



SECTION ANNUAL REPORT 2012-2013

The Annual Report is the Business Report for the Section and must be received before a Section can receive its rebate for the next year. It covers activities from June 1, 2012 to May 31, 2013. Although any member can aid in filling out the report, submission can only be made by the serving chair of the section year listed above. Supporting materials such as newsletters, programs, advertising, etc. may be attached, but the total pages should be no more than 12, and must all be in one document (it may mean that the entire report is submitted in .pdf format). Larger or extra pieces of supporting material, such as newsletters, multiple flyers, banquet programs, etc. should be archived on the section's SharePoint site with links in the report document as needed. This report must be submitted by **June 30, 2013** in order to be considered for any section awards.

Section Name: ***Rocky Mountain Section (RMS), Colorado
Region V***

Size: ***983 voting members
191 student members
162 educator associates***

Section Organization

1. List the names of the Section Officers and any additional members of the section council. (As of June 1, 2013)

- ***Chair: Dr. Roger McNamara***
- ***Chair-elect: Chris Zeller***
- ***Northern Vice-Chair: Dr Donna Sue Gerren***
- ***Southern Vice-Chair: Dr. Taylor Lilly***
- ***Montana Vice-Chair: Vacant***
- ***Wyoming Vice-Chair: Vacant***
- ***Secretary: Susan G. Janssen***
- ***Treasurer: Cindy McNamara***
- ***Public Policy: Pamela A. Burke***
- ***Honors and Awards: James Rendleman***
- ***Education: John Eiler***
- ***Programs: Chris Zeller***
- ***Website: John Grace***
- ***Newsletter: Jon Berndt***
- ***Membership: Pamela A. Burke***
- ***Pre-College Outreach: Open***
- ***Young Professionals: Dr. Taylor Lilly***

2. Number of council/officer meetings held during the year:

Average attendance:

8 meetings: 14 average attendees; in addition, separate, multiple meetings were conducted to plan and execute the RMS's October 2012 Annual Technology Symposium (ATS), and plan the RMS' October 2013 Annual Technology Symposium. Each ATS planning meeting averaged 5 members each. One council meeting was held in conjunction with the National Space Symposium, hosted by Lockheed Martin Company, and exhibition passes were furnished to its attendees by Lockheed Martin.

3. Percentage of membership voting in last election of Section Officers:
 - *23 votes (via internet SurveyMonkey voting); 983 voting members (fellows, associate fellows, senior members, members). Voting percentage is 2.3 percent.*
 - *No race was contested.*
4. List any activities targeted at officer training or development including attendance at the Regional Leadership Conference:
 - *A last-minute illness caused cancellation of an RMS representative's travel to the 2012 Regional Leadership Conference (RLC) in Atlanta, GA. The section hopes to send one or more officers to the 2013 RLC, August 2012, in Los Angeles, CA.*
5. Estimated membership located within 1 hour of the meetings:
 - *The section's membership is spread along the Rocky Mountain Front Range, from Bozeman, Montana, to Cheyenne, Wyoming to Pueblo, Colorado. Meetings and activities were conducted in a variety of communities in Colorado, generally near Boulder, Denver/Aurora/Centennial, Denver Tech Center, and Colorado Springs. Time-to-get-to-section-meetings is adversely affected by rush-hour traffic patterns along the Interstate 25 corridor. If held in Boulder, 30% are within 1 hour, if Denver 40%, and if Colorado Springs, 25%*
6. Number of Chapters within the Section: *None* Chapter Names: *Not applicable*
7. Describe how your section supports members outside the local area (if any):
 - *Section members participate in a wide variety of AIAA workshops, symposia, and conferences, and they are actively involved in the panoply of AIAA technical and other committees.*
 - *Section members supported the 2013 AIAA congressional visits day, visiting Colorado U.S. Senate staffs and U.S. Representatives, lead by the Section Chair, and members of the section public policy committee.*

Meetings, Programs and Events

1. Describe the Section's general meetings. Include date, meeting type (e.g. dinner meeting, field trip, lunch and learn, etc.), speaker, organization, topic, location, and attendance. You may further break down your attendance if you would like (AIAA members, nonmembers, students, etc). Also include the focus (young professional, public policy, technical, workforce development, STEM K-12, etc. or just general), any publicity used for the event, and if it was jointly sponsored and if so, by whom.

