

**Observation of Jupiter at the end of its 2018 apparition with Mercury potentially visible nearby** by Richard Godley

Jupiter will gradually become lost in the sunset glow during October 2018 and November 2018. Start early - I am suggesting October 6<sup>th</sup> - and you may be able to track it into November. How late could it be seen? The last date on which it sets more than 30 minutes after the Sun is November 12<sup>th</sup>, and this may be possible under good clear conditions if you have been following it down.

This year you might be able to use Jupiter to find Mercury under very difficult circumstances. Mercury may be visible from just after mid-October until after the middle of November, but it's a real long shot. The best chance is around October 29<sup>th</sup> and 30<sup>th</sup> when Jupiter and Mercury are at their closest to each other.

The first table below shows you at what times the Sun sets and Jupiter sets and gives the elongation, magnitude and declination of Jupiter as it is setting. The times in these tables are local for your convenience, i.e. BST up to October 27<sup>th</sup> and then GMT from October 28<sup>th</sup>.

Date	Sunset	Jupiter Sets	Jupiter Elongation	Jupiter Magnitude	Jupiter Declination
Oct 6th	18.29	19.54	40.3°	-1.8	-17° 44'
Oct 7th	18.26	19.51	39.5°	-1.8	-17° 47'
Oct 8th	18.24	19.47	38.8°	-1.8	-17° 50'
Oct 9th	18.22	19.44	38.0°	-1.8	-17° 53'
Oct 10th	18.20.	19.40.	37.2°	-1.8	-17° 57'
Oct 11th	18.18	19.37	36.4°	-1.8	-18° 00'
Oct 12th	18.16	19.34	35.6°	-1.8	-18° 03'
Oct 13th	18.13	19.30.	34.8°	-1.8	-18° 06'
Oct 14th	18.11	19.27	34.0°	-1.8	-18° 09'
Oct 15th	18.09	19.23	33.2°	-1.8	-18° 12'
Oct 16th	18.07	19.20.	32.4°	-1.8	-18° 15'
Oct 17th	18.05	19.17	31.7°	-1.8	-18° 18'
Oct 18th	18.03	19.13	30.9°	-1.8	-18° 21'
Oct 19th	18.01	19.10'	30.1°	-1.8	-18° 24'
Oct 20th	17.59	19.06	29.3°	-1.8	-18° 27'
Oct 21st	17.57	19.03	28.5°	-1.8	-18° 30'
Oct 22nd	17.55	19.00.	27.7°	-1.8	-18° 33'
Oct 23rd	17.53	18.56	26.9°	-1.8	-18° 36'
Oct 24th	17.51	18.53	26.1°	-1.8	-18° 39'
Oct 25th	17.49	18.49	25.4°	-1.7	-18° 43'
Oct 26th	17.47	18.46	24.6°	-1.7	-18° 46'
Oct 27th	17.45	18.43	23.8°	-1.7	-18° 49'
Oct 28th	16.43	17.39	23.0°	-1.7	-18° 52'
Oct 29th	16.41	17.36	22.2°	-1.7	-18° 55'
Oct 30th	16.40.	17.33	21.4°	-1.7	-18° 58'
Oct 31st	16.38	17.29	20.7°	-1.7	-19° 01'
Nov 1st	16.36	17.26	19.9°	-1.7	-19° 04'
Nov 2nd	16.34	17.23	19.1°	-1.7	-19° 07'
Nov 3rd	16.33	17.19	18.3°	-1.7	-19° 10'
Nov 4th	16.31	17.16	17.5°	-1.7	-19° 12'
Nov 5th	16.29	17.13	16.7°	-1.7	-19° 15'

Nov 6th	16.27	17.09	15.9°	-1.7	-19° 18'
Nov 7th	16.26	17.06	15.2°	-1.7	-19° 21'
Nov 8th	16.24	17.03	14.4°	-1.7	-19° 24'
Nov 9th	16.23	16.59	13.6°	-1.7	-19° 27'
Nov 10th	16.21	16.56	12.8°	-1.7	-19° 30'
Nov 11th	16.20.	16.53	12.0°	-1.7	-19° 33'
Nov 12th	16.18	16.49	11.2°	-1.7	-19° 36'

This year Mercury is above the horizon for no more than 42 minutes after sunset, and this happens towards the middle of November. Observation is perfectly achievable when it is above the horizon for 45 minutes after sunset, perhaps less in crystal clear skies, so there is a small chance.

The table below shows you at what times the Sun sets and Mercury sets and gives the elongation, magnitude and declination of Mercury as it is setting during the possible period of observation..

Date	Sunset	Mercury Sets	Mercury Elongation	Mercury Magnitude	Mercury Declination
Oct 21st	17.57	18.22	18.9°	-0.2	-18° 17'
Oct 22nd	17.55	18.21	19.3°	-0.2	-18°47'
Oct 23rd	17.53	18.20.	19.7°	-0.2	-19° 16'
Oct 24th	17.51	18.18	20.1°	-0.2	-19° 44'
Oct 25th	17.49	18.17	20.5°	-0.2	-20° 11'
Oct 26th	17.47	18.16	20.9°	-0.2	-20° 37'
Oct 27th	17.45	18.15	21.2°	-0.2	-21° 03'
Oct 28th	16.43	17.14	21.5°	-0.2	-21° 27'
Oct 29th	16.41	17.13	21.8°	-0.2	-21° 50'
Oct 30th	16.40.	17.12	22.1°	-0.2	-22° 11'
Oct 31st	16.38	17.11	22.4°	-0.2	-22° 32'
Nov 1st	16.36	17/10,	22.6°	-0.2	-22° 50'
Nov 2nd	16.34	17.09	22.8°	-0.2	-23° 09'
Nov 3rd	16.33	17.08	23.0°	-0.3	-23° 26'
Nov 4th	16.31	17.07	23.1°	-0.3	-23° 41'
Nov 5th	16.29	17.07	23.2°	-0.3	-23° 55'
Nov 6th	16.27	17.06	23.3°	-0.3	-24° 07'
Nov 7th	16.26	17.05	23.3°	-0.3	-24° 18'
Nov 8th	16.24	17.04	23.3°	-0.3	-24° 27'
Nov 9th	16.23	17.03	23.2°	-0.2	-24° 35'
Nov 10th	16.21	17.02	23.0°	-0.2	-24° 41'
Nov 11th	16.20.	17.01	22.7°	-0.2	-24° 45'
Nov 12th	16.18	17.00.	22.4°	-0.2	-24° 47'
Nov 13th	16.17	16.58	21.9°	-0.1	-24° 47'
Nov 14th	16.15	16.57	21.4°	-0.0.	-24° 45'
Nov 15th	16.14	16.55	20.7°	0.1	-24° 41'
Nov 16th	16.13	16.53	20.0°	0.2	-24° 34'
Nov 17th	16.11	16.50.	19.0°	0.4	-24° 25'
Nov 18th	16.10,	16.48	17.9°	0.6	-24° 14'
Nov 19th	16.09	16.44	16.7°	0.8	-24° 00'
Nov 20th	16.08	16.41	15.2°	1.1	-23° 42'