



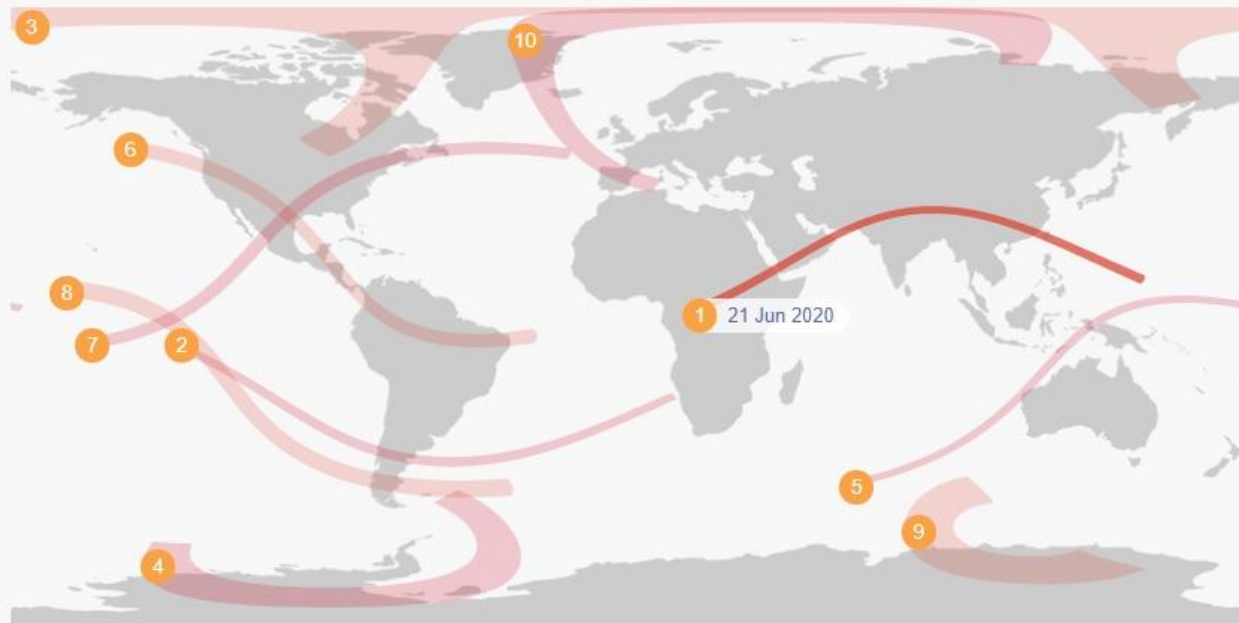
**Get ready  
for Solar Eclipse**



**with Kenko ND filters**

# Incoming Solar Eclipses Calendar

## Featured Eclipses in Coming Years



Solar	Lunar	Transit
1	21 Jun 2020	Annular Solar Eclipse
2	14 Dec 2020	Total Solar Eclipse
3	10 Jun 2021	Annular Solar Eclipse
4	4 Dec 2021	Total Solar Eclipse
5	20 Apr 2023	Total Solar Eclipse
6	14 Oct 2023	Annular Solar Eclipse
7	8 Apr 2024	Total Solar Eclipse
8	2 Oct 2024	Annular Solar Eclipse
9	17 Feb 2026	Annular Solar Eclipse
10	12 Aug 2026	Total Solar Eclipse

## Eclipses in 2020



21 Jun

Solar Eclipse  
(Annular)

South/East Europe, Much of Asia, North  
in Australia, Much of Africa, Pacific,  
Indian Ocean



14 Dec

Solar Eclipse  
(Total)

South in Africa, Much of South America,  
Pacific, Atlantic, Indian Ocean, Antarctica

