mon	5:09:01	-6	79	13	251	99	-1	97	-0.4							11	122	-2.1	14	133	0.8
3/29/2021	Mon	18:47:27	-6	281	-10	91	97							54	249	1.3						
3/29/2021	Mon	23:57:38	-42	360	33	155	97							1	304	1.3						
3/30/2021	Tue	5:07:09	-6	78	17	236	96	-1	96	-0.4							11	122	-2.1	15	134	0.8
3/30/2021	Tue	18:48:43	-6	282	-23	87	92							53	250	1.3						
3/30/2021	Tue	23:57:20	-42	0	23	144	91							1	304	1.3						
3/31/2021	Wed	5:05:17	-6	78	19	221	89	-1	95	-0.4							11	123	-2.1	15	134	0.8
3/31/2021	Wed	18:49:59	-6	283	-36	81	85							53	251	1.3						
3/31/2021	Wed	23:57:02	-41	0	12	134	83							1	305	1.3						
4/1/2021	Thr	5:03:26	-6	77	21	206	81	-1	94	-0.5							11	123	-2.1	15	134	0.8
4/1/2021	Thr	18:51:15	-6	283	-48	74	75							52	251	1.3						
4/1/2021	Thr	23:56:45	-41	360	2	125	73							1	305	1.3						
4/2/2021	Fri	5:01:34	-6	77	21	191	71	-2	92	-0.5							11	123	-2.1	15	135	0.8
4/2/2021	Fri	18:52:32	-6	284	-59	62	65							52	252	1.3						
4/2/2021	Fri	23:56:27	-40	0	-9	117	63							0	305	1.3						
4/3/2021	Sat	4:59:43	-6	76	20	176	60	-2	91	-0.6							12	123	-2.1	15	135	0.8
4/3/2021	Sat	18:53:48	-6	284	-67	41	54							52	253	1.3						
4/3/2021	Sat	23:56:10	-40	0	-19	108	52							0	305	1.3						
4/4/2021	Sun	4:57:52	-6	76	18	162	49	-2	90	-0.7							12	124	-2.1	16	136	0.8
4/4/2021	Sun	18:55:05	-6	285	-71	7	43							51	253	1.3						
4/4/2021	Sun	23:55:52	-40	360	-28	99	41							0	305	1.3						
4/5/2021	Mon	4:56:01	-6	75	15	149	39	-3	88	-0.7							12	124	-2.1	16	136	0.8
4/5/2021	Mon	18:56:22	-6	285	-67	335	33							51	254	1.3						
4/5/2021	Mon	23:55:35	-39	360	-36	87	31							0	306	1.3						
4/6/2021	Tue	4:54:10	-6	74	11	137	29	-3	87	-0.8							12	124	-2.1	16	136	0.8
4/6/2021	Tue	4:54:10			Sat 4.9																	
4/6/2021	Tue	18:57:39	-6	286	-59	316	23							50	255	1.4						
4/6/2021	Tue	23:55:18	-39	0	-42	74	21							0	306	1.4						
4/7/2021	Wed	4:52:19	-6	74	8	125	20										13	124	-2.1	16	137	0.8
4/7/2021	Wed	18:58:56	-6	286	-50	305	15							50	255	1.4						
4/7/2021	Wed	23:55:02	-39	360	-47	59	14							0	306	1.4						
4/8/2021	Thr	4:50:29	-6	73	4	113	12										13	124	-2.1	17	137	0.8
4/8/2021	Thr	19:00:13	-6	287	-40	298	9							50	256	1.4						
4/8/2021	Thr	23:54:45	-38	0	-49	42	8							0	306	1.4						
4/9/2021	Fri	4:48:39	-6	73	0	102	7										13	125	-2.1	17	137	0.8
4/9/2021	Fri	19:01:31	-6	287	-30	293	4				-3	285	-3.9	49	257	1.4						
4/9/2021	Fri	23:54:29	-38	0	-48	25	3							0	307	1.4						
4/10/2021	Sat	4:46:50	-6	72	-5	91	3										13	125	-2.1	17	138	0.8
4/10/2021	Sat	19:02:48	-6	288	-19	289	1				-2	285	-3.9	49	257	1.4						

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
4/10/2021	Sat	23:54:14	-37	360	-45	9	1							0	307	1.4						
4/11/2021	Sun	4:45:01	-6	72	-9	80	0										14	125	-2.1	17	138	0.8
4/11/2021	Sun	19:04:06	-6	289	-9	285	0				-2	286	-3.9	48	258	1.4						
4/11/2021	Sun	23:53:58	-37	0	-40	356	0							0	307	1.4						
4/12/2021	Mon	4:43:12	-6	71	-12	69	0										14	125	-2.1	18	139	0.8
4/12/2021	Mon	19:05:24	-6	289	2	282	1				-2	286	-3.9	48	258	1.4						
4/12/2021	Mon	23:53:43	-37	0	-34	344	1							-1	307	1.4						
4/13/2021	Tue	4:41:24	-6	71	-15	57	2										14	126	-2.1	18	139	0.8
4/13/2021	Tue	19:06:42	-6	290	12	278	4				-2	287	-3.9	47	259	1.4						
4/13/2021	Tue	23:53:28	-36	0	-28	334	4							-1	307	1.4						
4/14/2021	Wed	4:39:37	-6	70	-18	46	5										14	126	-2.1	18	139	0.7
4/14/2021	Wed	19:08:01	-6	290	22	274	8				-1	287	-3.9	47	260	1.4						
4/14/2021	Wed	23:53:13	-36	360	-20	325	9							-1	308	1.4						
4/15/2021	Thr	4:37:50	-6	70	-20	34	10										15	126	-2.1	18	140	0.7
4/15/2021	Thr	19:09:19	-6	291	32	270	14				-1	288	-3.9	46	260	1.4						
4/15/2021	Thr	23:52:59	-36	0	-12	317	15							-1	308	1.4						
4/16/2021	Fri	4:36:03	-6	69	-21	22	16										15	126	-2.1	19	140	0.7
4/16/2021	Fri	19:10:38	-6	291	41	264	21				-1	288	-3.9	46	261	1.4						
4/16/2021	Fri	23:52:45	-35	0	-4	310	22							-1	308	1.4						
4/17/2021	Sat	4:34:17	-6	69	-21	10	24										15	127	-2.1	19	141	0.7
4/17/2021	Sat	19:11:56	-6	292	50	255	29				-1	288	-3.9	46	261	1.5						
4/17/2021	Sat	23:52:32	-35	360	4	302	31							-1	308	1.5						
4/18/2021	Sun	4:32:32	-6	68	-21	358	33										16	127	-2.1	19	141	0.7
4/18/2021	Sun	19:13:15	-6	292	59	243	38				-1	289	-3.9	45	262	1.5						
4/18/2021	Sun	23:52:19	-35	360	11	293	40							-1	308	1.5						
4/19/2021	Mon	4:30:47	-6	68	-20	345	42										16	127	-2.2	19	142	0.7
4/19/2021	Mon	19:14:34	-6	293	65	222	48				0	289	-3.9	45	262	1.5						
4/19/2021	Mon	23:52:06	-34	0	19	284	50							-2	309	1.5						
4/20/2021	Tue	4:29:03	-6	67	-19	333	52										16	128	-2.2	20	142	0.7
4/20/2021	Tue	19:15:53	-6	293	67	194	58				0	290	-3.9	44	263	1.5						
4/20/2021	Tue	23:51:54	-34	360	26	274	60							-2	309	1.5						
4/21/2021	Wed	4:27:20	-6	67	-16	320	62										16	128	-2.2	20	142	0.7
4/21/2021	Wed	19:17:12	-6	294	63	166	69	-3	292	-2	0	290	-3.9	44	263	1.5						
4/21/2021	Wed	19:17:12						Ven 3.5														
4/21/2021	Wed	23:51:42	-34	360	33	262	70							-2	309	1.5						
4/22/2021	Thr	4:25:38	-6	66	-13	307	72										17	128	-2.2	20	143	0.7
4/22/2021	Thr	19:18:31	-6	294	55	147	78	-1	292	-1.9	0	290	-3.9	43	264	1.5						
4/22/2021	Thr	19:18:31						Ven 2.6														
4/22/2021	Thr	23:51:31	-33	360	38	247	80							-2	309	1.5						
4/23/2021	Fri	4:23:56	-6	66	-9	295	82										17	129	-2.2	20	143	0.7
4/23/2021	Fri	19:19:50	-6	295	45	135	87	0	292	-1.8	1	291	-3.9	43	264	1.5						
4/23/2021	Fri	19:19:50						Ven 1.8														
4/23/2021	Fri	23:51:20	-33	0	41	230	88							-2	309	1.5						
4/24/2021	Sat	4:22:15	-6	65	-4	282	90										17	129	-2.2	20	144	0.7
4/24/2021	Sat	19:21:09	-6	295	33	126	94	1	292	-1.7	1	291	-3.9	42	265	1.5						
4/24/2021	Sat	19:21:09						Ven 1.3														
4/24/2021	Sat	23:51:09	-33	0	41	212	95							-2	309	1.5						
4/25/2021	Sun	4:20:35	-6	65	1	268	96										17	129	-2.2	21	144	0.7
4/25/2021	Sun	19:22:29	-6	296	20	120	98	2	292	-1.6	1	291	-3.9	42	265	1.5						
4/25/2021	Sun	19:22:29						Ven 1.2														
4/25/2021	Sun	23:50:59	-32	0	38	193	99							-3	310	1.5						
4/26/2021	Mon	4:18:56	-6	64	5	254	99										18	129	-2.2	21	145	0.7
4/26/2021	Mon	19:23:48	-6	296	7	114	100	2	292	-1.5	1	292	-3.9	41	266	1.5						
4/26/2021	Mon	19:23:48						Ven 1.6														
4/26/2021	Mon	23:50:50	-32	0	33	177	100							-3	310	1.5						
4/27/2021	Tue	4:17:18	-6	64	9	240	100										18	130	-2.2	21	145	0.7
4/27/2021	Tue	19:25:07	-6	297	-6	108	99	3	292	-1.4	1	292	-3.9	41	266	1.5						
4/27/2021	Tue	19:25:07						Ven 2.2														
4/27/2021	Tue	23:50:41	-32	360	26	162	98							-3	310	1.5						
4/28/2021	Wed	4:15:42	-6	63	13	226	97										18	130	-2.2	21	146	0.7
4/28/2021	Wed	19:26:26	-6	297	-19	103	94	4	292	-1.3	1	292	-3.9	40	267	1.5						
4/28/2021	Wed	19:26:26						Ven 2.9														
4/29/2021	Thr	4:14:06	-6	63	16	211	92										19	130	-2.2	22	146	0.7
4/29/2021	Thr	19:27:46	-6	298	-31	96	87	5	293	-1.2	2	293	-3.9	40	267	1.6						
4/29/2021	Thr	19:27:46						Ven 3.7														

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
4/30/2021	Fri	4:12:31	-6	62	18	196	84										19	131	-2.2	22	147	0.7
4/30/2021	Fri	19:29:05	-6	298	-42	87	79	6	293	-1.1	2	293	-3.9	40	268	1.6						
4/30/2021	Fri	19:29:05						Ven 4.4														
