Welcome and Introductions

• New and new-ish Space Grant representatives:
  – Ami Erickson, Sheridan College
  – Liz Hunter, Gillette College
History of Space Grant
History of Space Grant

• 1987 – Congress mandated the creation of the National Space Grant College and Fellowship Program

• 1989 – NASA initiated the National Space Grant program starting with 17 states

• 1992 – Wyoming joined the National Space Grant Program

• Today – 52 Space Grant programs
  – 1 in each state, the District of Columbia, and Puerto Rico
  – May add Guam and the Virgin Islands
  – SG national network includes over 850 affiliates from universities, colleges, industry, museums, science centers, and state and local agencies
History of Space Grant

- Space Grant works to expand NASA opportunities by enhancing STEM education, research and public outreach efforts in each state.
History of Space Grant

• Goals
  – To create a national network of colleges and universities
  – To support programs at less research intensive colleges
  – To expand participation in science
  – To form partnerships with industry and government
  – To support public service and public outreach efforts
  – To promote a strong STEM education base from elementary through secondary levels
History of Space Grant in WY

- 1992 – Wyoming NASA Space Grant started
- 1995 – Sheridan College (NWCCD)
- 1997 – Embry-Riddle Aeronautical University (*no longer active*)
- 2001 –
  - Laramie County Community College
  - Casper College
  - Casper Planetarium
  - Wickman Spacecraft & Propulsion Co.
- 2005 –
  - Central Wyoming College
  - Western Wyoming College
- 2006 – F.E. Warren Air Force Base (*no longer active*)
- 2007 – Eastern Wyoming College
- 2010 – Northwest College
- 2015 – Metrohm Raman
- 2016 – Agate Adventures (*no longer active*)

- Board members listed on website: [wyomingspacegrant.org/space-grant-board/](http://wyomingspacegrant.org/space-grant-board/)
Wyoming NASA Space Grant Programs

• Resources and programs for Wyoming K-12 educators and students
• Research fellowships for Wyoming college and university students
• NASA internships for college students
• Scholarship programs for community college STEM students
• Grants for college faculty
Program Elements

- Internships, Fellowships, and Scholarships
- Research Infrastructure Projects
- Precollege Projects
- Informal Education Projects
- Higher Education Projects
# Program Elements

## NASA Internships, Fellowships, Scholarships
1. Graduate Fellowships
2. Undergraduate Fellowships
3. Engineering Senior Design Projects
4. NASA Center Summer Internships
5. Community College Transfer Scholarships
6. Community College STEM Scholarships

## Higher Education Projects
1. Faculty Education Enhancement Grants
2. Balloon Satellite Program
3. UW Summer STEM Camp & Teacher Training
4. Astronomy Workshop and Afterschool Program - Casper Planetarium
5. WiMSE Student Organization Support

## Research Infrastructure Projects
1. Faculty Research Initiation Grants
2. Travel Grants for STEM Students

## Precollege Projects
1. Women in STEM Conference
2. Robotics Competition Support
3. State Science Fair
4. Traveling Space Trunks & Science Kits
5. Teacher Professional Development Grants
6. UW Planetarium Programs

## Informal Projects
1. Wyoming Afterschool Alliance STEM Support
Board Member Responsibilities

• Attend Fall and Spring Board Meetings *(if possible)*

• Optional attendance at National/Regional Meetings

• For community college members: run a STEM scholarship program at your college
  – Use Space Grant application
  – Report on awardees

• Help advertise Space Grant programs

• Serve on review committees for awards *(if possible)*

• Help with Space Grant strategic planning and direction
National Space Grant Impact

**Educators**
- Higher Ed Faculty: 3,133
- In-Service K-12: 20,046
- Informal Educators: 1,562
- Pre-Service: 805

Total of 25,547 Educators

**K-12 Students**
- High School: 32,991
- Middle School: 124,533
- Elementary School: 157,471

Total of 314,995 K-12 Students
National Space Grant Impact

Space Grant Advancing Diversity
- 43% female participants
- 28% underrepresented minorities

