

The Airborne and Satellite Investigation of Asian Air Quality (ASIA-AQ)

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Abstract

Conducted during February-March 2024, the Airborne and Satellite Investigation of Asian Air Quality (ASIA-AQ) assembled an international group of scientists to collect multi-perspective observations to investigate air quality and its controlling factors across four countries: the Republic of Korea, the Philippines, Taiwan, and Thailand. Research flights of NASA's DC-8 and G-III research aircraft were carefully designed to allow integration of flight observations with local air quality monitoring networks and satellite observations from South Korea's Geostationary Environment Monitoring Spectrometer (GEMS), as well as other satellites and surface research assets (e.g., super sites, Pandora spectrometers, and AERONET sunphotometers). Given the immediate value of the observations, the team is working hard to make research-quality data publicly available by the end of September 2024. This presentation will discuss the preparatory collaboration and work needed to enable the project, details of the execution of flights, data examples from each country, and plans for the project going forward. This includes the development of Rapid Science Synthesis Reports for each country in early 2025, approximately one year after completion of research flights. These reports are intended to be useful for both policy makers and the public, pointing to early findings and evidence for air quality drivers and outcomes. Longer-term study and peer-reviewed findings will be used to support Final Science Synthesis Reports for each country two to three years later. Capacity building aspects of the study include an improved understanding of emissions, improved local forecasting and modeling of air quality, increased integration of satellite observations in air quality assessments, growth in airborne measurements, and a more robust international community of scientists applying their expertise to local and regional air quality issues.

Early Career Scientist

NO, I am not an early career scientist.

IGAC Activities

ACAM: Atmospheric Chemistry and the Asian Monsoon

IGAC Regional Working Groups

MANGO: Monsoon Asia and Oceania Networking Group