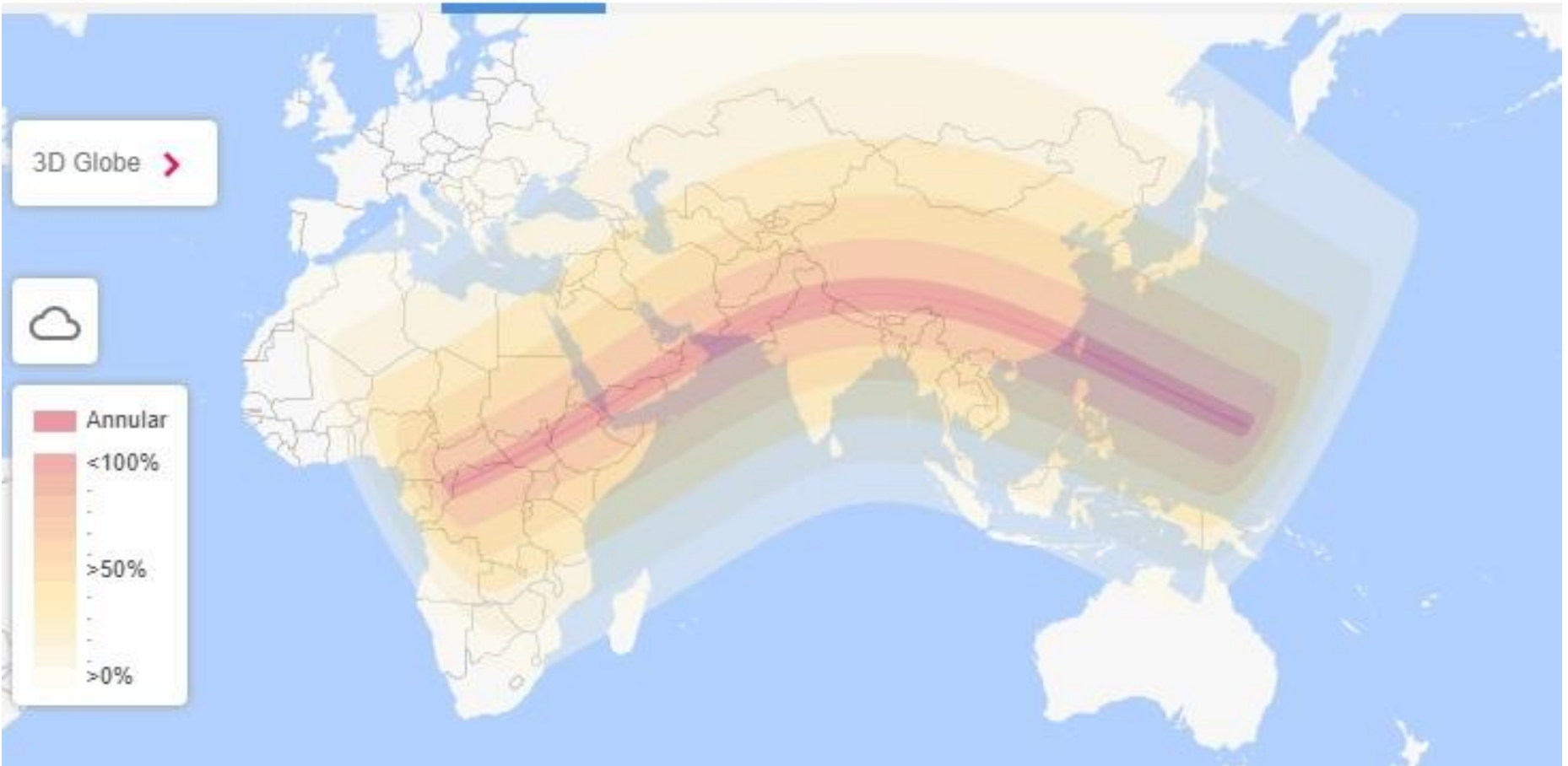


# Eclipse Map — 21 June 2020 Annular Solar Eclipse

Eclipse Information

**Path Map**

3D Path Globe

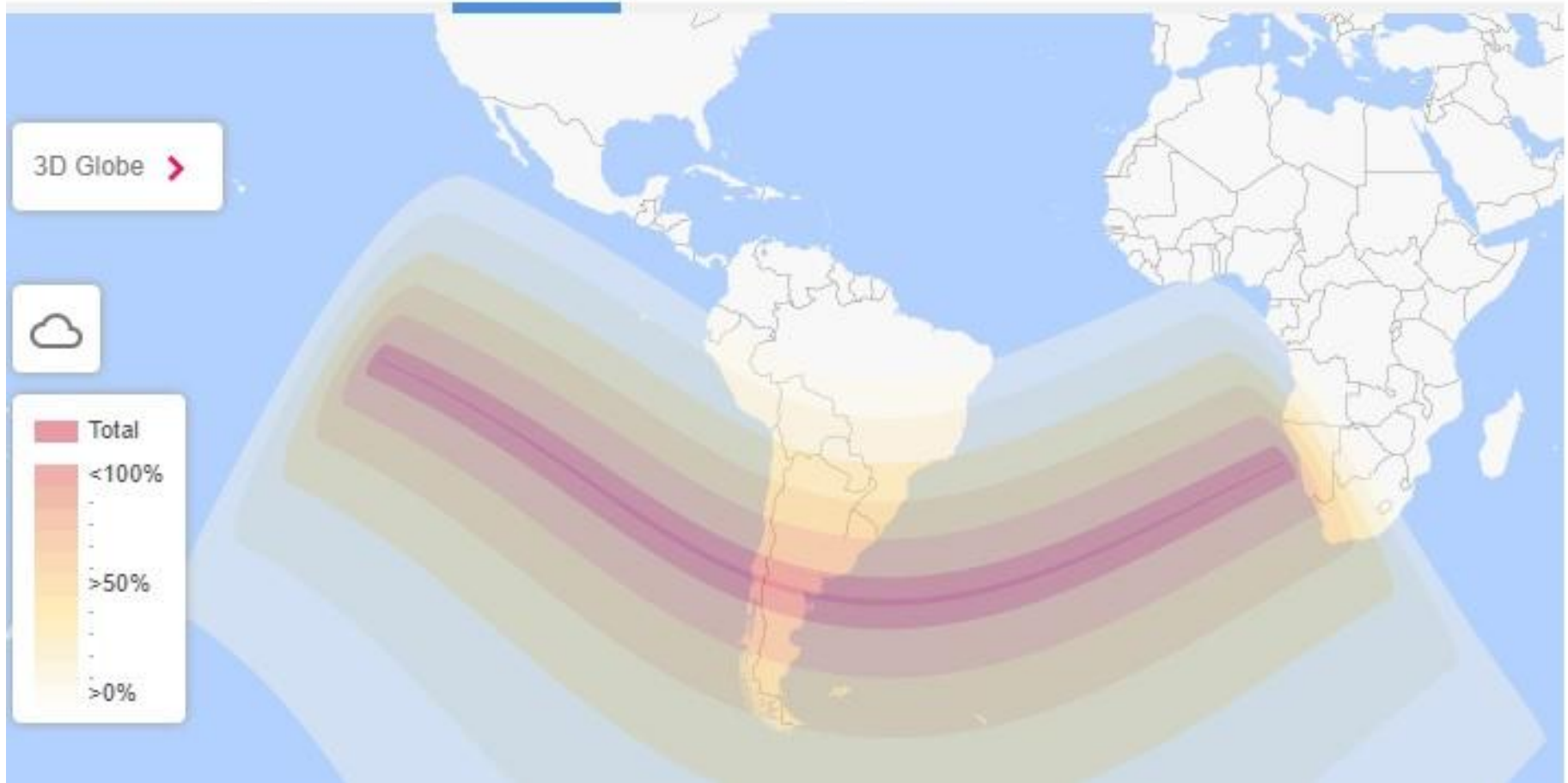


# Eclipse Map — 14 December 2020 Total Solar Eclipse

Eclipse Information

Path Map

3D Path Globe







## Eclipses in 2021

	10 Jun	Solar Eclipse (Annular)	Much of Europe, Much of Asia, North/West Africa, Much of North America, Atlantic, Arctic	
	4 Dec	Solar Eclipse (Total)	South in Australia, South in Africa, South in South America, Pacific, Atlantic, Indian Ocean, Antarctica	

