

The quarterly magazine of the SPA  
October-December 2003

# Popular Astronomy

Eclipses of the future  
George Hole  
Manchester's centenary  
White spot on Saturn  
Algarve astronomy  
Impact in Siberia  
• Guide to galaxies  
10 great observers

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# Popular Astronomy

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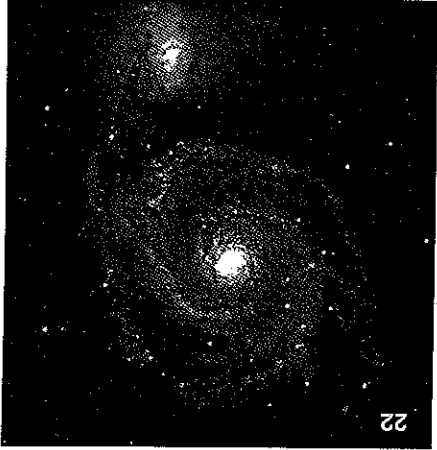
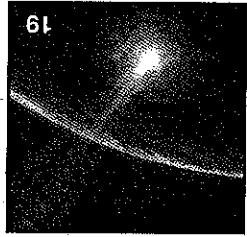
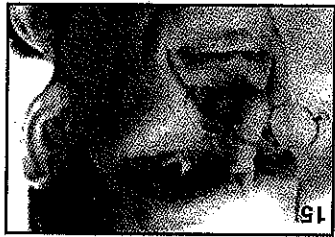
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Cover: This wonderful view of the Andromeda Galaxy is a mosaic of 40 images taken by US amateur Robert Gendler using a 12.5-inch Ritchey Chretien Cassegrain telescope and a ST10XME CCD. See [www.robgendlerastro.com/](http://www.robgendlerastro.com/) more of Robert's images at:

## Features

- 7 50 years of solar eclipses Jon Harper
- 9 Brighton's bright star Mike Feist
- 15 Hay's white spot Peter Grego
- 17 Algarve astronomy experiences Mehryar Noorifar / Ian Birrell
- 19 Stealth bombing Stephen Anderson
- 22 Galaxies come in all shapes and sizes Jeffrey Barham
- 24 Astronomical observers—a top 10 Paul Stephens



## Regulars

- 4 From the Editor Peter Grego
- 5 AstroNews Alan Longstaff
- 12 Amateur Scene Peter Wade
- 21 Showcase: Mars attracts Andy Salmon
- 27 Space Exploration
- 29 Reviews
- 31 Letters
- 34 The Society Pages Lee Macdonald
- 36 SPA Members' Discounts
- 37 Autumn Stars
- 38 Constellation of the Season: Cetus
- 38 Deep Sky Notes: IC an NGC Dave Fletcher
- 39 Sky Diary Peter Grego
- 42 SPA Information Marjorie Sperinck / John N Brown
- 43 Glorious Universe



# Algarve astronomy experiences

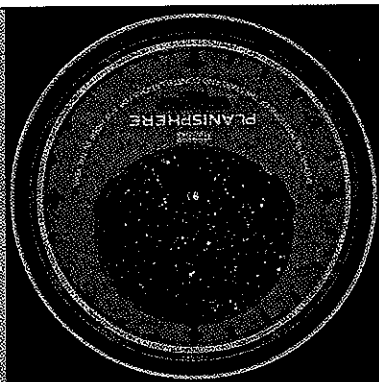
An increasing number of amateur astronomers are holidaying under dark skies abroad. MEHRVAR NOORJAFSHAR and IAN BIRRELL describe their experiences in the Algarve

**D**URING the first half of 2003, I took one semester as sabbatical leave from my university (USQ) in Australia. As part of my sabbatical, I had the opportunity of spending about five weeks at US and European universities as a visiting scholar. I was offered visiting positions at the University of Texas, Murray State University (Kentucky) and the Universidade do Minho (Portugal). During my stay at these universities, I gave guest lectures to both undergraduate and postgraduate students. I was invited to participate and address meetings on online implementation of courses and give formal talks based on my research and work in the use of technology in teaching and learning.

To take a little break from the university work, I visited the Centre for Observational Astronomy in the Algarve (COAA). My geographical closeness to the COAA created an ideal opportunity for me to spend a weekend on another scholarly field in a more relaxing manner. COAA is located in the Algarve region of southern Portugal, where observing conditions are exceptionally favourable. COAA's large telescopes and the highly skilled and knowledgeable owner/manager's assistance make it an ideal place to carry out research in astronomy. COAA is run by an English couple, Bev and Ian Ewen-Smith.

After staying at so many hotels and motels in the United States and Europe, it was a delight to spend a brief time at the homely environment of COAA. Although I quite enjoyed the American coffee and was getting addicted to the Portuguese coffee, it was so nice to have my first cup of tea with real milk in a proper cup. I also enjoyed my close encounter with Phobos and Deimos—the cute black and white cats on site.

Being a southern hemisphere resident, I was very anxious to see the constellation of Ursa Major from various locations in the United States and Europe. Unfortunately, I was unsuccessful due to either overcast skies or the light pollution. Finally, on 21 March 2003, which was the first day of spring in the northern hemisphere and the beginning of the New Year according to the ancient Persian calendar, I observed this northern constellation for the first time.