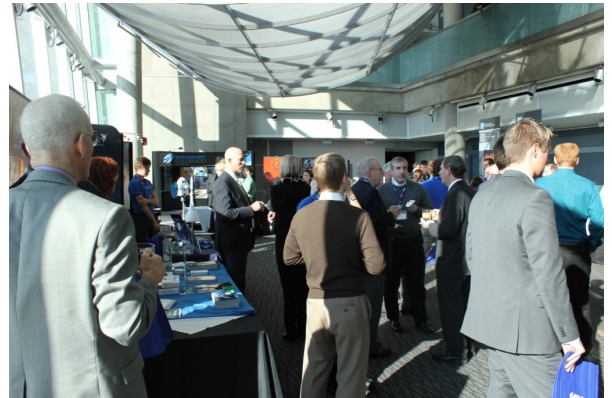
The section continues to reinvigorate its programs and activities, and is expanding outreach to members and potential members in academia, government, and industry. The section offered world-class major programs and presentations, with an approximate average 86 attendees (members, guests, and students) at each. These major events included the following:

- *September 20, 2012: Spaceport Colorado, Front Range Airport, Watkins, CO*
 - *75 attendees*
 - *Dennis R Heap - Executive Director: Front Range Airport*
 - *The RMS kicked off the 2012-2013 technical programs season with a dinner meeting and event highlighting Colorado's emerging future in private human spaceflight. Dennis Heap spoke about the creation of Spaceport Colorado and led a tour of the ATCT, the tallest general aviation air traffic control tower in the United States.*
 - *Opened in 1982, Front Range Airport is the last general aviation (GA) airport constructed in Colorado and one of the largest general aviation airports in the United States, with just under 4,000 acres. Front Range will capitalize on currently underutilized infrastructure and the State's strong alliances with military, academic and industry leaders, to serve as an efficient and economical platform for aerospace operations, fortifying Colorado's leadership in space innovation. The Airport is positioned to become a premier horizontal spaceport. Spaceport*

Colorado will become an advocate for STEM education and catalyst for economic development.

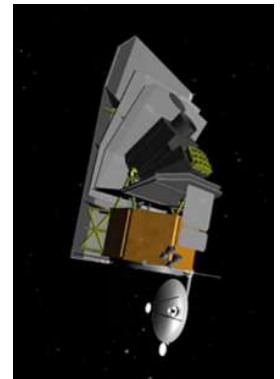
- **October 4, 2012: Advanced Computational Methods for Large Space Structures, Ball Aerospace & Technologies Corporation, Boulder, CO**
 - 63 attendees
 - Dr. Gyula Greschik--President & Structural Engineer: TentGuild Engineering Co., Boulder, CO
 - The presentation highlighted cutting edge research performed within the Colorado Front Range. This topic was “How to Trick a Mule Into flying: A Simple Method for the Precision Response Simulation of Transiently Maneuvered Large Space Structures”. As man probes deeper into the cosmos, instrument operational frequencies and apertures are increasing. In such spacecraft, large, sometimes extreme dimensions are supported with innovative structural design solutions, and the prediction with high precision of the structural response to various perturbations is becoming an ever more critical task. To accomplish these designs, high precision simulations of large elastic structures under disturbances need to be performed. This talk proposed a simple way to bypass the sometimes prohibitively expensive, nonlinear analysis with a linear formula. In particular, the two-step "corrected modal" recipe is described which can be performed with the help of any standard linear finite element (FE) program capable of free-free modal analysis which enables precision computation of large rotation transient analysis results. The talk provided insight into this powerful method with explanation and application examples.

- **2012 1st Annual Technical Symposium (ATS), 26 Oct 2012, Denver Museum of Nature and Science, Denver, CO. The theme: “Game Changing Technologies and Strategies – Collaboration to Explore Burgeoning Technology Horizons”**
 - 135 attendees and exhibitors
 - The ATS was the brain child of Sean Keefe, formerly RMS newsletter editor. She suggested the section put on technical program, patterned on what was put together by AIAA's section in Houston, Texas.
 - The ATS was designed to give local AIAA members an opportunity to present papers on their work and research.
 - A year before the event, an ATS committee was formed to put everything in motion. Pamela A. Burke, volunteer extraordinaire Heather McKay, and Roger McNamara took the helm of this committee. McKay and Burke designed the symposium to reach out to college-age science, technology, engineering, and math (STEM) students, providing forum for students to present their research projects. They also reached out to get sponsors. With sponsors, the symposium was produced in a financially sound manner. McKay coordinated the planning committee's efforts and ensured all assignments were completed in a timely manner. She and RMS website coordinator, John Grace, established and maintained a symposium web portal on the RMS SharePoint site, worked with AIAA National to arrange a special new membership discount for symposium attendees, and established a PayPal account to enable registrant pre-payment. This all eased day-of-event registration

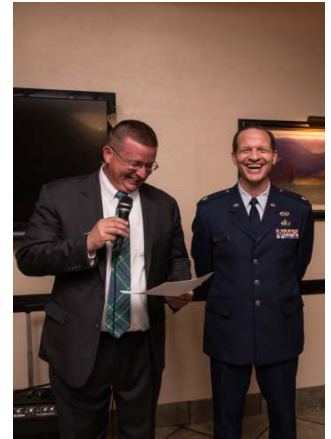


activities, and volunteers were able to process attendees smoothly and expeditiously.

