

# Ephemeris of comet 22P/Kopff

| Date & Time UT    | DEC     | RA     | Elong | D     | R     | MAG  |
|-------------------|---------|--------|-------|-------|-------|------|
| 2015 Sep 27 18:00 | -17°32' | 15h43m | 52.5  | 1.989 | 1.583 | 11.0 |
| 2015 Sep 28 18:00 | -17°44' | 15h46m | 52.3  | 1.992 | 1.581 | 11.0 |
| 2015 Sep 29 18:00 | -17°56' | 15h49m | 52    | 1.996 | 1.579 | 11.0 |
| 2015 Sep 30 18:00 | -18°07' | 15h51m | 51.7  | 1.999 | 1.578 | 11.0 |
| 2015 Oct 01 18:00 | -18°18' | 15h54m | 51.4  | 2.003 | 1.576 | 10.9 |
| 2015 Oct 02 18:00 | -18°29' | 15h57m | 51.2  | 2.006 | 1.575 | 10.9 |
| 2015 Oct 03 18:00 | -18°40' | 16h00m | 50.9  | 2.01  | 1.573 | 10.9 |
| 2015 Oct 04 18:00 | -18°51' | 16h03m | 50.6  | 2.014 | 1.572 | 10.9 |
| 2015 Oct 05 18:00 | -19°02' | 16h06m | 50.4  | 2.017 | 1.571 | 10.9 |
| 2015 Oct 06 18:00 | -19°12' | 16h09m | 50.1  | 2.021 | 1.569 | 10.9 |
| 2015 Oct 07 18:00 | -19°22' | 16h12m | 49.9  | 2.025 | 1.568 | 10.9 |
| 2015 Oct 08 18:00 | -19°32' | 16h15m | 49.6  | 2.029 | 1.567 | 10.9 |
| 2015 Oct 09 18:00 | -19°42' | 16h18m | 49.4  | 2.032 | 1.566 | 10.9 |
| 2015 Oct 10 18:00 | -19°52' | 16h21m | 49.1  | 2.036 | 1.565 | 10.9 |
| 2015 Oct 11 18:00 | -20°01' | 16h24m | 48.8  | 2.04  | 1.564 | 10.9 |
| 2015 Oct 12 18:00 | -20°11' | 16h27m | 48.6  | 2.044 | 1.563 | 10.9 |
| 2015 Oct 13 18:00 | -20°20' | 16h30m | 48.4  | 2.048 | 1.563 | 10.9 |
| 2015 Oct 14 18:00 | -20°29' | 16h33m | 48.1  | 2.052 | 1.562 | 10.9 |
| 2015 Oct 15 18:00 | -20°38' | 16h36m | 47.9  | 2.056 | 1.561 | 10.9 |
| 2015 Oct 16 18:00 | -20°46' | 16h39m | 47.6  | 2.06  | 1.561 | 10.9 |
| 2015 Oct 17 18:00 | -20°54' | 16h42m | 47.4  | 2.064 | 1.56  | 10.9 |
| 2015 Oct 18 18:00 | -21°03' | 16h46m | 47.1  | 2.068 | 1.56  | 10.9 |
| 2015 Oct 19 18:00 | -21°10' | 16h49m | 46.9  | 2.072 | 1.559 | 10.9 |
| 2015 Oct 20 18:00 | -21°18' | 16h52m | 46.7  | 2.076 | 1.559 | 10.9 |
| 2015 Oct 21 18:00 | -21°26' | 16h55m | 46.4  | 2.08  | 1.559 | 10.9 |
| 2015 Oct 22 18:00 | -21°33' | 16h58m | 46.2  | 2.084 | 1.558 | 10.9 |
| 2015 Oct 23 18:00 | -21°40' | 17h01m | 46    | 2.089 | 1.558 | 10.9 |
| 2015 Oct 24 18:00 | -21°46' | 17h04m | 45.7  | 2.093 | 1.558 | 10.9 |
| 2015 Oct 25 18:00 | -21°53' | 17h08m | 45.5  | 2.097 | 1.558 | 10.9 |
| 2015 Oct 26 18:00 | -21°59' | 17h11m | 45.3  | 2.102 | 1.558 | 10.9 |
| 2015 Oct 27 18:00 | -22°05' | 17h14m | 45    | 2.106 | 1.558 | 10.9 |
| 2015 Oct 28 18:00 | -22°11' | 17h17m | 44.8  | 2.11  | 1.559 | 10.9 |
| 2015 Oct 29 18:00 | -22°17' | 17h21m | 44.6  | 2.115 | 1.559 | 10.9 |
