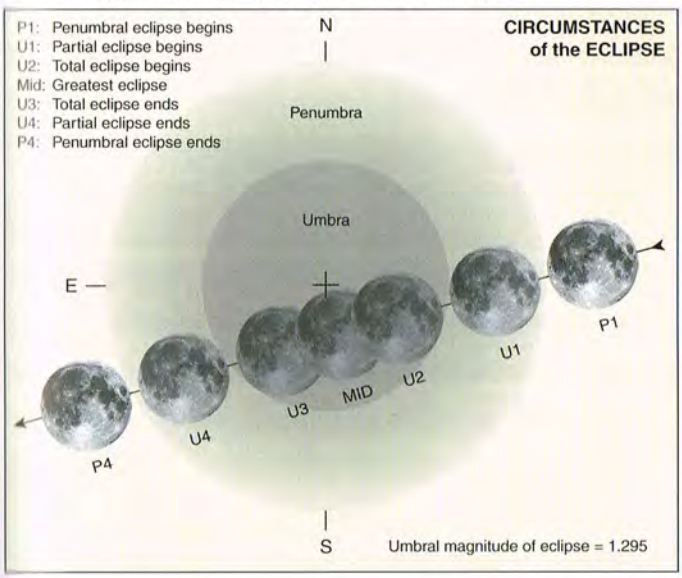
15 April — Total eclipse of the Moon

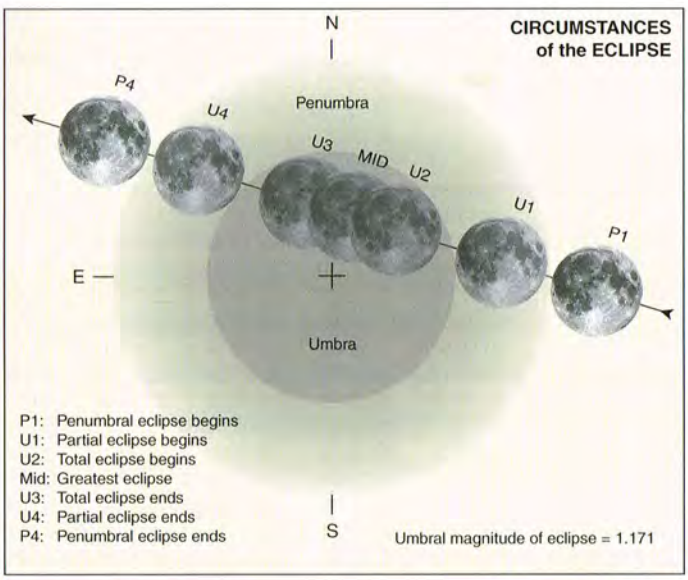
The first lunar eclipse of the year is total and visible in western Africa, western Europe, the Americas, eastern Asia and Australasia. Seen under less than favourable circumstances, this is the first total lunar eclipse for us since 2012. From eastern states of Australia mid-eclipse occurs around moonrise in the bright evening twilight sky, with totality ending just prior to the end of astronomical twilight. From central Australia totality is all but over by the time the sky is dark; observers will only see a small chunk out of the Moon's limb as it slips further into the Earth's penumbra. WA misses out entirely with the Moon leaving the umbra before it rises and departing the penumbra in twilight. The eastern view will be pleasant after the eclipse, with the Full Moon just below 1st magnitude star Spica with the brighter Mars (just past opposition) to the north.



	UT	EST	WST
Penumbral eclipse begins (P1)	04:52.0	2:52 pm	12:52 pm
Partial eclipse begins (U1)	05:58.0	3:58 pm	1:58 pm
Total eclipse begins (U2)	07:06.4	5:06 pm	3:06 pm
Greatest eclipse	07:45.7	5:46 pm	3:46 pm
Total eclipse ends (U3)	08:25.0	6:25 pm	4:25 pm
Partial eclipse ends (U4)	09:33.4	7:33 pm	5:33 pm
Penumbral eclipse ends (P4)	10:39.2	8:39 pm	6:39 pm

