



The Royal Astronomical Society of Canada
Dedicated to the advancement of astronomy and allied sciences



Star Finder Proposal For IAY2009 Celebrations

Submitted by RASC Education Committee
Project Leader Ron Macnaughton

In 2009, tens of thousands of Canadians will contact members of the Royal Astronomical Society of Canada. With the publicity of the 400th anniversary of Galileo's first telescope discoveries, more people than usual will participate in public observing sessions; many teachers will ask RASC members to visit classrooms; friends will ask more questions. The International Year of Astronomy will be busy.

The Education Committee is looking at strategies to help people go from the "**Wow!** is Saturn beautiful through a telescope" stage to interest in learning more about the heavens and perhaps taking up astronomy as a hobby or career. It is especially important to motivate young people about space, which is part of the RASC mandate.

It is proposed to design and make something to hand out to participants at these sessions.

A **Star Finder** (simpler name than a planisphere) allows the user to see the pattern of the stars at any date and time. The proposed design consists of two parts printed on stiff paper:

- ★ a circular star map with dates of the year around it
- ★ a holder with times as well as a cutout oval shape.

When the user turns the star map so the date matches the time of observation, the area in the oval shows the stars above at that time. The edges of the oval are labelled "Northern horizon, Eastern horizon" etc. The stars overhead are at the centre of the oval.

Users can identify various constellations, some stars, and find some Messier objects with binoculars. In addition, the Star Finder would let users find planets for the next few years. If funding is available, updated versions could be made in future years, or a link made to the RASC website to include the newer information.

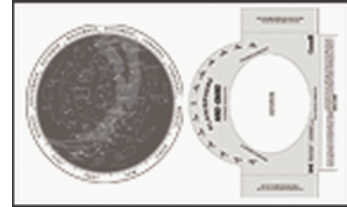
It's proposed to design it for latitude 49 degrees, the approximate median latitude of the Canadian population.



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The design would be posted on the RASC website so anyone could print out copies. That would be especially useful for educators; Star Finders are a useful resource for teaching astronomy.

A similar design is posted at
http://www.rasc.ca/im/education/Edu_Planisphere.pdf.



This design has been used for years for grade 9 high school science programs. A student mentioned that she took her copy with her when her family went camping in Northern Ontario. Everyone enjoyed finding bright stars- years after she finished her the science class.

The design will be finalized by RASC members in the spring and summer of 2008. It is also intended to produce a French language version .

Printing companies have been asked for a quote to:

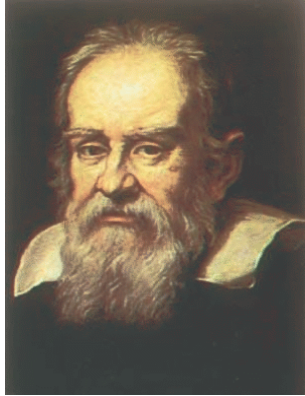
- ▶ Print and cut out 30,000 round star maps on card stock
- ▶ Print cut out and score 30,000 holders on similar paper
- ▶ Pack and count into boxes with labels for the RASC centres of Canada
- ▶ We would ship them although some would be hand delivered for cost savings.

During public viewing sessions or school visits, they can be handed out. All that's needed for a working Star Finder is making 3 folds along scored lines and putting the circular star map in the holder. It's a also a good idea to tape the holder.

Three printing companies provided quotes for this job. The best price for printing, from PrintThree on Dixon Road Toronto, Ontario, \$8370 (excluding taxes and other costs) is listed below. A colour version may be kept by the public and used more; however, there is a significant increase in price.

The text on the front and back of the Star Finder will have much information (and links to websites) on issues such as:

- ★ - joining an astronomy club
- ★ - buying a telescope
- ★ - light pollution



The goal is to provide a bridge to help participants at public viewing sessions and school visits to develop a deeper interest in astronomy. It is hoped that future generations will continue to get excited by astronomy, following a path Galileo started 400 years ago.

Pricing and Timeline

Amount Printed	Cost of Printing (B/W)	French Translation	Shipping	Total Cost (excluding taxes)
30,000	\$8370.00	\$300.00	\$500.00	\$9170.00

Timeline	Activity	Volunteer Hours
Spring / Summer 2008	Final preparations and design layout of the Star Finder	Project Leader- Ron Macnaughton 30-35 hours Education Committee 5 hours
Late summer 2008	Printing, packing into boxes	
Fall 2008	The 29 centres of the RASC receive boxes of Star Finders, ready to hand out at public viewing sessions and school visits during the International Year of Astronomy	Hundreds of hours by RASC members at centres across the country at public viewing sessions and school visits.