

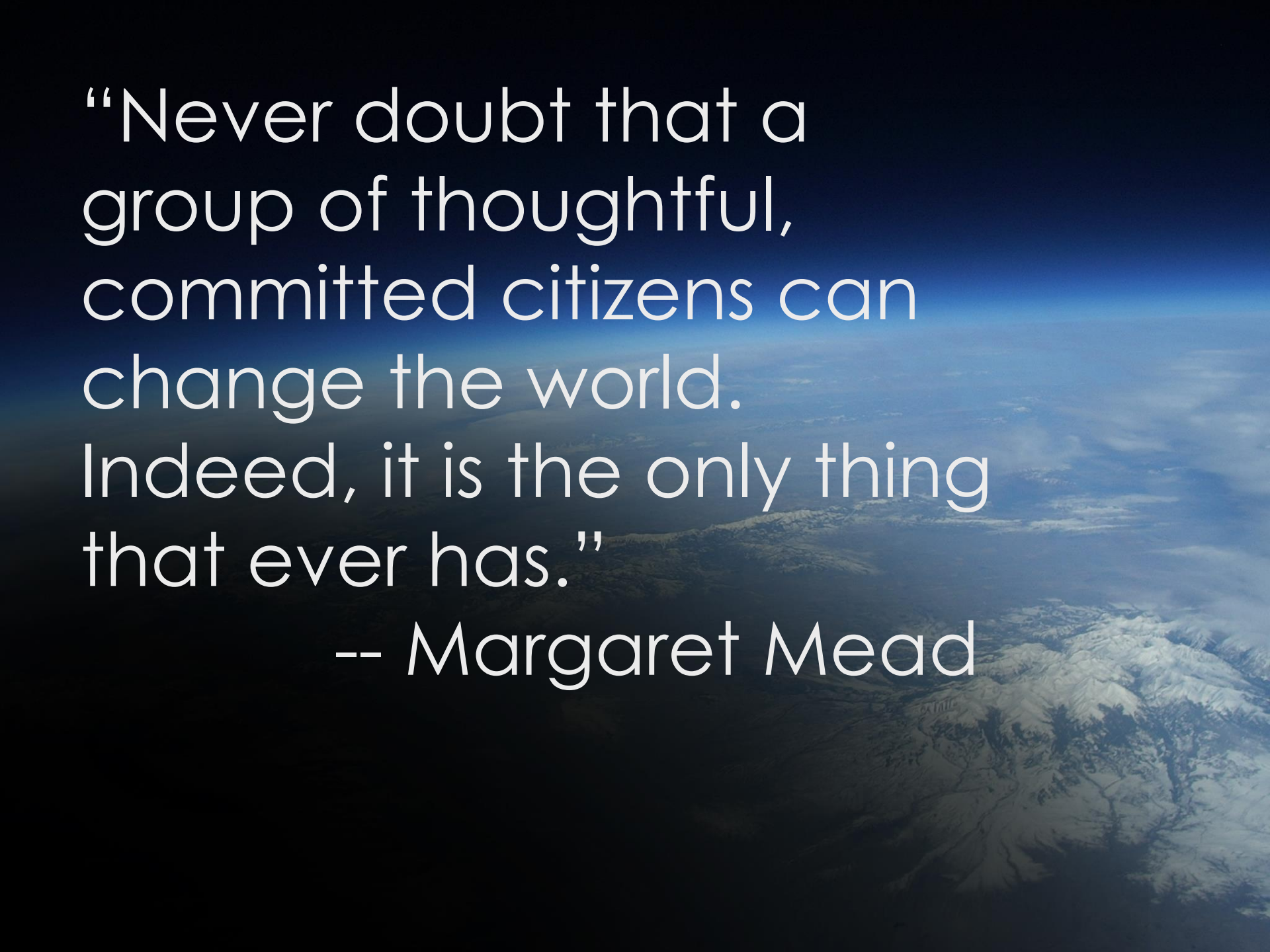
An aerial photograph of a mountain range, likely the Sierra Nevada, showing snow-capped peaks and a clear blue sky. The text is overlaid on the left side of the image.

