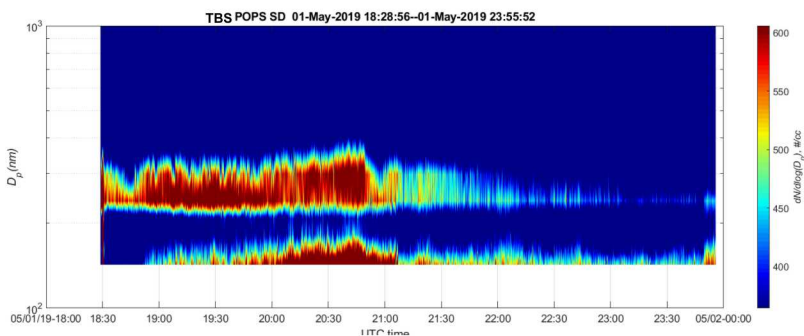
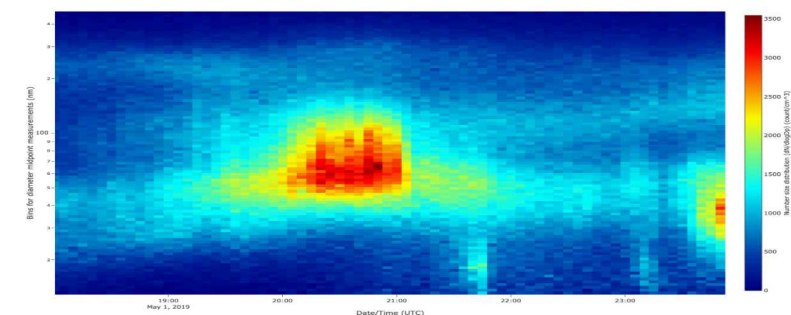


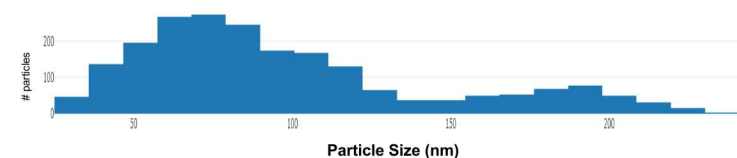
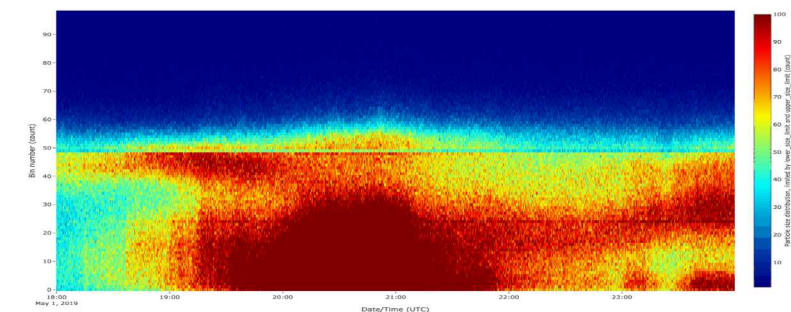
April 2019 SGP TBS Deployment



SGP AOS SMPS Number Size Distribution



SGP AOS UHSAS Particle Size Distribution



- Initial flights of the TBS were conducted at SGP for 17 hours from 4/25/19 - 5/1/19.
- SGP TBS flights may be conducted during daylight as high as 1 km AGL and must remain 150 m below cloud base.
- Aerosol instrumentation (two POPS and one CPC), anemometers, radiosondes, and distributed temperature sensing (DTS) optical fiber were deployed.



Future TBS Activities

- 2.5 weeks of flights at SGP in July 2019
 - Balloon-borne, Transverse Electromagnetic Measurement (BTEM): Determine the profile of electrical resistivity
 - Vertically-Resolved New Particle Formation and Transport Study (VNATS-SGP): Develop process-level understanding for the formation and growth of atmospheric aerosol aloft
 - Initial flights of TBS aerosol filter samplers to determine the minimum flight time required for sufficient sample collection.
- August 2019 flights at the AMF3 in Oliktok Point
- Late Sep – Oct 2019 flights at SGP
- ARM is currently planning TBS deployments in FY20 and will issue a TBS activities call in the next few months.



BTEM prototype flight at SGP in April 2019