



Monsoon Chasing

Photography Workshop

July 26th - Aug 2nd 2024

Monsoon - A seasonal shift or reversal in the low to mid level winds

North American Monsoon - Impacts Mexico and Southwest US

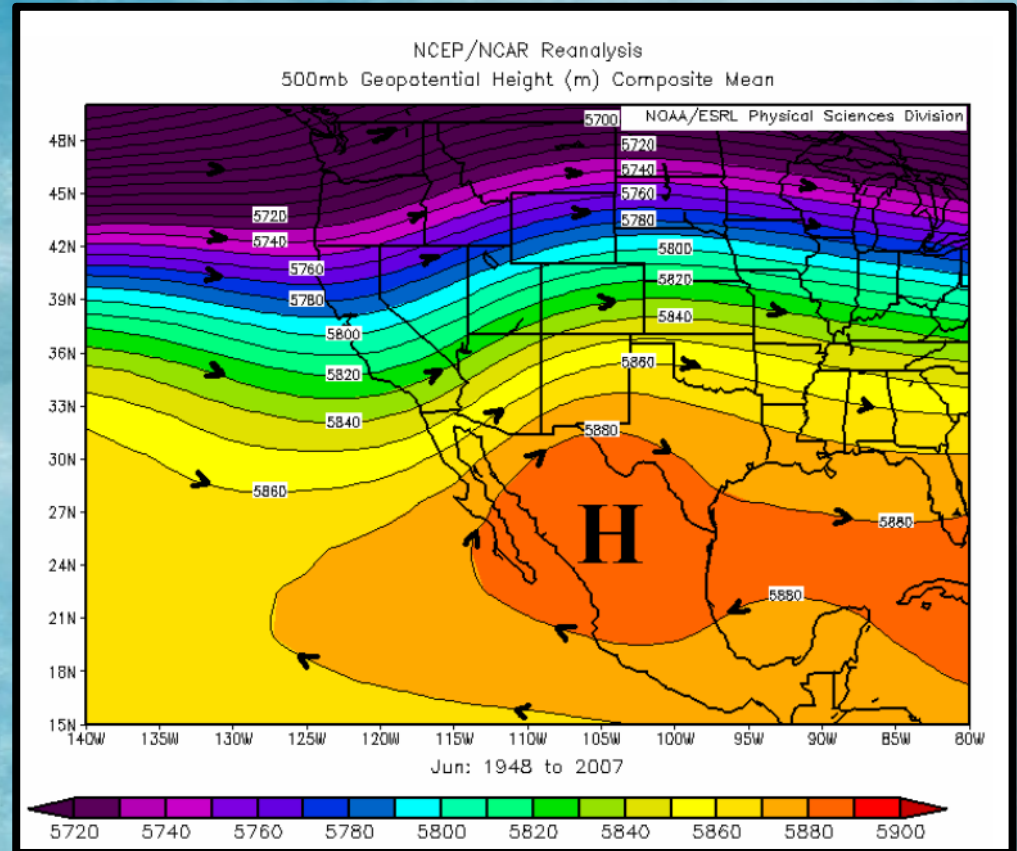
Monsoon does not mean rain, but wind does bring more humidity which leads to thunderstorms.

