






















































The Calendar-Sky

Thursday 24 April 2014




Time (24-hour clock)	Object (Link)	Event
	Observer Site	Lostock NSW Australia, Australia WGS84: Lon: +151d25m30.30s Lat: -32d18m53.40s Alt: 209m All times in EST or EST (during summer)
12h00m	 Moons of Jupiter	C E J G
12h00m	 Moons of Saturn	*S*m e T t d R j
14h00.2m	 Moon	Set Azimuth=260.9°, W (in constellation Aquarius)
17h23.3m	 Sun	Set Azimuth=284.7°, WNW
17.6h	 Mars	Magnitude=-1.3mag Best seen from 17.6h - 4.7h ($h_{top}=61^\circ$ at N at 22.6h) (in constellation Virgo) RA=12h51m13s Dec= -3°25.7' (J2000) Distance=0.627AU Elongation=159° Phase k=98% Diameter=14.9" planetographic latitude of the Earth=23.4°
17.6h	 Jupiter	Magnitude=-2.1mag Best seen from 17.6h -21.7h ($h_{top}=33^\circ$ at NNW at 17.6h) (in constellation Gemini) RA= 7h00m08s Dec=+23°00.9' (J2000) Distance=5.492AU Elongation= 70° Diameter=35.8"
17h48m	 Sun	End civil twilight
18h03m	 Sun	Sun 9° below horizon
18h17m	 Sun	Dusk
18h19.3m	 Saturn	Rise Azimuth=109.0°, ESE (in constellation Libra)
18.4h	 Saturn	Magnitude= 0.1mag Best seen from 18.4h - 5.9h ($h_{top}=73^\circ$ at N at 1.0h) (in constellation Libra) RA=15h17m03s Dec=-15°36.9' (J2000) Distance=8.940AU Elongation=163° Diameter=18.5" planetocentric latitude of the Earth=22.0°
18.5h	 Deep-Sky Observing	Best time interval for observing dim objects: 18.5h- 3.7h (9.3 hours) Prior to midnight
18h31m	 Sun	Sun 15° below horizon
18h46m	 Sun	End astronomical twilight
20h15.0m	 Jupiter-Moon Io	Eastern Elongation (5.8 mag)
21h46.4m	 Jupiter	Set Azimuth=297.1°, WNW (in constellation Gemini)
22h36.1m	 Mars	Transit Altitude=+61.2° (in constellation Virgo) Elongation=158.9° East, Magnitude=-1.3mag
23.9h	Gegenschein	Faint glowing patch of sky relatively good for observation 71° above the Northern horizon (in constellation Virgo, 46° above galactic plane)
23h52.4m	 Sun	Lower Transit Altitude=-70.6°


































Friday 25 April 2014

Time (24-hour clock)	Object (Link)	Event
1h01.8m	 Saturn	Transit Altitude=+73.4° (in constellation Libra) Elongation=163.0° West, Magnitude=0.1mag
1h52.5m	 Moon	Rise Azimuth= 96.6°, E (in constellation Aquarius)
2h56.3m	 Venus	Rise Azimuth= 95.8°, E (in constellation Aquarius)
3.1h	 Venus	Magnitude=-4.1mag Best seen from 3.1h - 6.4h ($h_{top}=42^\circ$ at ENE at 6.4h) (in constellation Aquarius) RA=23h26m10s Dec= -4°39.2' (J2000) Distance=0.934AU Elongation= 44° Phase k=64% Diameter=17.9"
4h46.3m	 Mars	Set Azimuth=265.5°, W (in constellation Virgo)
4h59m	 Sun	Begin astronomical twilight
5h14m	 Sun	Sun 15° below horizon

















