

GALAXY CORE AND ORION CONSTELLATION CALENDAR FOR NIGHTSCAPE PHOTOGRAPHY																																											
Location: Perth (Lat: 31 57', Long: 115 51')										Legend: M = Moon Rising G = Galaxy Rising O = Orion Rising										 WILLIAM VRBASSO STELLAR AUSTRALIS					- Web: www.stellaraustralis.com - Facebook: www.facebook.com/stellaraustralis/ - Instagram: https://www.instagram.com/wvrbasso/ - Twitter: https://twitter.com/StellarAustral1					Disclaimer: Whilst all care was taken in the creation of this chart, I cannot vouch for its complete accuracy. As with any such calendars, use it for planning and double check the night using planetarium software. Acknowledgements: data sourced from the US Naval Observatory (USNO).													
From: 2019-09-20 Day Calc 262 Day Offset 262										m = Moon Setting g = Galaxy Setting o = Orion Setting																																	
NOTES		EVENING														MORNING														REFERENCE TIMES													
	Date	Moon	Evening Chart												Morning Chart												Moon	Date	Sun		Astro Dark		Moon		Galaxy Core			Orion			y	Num	Holiday
Add Notes Here	Evening of	% Illum	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8	9	10	11	% Illum	Morning of	Rise	Set	Start	End	Rise	Set	Rise	Zenith	Set	Rise	Zenith	Set			
	2019-09-20	74%																										2019-09-21	06:08	18:11	19:33	04:47	23:45	10:23	10:19	17:37	00:48	00:14	05:57	10:54	5	0	
	2019-09-21	65%																										2019-09-22	06:07	18:12	19:33	04:46	00:44	11:11	10:15	17:33	00:44	00:10	05:53	10:50	6	0	
	2019-09-22	55%																										2019-09-23	06:06	18:12	19:34	04:44	01:44	----	10:11	17:29	00:40	00:06	05:49	10:46	7	0	
	2019-09-23	44%	m																									2019-09-24	06:04	18:13	19:35	04:43	02:41	12:05	10:07	17:25	00:36	00:02	05:45	10:42	1	0	
	2019-09-24	33%		m																								2019-09-25	06:03	18:14	19:35	04:42	03:34	13:06	10:03	17:21	00:32	----	05:41	10:38	2	0	
	2019-09-25	23%			m																							2019-09-26	06:02	18:14	19:36	04:40	04:23	14:13	09:59	17:17	00:28	23:58	05:37	10:34	3	0	
	2019-09-26	14%				m																						2019-09-27	06:00	18:15	19:37	04:39	05:08	15:22	09:55	17:13	00:24	23:54	05:33	10:30	4	0	
	2019-09-27	7%					m																					2019-09-28	05:59	18:16	19:38	04:37	05:49	16:33	09:51	17:09	00:20	23:50	05:29	10:26	5	0	
	2019-09-28	2%						m																				2019-09-29	05:58	18:16	19:38	04:36	06:28	17:44	09:47	17:05	00:16	23:46	05:25	10:22	6	0	
	2019-09-29	0%							m																			2019-09-30	05:57	18:17	19:39	04:35	07:06	18:54	09:43	17:01	00:12	23:42	05:21	10:18	7	0	
	2019-09-30	1%									m																	2019-10-01	05:55	18:18	19:40	04:33	07:45	20:03	09:39	16:57	00:08	23:38	05:17	10:14	1	1	
	2019-10-01	6%										m																2019-10-02	05:54	18:18	19:41	04:32	08:25	21:10	09:35	16:53	00:04	23:34	05:13	10:10	2	0	
	2019-10-02	12%											m															2019-10-03	05:53	18:19	19:41	04:30	09:08	22:16	09:31	16:49	0:00	23:30	05:09	10:06	3	0	
	2019-10-03	20%																										2019-10-04	05:51	18:19	19:42	04:29	09:54	23:20	09:27	16:45	----	23:26	05:05	10:02	4	0	
	2019-10-04	30%																										2019-10-05	05:50	18:20	19:43	04:27	10:44	00:20	09:23	16:41	23:56	23:22	05:01	09:58	5	0	
	2019-10-05	40%																										2019-10-06	05:49	18:21	19:44	04:26	11:36	01:14	09:19	16:37	23:52	23:18	04:57	09:54	6	0	
