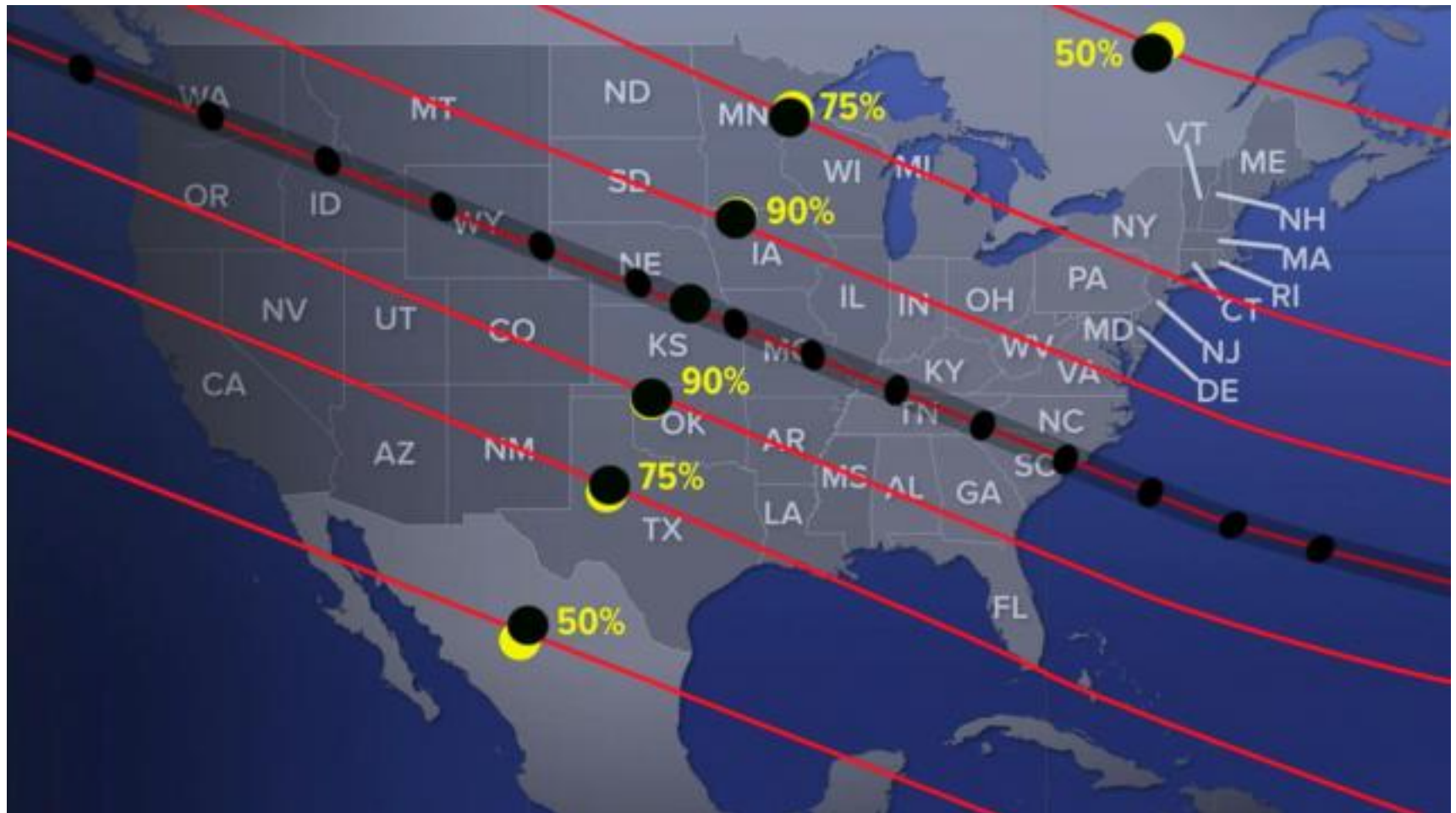


Solar Eclipse - 2017

AstroPro (PC) Simulation Results

Eclipse Path and Magnitude



Columbia – South Carolina

2017 Solar Eclipse detail for SC-Columbia


Eclipse parameters

Eclipse duration	1h 30m 32.32s	Semi dia - Sun	0° 15' 48.70s
Total-Eclipse duration		Semi dia - Moon	0° 16' 16.19s
Magnitude	0.994		

Sunrise / Sunset

Rise	6.47 hr.min
Set	19.59 hr.min

Eclipse Max



Apparant Beginning

Starting Time	14.12 hr.min
Altitude	65.41°
Azimuth	209.65°

Apparant Middle

Mid Eclipse	14.47 hr.min
Altitude	60.82°
Azimuth	226.19°

Apparant Ending


Ending Time	15.42 hr.min
Altitude	51.45°
Azimuth	243.63°

Note: Altitude Azimuth are the Topocentric co-ordinates for local viewing.
Altitude negative value indicate the Sun is below the horizon (Already set or going to rise)

