



NRC Publications Archive Archives des publications du CNRC

More Christmas stuff

Tapping, Ken

This publication could be one of several versions: author's original, accepted manuscript or the publisher's version. / La version de cette publication peut être l'une des suivantes : la version prépublication de l'auteur, la version acceptée du manuscrit ou la version de l'éditeur.

For the publisher's version, please access the DOI link below. / Pour consulter la version de l'éditeur, utilisez le lien DOI ci-dessous.

Publisher's version / Version de l'éditeur:

<https://doi.org/10.4224/23000199>

Skygazing: Astronomy through the seasons, 2014-12-09

NRC Publications Record / Notice d'Archives des publications de CNRC:

<https://nrc-publications.canada.ca/eng/view/object/?id=dcfa235b-340c-4ce3-9dfc-9c7a66c3ebab>

<https://publications-cnrc.canada.ca/fra/voir/objet/?id=dcfa235b-340c-4ce3-9dfc-9c7a66c3ebab>

Access and use of this website and the material on it are subject to the Terms and Conditions set forth at

<https://nrc-publications.canada.ca/eng/copyright>

READ THESE TERMS AND CONDITIONS CAREFULLY BEFORE USING THIS WEBSITE.

L'accès à ce site Web et l'utilisation de son contenu sont assujettis aux conditions présentées dans le site

<https://publications-cnrc.canada.ca/fra/droits>

LISEZ CES CONDITIONS ATTENTIVEMENT AVANT D'UTILISER CE SITE WEB.

Questions? Contact the NRC Publications Archive team at

PublicationsArchive-ArchivesPublications@nrc-cnrc.gc.ca. If you wish to email the authors directly, please see the first page of the publication for their contact information.

Vous avez des questions? Nous pouvons vous aider. Pour communiquer directement avec un auteur, consultez la première page de la revue dans laquelle son article a été publié afin de trouver ses coordonnées. Si vous n'arrivez pas à les repérer, communiquez avec nous à PublicationsArchive-ArchivesPublications@nrc-cnrc.gc.ca.



MORE CHRISTMAS STUFF

Ken Tapping, 9th December, 2014

The sheer range of things available for backyard astronomy has grown enormously. However, the space here for writing about it has not, so we will stick to some of the tried and true items. If the family astronomer is a bit beyond the beginner stage, you will need those hints that should have been dropped over the last month or so.

Once again, although there are smart phone apps and software equivalents, a planisphere is a good idea. These things consist of two plastic (never get cardboard ones) discs with a rivet through the centre so that one disc can be rotated over the other. There is a window on the upper disc through which one can see part of the star map printed on the lower one. Set the date and local standard time on the scales around the disc edges and the window will show what constellations are in the sky at that time. Make sure you get the one within 5 degrees of your latitude. For Ottawa, Toronto and Montreal, 45 degrees would be good, for Penticton and Vancouver 50 degrees. These gadgets are not sophisticated, do not need batteries, but last forever and don't mind a bit of water or mud. Science stores stock these, as do some book stores. You can buy them on the web.

The "Observer's Handbook", published yearly by the Royal Astronomical Society of Canada is a must for anyone interested in astronomy. In addition to showing the sky month by month, with listings of all astronomical events and where to find the planets, there is a wealth of useful information, all in one book. Science stores often carry it; as do some book stores, or, go to the RASC website.

There are lots of computer programs out there for looking at the sky for anywhere and anywhen. Most are highly sophisticated. However, for general use "Stellarium" is a lovely program. Moreover, it is free, and versions for Windows, Mac and Linux are available. Just go to the site and download it. The sky animations are beautiful. Click an object and information appears. Zoom in and see things close up.

On the magazine front: "Sky and Telescope" is for moderately serious astronomers. "Astronomy" and "Skynews" are for those with a more general astronomical interest. "Skynews" is a Canadian astronomy magazine, and is oriented towards Canadian observers. Books you might consider are "The Backyard Astronomer's Guide", by Terence Dickinson and Alan Dyer and "Nightwatch", by Terence Dickenson.

There is room here to squeeze in a little bit more about telescopes. What a telescope will do is primarily set by the diameter of the objective mirror or lens. For refracting telescopes, which use lenses as objectives, an objective diameter of 75mm or more is recommended. Reflecting telescopes have objective mirrors. Since they require hardware installed in front of the mirror, which blocks some of the light, a mirror of 150mm or larger would be good. Avoid department store telescopes, especially if the box boasts magnifications of 400 times and so on. In general a maximum magnification of two times the diameter of the objective is the practical maximum. A 75mm objective offers a maximum magnification of 150 times; more than that just magnifies the blur. If a telescope offers 400 times magnification, it should have a diameter of 20cm. This is a matter of Mother Nature; there is no way around it. If the telescope looks like a hi-tech wonder, imagine trying to use in the dark. Another give-away is the diameter of the eyepiece holder. To get different magnifications or to do different observations you change eyepieces. There are two standard diameters, 1.25 inches and 2 inches. Don't consider anything using other sizes. Once again, the best place to start is the local science store, otherwise, contact your local astronomical society.

Jupiter rises around 10 pm. Mars stays low in the sunset twilight. Saturn lies low in the dawn glow. The Moon will reach Last Quarter on the 14th.

Ken Tapping is an astronomer with the National Research Council's Dominion Radio Astrophysical Observatory, Penticton, BC, V2A 6J9.

Tel (250) 497-2300, Fax (250) 497-2355

E-mail: ken.tapping@nrc-cnrc.gc.ca

