

# Reaching for the Stars

*Inspiring with High Altitude Science*

*Luther Richardson  
Columbus High School*

***Georgia Space Grant Consortium***



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**Columbus, GA**



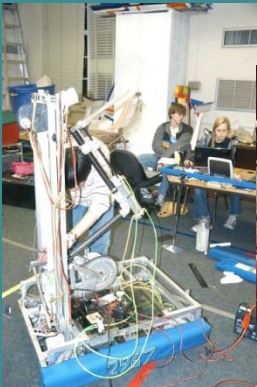
# Columbus Space Program

Co-curricular K-12 Science organization

## ROBOTICS

FIRST Robotics

"6 weeks to build a 150 pound robot"



Zero Robotics

Student programmed robots competing on ISS



## INVENTION

*Develop a patentable invention with \$10,000*



Pete Conrad



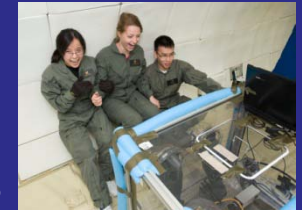
*Business plan competition for technology ideas*

## SCIENCE



Wallops sub-orbital rocket experiments

JSC Vomit Comet experiments



Glenn DIME Drop-Tower experiments



# DREAMS

Doing *Research* at *Extreme Altitudes* by *Motivated Students*



Georgia Space  
Grant Consortium

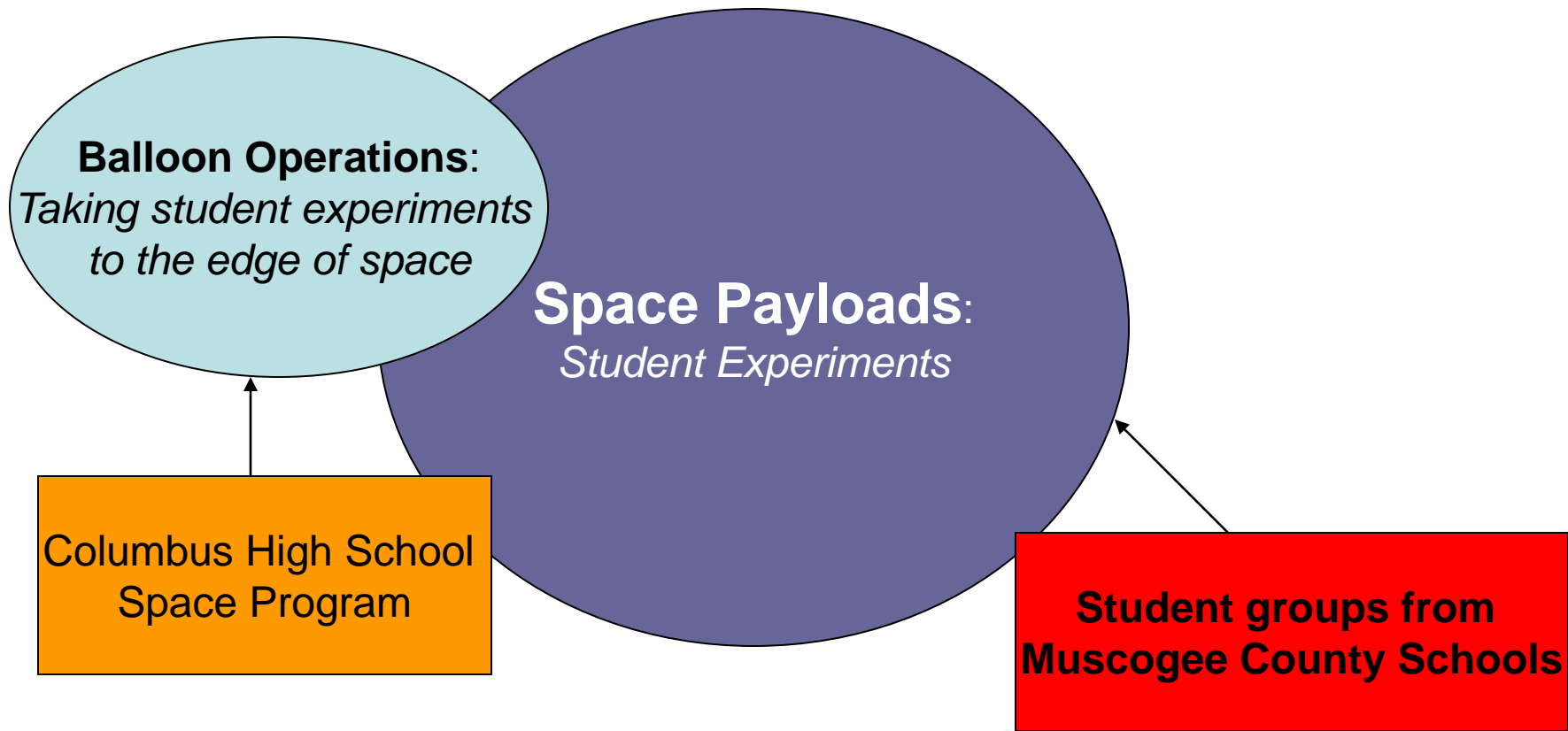
*High altitude science platform built by the Columbus Space Program*



