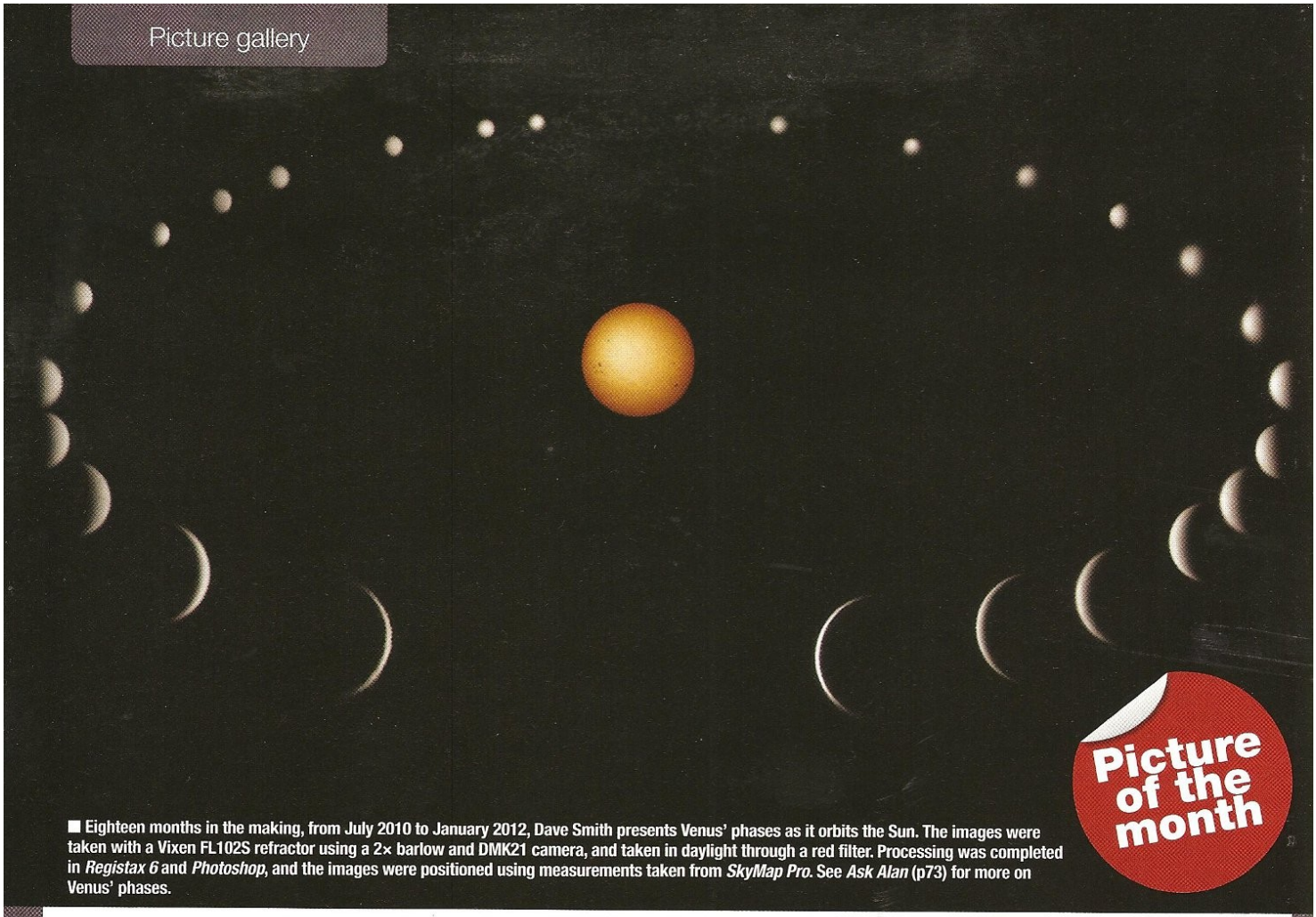
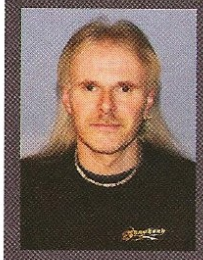


Picture of the month

■ Eighteen months in the making, from July 2010 to January 2012, Dave Smith presents Venus' phases as it orbits the Sun. The images were taken with a Vixen FL102S refractor using a 2× barlow and DMK21 camera, and taken in daylight through a red filter. Processing was completed in *Registax 6* and *Photoshop*, and the images were positioned using measurements taken from *SkyMap Pro*. See *Ask Alan* (p73) for more on Venus' phases.

NIK SZYMANEK SAYS...



Planetary imaging has come on in leaps and bounds over the last few years and we are used to seeing many amazing shots, particularly of Jupiter and Saturn. Leading imagers routinely capture exquisite detail in the atmospheres of the gas giants as well as on the discs of the Galilean moons. The red planet Mars is harder to image successfully because of its smaller size and Venus keeps her secrets well-hidden behind a bland covering of opaque clouds. Recent advances in planetary imaging, such as high-speed astronomical webcams and the popular ultraviolet filter, make it possible to capture elusive large-scale cloud markings on Venus but it will never be possible to capture any surface details from that most-inhospitable of planets.

Nevertheless the twilight view of Venus as a brilliant evening or morning 'star' captures the imagination and lends itself to some interesting imaging projects. The outer planets produce great images, for example when multiple exposures are co-added into a single picture showing retrograde motion against a background of stars. The inner planets Venus and Mercury lend themselves well to multiple exposures showing them rising or setting over a series of nights or mornings, particularly when displayed against a photogenic earthly foreground. Even better is this lovely sequence of telescopic images of Venus moving in its orbit about the Sun. Dave Smith has captured the phases that Venus exhibits and used planetarium software to position them accurately. This type of imaging project is no mean feat especially as our unpredictable weather can so easily conspire to block the view of the sky with a blanket of cloud reminiscent of Venus herself! Happily, the weather relented enough to capture a good number of planetary phases and Dave has rounded off the image with a nice white-light view of the Sun showing sunspots.

Nik Szymanek

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