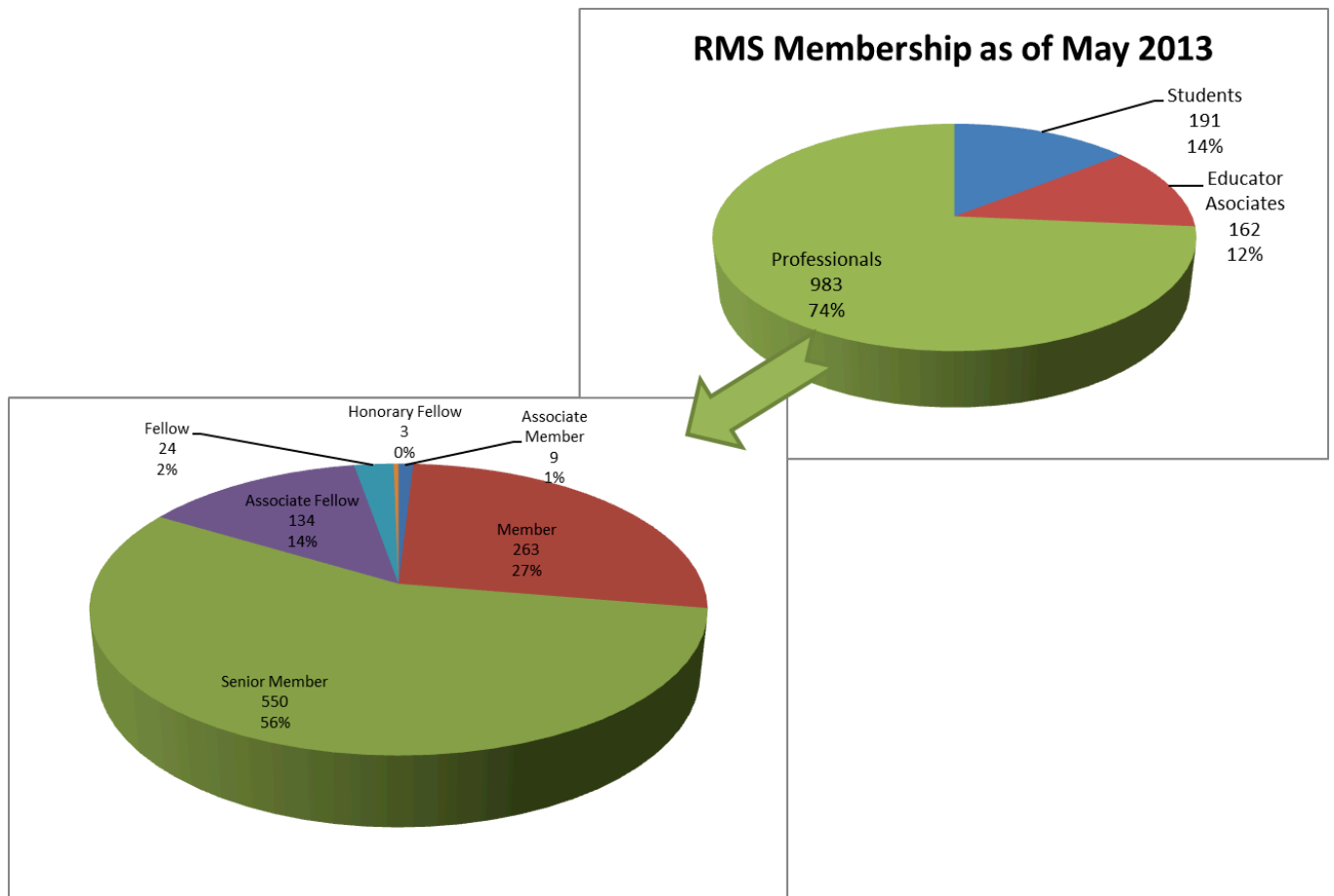
- *McKay, Burke, and McNamara, and our other volunteers, including the “Team of Young Professionals” (Lisa Holowinski and Jerad Ellenberger) pulled the event together, working to ensure the overall logistics of the program, presentations, and reception. RMS programs chair Chris Zeller served as emcee. McKay was everywhere as she also served as the symposium's official photographer.*
- *The corporate sponsors included Lockheed Martin Space Systems, Ball Aerospace, Stellar Solutions, Surrey Satellite Technologies, United Launch Alliance, and Red Canyon Engineering & Technologies; supporters included the Space Foundation and Colorado Space Business Roundtable; and there were a number of great volunteers. After the event, everyone was invited to a sponsored reception at Red Canyon for a bit of networking, with some Bristol Brewing Company's Red Rocket Pale Ale.*
- *November 29, 2012: Joint meeting -- RMS & INCOSE Colorado Front Range Chapter, “SEBoK and GRCSE: a Body of Knowledge and a Graduate Reference Curriculum for Systems Engineering”*
 - *64 attendees*
 - *Speaker, Richard E. (Dick) Fairley, PhD.*
 - *Presentation was made on the Systems Engineering Body of Knowledge (SEBoK) and Graduate Reference Curriculum in Systems Engineering (GRCSE), developed during the preceding three years by an international team of more than 70 contributors. The work was funded in part by INCOSE, the IEEE Computer Society, and the Department of Defense as the BKCASE project. Stevens Institute and the Naval Postgraduate School provided leadership for SEBoK and GRCSE.*
- *January 10, 2013: GRAIL: Lunar Gravity Mapping Mission, Lockheed Martin: Denver, CO*
 - *112 members and guests attended*
 - *Stu Spath - Lockheed Martin, GRAIL Program Manager made a presentation on GRAIL – the Lunar Gravity Mapping Mission, discussing key spacecraft design challenges for the spacecraft development team, the unique mission design strategies implemented to reach the final orbit, and the incredible science data returned during the prime and extended missions.*
 - *On September 10, 2011, two identical spacecraft were launched from the Kennedy Space Center Space on their 4-month, low-energy trajectory to the moon. The primary objective of the Gravity Recovery and Interior Laboratory (GRAIL) mission was to collect a global gravity map of the moon with a resolution approximately 1000 times better than existing knowledge. On May 29, 2012, the GRAIL Principal Investigator announced that the mission objectives had been successfully achieved and revealed that a 6-month extended mission had been approved by NASA. On December 17, 2012, with all extended mission science data in hand, the operations team performed a final delta-v maneuver on each spacecraft specifically designed to crash each probe into a targeted impact site on the lunar surface.*
- *February 28, 2013: Sentinel Program Joint INCOSE Event, Ball Aerospace & Technologies Corp., Boulder, CO*
 - *125 attendees*
 - *John Troeltzsch - Ball Sentinel Program Manager*
 - *This program introduced the B612 Foundation and the first privately funded deep space mission--a space telescope designed to discover and track Near Earth Objects (NEO). This map of NEOs will provide the blueprint for future exploration of the Solar System, enabling potential astronaut missions and protection of the future of life on Earth.*
 - *The inner solar system is populated with a half million asteroids larger than the one that struck Tunguska and yet we've identified and mapped only about one percent of these asteroids to date. The B612 Foundation is working with Ball Aerospace, Boulder, CO, which is designing and building the Sentinel Infrared (IR) Space Telescope with the same expert team that developed the Spitzer and Kepler Space Telescopes. It will take approximately five years to complete development and testing to be ready for launch in 2017-2018.*