June Pattern

***Very Hot**

***Very Dry**

***Winds W/SW**

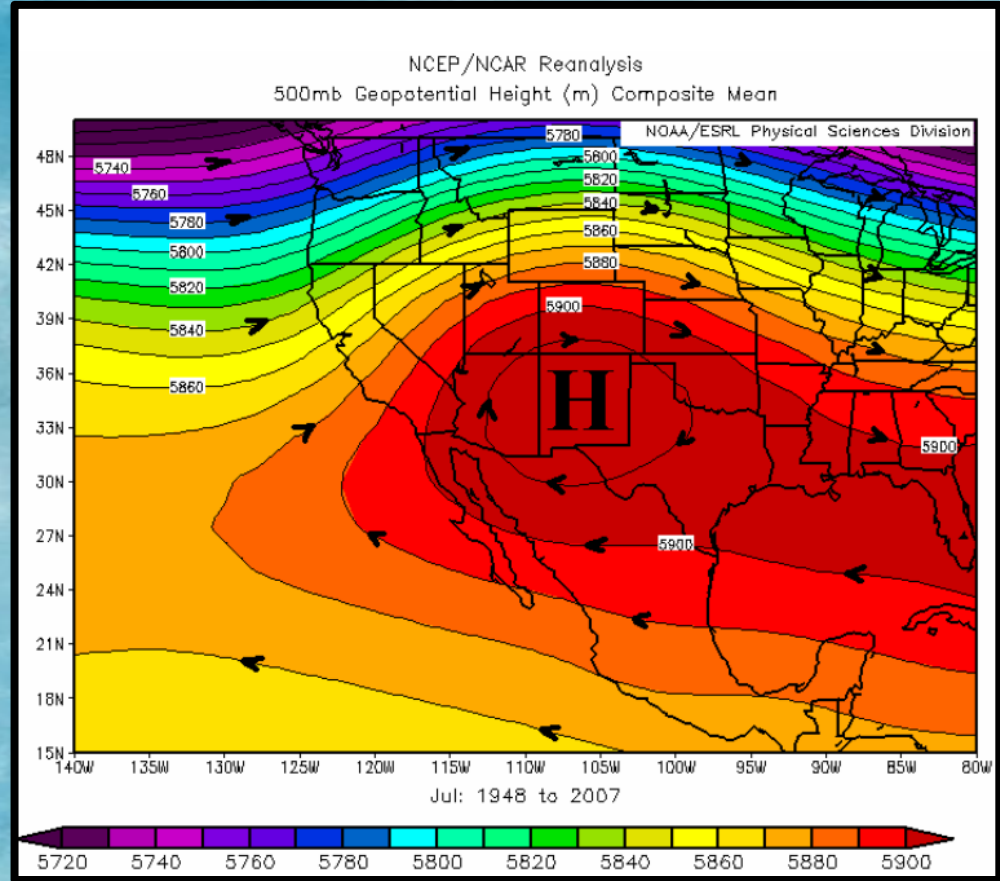


Jul/Aug Pattern

*Hot

*More "Humid"

*Winds SE





NORTH AMERICAN MONSOON

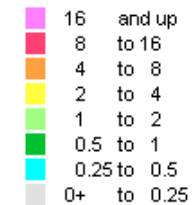
JULY - SEPTEMBER



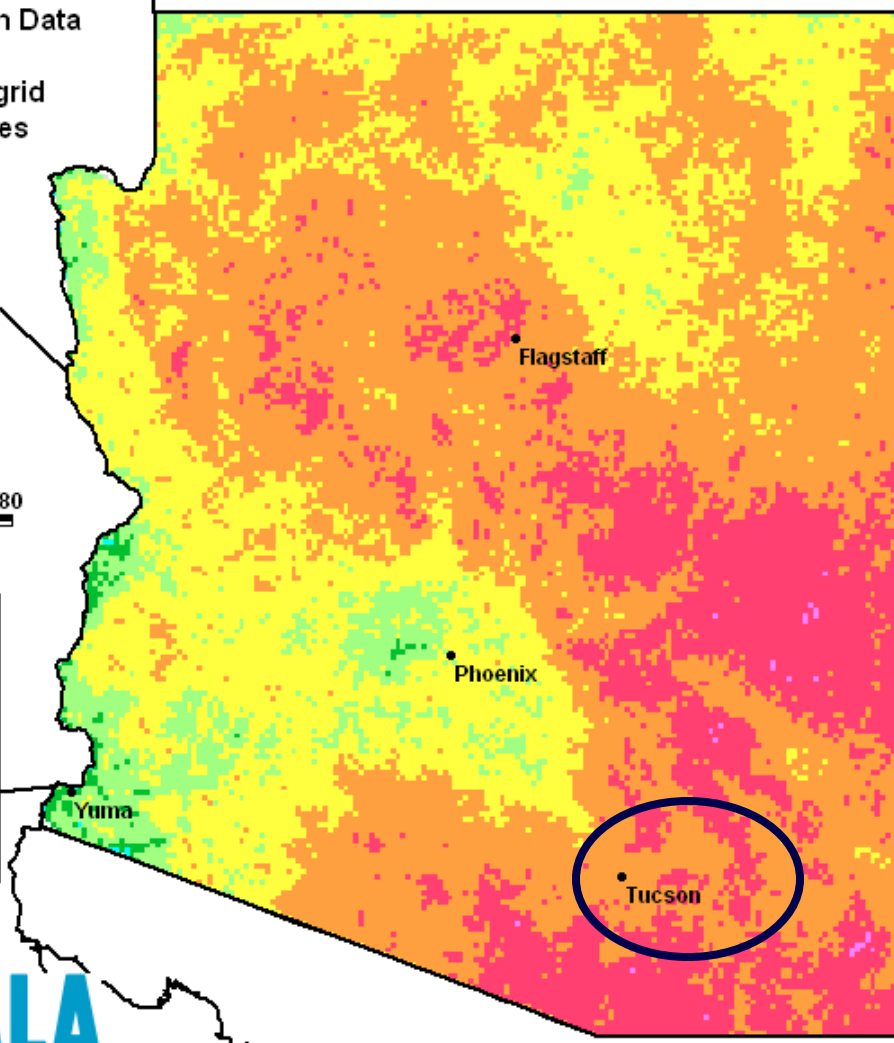
NLDN CG Flash Data
2004 - 2013
2 mile x 2 mile grid
6,188,902 flashes