	2019-10-06	50%																										2019-10-07	05:48	18:21	19:44	04:25	----	02:04	09:15	16:33	23:48	23:14	04:53	09:50	7	0	
	2019-10-07	60%		M																								2019-10-08	05:46	18:22	19:45	04:23	12:30	02:47	09:11	16:29	23:44	23:10	04:49	09:46	1	0	
	2019-10-08	69%			M																							2019-10-09	05:45	18:23	19:46	04:22	13:25	03:26	09:07	16:25	23:40	23:06	04:45	09:42	2	0	
	2019-10-09	77%				M																						2019-10-10	05:44	18:24	19:47	04:20	14:19	04:02	09:03	16:21	23:36	23:02	04:41	09:38	3	0	
	2019-10-10	85%					M																					2019-10-11	05:43	18:24	19:48	04:19	15:14	04:34	08:59	16:17	23:32	22:58	04:37	09:34	4	0	
	2019-10-11	91%						M																				2019-10-12	05:41	18:25	19:49	04:18	16:07	05:04	08:55	16:13	23:28	22:54	04:33	09:30	5	0	
	2019-10-12	95%							M																			2019-10-13	05:40	18:26	19:50	04:16	17:01	05:33	08:51	16:09	23:24	22:50	04:29	09:26	6	0	
	2019-10-13	98%								M																		2019-10-14	05:39	18:26	19:51	04:15	17:55	06:03	08:47	16:05	23:20	22:46	04:25	09:22	7	0	
	2019-10-14	100%									M																	2019-10-15	05:38	18:27	19:51	04:13	18:49	06:33	08:43	16:01	23:16	22:42	04:21	09:18	1	0	
	2019-10-15	99%										M										</																					

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	Date	Moon	Evening Chart														Morning Chart														Moon	Date	Sun		Astro Dark		Moon		Galaxy Core			Orion			y	Num	Holiday
Add Notes Here	Evening of	% Illum	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8	9	10	11	% Illum	Morning of	Rise	Set	Start	End	Rise	Set	Rise	Zenith	Set	Rise	Zenith	Set							
	2019-11-15	95%										O	g	M								G	o	m			90%	2019-11-16	05:09	18:53	20:26	03:36	21:33	07:54	06:35	13:53	21:08	20:34	02:13	07:10	5	0					
	2019-11-16	90%										O	g									G	o		m		83%	2019-11-17	05:08	18:54	20:28	03:35	22:31	08:50	06:31	13:49	21:04	20:30	02:09	07:06	6	0					
	2019-11-17	83%										O	g									G	o			m	74%	2019-11-18	05:07	18:55	20:29	03:34	23:26	09:51	06:27	13:45	21:00	20:26	02:05	07:02	7	0					
	2019-11-18	74%										O	g						M			G	o			m	64%	2019-11-19	05:07	18:56	20:30	03:33	00:15	10:56	06:23	13:41	20:56	20:22	02:01	06:58	1	0					
	2019-11-19	64%										O	g						M			G	o				53%	2019-11-20	05:07	18:57	20:31	03:32	01:00	----	06:19	13:37	20:52	20:18	01:57	06:54	2	0					
	2019-11-20	53%	m									O	g						M			G	o				41%	2019-11-21	05:06	18:58	20:32	03:32	01:41	12:01	06:15	13:33	20:48	20:14	01:53	06:50	3	0					
	2019-11-21	41%		m								O	g						M			G	o				30%	2019-11-22	05:06	18:59	20:34	03:31	02:19	13:08	06:11	13:29	20:44	20:10	01:49	06:46	4	0					
	2019-11-22	30%			m							O	g						M			G	o				20%	2019-11-23	05:05	19:00	20:35	03:30	02:55	14:14	06:07	13:25	20:40	20:06	01:45	06:42	5	0					
	2019-11-23	20%				m						O	g						M			G	o				12%	2019-11-24	05:05	19:01	20:36	03:30	03:31	15:20	06:03	13:21	20:36	20:02	01:41	06:38	6	0					
	2019-11-24	12%					m					O	g						M			G	o				5%	2019-11-25	05:05	19:02	20:37	03:29	04:08	16:27	05:59	13:17	20:32	19:58	01:37	06:34	7	0					
	2019-11-25	5%						m				O	g						M			G	o				1%	2019-11-26	05:04	19:02	20:38	03:28	04:48	17:34	05:55	13:13	20:28	19:54	01:33	06:30	1	0					
	2019-11-26	1%							m			O	g									MG	o				0%	2019-11-27	05:04	19:03	20:40	03:28	05:32	18:41	05:51	13:09	20:24	19:50	01:29	06:26	2	0					
	2019-11-27	0%										mO	g									G	Mo				1%	2019-11-28	05:04	19:04	20:41	03:27	06:19	19:46	05:47	13:05	20:20	19:46	01:25	06:22	3	0					
