

Month, day =		July 4				
		deg	min	h	m	s
		124°	102'			
1	DR Lon W	<del>125°</del>	<del>42'</del>			
2	GHA base	118°	52.4'	20		
3	diff	6°	49.6'			
4	diff deg	6°			24	
5	diff min		50'		3	20
6	UTC of LAN			20	27	20

### Find UTC of LAN using Custom Almanac for West Lon.

- Record DR Lon W and date
- In the Almanac at the right date, find the GHA that is just less than your DR Lon, meaning at the next hour it will be past your DR Lon. Record that in line 2 called GHA Base, along with the hour of the GHA Base.
- Subtract line 2 from line 1. Use space above line 1 to rewrite the angle as needed. Record this in line 3 as the difference (diff), separating degrees and minutes parts.
- Use Arc to time table to convert diff deg to h and m.
- Round diff min to whole minutes and enter m and s conversions.
- Add lines 2, 4, and 5 to find the UTC of LAN. Rewrite in the space below as needed.

Month, day =		December, 25				
		deg	min	h	m	s
1	DR Lon W					
2	GHA base					
3	diff					
4	diff deg					
5	diff min					
6	UTC of LAN					

Month, day =		December, 25				
		deg	min	h	m	s
1	DR Lon W					
2	GHA base					
3	diff					
4	diff deg					
5	diff min					
6	UTC of LAN					

Month, day =		December, 25				
		deg	min	h	m	s
1	DR Lon W					
2	GHA base					
3	diff					
4	diff deg					
5	diff min					
6	UTC of LAN					

Month, day =		December, 25				
		deg	min	h	m	s
1	DR Lon W					
2	GHA base					
3	diff					
4	diff deg					
5	diff min					
6	UTC of LAN					

Month, day =		December, 25				
		deg	min	h	m	s
1	DR Lon W					
2	GHA base					
3	diff					
4	diff deg					
5	diff min					
6	UTC of LAN					

Month, day =		December, 25				
		deg	min	h	m	s
1	DR Lon W					
2	GHA base					
3	diff					
4	diff deg					
5	diff min					
6	UTC of LAN					

Month, day =		November, 12				
		deg	min	h	m	s
0	360° =	359	60.0			
1	DR Lon E	156	49.0			
		202	71.0			
2	GHA Lon	<del>203</del>	<del>11.0</del>			
3	GHA Base	198	59.2	01		
4	diff	4	11.8			
5	diff deg	4			16	
6	diff min		12		0	48
7	UTC of LAN			01	16	48
				01	17	

### Find UTC of LAN using Custom Almanac for East Lon.

1. Record DR Lon E , Month and day as shown.
2. Find the GHA that corresponds to the DR Lon E (called here GHA Lon) by subtracting the Lon E from 360°
3. In the Almanac at the right date, find the GHA that is just less than your GHA Lon, meaning at the next hour it will be past your GHA Lon. Record that in line 3 called GHA Base, along with the hour of the GHA Base.
4. Subtract line 3 from line 2. Use space above line 2 to rewrite the angle as needed. Record this in line 4 as the difference (diff), separating degrees and minutes parts.
5. Use Arc to Time Table to convert diff deg to h and m.
6. Round diff min to whole minutes and enter m and s conversion.
7. Add lines 3, 5, and 6 to find the UTC of LAN. Rewrite as needed using the space below it.

Month, day =		deg	min	h	m	s
0	360° =	359	60.0			
1	DR Lon E					
2	GHA Lon					
3	GHA Base					
4	diff					
5	diff deg					
6	diff min					
7	UTC of LAN					

Month, day =		deg	min	h	m	s
0	360° =	359	60.0			
1	DR Lon E					
2	GHA Lon					
3	GHA Base					
4	diff					
5	diff deg					
6	diff min					
7	UTC of LAN					

Month, day =		deg	min	h	m	s
0	360° =	359	60.0			
1	DR Lon E					
2	GHA Lon					
3	GHA Base					
4	diff					
5	diff deg					
6	diff min					
7	UTC of LAN					

Month, day =		deg	min	h	m	s
0	360° =	359	60.0			
1	DR Lon E					
2	GHA Lon					
3	GHA Base					
4	diff					
5	diff deg					
6	diff min					
7	UTC of LAN					