0 40 80
miles

Flash Density
flashes/sq mi/year



VAISALA



Early PM Storm Development (Daily)

Overnight Storms
(More Rare)

Late PM
Eve Storms

Tucson
Area

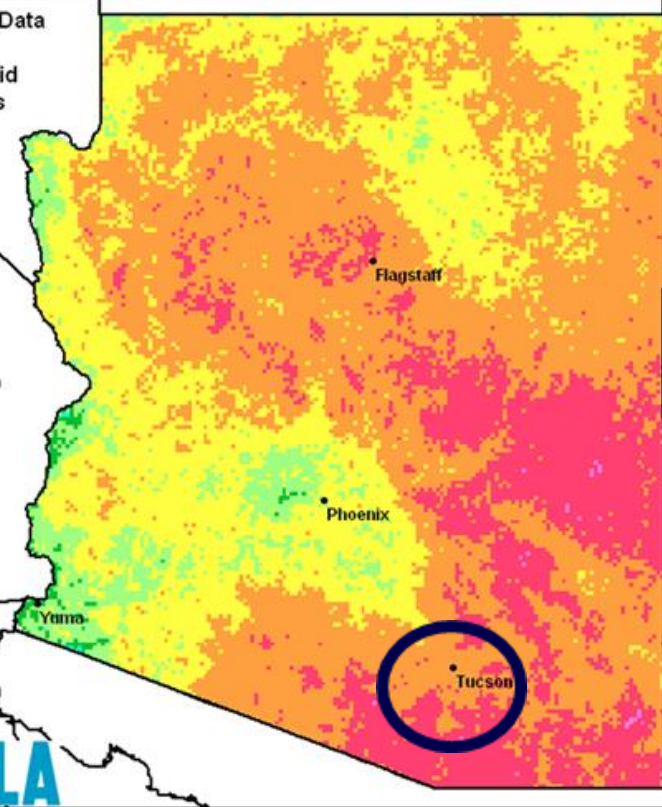
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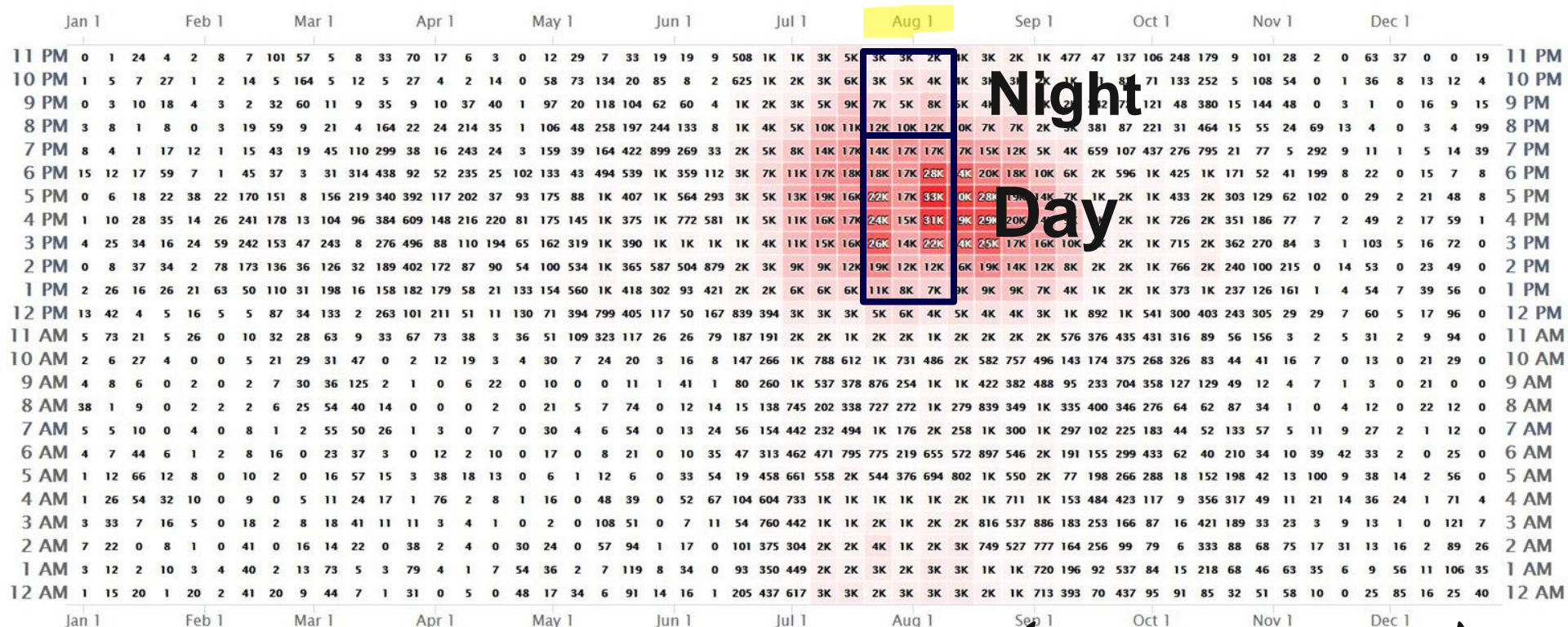
VAISALA



