

Plan Overview

A Data Management Plan created using DMPTool

Title: Maximum Achievable Heights of Various Party Balloons in Various Weather Conditions

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Maximum Achievable Heights of Various Party Balloons in Various Weather Conditions

Products of research

Describe the types of data and products that will be generated in the research, such as physical samples, space and/or time-dependent information on chemical and physical processes, images, spectra, final or intermediate numerical results, theoretical formalisms, computational strategies, software, and curriculum materials.

This project will work to generate reliable data for predicting the maximum achievable altitude of widely available party balloons under various weather conditions. Expected data will include:

- type of balloon (rubber, latex, plastic, silicon)
- shape of balloon (round, orb, globe, animal, letters, numbers, etc.)
- gas used to fill balloon (helium, hydrogen)
- square volume of balloon (in cm³)
- global coordinates of release of balloon
- speed of ascension of balloon (meters per second)
- maximum height reached of balloon
- maximum distance traveled of balloon
- and total time spent in flight of balloon.

Data will be captured with PI's logging all relevant ground data, and onboard sensors monitoring all flight data.

Data format

Describe the format in which the data or products are stored (e.g. hardcopy logs and/or instrument outputs, ASCII, XML files, HDF5, CDF, etc). What metadata will be part of the data sets produced?

Data will be collected into .odt and .rtf formats to preserve openness but also available in a .xls format for those with access to spreadsheet programs. Files will have simple XML metadata descriptors for their online locations, so that finding the data will be easier.

Access to data, and data sharing practices and policies

Describe your plans for providing access to data, including websites maintained by your

research group and contributions to public databases. If maintenance of a web site or database is the direct responsibility of your group, provide information about the period of time the web site or database is expected to be maintained. Also describe your practice or policies regarding the release of data—for example whether data are available before or after formal publication and the approximate duration of time that the data will be kept private. Describe your policies (where applicable) for protection of propriety data, privacy and confidentiality, intellectual property, or other rights or requirements.

Download of data will be freely available for everyone via GitHub. Other researchers will have the ability to upload their own data if they are conducting their own party balloon experiments and adhering to our strict standards. Any uploaded data will be reviewed by the principal PI.

Policies and provisions for re-use, re-distribution and production of derivatives

Describe your policies regarding the use of data provided via general access or sharing. If you plan to provide data on a website, will the site contain disclaimers, or conditions regarding the use of the data in other publications or products? If the data or products are copyrighted, how will this be noted on the website?

All content and data will be governed by Creative Commons 3.0 Share and Share Alike as Attribution licenses.

Archiving of data

Describe whether and how data will be archived and how preservation of access will be handled. For example, will hardcopy logs, instrument outputs, and physical samples be stored in a location where there are safeguards against fire or water damage? Is there a plan to transfer digitized information to new storage media or devices as technological standards or practices change? Will there be an easily accessible index that documents where all archived data are stored and how they can be accessed? If the data will be archived by a third party, please refer to their preservation plans (if available).

Data will be archived on triple redundant backup SSD hardisks that will be launched into cryostasis in the upper atmosphere attached to a computer shaped party balloon.