## WIN A PHILIP'S PLANISPHERE

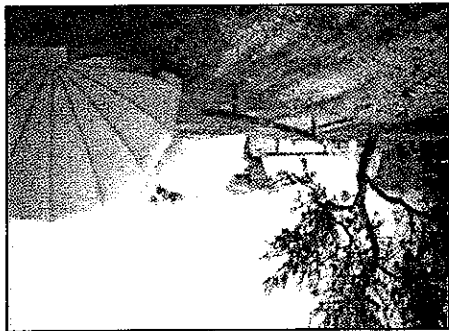
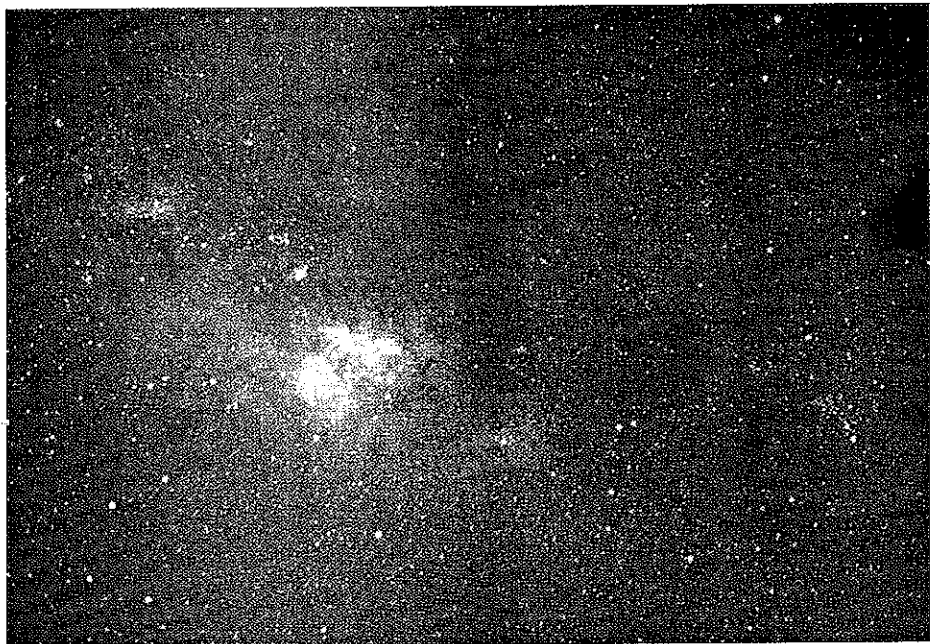
Phillip's have generously given *Popular Astronomy* five 25 cm diameter planispheres (worth £9.99) to offer as prizes. The planispheres can be used for latitude 32° North (USA, Middle East, North Africa, the Canary Islands and southern Japan). To see the full range of superb Phillip's products—reference books, atlases, maps and globes—visit their website at [www.phillips-maps.co.uk](http://www.phillips-maps.co.uk). Question: Of the constellations Sagittarius, Scorpius and Crux, which is the most southerly? To enter, send your answer to the editor by regular mail only (letter or postcard) and state your name, address and SPA membership number. The winners will be the first five correct answers received by the editor.

### Mehrvar Noorjafshar

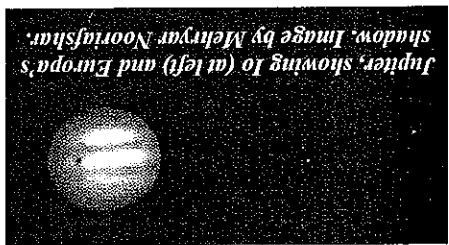
My visit to COAA complemented my sabbatical trip nicely. It was a great experience.

I also had the opportunity of observing and capturing images of some well-known galaxies (such as M51, the Whirlpool) in and around the Ursa Major. The most exciting part of my observation was witnessing the shadow of Europa on the Jovian cloud tops as we were observing Jupiter using the 0.5-metre Newtonian. I just could not resist the offer of staying up a little bit longer and capturing the transit as an animation! Jupiter's innermost moon Io can be seen to the left of the planet. Another moon, Europa, is just ending its transit across the face of Jupiter at the left edge of the planet's disk. The shadow of Europa on the Jovian cloud tops is conspicuous as a black dot to the right of centre between the northern and southern equatorial cloud belts. Just above and to the left of Europa's shadow lies the Great Red Spot which is an orange oval indentation in the southern edge of the southern equatorial belt.

The Milky Way in the vicinity of the galactic centre in Sagittarius. The galactic centre rises 22° above the southern horizon from the Algarve. Image by Nik Szymanek (from Hawaii) using a Nikon FM2n SLR, 28mm Vivitar lens. Kodak Ektachrome 200 ISO film, 20 minute exposure.



The domes of COAA house a 500 mm f/4.5 Newtonian on a driven equatorial mount and a three 300 mm f/5 Newtonians, one on a driven equatorial, the others on Dobsonians.



Jupiter, showing Io (at left) and Europa's shadow. Image by Mehrvar Noorjafshar.