5/1/2021	Sat	4:10:57	-6	62	19	181	75										19	131	-2.2	22	147	0.7
5/1/2021	Sat	19:30:24	-6	299	-52	75	69	7	293	-1.1	2	293	-3.9	39	268	1.6						
5/2/2021	Sun	4:09:25	-6	61	19	167	65										19	132	-2.2	22	148	0.7
5/2/2021	Sun	19:31:43	-6	299	-59	58	58	8	293	-1	2	294	-3.9	39	268	1.6						
5/3/2021	Mon	4:07:54	-6	61	18	153	54										20	132	-2.2	22	148	0.7
5/3/2021	Mon	19:33:02	-6	299	-63	34	47	9	293	-0.9	2	294	-3.9	38	269	1.6						
5/4/2021	Tue	4:06:24	-6	60	16	140	43										20	132	-2.2	23	149	0.7
5/4/2021	Tue	19:34:20	-6	300	-62	9	37	9	293	-0.8	3	294	-3.9	38	269	1.6						
5/5/2021	Wed	4:04:55	-6	60	14	128	33										20	133	-2.2	23	149	0.7
5/5/2021	Wed	19:35:39	-6	300	-57	348	27	10	293	-0.7	3	294	-3.9	37	270	1.6						
5/6/2021	Thr	4:03:28	-6	60	11	116	24										21	133	-2.3	23	150	0.7
5/6/2021	Thr	19:36:57	-6	301	-50	334	19	10	293	-0.7	3	295	-3.9	37	270	1.6						
5/7/2021	Fri	4:02:02	-6	59	7	105	16										21	134	-2.3	23	151	0.7
5/7/2021	Fri	19:38:15	-6	301	-42	324	12	11	293	-0.6	3	295	-3.9	36	271	1.6						
5/8/2021	Sat	4:00:38	-6	59	4	94	10										21	134	-2.3	24	151	0.7
5/8/2021	Sat	19:39:33	-6	302	-33	316	6	11	293	-0.5	3	295	-3.9	36	271	1.6						
5/9/2021	Sun	3:59:15	-6	58	0	83	5										21	134	-2.3	24	152	0.7
5/9/2021	Sun	19:40:50	-6	302	-24	310	3	12	293	-0.4	4	295	-3.9	35	271	1.6						
5/10/2021	Mon	3:57:53	-6	58	-4	72	2										22	135	-2.3	24	152	0.7
5/10/2021	Mon	19:42:07	-6	302	-15	305	0	12	293	-0.3	4	296	-3.9	35	272	1.6						
5/11/2021	Tue	3:56:33	-6	57	-8	62	0										22	135	-2.3	24	153	0.7
5/11/2021	Tue	19:43:24	-6	303	-5	300	0	12	293	-0.2	4	296	-3.9	34	272	1.6						
5/12/2021	Wed	3:55:15	-6	57	-11	51	0										22	136	-2.3	24	154	0.7
5/12/2021	Wed	19:44:40	-6	303	4	295	2	13	293	-0.1	4	296	-3.9	34	272	1.6						
5/12/2021	Wed	19:44:40			Ven 1.6																	
5/13/2021	Thr	3:53:58	-6	57	-14	40	2										23	136	-2.3	25	154	0.7
5/13/2021	Thr	19:45:55	-6	304	14	289	5	13	293	0	4	296	-3.9	33	273	1.6						
5/13/2021	Thr	19:45:55			Mer 3.7																	
5/14/2021	Fri	3:52:43	-6	56	-17	29	6										23	137	-2.3	25	155	0.7
5/14/2021	Fri	19:47:10	-6	304	23	283	10	13	293	0.1	4	296	-3.9	33	273	1.6						
5/15/2021	Sat	3:51:30	-6	56	-19	17	12										23	137	-2.3	25	156	0.7
5/15/2021	Sat	19:48:25	-6	304	32	276	16	13	293	0.2	5	297	-3.9	32	274	1.7						
5/15/2021	Sat	19:48:25			Mars 1.9																	
5/16/2021	Sun	3:50:19	-6	56	-21	5	19										24	138	-2.3	25	156	0.7
5/16/2021	Sun	19:49:38	-6	305	40	266	24	13	293	0.3	5	297	-3.9	32	274	1.7						
5/17/2021	Mon	3:49:09	-6	55	-22	352	27										24	138	-2.3	25	157	0.6
5/17/2021	Mon	19:50:51	-6	305	47	254	33	12	293	0.4	5	297	-3.9	31	274	1.7						
5/18/2021	Tue	3:48:01	-6	55	-22	340	36										24	139	-2.3	26	158	0.6
5/18/2021	Tue	19:52:03	-6	305	53	238	43	12	293	0.6	5	297	-3.9	31	275	1.7						
5/19/2021	Wed	3:46:55	-6	54	-22	327	46										25	140	-2.3	26	158	0.6
5/19/2021	Wed	19:53:14	-6	306	56	218	54	12	294	0.7	5	297	-3.9	30	275	1.7						
5/20/2021	Thr	3:45:51	-6	54	-20	313	57										25	140	-2.3	26	159	0.6
5/20/2021	Thr	19:54:24	-6	306	54	196	64	12	294	0.8	5	297	-3.9	30	275	1.7						
5/21/2021	Fri	3:44:49	-6	54	-18	300	68										25	141	-2.4	26	160	0.6
5/21/2021	Fri	19:55:33	-6	306	49	177	75	11	294	1	6	297	-3.9	29	276	1.7						
5/21/2021	Fri	23:49:52	-25	0	26	246	76													-2	111	0.6
5/22/2021	Sat	3:43:49	-6	53	-14	287	78										25	141	-2.4	26	161	0.6
5/22/2021	Sat	19:56:42	-6	307	42	161	84	11	295	1.1	6	297	-3.9	29	276	1.7						
5/22/2021	Sat	23:49:57	-25	0	29	231	85													-2	112	0.6
5/23/2021	Sun	3:42:51	-6	53	-10	273	87										26	142	-2.4	27	161	0.6
5/23/2021	Sun	19:57:49	-6	307	32	149	92	10	295	1.3	6	297	-3.9	28	276	1.7						
5/23/2021	Sun	19:57:49						Ven 5.0														
5/23/2021	Sun	23:50:02	-25	360	29	215	93													-1	113	0.6
5/24/2021	Mon	3:41:55	-6	53	-5	260	94										26	143	-2.4	27	162	0.6
5/24/2021	Mon	19:58:55	-6	307	21	139	97	9	295	1.5	6	298	-3.9	28	277	1.7						
5/24/2021	Mon	19:58:55						Ven 4.1														
5/24/2021	Mon	23:50:08	-25	360	28	198	98													0	114	0.6
5/25/2021	Tue	3:41:02	-6	53	1	246	98										26	143	-2.4	27	163	0.6
5/25/2021	Tue	19:59:59	-6	308	10	130	100	9	296	1.6	6	298	-3.9	27	277	1.7						
5/25/2021	Tue	19:59:59						Ven 3.2														
5/25/2021	Tue	23:50:14	-25	360	25	183	100													0	114	0.6
5/26/2021	Wed	3:40:10	-6	52	6	233	100										27	144	-2.4	27	164	0.6

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
5/26/2021	Wed	20:01:03	-6	308	-1	122	99	8	296	1.8	6	298	-3.8	27	277	1.7						
5/26/2021	Wed	20:01:03						Ven 2.3														
5/26/2021	Wed	23:50:21	-25	360	21	168	99													1	115	0.6
5/27/2021	Thr	3:39:21	-6	52	11	219	99										27	145	-2.4	27	165	0.6
5/27/2021	Thr	20:02:05	-6	308	-13	114	96	7	297	2.1	6	298	-3.8	26	277	1.7						
5/27/2021	Thr	20:02:05						Ven 1.2														
5/27/2021	Thr	23:50:28	-24	360	15	154	95													1	116	0.6
5/28/2021	Fri	3:38:34	-6	52	15	205	94										27	145	-2.4	27	165	0.6
5/28/2021	Fri	20:03:06	-6	308	-24	104	90	6	297	2.3	7	298	-3.8	26	278	1.7						
5/28/2021	Fri	20:03:06						Ven 0.4														
5/28/2021	Fri	23:50:36	-24	360	9	141	89													2	116	0.6
5/29/2021	Sat	3:37:49	-6	51	19	191	88										28	146	-2.4	27	166	0.6
5/29/2021	Sat	20:04:05	-6	309	-33	94	82	5	298	2.5	7	298	-3.8	25	278	1.7						
5/29/2021	Sat	20:04:05						Ven 1.3														
5/29/2021	Sat	23:50:44	-24	0	3	129	80													3	117	0.6
5/30/2021	Sun	3:37:06	-6	51	22	177	79										28	147	-2.4	28	167	0.6
5/30/2021	Sun	20:05:03	-6	309	-41	81	72	4	299	2.8	7	298	-3.8	25	278	1.7						
5/30/2021	Sun	20:05:03						Ven 2.5														
5/30/2021	Sun	23:50:52	-24	0	-2	118	71													3	118	0.6
5/31/2021	Mon	3:36:26	-6	51	23	163	69										28	147	-2.4	28	168	0.6
5/31/2021	Mon	20:06:00	-6	309	-46	67	62	3	299	3.1	7	298	-3.8	24	279	1.7						
5/31/2021	Mon	20:06:00						Ven 3.9														
5/31/2021	Mon	23:51:01	-24	0	-8	107	61													4	119	0.6
6/1/2021	Tue	3:35:48	-6	51	23	149	59										29	148	-2.4	28	169	0.6
6/1/2021	Tue	20:06:55	-6	309	-50	50	52	2	300	3.4	7	297	-3.8	24	279	1.7						
6/1/2021	Tue	23:51:11	-24	360	-13	96	50													4	119	0.6
6/2/2021	Wed	3:35:13	-6	51	23	136	49										29	149	-2.4	28	170	0.6
6/2/2021	Wed	20:07:48	-6	310	-50	32	42	1	301	3.7	7	297	-3.8	24	279	1.7						
6/2/2021	Wed	23:51:21	-24	360	-17	84	40										-2	104	-2.4	5	120	0.6
6/3/2021	Thr	3:34:40	-6	50	21	124	39										29	150	-2.4	28	171	0.6
6/3/2021	Thr	20:08:40	-6	310	-48	16	32	0	302	4	7	297	-3.8	23	279	1.7						
6/3/2021	Thr	23:51:31	-23	0	-20	73	31										-2	104	-2.5	6	121	0.6
6/4/2021	Fri	3:34:10	-6	50	19	112	30										30	151	-2.5	28	172	0.6
6/4/2021	Fri	20:09:29	-6	310	-44	1	24	-1	303	4.4	7	297	-3.8	23	280	1.7						
6/4/2021	Fri	23:51:41	-23	360	-23	61	22										-1	105	-2.5	6	122	0.6
6/5/2021	Sat	3:33:42	-6	50	16	100	21										30	152	-2.5	28	173	0.6
6/5/2021	Sat	20:10:17	-6	310	-38	349	16	-2	304	4.8	7	297	-3.8	22	280	1.8						
6/5/2021	Sat	23:51:52	-23	360	-24	50	15										0	106	-2.5	7	122	0.5
6/6/2021	Sun	3:33:16	-6	50	12	89	14										30	152	-2.5	28	174	0.5
6/6/2021	Sun	20:11:03	-6	310	-32	339	10				8	297	-3.8	22	280	1.8						
6/6/2021	Sun	23:52:03	-23	360	-25	38	9										0	106	-2.5	8	123	0.5
6/7/2021	Mon	3:32:53	-6	50	8	79	8										30	153	-2.5	28	175	0.5
