China in Space

Brian Harvey Springer £24.95 ● PB



The US astronaut space programme is currently at its lowest ebb for half a century, with no crewed vehicles currently flying and NASA's future plans somewhat of a blur. The International Space Station limps along,

reliant on vintage Russian capsules for personnel transfers. The new private Dragon craft could save the day, but not while Congress continues to dither about serious space planning.

Meanwhile, a third space superpower is quietly yet confidently getting on with business, and in this book, space expert Brian Harvey has written a detailed yet highly readable account of China's rocket ambitions. This is not a coffee table volume, and might not make a great Christmas gift for casual space fans who like lots of pretty pictures. But if you're after something authoritative on an important subject, this is great stuff.

Perhaps the most extraordinary tale is that of Tsien Hsue-Shen, the Chinese-born physicist who emigrated to the US in the 1930s and became a founding figure of NASA's Jet Propulsion Laboratory (JPL). In 1949, Shen's American hosts falsely accused him of being a communist spy – although there wasn't a shred of evidence to support this claim. He went back to China, understandably annoyed, and once there established the basis for what's now a significant space power with astronautcarrying capability.

There's not as much detail as there might have been here about Mau Zedong's terrifying Cultural Revolution in the 1960s, during which Shen's career faltered, but Harvey's diligent research pays off in this book, which is a must-have for any serious space library.

PIERS BIZONY is the author of The Space Shuttle and other books on spaceflight

Reader price £22.95, subscriber price £21.95 P&P £1.99 Code: S0114/3

Lessons from the Masters

Robert Gendler Springer £40.99 ● PB



It's hard to imagine that anyone with an interest in astrophotography hasn't heard of Robert Gendler, whose bright, colourful images of deep-sky objects have adorned numerous publications and websites.

Here, Gendler describes the processing techniques he uses and introduces the work of other world-renowned imagers.

The book starts with a rather deep discussion on the theory of image processing, which although very interesting for more advanced imagers might scare off some readers as it is very heavy on mathematics. But don't let this put you off. Modern astronomical image processing is more art than science, and the following chapters concentrate on the art of producing beautiful images, leaving the algorithms that underpin the various processing steps hidden behind the graphical user interfaces of the various programs that are used.

Each guest writer is a specialist in their own field but there's a refreshing crossover of ideas, giving the reader a choice of different processing techniques with which to experiment in order to achieve the same goal. Deep-sky, lunar, planetary, solar and skyscape images are all represented using the most appropriate software for the subject and, where appropriate, stating particular equipment requirements.

Although the book leads on mono CCD cameras using broadband and narrowband filters, the DSLR camera user is also catered for, and many of the processing techniques are relevant to both types of camera. This is an excellent reference work suited to intermediate imagers looking to improve their processing workflow.

STEVE RICHARDS is BBC Sky at Night Magazine's resident Scope Doctor.

Reader price £36.99, subscriber price £34.99 P&P £1.99 S0114/2

Journey Through the Solar System

Simon Abbott Ticktock £5.99 ● HB



One of the great things about having a passion for space and astronomy is passing it on to a younger generation, inspiring kids with a fascination about

what's out there beyond our atmosphere. Established children's author and illustrator Simon Abbott does just that in Journey Through The Solar System.

Thanks to Abbott's bright, full-colour, naive illustrative style, the lovingly drawn pages of this hardback book appeal to kids as young as four and will entertain to the ages of eight or nine. These aren't faithful illustrations of celestial objects, but they don't need to be: after reading the book with representatives of its target audience, it was clear that the visuals do what they are designed to do perfectly, captivating young children's often fickle attention to spark interest.

Kids' shorter concentration spans are also well catered for by the way the book is written, with the information in each section presented in short sentences. We learn that sleeping bags on the ISS are fixed to the wall to prevent them floating around, and that it would take 4,000 years to walk from Earth to Mars. Thus the young readers of these 25 extra-thick, spill-resistant pages are guided through the bodies that orbit our star, stopping off at the Sun, the Moon, the planets – except, oddly, Earth – asteroids and comets.

By the end of the book, kids will have been introduced to lunar phases, the Galilean moons and much more, with a sense of fun and colour that will have them eager to learn more.

CHRIS BRAMLEY is editor of BBC Sky at Night Magazine and a father of two

Reader price £5.50, subscriber price £4.99 P&P £1.99 Code: S0114/4