

HAZARDOUS 4TH OF JULY

The Effects of Fireworks on Air Quality

July 4th, 2020

Iowa DNR issued air quality advisory for Polk County up to the 6th

With the addition of ozone, LA briefly had the worst air quality in the world the morning of the 5th

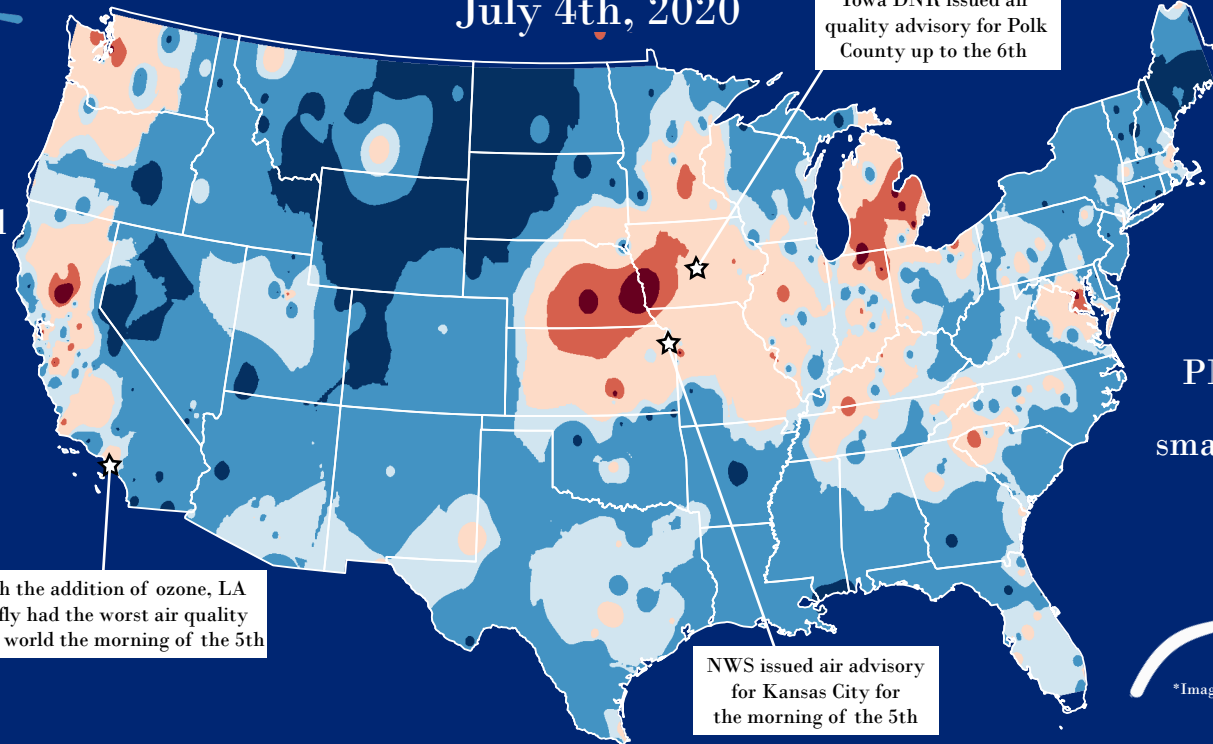
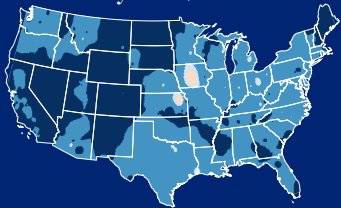
NWS issued air advisory for Kansas City for the morning of the 5th

PM2.5 is **20** times smaller than the diameter of a human hair.

Human Hair=50-70µg
PM2.5=2.5µg

*Image not to scale

Before firework shows:
July 3rd, 2020



Potassium Nitrate
Charcoal
Sulfur

Fireworks release PM2.5 through various chemical aerosols

Legend

PM2.5 (µg/m³)

Good 0 - 12

Moderate 12- 34.3

Unhealthy for Sensitive Groups 34.3- 55.4

Unhealthy 55.4- 150.4

Very Unhealthy 150.4- 250.4

Hazardous 250.4- 943



At short-term exposure, PM2.5 is known to cause:

- Premature mortality
- Increase hospitalizations for heart and lung cases
- Bronchitis
- Asthma attacks
- Respiratory distress

Sources: EPA, California Air Resources Board, Noun Project

Made by: Genna Murray

Date: 12/7//2023

Spatial Reference

PCS: USA Contiguous Lambert Conformal Conic 1

GCS: GCS North American 1983

Projection: Lambert Conformal Conic

Central Meridian: -100.0000