5h	 Meteor	Eta-Aquariids (ETA) Best seen from 1.3h - 5.5h ($h_{\text{top}}=51^\circ$ at NE at 5.4h) ZHR=4.5 Local hour rate=2 Velocity=66.8km/s (very rapid) Radiant: RA=21.8h/327° Dec=-5.7° (J2000) (in constellation Aquarius/Aqr)
5h28m	 Sun	Dawn
5.5h	 Moon	Earthshine
5h42m	 Sun	Sun 9° below horizon
5h57m	 Sun	Begin civil twilight
6h22.0m	 Sun	Rise Azimuth= 75.1° , ENE
8h19.6m	 Moon	Transit Altitude= $+61.7^\circ$ (in constellation Aquarius) Phase k=21.9%
9h10.7m	 Venus	Transit Altitude= $+62.2^\circ$ (in constellation Aquarius) Elongation= 43.8° West, Magnitude=-4.1mag
11h52.3m	 Sun	Transit Altitude= $+44.6^\circ$ (in constellation Aries)
12h00m	 Moons of Jupiter	C E J G I
12h00m	 Moons of Saturn	d te R mS* T j
14h40.2m	 Moon	Set Azimuth= 266.3° , W (in constellation Aquarius)
17h22.3m	 Sun	Set Azimuth= 285.1° , WNW
17.6h	 Mars	Magnitude=-1.3mag Best seen from 17.6h - 4.6h ($h_{\text{top}}=61^\circ$ at N at 22.5h) (in constellation Virgo) RA=12h50m00s Dec= $-3^\circ 20.8'$ (J2000) Distance=0.629AU Elongation= 158° Phase k=98% Diameter=14.9" planetographic latitude of the Earth= 23.5°
17.6h	 Jupiter	Magnitude=-2.1mag Best seen from 17.6h -21.7h ($h_{\text{top}}=33^\circ$ at NNW at 17.6h) (in constellation Gemini) RA= 7h00m44s Dec= $+23^\circ 00.1'$ (J2000) Distance=5.508AU Elongation= 69° Diameter=35.7"
17h47m	 Sun	End civil twilight
18h02m	 Sun	Sun 9° below horizon
18h06.6m	 Jupiter-Moon Ganymede	Eclipse Begin (III.Ec.D.; 5.4 mag)
18h15.2m	 Saturn	Rise Azimuth= 109.0° , ESE (in constellation Libra)
18h16m	 Sun	Dusk
18.3h	 Saturn	Magnitude= 0.1mag Best seen from 18.3h - 6.0h ($h_{\text{top}}=73^\circ$ at N at 1.0h) (in constellation Libra) RA=15h16m47s Dec= $-15^\circ 35.7'$ (J2000) Distance=8.936AU Elongation= 164° Diameter=18.5" planetocentric latitude of the Earth= 22.0°
18.5h	 Deep-Sky Observing	Best time interval for observing dim objects: 18.5h- 5.2h (10.8 hours) Prior to midnight
18h31m	 Sun	Sun 15° below horizon
18h45m	 Sun	End astronomical twilight
21h30.3m	 Jupiter-Moon Ganymede	Eclipse End (III.Ec.R.; 5.4 mag)
21h43.1m	 Jupiter	Set Azimuth= 297.1° , WNW (in constellation Gemini)
22h31.0m	 Mars	Transit Altitude= $+61.1^\circ$ (in constellation Virgo) Elongation= 157.6° East, Magnitude=-1.3mag
23.9h	Gegenschein	Faint glowing patch of sky relatively good for observation 71° above the Northern horizon (in constellation Virgo, 45° above galactic plane)
23h52.2m	 Sun	Lower Transit Altitude= -71.0°

Saturday 26 April 2014

Time (24-hour clock)	Object (Link)	Event
0h57.6m	 Saturn	Transit Altitude= $+73.3^\circ$ (in constellation Libra) Elongation= 164.0° West, Magnitude=0.1mag
2h56.4m	 Moon	Rise Azimuth= 91.0° , E (in constellation Pisces)
2h57.6m	 Venus	Rise Azimuth= 95.3° , E (in constellation Aquarius)