	2019-11-28	1%										O	g	m								G	o		M		5%	2019-11-29	05:04	19:05	20:42	03:27	07:11	20:48	05:43	13:01	20:16	19:42	01:21	06:18	4	0					
	2019-11-29	5%										O	g		m							G	o			M	11%	2019-11-30	05:04	19:06	20:43	03:26	08:06	21:46	05:39	12:57	20:12	19:38	01:17	06:14	5	0					
	2019-11-30	11%										O	g			m						G	o			M	18%	2019-12-01	05:03	19:07	20:44	03:26	09:03	22:37	05:35	12:53	20:08	19:34	01:13	06:10	6	0					
	2019-12-01	18%										O	g				m					G	o			M	26%	2019-12-02	05:03	19:08	20:45	03:26	09:59	23:21	05:31	12:49	20:04	19:30	01:09	06:06	7	0					
	2019-12-02	26%										O	g					m				G	o			M	35%	2019-12-03	05:03	19:08	20:46	03:25	10:55	00:01	05:27	12:45	20:00	19:26	01:05	06:02	1	0					
	2019-12-03	35%										O	g						m			G	o			M	44%	2019-12-04	05:03	19:09	20:47	03:25	11:50	00:35	05:23	12:41	19:56	19:22	01:01	05:58	2	0					
	2019-12-04	44%										O	g						m			G	o				54%	2019-12-05	05:03	19:10	20:48	03:25	----	01:07	05:19	12:37	19:52	19:18	00:57	05:54	3	0					
	2019-12-05	54%		M								O	g						m			G	o				63%	2019-12-06	05:03	19:11	20:49	03:25	12:44	01:37	05:15	12:33	19:48	19:14	00:53	05:50	4	0					
	2019-12-06	63%			M							O	g						m			G	o				72%	2019-12-07	05:03	19:12	20:50	03:25	13:37	02:05	05:11	12:29	19:44	19:10	00:49	05:46	5	0					
	2019-12-07	72%				M						O	g						m			G	o				80%	2019-12-08	05:03	19:12	20:51	03:24	14:31	02:34	05:07	12:25	19:40	19:06	00:45	05:42	6	0					
	2019-12-08	80%					M					O	g						m			G	o				87%	2019-12-09	05:03	19:13	20:52	03:24	15:26	03:05	05:03	12:21	19:36	19:02	00:41	05:38	7	0					
	2019-12-09	87%						M				O	g			</																															

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From: 2019-09-20 Day Calc 262 Day Offset 262										m = Moon Setting g = Galaxy Setting o = Orion Setting																																		
NOTES	EVENING														MORNING														REFERENCE TIMES															
	Date	Moon	Evening Chart												Morning Chart												Moon	Date	Sun		Astro Dark		Moon		Galaxy Core			Orion						
Add Notes Here	Evening of	% Illum	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8	9	10	11	% Illum	Morning of	Rise	Set	Start	End	Rise	Set	Rise	Zenith	Set	Rise	Zenith	Set				
	2020-01-10	98%						o	g		M							G	o		m						100%	2020-01-11	05:21	19:27	21:04	03:44	19:08	05:28	02:51	10:05	17:24	16:50	22:33	03:26				
	2020-01-11	100%						o	g		M							G	o			m					99%	2020-01-12	05:22	19:27	21:04	03:45	20:04	06:33	02:47	10:01	17:20	16:46	22:29	03:22				
	2020-01-12	99%						o	g			M						G	o				m				95%	2020-01-13	05:23	19:27	21:04	03:46	20:55	07:41	02:43	09:57	17:16	16:42	22:25	03:18				
	2020-01-13	95%						o	g				M					G	o					m			89%	2020-01-14	05:24	19:26	21:03	03:47	21:40	08:50	02:39	09:53	17:12	16:38	22:21	03:14				
	2020-01-14	89%						o	g				M					G	o						m		81%	2020-01-15	05:25	19:26	21:03	03:48	22:21	09:58	02:35	09:49	17:08	16:34	22:17	03:10				
	2020-01-15	81%						o	g					M				G	o							m	71%	2020-01-16	05:26	19:26	21:03	03:49	22:58	11:04	02:31	09:45	17:04	16:30	22:13	03:06				
	2020-01-16	71%						o	g						M			G	o								60%	2020-01-17	05:27	19:26	21:02	03:51	23:34	----	02:27	09:41	17:00	16:26	22:09	03:02				
	2020-01-17	60%	m					o	g							M		G	o								49%	2020-01-18	05:28	19:26	21:02	03:52	00:09	12:09	02:23	09:37	16:56	16:22	22:05	02:58				
