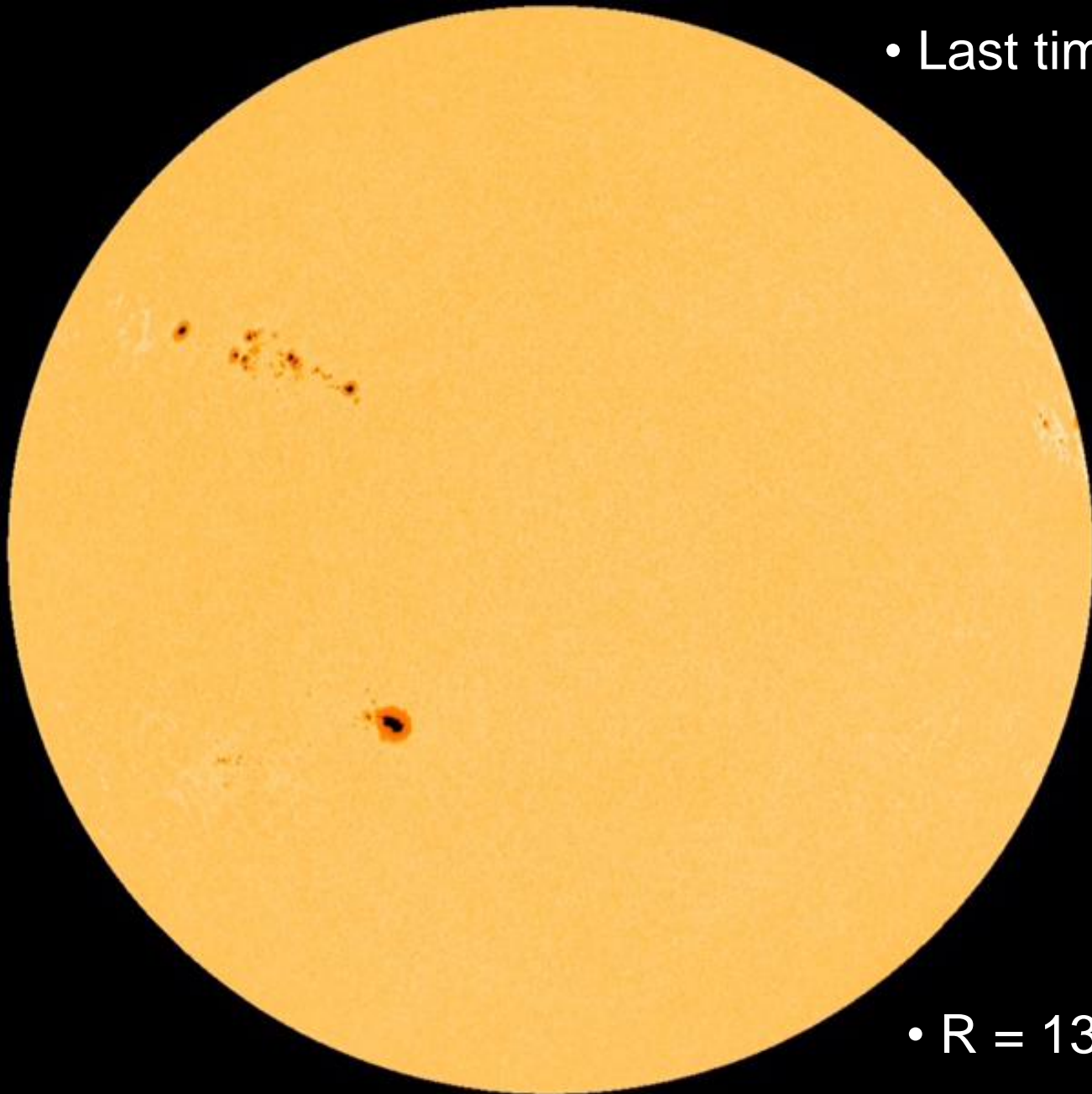


What's Up?