- **March 20, 2013: Raytheon GPS OCX Program, Raytheon: Aurora, CO**
 - 58 attendees
 - **Mark Sargent--GPS OCX Senior Project Manager Raytheon**
 - **Sargent presented an overview of Raytheon Intelligence and Information Systems and their development of the Next Generation Operational Control System for the GPS system. Raytheon IIS in Aurora Colorado has delivered over 110 ground systems in the past 40 years to civil, commercial and defense customers and will perform overall program management, design, integration and test of the GPS OCX ground control system. Sargent detailed the OCX architecture, features and capabilities of the system, and the unique security challenges of a critical piece of the United States security infrastructure. He explained Raytheon's unique software development and information assurance approach and present the current status and schedule of the program.**
- **May 2, 2013: Annual Awards Dinner, Denver Tech Center, Lone Tree, CO**
 - 91 attendees
 - **Maj Gen Thomas "Tav" Taverney, Senior VP, SAIC, brought a talk to the awards dinner offering observations on the importance of STEM education to technology innovation, and how technology innovation has dramatically reduced collateral damage in conflicts.**
 - **Mr. Taverney has been involved in space operations and space systems development for over 41 years, as an active duty and reserve officer, and within the commercial space industry. He has extensive engineering design and development expertise along with significant program and organizational management experience. Mr. Taverney has been a designer of such systems as the airborne anti-satellite weapon and numerous subsystems that have successfully flown in space. He was recalled to active duty to serve as Vice Commander of Air Force Space Command (AFSPC), was inducted in to the Space Operations Hall of Fame in 2010, and in 2012 received an Aviation Week Program Excellence award for his management of the Commercially Hosted Infrared Payload (CHIRP) Payload development**
- **May 8 2013: GPS Satellite Design and Atomic Clocks, University of Colorado—Colorado Springs (UCCS), Colorado Springs, CO**
 - 57 attendees
 - **Hugo Fruehauf--Adjunct Professor, Pepperdine University**
 - **The presentation brought to the RMS by the U.S. AF Academy and hosted by The University of Colorado at Colorado Springs, provided a short history of GPS, satellite design considerations, commercial and military coexistence, and the role of atomic clocks in the GPS infrastructure.**