	2020-01-18	49%		m				o	g							M		G	o								38%	2020-01-19	05:29	19:25	21:01	03:53	00:45	13:13	02:19	09:33	16:52	16:18	22:01	02:54				
	2020-01-19	38%			m			o	g								M	G	o								27%	2020-01-20	05:30	19:25	21:00	03:54	01:24	14:17	02:15	09:29	16:48	16:14	21:57	02:50				
	2020-01-20	27%				m		o	g									M	G	o							18%	2020-01-21	05:31	19:25	21:00	03:55	02:06	15:21	02:11	09:25	16:44	16:10	21:53	02:46				
	2020-01-21	18%					m	o	g										G	Mo							11%	2020-01-22	05:31	19:24	20:59	03:57	02:53	16:23	02:07	09:21	16:40	16:06	21:49	02:42				
	2020-01-22	11%						o	g	m									G	o	M						5%	2020-01-23	05:32	19:24	20:59	03:58	03:43	17:22	02:03	09:17	16:36	16:02	21:45	02:38				
	2020-01-23	5%					o	g		m									G	o		M					2%	2020-01-24	05:33	19:24	20:58	03:59	04:38	18:18	01:59	09:13	16:32	15:58	21:41	02:34				
	2020-01-24	2%					o	g			m								G	o			M				0%	2020-01-25	05:34	19:23	20:57	04:00	05:35	19:07	01:55	09:09	16:28	15:54	21:37	02:30				
	2020-01-25	0%					o	g				m							G	o				M			1%	2020-01-26	05:35	19:23	20:56	04:02	06:32	19:52	01:51	09:05	16:24	15:50	21:33	02:26				
	2020-01-26	1%					o	g					m						G	o					M		3%	2020-01-27	05:36	19:22	20:56	04:03	07:29	20:31	01:47	09:01	16:20	15:46	21:29	02:22				
	2020-01-27	3%					o	g						m					G	o						M	7%	2020-01-28	05:37	19:22	20:55	04:04	08:24	21:05	01:43	08:57	16:16	15:42	21:25	02:18				
	2020-01-28	7%					o	g							m				G	o							13%	2020-01-29	05:38	19:21	20:54	04:05	09:18	21:37	01:39	08:53	16:12	15:38	21:21	02:14				
	2020-01-29	13%					o	g								m			G	o							20%	2020-01-30	05:39	19:21	20:53	04:07	10:11	22:06	01:35	08:49	16:08	15:34	21:17	02:10				
	2020-01-30	20%					o	g									m		G	o							28%	2020-01-31	05:40	19:20	20:52	04:08	11:04	22:35	01:31	08:45	16:04	15:30	21:13	02:06				
	2020-01-31	28%					o	g											G	o							37%	2020-02-01	05:41	19:19	20:51	04:09	11:58	23:03	01:27	08:41	16:00	15:26	21:09	02:02				
	2020-02-01	37%					o	g												G	o						46%	2020-02-02	05:42	19:19	20:50	04:10	----	23:33	01:23	08:37	15:56	15:22	21:05	01:58				
	2020-02-02	46%	M				o	g													G	o					56%	2020-02-03	05:43	19:18	20:49	04:12	12:53	00:05	01:19	08:33	15:52	15:18	21:01	01:54				
	2020-02-03	56%		M			o	g														G	o				66%	2020-02-04	05:44	19:17	20:48	04:13	13:50	00:42	01:15	08:29	15:48	15:14	20:57	01:50				
	2020-02-04	66%			M		o	g															m	G	o		75%	2020-02-05	05:45	19:17	20:47	04:14	14:49	01:23	01:11	08:25	15:44	15:10	20:53	01:46				
	2020-02-05	75%				o	M	g																																				

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	2020-03-06	78%		O	g			M						G	O			m									87%	2020-03-07	06:11	18:45	20:08	04:48	16:26	02:54	23:11	06:21	13:40	13:06	18:49	23:46
	2020-03-07	87%		O	g			M						G	O				m								94%	2020-03-08	06:11	18:44	20:07	04:49	17:17	04:03	23:07	06:17	13:36	13:02	18:45	23:42
	2020-03-08	94%		O	g				M					G	O					m							98%	2020-03-09	06:12	18:43	20:05	04:49	18:03	05:14	23:03	06:13	13:32	12:58	18:41	23:38
	2020-03-09	98%		O	g					M				G	O						m						100%	2020-03-10	06:13	18:42	20:04	04:50	18:46	06:25	22:59	06:09	13:28	12:54	18:37	23:34
	2020-03-10	100%		O	g					M				G	O							m					98%	2020-03-11	06:14	18:40	20:03	04:51	19:25	07:36	22:55	06:05	13:24	12:50	18:33	23:30
	2020-03-11	98%		O	g						M			G	O									m			94%	2020-03-12	06:14	18:39	20:01	04:52	20:03	08:46	22:51	06:01	13:20	12:46	18:29	23:26