Suggested order period: 6 months before the eclipse

## Eclipses in 2022

	30 Apr	Solar Eclipse (Partial)	South/West South America, Pacific, Atlantic, Antarctica	
	25 Oct	Solar Eclipse (Partial)	Europe, South/West Asia, North/East Africa, Atlantic	

# Shooting a Solar Eclipse: top tips and recommendations

- **IMPORTANT CAUTION:** Always shoot in “live view mode” when capturing a solar eclipse, as looking at the Sun is extremely dangerous for your eyes health even through ND filters.
- In order to capture the Sun with proper exposure, so to show sunspots and the ring eclipse on the final image, it is necessary to extremely reduce the light coming from the Sun. In other words, what is needed here is ND filters.
- One of the greatest advantages of ND round filters is that you can use a solar eclipse dedicated ND 100000 filter, or combine 2 different ND filters to obtain the necessary light screening.
- For example, good ND combinations for solar eclipse shooting are ND 1000 + ND 100 or ND 1000 + ND 64.  
(Remember that ND values are multiplicative and f-stops reduction is additive: for example ND1000(*10 f-stops reduction*) + ND 100 (*around 6.6 f-stops reduction*) have a similar effect of an ND 100000 [1000x100] for around 16.6 f-stops reduction [10+6.6])
- Because of the great difference in luminosity between the background and the brightness of the Sun, automatic exposure function may be not reliable. Therefore, shooting with manual exposure is recommended. Also, the proper exposure value greatly depends on actual shooting conditions. Shoot some test images while checking the shooting results on the camera LCD monitor to find the suitable values and change the exposure value accordingly.






# Suggested Aperture and Shutter Speed

Refer to the table below to find suggested shutter speed value depending on different aperture values and the f-stops reduction factor of your chosen ND filters. Please note that these are to be considered as starting values and need to be adjusted on the spot by taking different test shots and making necessary correction accordingly.



ISO:100

Filter	Aperture	shutter speed		
 ND 100000	f 8	1/2000	1/1000	1/200
	f 11	1/1000	1/500	1/100
	f 16	1/500	1/250	1/50
	f 22	1/250	1/125	1/25
 ND 1000 + ND 16	f 8	Impossible	Impossible	1/2000
	f 11	Impossible	1/5000	1/1000
	f 16	1/5000	1/2500	1/500
	f 22	1/2500	1/1250	1/250
 ND 500 + ND 8	f 8	Impossible	Impossible	1/6000
	f 11	Impossible	Impossible	1/3000
	f 16	Impossible	1/8000	1/1500
	f 22	1/8000	1/4000	1/750

As you can see, low f-stops reduction like ND 4000 (ND 500+ ND8) may limit your options on aperture and shutter speed. For this reason the use of a dedicated ND 100000 filter is suggested, and ND 16000 (ND1000+ND16) could be a good compromise, too.

**TIP:** The difference in f-stops reduction between ND 100000 and ND 64000 (ND 1000 + ND64) is less than 1 f-stop. It means that you can refer to ND 100000 suggested aperture and shutter speed values for ND 64000 (ND 1000 + ND64) combination as well!

# Kenko solutions for Solar Eclipse shooting:

## Kenko PRO ND 100000

Kenko dedicated filter for solar eclipse shooting



### Kenko suggested ND combinations from REALPRO ND filter series



ND64

ND1000



ND100 x2



# Don't stop there!

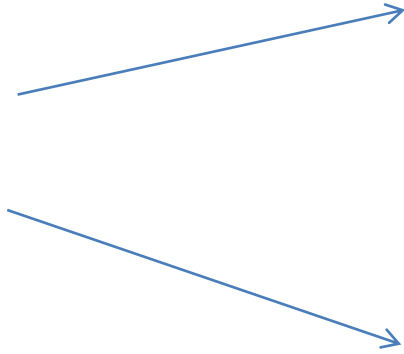
Remember that, even once the eclipse is over, you can still experiment with your Kenko ND filters! ND 100000 or ND filters combinations open up a lot of possibilities for creative and dramatic effects!



**ND 4000**



**ND 100000**



ND 8



ND 500