Membership Activities



1. Describe any membership recruitment/retention activities (this section may be copied as needed for use in the Membership Award Form).
 - a. *In addition to its regularly scheduled meetings and activities noted in this report, the section participated in a number of aerospace community activities, including the 2013 National Space Symposium. These outreach activities were all motivated, in part, to attracting membership to the AIAA.*

Education

1. List the student branches within the section and describe any section activities related to these branches.
 - *191 student members attend the University of Colorado at Boulder, UCCS, US Air Force Academy, Colorado State University, Colorado School of Mines, Montana State University, and the University of Wyoming.*
 - *AIAA student branches and activities can be found at:*
 - *Colorado State University (CSU)*
 - *University of Colorado, Boulder (CU)*
 - *University of Colorado, Colorado Springs (UCCS)*
 - *University of Wyoming, Laramie, WY (UW)*
 - *US Air Force Academy STEM Club (USAFA)*
 - *162 educator associates teach in the section's area.*
2. Describe actions taken to establish new student branches.

- *RMS is in contact with Norm Hecht, adjunct faculty at the Colorado School of Mines in the College of Engineering and Computational Sciences. He is interested in starting an AIAA student branch at Mines. We have forwarded information from the AIAA website with regard to the rules for establishing a student branch, as well as the name and info of the person to contact. The present plan is to attempt to set up a branch in Fall 2013.*
 - *The section supported aerospace science, technology, engineering and math (STEM) education activities at CU, UCCS, and the USAFA. In April 2013, Colorado School of Mines students were sponsored to attend the AIAA annual awards dinner.*
 - *In Fall 2013, RMS hopes to better execute outreach to: Colorado State University, Montana State University, University of Wyoming, Colorado School of Mines, and Colorado Technical University.*
3. Describe involvement of the section with the Region Student Conference.
- *April 10-12, 2013, the RMS financially sponsored students to attend the Region V 2013 Student Paper Conference (SPC), held at Parks College of Aviation, Engineering & Technology of Saint Louis University in Saint Louis, Missouri, April 11-12, 2013. The results confirm that the students and schools in the RMS region are exceptional! The 2013 SPC success came about due the efforts of teacher volunteers.*
 - *Of 11 winners in 5 categories in the Region V SPC, 9 were RMS entrants:*
 - *UCCS – 4*
 - *UC Boulder – 2*
 - *US Air Force Academy – 3*
 - *RMS schools had winners in all categories*
 - *All Undergraduate winners were from RMS schools*
 - *All Graduate winners were from RMS schools*
 - *All Freshman/Sophomore winners were RMS schools*
 - *RMS schools took first place in all but 1 category*
 - *UCCS won in every category they entered*
 - *RMS winners of the 2013 Region V SPC:*
 - *Undergraduate:*
 - *1st - Thermophoretic Force Measurements using a nano-Newton Thrust Stand, Austin Ventura, University of Colorado at Colorado Springs*
 - *2nd - Evaluation of Microwave Lenses for use in Beamed Energy Propulsion Systems, Stephen Sloan, University of Colorado at Colorado Springs*
 - *3rd - Computational Modeling of Shear Layer Distortions Over a Turret, Ryan Petrie, United States Air Force Academy*
 - *Graduate:*
 - *1st - Characterization of Charged Particle Sources Suitable for the Simulation of Spacecraft Charging Effects, Carlos Maldonado, University of Colorado at Colorado Springs*
 - *Team:*
 - *1st - LEOPARD: Low Earth Orbit Project for the Acquisition and Recovery of Debris, KatieRae Williamson, University of Colorado at Boulder*
 - *2nd - TRACSat - Target Recognition and Acquisition CubeSat, Mike Opland, University of Colorado at Boulder*
 - *3rd - UAV for Study of the Planet Uranus, James Dreas, Justin Krofta, Phillip Reyes, Joseph Kirwen, Saint Louis University*
 - *Community Outreach:*
 - *1st - Miners in Space Microgravity Research Outreach, Edward Nickel, Missouri University of Science & Technology*
 - *2nd - Hybrid Rocket Testing and Development of Operating Procedures, Winston Sanks and Victor Lopez, United States Air Force Academy*
 - *Freshman/Sophomore:*
 - *1st - Particle Filtering for Non-linear Estimation, John Parish, University of Colorado at Colorado Springs*

