

# Monthly Observing List for January

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## Sun

	Rise	Culmination	Set
Direction	SE	N	SW
1 <sup>st</sup> Jan	5:54	13:32	21:11
15 <sup>th</sup> Jan	6:09	13:38	21:08
31 <sup>st</sup> Jan	6:30	13:42	20:55

## Moon

On average the Moon rises about 53 minutes later each day.

	Rise	Culmination	Set	Illumination
Direction	E	N	W	-
1 <sup>st</sup> Jan	11:25	18:14	00:53	31%
15 <sup>th</sup> Jan	23:44	05:10	10:45	81%
31 <sup>st</sup> Jan	12:13	18:13	00:04	34%

Constellations are in alphabetical order.

## Canis Major

	Rise	Culmination	Set
Highest Altitude	69° (in Milky Way)		
Direction	SE	N	SW
1 <sup>st</sup> Jan	18:05	01:41	09:18
15 <sup>th</sup> Jan	17:10	00:46	08:23
31 <sup>st</sup> Jan	16:07	23:43	07:20

Catalogue Name	Name	Extincted Mag	RA $\alpha$ / Dec $\delta$	Comments
NGC 2362	Pirate's Jewels Cluster	4.25	07:19:32 -24:59:38	Open cluster. Distance: 3,914 ly.
NGC 2287 M41	Little Beehive Cluster	4.65	06:46:53 -20:46:49	Open cluster. Distance: 2,316 ly.
NGC 2354		6.65	07:15:00 -25:43:36	Open cluster.
NGC 2360	Caroline's Cluster	7.37	07:18:39 -15:40:49	Open cluster. Distance: 6,155 ly.
NGC 2384		7.56	07:26:03 -21:03:49	Open cluster.
NGC 2345		7.87	07:09:15	Open cluster.

			-13:13:37	
NGC 2367	Charlie Brown's Christmas Tree	8.06	07:20:58 -21:55:17	Open cluster.
NGC 2374		8.17	07:24:52 -13:18:15	Open cluster.
NGC 2359	Thor's Helmet		07:19:27 -13:16:07	HII region.
HD48915 SAO151881	* Sirius α CMa	-1.29	06:46:03 -16:44:46	Double star. Distance: 8.6 ly. Spectral type A0.

## Canis Minor

	Rise	Culmination	Set
Highest Altitude	40°		
Direction	SE	N	SW
1 <sup>st</sup> Jan	20:44	02:25	08:01
15 <sup>th</sup> Jan	19:49	01:30	07:06
31 <sup>st</sup> Jan	18:46	00:27	06:03

Catalogue Name	Name	Extincted Mag	RA α / Dec δ	Comments
HD61421 SAO115756	* Procyon α CMi	0.60	07:40:22 +05:10:16	Double star. Distance: 11.4 ly. Spectral type F5.

## Gemini

	Rise	Culmination	Set
Highest Altitude	22°		
Direction	NE	N	NW
1 <sup>st</sup> Jan	21:39	01:55	06:11
15 <sup>th</sup> Jan	20:40	00:56	05:12
31 <sup>st</sup> Jan	19:41	23:57	04:13

Catalogue Name	Name	Extincted Mag	RA α / Dec δ	Comments
NGC 2168	Shoe-buckle Cluster	5.59	06:10:09 +24:19:41	Open cluster. Distance: 2,773 ly.
NGC 2420	Twinkling Comet Cluster	8.62	07:39:36 +21:31:31	Open cluster.
NGC 2392	Eskimo Nebula	9.99	07:30:23 +20:52:05	Planetary nebula. Distance: 4,107 ly. Orientation angle: 90°.
IC 443	Jellyfish Nebula		06:19:17 +22:39:01	Supernova remnant.
HD60178 SAO60198	* Castor α Gem	2.44	07:35:54 +31:50:28	Double star. Distance: 52 ly. Spectral type A1.

