

5 January 2018

Dear Colleagues,

We are pleased to announce FIREX-AQ, a joint NOAA/NASA field program for summer 2019. This combines the previously separate NASA FIREChem and NOAA FIREX programs to better study the atmospheric effects of wildland and agricultural fires in the U.S.

The combination of separate efforts into FIREX-AQ offers significant advantages to the research community by optimally leveraging the scientific interests, personnel, and assets of NASA, NOAA, other agencies, and academic partners in a fully integrated program of field measurements, modeling, and interpretation. The joint FIREX-AQ program benefits from the knowledge base developed from detailed emissions characterization by NOAA and partners in the 2016 Missoula Fire Lab study. The NASA DC-8 aircraft offers an unparalleled payload capacity for comprehensive characterization of fire emissions, provides the flight envelope required to study chemical transformations during long-range transport, and enables sampling of both Western wildfires and agricultural/land-management burning emissions across the United States. The NOAA Twin Otter aircraft provides a complementary near-field ability to study daytime and nighttime chemical processing in lofted plumes from Western wildfires. The joint FIREX-AQ program further combines in-situ surface and airborne observations with remote sensing data to inform retrieval validation for wildfire emissions and plume optical properties.

A combined white paper describing overarching FIREX-AQ science goals is forthcoming from FIREX-AQ principal investigators Carsten Warneke (NOAA ESRL), Jim Crawford (NASA Langley), and Joshua Schwarz (NOAA ESRL). This document will draw from the previously separate white papers, reflecting the complementarity that led to the genesis of FIREX-AQ.

We welcome your participation in this interagency effort to better understand the atmospheric impacts of biomass burning on the atmosphere, and look forward to the team effort that FIREX-AQ is designed to promote.



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