# DREAMS

## Original Concept of Operation

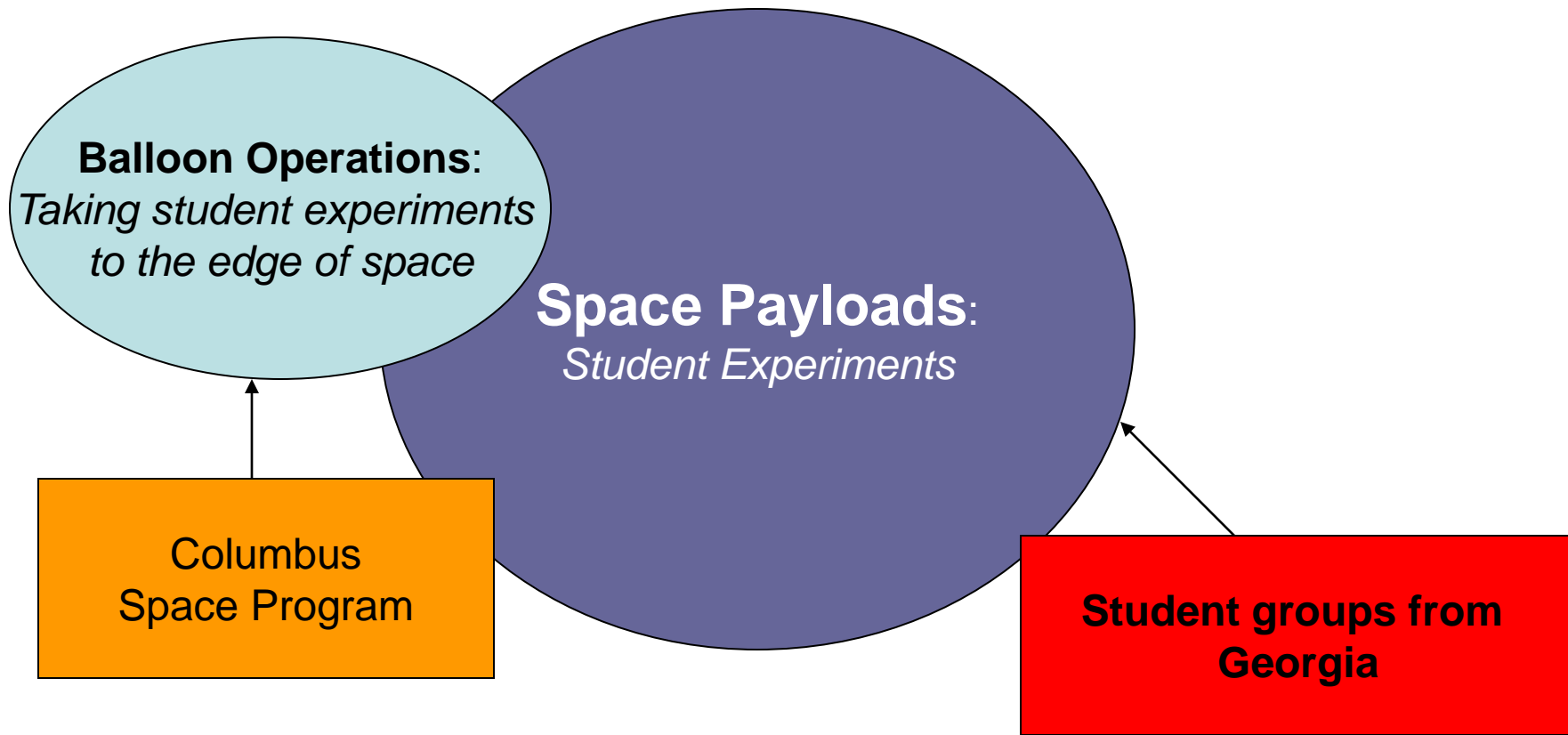
***Doing Research at Extreme Altitudes by Motivated Students***