2023 June 26 to July 24

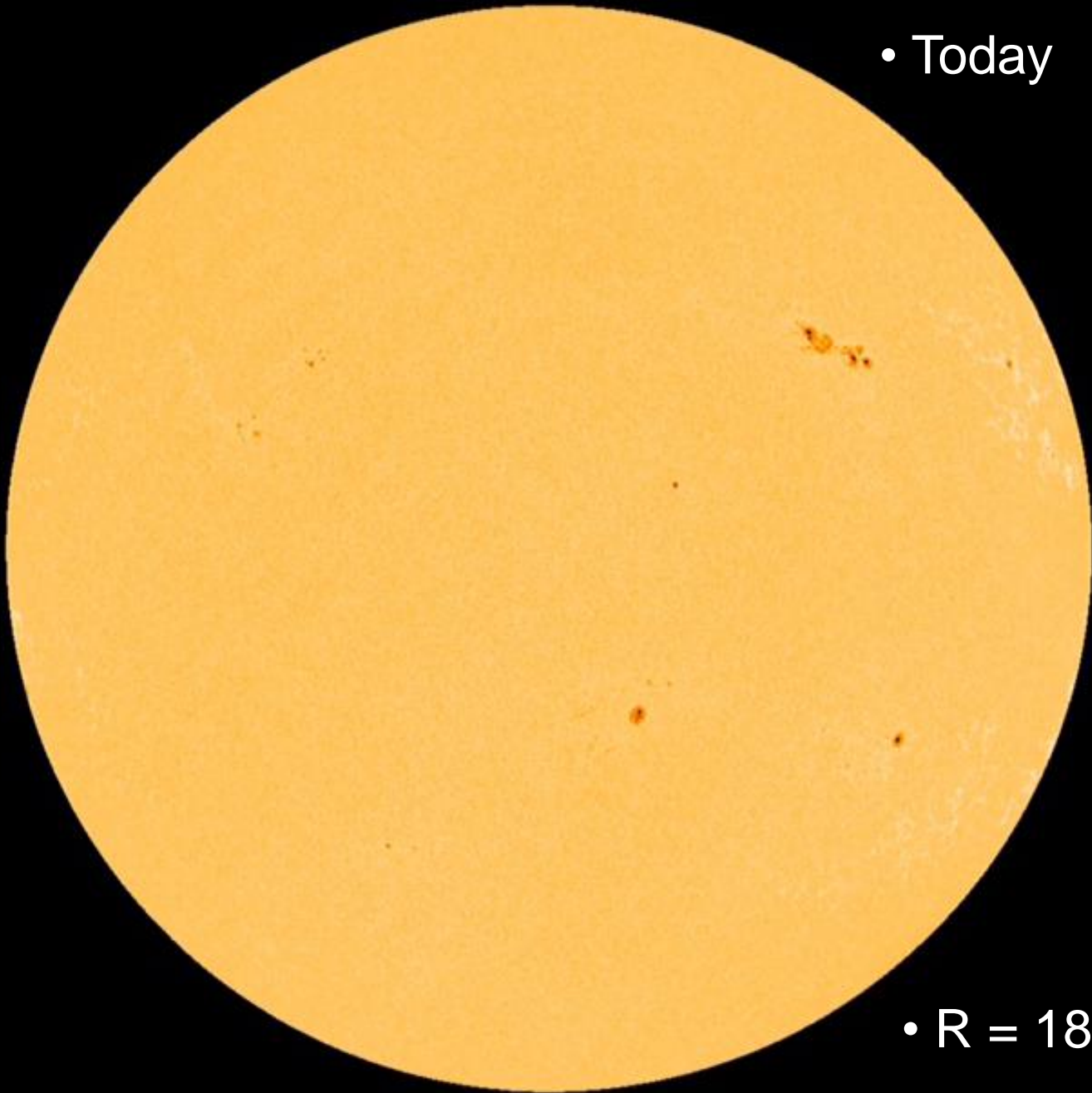
Bill Barton, FRAS

• Last time



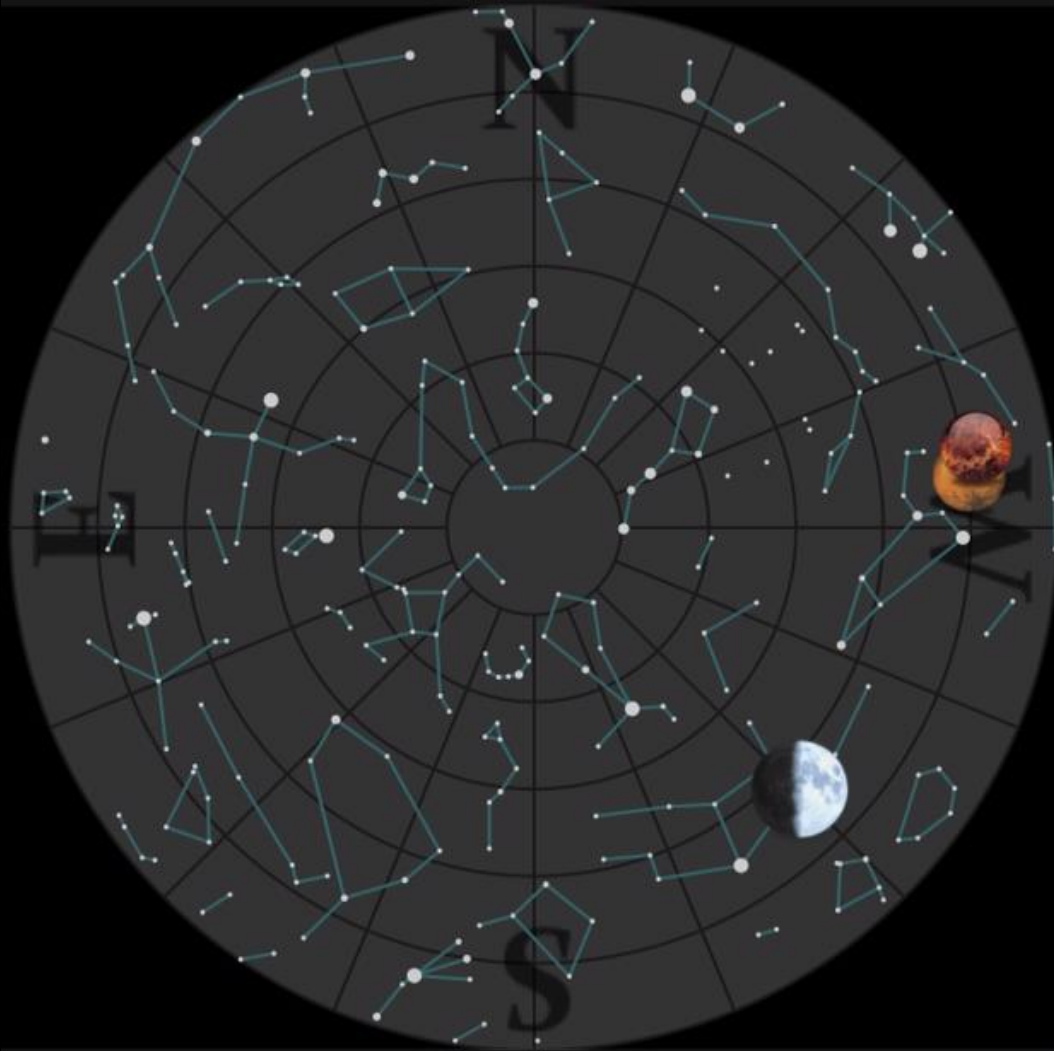
• R = 138

• Today

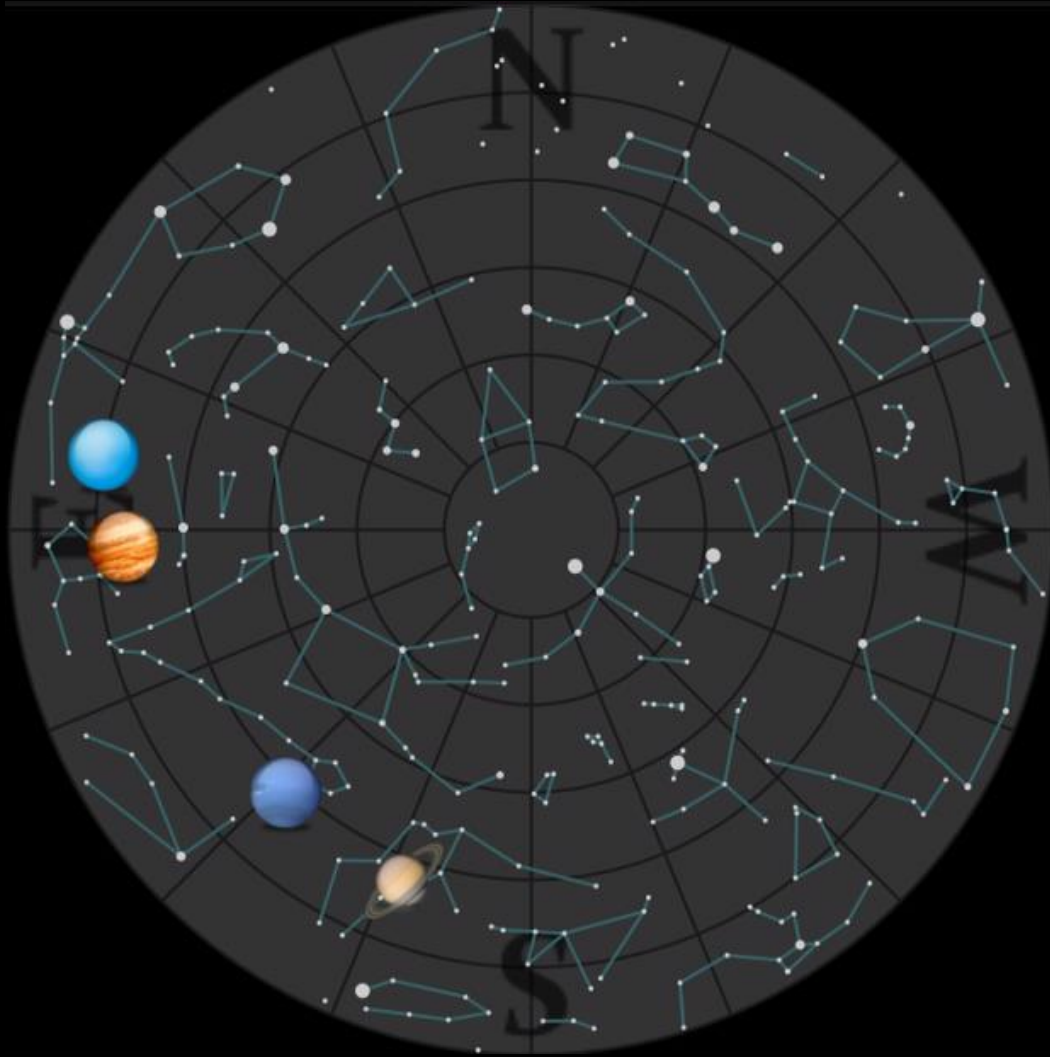


• $R = 180$

- The Sky 22:00
Tonight



- The Sky 04:00
Tomorrow



Inner Solar System

- Sun
 - Declination decreasing, aphelion Jul. 6, equinox Sept. 23
 - Last sunspot min., Apr. 2020, next max., Jul. 2025 ($R \approx 115?$)
- Mercury
 - In morning sky, greatest elongation May 29 (25°) currently 6° , mag -2 increasing (+5 to -2)
 - Superior conjunction Jul. 01
 - Then in evening sky, greatest elongation August 10 (27°)
 - Today, rise 04:00, transit 12:30, set 20:50
- Venus
 - In evening sky, greatest elongation June 04 (45°), currently 43°
 - Inferior conjunction Aug. 13
 - Today, rise 08:20, transit 15:55, set 23:30

Earth

- Time
 - 00:00UT \approx 18:20ST today
 - Today, sunrise 04:30, transit 12:55, sunset 21:20
 - End of period, sunrise 05:00, transit 13:00, sunset 21:00
- Moon
 - 🌒 First Quarter, 26 (this morning)
 - 🌕 Full, July 03 ('Hay or Thunder' Moon)
 - 🌑 Last Quarter, 10
 - 🌑 New, 17
- Meteors
 - Perseids, July 17-August 24, peak Aug. 13, ZHR = 80+
 - (this year, New Moon on Aug. 16)