	2020-03-12	94%		O	g							M		G	O												87%	2020-03-13	06:15	18:38	20:00	04:53	20:40	09:55	22:47	05:57	13:16	12:42	18:25	23:22
	2020-03-13	87%		O	g								M	G	O												79%	2020-03-14	06:16	18:37	19:59	04:54	21:19	11:03	22:43	05:53	13:12	12:38	18:21	23:18
	2020-03-14	79%		O	g									M	G	O											69%	2020-03-15	06:16	18:35	19:57	04:54	22:01	----	22:39	05:49	13:08	12:34	18:17	23:14
	2020-03-15	69%	m	O	g									M	G	O											58%	2020-03-16	06:17	18:34	19:56	04:55	22:46	12:09	22:35	05:45	13:04	12:30	18:13	23:10
	2020-03-16	58%	O		mg									G	O	M											47%	2020-03-17	06:18	18:33	19:54	04:56	23:35	13:12	22:31	05:41	13:00	12:26	18:09	23:06
	2020-03-17	47%	O	g		m								G	O		M										37%	2020-03-18	06:19	18:31	19:53	04:57	00:28	14:10	22:27	05:37	12:56	12:22	18:05	23:02
	2020-03-18	37%	O	g			m							G	O			M									28%	2020-03-19	06:19	18:30	19:52	04:58	01:23	15:03	22:23	05:33	12:52	12:18	18:01	22:58
	2020-03-19	28%	O	g				m						G	O				M								19%	2020-03-20	06:20	18:29	19:50	04:58	02:19	15:50	22:19	05:29	12:48	12:14	17:57	22:54
	2020-03-20	19%	O	g					m					G	O					M							12%	2020-03-21	06:21	18:28	19:49	04:59	03:15	16:31	22:15	05:25	12:44	12:10	17:53	22:50
	2020-03-21	12%	O	g						m				G	O					M							7%	2020-03-22	06:21	18:26	19:48	05:00	04:11	17:07	22:11	05:21	12:40	12:06	17:49	22:46
	2020-03-22	7%	O	g							m			G	O						M						3%	2020-03-23	06:22	18:25	19:46	05:01	05:06	17:40	22:07	05:17	12:36	12:02	17:45	22:42
	2020-03-23	3%	g											G	O						M						1%	2020-03-24	06:23	18:24	19:45	05:01	05:59	18:10	22:03	05:13	12:32	11:54	17:41	22:38
	2020-03-24	1%	g								m			G	O							M					0%	2020-03-25	06:23	18:22	19:44	05:02	06:52	18:39	21:59	05:09	12:28	11:50	17:37	22:34
	2020-03-25	0%	g									m		G	O												2%	2020-03-26	06:24	18:21	19:42	05:03	07:46	19:07	21:55	05:05	12:24	11:46	17:33	22:30
	2020-03-26	2%	g										m	G	O												5%	2020-03-27	06:25	18:20	19:41	05:04	08:39	19:36	21:51	05:01	12:20	11:42	17:29	22:26
	2020-03-27	5%	g											m	G	O											10%	2020-03-28	06:25	18:19	19:40	05:04	09:34	20:06	21:47	04:57	12:16	11:38	17:25	22:22
	2020-03-28	10%	g											m	G	O											16%	2020-03-29	06:26	18:17	19:38	05:05	10:30	20:38	21:43	04:53	12:12	11:34	17:21	22:18
	2020-03-29	16%	g											m	G	O											24%	2020-03-30	06:27	18:16	19:37	05:06	11:28	21:14	21:39	04:49	12:08	11:30	17:17	22:14
	2020-03-30	24%	g											m	G	O											32%	2020-03-31	06:27	18:15	19:36	05:06	----	21:56	21:35	04:45	12:04	11:26	17:13	22:10
	2020-03-31	32%	Mg											G	O	m											42%	2020-04-01	06:28	18:14	19:35	05:07	12:25	22:43	21:31	04:41	12:00	11:22	17:09	22:06
	2020-04-01	42%			M									G	O		m																							

GALAXY CORE AND ORION CONSTELLATION CALENDAR FOR NIGHTSCAPE PHOTOGRAPHY																																								
Location: Perth (Lat: 31 57', Long: 115 51')										Legend: M = Moon Rising G = Galaxy Rising O = Orion Rising										 WILLIAM VRBASSO STELLAR AUSTRALIS					- Web: www.stellaraustralis.com - Facebook: www.facebook.com/stellaraustralis/ - Instagram: https://www.instagram.com/wvrbasso/ - Twitter: https://twitter.com/StellarAustral1					Disclaimer: Whilst all care was taken in the creation of this chart, I cannot vouch for its complete accuracy. As with any such calendars, use it for planning and double check the night using planetarium software. Acknowledgements: data sourced from the US Naval Observatory (USNO).										
