

Novice Observing Programme - New Astronomers' Group

I have found many (not all) members joining the New Astronomers' Group have a limited experience observing the night sky. Most have a desire to start finding objects with a telescope and learn constellations. At least enough to stand under a night sky and start making sense of it all. The New Astronomers' Group has established this observing programme to help new members get started.

There are two levels:

Novice: Learning the brightest 36 stars in our night sky and their constellations.

Rookie: A small & diverse collection of deep sky objects easily found with a first telescope.

Novice - 36 Brightest Stars

The aim of the Novice programme is to teach you the basics skills of naked eye and binocular observing. Such as using red torch (for night vision) how to read an sky maps wether they be an horizon map, constellation chart, planisphere, or an app on your device. By actively seeking out the 36 brightest stars of the night sky you will be introduced to vast tracts of the night sky. Along the way you will pick-up the procession of constellations through the seasons. Except for a few clusterings (like Orion & Crux) most of the 36 brightest stars are spread across the sky. Found both high in the sky and low to the horizon you will learn about rising & setting behaviors. Some 15-20 are always above the local horizon (circumpolar). By taking note of the surrounding star patterns (constellations) the night sky will hopefully start becoming familiar after a while. These are essential skills to kick start any budding amateur astronomer.



Despite living in the modern age we all refer to oldest constructs to navigate the night sky, the Constellations. Take time to master this Novice task as it will make your future observing much easier. Once you can recognise a few constellations I recommend you start working on the Rookie observing programme at the same time. If you don't own a telescope binoculars will do. Consider applying for an ASV loan telescope if you don't have your own.

Learning your way around the brightest stars can be done with simple equipment like a red torch, chart or planisphere. An app on your phone or , tablet (like Stellarium) offers additional help via an interactive experience. A simple pair of binoculars will show you some stars are actually double, enhance subtle star colours, and reveal any bright Deep Sky Objects (DSOs) lurking nearby. Remembering where every night sky object is impossible. Typically an amateur astronomer consults a chart, star atlas or whatever you've mustered. Next step is to find the constellation shape. Once you've orientated which direction to head you can star hop from brighter to fainter stars, all the time getting closer to the nearby deep sky object you seek. Completing this Novice task requires a tea spoon of effort and a cup-full of persistence. It will stand you in good stead as you explore further.

Monthly notes will review a few stars each month, the constellations they are in, with nearby objects of interest. Included is a Tip Of The Month (TOTM) to help teach you new skills like: finding bright stars, working out constellation shapes, using a red torch, reading different types of charts, enhancing your view with binoculars, with some some mythology and other stories thrown in. Use the task sheet (next page) to keep track and evaluate your progress. I hope that learning 36 stars generate it's own rewards. There are many worthy night sky treasures.

I would like to thank my helpers Stephen Howell & Greg Whelan for there assistance in creating the Novice notes.