8 October — Total eclipse of the Moon

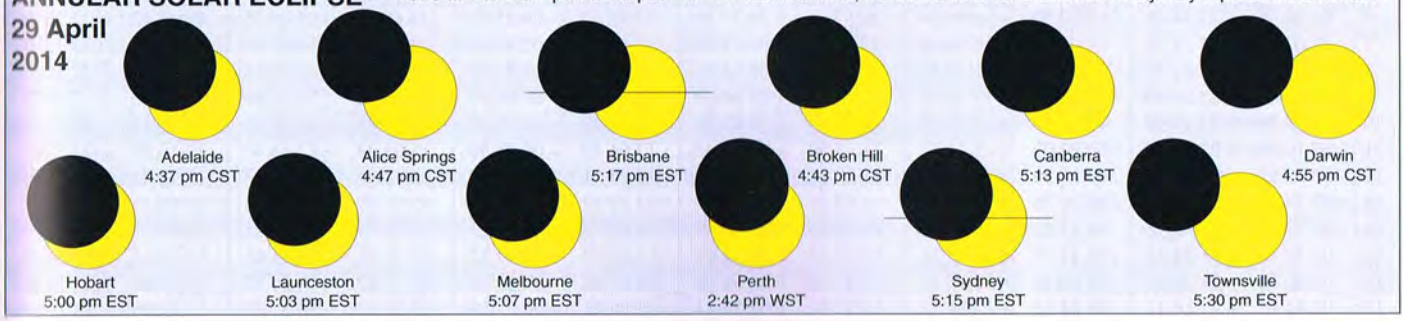
The second total lunar eclipse of the year is visible from the Americas, Australasia and Asia. The Australian view is under better circumstances than the April lunar eclipse although for Western Australia the Moon will be low to the horizon in twilight at mid-eclipse. Technically the entire eclipse is visible east of a line drawn roughly from the tip of Cape York Peninsula Qld to the east coast of Tasmania, although the Moon will be low and twilight interferes with the early penumbral stage. West of this line twilight impedes the view until totality is underway. Coincidentally the planet Uranus is at opposition on this day and just 2° above the Moon at mid-eclipse, a good opportunity to locate and view this planet under the Moon's subdued light.



	UT	EST	WST
Penumbral eclipse begins (P1)	08:14.1	6:14 pm	4:14 pm
Partial eclipse begins (U1)	09:14.5	7:15 pm	5:15 pm
Total eclipse begins (U2)	10:24.6	8:25 pm	6:25 pm
Greatest eclipse	10:54.6	8:55 pm	6:55 pm
Total eclipse ends (U3)	11:24.5	9:25 pm	7:25 pm
Partial eclipse ends (U4)	12:34.7	10:35 pm	8:35 pm
Penumbral eclipse ends (P4)	13:35.2	11:35 pm	9:35 pm

ANNULAR SOLAR ECLIPSE 29 April 2014

Views at maximum partial eclipse from various locations, horizontal lines for Brisbane and Sydney represent the horizon.



LOCATION	TIME ZONE	ECLIPSE BEGINS	MAXIMUM ECLIPSE	ECLIPSE ENDS	SUN ALTITUDE	SUN AZIMUTH	ECLIPSE MAGNITUDE	ECLIPSE OBSURATION
Adelaide	CST	03:25 pm	04:37 pm	(set)	10°	296°	0.61	0.51
Alice Springs	CST	03:44 pm	04:47 pm	05:44 pm	17°	295°	0.38	0.26
Brisbane	EST	04:31 pm	05:17 pm	(set)	0°	286°	0.36	0.24
Broken Hill	CST	03:36 pm	04:43 pm	(set)	8°	293°	0.53	0.43
Canberra	EST	04:08 pm	05:12 pm	(set)	2°	289°	0.57	0.46
Darwin	CST	04:21 pm	04:55 pm	05:28 pm	22°	292°	0.10	0.04
Hobart	EST	03:51 pm	05:00 pm	(set)	2°	292°	0.72	0.64
Launceston	EST	03:53 pm	03:03 pm	(set)	3°	292°	0.70	0.61
Melbourne	EST	03:58 pm	05:07 pm	(set)	5°	292°	0.64	0.55
Perth	WST	01:17 pm	02:42 pm	03:59 pm	32°	317°	0.59	0.49
Sydney	EST	04:14 pm	05:15 pm	(set)	0°	287°	0.52	0.41
Townsville	EST	04:49 pm	05:30 pm	(set)	5°	287°	0.19	0.10