6/7/2021	Mon	20:11:47	-6	311	-24	330	5				8	297	-3.8	21	280	1.8						
6/7/2021	Mon	23:52:15	-23	360	-25	26	4										1	107	-2.5	8	124	0.5
6/8/2021	Tue	3:32:33	-6	49	3	69	4										31	154	-2.5	28	176	0.5
6/8/2021	Tue	20:12:29	-6	311	-17	321	2				8	297	-3.8	21	281	1.8						
6/8/2021	Tue	23:52:27	-23	0	-25	14	1										2	108	-2.5	9	125	0.5
6/9/2021	Wed	3:32:15	-6	49	-1	59	1										31	155	-2.5	28	177	0.5
6/9/2021	Wed	20:13:10	-6	311	-9	314	0				8	297	-3.8	20	281	1.8						
6/9/2021	Wed	23:52:39	-23	0	-23	2	0										2	108	-2.5	9	126	0.5
6/10/2021	Thr	3:32:00	-6	49	-6	49	0										31	156	-2.5	28	178	0.5
6/10/2021	Thr	20:13:47	-6	311	0	306	0				8	296	-3.8	20	281	1.8						
6/10/2021	Thr	23:52:51	-23	0	-21	350	1										3	109	-2.5	10	126	0.5
6/11/2021	Fri	3:31:47	-6	49	-11	39	1										31	157	-2.5	28	179	0.5
6/11/2021	Fri	20:14:23	-6	311	7	298	3				8	296	-3.8	20	281	1.8						
6/11/2021	Fri	20:14:23			Ven 2.4																	
6/11/2021	Fri	23:53:03	-23	360	-18	339	3										4	110	-2.5	11	127	0.5
6/12/2021	Sat	3:31:37	-6	49	-16	28	4										32	158	-2.5	28	180	0.5
6/12/2021	Sat	20:14:57	-6	311	15	290	7				8	296	-3.8	19	281	1.8						
6/12/2021	Sat	23:53:16	-23	360	-15	328	8										4	110	-2.5	11	128	0.5
6/13/2021	Sun	3:31:29	-6	49	-20	17	8										32	159	-2.5	28	181	0.5
6/13/2021	Sun	20:15:28	-6	311	22	281	13				8	296	-3.8	19	282	1.8						
6/13/2021	Sun	20:15:28			Mars 3.4																	
6/13/2021	Sun	23:53:29	-23	0	-11	317	14										5	111	-2.5	12	129	0.5
6/14/2021	Mon	3:31:24	-6	49	-24	5	15										32	160	-2.5	28	182	0.5

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
6/14/2021	Mon	20:15:57	-6	311	29	270	20				8	296	-3.8	18	282	1.8						
6/14/2021	Mon	23:53:42	-23	360	-7	305	21										6	112	-2.5	12	130	0.5
6/15/2021	Tue	3:31:22	-6	49	-27	353	23										32	161	-2.5	28	183	0.5
6/15/2021	Tue	20:16:24	-6	311	35	258	29				8	295	-3.8	18	282	1.8						
6/15/2021	Tue	23:53:54	-23	360	-3	294	30										6	113	-2.5	13	131	0.5
6/16/2021	Wed	3:31:22	-6	49	-29	340	32										33	162	-2.5	28	184	0.5
6/16/2021	Wed	20:16:48	-6	311	39	244	39				8	295	-3.8	17	282	1.8						
6/16/2021	Wed	23:54:07	-23	360	2	283	41										7	113	-2.5	14	132	0.5
6/17/2021	Thr	3:31:24	-6	49	-30	326	42										33	164	-2.5	28	185	0.5
6/17/2021	Thr	20:17:09	-6	311	41	227	50				8	295	-3.8	17	282	1.8						
6/17/2021	Thr	23:54:20	-23	360	6	271	52										8	114	-2.6	14	132	0.5
6/18/2021	Fri	3:31:29	-6	49	-30	311	53										33	165	-2.6	28	186	0.5
6/18/2021	Fri	20:17:29	-6	311	41	210	61				8	295	-3.8	17	283	1.8						
6/18/2021	Fri	23:54:34	-23	0	9	258	63										8	115	-2.6	15	133	0.5
6/19/2021	Sat	3:31:37	-6	49	-28	296	64	-2	61	3.3							33	166	-2.6	28	187	0.5
6/19/2021	Sat	20:17:46	-6	311	38	193	72				8	294	-3.8	16	283	1.8						
6/19/2021	Sat	23:54:47	-22	0	13	245	73										9	116	-2.6	15	134	0.5
6/20/2021	Sun	3:31:47	-6	49	-24	282	75	-2	62	3							33	167	-2.6	28	189	0.5
6/20/2021	Sun	20:18:00	-6	312	33	178	82				8	294	-3.8	16	283	1.8						
6/20/2021	Sun	23:55:00	-22	360	16	232	83										10	116	-2.6	16	135	0.5
6/21/2021	Mon	3:31:59	-6	48	-19	269	84	-1	63	2.8							34	168	-2.6	28	190	0.5
6/21/2021	Mon	20:18:12	-6	311	26	164	90				9	294	-3.8	15	283	1.8						
6/21/2021	Mon	23:55:13	-23	360	18	217	91										10	117	-2.6	16	136	0.4
6/22/2021	Tue	3:32:14	-6	49	-13	256	92	0	63	2.5							34	169	-2.6	28	191	0.4
6/22/2021	Tue	20:18:21	-6	311	18	151	96				9	293	-3.8	15	283	1.8						
6/22/2021	Tue	23:55:25	-23	360	20	202	97										11	118	-2.6	17	137	0.4
6/23/2021	Wed	3:32:32	-6	49	-6	243	97	0	64	2.3							34	171	-2.6	27	192	0.4
6/23/2021	Wed	20:18:27	-6	311	9	140	99				9	293	-3.8	15	283	1.8						
6/23/2021	Wed	23:55:38	-23	360	20	187	100										12	119	-2.6	17	138	0.4
6/24/2021	Thr	3:32:52	-6	49	1	231	100	1	65	2							34	172	-2.6	27	193	0.4
6/24/2021	Thr	20:18:31	-6	311	1	129	100				9	293	-3.8	14	283	1.8						
6/24/2021	Thr	23:55:51	-23	0	19	172	100										12	120	-2.6	18	139	0.4
6/25/2021	Fri	3:33:14	-6	49	9	219	99	2	65	1.8							34	173	-2.6	27	194	0.4
6/25/2021	Fri	20:18:33	-6	311	-8	118	97				9	292	-3.8	14	283	1.8						
6/25/2021	Fri	23:56:03	-23	0	17	158	97										13	120	-2.6	18	140	0.4
6/26/2021	Sat	3:33:38	-6	49	16	208	96	2	66	1.6							34	175	-2.6	27	196	0.4
6/26/2021	Sat	20:18:32	-6	311	-16	107	92				9	292	-3.8	14	284	1.8						
6/26/2021	Sat	23:56:16	-23	0	15	144	91										13	121	-2.6	19	141	0.4
6/27/2021	Sun	3:34:05	-6	49	22	195	90	3	66	1.4							34	176	-2.6	27	197	0.4
6/27/2021	Sun	3:34:05			Sat 4.8																	
6/27/2021	Sun	20:18:28	-6	311	-23	95	85				9	292	-3.8	13	284	1.8						
6/27/2021	Sun	23:56:28	-23	360	12	131	84										14	122	-2.6	19	142	0.4
6/28/2021	Mon	3:34:34	-6	49	27	182	83	3	67	1.2							34	177	-2.6	26	198	0.4
6/28/2021	Mon	20:18:21	-6	311	-29	83	77				9	291	-3.8	13	284	1.8						
6/28/2021	Mon	23:56:40	-23	0	8	119	75										15	123	-2.6	20	143	0.4
6/29/2021	Tue	3:35:05	-6	49	32	169	74	4	67	1.1							34	179	-2.6	26	199	0.4
6/29/2021	Tue	20:18:13	-6	311	-33	70	67				9	291	-3.8	13	284	1.8						
6/29/2021	Tue	23:56:52	-23	0	5	108	66										15	124	-2.6	20	144	0.4
6/30/2021	Wed	3:35:38	-6	49	34	155	64	4	67	0.9							34	180	-2.6	26	200	0.4
6/30/2021	Wed	20:18:01	-6	311	-36	56	57				9	290	-3.8	12	284	1.8						
6/30/2021	Wed	23:57:04	-23	360	1	96	56										16	125	-2.6	21	145	0.4
7/1/2021	Thr	3:36:14	-6	49	35	141	54	5	67	0.8							34	181	-2.6	25	202	0.4
7/1/2021	Thr	20:17:47	-6	311	-37	42	48				9	290	-3.8	12	284	1.8						
7/1/2021	Thr	23:57:15	-23	360	-2	86	46										17	126	-2.7	21	146	0.4
7/2/2021	Fri	3:36:51	-6	49	35	127	45	5	67	0.6							34	183	-2.7	25	203	0.4
7/2/2021	Fri	20:17:30	-6	311	-36	28	38				9	290	-3.9	12	284	1.8						
7/2/2021	Fri	23:57:26	-23	0	-6	75	37										17	126	-2.7	21	147	0.4
7/3/2021	Sat	3:37:31	-6	49	32	114	35	6	68	0.5							34	184	-2.7	25	204	0.4
7/3/2021	Sat	20:17:11	-6	311	-34	15	29				9	289	-3.9	11	284	1.8						
7/3/2021	Sat	23:57:37	-23	360	-9	65	28										18	127	-2.7	22	148	0.4
7/4/2021	Sun	3:38:13	-6	50	29	102	26	6	68	0.4							34	186	-2.7	24	205	0.4
7/4/2021	Sun	20:16:49	-6	310	-31	2	21				9	289	-3.9	11	284	1.8						
7/4/2021	Sun	20:16:49									Mars 4.9											
7/4/2021	Sun	23:57:48	-23	360	-12	54	20										18	128	-2.7	22	149	0.4
7/5/2021	Mon	3:38:56	-6	50	25	91	19	6	67	0.3							34	187	-2.7	24	206	0.4

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
7/5/2021	Mon	20:16:25	-6	310	-27	351	14				9	288	-3.9	11	284	1.8						
7/5/2021	Mon	20:16:25									Mars 4.4											
7/5/2021	Mon	23:57:58	-23	0	-15	43	13										19	129	-2.7	23	150	0.4
7/6/2021	Tue	3:39:42	-6	50	19	81	12	6	67	0.1							34	188	-2.7	23	208	0.4
7/6/2021	Tue	20:15:58	-6	310	-22	340	8				9	288	-3.9	10	284	1.8						
7/6/2021	Tue	20:15:58									Mars 3.8											
7/6/2021	Tue	23:58:08	-23	360	-17	32	7										19	130	-2.7	23	151	0.3
7/7/2021	Wed	3:40:29	-6	50	13	71	6	7	67	0							34	190	-2.7	23	209	0.3
7/7/2021	Wed	20:15:29	-6	310	-16	330	4				9	287	-3.9	10	284	1.8						
7/7/2021	Wed	20:15:29									Mars 3.2											
7/7/2021	Wed	23:58:17	-23	360	-19	21	3										20	131	-2.7	23	152	0.3
7/8/2021	Thr	3:41:18	-6	50	7	62	3	7	67	-0.1							33	191	-2.7	23	210	0.3
7/8/2021	Thr	3:41:18			Mer 4.8																	
7/8/2021	Thr	20:14:57	-6	310	-10	320	1				9	287	-3.9	10	284	1.8						