| 2015 Oct 30 18:00 | -22°22' | 17h24m | 44.4  | 2.119 | 1.559 | 10.9 |

|                   |         |        |      |       |       |      |
|-------------------|---------|--------|------|-------|-------|------|
| 2015 Oct 31 18:00 | -22°27' | 17h27m | 44.1 | 2.124 | 1.56  | 10.9 |
| 2015 Nov 01 18:00 | -22°32' | 17h30m | 43.9 | 2.129 | 1.56  | 11.0 |
| 2015 Nov 02 18:00 | -22°36' | 17h34m | 43.7 | 2.133 | 1.561 | 11.0 |
| 2015 Nov 03 18:00 | -22°40' | 17h37m | 43.5 | 2.138 | 1.561 | 11.0 |
| 2015 Nov 04 18:00 | -22°44' | 17h40m | 43.2 | 2.143 | 1.562 | 11.0 |
| 2015 Nov 05 18:00 | -22°48' | 17h43m | 43   | 2.148 | 1.563 | 11.0 |
| 2015 Nov 06 18:00 | -22°52' | 17h47m | 42.8 | 2.153 | 1.564 | 11.0 |
| 2015 Nov 07 18:00 | -22°55' | 17h50m | 42.6 | 2.158 | 1.564 | 11.0 |
| 2015 Nov 08 18:00 | -22°58' | 17h53m | 42.4 | 2.163 | 1.565 | 11.0 |
| 2015 Nov 09 18:00 | -23°00' | 17h56m | 42.1 | 2.168 | 1.566 | 11.0 |
| 2015 Nov 10 18:00 | -23°03' | 17h60m | 41.9 | 2.173 | 1.567 | 11.1 |
| 2015 Nov 11 18:00 | -23°05' | 18h03m | 41.7 | 2.178 | 1.569 | 11.1 |
| 2015 Nov 12 18:00 | -23°07' | 18h06m | 41.5 | 2.183 | 1.57  | 11.1 |
| 2015 Nov 13 18:00 | -23°08' | 18h10m | 41.3 | 2.188 | 1.571 | 11.1 |
| 2015 Nov 14 18:00 | -23°10' | 18h13m | 41   | 2.194 | 1.572 | 11.1 |
| 2015 Nov 15 18:00 | -23°11' | 18h16m | 40.8 | 2.199 | 1.574 | 11.1 |
| 2015 Nov 16 18:00 | -23°12' | 18h20m | 40.6 | 2.204 | 1.575 | 11.1 |
| 2015 Nov 17 18:00 | -23°12' | 18h23m | 40.4 | 2.21  | 1.577 | 11.2 |
| 2015 Nov 18 18:00 | -23°12' | 18h26m | 40.2 | 2.215 | 1.578 | 11.2 |
| 2015 Nov 19 18:00 | -23°12' | 18h29m | 39.9 | 2.221 | 1.58  | 11.2 |
| 2015 Nov 20 18:00 | -23°12' | 18h33m | 39.7 | 2.226 | 1.582 | 11.2 |
| 2015 Nov 21 18:00 | -23°11' | 18h36m | 39.5 | 2.232 | 1.583 | 11.2 |
| 2015 Nov 22 18:00 | -23°11' | 18h39m | 39.3 | 2.238 | 1.585 | 11.3 |
| 2015 Nov 23 18:00 | -23°10' | 18h43m | 39.1 | 2.244 | 1.587 | 11.3 |
| 2015 Nov 24 18:00 | -23°08' | 18h46m | 38.8 | 2.249 | 1.589 | 11.3 |
| 2015 Nov 25 18:00 | -23°07' | 18h49m | 38.6 | 2.255 | 1.591 | 11.3 |
| 2015 Nov 26 18:00 | -23°05' | 18h53m | 38.4 | 2.261 | 1.593 | 11.3 |
| 2015 Nov 27 18:00 | -23°03' | 18h56m | 38.2 | 2.267 | 1.595 | 11.4 |
| 2015 Nov 28 18:00 | -23°00' | 18h59m | 37.9 | 2.273 | 1.598 | 11.4 |
| 2015 Nov 29 18:00 | -22°57' | 19h02m | 37.7 | 2.279 | 1.6   | 11.4 |
| 2015 Nov 30 18:00 | -22°55' | 19h06m | 37.5 | 2.285 | 1.602 | 11.4 |
| 2015 Dec 01 18:00 | -22°51' | 19h09m | 37.3 | 2.292 | 1.604 | 11.4 |
| 2015 Dec 02 18:00 | -22°48' | 19h12m | 37.1 | 2.298 | 1.607 | 11.5 |