# DREAMS

Reaching for the Stars, version 1.0

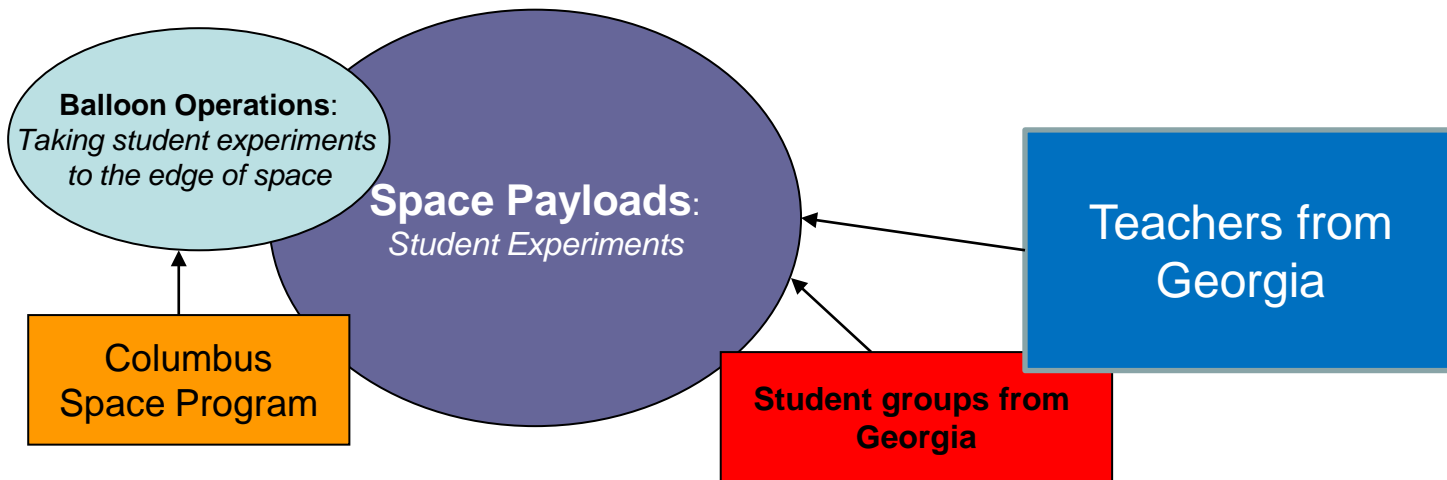
***Doing Research at Extreme Altitudes by Motivated Students***



# DREAMS

## Reaching for the Stars, version 2.0

### ***Doing Research at Extreme Altitudes by Motivated Students***



### Community Groups



100 Black Men of Atlanta, Inc.

EDUCATION - ENRICHMENT - DEVELOPMENT

# Doing Research at Extreme Altitudes by Motivated Students (DREAMS) Mission Procedures

## Flight Proposal

Written proposed mission including objectives, and flight requirements – emailed to advisors for approval

3 months to launch

## Design Review

Advisors meet to see a presentation on how the balloon team plans to meet the objectives of the approved proposed flight including the test plans

2 months to launch

## Mission Readiness Review

Advisors meet to review the hardware and mission plans in terms of if they will meet the objectives/requirements based on results of tests

2 weeks to launch

## Countdown GO/No-GO (Flight Readiness Review)

All open issues raised at MRR addressed.  
Checklists approved, and countdown begins.