7/8/2021	Thr	20:14:57									Mars 2.6											
7/8/2021	Thr	23:58:26	-24	0	-21	9	1										21	132	-2.7	24	153	0.3
7/9/2021	Fri	3:42:09	-6	50	0	54	0	7	67	-0.2							33	193	-2.7	22	211	0.3
7/9/2021	Fri	20:14:22	-6	309	-4	310	0				9	286	-3.9	9	284	1.8						
7/9/2021	Fri	20:14:22									Mars 2.1											
7/9/2021	Fri	23:58:35	-24	0	-22	357	0										21	133	-2.7	24	154	0.3
7/10/2021	Sat	3:43:01	-6	51	-8	45	0	7	66	-0.3							33	194	-2.7	22	212	0.3
7/10/2021	Sat	20:13:46	-6	309	3	300	1				9	286	-3.9	9	284	1.8						
7/10/2021	Sat	20:13:46									Mars 1.5											
7/10/2021	Sat	23:58:43	-24	360	-22	344	2										22	134	-2.7	24	155	0.3
7/11/2021	Sun	3:43:55	-6	51	-15	36	2	7	66	-0.4							33	196	-2.7	21	214	0.3
7/11/2021	Sun	20:13:06	-6	309	9	290	5				9	285	-3.9	9	284	1.8						
7/11/2021	Sun	20:13:06			Ven 4.8						Mars 1.0											
7/11/2021	Sun	23:58:51	-24	0	-21	332	5										22	135	-2.7	25	156	0.3
7/12/2021	Mon	3:44:50	-6	51	-23	27	6	7	66	-0.5							32	197	-2.7	21	215	0.3
7/12/2021	Mon	20:12:25	-6	309	15	279	10				9	285	-3.9	9	284	1.8						
7/12/2021	Mon	20:12:25									Mars 0.5											
7/12/2021	Mon	23:58:58	-24	360	-20	319	11										23	136	-2.7	25	157	0.3
7/13/2021	Tue	3:45:47	-6	51	-29	16	12	7	65	-0.5							32	198	-2.7	20	216	0.3
7/13/2021	Tue	20:11:41	-6	308	20	267	17				9	284	-3.9	8	284	1.8						
7/13/2021	Tue	20:11:41									Mars 0.6											
7/13/2021	Tue	23:59:05	-24	360	-18	306	18										23	137	-2.7	25	159	0.3
7/14/2021	Wed	3:46:46	-6	52	-36	4	20	7	65	-0.6							32	200	-2.7	19	217	0.3
7/14/2021	Wed	20:10:54	-6	308	24	255	26				9	284	-3.9	8	284	1.8				-3	112	0.3
7/14/2021	Wed	20:10:54									Mars 1.0											
7/14/2021	Wed	23:59:11	-24	0	-15	294	27										24	138	-2.7	25	160	0.3
7/15/2021	Thr	3:47:45	-6	52	-41	350	29	6	64	-0.7							31	201	-2.7	19	218	0.3
7/15/2021	Thr	20:10:06	-6	308	28	241	36				9	283	-3.9	8	284	1.8				-2	113	0.3
7/15/2021	Thr	20:10:06									Mars 1.6											
7/15/2021	Thr	23:59:17	-25	0	-12	281	38										24	139	-2.7	26	161	0.3
7/16/2021	Fri	3:48:46	-6	52	-44	334	39	6	64	-0.8							31	203	-2.7	18	219	0.3
7/16/2021	Fri	20:09:15	-6	308	30	226	47				9	282	-3.9	8	284	1.8				-2	113	0.3
7/16/2021	Fri	20:09:15									Mars 2.1											
7/16/2021	Fri	23:59:22	-25	360	-8	269	49										25	140	-2.8	26	162	0.3
7/17/2021	Sat	3:49:48	-6	52	-45	316	50	6	63	-0.9							31	204	-2.8	18	220	0.3
7/17/2021	Sat	20:08:22	-6	307	30	210	58				9	282	-3.9	7	284	1.8				-1	114	0.3
7/17/2021	Sat	20:08:22									Mars 2.7											
7/17/2021	Sat	23:59:27	-25	360	-3	256	60										25	141	-2.8	26	163	0.3
7/18/2021	Sun	3:50:51	-6	53	-43	298	62	5	63	-1							30	206	-2.8	17	222	0.3
7/18/2021	Sun	20:07:26	-6	307	28	195	69				9	281	-3.9	7	284	1.8				-1	115	0.3
7/18/2021	Sun	20:07:26									Mars 3.2											
7/18/2021	Sun	23:59:31	-25	0	2	244	71										26	142	-2.8	26	164	0.3
7/19/2021	Mon	3:51:55	-6	53	-38	282	73	5	62	-1							30	207	-2.8	16	223	0.3
7/19/2021	Mon	20:06:29	-6	307	25	180	79				9	281	-3.9	7	284	1.8				0	115	0.3
7/19/2021	Mon	20:06:29									Mars 3.8											
7/19/2021	Mon	23:59:34	-25	360	7	231	81										26	143	-2.8	26	165	0.3
7/20/2021	Tue	3:53:00	-6	53	-31	268	82	4	62	-1.1							29	208	-2.8	16	224	0.3
7/20/2021	Tue	20:05:29	-6	306	20	165	88				9	280	-3.9	7	284	1.8				0	116	0.3
7/20/2021	Tue	20:05:29									Mars 4.4											
7/20/2021	Tue	23:59:37	-26	360	11	218	89										26	144	-2.8	27	166	0.3
7/21/2021	Wed	3:54:07	-6	54	-23	257	90	4	61	-1.2							29	210	-2.8	15	225	0.3

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
7/21/2021	Wed	20:04:27	-6	306	14	152	95				9	279	-3.9	6	284	1.8				1	116	0.3
7/21/2021	Wed	20:04:27									Mars 5.0											
7/21/2021	Wed	23:59:40	-26	360	15	205	95										27	145	-2.8	27	167	0.3
7/22/2021	Thr	3:55:14	-6	54	-14	246	96	3	61	-1.3							28	211	-2.8	14	226	0.3
7/22/2021	Thr	20:03:24	-6	306	8	139	99				9	279	-3.9	6	284	1.8				1	117	0.2
7/22/2021	Thr	23:59:42	-26	360	19	191	99										27	147	-2.8	27	169	0.2
7/23/2021	Fri	3:56:21	-6	54	-4	237	99	3	60	-1.4							28	213	-2.8	14	227	0.2
7/23/2021	Fri	20:02:18	-6	306	2	127	100				9	278	-3.9	6	284	1.8				2	117	0.2
7/23/2021	Fri	23:59:43	-26	0	22	176	100										28	148	-2.8	27	170	0.2
7/24/2021	Sat	3:57:30	-6	55	6	228	100	2	60	-1.5							27	214	-2.8	13	228	0.2
7/24/2021	Sat	20:01:10	-6	305	-5	115	98				9	278	-3.9	6	283	1.8				2	118	0.2
7/24/2021	Sat	23:59:43	-26	0	23	162	98										28	149	-2.8	27	171	0.2
7/25/2021	Sun	3:58:40	-6	55	16	220	97	1	59	-1.5							26	215	-2.8	12	229	0.2
7/25/2021	Sun	20:00:01	-6	305	-11	103	95				9	277	-3.9	6	283	1.8				3	118	0.2
7/25/2021	Sun	23:59:43	-27	0	24	148	94										28	150	-2.8	27	172	0.2
7/26/2021	Mon	3:59:50	-6	55	25	210	93	1	59	-1.6							26	217	-2.8	11	230	0.2
7/26/2021	Mon	19:58:49	-6	304	-16	91	89				9	276	-3.9	5	283	1.8				3	119	0.2
7/26/2021	Mon	23:59:43	-27	360	23	134	88										29	151	-2.8	27	173	0.2
7/27/2021	Tue	4:01:01	-6	56	33	200	87	0	58	-1.7							25	218	-2.8	11	231	0.2
7/27/2021	Tue	19:57:36	-6	304	-20	79	81				9	276	-3.9	5	283	1.8				3	120	0.2
7/27/2021	Tue	23:59:42	-27	0	21	121	80										29	152	-2.8	27	174	0.2
7/28/2021	Wed	4:02:12	-6	56	41	188	79	-1	58	-1.8							25	219	-2.8	10	232	0.2
7/28/2021	Wed	19:56:21	-6	304	-24	67	73				9	275	-3.9	5	283	1.8				4	120	0.2
7/28/2021	Wed	23:59:40	-27	0	18	109	71										29	153	-2.8	27	175	0.2
7/29/2021	Thr	4:03:24	-6	56	46	174	70	-2	57	-1.9							24	220	-2.8	9	233	0.2
7/29/2021	Thr	19:55:04	-6	303	-26	54	64				9	274	-3.9	5	283	1.8				4	121	0.2
7/29/2021	Thr	23:59:38	-27	360	15	98	62										30	154	-2.8	27	176	0.2
7/30/2021	Fri	4:04:36	-6	57	50	158	61	-3	57	-2							23	222	-2.8	8	234	0.2
7/30/2021	Fri	19:53:46	-6	303	-27	41	54				9	274	-3.9	5	283	1.8				5	121	0.2
7/30/2021	Fri	23:59:35	-28	360	11	87	53										30	156	-2.8	27	178	0.2
7/31/2021	Sat	4:05:49	-6	57	51	141	51										23	223	-2.8	7	235	0.2
7/31/2021	Sat	19:52:26	-6	303	-28	29	45				9	273	-3.9	4	283	1.8				5	122	0.2
7/31/2021	Sat	23:59:31	-28	360	7	76	43										30	157	-2.8	27	179	0.2
8/1/2021	Sun	4:07:03	-6	58	49	124	42										22	224	-2.8	7	236	0.2
8/1/2021	Sun	19:51:05	-6	302	-27	16	35				9	272	-3.9	4	283	1.8	-2	105	-2.8	6	122	0.2
8/1/2021	Sun	23:59:27	-28	0	3	66	34										31	158	-2.8	27	180	0.2
8/2/2021	Mon	4:08:17	-6	58	45	109	32										21	226	-2.8	6	237	0.2
8/2/2021	Mon	19:49:41	-6	302	-25	4	27				9	272	-3.9	4	282	1.8	-2	105	-2.8	6	123	0.2
8/2/2021	Mon	23:59:22	-29	360	-2	57	25										31	159	-2.8	27	181	0.2
8/3/2021	Tue	4:09:31	-6	58	40	97	24										20	227	-2.8	5	238	0.2
8/3/2021	Tue	19:48:17	-6	301	-22	352	19				9	271	-3.9	4	282	1.8	-1	106	-2.8	6	123	0.2
8/3/2021	Tue	23:59:17	-29	0	-7	47	17										31	160	-2.8	27	182	0.2
8/4/2021	Wed	4:10:45	-6	59	33	86	16										19	228	-2.8	4	239	0.2
8/4/2021	Wed	19:46:51	-6	301	-19	340	12	-3	298	-1.7	9	270	-3.9	4	282	1.8	-1	107	-2.8	7	124	0.2
8/4/2021	Wed	23:59:11	-29	360	-12	36	11										31	162	-2.8	27	183	0.2
8/5/2021	Thr	4:12:00	-6	59	24	78	10										19	229	-2.8	3	240	0.2
8/5/2021	Thr	19:45:23	-6	300	-15	329	6	-2	297	-1.6	9	270	-3.9	3	282	1.8	0	107	-2.8	7	124	0.2
8/5/2021	Thr	23:59:05	-29	360	-17	26	5										31	163	-2.8	27	184	0.2
8/6/2021	Fri	4:13:15	-6	60	16	70	5										18	230	-2.8	2	241	0.2
