Weekly Challenge

Solve the challenge, share your solution and summit the ranks of our Community!

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IDEAS WANTED

We're actively looking for ideas on how to improve Weekly Challenges and would love to hear what you think!

SUBMIT FEEDBACK

Weekly Challenge

Challenge #82: Are You in the Path of the Solar Eclipse?

ChristineB
Alteryx Alumni (Retired)

The solution to last week's Challenge can be found here!

You'll want to get this week's Challenge done quickly, especially if you want to find out if your current location is in the path of today's total solar eclipse!

The given input file contains data on the path of the moon's shadow of the solar eclipse that will pass over North America on Aug. 21, 2017 (source: https://eclipse.gsfc.nasa.gov/SEpath/SEpath2001/SE2017Aug21Tpath.html). To experience totality, or the darkness of the moon's shadow, you need to be within the boundaries of the eclipse's path. Use the data below to plot the Northern, Central and Southern limits of the of the eclipse's path. Then, determine if your current location is within the path of totality. If not, what is the minimum distance from your location to being within the boundaries of totality?

*HINT: Convert geographic degrees and minutes into decimal degrees using the formula DEGREES + (MINUTES/60)
**HINT: Longitudes in North America are negative values.
***HINT: It's helpful to limit the path of totality to the boundaries of North America (optional). Download a shapefile of the United States here: https://www.census.gov/geo/maps-data/data/cbf/cbf_nation.html.

Happy Eclipse Day!

challenge_82_start_file.yxmd

challenge_82_solution.yxzp

Data Preparation | Developer | Intermediate | Join | Parse | Preparation | Spatial | Spatial Analysis

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NicoleJohnson
15 - Aurora

My solution! And I even had time to run outside and check out the eclipse for myself! (With the proper approved safety eyeglasses of course, since as shown in my solution, I'm about 178 miles away from being able to see the full totality)... This was a fun one, @ChristineB!! Happy Eclipse Day, everyone!

challenge_82_NicoleJohnson.yxmd

Share 3 LIKES Reply

ACE PhilipMannering
15 - Aurora

Great problem to get better acquainted with some of the spatial tools.

Here's my solution.

▷ Spoiler

challenge_82 - Distance from Total Solar Eclipse.yxmd

Share 3 LIKES Reply

JoeM
Alteryx Alumni (Retired)

Christine's solution has been posted!

Share 0 LIKES Reply

ACE estherb47
15 - Aurora

Mapped this out for my siblings too :) None of us were anywhere near the totality, but we all watched through safety glasses! Still such a cool event, and my children and I look forward to the next one.

My approach wasn't a novel one. Prepared the data, first parsing it

▷ Spoiler

challenge_82_EHB_solution.yxmd

Share 1 LIKE Reply

ACE patrick_digan
17 - Castor

Fun challenge!

▷ Spoiler

challenge_82_start_file.yxwz

Share 1 LIKE Reply

LordNeilLord
15 - Aurora

This was a fun one, I spent far too long messing about with Transpose & Crosstab to get the data in a suitable order to build the PolyLine then I remember that you can build these things using the formula tool! MUST NOT FORGET THE FORMULA TOOL!

▷ Spoiler

challenge_82_LNL.yxmd

Share Reply

3 LIKES

Natasha
9 - Comet

I was avoiding this challenge for a while, but once I read up on lat/long and degrees everything fall into place.

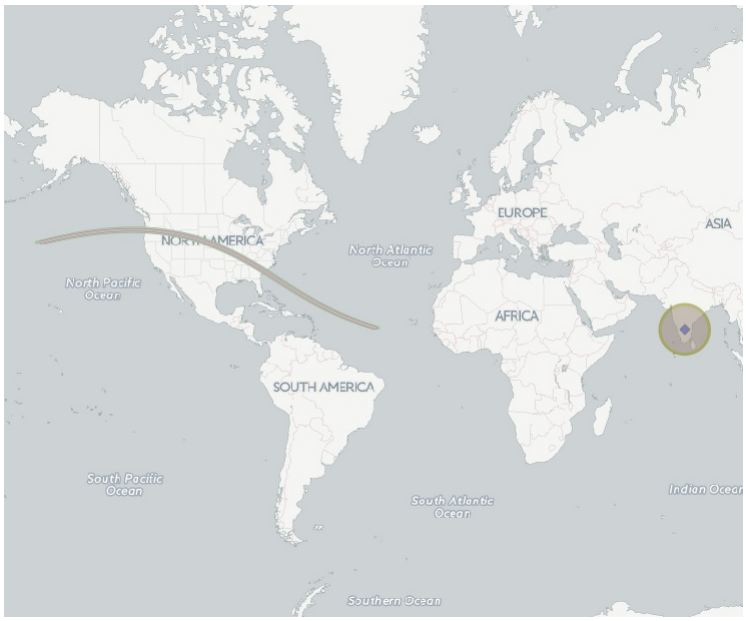
▷ Spoiler

challenge_82_Natasha.yxmd

Share 2 LIKES Reply

SeanAdams
17 - Castor

:-) so, it turns out that we were in yellowstone at the time, so we were directly in the path. But I followed the instructions to the letter, and plotted the path vs. my current location. No intersection at all (8816 Miles to closest point).



challenge_82_SeanSolution.yxmd

Share 0 LIKES Reply

LandonG
8 - Asteroid

Solution attached.

challenge_82_start_file.yxmd

Share 0 LIKES Reply