

## **The Evolution of Air Quality Products and Services at NWS Albuquerque**

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The long-standing partnership between NASA SPoRT and NWS Albuquerque has placed our forecasters at the forefront of advanced satellite analysis. Our efforts have supported the role of GOES-R to improve the understanding of weather and climate and reduce the impact on society and weather-sensitive commerce. The integration of SPoRT-transitioned satellite products into operations has provided unique satellite observations that encourage development of new satellite interpretation skills and operational forecast methodologies. This collaboration has not only improved our forecast products and services, but has also enhanced the communication of critical information to core partners and customers.

Over the past several decades, impacts to air quality due to hazardous concentrations of smoke and blowing dust have been relatively infrequent. However, in more recent years, the impacts of regional warming and persistent drought across much of the southwestern United States have increased the frequency of record breaking wildfires, blowing dust outbreaks, and subsequent hazardous air quality events. While blowing dust was once considered an inconvenience, or perhaps a travel hazard, recent research has documented increasing health threats associated with suspended dust particles. Therefore, the advancement of high quality products and services is more important than ever before. NWS Albuquerque has been evaluating products developed by SPoRT that have proven useful in the detection and monitoring of wildfire and blowing dust events. In this presentation, we will share examples of synoptic-scale blowing dust events, wildfire smoke events, and local point-source dust events to summarize how these recent advancements in satellite technology have contributed to improving air quality products and services for northern and central New Mexico.