HD62509 SAO79666	* Pollux β Gem	1.57	07:46:34 +27:58:28	Double star. Distance 34 ly. Spectral type G9.
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## Hydra

	Rise	Culmination	Set
Highest Altitude	54°		
Direction	E	N	W
1 <sup>st</sup> Jan	22:09	04:42	11:14
15 <sup>th</sup> Jan	21:14	03:47	10:19
31 <sup>st</sup> Jan	20:11	02:44	09:16

Catalogue Name	Name	Extincted Mag	RA α / Dec δ	Comments
NGC 2548 M48	Beehive Cluster	5.97	08:14:43 -05:48:47	Open cluster. Distance: 1,500 ly.
NGC 4590 M68		7.65	12:40:33 -26:51:20	Globular cluster. Distance: 33,598 ly.
NGC 5236 M83	Southern Pinwheel Galaxy	8.08	13:38:10 -29:58:08	Active barred spiral galaxy. 45° orientation angle. Distance: 15 million ly.
HD81797 SAO136871	* Alphard α Hya	2.14	09:28:35 -08:44:53	Double star. Distance: 180 ly. Spectral type K3.

## Lepus

	Rise	Culmination	Set
Highest Altitude	64°		
Direction	NE	N	NW
1 <sup>st</sup> Jan	17:07	00:18	07:29
15 <sup>th</sup> Jan	16:12	23:23	06:34
31 <sup>st</sup> Jan	15:09	22:20	05:31

Catalogue Name	Name	Extincted Mag	RA α / Dec δ	Comments
NGC 1904 M79		8.70	05:25:01 -24:30:26	Glbular cluster. Distance: 42,406 ly.
IC 418	Spirograph Nebula	13.15	05:28:25 -12:40:55	Planetary nebula. Distance: 242 ly.
HD36673 SAO150547	* Arneb α Lep	2.70	05:33:38 -17:48:34	Double star. Distance: 2,219 ly. Spectral type F0.

## Monoceros

	Rise	Culmination	Set
Highest Altitude	49° (in Milky Way)		
Direction	E	N	W
1 <sup>st</sup> Jan	19:35	01:49	08:00
15 <sup>th</sup> Jan	18:40	00:50	07:01
31 <sup>st</sup> Jan	17:27	23:47	06:02

Catalogue Name	Name	Extincted Mag	RA $\alpha$ / Dec $\delta$	Comments
NGC 2264	Christmas Tree Cluster	4.14	06:40:58 09:52:27	Open cluster. Distance: 1,206 ly.
NGC 2237	Rosette Nebula		06:31:41 04:57:54	Star cluster/nebula.
NGC 2323 M50	Heart-Shaped Coil Cluster	6.08	07:03:46 -08:22:09	Open cluster. Distance: 3,262 ly.

## Orion

	Rise	Culmination	Set
Highest Altitude	41° (near Milky Way)		
Direction	E	N	W
1 <sup>st</sup> Jan	18:45	00:25	06:04
15 <sup>th</sup> Jan	17:46	23:30	05:09
31 <sup>st</sup> Jan	16:47	22:27	04:06

Catalogue Name	Name	Extincted Mag	RA $\alpha$ / Dec $\delta$	Comments
M42	Orion Nebula	4.17	05:35:17 -05:22:46	Naked-eye nebula, HII region. Distance: 1,343 ly.
B33	Horsehead Nebula		05:42:00 -02:26:58	Dark nebula.
M78	Casper the Friendly Ghost Nebula	8.48	05:47:49 00:01:12	Reflection nebula. Distance: 1,598 ly.
NGC 2024	Flame Nebula		05:42:45 -01:50:01	Cluster/nebula
HD39801 SAO113271	* Betelgeuse $\alpha$ Ori	0.66	05:56:16 07:24:32	Pulsating variable double star. Distance: 498 ly. Spectral type M4. Period: 2,335 days.
HD34085 SAO131907	* Rigel $\beta$ Ori	0.31	05:15:31 -08:10:48	Pulsating variable star. Distance: 863 ly. Spectral type B8.
HD35468 SAO112740	* Bellatrix $\gamma$ Ori	1.80	05:26:13 +06:21:58	Double star. Distance: 252 ly. Spectral type B2.