Eclipse Balloon Project update

NATIONAL SPACE GRANT DIRECTORS MEETING

WASHINGTON, DC

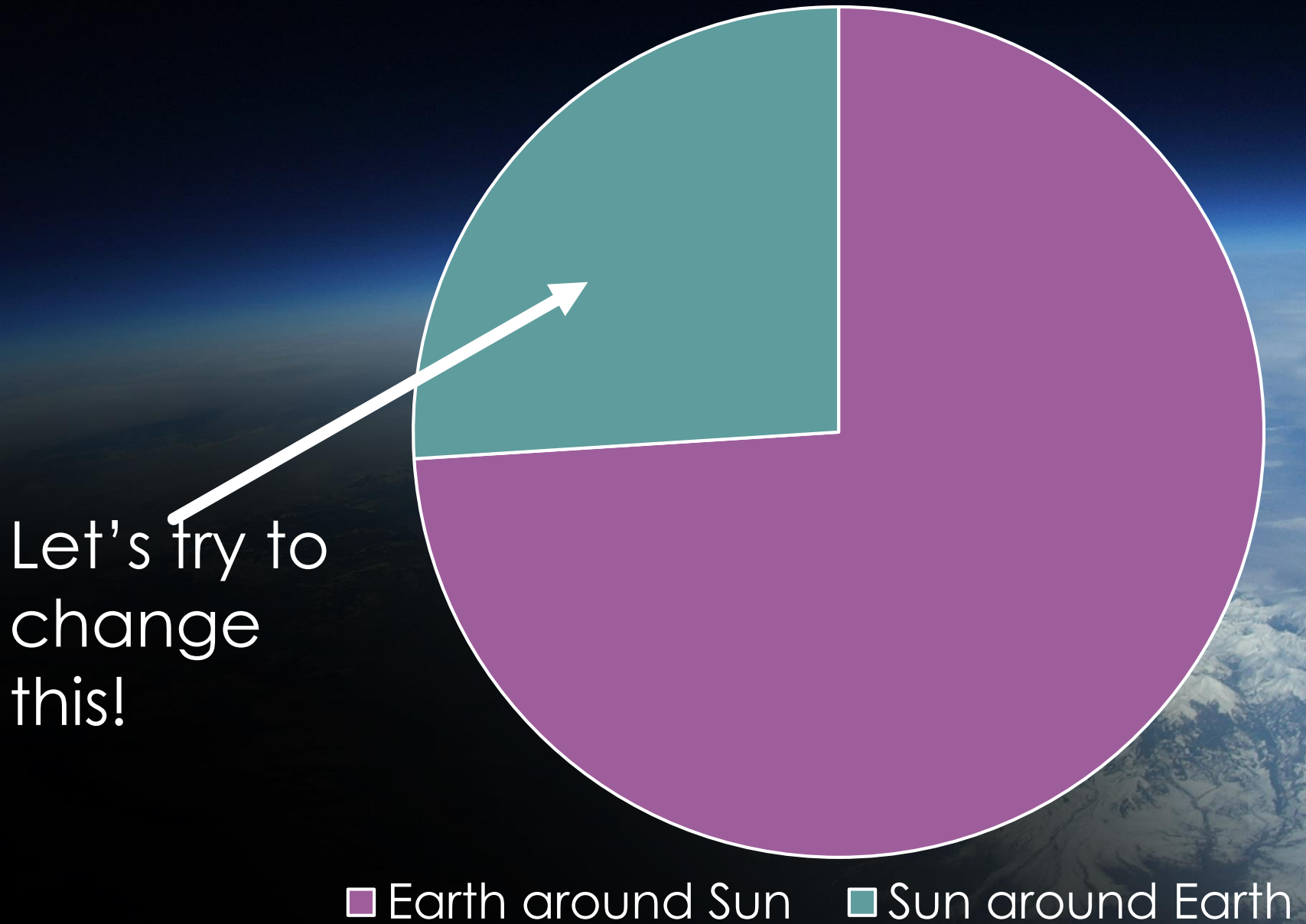
MARCH 4TH 2016

An aerial photograph of a mountain range, likely the Sierra Nevada, showing rugged, snow-capped peaks and a valley below. The sky is a clear, deep blue. The text is overlaid on the left side of the image.

“Never doubt that a group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has.”

-- Margaret Mead

US General Public



Budgets

- ▶ Funding ended up being included in Augmentation – fewer proposals to write!
- ▶ Breakdown of cost estimates by category on website: eclipse.montana.edu
- ▶ Big bang for the buck

The screenshot displays the Eclipse Ballooning Project website. The header features the NASA Space Grant logo for 2017 and the text "Eclipse Ballooning Project Use these pages to get involved". A search bar is located in the top right corner. The navigation menu includes links for Home, About, Involvement, News, Radiosondes, Participants, Workshop, Sponsors, FAQ, and Contact Us.

The main content area is titled "Participants" and includes the text "Current Eclipse Team Launch Locations:". Below this is a map titled "Eclipse Ballooning Team Launch Locations" showing the United States with several red location pins and a blue line representing the eclipse path. The map is powered by Google My Maps.

To the right of the main map is a smaller map titled "NASA Eclipse Page" showing the eclipse path across North America with various dates and times marked. Below this is a "Latest T" section featuring a tweet from "2017 Eclipse HAB @Eclipse_HAB" dated 11 Jun, which includes a logo contest announcement for the 2017 Total Solar Eclipse HAB.

