# FMitF:Tack I: Formal Methods for Uncrewed Aircraft Systems Traffic Management Safety and Contingency Handling

Univ. of Utah: Thomas C. Henderson, Luis Garcia, Ben Greenman

## Data Management Plan

Data management issues will be addressed at the University of Utah with active web sites and some type of open source services (e.g., GitHub, Google Code; aspects of the project deemed suitable for open source development be deployed on either GitHub or Google Code with an appropriate open source license. GitHub and Google Code support most major open source license, and Google Code further gives the flexibility of choose a specific source control system. Both hosting services provide numerous tools for project communication including wikis, bug reporting, mailing lists, and forums).

## **Project Results**

The main results of our research will be published in conferences and journals, and will be made publicly available through the aforesaid websites. In addition, results from the proposed study will consist of software, software documentation, and descriptions of benchmarks.

## Data dissemination

It is the goal of the PIs to provide the online community with meaningful access to the research. In addition to publishing in journals and electronic venues, the PIs will provide full access to publications at conferences, including the preprints and technical reports released internally from the associated participating institutions. Additionally, the PIs will release research results as technical reports.

The code release will be through appropriate software licenses.

#### Backups and Archive

The School of Computing maintains a separate backup systems managed by a dedicated server.

#### Data Privacy

Data access is primarily controlled with Unix groups, but for higher security levels such as HIPAA or proprietary, restrictions are set at the directory level. This allows host-level (IP restricted) and network access to a directory, which can be further restricted to host computers or servers through a dedicated point-to-point network connection.

#### Policies for Sharing and Provisions for Appropriate Protection Privacy

Example Data will be protected according to the extent necessary. and data dissemination will be the responsibility of the PI. Data sharing will follow the guidelines of the relevant regulatory guidelines of each institution. Information on the availability of the data and descriptions of the data will be made available to other researchers through the group websites, scientific publications, and code repositories.

Data included in scientific publications or websites will be fully anonymized, if necessary. Data that is not anonymized (e.g., images from a video with people present) will only be included with the explicit consent of the participant, following the guidelines provided by the the relevant institution.

Source Code and Prototyped Systems will be made freely available to the community (under appropriate open source licenses) to the extent possible. This project does not provide the resources to provide full support for objects it creates. Things that we feel are sufficiently mature and stable that we can release them without a promise of support will be publicly released via our website or as ROS packages. We will avoid releasing immature systems since it wastes the time of those who

try to use them. However, we may make such things available upon request.

Copyrightable Artifacts (source code, artistic assets, etc.) may be copyrighted by group members, subject to the intellectual property rules of the university. In such cases, the copyright holder will provide an appropriate open source license. Any sharing of code or other artifacts will properly comply with our responsibilities under the Bayh-Dohl act. Appropriate inventions will be disclosed to the University authorities.

Publications: Copyrights for published materials will follow the copyright procedures of the relevant conference and journal. We will maintain linked project websites at the relevant university. All papers will be available in digital libraries and/or the project websites.