Statement of Interest: GP17 Planning Meeting, Daniel Ohnemus (UGA Skidaway)

I would like to participate in the GP17 planning workshop in Norfolk, VA. My work would focus on large-volume *in situ* pump-based collection and analysis of size-fractionated particulate material which forms the core of my research program at the University of Georgia's Skidaway Institute. Specifically, my focus would be on total and weak-leachable size-fractionated particulate trace elements (typical analytical suite: Al, Ba, Cd, Co, Cu, Fe, La, Mn, Ni, P, Pb, Sc, Th, Ti, V, Y, Zn, and any REEs of interest) and tandem synchrotron-based mineralogical speciation of size-fractionated particles. Ancillary data to be collected—either directly or through collaboration(s)—would allow determination of major particle composition (i.e. POC, PIC, bSi, lithogenics, and Fe- and Mn-oxyhydroxides). Pump-derived samples are notably large-volume (hundreds to thousands of L) and size-fractionated, thus allowing sample distribution to numerous collaborators in a manner prohibitive for smaller-volume bottle filtrations. Thus, samples collected through this work would support GEOTRACES objectives from all three themes; notable examples include constraints on atmospheric deposition sources and fluxes at the ocean-atmosphere interface (potential collaborations with aerosol elemental suites & speciation, as well as atmospheric-derived isotopes [e.g. 7-Be]), internal cycling of scavenged bioactive elements (notably Fe, Mn and their co-scavenged elements) and particle-reactive tracers (e.g. isotopes of Th, Pa, Po, Pb, and anthropogenic radionuclides), and proxies of past change (e.g. particulate Nd and particulate components of Cd/P and Zn/Si tracers). This workshop will be an important chance to plan and strategize effective proposal(s) to accomplish this work. While I am not a new GEOTRACES participant, as a potential first-time GEOTRACES PI I am eager to learn more about the diverse regions and gradients to be examined through these sections.