Pima County AZ Weekly by hour (Local Time) Total Cloud to Ground Lightning Flashes 1988-2017

1.8M total flashes. The most flashes have occurred from Aug 6-Aug 12.

Note: This imagery is experimental and is in its evaluation stage



Tucson, AZ

(Pima County)

Total Observed Flashes 1988-2017

0 10k 20k 30k 40k

Weather Safety - Main Concerns

1) Lightning

***Goal Is To Stay 6-15+ Miles From Lightning**

***If Lightning Strikes Less Than 6 Miles,
Go Inside Vehicle, Building, House, etc**



Arizona Is Lightning Photography Capital Of The World!

Why is it different?

- 1) Isolated storms, dry air around it
- 2) High Based Clouds
- 3) High Heat, High Instability = Lots Of Lightning Flashes

Daytime Lightning Photography

*Method #1: Add ND Filter Or Polarizer, Highest F-Stop, Lowest ISO, Get Longest Exposure Time. Use Continuous Shutter, Camera On Tripod & Remote Release

*Method #2: Use Lightning Trigger

*Method #3: Take Video On Phone, Then Take Screenshots Of The Lightning shots

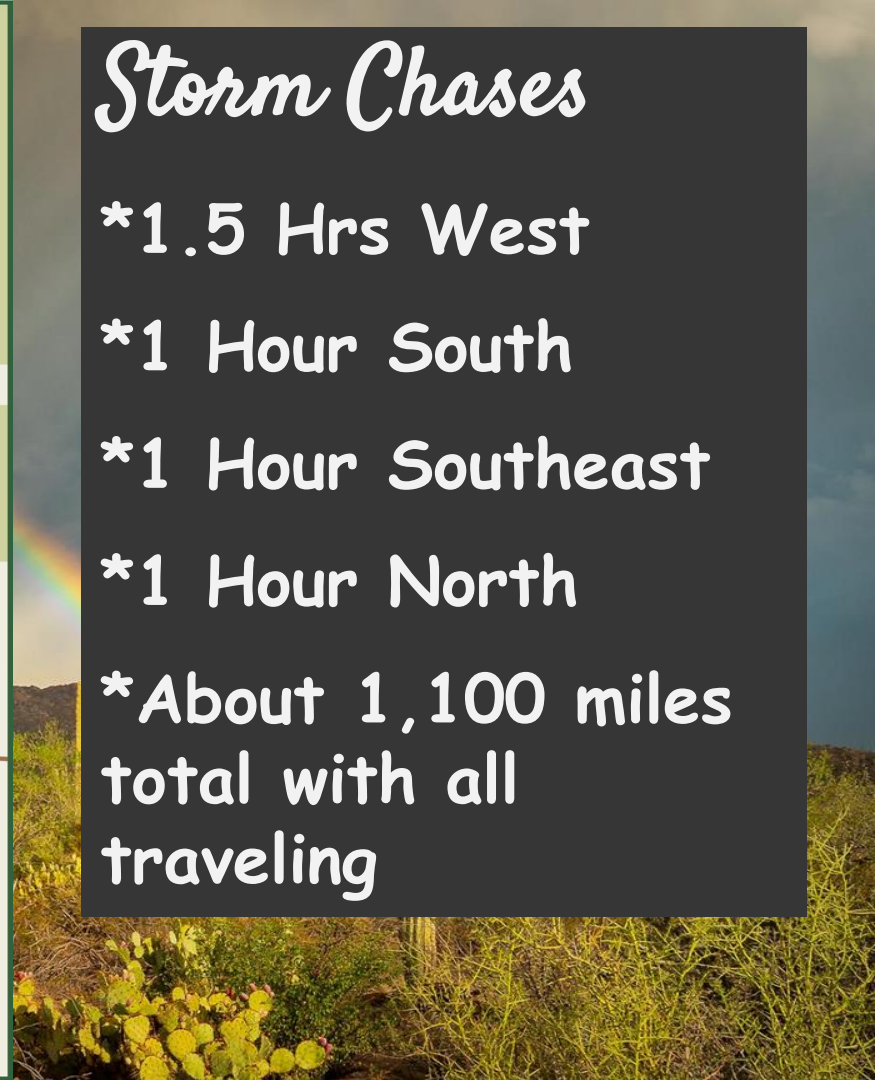
Night Lightning Photography

*Use Tripod, Remote Camera Release, Bulb Function,
Set ISO To 100

*Most Lightning F/4 to F/6.3, Bright & Close Flashes
F/7.1 to F/9

*Open Shutter, Wait For Lightning, Close Shutter

*About 1,100 miles
total with all
traveling







Overall Odds Of Monsoon Storms

- *Daily Chance In Tucson: 33% (1 of 3 days)
- *Daily Chance By Chasing: 67% (2 of 3 days)
- *Daily Chance For Post Sunset Storms: 50% (1 of 2)