From: 2019-09-20 Day Calc 262 Day Offset 262										m = Moon Setting g = Galaxy Setting o = Orion Setting																														
NOTES	EVENING														MORNING														REFERENCE TIMES											
	Date	Moon	Evening Chart												Morning Chart												Moon	Date	Sun		Astro Dark		Moon		Galaxy Core			Orion		
Add Notes Here	Evening of	% Illum	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8	9	10	11	% Illum	Morning of	Rise	Set	Start	End	Rise	Set	Rise	Zenith	Set	Rise	Zenith	Set
	2020-05-01	48%		M						G	o				m									O	g		59%	2020-05-02	06:49	17:39	19:01	05:26	13:49	00:34	19:27	02:37	09:52	09:18	15:05	20:02
	2020-05-02	59%			M					G	o					m								O	g		70%	2020-05-03	06:50	17:38	19:01	05:27	14:32	01:40	19:23	02:33	09:48	09:14	15:01	19:58
	2020-05-03	70%				M				G	o							m						O	g		80%	2020-05-04	06:51	17:37	19:00	05:27	15:11	02:48	19:19	02:29	09:44	09:10	14:57	19:54
	2020-05-04	80%					M			G	o								m					O	g		89%	2020-05-05	06:51	17:36	18:59	05:28	15:48	03:57	19:15	02:25	09:40	09:06	14:53	19:50
	2020-05-05	89%						M		G	o									m				O	g		95%	2020-05-06	06:52	17:35	18:58	05:28	16:24	05:06	19:11	02:21	09:36	09:02	14:49	19:46
	2020-05-06	95%							M		G	o									m			O	g		99%	2020-05-07	06:53	17:34	18:58	05:29	17:02	06:16	19:07	02:17	09:32	08:58	14:45	19:42
	2020-05-07	99%							M		G	o										m		O	g		100%	2020-05-08	06:53	17:33	18:57	05:30	17:41	07:27	19:03	02:13	09:28	08:54	14:41	19:38
	2020-05-08	100%							M	G		o												O	g		98%	2020-05-09	06:54	17:33	18:56	05:30	18:25	08:37	18:59	02:09	09:24	08:50	14:37	19:34
	2020-05-09	98%								G	M	o												O	g	m	93%	2020-05-10	06:55	17:32	18:56	05:31	19:13	09:44	18:55	02:05	09:20	08:46	14:33	19:30
	2020-05-10	93%								G	o	M												O	g	m	87%	2020-05-11	06:55	17:31	18:55	05:31	20:05	10:46	18:51	02:01	09:16	08:42	14:29	19:26
	2020-05-11	87%								G	o		M											O	g	m	78%	2020-05-12	06:56	17:30	18:54	05:32	21:02	11:40	18:47	01:57	09:12	08:38	14:25	19:22
	2020-05-12	78%								G	o			M										O	g		69%	2020-05-13	06:57	17:30	18:54	05:32	22:01	----	18:43	01:53	09:08	08:34	14:21	19:18
	2020-05-13	69%	m							G	o				M									O	g		59%	2020-05-14	06:57	17:29	18:53	05:33	22:59	12:28	18:39	01:49	09:04	08:30	14:17	19:14
	2020-05-14	59%		m						G	o					M								O	g		49%	2020-05-15	06:58	17:28	18:53	05:33	23:57	13:09	18:35	01:45	09:00	08:26	14:13	19:10