T minus one year timeline

- ▶ Register (REQUIRED): 3/29
- ▶ Registration payment: 4/29
- ▶ Practice workshop: 5/16
- ▶ Full workshop: 7/16
- ▶ Test flights: 8/21

Registration

- ▶ 1 for workshop & official participation
- ▶ Registration is required. FAA ask & NASA website
- ▶ Registered SG teams will receive a common payload kit valued at \$3,700 (SMD support).
- ▶ Due by 3/29 with payment due by 4/29
- ▶ Workshop registration includes:
 - ▶ Each participant: breakfast and lunch each day, eclipse t-shirt, jump drive with software/documents.
 - ▶ Each team: a hard-copy reference handbook, tools/items needed for payloads/ground station and shipping of your payloads/ground station home.

Common payload testing

South Dakota with Raven



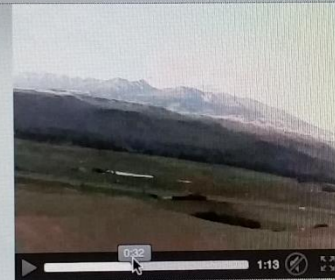
Greg brought Louisiana warmth to Montana



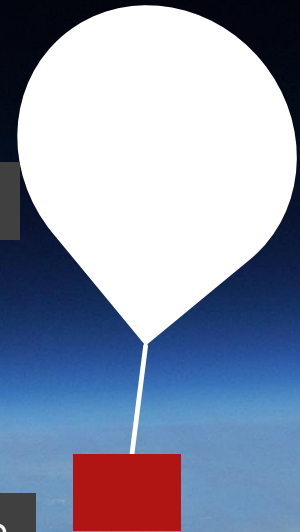
Loads of supplies!



Live Video Stream



How it all works



terminate

Xbee

Xbee

Iridium Modem

900 MHz still

5.8 GHz video

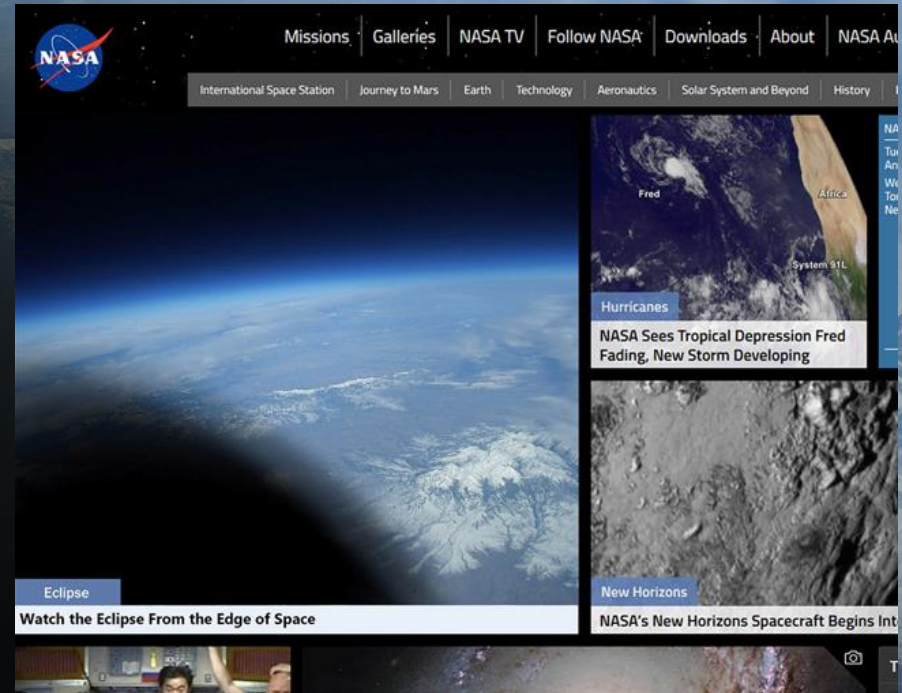
Ground station antennas

Ground station computer

Ethernet

Data server

Web



Science with NOAA, NSF

- ▶ Radiosondes (smaller balloons, NOAA set weather payload)
- ▶ Atmospheric effects
- ▶ Jennifer Fowler
 - ▶ Jennifer.Fowler@umontana.edu



- 4 finalists + 1 mentor per finalist will be offered a trip to NASA's Kennedy Space Center in Orlando, FL

- All travel expenses paid
- 3 full days to explore KS and the surrounding areas

Pre-Service Educator Eclipse Competition

- **Undergraduate pre-service education students enrolled at 2 or 4 year US institutions**
- **Develop a unit of study on topics surrounding total solar eclipses**

- ...while taking some time to take advantage of what "Big Sky Country" has to offer

- 10 students selected to present in Bozeman, MT
- 45 minute presentation
- All travel expenses paid

- Give these students and their mentors a unique, positive experience in the realms of science and NASA which can be shared with their future students



Q & A sessions

- ▶ 10:30 AM AND 2 PM
each Tuesday 3/8 and
Wednesday 3/9
- ▶ Reminder and call in info
soon