8/6/2021	Fri	19:43:54	-6	300	-10	318	2	-2	295	-1.4	9	269	-3.9	3	282	1.8	0	108	-2.8	8	125	0.2
8/6/2021	Fri	23:58:58	-30	360	-21	14	2										32	164	-2.8	27	185	0.2
8/7/2021	Sat	4:14:30	-6	60	6	64	1										17	231	-2.8	2	242	0.2
8/7/2021	Sat	19:42:24	-6	300	-5	306	0	-1	294	-1.3	9	268	-3.9	3	282	1.8	0	108	-2.9	8	126	0.2
8/7/2021	Sat	23:58:50	-30	360	-25	2	0										32	165	-2.9	27	186	0.2
8/8/2021	Sun	4:15:46	-6	61	-3	57	0										16	233	-2.9	1	243	0.2
8/8/2021	Sun	19:40:53	-6	299	0	295	1	-1	293	-1.2	9	268	-3.9	3	282	1.8	1	109	-2.9	8	126	0.2
8/8/2021	Sun	19:40:53			Mer 2.9																	
8/8/2021	Sun	23:58:42	-30	0	-28	349	1										32	166	-2.9	27	187	0.2
8/9/2021	Mon	4:17:01	-6	61	-14	51	1										15	234	-2.9	0	244	0.2
8/9/2021	Mon	19:39:20	-6	299	5	283	3	-1	291	-1.1	9	267	-3.9	3	281	1.8	1	109	-2.9	9	127	0.2
8/9/2021	Mon	19:39:20			Mars 3.2																	
8/9/2021	Mon	23:58:33	-30	360	-30	335	4										32	168	-2.9	27	189	0.2
8/10/2021	Tue	4:18:17	-6	61	-24	44	4										15	235	-2.9	-1	245	0.2
8/10/2021	Tue	19:37:46	-6	298	10	271	7	0	290	-1	9	266	-3.9	3	281	1.8	2	110	-2.9	9	127	0.2
8/10/2021	Tue	23:58:24	-31	0	-31	320	9										32	169	-2.9	27	190	0.2

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
8/11/2021	Wed	4:19:32	-6	62	-34	36	10										14	236	-2.9	-2	246	0.2
8/11/2021	Wed	19:36:11	-6	298	14	259	14	0	289	-0.9	9	265	-3.9	2	281	1.8	2	110	-2.9	9	128	0.2
8/11/2021	Wed	23:58:14	-31	360	-30	306	16										32	170	-2.9	27	191	0.2
8/12/2021	Thr	4:20:48	-6	62	-43	25	17										13	237	-2.9	-3	247	0.2
8/12/2021	Thr	19:34:35	-6	297	18	245	23	0	287	-0.8	9	265	-3.9	2	281	1.8	2	111	-2.9	10	128	0.2
8/12/2021	Thr	23:58:03	-31	360	-27	291	25										32	171	-2.9	26	192	0.2
8/13/2021	Fri	4:22:04	-6	63	-52	11	26										12	238	-2.9			
8/13/2021	Fri	19:32:57	-6	297	21	231	33	0	286	-0.8	9	264	-4	2	281	1.8	3	111	-2.9	10	129	0.2
8/13/2021	Fri	23:57:52	-32	0	-23	278	35										32	173	-2.9	26	193	0.2
8/14/2021	Sat	4:23:19	-6	63	-57	352	37										11	239	-2.9			
8/14/2021	Sat	19:31:19	-6	296	22	217	44	1	285	-0.7	9	263	-4	2	280	1.8	3	112	-2.9	10	129	0.2
8/14/2021	Sat	19:31:19						Mars 4.4														
8/14/2021	Sat	23:57:41	-32	0	-18	265	46										32	174	-2.9	26	194	0.2
8/15/2021	Sun	4:24:35	-6	64	-59	328	48										10	240	-2.9			
8/15/2021	Sun	19:29:39	-6	296	23	202	55	1	283	-0.6	9	263	-4	2	280	1.8	4	112	-2.9	11	130	0.2
8/15/2021	Sun	19:29:39						Mars 3.3														
8/15/2021	Sun	23:57:28	-32	360	-12	252	58										32	175	-2.9	26	195	0.2
8/16/2021	Mon	4:25:50	-6	64	-57	304	60										9	241	-2.9			
8/16/2021	Mon	19:27:59	-6	295	22	187	67	1	282	-0.6	9	262	-4	2	280	1.8	4	113	-2.9	11	130	0.2
8/16/2021	Mon	19:27:59						Mars 2.2														
8/16/2021	Mon	23:57:16	-33	360	-5	241	69										32	176	-2.9	26	196	0.2
8/17/2021	Tue	4:27:06	-6	65	-50	285	71										8	242	-2.9			
8/17/2021	Tue	19:26:17	-6	295	19	173	77	1	281	-0.5	9	261	-4	2	280	1.8	4	113	-2.9	11	131	0.2
8/17/2021	Tue	19:26:17						Mars 1.1														
8/17/2021	Tue	23:57:02	-33	0	2	229	79										32	177	-2.9	25	197	0.2
8/18/2021	Wed	4:28:21	-6	65	-41	272	81										7	243	-2.9			
8/18/2021	Wed	19:24:35	-6	294	16	158	86	1	280	-0.5	9	260	-4	1	280	1.8	5	114	-2.9	12	131	0.2
8/18/2021	Wed	19:24:35						Mars 0.1														
8/18/2021	Wed	23:56:49	-33	360	9	218	87										32	179	-2.9	25	198	0.2
8/19/2021	Thr	4:29:36	-6	66	-31	262	89										6	244	-2.9			
8/19/2021	Thr	19:22:52	-6	294	12	145	93	1	279	-0.4	9	260	-4	1	279	1.8	5	115	-2.9	12	132	0.2
8/19/2021	Thr	19:22:52						Mars 1.0														
8/19/2021	Thr	23:56:34	-34	360	16	206	94										32	180	-2.9	25	199	0.2
8/20/2021	Fri	4:30:51	-6	66	-20	255	95										5	245	-2.9			
8/20/2021	Fri	19:21:08	-6	293	8	132	97	2	277	-0.4	9	259	-4	1	279	1.8	6	115	-2.9	12	132	0.2
8/20/2021	Fri	19:21:08			Sat 4.9			Mars 2.0														
8/20/2021	Fri	23:56:20	-34	0	22	194	98										32	181	-2.9	25	200	0.2
8/21/2021	Sat	4:32:06	-6	67	-9	249	99										4	246	-2.9			
8/21/2021	Sat	19:19:23	-6	293	3	120	100	2	276	-0.3	9	258	-4	1	279	1.8	6	116	-2.9	13	133	0.2
8/21/2021	Sat	19:19:23						Mars 3.0														
8/21/2021	Sat	23:56:04	-34	0	28	181	100										32	182	-2.9	24	201	0.2
8/21/2021	Sat	23:56:04			Jup 4.6																	
8/22/2021	Sun	4:33:21	-6	67	3	243	100										3	247	-2.9			
8/22/2021	Sun	4:33:21			Jup 4.5																	
8/22/2021	Sun	19:17:37	-6	292	-2	107	99	2	275	-0.3	9	257	-4	1	279	1.8	6	116	-2.9	13	133	0.2
8/22/2021	Sun	19:17:37						Mars 4.0														
8/22/2021	Sun	23:55:49	-35	360	32	167	99										32	183	-2.9	24	202	0.3
8/23/2021	Mon	4:34:35	-6	68	14	237	99										3	248	-2.9			
8/23/2021	Mon	19:15:51	-6	292	-7	96	97	2	274	-0.3	9	257	-4	1	279	1.8	7	117	-2.9	13	134	0.3
8/23/2021	Mon	19:15:51						Mars 4.9														
8/23/2021	Mon	23:55:33	-35	360	34	152	96										32	185	-2.9	24	203	0.3
8/24/2021	Tue	4:35:50	-6	68	25	232	95										2	249	-2.9			
8/24/2021	Tue	19:14:04	-6	291	-11	84	92	2	273	-0.2	9	256	-4	1	278	1.8	7	117	-2.9	14	134	0.3
8/24/2021	Tue	23:55:16	-35	0	35	138	91										32	186	-2.9	24	204	0.3
8/25/2021	Wed	4:37:04	-6	69	35	225	90										1	250	-2.9			
8/25/2021	Wed	19:12:16	-6	291	-15	72	86	2	272	-0.2	9	255	-4	1	278	1.8	8	118	-2.9	14	135	0.3
8/25/2021	Wed	23:54:59	-36	0	34	123	85										32	187	-2.9	23	205	0.3
8/26/2021	Thr	4:38:18	-6	69	45	217	83										0	251	-2.9			
8/26/2021	Thr	19:10:28	-6	290	-18	60	79	2	271	-0.2	9	254	-4	0	278	1.8	8	118	-2.9	14	135	0.3
8/26/2021	Thr	23:54:42	-36	0	31	110	77										32	188	-2.9	23	206	0.3
8/27/2021	Fri	4:39:32	-6	70	53	206	76										-1	252	-2.9			
8/27/2021	Fri	19:08:39	-6	290	-20	48	71	2	270	-0.1	9	254	-4	0	278	1.8	8	119	-2.9	14	136	0.3
8/27/2021	Fri	23:54:24	-36	0	27	98	69										32	189	-2.9	23	207	0.3
8/28/2021	Sat	4:40:46	-6	70	60	190	67										-2	253	-2.9			
8/28/2021	Sat	19:06:50	-6	289	-22	36	62	2	269	-0.1	9	253	-4	0	278	1.8	9	119	-2.9	15	136	0.3

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
8/28/2021	Sat	23:54:06	-37	360	22	87	60										31	191	-2.9	22	208	0.3
8/29/2021	Sun	19:05:00	-6	289	-22	24	52	2	268	-0.1	9	252	-4	0	277	1.8	9	120	-2.9	15	137	0.3
8/29/2021	Sun	23:53:48	-37	360	17	77	50										31	192	-2.9	22	209	0.3
8/30/2021	Mon	19:03:10	-6	288	-22	12	43	2	267	-0.1	9	252	-4	0	277	1.8	10	120	-2.9	15	137	0.3
8/30/2021	Mon	23:53:29	-37	360	10	67	41										31	193	-2.9	22	209	0.3
8/31/2021	Tue	19:01:19	-6	288	-21	359	33	2	266	-0.1	9	251	-4	0	277	1.8	10	121	-2.9	16	138	0.3
8/31/2021	Tue	23:53:10	-38	360	4	58	32										31	194	-2.9	21	210	0.3
9/1/2021	Wed	18:59:28	-6	287	-20	347	25	2	265	0	9	250	-4	0	277	1.8	10	121	-2.9	16	138	0.3
9/1/2021	Wed	23:52:51	-38	0	-3	49	23										31	195	-2.9	21	211	0.3
9/2/2021	Thr	18:57:36	-6	287	-18	335	17	2	264	0	9	249	-4	0	276	1.8	11	122	-2.8	16	139	0.3
9/2/2021	Thr	23:52:32	-38	0	-11	40	15										30	196	-2.8	21	212	0.3
9/3/2021	Fri	18:55:44	-6	286	-15	323	10	2	263	0	9	249	-4.1	-1	276	1.8	11	122	-2.8	16	139	0.3
9/3/2021	Fri	23:52:12	-39	0	-18	31	9										30	197	-2.8	20	213	0.3
9/4/2021	Sat	18:53:52	-6	286	-11	311	5	2	262	0	9	248	-4.1	-1	276	1.8	11	123	-2.8	17	140	0.3
9/4/2021	Sat	23:51:52	-39	360	-25	20	4										30	198	-2.8	20	214	0.3
9/5/2021	Sun	18:52:00	-6	285	-7	298	1	2	261	0	9	247	-4.1	-1	276	1.8	12	123	-2.8	17	140	0.3
9/5/2021	Sun	23:51:32	-40	360	-32	8	1										29	199	-2.8	19	215	0.3
