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Laser Swarm

Simulator Report

Design Synthesis Exercise

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May 4, 2010

Abstract

As part of a laser swarm feasibility study, this document preliminarily describes the design and workings of a simulator. This simulator simulates a satellite swarm with a single emitter and multiple receivers flying in formation for the purpose of mapping the Earth's surface. The how and why of the simulator is discussed in this document.

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List of Acronyms

Chapter 1

Introduction

This report preliminarily discusses the design and workings of a simulator tool developed with the purpose of guiding and validating the results of the tradeoff done in the main laser swarm project, as well as demonstrating the feasibility of the concept of the laser swarm.

Chapter 2

Simulation

2.1 Orbit

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2.3 Noise Introduction

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