## Puppis

	Rise	Culmination	Set
Highest Altitude	85° (in Milky Way)		
Direction	SE	N	SW
1 <sup>st</sup> Jan	17:00	02:17	11:34
15 <sup>th</sup> Jan	16:05	01:22	10:39
31 <sup>st</sup> Jan	15:02	00:23	09:40

Catalogue Name	Name	Extincted Mag	RA $\alpha$ / Dec $\delta$	Comments
NGC 2422 M47		4.61	07:37:31 -14:31:48	Open cluster. Distance: 1,598 ly.
NGC 2477	Electric Guitar Cluster	5.97	07:52:53 -38:35:02	Open cluster. Distance: 3,986 ly.
NGC 2427 M46		6.31	07:42:42 -14:51:33	Open cluster. Distance: 5,545 ly.
NGC 2447 M93	Butterfly Cluster	6.39	07:45:22 -23:54:27	Open cluster. Distance: 3,588 ly.

## Sextans

	Rise	Culmination	Set
Highest Altitude	47°		
Direction	E	N	W
1 <sup>st</sup> Jan	23:01	05:06	11:14
15 <sup>th</sup> Jan	22:06	04:11	10:19
31 <sup>st</sup> Jan	21:03	03:08	09:16

Catalogue Name	Name	Extincted Mag	RA $\alpha$ / Dec $\delta$	Comments
NGC 3115	Spindle Galaxy	10.06	10:06:15 -07:49:06	Lenticular galaxy. 45° orientation angle.

## Taurus

	Rise	Culmination	Set
Highest Altitude	29°		
Direction	NE	N	NW
1 <sup>st</sup> Jan	18:25	23:15	04:06
15 <sup>th</sup> Jan	17:30	22:20	03:11
31 <sup>st</sup> Jan	16:27	21:17	02:08

Catalogue Name	Name	Extincted Mag	RA $\alpha$ / Dec $\delta$	Comments
M45	Pleiades Seven Sisters	1.63	03:48:13 +24:10:43	Open cluster. Distance: 444 ly.
NGC 1435	Merope Nebula	4.60	03:47:13 +23:57:43	Reflection nebula.
NGC 1647	Pirate Moon Cluster	6.69	04:47:07 +19:09:01	Open cluster.
NGC 1555	Hind's Nebula	6.81	04:23:09 +19:34:54	HII region. Distance: 3,262 ly.
NGC 1807	Poor Man's Double Cluster	7.26	05:11:59 +16:32:44	Open cluster.
NGC 1817	Poor Man's Double Cluster	7.96	05:13:26 +16:42:46	Open cluster.
NGC 1952 M1	Crab Nebula	8.71	05:35:45 +22:01:35	Supernova remnant. Orientation angle 90°. Distance: 6,524 ly.
NGC 1514	Crystal Ball Nebula	10.05	04:10:34 +30:49:41	Planetary nebula. Distance: 5,545 ly.
HD29139 SAO94027	* Aldebaraan α Tau	1.12	04:37:05 +16:32:54	Variable double star. Distance: 66 ly. Spectral type K5.

### Circumpolar

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### Carina

	Rise	Culmination	Set
Highest Altitude	Circumpolar, 72°		
Direction		S	
1 <sup>st</sup> Aug	-	04:14	-
15 <sup>th</sup> Aug	-	03:19	-
31 <sup>st</sup> Aug	-	02:16	-

Catalogue Name	Name	Extincted Mag	RA $\alpha$ / Dec $\delta$	Comments
IC 2602	Southern Pleiades	2.06	10:43:41 -64:30:19	Open cluster. Distance: 544 ly.
NGC 3532	Wishing Well Cluster	3.15	11:06:30 -58:51:41	Open cluster. Distance: 1,621 ly.
NGC 2516	Sprinter Cluster	4.02	07:58:24 -60:48:30	Open cluster. Distance: 1,128 ly.
NGC 3293	Gem Cluster	4.86	10:36:35 -58:20:03	Cluster with nebulosity.
NGC 3324	Keyhole Nebula	6.86	10:38:06 -58:44:47	Open cluster. Distance: 9,786 ly.

IC 2488	Strings of Pearl Cluster	7.85	09:28:14 -57:05:17	Open cluster.
IC 2714	The Rip-Torn Cluster	8.20	11:18:19 -62:50:32	Open cluster.
NGC 3576	Statue of Liberty Nebula		11:12:41 -61:24:45	HII region. Distance: 3,588 ly.
HD45348 SAO234480	* Canopus α Car	-0.28	06:24:24 -52:42:28	Star. Distance: 309 ly. Spectral type A9.