9/6/2021	Mon	18:50:07	-6	285	-2	286	0	2	260	0	9	246	-4.1	-1	275	1.8	12	124	-2.8	17	141	0.3
9/6/2021	Mon	23:51:12	-40	360	-37	354	0										29	201	-2.8	19	216	0.3
9/7/2021	Tue	18:48:14	-6	284	2	273	2	2	259	0	9	246	-4.1	-1	275	1.8	12	124	-2.8	17	141	0.3
9/7/2021	Tue	18:48:14			Mars 4.0																	
9/7/2021	Tue	23:50:51	-40	0	-41	338	2										29	202	-2.8	19	216	0.3
9/8/2021	Wed	18:46:21	-6	284	7	260	5	2	259	0	9	245	-4.1	-1	275	1.8	13	125	-2.8	18	142	0.3
9/8/2021	Wed	18:46:21			Mer 4.8																	
9/8/2021	Wed	23:50:30	-41	360	-42	320	7										29	203	-2.8	18	217	0.3
9/9/2021	Thr	18:44:28	-6	283	11	247	12	2	258	0	9	244	-4.1	-1	275	1.8	13	125	-2.8	18	142	0.3
9/9/2021	Thr	18:44:28			Ven 3.5																	
9/9/2021	Thr	23:50:10	-41	0	-41	303	13										28	204	-2.8	18	218	0.3
9/10/2021	Fri	18:42:34	-6	282	14	233	20	2	257	0.1	9	243	-4.1	-2	275	1.8	13	126	-2.8	18	143	0.3
9/10/2021	Fri	23:49:49	-41	0	-37	286	22										28	205	-2.8	17	219	0.3
9/11/2021	Sat	18:40:41	-6	282	17	219	30	2	256	0.1	9	243	-4.1	-2	274	1.8	14	126	-2.8	18	143	0.4
9/11/2021	Sat	23:49:27	-42	360	-31	272	32										28	206	-2.8	17	220	0.4
9/12/2021	Sun	18:38:47	-6	281	19	205	41	2	256	0.1	9	242	-4.1	-2	274	1.7	14	127	-2.8	19	144	0.4
9/12/2021	Sun	23:49:06	-42	0	-24	259	44										27	207	-2.8	16	221	0.4
9/13/2021	Mon	18:36:54	-6	281	19	190	52	2	255	0.1	9	241	-4.1	-2	274	1.7	14	127	-2.8	19	144	0.4
9/13/2021	Mon	23:48:45	-43	0	-15	248	55										27	208	-2.8	16	221	0.4
9/14/2021	Tue	18:35:00	-6	280	19	176	64	2	255	0.1	9	240	-4.1	-2	274	1.7	15	128	-2.8	19	145	0.4
9/14/2021	Tue	23:48:23	-43	0	-6	239	66										27	209	-2.8	15	222	0.4
9/15/2021	Wed	18:33:06	-6	280	17	162	74	2	254	0.1	9	240	-4.1	-2	273	1.7	15	128	-2.8	19	145	0.4
9/15/2021	Wed	23:48:02	-43	360	3	229	76										26	210	-2.8	15	223	0.4
9/16/2021	Thr	18:31:13	-6	279	15	148	83	1	254	0.1	9	239	-4.1	-2	273	1.7	15	129	-2.8	19	146	0.4
9/16/2021	Thr	18:31:13			Sat 4.7																	
9/16/2021	Thr	23:47:40	-44	0	12	220	85										26	211	-2.8	15	224	0.4
9/16/2021	Thr	23:47:40			Sat 4.5																	
9/17/2021	Fri	18:29:19	-6	279	12	135	90	1	253	0.2	9	238	-4.1	-2	273	1.7	16	129	-2.8	20	146	0.4
9/17/2021	Fri	23:47:19	-44	360	21	210	92										25	212	-2.8	14	224	0.4
9/17/2021	Fri	23:47:19			Jup 4.8																	
9/18/2021	Sat	18:27:26	-6	278	9	122	96	1	253	0.2	9	238	-4.2	-3	273	1.7	16	130	-2.8	20	147	0.4
9/18/2021	Sat	23:46:58	-45	360	29	199	97										25	213	-2.8	14	225	0.4
9/19/2021	Sun	18:25:33	-6	278	5	110	99	1	253	0.2	9	237	-4.2	-3	272	1.7	16	130	-2.8	20	147	0.4
9/19/2021	Sun	23:46:36	-45	360	36	187	99										25	214	-2.8	13	226	0.4
9/20/2021	Mon	18:23:40	-6	277	1	98	100	1	252	0.2	9	236	-4.2	-3	272	1.7	16	131	-2.8	20	148	0.4
9/20/2021	Mon	23:46:15	-45	0	42	173	100										24	215	-2.8	13	227	0.4
9/21/2021	Tue	18:21:47	-6	276	-3	86	99	1	252	0.3	9	235	-4.2				17	132	-2.8	20	148	0.4
9/21/2021	Tue	23:45:53	-46	0	45	158	98										24	215	-2.8	12	227	0.4
9/22/2021	Wed	18:19:54	-6	276	-7	75	96	0	252	0.4	9	235	-4.2				17	132	-2.8	21	149	0.4
9/22/2021	Wed	23:45:32	-46	0	47	141	95										23	216	-2.8	12	228	0.4
9/23/2021	Thr	18:18:02	-6	275	-10	64	91	0	252	0.4	9	234	-4.2				17	133	-2.8	21	149	0.4
9/23/2021	Thr	23:45:11	-46	360	45	124	90										23	217	-2.8	11	229	0.4
9/24/2021	Fri	18:16:10	-6	275	-14	52	85	0	252	0.5	9	233	-4.2				18	133	-2.7	21	150	0.4
9/24/2021	Fri	23:44:50	-47	0	42	109	83										22	218	-2.7	11	230	0.4
9/25/2021	Sat	18:14:18	-6	274	-16	41	77	0	252	0.6	9	233	-4.2				18	134	-2.7	21	150	0.4
9/25/2021	Sat	23:44:30	-47	360	36	97	75										22	219	-2.7	10	230	0.4
9/26/2021	Sun	18:12:27	-6	274	-18	29	69	-1	253	0.7	9	232	-4.2				18	134	-2.7	21	151	0.4
9/26/2021	Sun	23:44:09	-48	0	30	86	67										21	220	-2.7	10	231	0.4

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
9/27/2021	Mon	18:10:36	-6	273	-20	17	60	-1	253	0.9	9	231	-4.2				18	135	-2.7	22	151	0.4
9/27/2021	Mon	23:43:49	-48	0	23	77	58										21	221	-2.7	9	232	0.4
9/28/2021	Tue	18:08:45	-6	273	-21	5	50	-2	254	1.1	9	231	-4.2				19	135	-2.7	22	152	0.4
9/28/2021	Tue	23:43:29	-48	0	15	68	48										21	222	-2.7	9	232	0.4
9/29/2021	Wed	18:06:55	-6	272	-21	353	41	-2	254	1.3	9	230	-4.2				19	136	-2.7	22	152	0.4
9/29/2021	Wed	23:43:09	-49	0	6	61	39										20	223	-2.7	8	233	0.4
9/30/2021	Thr	18:05:06	-6	272	-20	340	31	-3	255	1.5	9	229	-4.3				19	136	-2.7	22	153	0.5
9/30/2021	Thr	23:42:50	-49	360	-2	53	29										20	223	-2.7	7	234	0.5
10/1/2021	Fri	18:03:17	-6	271	-19	328	22				9	229	-4.3				20	137	-2.7	22	153	0.5
10/1/2021	Fri	23:42:31	-50	360	-12	46	20										19	224	-2.7	7	235	0.5
10/2/2021	Sat	18:01:28	-6	270	-16	315	14				9	228	-4.3				20	137	-2.7	22	154	0.5
10/2/2021	Sat	23:42:12	-50	360	-22	38	13										19	225	-2.7	6	235	0.5
10/3/2021	Sun	17:59:40	-6	270	-13	302	8				9	227	-4.3				20	138	-2.7	23	154	0.5
10/3/2021	Sun	23:41:53	-50	0	-31	28	6										18	226	-2.7	6	236	0.5
10/4/2021	Mon	17:57:53	-6	269	-10	289	3				9	227	-4.3				20	138	-2.7	23	155	0.5
10/4/2021	Mon	23:41:35	-51	360	-40	16	2										18	227	-2.7	5	237	0.5
10/5/2021	Tue	17:56:06	-6	269	-6	276	0				9	226	-4.3				21	139	-2.7	23	156	0.5
10/5/2021	Tue	23:41:18	-51	360	-47	1	0										17	227	-2.7	5	237	0.5
10/6/2021	Wed	17:54:20	-6	268	0	263	1				10	225	-4.3				21	139	-2.7	23	156	0.5
10/6/2021	Wed	23:41:00	-52	360	-52	341	1										17	228	-2.7	4	238	0.5
10/7/2021	Thr	17:52:35	-6	268	4	249	4				10	225	-4.3				21	140	-2.7	23	157	0.5
10/7/2021	Thr	23:40:43	-52	0	-53	319	5										16	229	-2.7	4	239	0.5
10/8/2021	Fri	17:50:50	-6	267	8	235	9				10	224	-4.3				21	140	-2.7	23	157	0.5
10/8/2021	Fri	23:40:27	-52	360	-50	297	11										16	230	-2.7	3	239	0.5
10/9/2021	Sat	17:49:06	-6	267	12	222	17				10	223	-4.3				22	141	-2.7	24	158	0.5
10/9/2021	Sat	17:49:06			Ven 3.0																	
10/9/2021	Sat	23:40:11	-53	0	-43	280	19										15	231	-2.7	3	240	0.5
10/10/2021	Sun	17:47:23	-6	266	15	207	27				10	223	-4.3				22	141	-2.6	24	158	0.5
10/10/2021	Sun	23:39:55	-53	0	-35	266	29										14	231	-2.6	2	241	0.5
10/11/2021	Mon	5:33:10	-6	94	-67	45	32	-3	97	4.9												
10/11/2021	Mon	5:33:10						Mars 3.7														
10/11/2021	Mon	17:45:40	-6	266	18	193	38				10	222	-4.4				22	142	-2.6	24	159	0.5
10/11/2021	Mon	23:39:40	-53	0	-25	256	40										14	232	-2.6	2	241	0.5
10/12/2021	Tue	5:34:22	-6	95	-72	11	43	0	98	4.1												
10/12/2021	Tue	17:43:59	-6	265	19	179	49				10	222	-4.4				22	143	-2.6	24	159	0.5
10/12/2021	Tue	23:39:25	-54	360	-15	247	52										13	233	-2.6	1	242	0.5
10/13/2021	Wed	5:35:35	-6	95	-70	333	54	1	99	3.3												
10/13/2021	Wed	17:42:18	-6	265	20	165	60				10	221	-4.4				23	143	-2.6	24	160	0.5
10/13/2021	Wed	23:39:11	-54	360	-4	240	63										13	234	-2.6	1	242	0.5
10/14/2021	Thr	5:36:47	-6	96	-61	310	65	3	99	2.6												
10/14/2021	Thr	17:40:39	-6	264	19	151	70				10	220	-4.4				23	144	-2.6	24	160	0.5
10/14/2021	Thr	23:38:58	-55	0	7	233	73										12	234	-2.6	0	243	0.5
10/15/2021	Fri	5:37:59	-6	96	-51	298	75	5	100	2												
10/15/2021	Fri	17:39:00	-6	264	17	138	79				10	220	-4.4				23	144	-2.6	24	161	0.5
10/15/2021	Fri	23:38:45	-55	360	17	226	82										12	235	-2.6	-1	244	0.5
10/16/2021	Sat	5:39:12	-6	97	-41	291	84	6	101	1.5												
