

THE GRAPHIC TIMETABLE OF THE HEAVENS

Every year the publishers of *Sky and Telescope Magazine* produce the *Sky Gazer's Almanac*. The center page of the *Sky Gazer's Almanac* is a graphic timetable giving the (predictable) nighttime astronomical events throughout the year. Using the small timetable on your table, the instruction on the cover, the legend at the bottom, and the information on the sides, answer the following.

- ³ Why is the chart shaped the way it is? Why are the North American, European and Southern Hemisphere charts shaped differently?
- ⁴ Why are all the white lines parallel and why do they slant upward to the right?
- ² Why do the lines for Mercury and Venus not cross the chart, but only appear along the sides?
- ³ On what days do the latest onset of morning twilight and earliest sunset occur? Why don't they occur on the same day?
- ² When in September was or will the moon be at perigee? Apogee?
- ² When was Earth at Perihelion? How far from the sun was it?
- ² What event marked with a special symbol occurs at solar midnight Monday night (9/18/23)?
- ² When will official (Gregorian) fall arrive this year?

THE EVENTS OF A SINGLE NIGHT

For next Sunday night (September 17 - September 18), use the *Sky Gazer's Almanac* to determine the events that will occur and their Local Mean Time (LMT) time to within 1 or 2 minutes.¹⁸

EVENTS FOR SUNDAY NIGHT, SEPTEMBER 17 - SEPTEMBER 18, 2023			
	Local Time (EST)	Local Time (EDT)	Event
1	6:05 PM	7:05 PM	Sunset
2			
3			
4			
5	7:37 PM	8:37 PM	End of Evening Twilight
6			
7			
8			
9			
Not on Almanac	11:00 PM	12:00 AM	Clock Midnight EDT
10			
11			
14	12:00 AM	1:00 AM	Clock Midnight EST
13			
14			
15			
16			
17			
18	3:34 AM	4:34 AM	Uranus Transits
19			
20			
21			
22			
23	5:43 AM	6:43 AM	Sunrise