## Centaurus

	Rise	Culmination	Set
Highest Altitude	Circumpolar, 85°		
Direction		SW	
1 <sup>st</sup> Jan	-	08:51	-
15 <sup>th</sup> Jan	-	07:20	-
31 <sup>st</sup> Jan	-	06:17	-

Catalogue Name	Name	Extincted Mag	RA α / Dec δ	Comments
C 100 IC 2944	Running Chicken Nebula	4.79	11:39:17 -63:28:60	HII region. Distance: 5,852 ly.
NGC 3766	Pearl Cluster	5.60	11:37:15 -61:43:32	Open cluster. Distance: 5,692 ly.
NGC 5139	Omega Centauri Cluster	5.60	13:27:60 -47:34:56	Globular cluster. Distance: 15,788 ly.
NGC 5662	Gypsy Moth Cluster	5.69	14:37:04 -56:42:13	Open cluster.
NGC 5460		5.83	14:08:44 -48:26:12	Open cluster.
NGC 5281	Little Scorpion Cluster	6.11	13:48:00 -63:00:57	Open cluster.
NGC 5617	Dracula Cluster	6.49	14:31:14 -60:47:58	Open cluster.
NGC 5128	The Hamburger Galaxy	7.14	13:26:38 -43:07:20	Active lenticular galaxy. 42° orientation angle. Distance: 15 million ly.
NGC 5286		8.55	13:47:43 -51:28:23	Globular cluster. Distance: 35,882 ly.
NGC 3918	Blue Planetary Nebula	8.83	11:51:18 -57:17:36	Planetary nebula. Distance: 5,346 ly.
NGC 4945	The Tweezer Galaxy	9.59	13:06:38 -49:34:27	Active barred spiral galaxy. 43° orientation angle. Distance: 22 million ly.

HD128620	* Rigil Kentaurus α Cen	0.24	14:41:02 -60:54:04	Double star. Distance: 4.39 ly. Spectral type G2. Closest star to Earth.
	* Bidelman's Helium Variable Star	4.64	14:24:16 -39:36:05	Rotating variable star. Distance: 457 ly. Spectral type B2. Period: 8.8 days.

## Crux

	Rise	Culmination	Set
Highest Altitude	Circumpolar, 74°		
Direction	-	S	-
1 <sup>st</sup> Jan	-	07:21	-
15 <sup>th</sup> Jan	-	06:22	-
31 <sup>st</sup> Jan	-	05:23	-

Catalogue Name	Name	Extincted Mag	RA α / Dec δ	Comments
NGC 4755	Jewel Box Cluster	4.39	12:54:53 -60:28:20	Open cluster. Distance: 11,206 ly.
NGC 4609	Coalsack Cluster	7.08	12:43:31 -63:06:23	Open cluster. Distance: 3,989 ly.
NGC 4103	The Longtail	7.57	12:07:44 -61:21:48	Open cluster.
NGC 4349		7.58	12:25:16 -61:59:05	Open cluster.
NGC 4439		8.58	12:29:33 -60:12:45	Open cluster.
NGC 4052		8.97	12:02:15 -63:20:00	Open cluster.
NGC 4337		9.08	12:25:07 -58:13:47	Open cluster.
HD 108248 SAO 251904	* Acrux α Cru	1.43	12:27:45 -23:12:41	Double star. Distance: 321 ly. Spectral type B0.
HD 111123 SAO 240259	* Mimosa β Cru	1.44	12:48:56 -59:47:58	Pulsating variable double star. Distance: 353 ly. Spectral type B1. Period: 0.23 days.
HD 108903 SAO 240019	* Gacrux γ Cru	1.73	12:32:18 -57:13:37	Double star. Distance: 89 ly. Spectral type M3.
HD 106490 SAO 239791		2.92	12:16:14 -58:51:43	Pulsating variable star. Distance: 345 ly. Spectral type B2. Period: 0.15 days.
HD 107446 SAO 251862	* Ginan ε Cru	3.73	12:22:29 -60:30:46	Distance: 230 ly. Spectral type K3.

