

On the cover: Astronaut Jeffrey Hoffman poses during the first Hubble Space Telescope servicing mission, in December 1993. See page 26 for our report on the final servicing mission.

FEATURES

22 **A Martian Wonderland**

Scientists are racing to learn as much as they can with the Phoenix lander before Martian winter arrives.

By J. Kelly Beatty

26 **Fixing Hubble One Last Time**

COVER STORY

The beloved space observatory is due for a final service call by astronauts. If all goes well, Hubble will be the best it has ever been.

By J. Chris Blades

32 **Touching the Stars Without Leaving Home**

Hunting and collecting meteorites is a way you can own ancient material from outer space.

By Ruben Garcia and Geoffrey Notkin

80 **Improving Your DSLR Photos**

More exposure and careful calibration are the keys to great astrophotography.

By Jerry Lodriguss



NASA

THIS MONTH'S SKY

47 **October 2008 Sky at a Glance**

48 **Northern Hemisphere's Sky**

Summer's Swan Song
By Fred Schaaf

50 **Binocular Highlight**

Planetary Nebula M27
By Gary Seronik

51 **Suburban Star-Hop**

Coy Cluster in Capricornus
By Ken Hewitt-White

53 **Southern Hemisphere's Sky**

By Greg Bryant

54 **Sun, Moon, and Planets**

Venus and Jupiter Light the Dusk
By Fred Schaaf

63 **Exploring the Moon**

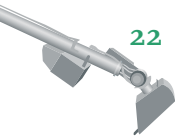
A Swim in Mare Humorum
By Charles A. Wood

67 **Celestial Calendar**

October Meteors
A Mira in Lyra
East Coast Asteroid Occultation
By Alan MacRobert

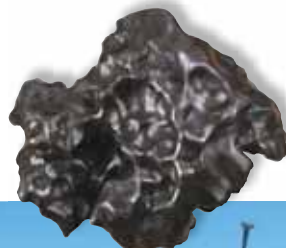
71 **Deep-Sky Wonders**

Arion's Dolphin
By Sue French



80

JERRY LODRIGUSS



32



CINDY JOHNSON / RUBEN GARCIA

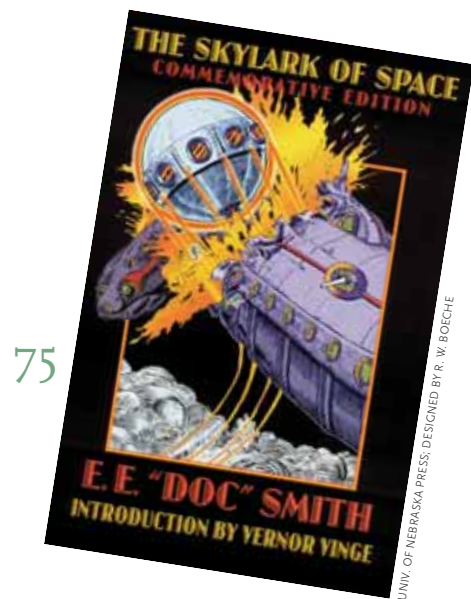
S&T TEST REPORT

- 38 Following the Stars**
Photographing the night sky with your DSLR is a breeze with the AstroTrac TT320 Mount.
By Gary Seronik



ALSO IN THIS ISSUE

- 10 Spectrum**
Taking the Helm
By Robert Naeye
- 12 Letters**
- 14 75, 50 & 25 Years Ago**
By Leif J. Robinson
- 16 News Notes**
- 18 Mission Update**
By Jonathan McDowell
- 42 New Product Showcase**
- 44 Books & Beyond**
- 75 Rambling Through the Skies**
Space Opera
By E. C. Krupp
- 78 Telescope Workshop**
Baffle Your Scope's Focuser
By Gary Seronik



75

- 84 Gallery**
- 96 Focal Point**
Game Plan
By Thomas T. Watson

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. © 2008 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.

ON THE WEB

SAVING DARK SKIES
SkyandTelescope.com/darksky

SEARCHING FOR LIFE
SkyandTelescope.com/SETI

SHOOT THE SKY
SkyandTelescope.com/astrophotography



SATELLITE TRANSIT TRACKER

WATCH CLOSE ENCOUNTERS
Our new Satellite Transit Tracker will help you know when the International Space Station will be visible overhead — and we'll alert you if it or other spacecraft come close to the Sun, Moon, or a planet. Plan for spectacular astrophotos or just enjoy seeing two ships pass in the night (or day).
SkyandTelescope.com/javascript



NEWS IN YOUR INBOX

STAY "IN THE KNOW"
Every Friday we e-mail our Weekly Bulletin — a digest of the latest content posted to the website. You'll find observing highlights, engaging scientific news, product information, and much more. Best of all, it's completely free. Sign up today.
SkyandTelescope.com/newsletters

GET STARTED IN ASTRONOMY
Our beginner's department, Let's Go Stargazing, has entry-level articles for people getting started in the hobby, or for those who are looking to brush up on the basics.
SkyandTelescope.com/letsgo