10/16/2021	Sat	17:37:22	-6	263	15	125	87				10	219	-4.4				23	145	-2.6	25	162	0.5
10/16/2021	Sat	23:38:32	-55	360	27	218	89										11	236	-2.6	-1	244	0.5
10/17/2021	Sun	5:40:25	-6	97	-30	286	90	7	102	1				-3	98	1.6						
10/17/2021	Sun	17:35:45	-6	263	12	112	93				10	219	-4.4				24	145	-2.6	25	162	0.5
10/17/2021	Sun	23:38:20	-56	360	36	209	94										11	237	-2.6	-2	245	0.5
10/18/2021	Mon	5:41:38	-6	98	-19	283	96	8	103	0.6				-2	98	1.6						
10/18/2021	Mon	17:34:09	-6	262	9	101	97				10	218	-4.4				24	146	-2.6	25	163	0.5
10/18/2021	Mon	23:38:09	-56	360	44	198	98										10	237	-2.6	-2	246	0.5
10/19/2021	Tue	5:42:51	-6	98	-8	279	99	9	103	0.3				-2	99	1.6						
10/19/2021	Tue	17:32:35	-6	262	5	89	100				10	218	-4.4				24	146	-2.6	25	163	0.5
10/19/2021	Tue	23:37:58	-56	360	51	184	100										10	238	-2.6			
10/20/2021	Wed	5:44:04	-6	99	3	276	100	10	104	0				-2	100	1.6						
10/20/2021	Wed	17:31:01	-6	261	1	78	100				11	217	-4.4				24	147	-2.6	25	164	0.5
10/20/2021	Wed	23:37:48	-57	360	56	166	100										9	239	-2.6			
10/21/2021	Thr	5:45:18	-6	99	14	273	99	11	105	-0.2				-1	100	1.6						
10/21/2021	Thr	17:29:29	-6	261	-2	67	98				11	217	-4.5				25	148	-2.6	25	164	0.6
10/21/2021	Thr	23:37:39	-57	360	57	146	97										8	239	-2.6			
10/22/2021	Fri	5:46:31	-6	100	24	270	97	11	105	-0.3				-1	101	1.7						
10/22/2021	Fri	17:27:57	-6	260	-7	57	95				11	216	-4.5				25	148	-2.6	25	165	0.6

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
10/22/2021	Fri	23:37:30	-57	360	55	126	94										8	240	-2.6			
10/23/2021	Sat	5:47:45	-6	100	34	265	92	11	106	-0.5				-1	102	1.7						
10/23/2021	Sat	17:26:27	-6	260	-11	46	90				11	216	-4.5				25	149	-2.6	25	166	0.6
10/23/2021	Sat	23:37:22	-58	0	50	109	88										7	241	-2.6			
10/24/2021	Sun	5:48:59	-6	101	44	260	87	11	106	-0.6				0	102	1.7						
10/24/2021	Sun	17:24:58	-6	259	-14	35	83				11	215	-4.5				25	149	-2.5	26	166	0.6
10/24/2021	Sun	23:37:15	-58	0	43	96	82										7	242	-2.5			
10/25/2021	Mon	5:50:13	-6	101	54	251	80	11	107	-0.7				0	103	1.7						
10/25/2021	Mon	17:23:31	-6	259	-17	24	76				11	215	-4.5				26	150	-2.5	26	167	0.6
10/25/2021	Mon	23:37:08	-58	0	35	87	74										6	242	-2.5			
10/26/2021	Tue	5:51:28	-6	102	62	238	72	11	107	-0.7				0	104	1.7						
10/26/2021	Tue	17:22:05	-6	258	-20	12	67				11	214	-4.5				26	150	-2.5	26	168	0.6
10/26/2021	Tue	23:37:03	-59	0	26	79	65										6	243	-2.5			
10/27/2021	Wed	5:52:42	-6	102	68	216	63	11	107	-0.8				0	104	1.7						
10/27/2021	Wed	17:20:40	-6	258	-22	0	58				11	214	-4.5				26	151	-2.5	26	168	0.6
10/27/2021	Wed	23:36:58	-59	0	17	72	56										5	244	-2.5			
10/28/2021	Thr	5:53:57	-6	103	70	185	53	11	108	-0.8				1	105	1.7						
10/28/2021	Thr	17:19:17	-6	257	-23	348	48				11	213	-4.5				26	152	-2.5	26	169	0.6
10/28/2021	Thr	23:36:53	-59	0	7	66	46										4	244	-2.5			
10/29/2021	Fri	5:55:11	-6	103	65	157	43	11	108	-0.8				1	105	1.7						
10/29/2021	Fri	17:17:55	-6	257	-23	335	38				11	213	-4.5				26	152	-2.5	26	169	0.6
10/29/2021	Fri	23:36:50	-60	360	-3	61	36										4	245	-2.5			
10/30/2021	Sat	5:56:26	-6	103	57	139	33	10	109	-0.8				1	106	1.7						
10/30/2021	Sat	17:16:34	-6	256	-23	321	29				12	213	-4.6				27	153	-2.5	26	170	0.6
10/30/2021	Sat	23:36:47	-60	360	-14	55	26										3	246	-2.5			
10/31/2021	Sun	5:57:41	-6	104	47	128	24	10	109	-0.8				1	107	1.7						
10/31/2021	Sun	17:15:15	-6	256	-21	308	19				12	212	-4.6				27	153	-2.5	26	171	0.6
10/31/2021	Sun	23:36:45	-60	360	-25	48	17										3	246	-2.5			
11/1/2021	Mon	5:58:56	-6	104	36	121	15	9	109	-0.8				2	107	1.7						
11/1/2021	Mon	17:13:57	-6	255	-19	294	11				12	212	-4.6				27	154	-2.5	26	171	0.6
11/1/2021	Mon	23:36:44	-61	0	-36	40	10										2	247	-2.5			
11/2/2021	Tue	6:00:12	-6	105	24	115	8	9	110	-0.8				2	108	1.7						
11/2/2021	Tue	17:12:42	-6	255	-15	280	5				12	211	-4.6				27	155	-2.5	26	172	0.6
11/2/2021	Tue	23:36:44	-61	360	-47	29	4										2	248	-2.5			
11/3/2021	Wed	6:01:27	-6	105	11	110	3	8	110	-0.8				2	109	1.7						
11/3/2021	Wed	6:01:27			Mer 2.8																	
11/3/2021	Wed	17:11:27	-6	255	-10	267	1				12	211	-4.6				27	155	-2.5	26	173	0.6
11/3/2021	Wed	23:36:45	-61	360	-56	13	1										1	248	-2.5			
11/4/2021	Thr	6:02:42	-6	106	-1	106	0	8	110	-0.9				2	109	1.6						
11/4/2021	Thr	17:10:14	-6	254	-5	253	0				12	211	-4.6				28	156	-2.5	26	173	0.6
11/4/2021	Thr	23:36:46	-62	360	-62	348	0										0	249	-2.5			
11/5/2021	Fri	6:03:57	-6	106	-15	101	1	7	111	-0.9				3	110	1.6						
11/5/2021	Fri	6:03:57						Mars 4.7														
11/5/2021	Fri	17:09:03	-6	254	1	240	2				12	210	-4.6				28	157	-2.5	27	174	0.6
11/5/2021	Fri	23:36:48	-62	0	-62	318	3										0	250	-2.5			
11/6/2021	Sat	6:05:12	-6	106	-28	95	4	7	111	-0.9				3	110	1.6						
11/6/2021	Sat	6:05:12						Mars 3.8														
11/6/2021	Sat	17:07:54	-6	253	6	227	7				12	210	-4.6				28	157	-2.5	27	175	0.6
11/6/2021	Sat	23:36:51	-62	360	-56	293	8										-1	250	-2.5			
11/7/2021	Sun	6:06:28	-6	107	-40	88	10	6	111	-0.9				3	111	1.6						
11/7/2021	Sun	6:06:28						Mars 3.0														
11/7/2021	Sun	17:06:47	-6	253	12	213	14				13	210	-4.6				28	158	-2.4	27	175	0.6
11/7/2021	Sun	17:06:47			Ven 3.4																	
11/7/2021	Sun	23:36:55	-63	0	-47	277	16										-1	251	-2.4			
11/8/2021	Mon	6:07:43	-6	107	-52	78	19	5	112	-0.9				3	112	1.6						
11/8/2021	Mon	6:07:43						Mars 2.1														
11/8/2021	Mon	17:05:41	-6	253	16	200	23				13	210	-4.7				28	159	-2.4	27	176	0.6
11/8/2021	Mon	23:37:00	-63	0	-36	266	26										-2	252	-2.4			
11/9/2021	Tue	6:08:58	-6	108	-61	61	29	5	112	-0.9				4	112	1.6						
11/9/2021	Tue	6:08:58						Mars 1.4														
11/9/2021	Tue	17:04:37	-6	252	20	186	33				13	209	-4.7				29	159	-2.4	27	177	0.6
11/9/2021	Tue	23:37:06	-63	360	-25	259	36										-3	252	-2.4			
11/10/2021	Wed	6:10:12	-6	108	-66	35	39	4	112	-0.9				4	113	1.6						
11/10/2021	Wed	6:10:12						Mars 1.0														
11/10/2021	Wed	17:03:34	-6	252	23	172	44				13	209	-4.7				29	160	-2.4	27	178	0.6

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
11/11/2021	Thr	6:11:27	-6	108	-66	4	50	4	112	-0.9				4	114	1.6						
11/11/2021	Thr	6:11:27						Mars 1.3														
11/11/2021	Thr	17:02:34	-6	251	24	158	55				13	209	-4.7				29	161	-2.4	27	178	0.6
11/12/2021	Fri	6:12:41	-6	109	-60	340	61	3	113	-0.9				4	114	1.6						
11/12/2021	Fri	6:12:41						Mars 2.0														
11/12/2021	Fri	17:01:36	-6	251	25	144	66				13	209	-4.7				29	161	-2.4	27	179	0.6
11/13/2021	Sat	6:13:56	-6	109	-52	325	71	3	113	-0.9				5	115	1.6						
11/13/2021	Sat	6:13:56						Mars 2.8														
11/13/2021	Sat	17:00:39	-6	251	24	131	75				13	209	-4.7				29	162	-2.4	27	180	0.6
11/14/2021	Sun	6:15:09	-6	110	-43	316	80	2	113	-0.9				5	115	1.6						
11/14/2021	Sun	6:15:09						Mars 3.7														
11/14/2021	Sun	16:59:44	-6	250	22	118	83				13	208	-4.7				30	163	-2.4	27	180	0.6
11/15/2021	Mon	6:16:23	-6	110	-33	309	87	1	113	-1				5	116	1.6						
11/15/2021	Mon	6:16:23						Mars 4.6														
11/15/2021	Mon	16:58:52	-6	250	19	106	90				14	208	-4.7				30	164	-2.4	27	181	0.6
11/16/2021	Tue	6:17:36	-6	110	-23	304	93	1	113	-1				5	117	1.6						
11/16/2021	Tue	16:58:01	-6	250	16	94	95				14	208	-4.7				30	164	-2.4	27	182	0.6
11/17/2021	Wed	6:18:49	-6	111	-13	299	97	0	114	-1				5	117	1.6						