	2020-05-15	49%			m					G	o						M							O	g		40%	2020-05-16	06:59	17:28	18:52	05:34	00:53	13:44	18:31	01:41	08:56	08:22	14:09	19:06
	2020-05-16	40%				m				G	o							M						O	g		31%	2020-05-17	06:59	17:27	18:52	05:35	01:48	14:16	18:27	01:37	08:52	08:18	14:05	19:02
	2020-05-17	31%					m			G	o								M					O	g		22%	2020-05-18	07:00	17:26	18:51	05:35	02:41	14:46	18:23	01:33	08:48	08:14	14:01	18:58
	2020-05-18	22%						m		G	o									M				O	g		15%	2020-05-19	07:01	17:26	18:51	05:36	03:35	15:14	18:19	01:29	08:44	08:10	13:57	18:54
	2020-05-19	15%							m		G	o									M			O	g		9%	2020-05-20	07:01	17:25	18:50	05:36	04:28	15:42	18:15	01:25	08:40	08:06	13:53	18:50
	2020-05-20	9%							m		G	o										M		O	g		4%	2020-05-21	07:02	17:25	18:50	05:37	05:23	16:10	18:11	01:21	08:36	08:02	13:49	18:46
	2020-05-21	4%							m		G	o										M		O	g		1%	2020-05-22	07:03	17:24	18:49	05:37	06:19	16:41	18:07	01:17	08:32	07:58	13:45	18:42
	2020-05-22	1%							m		G	o											M	O	g		0%	2020-05-23	07:03	17:24	18:49	05:38	07:16	17:15	18:03	01:13	08:28	07:54	13:41	18:38
	2020-05-23	0%							m	G		o												O	Mg		1%	2020-05-24	07:04	17:23	18:49	05:38	08:15	17:53	17:59	01:09	08:24	07:50	13:37	18:34
	2020-05-24	1%								G		mo												O	g	M	4%	2020-05-25	07:05	17:23	18:48	05:39	09:13	18:37	17:55	01:05	08:20	07:46	13:33	18:30
	2020-05-25	4%								G	o		m											O	g		9%	2020-05-26	07:05	17:22	18:48	05:39	10:09	19:26	17:51	01:01	08:16	07:42	13:29	18:26
	2020-05-26	9%								G	o			m										O	g		15%	2020-05-27	07:06	17:22	18:48	05:40	11:01	20:22	17:47	00:57	08:12	07:38	13:25	18:22
	2020-05-27	15%																																						

GALAXY CORE AND ORION CONSTELLATION CALENDAR FOR NIGHTSCAPE PHOTOGRAPHY																																															
Location: Perth (Lat: 31 57', Long: 115 51')										Legend: M = Moon Rising G = Galaxy Rising O = Orion Rising										 WILLIAM VRBASSO STELLAR AUSTRALIS					- Web: www.stellaraustralis.com - Facebook: www.facebook.com/stellaraustralis/ - Instagram: https://www.instagram.com/wvrbasso/ - Twitter: https://twitter.com/StellarAustral1					Disclaimer: Whilst all care was taken in the creation of this chart, I cannot vouch for its complete accuracy. As with any such calendars, use it for planning and double check the night using planetarium software. Acknowledgements: data sourced from the US Naval Observatory (USNO).																	
