

**On the cover:** The Orion Nebula is among this season's top deep-sky attractions. It's also the highlight of this month's Suburban Star-Hop, on the back of our foldout star chart. This spectacular portrait comes from Austrian amateur Johannes Schedler, more of whose fine work is displayed on page 88.

### FEATURES

#### 22 The Exoplanet and the Amateurs

Backyard observers help pin down a distant world's nature.  
*By Robert Naeye*

#### 24 The Astounding Comet Holmes

An obscure comet beyond Mars exploded into view last October, giving skygazers an unexpected treat.  
*By John E. Bortle*

30



#### 30 Le Verrier and the Discovery of Sirius B

There was more to the discovery of Sirius's white-dwarf companion, now becoming visible again, than is usually told.  
*By Jay B. Holberg*

#### 68 February's Ideal Eclipse of the Moon

A planet-studded total lunar eclipse, and the last one until 2010, occurs high in a dark sky on February 20th.  
*By Alan MacRobert*

#### 88 The Time-Travel Project

Two amateurs reach back in time — way back — to photograph the young universe.  
*By Johannes Schedler*



### THIS MONTH'S SKY

#### 51 February 2008 Sky at a Glance

#### 52 Northern Hemisphere's Sky

All Roads Lead from Orion  
*By Fred Schaaf*

#### 54 Binocular Highlight

The Pleiades: Messier's Best  
*By Gary Seronik*

### COVER STORY

#### Suburban Star-Hop

55 Swordplay in the South  
*By Ken Hewitt-White*

#### 57 Southern Hemisphere's Sky

*By Greg Bryant*

#### 58 Sun, Moon, and Planets

Eclipses and Close Encounters  
*By Fred Schaaf*

#### 65 Exploring the Moon

Rilles of Mystery  
*By Charles A. Wood*

#### 72 Celestial Calendar

Catching Crescent Moons in 2008  
*By Roger W. Sinnott*

#### 74 Deep-Sky Wonders

Starry Nights  
*By Sue French*



24

IVAN EDER



104

PETER BABKITT'S

## S&T TEST REPORT

### 34 iOptron's Capable Cube

For surprisingly little money, you can get a well-functioning, portable, computerized drive on a sturdy stainless-steel tripod.

By Gary Seronik



GARY SERONIK

34

## ALSO IN THIS ISSUE

### 10 Spectrum

Countdown to 2009

By Richard Tresch Fienberg

### 12 Letters

### 16 Skyscape

An Extreme Star Cluster

### 18 News Notes

### 19 Mission Update

By Jonathan McDowell

### 20 50 & 25 Years Ago

By Leif J. Robinson

### 38 New Product Showcase

### 42 Books & Beyond

### 44 Astronomy Online

Reaching Out

By Stuart J. Goldman

### 47 Rambling Through the Skies

Driving at Night

By E. C. Krupp

### 78 Star Trails

The Accidental Comet

By David H. Levy

### 81 Event Calendar

Save the Date

By Katherine Curtis

### 84 Telescope Workshop

A Great Big Yolo

By Gary Seronik

### 86 Hobby Q&A

### 92 Gallery

### 104 Focal Point

Teenage Girl Beats Hubble!

By Gil McFarlane



You'll find bonus material for many *Sky & Telescope* articles online. Visit [SkyandTelescope.com/skytel](http://SkyandTelescope.com/skytel) for links. And see page 14 to learn about our Moon calculator, our online advertiser directory, and other special features of our website.



KEITH B. QUATTROCCHI

92

SKY & TELESCOPE (ISSN 0037-6604) is published monthly by New Track Media LLC, 90 Sherman St., Cambridge, MA 02140-3264, USA. Phone: 800-253-0245 (customer service), 617-864-7360 (all other calls). Fax: 617-864-6117. Our website: [SkyandTelescope.com](http://SkyandTelescope.com). © 2007 New Track Media LLC. All rights reserved. Periodicals postage paid at Boston, Massachusetts, and at additional mailing offices. Canada Post Publications Mail sales agreement #40029823. Canadian return address: 2744 Edna St., Windsor, ON, Canada N8Y 1V2. Canadian GST Reg. #R128921855. POSTMASTER: Send address changes to *Sky & Telescope*, PO Box 420235, Palm Coast, FL 32142. Printed in the USA.



81

SET: ROGER SINNOTT