➤ **2nd - Control of Orbital Debris, Aubry Eaton, United States Air Force Academy**

- *Several RMS members served as judges, evaluated written papers and/or oral presentations, and gave generously of their time and expertise to the Region V SPC.*
- *April 19-21, 2013. The University of Colorado—Boulder Design, Build, Fly (DBF) team took 5th place at the 2012-2013 AIAA Cessna Aircraft Company/ Raytheon Missile Systems – Student Design/Build/Fly Competition in Tucson, AZ.*



- *The goal of this competition is to develop an unmanned, battery-powered, radio-controlled aircraft that meets the mission requirements of the competition which is to achieve the highest score from a combination of report score, total flight score, and the lowest-rated aircraft cost (RAC).*
- *The aircraft designed by the University of Colorado team was designed to excel in three separate missions. The first mission is to complete a maximum number of laps in a four minute time period. The second was to fly three laps with a maximum number of internal stores, while the final was to have the capability to carry a variety of internal and external stores and complete three laps as fast as possible. The aircraft is designed to achieve the highest aircraft flight score while reducing the RAC. With all the design and testing completed, the CU Boulder team produced a new prototype named Raphie's Revenge.*



4. Describe any professional continuing education programs (this section may be copied as needed for use in the Career and Workforce Development Award Form).
 - *None*
5. Describe any precollege outreach programs instituted/continued this year (this section may be copied as needed for use in the STEM-K12 Award Form).

- *The section and its membership supported the following K-12 STEM activities:*
 - *The RMS has started going out to local schools in an effort to embolden kids' curiosity in aerospace. In one event, Jason Kuchera, a Public Policy Committee member, went to Shephard of the Valley school where he taught kindergartner's the basics of flight. The activity included making paper airplanes and modifying them to determine how the modifications affected their 'test flights'. The activity was a huge success and very exciting for the participants. The school's principle was very excited about the event and hoped that it would become a regular activity for the school*
 - *March 22-24, 2013, Colorado FIRST Robotics Regional Championships, University of Denver (DU) Ritchie Center, providing judges.*
 - *February 27, 2013 Denver Metro Regional Science & Engineering Fair, Denvers Museum of Nature & Science, providing judges.*

6. Does your section have a scholarship fund? Describe how funds are raised, and how scholarships are awarded.

- *No.*

Public Policy (This section may be copied as needed for use in the Public Policy Award Form)

1. Describe activities that inform the public and section members about public policy.
 - *The RMS Public Policy committee supported AIAA in outreach to local organizations such as the Colorado Space Coalition, Colorado Space Business Roundtable, and to local offices of the Colorado*

congressional delegation. The section's leadership helped familiarize non-technical policy leaders with aerospace issues so that policy decisions are made from an informed position.

- *February 5, 2013, Colorado Space Economy Forum, History Colorado, Denver, CO. The half-day forum was aimed at exploring the best ways to advance the competitiveness of Colorado's space economy. It featured the public release of the Brookings report "Launch! Taking Colorado's Space Economy to the Next Level" and concluded with a keynote address by Governor John Hickenlooper.*
 - *March, 2013: the RMS supported the National AIAA at the annual 2013 Congressional Visits Day (CVD)*
 - *Members visited Washington DC and met with members of the Colorado delegation and their DC staffs. The RMS representatives visited all of Colorado's legislators, and also representatives from New Mexico and Arizona.*
 - *RMS members wrote/co-wrote several CVD issue papers.*
 - *Two articles in the quarterly newsletter for Council for European Aerospace Societies (CEAS)*
 - *Mr. James Rendleman was the author*
 - *On March 25, 2013, the RMS helped restart an old tradition, Capitol Aerospace Day, at the State Capitol in Denver.*
 - *This involved an entire day where AIAA member organizations will displayed their technologies and programs in the Capitol Rotunda. Conducted in association with the Colorado Space Business Roundtable, the section had both industry and academia represented, and tables will be staffed to answer questions as members and their constituents pass by. The main purpose of Capitol Aerospace Day is to remind statehouse representatives of the key role that the aerospace industry plays in the Colorado's economy, and in its ability to attract and retain a highly educated workforce.*
 - *A Joint Senate Resolution issued by the Colorado Assembly commended AIAA for its fine efforts in the state, and brought great credit to the RMS: "WHEREAS, Colorado is fortunate to have the leadership of organizations such as the Colorado chapter of the American Institute of Aeronautics and Astronautics that addresses the professional needs and interests of the past, current, and future aerospace workforce to advance the state of aerospace science, engineering, technology, operations, and policy to benefit our global society;"*
 - *According to the Denver Post:*
 - *"Many of Colorado's aerospace organizations, companies and educational institutions gathered Monday at the state Capitol for Aerospace Day in an attempt to raise the visibility of Colorado's aerospace industry and send a message to Washington. Area businesses and universities set up booths near the rotunda before and after the House and Senate passed Joint Senate Resolution 20, officially making March 25 Colorado Aerospace Day... The resolution, which unanimously passed both the House and the Senate, was meant to remind the legislature that aerospace adds monetary and intellectual value to the state."*
 - *"In 2011, aerospace-related business contributed \$8.7 billion to the state economy and employs more than 66,000 in high-paying jobs. These statistics, the event's organizers say, need to be highlighted as the industry increasingly faces both financial challenges due to Washington's budget problems and huge opportunities stemming from technological progress. In addition to mentioning several of Colorado's notable companies and space missions, the resolution offered subtle hints about the industry leaders' political goals."*
2. Describe activities that provided interaction with government officials.
- *Section members continued to assist several US Representatives in its bi-partisan Directed Energy Caucus of US House of Representative members.*
3. Did your section participate in Congressional Visits Day or August is for Aerospace? If so, describe.
- *Yes. The chair and several RMS public policy committee members attended.*