OK

Raleigh – North Carolina

2017 Solar Eclipse detail for NC-Raleigh ✕


Eclipse parameters		Sunrise / Sunset		Eclipse Max	
Eclipse duration	1h 31m 11.45s	Semi dia - Sun	0° 15' 48.69s	Rise	6.38 hr.min
Total-Eclipse duration		Semi dia - Moon	0° 16' 17.79s	Set	19.56 hr.min
Magnitude	0.933				

Apparant Beginning		Apparant Middle		Apparant Ending	
Starting Time	14.10 hr.min	Mid Eclipse	14.46 hr.min	Ending Time	15.41 hr.min
Altitude	63.51°	Altitude	58.90°	Altitude	49.88°
Azimuth	209.69°	Azimuth	225.82°	Azimuth	242.80°

Note: Altitude Azimuth are the Topocentric co-ordinates for local viewing.
Altitude negative value indicate the Sun is below the horizon (Already set or going to rise)

Washington DC

2017 Solar Eclipse detail for DC-Washington

Eclipse parameters		Sunrise / Sunset		Eclipse Max	
Eclipse duration	1h 32m 23.52s	Semi dia - Sun	0° 15' 48.69s	Rise	6.28 hr.min
Total-Eclipse duration		Semi dia - Moon	0° 16' 17.39s	Set	19.54 hr.min
Magnitude	0.839				


Apparant Beginning		Apparant Middle		Apparant Ending	
Starting Time	14.05 hr.min	Mid Eclipse	14.44 hr.min	Ending Time	15.37 hr.min
Altitude	60.58°	Altitude	56.15°	Altitude	47.84°
Azimuth	207.78°	Azimuth	223.75°	Azimuth	240.45°

Note: Altitude Azimuth are the Topocentric co-ordinates for local viewing.
Altitude negative value indicate the Sun is below the horizon (Already set or going to rise)

OK

St. Louis - Missouri

2017 Solar Eclipse detail for MO-St.Louis ✕


Eclipse parameters		Sunrise / Sunset		Eclipse Max	
Eclipse duration	1h 28m 21.74s	Semi dia - Sun	0° 15' 48.69s	Rise	6.19 hr.min
Total-Eclipse duration		Semi dia - Moon	0° 16' 18.43s	Set	19.48 hr.min
Magnitude	0.963				

Apparant Beginning		Apparant Middle		Apparant Ending	
Starting Time	12.36 hr.min	Mid Eclipse	13.22 hr.min	Ending Time	14.04 hr.min
Altitude	61.77°	Altitude	62.14°	Altitude	59.30°
Azimuth	165.65°	Azimuth	189.51°	Azimuth	210.20°

Note: Altitude Azimuth are the Topocentric co-ordinates for local viewing.
Altitude negative value indicate the Sun is below the horizon (Already set or going to rise)

San Francisco - California

2017 Solar Eclipse detail for CA-SanFrancisco

Eclipse parameters		Sunrise / Sunset		Eclipse Max	
Eclipse duration	2h 9m 7.41s	Semi dia - Sun	0° 15' 48.68s	Rise	6.31 hr.min
Total-Eclipse duration		Semi dia - Moon	0° 16' 15.46s	Set	19.54 hr.min
Magnitude	0.754				


Apparant Beginning		Apparant Middle		Apparant Ending	
Starting Time	9.07 hr.min	Mid Eclipse	10.15 hr.min	Ending Time	11.16 hr.min
Altitude	29.82°	Altitude	42.90°	Altitude	53.46°
Azimuth	98.05°	Azimuth	111.03°	Azimuth	126.89°

Note: Altitude Azimuth are the Topocentric co-ordinates for local viewing.
Altitude negative value indicate the Sun is below the horizon (Already set or going to rise)

OK

Atlanta - Georgia

2017 Solar Eclipse detail for GA-Atlanta ✕


Eclipse parameters		Sunrise / Sunset		Eclipse Max	
Eclipse duration	1h 23m 39.93s	Semi dia - Sun	0° 15' 48.69s	Rise	6.04 hr.min
Total-Eclipse duration		Semi dia - Moon	0° 16' 18.59s	Set	19.17 hr.min
Magnitude	0.977				

Apparant Beginning		Apparant Middle		Apparant Ending	
Starting Time	13.05 hr.min	Mid Eclipse	13.40 hr.min	Ending Time	14.29 hr.min
Altitude	67.58°	Altitude	64.38°	Altitude	57.09°
Azimuth	196.05°	Azimuth	215.59°	Azimuth	235.15°

