INTRODUCTION

The InSight lander science mission goals are to investigate the formation of rocky planets and detect seismic activity on Mars [1]. Two scientific instruments were built and deployed to the surface to achieve these goals: a seismometer (SEIS) and a heat probe (HP3), as well as a wind and thermal shield (WTS) to cover SEIS. The Instrument Site Selection Working Group (ISSWG) was formed by the mission to quantify and qualify the instrument placements on the surface. Constraints on instrument tilt, rock size under the instruments, surface materials, distance from the lander, and noise characterization (both vibrational and thermal) were all taken into account to select the best location for these instruments to deploy to and meet their scientific objectives within the primary mission timeline of one Mars year. A web-based GIS tool was developed that incorporated multi-layered mosaics, measurement tools, and 2D/3D visualization to allow science team members to evaluate suggested placements against a known list of ‘constraints’ ("must meet") and ‘desirements’ ("would be nice").