New Astronomers' Group

36 of the Brightest Stars

Novice Observing Programme

Your Name:-

Date started:- / /

Date Finished:- / /

STAR	Magnitude	Type	Designation	Notes review	10pm Viewing	RA	Dec	Date Obs	Your Notes
Alpheratz	2.10	**	Alpha Andromeda	October	Oct-Dec	00 08 22	+29 05 25	/ /	
Achernar	0.45	*	Alpha Eridanus	February	Jul-Mar	01 37 42	-57 14 00	/ /	
Aldebaran	0.87	*	Alpha Taurus	November	Dec-Mar	04 35 55	+16 30 33	/ /	
Rigel	0.15	**	Beta Orion	January	Nov-Mar	05 14 32	-08 12 00	/ /	
Capella	0.08	*	Alpha Auriga	December	Jan-Feb	05 16 40	+45 59 30	/ /	
Bellatrix	1.64	*	Gamma Orion	January	Nov-Mar	05 25 07	+06 20 59	/ /	
El Nath	1.65	*	Beta Taurus	November	Dec-Mar	05 26 17	+28 36 27	/ /	
Alnilam	1.69	*	Epsilon Orion	January	Nov-Mar	05 36 12	-01 12 07	/ /	
Betelgeuse	0.50	*	Alpha Orion	January	Nov-Mar	05 55 09	+07 24 30	/ /	
Canopus	-0.74	*	Alpha Carina	February	Oct-Apr	06 23 54	-52 41 30	/ /	
Sirius	-1.44	**	Alpha Canis Major	January	Nov-Apr	06 45 09	-16 42 54	/ /	
Adhara	1.50	**	Epsilon Canis Major	January	Nov-May	06 58 37	-28 58 20	/ /	
Castor	1.58	**	Alpha Gemini	March	Jan-Apr	07 34 36	+31 53 00	/ /	
Procyon	0.38	**	Alpha Canis Minor	January	Dec-Apr	07 39 18	+05 13 00	/ /	
Pollux	1.15	*	Beta Gemini	March	Jan-Apr	07 45 18	+28 01 34	/ /	
Regor	1.78	*	Gamma Vela	June	Dec-May	08 09 50	-47 20 00	/ /	
Miaplacidus	1.67	*	Beta Carina	June	Jan-Jun	09 13 12	-69 42 02	/ /	
Alphard	2.00	**	Alpha Hydra	April	Jan-May	09 27 35	-08 39 30	/ /	
Regulus	1.36	**	Alpha Leo	April	Feb-May	10 08 22	+11 58 00	/ /	
Acrux	0.74	**	Alpha Crucis	May	Jan-Aug	12 26 35	-63 05 56	/ /	
Gacrux	1.63	*	Gamma Crucis	May	Jan-Aug	12 31 09	-57 06 47	/ /	
Mimosa	1.26	*	Beta Crucis	May	Jan-Aug	12 47 43	-59 41 19	/ /	
Spica	0.98	*	Alpha Virgo	March	Mar-Aug	13 25 10	-11 09 30	/ /	
Hadar	0.61	**	Beta Centaurus	June	Mar-Sep	14 03 49	-60 22 22	/ /	
Arcturus	-0.05	*	Alpha Bootes	April	Apr-Jun	14 15 39	+19 11 00	/ /	
Alpha Centauri	-0.28	***	Alpha Centaurus	June	Feb-Sep	14 39 36	-60 50 00	/ /	
Antares	0.96	**	Alpha Scapius	August	Apr-Sep	16 29 30	-26 25 00	/ /	
Atria	1.92	*	Alpha Triangulus	July	Oct-Jan	16 48 39	-69 01 40	/ /	
Shaula	1.62	*	Lambda Scorpius	August	Apr-Nov	17 33 36	-37 06 13	/ /	
Rasalhague	2.10	*	Alpha Ophiuchus	September	May-Sep	17 34 55	+12 33 30	/ /	
Kaus Australis	1.85	*	Epsilon Sagittarius	August	Apr-Oct	18 24 03	-34 23 03	/ /	
Vega	0.03	*	Alpha Lyra	July	Jul-Sep	18 36 56	+38 47 00	/ /	
Altair	0.76	*	Alpha Aquilas	July	Jun-Oct	19 50 46	+08 52 00	/ /	
Deneb	1.25	*	Alpha Cygnus	July	Aug-Sep	20 41 25	+45 16 48	/ /	
Fomalhaut	1.16	*	Alpha Picis Austrinius	September	Jul-Jan	22 57 39	-29 37 00	/ /	
Markab	2.49	*	Alpha Pegasus	October	Aug-Dec	23 04 45	+15 12 19	/ /	

* Single, ** Double, or *** Triple star

Data extracted using Deep Sky software

Prepared by Ken LeMarquand, Section Director, NAG

NAG hand-outs review each star, constellation, nearby objects.

[Printing tip:- Set page to Landscape]

Find out more at:- <http://www.asvnag.info>

Space will be provided for detailed observation notes in the handouts.

Astronomical Society of Victoria Inc

Columns for seeing conditions, equipment used, magnification, sky conditions have been purposely omitted as naked eye 1st and 2nd magnitude star observations don't need this