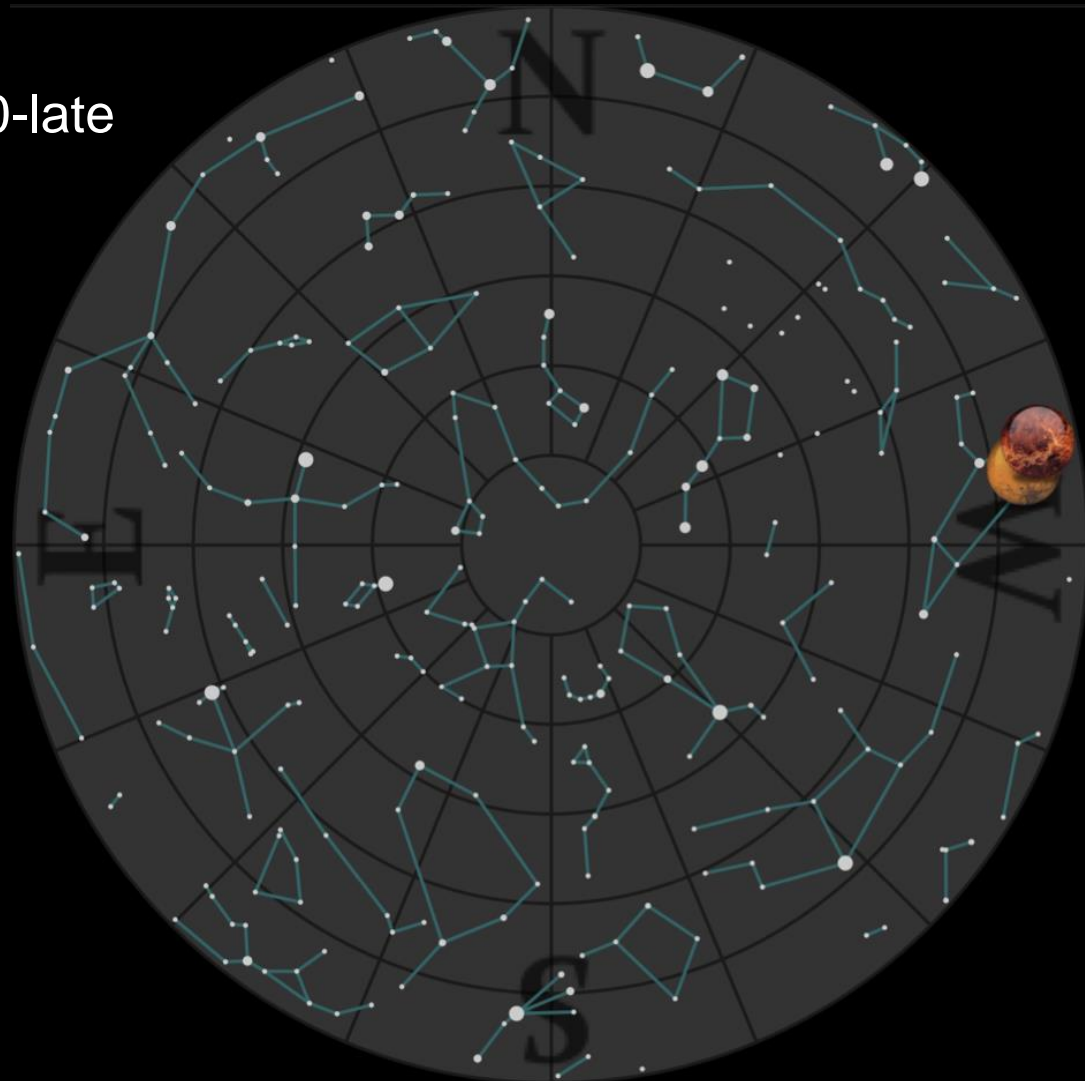
Outer Solar System

- Mars
 - Conjunction Nov. 18, opposition 2025 Jan. 16. Today, rise 08:45, transit 16:10, set 23:40
- Jupiter
 - Conjunction Apr. 11, opposition Nov. 03. Today, rise 01:45, transit 09:00, set 16:15
- Saturn
 - Conjunction Feb. 16, opposition Aug. 27. Today, rise 00:00, transit 05:15, set 10:20
- Uranus
 - Conjunction May 09, opposition Nov. 13, Today, rise 02:10, transit 09:50, set 17:30
- Neptune
 - Conjunction Mar. 15, opposition Sept. 19, Today, rise 00:40, transit 06:30, set 12:20

OASI Picnic

- Newbourne
 - Saturday July 8, 13:00-late

Sun set	21:15
Mercury set	21:50
Twilight end	22:02
Venus set	22:48
Mars set	23:06
Saturn rise	23:15
Neptune rise	23:51
Moon rise	00:06
Jupiter rise	01:02
Uranus rise	01:22



Other OASI Events

- Online
 - Thursday July 20, 20:00, monthly Zoom meeting
 - Recorded talk

Local Societies Events

- DASH (Darsham Village Hall, 7:00pm, Sundays)
 - July 16, Solar Observing Meeting, TBA
- LYRA (Parkhill Hotel, Oulton, 7:30pm, Tuesdays)
 - TBA
- AAA (Whepstead Village Hall, 7:30pm, Wednesdays)
 - July 5, 'The Environmental Impact of Radio Galaxies', Prof. Martin Hardcastle
 - 19 July, Meteors
 - 2 August, 'Goddess of the Dawn', Andrew Green

National Events

- British Astronomical Association
 - Comet Section Meeting, Saturday July 8, 09:30-18:00, National Maritime Museum, Greenwich, entry fee applies
- Society for Popular Astronomy
 - Meeting, Saturday July 29, 14:00-17:00, Gustave Tuck Lecture Theatre, University College London
 - Prof Andrew Pontzen (UCL-MSSL) 'The Universe in a Box'
 - Robin Scagell 'Sky Notes'
 - Graham Cluer 'Smart Telescopes'