## Dorado

	Rise	Culmination	Set
Highest Altitude	73°		
Direction	-	S	-
1 <sup>st</sup> Jan	-	00:02	-
15 <sup>th</sup> Jan	-	23:06	-
31 <sup>st</sup> Jan	-	22:04	-

Catalogue Name	Name	Extincted Mag	RA $\alpha$ / Dec $\delta$	Comments
NGC 2070	Tarantula Nebula	7.39	05:38:34 -69:05:23	Cluster/nebula. Distance: 170,015 ly.
PGC 17223	Large Magellanic Cloud	1.04	05:23:25 -69:44:19	Barred spiral dwarf galaxy. Distance: 163,000x ly.

## Musca

	Rise	Culmination	Set
Highest Altitude	61°		
Direction	-	S	-
1 <sup>st</sup> Jan	-	07:16	-
15 <sup>th</sup> Jan	-	06:17	-
31 <sup>st</sup> Jan	-	05:18	-

Catalogue Name	Name	Extincted Mag	RA $\alpha$ / Dec $\delta$	Comments
NGC 4463		7.41	12:31:06 -64:54:08	Open cluster.
NGC 4833	The Southern Butterfly	8.00	13:00:57 -70:59:09	Globular cluster.
NGC 4815		8.85	12:59:18 -65:04:10	Open cluster.
NGC 4372		10.05	12:26:58 -72:46:18	Globular cluster.

## Pavo

	Rise	Culmination	Set
Highest Altitude	68°		
Direction	-	S	-
1 <sup>st</sup> Jan	-	14:22	-
15 <sup>th</sup> Jan	-	13:23	-
31 <sup>st</sup> Jan	-	12:24	-

Catalogue Name	Name	Extincted Mag	RA $\alpha$ / Dec $\delta$	Comments
NGC 6752	Pavo Globular Cluster	6.75	19:12:39 -59:56:57	Globular cluster. Distance: 13,048 ly.
NGC 6744		8.66	19:11:41 -63:49:22	Active barred spiral galaxy. Distance: 28.8 million ly.
HD 193924 SAO 246574	* Peacock $\alpha$ Pav	2.41	20:27:15 -56:40:03	Double star. Distance: 178 ly. Spectral type B3.

## Tucana

	Rise	Culmination	Set
Highest Altitude	73°		
Direction	-	S	-
1 <sup>st</sup> Jan	-	18:17	-
15 <sup>th</sup> Jan	-	17:22	-
31 <sup>st</sup> Jan	-	16:19	-

Catalogue Name	Name	Extincted Mag	RA $\alpha$ / Dec $\delta$	Comments
NGC 292	Small Magellanic Cloud	2.38	00:53:21 -72:41:24	Dwarf galaxy.
NGC 104	47 Tuc	4.27	00:24:59 -71:58:07	Globular cluster. Distance: 15,298 ly. Orientation angle: 73°.
NGC 362		6.75	01:03:55 -70:44:24	Globular cluster. Distance: 27,727 ly.

## Vela

	Rise	Culmination	Set
Highest Altitude	Circumpolar, 84°		
Direction		S	
1 <sup>st</sup> Aug	-	04:23	-
15 <sup>th</sup> Aug	-	03:28	-
31 <sup>st</sup> Aug	-	02:25	-

Catalogue Name	Name	Extincted Mag	RA $\alpha$ / Dec $\delta$	Comments
IC 2391	$\bullet$ (Omicron) Vel Cluster	2.83	08:41:06 -53:06:18	Open cluster. Distance: 574 ly.
NGC 3228	Queen's Cache Cluster	6.22	10:22:09 -51:49:45	Open cluster.
NGC 2669		6.43	08:46:57 -53:01:20	Open cluster.
NGC 2910		7.47	09:31:09 -53:00:31	Open cluster.
IC 2488	Strings of Pearl Cluster	7.65	09:28:14 -57:05:16	Open cluster.
NGC 2818		8.66	09:16:50 -36:42:42	Planetary nebula. Distance: 6,517 ly.
NGC 2736	Pencil Nebula		09:00:54 -46:01:45	HII region.
HD68273 SAO219504	* Regor $\gamma$ Vel	2.24	08:10:09 -47:23:48	Double star. Distance: 1,116 ly. Spectral type WC 8.
HD78647 SAO220878	* Suhail $\lambda$ Vel	2.58	09:08:44 -43:30:51	Pulsating variable double star. Distance: 544 ly. Spectral type K4.