**Full Suite of IOP measurements using an Automated Flow-through System**

Scott Freeman1,2, Antonio Mannino1

1NASA Goddard Space Flight Center, 2Science Systems and Applications, Inc.

Abstract: While underway measurements of selected IOPs have been conducted for several years, few datasets of complete IOPs have been collected. Here we present a method using two valves and an automated switching controller, which allows for the measurement of whole water, 0.2 m filtered water, and distilled water with all instruments. The system was first used on a cruise from Tasmania to the Ross Sea to Tahiti (CLIVAR 16S), and some preliminary results are presented here. Parameters measured were: *a*g, *a*pg, *c*pg, *b*p, *b*b650, *b*b/*b*, chlorophyll- and CDOM fluorescence, temperature, and salinity. To compare measurements of ship’s uncontaminated seawater to those of *in situ* water, profiles were made each day while on station with an IOP package containing similar instrumentation.

1NASA Goddard Splace Flight Center 8800 Greenbelt Rd, Greenbelt, MD 20770, USA

2Science Systems and Applications, Inc, 10210 Greenbelt Road, Suite 600, Lanham, Maryland 20706, USA