| 2015 Dec 03 18:00 | -22°44' | 19h15m | 36.8 | 2.304 | 1.609 | 11.5 |
| 2015 Dec 04 18:00 | -22°40' | 19h19m | 36.6 | 2.31  | 1.612 | 11.5 |
| 2015 Dec 05 18:00 | -22°36' | 19h22m | 36.4 | 2.317 | 1.614 | 11.5 |
| 2015 Dec 06 18:00 | -22°32' | 19h25m | 36.1 | 2.323 | 1.617 | 11.6 |
| 2015 Dec 07 18:00 | -22°27' | 19h28m | 35.9 | 2.33  | 1.62  | 11.6 |

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|-------------------|---------|--------|------|-------|-------|------|
| 2015 Dec 08 18:00 | -22°22' | 19h31m | 35.7 | 2.336 | 1.623 | 11.6 |
| 2015 Dec 09 18:00 | -22°17' | 19h35m | 35.5 | 2.343 | 1.625 | 11.7 |
| 2015 Dec 10 18:00 | -22°12' | 19h38m | 35.2 | 2.35  | 1.628 | 11.7 |
| 2015 Dec 11 18:00 | -22°06' | 19h41m | 35   | 2.356 | 1.631 | 11.7 |
| 2015 Dec 12 18:00 | -22°01' | 19h44m | 34.8 | 2.363 | 1.634 | 11.7 |
| 2015 Dec 13 18:00 | -21°55' | 19h47m | 34.5 | 2.37  | 1.637 | 11.8 |
| 2015 Dec 14 18:00 | -21°48' | 19h50m | 34.3 | 2.377 | 1.64  | 11.8 |
| 2015 Dec 15 18:00 | -21°42' | 19h54m | 34.1 | 2.383 | 1.643 | 11.8 |
| 2015 Dec 16 18:00 | -21°35' | 19h57m | 33.8 | 2.39  | 1.647 | 11.8 |
| 2015 Dec 17 18:00 | -21°28' | 19h60m | 33.6 | 2.397 | 1.65  | 11.9 |
| 2015 Dec 18 18:00 | -21°21' | 20h03m | 33.3 | 2.404 | 1.653 | 11.9 |
| 2015 Dec 19 18:00 | -21°14' | 20h06m | 33.1 | 2.411 | 1.657 | 11.9 |
| 2015 Dec 20 18:00 | -21°06' | 20h09m | 32.9 | 2.418 | 1.66  | 12.0 |
| 2015 Dec 21 18:00 | -20°59' | 20h12m | 32.6 | 2.426 | 1.663 | 12.0 |
| 2015 Dec 22 18:00 | -20°51' | 20h15m | 32.4 | 2.433 | 1.667 | 12.0 |
| 2015 Dec 23 18:00 | -20°43' | 20h18m | 32.1 | 2.44  | 1.67  | 12.1 |
| 2015 Dec 24 18:00 | -20°35' | 20h21m | 31.9 | 2.447 | 1.674 | 12.1 |
| 2015 Dec 25 18:00 | -20°26' | 20h24m | 31.6 | 2.454 | 1.678 | 12.1 |
| 2015 Dec 26 18:00 | -20°18' | 20h27m | 31.4 | 2.462 | 1.681 | 12.2 |
| 2015 Dec 27 18:00 | -20°09' | 20h30m | 31.1 | 2.469 | 1.685 | 12.2 |
| 2015 Dec 28 18:00 | -19°60' | 20h33m | 30.9 | 2.476 | 1.689 | 12.2 |
| 2015 Dec 29 18:00 | -19°51' | 20h36m | 30.6 | 2.484 | 1.693 | 12.3 |
| 2015 Dec 30 18:00 | -19°42' | 20h39m | 30.4 | 2.491 | 1.696 | 12.3 |
| 2015 Dec 31 18:00 | -19°32' | 20h42m | 30.1 | 2.499 | 1.7   | 12.3 |
| 2016 Jan 01 18:00 | -19°23' | 20h45m | 29.9 | 2.506 | 1.704 | 12.4 |
| 2016 Jan 02 18:00 | -19°13' | 20h48m | 29.6 | 2.514 | 1.708 | 12.4 |
| 2016 Jan 03 18:00 | -19°03' | 20h51m | 29.3 | 2.522 | 1.712 | 12.4 |
| 2016 Jan 04 18:00 | -18°53' | 20h54m | 29.1 | 2.529 | 1.716 | 12.5 |
| 2016 Jan 05 18:00 | -18°43' | 20h57m | 28.8 | 2.537 | 1.72  | 12.5 |