

The Uranian Transneptunian Ephemeris, 1900-2050 at Midnight

Compiled and programmed by Neil F. Michelsen

One year per page, positions given every five days. Note dates of stations given at the very bottom. The “specks” are gray “shadowing” showing the retrograde periods. This is smoothly printed in the actual book, but a simple B&W scan makes it choppy. The alternative is to scan as a photo, but at 100% of original, 600 dpi, the file size is simply huge, even as a black & white photo.

Adobe Acrobat Reader will let you enlarge the text as much as you like. To return to the ephemeris itself, click [here](#).

| 2 0 4 9 | | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♁ | ♂ |
|------------------|--------|--------------------|--------------------|--------------------|--------------------|--------------------|----------------------|---------------------|--------------------|
| | | | | | | | | | |
| Jan | 4 | 10 ^W 53 | 8 [♁] 28R | 14 ^m 40 | 2 [♁] 43R | 21 ^m 47 | 18 ^{II} 00R | 17 [♁] 23R | 28 ^m 10 |
| | 9 | 11 01 | 8 24 | 14 43 | 2 39 | 21 50 | 17 57 | 17 20 | 28 13 |
| | 14 | 11 09 | 8 19 | 14 45 | 2 35 | 21 52 | 17 54 | 17 17 | 28 16 |
| | 19 | 11 17 | 8 14 | 14 48 | 2 31 | 21 55 | 17 51 | 17 14 | 28 18 |
| | 24 | 11 25 | 8 08 | 14 49 | 2 27 | 21 57 | 17 48 | 17 11 | 28 20 |
| Feb | 29 | 11 33 | 8 03 | 14 51 | 2 23 | 21 58 | 17 46 | 17 07 | 28 22 |
| | 3 | 11 41 | 7 58 | 14 52 | 2 19 | 22 00 | 17 44 | 17 04 | 28 23 |
| | 8 | 11 50 | 7 53 | 14 52 | 2 15 | 22 01 | 17 43 | 17 00 | 28 24 |
| | 13 | 11 58 | 7 48 | 14 52 ^R | 2 11 | 22 01 | 17 41 | 16 57 | 28 25 |
| | 18 | 12 06 | 7 43 | 14 52 | 2 07 | 22 01 ^R | 17 40 | 16 53 | 28 26 |
| Mar | 23 | 12 14 | 7 38 | 14 51 | 2 04 | 22 01 | 17 40 | 16 50 | 28 26 ^R |
| | 28 | 12 21 | 7 34 | 14 50 | 2 00 | 22 01 | 17 39 | 16 47 | 28 26 |
| | 5 | 12 29 | 7 30 | 14 49 | 1 57 | 22 00 | 17 39 ^D | 16 44 | 28 26 |
| | 10 | 12 36 | 7 26 | 14 47 | 1 55 | 21 59 | 17 40 | 16 41 | 28 25 |
| | 15 | 12 43 | 7 23 | 14 44 | 1 52 | 21 57 | 17 40 | 16 38 | 28 24 |
| Apr | 20 | 12 49 | 7 20 | 14 42 | 1 50 | 21 55 | 17 41 | 16 35 | 28 23 |
| | 25 | 12 55 | 7 17 | 14 39 | 1 48 | 21 53 | 17 43 | 16 33 | 28 21 |
| | 30 | 13 00 | 7 15 | 14 35 | 1 47 | 21 51 | 17 44 | 16 31 | 28 19 |
| | 4 | 13 05 | 7 13 | 14 32 | 1 46 | 21 48 | 17 47 | 16 29 | 28 17 |
| | 9 | 13 10 | 7 12 | 14 28 | 1 45 | 21 45 | 17 49 | 16 28 | 28 15 |
| May | 14 | 13 13 | 7 11 | 14 24 | 1 45 | 21 42 | 17 51 | 16 27 | 28 13 |
| | 19 | 13 17 | 7 10 ^D | 14 20 | 1 45 ^D | 21 38 | 17 54 | 16 26 | 28 10 |
| | 24 | 13 19 | 7 11 | 14 16 | 1 45 | 21 35 | 17 58 | 16 25 | 28 07 |
| | 29 | 13 22 | 7 11 | 14 11 | 1 46 | 21 31 | 18 01 | 16 25 | 28 04 |
| | 4 | 13 23 | 7 12 | 14 07 | 1 47 | 21 28 | 18 04 | 16 25 ^D | 28 01 |
| Jun | 9 | 13 24 | 7 14 | 14 03 | 1 49 | 21 24 | 18 08 | 16 25 | 27 58 |
| | 14 | 13 24 ^R | 7 16 | 13 58 | 1 51 | 21 20 | 18 12 | 16 26 | 27 55 |
| | 19 | 13 24 | 7 19 | 13 54 | 1 53 | 21 17 | 18 16 | 16 27 | 27 52 |
| | 24 | 13 23 | 7 22 | 13 50 | 1 56 | 21 13 | 18 20 | 16 28 | 27 49 |
| | 29 | 13 22 | 7 25 | 13 46 | 1 59 | 21 10 | 18 25 | 16 30 | 27 46 |
| Jul | 3 | 13 20 | 7 29 | 13 42 | 2 02 | 21 06 | 18 29 | 16 32 | 27 43 |