3.1h	 Venus	Magnitude=-4.1mag Best seen from 3.1h - 6.4h ($h_{\text{top}}=42^\circ$ at ENE at 6.4h) (in constellation Aquarius) RA=23h30m24s Dec= -4°16.0' (J2000) Distance=0.942AU Elongation= 44° Phase k=64% Diameter=17.7"
4h41.0m	 Mars	Set Azimuth=265.6°, W (in constellation Virgo)
5h00m	 Sun	Begin astronomical twilight
5h14m	 Sun	Sun 15° below horizon
5h29m	 Sun	Dawn
5.5h	 Moon	Earthshine
5h	 Meteor	Eta-Aquariids (ETA) Best seen from 1.3h - 5.5h ($h_{\text{top}}=50^\circ$ at NE at 5.5h) ZHR=5.1 Local hour rate=2 Velocity=66.8km/s (very rapid) Radiant: RA=21.9h/328° Dec=-5.3° (J2000) (in constellation Aquarius/Aqr)
5h43m	 Sun	Sun 9° below horizon
5h58m	 Sun	Begin civil twilight
6h22.7m	 Sun	Rise Azimuth= 74.7°, ENE
9h10.8m	 Moon	Transit Altitude=+56.9° (in constellation Pisces) Phase k=12.9%
9h11.0m	 Venus	Transit Altitude=+61.8° (in constellation Aquarius) Elongation=43.7° West, Magnitude=-4.1mag
11h52.2m	 Sun	Transit Altitude=+44.3° (in constellation Aries)
12h00m	 Moons of Jupiter	C G I J E
12h00m	 Moons of Saturn	R em*S* td T j
13.5h	 Mercury	Conjunction (superior): only 22.4' separated from center of Sun. Distance to earth: 1.328 AU
15h19.0m	 Moon	Set Azimuth=271.8°, W (in constellation Pisces)
17h21.2m	 Sun	Set Azimuth=285.5°, WNW
17.5h	 Mars	Magnitude=-1.3mag Best seen from 17.5h - 4.5h ($h_{\text{top}}=61^\circ$ at N at 22.4h) (in constellation Virgo) RA=12h48m48s Dec= -3°16.0' (J2000) Distance=0.631AU Elongation=157° Phase k=98% Diameter=14.8" planetographic latitude of the Earth=23.5°
17.5h	 Jupiter	Magnitude=-2.1mag Best seen from 17.5h -21.6h ($h_{\text{top}}=33^\circ$ at NNW at 17.5h) (in constellation Gemini) RA= 7h01m20s Dec=+22°59.3' (J2000) Distance=5.523AU Elongation= 68° Diameter=35.6"
17h46m	 Sun	End civil twilight
18h01m	 Sun	Sun 9° below horizon
18h11.0m	 Saturn	Rise Azimuth=109.0°, ESE (in constellation Libra)
18.2h	 Saturn	Magnitude= 0.1mag Best seen from 18.2h - 6.0h ($h_{\text{top}}=73^\circ$ at N at 0.9h) (in constellation Libra) RA=15h16m30s Dec=-15°34.6' (J2000) Distance=8.931AU Elongation=165° Diameter=18.5" planetocentric latitude of the Earth=22.0°
18h15m	 Sun	Dusk
18.4h	 Deep-Sky Observing	Best time interval for observing dim objects: 18.4h- 5.2h (10.8 hours) Prior to midnight
18h30m	 Sun	Sun 15° below horizon
18h37.4m	 Jupiter	Transit of Great Red Spot
18h44m	 Sun	End astronomical twilight
20h54.8m	 Jupiter-Moon Europa	Western Elongation (6.4 mag)
21h39.8m	 Jupiter	Set Azimuth=297.1°, WNW (in constellation Gemini)
22h25.9m	 Mars	Transit Altitude=+61.0° (in constellation Virgo) Elongation=156.4° East, Magnitude=-1.3mag
23.9h	Gegenschein	Faint glowing patch of sky relatively good for observation 71° above the Northern horizon (in constellation Virgo, 45° above galactic plane)
23h52.1m	 Sun	Lower Transit Altitude=-71.3°

Sunday 27 April 2014

Time (24-hour clock)	Object (Link)	Event
0h53.4m	 Saturn	Transit Altitude=+73.3° (in constellation Libra) Elongation=165.0° West, Magnitude=0.1mag
2h58.8m	 Venus	Rise Azimuth= 94.9°, E (in constellation Aquarius)
3.1h	 Venus	Magnitude=-4.1mag Best seen from 3.1h - 6.4h ($h_{\text{top}}=42^\circ$ at ENE at 6.4h) (in constellation Aquarius) RA=23h34m38s Dec= -3°52.6' (J2000) Distance=0.949AU Elongation=44° Phase k=65% Diameter=17.6"
3h59.6m	 Moon	Rise Azimuth= 85.4°, E (in constellation Pisces)
4h35.7m	 Mars	Set Azimuth=265.7°, W (in constellation Virgo)
5h01m	 Sun	Begin astronomical twilight
5h15m	 Sun	Sun 15° below horizon
5h29m	 Sun	Dawn
5.5h	 Moon	Earthshine
5h	 Meteor	Eta-Aquariids (ETA) Best seen from 1.3h - 5.5h ($h_{\text{top}}=50^\circ$ at NE at 5.5h) ZHR=5.9 Local hour rate=3 Velocity=66.8km/s (very rapid) Radiant: RA=21.9h/329° Dec=-4.9° (J2000) (in constellation Aquarius/Aqr)
5h44m	 Sun	Sun 9° below horizon
5h58m	 Sun	Begin civil twilight
6h23.4m	 Sun	Rise Azimuth= 74.3°, ENE
9h11.2m	 Venus	Transit Altitude=+61.4° (in constellation Aquarius) Elongation=43.5° West, Magnitude=-4.1mag
10h01.6m	 Moon	Transit Altitude=+52.2° (in constellation Pisces) Phase k=6.1%
11h52.0m	 Sun	Transit Altitude=+43.9° (in constellation Aries)

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