From: 2019-09-20 Day Calc 262 Day Offset 262										m = Moon Setting g = Galaxy Setting o = Orion Setting																																					
NOTES		EVENING														MORNING														REFERENCE TIMES																	
	Date	Moon	Evening Chart														Morning Chart														Moon	Date	Sun		Astro Dark		Moon		Galaxy Core			Orion			y	Num	holiday
Add Notes Here	Evening of	% Illum	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8	9	10	11	% Illum	Morning of	Rise	Set	Start	End	Rise	Set	Rise	Zenith	Set	Rise	Zenith	Set							
	2020-06-26	21%					G o								m						O g						31%	2020-06-27	07:18	17:22	18:49	05:50	11:49	22:29	15:43	22:57	06:08	05:34	11:17	16:18	5	0					
	2020-06-27	31%					G o														O g						42%	2020-06-28	07:18	17:22	18:49	05:50	----	23:34	15:39	22:53	06:04	05:30	11:13	16:14	6	0					
	2020-06-28	42%	M				G o									m					O g						54%	2020-06-29	07:18	17:22	18:50	05:50	12:24	00:40	15:35	22:49	06:00	05:26	11:09	16:10	7	0					
	2020-06-29	54%		M			G o														O g						65%	2020-06-30	07:18	17:23	18:50	05:51	12:58	01:45	15:31	22:45	05:56	05:22	11:05	16:06	1	0					
	2020-06-30	65%			M		G o														O g						76%	2020-07-01	07:18	17:23	18:50	05:51	13:33	02:51	15:27	22:41	05:52	05:18	11:01	16:02	2	0					
	2020-07-01	76%				M	G o														O g						85%	2020-07-02	07:18	17:23	18:51	05:51	14:11	03:59	15:23	22:37	05:48	05:14	10:57	15:58	3	0					
	2020-07-02	85%					M G o														m O g						92%	2020-07-03	07:18	17:24	18:51	05:51	14:53	05:06	15:19	22:33	05:44	05:10	10:53	15:54	4	0					
	2020-07-03	92%					G Mo														O g m						97%	2020-07-04	07:18	17:24	18:51	05:51	15:40	06:11	15:15	22:29	05:40	05:06	10:49	15:50	5	0					
	2020-07-04	97%					G o														O g		m				100%	2020-07-05	07:18	17:25	18:52	05:51	16:32	07:13	15:11	22:25	05:36	05:02	10:45	15:46	6	0					
	2020-07-05	100%					G o														O g			m			100%	2020-07-06	07:17	17:25	18:52	05:51	17:29	08:08	15:07	22:21	05:32	04:58	10:41	15:42	7	0					
	2020-07-06	100%					G o			M											O g				m		97%	2020-07-07	07:17	17:26	18:52	05:50	18:29	08:57	15:03	22:17	05:28	04:54	10:37	15:38	1	0					
	2020-07-07	97%					G o				M										O g					m	93%	2020-07-08	07:17	17:26	18:53	05:50	19:30	09:38	14:59	22:13	05:24	04:50	10:33	15:34	2	0					
	2020-07-08	93%					G o					M									O g					m	87%	2020-07-09	07:17	17:27	18:53	05:50	20:30	10:14	14:55	22:09	05:20	04:46	10:29	15:30	3	0					
	2020-07-09	87%					G o						M								O g					m	80%	2020-07-10	07:17	17:27	18:54	05:50	21:27	10:47	14:51	22:05	05:16	04:42	10:25	15:26	4	0					
	2020-07-10	80%					G o							M							O g					m	71%	2020-07-11	07:16	17:28	18:54	05:50	22:23	11:16	14:47	22:01	05:12	04:38	10:21	15:22	5	0					
	2020-07-11	71%					G o								M						O g					m	62%	2020-07-12	07:16	17:28	18:55	05:50	23:17	11:44	14:43	21:57	05:08	04:34	10:17	15:18	6	0					
	2020-07-12	62%					G o									M					O g						53%	2020-07-13	07:16	17:29	18:55	05:50	00:10	----	14:39	21:53	05:04	04:30	10:13	15:14	7	0					
	2020-07-13	53%	m				G o										M				O g						44%	2020-07-14	07:15	17:29	18:55	05:49	01:04	12:12	14:35	21:49	05:00	04:26	10:09	15:10	1	0					
	2020-07-14	44%		m			G o											M			O g						34%	2020-07-15	07:15	17:30	18:56	05:49	01:58	12:41	14:31	21:45	04:56	04:22	10:05	15:06	2	0					
	2020-07-15	34%			m		G o												M		O g						25%	2020-07-16	07:15	17:30	18:56	05:49	02:55	13:12	14:27	21:41	04:52	04:18	10:01	15:02	3	0					
	2020-07-16	25%				m	G o													M	O g						17%	2020-07-17	07:14	17:31	18:57	05:48	03:52	13:46	14:23	21:37	04:48	04:14	09:57	14:58	4	0					
	2020-07-17	17%					m G o														O Mg						10%	2020-07-18	07:14	17:31	18:57	05:48	04:51	14:26	14:19	21:33	04:44	04:10	09:53	14:54	5	0					
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	2020-07-19	5%					G o														O g						1%	2020-07-20	07:13	17:33	18:58	05:47	06:47	16:03	14:11	21:25	04:36	04:02	09:45	14:46	7	0					
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