SMASS NEAR-EARTH OBJECT SURVEY: AN ALBUM OF RESULTS. R. P. Binzel[1], A. W. Harris[2], S. J. Bus[3], A. S. Rivkin[1], T. H. Burbine[4]. [1]Department of Earth, Atmospheric, and Planetary Sciences, MIT, Cambridge, MA 02139, [2]Space Science Institute, Boulder, CO 80303, [3]Institute for Astronomy, University of Hawaii, Hilo, HI 96720, [4]Department of Mineral Sciences, National Museum of Natural History, Smithsonian Institution, Washington, DC 20560.

The Small Main-Belt Asteroid Spectroscopic Survey (SMASS) undertaken at MIT has produced and published visible spectra for more than 1300 main-belt asteroids [1]. The infrared extension of this program (SMASSIR) has produced near-infrared spectra for about 200 main-belt asteroids [2]. In this poster we present visible and near-infrared spectral results for more than 300 near-Earth objects (NEOs) measured during the SMASS and SMASSIR programs and through ongoing observations at Kitt Peak, Palomar, IRTF, and Magellan observatories. The scientific goals for this sample are to deduce the compositional distribution of the near-Earth object population. Knowledge of this distribution will allow the origin and relative hazard of the NEO population to be better understood and will provide the basis for gaining further insights to asteroid-meteorite and asteroid-comet relationships.

While a portion of our NEO sample has been published [3], spectral measurements are newly presented here for more than 250 NEOs. All published SMASS spectra are available at our website http://smass.mit.edu/. These new near-Earth object spectra will also be made available at the SMASS website at the time they are submitted for publication. This research is supported by NASA grant NAG5-12355 and NSF grant AST-0205863.

References:

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