Honors and Awards

1. Describe any local section awards given to members and supporters. Please note if award is new this year.
 - ***Educator of the Year (K-12 and College), Young Engineer of the Year, Engineer of the Year***
2. List members nominated by the section for AIAA or regional honors and awards. Please include nominee, award, and status. (** indicates winner of Rocky Mountain Section award*)
 - ***Educator of the Year (K-12) Nominees***
 - Sandy Lamb, Odyssey Elementary School
 - ***Educator of the Year (College)***
 - Lt Col James Hall, US Air Force Academy)
 - ***Young Engineer of the Year***
 - Andrea Johnson, Ball Aerospace & Technologies Corporation
 - ***Engineer of the Year***
 - David Chaney, Ball Aerospace & Technologies Corporation
 - ***AIAA Associate Fellow Awards – January 2013***
 - Robert L. Berry, Lockheed Martin Corporation
 - Francis K. Chun, United States Air Force Academy
 - James H. Crocker, Lockheed Martin Corporation
 - Jeanette L. Domber, Ball Aerospace & Technologies Corp.
 - John C. Grace, Lockheed Martin Corporation
 - Paul H. Graf, Aerospace Solutions, LLC
 - Lisa R. Hardaway, Ball Aerospace & Technologies Corp.
 - Lakshmi H. Kantha, University of Colorado
 - Roger P. McNamara, Lockheed Martin Corporation
 - Martiqua Post, United States Air Force Academy
 - Mark N. Sirangelo, Sierra Nevada Corporation
 - Gary E. Yale, United States Air Force Academy

Technical Activities

1. How many local members are members of an AIAA Technical Committee? Describe how they interacted with the local section or local technical committee(s).
 - ***At least 83 section members are members of AIAA technical committees***
 - ***Section members are chair or vice-chair of the following technical committees or subcommittees:***
 - ***Aerospace Power Systems (Chair)***
 - ***Aerospace Sciences Group (Atmospheric & Space Environments)***
 - ***Air Transportation Systems (Website Editor)***
 - ***Applied Aerodynamics (Chair-Elect)***
 - ***Applied Aerodynamics (Liaison Subcommittee Chair)***
 - ***Astrodynamics (Awards Subcommittee Chair)***
 - ***Atmospheric and Space Environments (Chair)***
 - ***Energetic Components & Systems (Website Editor)***
 - ***Guidance, Navigation & Control (Education Subcommittee Chair)***
 - ***High Speed Air Breathing Propulsion (Chair)***
 - ***Life Sciences & Systems (Awards Subcommittee Chair)***
 - ***Life Sciences & Systems (Membership Subcommittee Chair)***
 - ***Small Satellite (Website Editor)***
 - ***Space Architectures (Standards Subcommittee Chair)***
 - ***Space Automation & Robotics (Website Editor)***
 - ***Space Automation & Robotics (Website Editor)***
 - ***Space Operations & Support (Awards Subcommittee Chair)***
 - ***Space Operations & Support (Secretary/Treasurer)***
 - ***Space Resources (Awards Subcommittee Chair)***
 - ***Space Resources (Education & Outreach Subcommittee Chair)***

