



**On the cover:**  
Space artist Don Dixon portrays a hypothetical exoplanet that is not much larger than Earth (as seen from a low orbit).

## FEATURES

### 22 NASA's New Airborne Observatory

Flown on a Boeing 747, SOFIA will carry infrared astronomy to new heights.

By Luke Keller and Jürgen Wolf

### 30 The Hunt for Super-Earths

Astronomers are finding and studying worlds just a little larger than ours.

By Sara Seager

### 60 Asteroid Maven

An award-winning amateur astronomer experiences the joy of discovery by helping to reveal some of the asteroid belt's best-kept secrets.

By Robert Stephens

### 72 Beneath the Shroud of Venus

With careful planning, amateurs can map the surface of our nearest neighbor.

By Daniele Gasparri

SKY & TELESCOPE (ISSN 0037-6604) is published monthly by Sky & Telescope Media, LLC, 90 Sherman St., Cambridge, MA 02140-3264, USA. Phone: 800-253-0245 (customer service/subscriptions), 888-253-0230 (product orders), 617-864-7360 (all other calls). Fax: 617-864-6117. Website: SkyandTelescope.com. © 2010 Sky & Telescope 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 171, Winterset, IA 50273. Printed in the USA.

## THIS MONTH'S SKY

### 42 Northern Hemisphere's Sky

By Fred Schaaf

### 43 October's Sky at a Glance

### 45 Binocular Highlight

By Gary Seronik

### 46 Planetary Almanac

### 48 Sun, Moon, and Planets

By Fred Schaaf

### 51 Exploring the Moon

By Charles A. Wood

### 56 Celestial Calendar

By Alan MacRobert

### 66 Deep-Sky Wonders

By Sue French

## S&T TEST REPORT

### 38 Megapixel Imaging for Less: SBIG's ST-8300M CCD Camera

Don't be fooled by the price; this camera is built for serious deep-sky imaging.

By Dennis di Cicco

### 41 Quick Look: William Optics FLT-98 Apo Refractor

By Dennis di Cicco

## ALSO IN THIS ISSUE

### 6 Spectrum

By Robert Naeye

### 8 Letters

### 10 75, 50 & 25 Years Ago

By Leif J. Robinson

### 14 News Notes

### 54 New Product Showcase

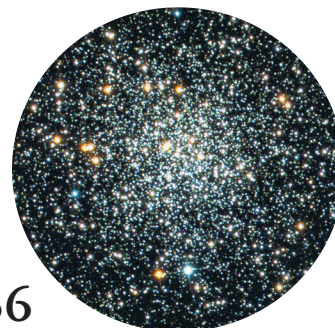
### 70 Telescope Workshop

By Gary Seronik

### 76 Gallery

### 86 Focal Point

By Michael Baruzzini



66

JOSEF PÖPSEL / STEFAN BINNEWIES / RAINER SPARENBERG



Find us on  
Facebook & Twitter



22

NASA/TOM TSCHIDA