Note: Altitude Azimuth are the Topocentric co-ordinates for local viewing.
Altitude negative value indicate the Sun is below the horizon (Already set or going to rise)

Tulsa - Oklahoma

2017 Solar Eclipse detail for OK-Tulsa

Eclipse parameters		Sunrise / Sunset		Eclipse Max	
Eclipse duration	1h 46m 12.46s	Semi dia - Sun	0° 15' 48.69s	Rise	6.47 hr.min
Total-Eclipse duration		Semi dia - Moon	0° 16' 18.96s	Set	20.06 hr.min
Magnitude	0.901				


Apparant Beginning		Apparant Middle		Apparant Ending	
Starting Time	12.03 hr.min	Mid Eclipse	13.08 hr.min	Ending Time	13.49 hr.min
Altitude	59.31°	Altitude	65.54°	Altitude	65.39°
Azimuth	136.39°	Azimuth	168.99°	Azimuth	192.96°

Note: Altitude Azimuth are the Topocentric co-ordinates for local viewing.
Altitude negative value indicate the Sun is below the horizon (Already set or going to rise)

OK

Houston - Texas

2017 Solar Eclipse detail for TX-Houston ✕


Eclipse parameters		Sunrise / Sunset		Eclipse Max	
Eclipse duration	1h 52m 36.33s	Semi dia - Sun	0° 15' 48.69s	Rise	6.53 hr.min
Total-Eclipse duration		Semi dia - Moon	0° 16' 19.63s	Set	19.56 hr.min
Magnitude	0.679				

Apparant Beginning		Apparant Middle		Apparant Ending	
Starting Time	11.53 hr.min	Mid Eclipse	13.06 hr.min	Ending Time	13.46 hr.min
Altitude	62.37°	Altitude	71.79°	Altitude	71.60°
Azimuth	125.02°	Azimuth	165.69°	Azimuth	196.72°

Note: Altitude Azimuth are the Topocentric co-ordinates for local viewing.
Altitude negative value indicate the Sun is below the horizon (Already set or going to rise)

Chicago - Illinois

2017 Solar Eclipse detail for IL-Chicago ✕


Eclipse parameters		Sunrise / Sunset		Eclipse Max	
Eclipse duration	1h 27m 55.46s	Semi dia - Sun	0° 15' 48.69s	Rise	6.05 hr.min
Total-Eclipse duration		Semi dia - Moon	0° 16' 18.02s	Set	19.41 hr.min
Magnitude	0.878				

Apparant Beginning		Apparant Middle		Apparant Ending	
Starting Time	12.42 hr.min	Mid Eclipse	13.25 hr.min	Ending Time	14.10 hr.min
Altitude	60.06°	Altitude	59.37°	Altitude	55.81°
Azimuth	174.28°	Azimuth	195.27°	Azimuth	214.69°

Note: Altitude Azimuth are the Topocentric co-ordinates for local viewing.
Altitude negative value indicate the Sun is below the horizon (Already set or going to rise)

Boston - Massachusetts

2017 Solar Eclipse detail for MA-Boston

Eclipse parameters		Sunrise / Sunset		Eclipse Max	
Eclipse duration	1h 36m 53.96s	Semi dia - Sun	0° 15' 48.69s	Rise	5.58 hr.min
Total-Eclipse duration		Semi dia - Moon	0° 16' 16.30s	Set	19.35 hr.min
Magnitude	0.698				


Apparant Beginning		Apparant Middle		Apparant Ending	
Starting Time	14.05 hr.min	Mid Eclipse	14.46 hr.min	Ending Time	15.42 hr.min
Altitude	55.25°	Altitude	50.14°	Altitude	41.46°
Azimuth	214.92°	Azimuth	229.22°	Azimuth	244.46°

Note: Altitude Azimuth are the Topocentric co-ordinates for local viewing.
Altitude negative value indicate the Sun is below the horizon (Already set or going to rise)

OK

New York – New York

2017 Solar Eclipse detail for NY-NewYork ✕

Eclipse parameters		Sunrise / Sunset		Eclipse Max	
Eclipse duration	1h 35m 4.48s	Semi dia - Sun	0° 15' 48.69s	Rise	6.13 hr.min
Total-Eclipse duration		Semi dia - Moon	0° 16' 16.86s	Set	19.45 hr.min
Magnitude	0.763				

Apparant Beginning		Apparant Middle		Apparant Ending	
Starting Time	14.05 hr.min	Mid Eclipse	14.45 hr.min	Ending Time	15.40 hr.min
Altitude	57.87°	Altitude	53.06°	Altitude	44.50°
Azimuth	211.56°	Azimuth	226.63°	Azimuth	242.55°

Note: Altitude Azimuth are the Topocentric co-ordinates for local viewing.
Altitude negative value indicate the Sun is below the horizon (Already set or going to rise)