Space Grant Awardees
- Scholarship 2,388
- Higher Education 803
- Fellowship 792
- Travel 26
- Research Infrastructure 433
- Faculty Projects 10
- Internship 384
- Other 41
Total 4,877
Wyoming Impacts

- **150** research fellowships, scholarships, internships, grants for college students
- **10** faculty grants
- **15** balloon launches for K-12 students and teachers
- Funding for **10** robotics teams
- Provided **3** educator professional development workshops
- Engaged close to **150** K-12 teachers and close to **2,000** students in STEM events
National and Regional Meetings

• Fall 2017 National Mtg – Grand Forks, ND
  – Shawna and Kevin attended
  – Kevin gave a really great talk 😊

• Spring 2018 National Mtg – Washington, DC
  – March 1-3, 2018
National and Regional Meetings

• Fall 2018 National Mtg – Stowe, VT
  – September 13-15, 2018

• Fall 2018 Collaboration Mtg – JPL in Pasadena, CA
  – 2-days with NASA Centers (Ames, Armstrong, and JPL)
    presenting long-term and short-term research challenges
  – Possible tour of SpaceX or Aerojet
  – Early November?
Updates

• Submitted 1-yr extension proposal for Space Grant on October 12th
  – Takes us through Spring 2019

• Solicitation for new 5-year Award
  – Summer 2018

• External Evaluation Preliminary Report
  – Mid-2018
Updates

• Some uncertainty ahead ......

• President Trump has proposed eliminating the NASA Office of Education

• Name Change: NASA Office of Education is now NASA STEM Engagement Office

• For now we are OK, but some things to think about
  – Telling our story better (marketing, data collection, stories, communication)
  – Strong connection to NASA Missions in Space Grant programs
  – Who is our audience?
  – Statement of Capabilities
Great Example of Telling Your Story

- CWC Interdisciplinary Climate Change Expedition: Story Maps from Jacki Klancher
  - 2017 ICCE Expedition
  - Rockie’s Largest Glaciers
Update: NASA Space Grant Budget

• Same as previous few years - $570,000 for WY
• CC STEM Scholarship Budget - $32,500

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Community College Scholarships

• New process

• Use the National Space Grant Foundation to distribute scholarship funding to students
  – Awardees would fill out an online W-9 form and then the Foundation would send them a check
  – Invoice us and charge a flat administration fee and fee/check

• Change the deadline for the CC Transfer Scholarships back to end of May
Update: Wyoming NASA Space Grant Website

wyomingspacegrant.org/

(wyomingspacegrant.uwyo.edu)
Updates: Journey to Mars

• Landers: 2028

• Cargo Mission: 2033

• Human Mission: 2038

Mars Explorer Posters
2017 Solar Eclipse Follow-on Project

- Citizen CATE project combined eclipse observations from 61 sites to create an unprecedented view of the solar atmosphere

- 9 sites in Wyoming received telescopes and cameras
2017 Solar Eclipse Follow-on Project

- Citizen Science Projects
  - Training workshop
  - Annual Wyoming Symposium
  - Funding for students to present at conferences

- CATE at Night – Observing variable stars
  - American Association of Variable Star Observers: AAVSO.org

- Daytime CATE – Tracking sun spots
  - Sun spot database

- Pilot in Wyoming expand nationally
Summer 2017 CC REU and K-12 Program Updates

Megan Candelaria
Community College and Affiliate Engagement Survey

• Are you happy with your level of involvement or would you like to see additional affiliate programs?
  – Summer faculty research or course development funding
  – CC REU program
  – K-12 STEM engagement programs
  – CC/affiliate engagement committee
  – Other ideas.....
Community College and Affiliate Engagement Actions

• Timeline:
  – Late fall/early spring semester – send survey
  – Spring Space Grant meeting – discuss results and start planning
  – Early summer – CC/Affiliate engagement committee
  – Late summer – submit new grant proposal
Questions?