

# Dragon Eye Deployment to Turrialba Volcano in Costa Rica in Support of ASTER SO<sub>2</sub> Data Product Validation

- The RQ-14 Dragon Eye sUAVs were recently acquired by Ames from the U.S. Marine Corps via GSA to support this mission
- Flights occurred from March 10-13, 2013
- 5 science flights with SO<sub>2</sub> sensor and 1 science flight with thermal camera (7-12 $\mu$ m band)
- SO<sub>2</sub> concentrations of ~6-20 ppm were detected throughout the day
- Collected measurements in the volcano plume coincident with an ASTER overpass
- Expanded flight envelope up to 12,500 ft ASL from 8,000 ft ASL published operational ceiling
- SIERRA2/Viking carrying a mass spectrometer and other instruments + Dragon Eye in FY2015
- Funded by NASA Earth Surface & Interior Focus Area (John Labrecque) and the University of Costa Rica (Prof. Jorge Andres Diaz, Co-I)
- US Flight Team from JPL, ARC, WFF
- Other participants/advisors
  - Applied Sciences University D usseldorf (Germany)
  - RadMet LLC (Redwood City, CA)
  - Teledaq LLC (Santa Clarita, CA)
  - Aerovironment, Inc. (Monrovia, CA)
- Principal Investigator: David C. Pieri (JPL)

