THE STRATOSPHERIC OBSERVATORY FOR INFRARED ASTRONOMY (SOFIA)

R. D. GEHRZ, *Department of Astronomy, University of Minnesota, 116 Church Street, S. E., Minneapolis, MN 55455*; E. E. BECKLIN, *Universities Space Research Association, NASA Ames Research Center, MS 211-3, Moffett Field, CA 94035*.

SOFIA is a 2.5-meter infrared airborne telescope in a Boeing 747-SP that will begin will begin science flights in mid-2009. Flying in the stratosphere at altitudes as high as 45,000 feet, SOFIA will be used to conduct spectroscopic and imaging observations throughout the infrared and sub-mm region with an average transmission of greater than 80 percent. The SOFIA first-generation instrument complement includes broadband imagers, moderate resolution spectrographs capable of resolving broad features due to dust and large molecules, and high resolution spectrometers suitable for kinematic studies of molecular and atomic gas lines at km/s resolution. The characteristics and status of the observatory and its instrumentation will be briefly reviewed. SOFIA's operations schedule and opportunities for observers and instrument developers will be described.