- *Normal Weekly Storm Days: 4 or 5 days
- *Normal Weekly Twilight/Night Storms: 3 or 4 days
- *Normal Weekly "Epic" Lightning Displays: 1 day

2024 Monsoon Chase Compared To Normal

*Normal Weekly Storm Days: 4 or 5 days

2024 = 6 Days, (1 Storm Free Day)

*Normal Weekly Twilight/Night Storms: 3 or 4 days

2024 = 4 Days, (3 Night, 1 Twilight)

*Normal Weekly "Epic" Lightning Displays: 1 day

2024 = 0 Days

Friday, July 26th

*Arrival, Sunset & Late Night Storms







Saturday, July 27th

***Breakfast & Lunch, Photo Editing, Photo Shoot At Arizona-Sonora Desert Museum, Sunset Lightning Shoot**







Sunday, July 28th

***AM Hike/Photo Shoot Catalina State Park, PM
Storms Photo Shoot On Roof, Evening Sunset &
Storms West To Sells, AZ**











Monday, July 29th

***Historic Catholic Church Photo Shoot, Intense Storm Chase In The Evening/Night**







Tuesday, July 30th

***Photo Editing Lesson On Photo Stacking, & Editing
Lightning Images, Sunset On Tumamoc Hill, Milky Way
Shoot In Saguaro National Park...(No Storm Day)**















Wednesday, July 31st

***Active Storm Day During Afternoon, Minor Haboob
(Dust Storm), Dust Devils, Gates Pass Sunset,
Midnight Storms Northwest**





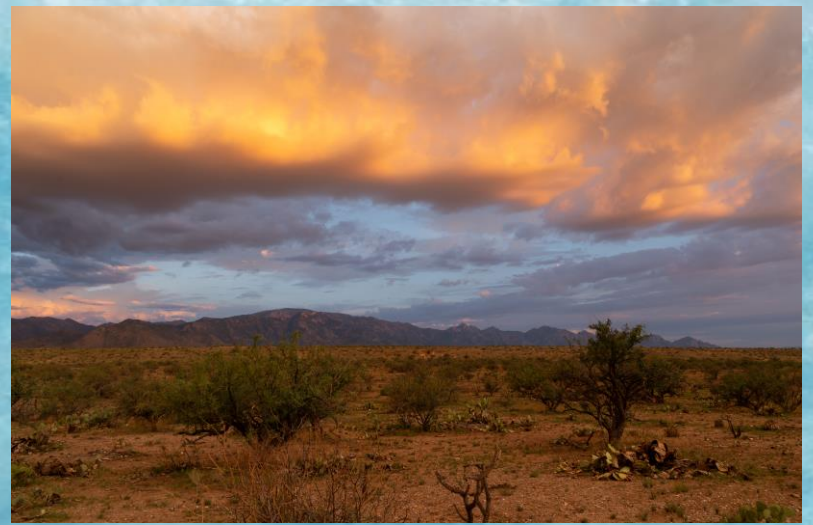


Thursday, Aug 1st

***Mt Lemmon Photo Shoot, Sunset & Evening Storms
North Of Tucson**







Friday, Aug 2nd

*Departure, Severe PM Storm - Wind, Hail, Flash Flood, Blowing Dust, Blue Hour Lightning (Biggest Storm Of Trip, Activity Picked Up More Over The Weekend)