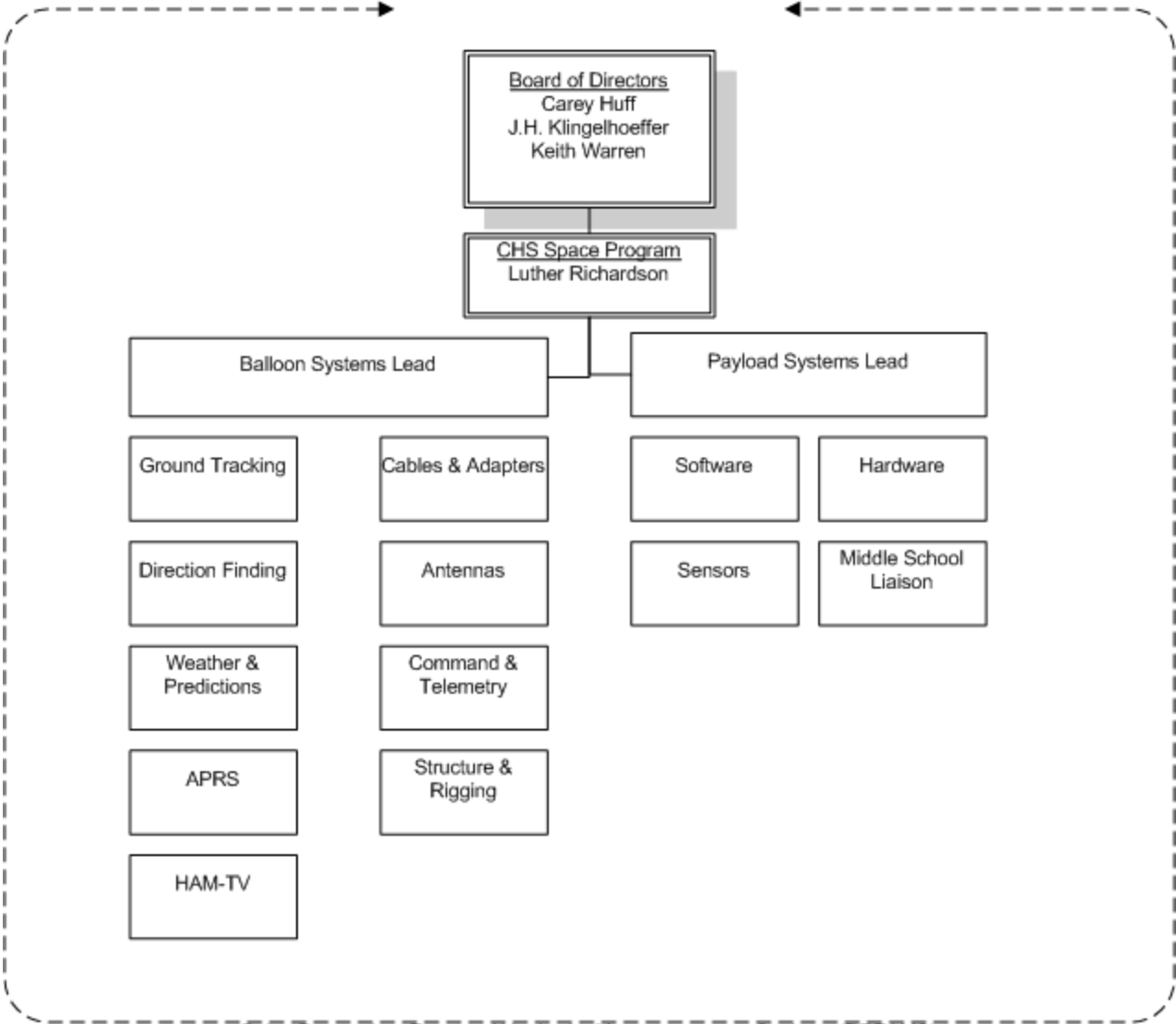
1 week to launch

## One-week Countdown (no hardware changes)

Assignments of duties, radio freq plan, monitor weather, practice

Flight Week





Doing Research at Extreme Altitudes by Muscogee-county Students (DREAMS)  
Columbus NASA Connections



- [DREAMS-12](#): June 5, 2011
- [DREAMS-11](#): April 19, 2011
- [DREAMS-10](#): April 2, 2011
- [DREAMS-9](#): April 24, 2010
- [DREAMS-8](#): March 30, 2010
- [DREAMS-7](#): June 20, 2009
- [DREAMS-6](#): May 25, 2009
- DREAMS-5: May 31, 2008
- [DREAMS-4](#): May 10, 2008

