PRoViScout - Planetary Robotics Vision Scout
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D6.2.1 Aerobot Context Document

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Lead contractor for this deliverable UCL
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EXECUTIVE SUMMARY

The first (and longest) part of this document describes the AU aerobot component of the PRoViScout project and is the main documentation output of Task 6.2. It describes the concept of a tethered aerobot in general, and the specific design and testing of the AU aerobot and its use in the PRoViScout reference mission to provide data for the construction of a high-resolution DEM of the wider area surrounding a ground-based rover.

This document also discusses the possibilities for further scientific exploitation of the AU aerobot beyond its primary function of providing image data for DEM generation, by adding a multispectral imaging capability.

The document's final part discusses the work performed at UCL/MSSL on a tethered balloon aerobot, which was used to test fly a version of the wide-angle laser imager (WALI) over the MSSL grounds in March 2011. This section discusses the technical design of the aerobot and WALI instrument and summarises the results obtained. The possibilities for future exploitation of the UCL aerobot are also briefly discussed.

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