- *Space Resources (Publications Subcommittee Chair)*
 - *Space Systems (Conference Subcommittee Chair)*
 - *Space Tethers (Membership Subcommittee Chair)*
 - *Structural Dynamics (Education Subcommittee Chair)*
 - *Structures (Chair)*
 - *Structures (Secretary)*
 - *Systems Engineering (Vice Chair)*
 - *Systems Engineering (Website Editor)*
 - *Section members also participate the AIAA International Activities, Public Policy, Ethics, Directed Energy, Standards, and other important standing and program committees*
2. Describe *local* technical committees, their function and activities for this year.
- *2012 1st Annual Technical Symposium (ATS), 26 Oct 2012, Denver Museum of Nature and Science, Denver, CO. Its theme was “Game Changing Technologies and Strategies – Collaboration to Explore Burgeoning Technology Horizons”.*
 - *2013 ATS: planning the second ATS set for 25 Oct 2013, University of Colorado Springs—Colorado Springs.*
 - *The 2013 theme: “Connections: achieving success with interdisciplinary approaches to science and innovation.” The symposium will explore how technical and programmatic successes inevitably require interdisciplinary approaches. No development of modern aviation and space technologies can be viewed in isolation; that is, modern scientific discoveries and achievements are often built from one another successively in an interconnected way. This web of interconnected events, whether planned or unplanned, drive innovation.*
 - *“Connections” ideas often come from the newest members of our aerospace community. Recognizing this, and in collaboration with the University of Colorado - Colorado Springs, our hosting institution, the 2013 ATS will make a special effort to include students and young professionals as presenters and attendees. The 2013 ATS will seek to join the wisdom and practical experience of tried and tested professionals with the enthusiasm and promise of newly educated and trained members of the aerospace community.*
3. Describe any technical symposia or short courses not described in detail elsewhere in this report.
- *2012-2013 RMS programs focused on hosted lectures. When visiting contractor/industry/academic facilities RMS visitors are generally afforded VIP treatment.*
 - *The RMS supported the national AIAA STEM Engineers as Educators Workshop, and the STEM Outreach Event for Teachers, at the STEM Academy, Highlands Ranch, CO, on 17 July 2012.*
 - *The RMS also supported US Air Force Academy’s STEM Bootcamp 2012, on 11-13 July and 16-18 July 2012*



Communications (this section may be copied as needed for use in the Communications Award form)

1. Number of newsletters published this year: What article received the most attention or interest this year?
- *Two. The section continued to publish its award-winning newsletter. It also communicated extensively with members via regular email contact. The newsletter was published in September 2012, December 2012 and June 2013. The RMS newsletters are approximately 30-55 pages in length, and included articles and interviews, invited papers, and announcements of section and national AIAA activities. The newsletter is announced to the section membership via email and linked to a PDF on the official AIAA-RM website.*

2. Describe any section publications other than a newsletter, including content, frequency and distribution.

- ***None.***

3. How does the section utilize electronic communication, such as email notification, social media (such as Facebook, LinkedIn or Twitter), etc?

- ***RMS uses an email blaster to notify members of planned meetings and activities.***

The following questions are for those sections with active websites.

4. Do you use the AIAA SharePoint site to host your section's homepage? If not, do you host a website elsewhere?

- ***Yes. The section uses the AIAA SharePoint. The single password change implemented by AIAA in 2012 for the main and SharePoint web pages has been very helpful, and improves member access.***

5. How often is the site updated, and do you have a webmaster?

- ***The RMS has benefited from the terrific long-standing (14 years) support of its webmaster, Mr John Grace. RMS subscribes to Colorado Space Coalition and NASA RSS (Really Simple Syndication) real-time news feeds, so our section SharePoint site is updated with news items daily. Our website is also updated when entries are made to the AIAA-RM website, such as section announcements and calendar items, which is a weekly update on average. During the month prior to newsletter publication, our website has new documents added on a daily basis to the newsletter preparation section.***

6. What is the most utilized feature of the website?

- ***Accessing the newsletter, and then officer contact and calendared events information.***

7. Do you use it to promote upcoming section activities?

- ***Yes, we announce section meetings and programs through an e-blast as well as through a PDF flyer/announcement posted on the AIAA-RM website.***

8. Describe any new or unique features added this year.

- ***None.***

If there are any questions with regard to the AIAA Rocky Mountain 2012-2013 section report, please contact James D. Rendleman, Chair, spacelawyer@rocketmail.com, 719-331-4808.

	<p>AIAA ROCKY MOUNTAIN SECTION ANNUAL TECHNICAL SYMPOSIUM 2013</p>
<p>SAVE THE DATE OCTOBER 25, 2013 UNIVERSITY OF COLORADO, COLORADO SPRINGS</p> <p>➔ CONNECTIONS: ACHIEVING SUCCESS WITH INTERDISCIPLINARY APPROACHES TO SCIENCE AND INNOVATION</p> <div><p>SUBMIT ABSTRACTS BY MAY 1ST ATS@aiaa-rm.org</p></div> <p>FOR MORE INFORMATION: http://www.aiaa-rm.org/ATS</p> <p> <small>The World's Forum for Aerospace Leadership</small></p>	