| | 8 | 13 17 | 7 33 | 13 38 | 2 06 | 21 03 | 18 33 | 16 34 | 27 40 |
| | 13 | 13 14 | 7 38 | 13 35 | 2 10 | 21 00 | 18 38 | 16 36 | 27 37 |
| | 18 | 13 10 | 7 43 | 13 32 | 2 14 | 20 57 | 18 42 | 16 39 | 27 34 |
| | 23 | 13 06 | 7 48 | 13 29 | 2 18 | 20 54 | 18 47 | 16 42 | 27 32 |
| Aug | 28 | 13 02 | 7 54 | 13 27 | 2 23 | 20 51 | 18 51 | 16 45 | 27 29 |
| | 3 | 12 57 | 7 59 | 13 24 | 2 27 | 20 49 | 18 55 | 16 49 | 27 27 |
| | 8 | 12 52 | 8 05 | 13 23 | 2 32 | 20 47 | 18 59 | 16 52 | 27 25 |
| | 13 | 12 46 | 8 11 | 13 21 | 2 37 | 20 45 | 19 03 | 16 56 | 27 23 |
| | 18 | 12 41 | 8 18 | 13 20 | 2 42 | 20 44 | 19 07 | 17 00 | 27 22 |
| Sep | 23 | 12 35 | 8 24 | 13 20 | 2 47 | 20 43 | 19 10 | 17 04 | 27 20 |
| | 28 | 12 29 | 8 30 | 13 19 ^D | 2 52 | 20 42 | 19 13 | 17 08 | 27 19 |
| | 2 | 12 22 | 8 37 | 13 20 | 2 57 | 20 42 | 19 16 | 17 12 | 27 18 |
| | 7 | 12 16 | 8 43 | 13 20 | 3 02 | 20 42 ^D | 19 19 | 17 16 | 27 18 |
| | 12 | 12 10 | 8 50 | 13 21 | 3 06 | 20 42 | 19 22 | 17 20 | 27 18 ^D |
| Oct | 17 | 12 04 | 8 56 | 13 23 | 3 11 | 20 42 | 19 24 | 17 24 | 27 18 |
| | 22 | 11 58 | 9 02 | 13 24 | 3 16 | 20 43 | 19 26 | 17 28 | 27 18 |
| | 27 | 11 53 | 9 08 | 13 27 | 3 20 | 20 45 | 19 28 | 17 32 | 27 19 |
| | 1 | 11 47 | 9 14 | 13 29 | 3 25 | 20 46 | 19 29 | 17 36 | 27 20 |
| | 6 | 11 42 | 9 19 | 13 32 | 3 29 | 20 48 | 19 30 | 17 40 | 27 21 |
| Nov | 11 | 11 37 | 9 25 | 13 36 | 3 32 | 20 51 | 19 31 | 17 44 | 27 23 |
| | 16 | 11 33 | 9 30 | 13 39 | 3 36 | 20 53 | 19 31 | 17 48 | 27 25 |
| | 21 | 11 29 | 9 34 | 13 43 | 3 39 | 20 56 | 19 31 ^R | 17 51 | 27 27 |
| | 26 | 11 25 | 9 39 | 13 48 | 3 42 | 21 00 | 19 31 | 17 54 | 27 29 |
| | 1 | 11 22 | 9 43 | 13 52 | 3 45 | 21 03 | 19 30 | 17 57 | 27 32 |
| Dec | 6 | 11 20 | 9 46 | 13 57 | 3 47 | 21 07 | 19 29 | 18 00 | 27 34 |
| | 11 | 11 18 | 9 49 | 14 02 | 3 49 | 21 11 | 19 28 | 18 02 | 27 37 |
| | 16 | 11 16 | 9 52 | 14 07 | 3 51 | 21 15 | 19 26 | 18 04 | 27 41 |
| | 21 | 11 16 | 9 54 | 14 12 | 3 52 | 21 19 | 19 24 | 18 06 | 27 44 |
| | 26 | 11 15 ^D | 9 56 | 14 18 | 3 53 | 21 23 | 19 22 | 18 08 | 27 48 |
| Stations: | 31 | 11 16 | 9 57 | 14 23 | 3 53 | 21 28 | 19 19 | 18 09 | 27 51 |
| | 5 | 11 17 | 9 58 | 14 29 | 3 53 ^R | 21 33 | 19 17 | 18 10 | 27 55 |
| | 10 | 11 19 | 9 58 ^R | 14 35 | 3 53 | 21 37 | 19 14 | 18 11 | 27 59 |
| | 15 | 11 21 | 9 58 | 14 40 | 3 52 | 21 42 | 19 10 | 18 11 ^R | 28 03 |
| | 20 | 11 24 | 9 57 | 14 46 | 3 51 | 21 47 | 19 07 | 18 11 | 28 07 |
| | 25 | 11 28 | 9 56 | 14 51 | 3 49 | 21 51 | 19 04 | 18 10 | 28 11 |
| | 30 | 11 32 | 9 54 | 14 56 | 3 47 | 21 56 | 19 00 | 18 10 | 28 14 |
| | 5 | 11 37 | 9 52 | 15 02 | 3 45 | 22 00 | 18 57 | 18 09 | 28 18 |
| | 10 | 11 42 | 9 49 | 15 07 | 3 43 | 22 05 | 18 53 | 18 07 | 28 22 |
| | 15 | 11 48 | 9 46 | 15 11 | 3 40 | 22 09 | 18 49 | 18 06 | 28 26 |
| | 20 | 11 54 | 9 42 | 15 16 | 3 37 | 22 13 | 18 46 | 18 04 | 28 29 |
| | 25 | 12 00 | 9 39 | 15 20 | 3 33 | 22 17 | 18 42 | 18 01 | 28 33 |
| | 30 | 12 ^W 07 | 9 [♁] 34 | 15 ^m 24 | 3 [♁] 30 | 22 ^m 20 | 18 ^{II} 39 | 17 [♁] 59 | 28 ^m 36 |
| | May 13 | Apr 19 | Feb 11 | Apr 15 | Feb 17 | Mar 1 | Apr 30 | Feb 23 | |
| | Oct 24 | Nov 9 | Jul 27 | Nov 2 | Aug 5 | Sep 17 | Nov 15 | Aug 12 | |