11/17/2021	Wed	16:57:13	-6	249	11	83	98				14	208	-4.8				30	165	-2.4	27	183	0.6
11/18/2021	Thr	6:20:01	-6	111	-2	295	99	0	114	-1				6	118	1.6						
11/18/2021	Thr	16:56:26	-6	249	7	73	100				14	208	-4.8				30	166	-2.4	27	183	0.7
11/19/2021	Fri	6:21:13	-6	111	7	290	100	-1	114	-1.1				6	118	1.6						
11/19/2021	Fri	16:55:42	-6	249	2	63	100				14	208	-4.8				30	167	-2.4	27	184	0.7
11/20/2021	Sat	6:22:25	-6	112	17	285	99	-1	114	-1.1				6	119	1.6						
11/20/2021	Sat	16:55:00	-6	248	-3	53	98				14	208	-4.8				31	167	-2.4	27	185	0.7
11/21/2021	Sun	6:23:35	-6	112	26	280	96	-2	114	-1.1				6	120	1.6						
11/21/2021	Sun	16:54:20	-6	248	-8	43	94				14	208	-4.8				31	168	-2.4	27	186	0.7
11/22/2021	Mon	6:24:46	-6	112	35	273	91	-3	114	-1.2				7	120	1.6						
11/22/2021	Mon	16:53:42	-6	248	-13	33	89				15	208	-4.8				31	169	-2.3	27	187	0.7
11/23/2021	Tue	6:25:55	-6	113	44	265	85							7	121	1.6						
11/23/2021	Tue	16:53:06	-6	247	-18	22	82				15	208	-4.8				31	170	-2.3	27	187	0.7
11/24/2021	Wed	6:27:04	-6	113	51	253	78							7	121	1.6						
11/24/2021	Wed	16:52:33	-6	247	-22	11	74				15	208	-4.8				31	171	-2.3	27	188	0.7
11/25/2021	Thr	6:28:13	-6	113	57	237	69							7	122	1.6						
11/25/2021	Thr	16:52:02	-6	247	-26	360	65				15	208	-4.8				31	171	-2.3	27	189	0.7
11/26/2021	Fri	6:29:20	-6	113	60	215	60							7	122	1.6						
11/26/2021	Fri	16:51:33	-6	246	-29	347	55				15	209	-4.8				31	172	-2.3	26	190	0.7
11/27/2021	Sat	6:30:27	-6	114	59	192	50							8	123	1.6						
11/27/2021	Sat	16:51:06	-6	246	-31	333	45				15	209	-4.8				31	173	-2.3	26	191	0.7
11/28/2021	Sun	6:31:33	-6	114	54	172	39							8	123	1.6						
11/28/2021	Sun	16:50:42	-6	246	-31	319	35				15	209	-4.9				32	174	-2.3	26	192	0.7
11/29/2021	Mon	6:32:38	-6	114	46	157	29							8	124	1.6						
11/29/2021	Mon	16:50:20	-6	246	-30	304	25				15	209	-4.9				32	175	-2.3	26	192	0.7
11/30/2021	Tue	6:33:42	-6	114	36	145	19							8	125	1.6						
11/30/2021	Tue	16:50:01	-6	246	-28	289	16				15	210	-4.9				32	176	-2.3	26	193	0.7
12/1/2021	Wed	6:34:45	-6	115	25	136	11							8	125	1.6						
12/1/2021	Wed	16:49:44	-6	245	-23	275	8				15	210	-4.9				32	177	-2.3	26	194	0.7
12/2/2021	Thr	6:35:46	-6	115	14	129	5							8	126	1.6						
12/2/2021	Thr	16:49:29	-6	245	-17	261	3				15	210	-4.9				32	178	-2.3	26	195	0.7
12/3/2021	Fri	6:36:47	-6	115	2	121	1							9	126	1.6						
12/3/2021	Fri	16:49:17	-6	245	-11	248	0				15	211	-4.9				32	178	-2.3	26	196	0.7
12/4/2021	Sat	6:37:47	-6	115	-11	114	0							9	127	1.6						
12/4/2021	Sat	16:49:07	-6	245	-2	236	1				15	211	-4.9				32	179	-2.3	26	197	0.7
12/5/2021	Sun	6:38:45	-6	115	-23	106	2							9	127	1.6						
12/5/2021	Sun	16:48:59	-6	245	5	224	4				15	212	-4.9				32	180	-2.3	25	198	0.7
12/6/2021	Mon	6:39:42	-6	116	-33	96	8							9	128	1.6						
12/6/2021	Mon	16:48:54	-6	244	13	212	11				15	212	-4.9				32	181	-2.3	25	199	0.7
12/6/2021	Mon	16:48:54			Ven 3.0																	
12/7/2021	Tue	6:40:37	-6	116	-43	84	15							9	128	1.6						
12/7/2021	Tue	16:48:52	-6	244	19	200	19				15	213	-4.9				32	182	-2.3	25	200	0.7
12/8/2021	Wed	6:41:32	-6	116	-50	68	24							9	129	1.6						
12/8/2021	Wed	16:48:51	-6	244	25	187	28				15	213	-4.9				32	183	-2.2	25	200	0.7
12/9/2021	Thr	6:42:24	-6	116	-55	49	34							10	129	1.6						
12/9/2021	Thr	16:48:53	-6	244	30	173	39				15	214	-4.9				32	184	-2.2	25	201	0.7
12/10/2021	Fri	6:43:15	-6	116	-55	28	45							10	130	1.6						

DATE	DoW	Time	Sun		Moon			Mercury			Venus			Mars			Jupiter			Saturn		
			Alt	Az	Alt	Az	%	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag	Alt	Az	Mag
For observations near HVO. All dates and times in MST.																						
12/10/2021	Fri	16:48:58	-6	244	34	159	49	-3	238	-0.9	15	215	-4.9				32	185	-2.2	24	202	0.7
12/11/2021	Sat	6:44:05	-6	116	-52	8	55							10	130	1.6						
12/11/2021	Sat	16:49:04	-6	244	35	145	60	-3	237	-0.9	15	215	-4.9				32	186	-2.2	24	203	0.7
12/12/2021	Sun	6:44:52	-6	116	-47	353	65							10	131	1.6						
12/12/2021	Sun	16:49:13	-6	244	35	130	69	-2	237	-0.8	15	216	-4.9				32	187	-2.2	24	204	0.7
12/13/2021	Mon	6:45:38	-6	116	-40	341	74							10	131	1.6						
12/13/2021	Mon	16:49:25	-6	243	33	117	78	-2	236	-0.8	15	217	-4.9				32	188	-2.2	24	205	0.7
12/14/2021	Tue	6:46:23	-6	117	-32	331	82							10	131	1.6						
12/14/2021	Tue	16:49:38	-6	243	30	104	85	-1	236	-0.8	15	218	-4.9				32	189	-2.2	23	206	0.7
12/15/2021	Wed	6:47:05	-6	117	-24	323	89							10	132	1.6						
12/15/2021	Wed	16:49:54	-6	243	26	92	91	-1	235	-0.8	14	219	-4.8				32	190	-2.2	23	207	0.7
12/16/2021	Thr	6:47:46	-6	117	-15	316	94							10	132	1.6						
12/16/2021	Thr	16:50:13	-6	243	21	82	96	-1	235	-0.8	14	220	-4.8				32	191	-2.2	23	208	0.7
12/17/2021	Fri	6:48:25	-6	117	-7	309	98							10	133	1.6						
12/17/2021	Fri	16:50:33	-6	243	15	72	99	0	234	-0.8	14	220	-4.8				32	192	-2.2	22	209	0.7
12/18/2021	Sat	6:49:02	-6	117	2	303	100							11	133	1.6						
12/18/2021	Sat	16:50:56	-6	243	8	63	100	0	234	-0.7	14	221	-4.8				32	193	-2.2	22	210	0.7
12/19/2021	Sun	6:49:37	-6	117	10	296	100							11	133	1.6						
12/19/2021	Sun	16:51:21	-6	243	2	55	99	1	233	-0.7	13	223	-4.8				32	194	-2.2	22	211	0.7
12/20/2021	Mon	6:50:10	-6	117	18	288	98							11	134	1.6						
12/20/2021	Mon	16:51:48	-6	243	-6	46	97	1	233	-0.7	13	224	-4.7				32	195	-2.2	21	212	0.7
12/21/2021	Tue	6:50:41	-6	117	26	280	95							11	134	1.6						
12/21/2021	Tue	16:52:18	-6	243	-13	38	93	1	233	-0.7	12	225	-4.7				32	196	-2.2	21	213	0.7
12/22/2021	Wed	6:51:09	-6	117	33	270	90							11	135	1.6						
12/22/2021	Wed	16:52:49	-6	243	-20	29	87	2	232	-0.7	12	226	-4.7				31	198	-2.2	21	214	0.7
12/23/2021	Thr	6:51:36	-6	117	39	258	83							11	135	1.6						
12/23/2021	Thr	16:53:23	-6	243	-27	19	80	2	232	-0.7	11	227	-4.7				31	199	-2.2	20	215	0.7
12/24/2021	Fri	6:52:01	-6	117	44	244	75							11	135	1.6						
12/24/2021	Fri	16:53:59	-6	243	-33	8	71	3	232	-0.7	11	228	-4.6				31	200	-2.2	20	215	0.7
12/25/2021	Sat	6:52:24	-6	117	47	227	66							11	136	1.6						
12/25/2021	Sat	16:54:36	-6	243	-38	355	62	3	231	-0.7	10	230	-4.6				31	201	-2.2	20	216	0.7
12/26/2021	Sun	6:52:44	-6	117	46	209	56							11	136	1.6						
12/26/2021	Sun	16:55:16	-6	243	-43	341	51	4	231	-0.7	9	231	-4.5				31	202	-2.2	19	217	0.7
12/27/2021	Mon	6:53:02	-6	117	43	192	45							11	136	1.5						
12/27/2021	Mon	16:55:58	-6	243	-44	324	40	4	231	-0.7	9	232	-4.5				31	203	-2.2	19	218	0.7
12/27/2021	Mon	16:55:58						Ven 4.7														
12/28/2021	Tue	6:53:18	-6	117	38	177	34							11	137	1.5						
12/28/2021	Tue	16:56:41	-6	243	-44	306	30	5	231	-0.7	8	233	-4.4				30	204	-2.1	18	219	0.7
12/28/2021	Tue	16:56:41						Ven 4.2														
12/29/2021	Wed	6:53:32	-6	116	31	163	24							11	137	1.5						
12/29/2021	Wed	16:57:27	-6	244	-40	289	20	5	231	-0.7	7	235	-4.4				30	205	-2.1	18	220	0.7
12/29/2021	Wed	16:57:27						Ven 4.5														
12/30/2021	Thr	6:53:43	-6	116	22	151	15							11	137	1.5						
12/30/2021	Thr	16:58:14	-6	244	-34	274	11	6	231	-0.7	6	236	-4.3				30	206	-2.1	17	221	0.7
12/31/2021	Fri	6:53:52	-6	116	12	141	7							11	137	1.5						
12/31/2021	Fri	6:53:52			Mars 3.3																	
12/31/2021	Fri	16:59:03	-6	244	-26	261	5	6	231	-0.7	5	238	-4.3				30	207	-2.1	17	222	0.7
1/1/2022	Sat	6:53:59	-6	116	2	130	2							11	138	1.5						
1/1/2022	Sat	16:59:54	-6	244	-17	249	1	7	231	-0.7	5	239	-4.2				29	208	-2.1	16	223	0.7