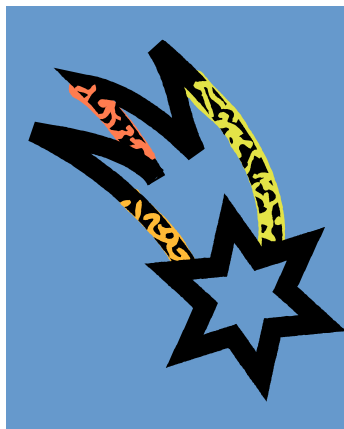




SEDs

**Students for the
Exploration and
Development of Space**

Inside this issue:

Space Vision 2005	2
New Conference Location	2
Executive Biographies	3-6
Student Spotlight	7
Alumni Spotlight	7
Chapter Biographies	8-11
December Space Conferences	12

This Month in Space History:

- * Dec. 2, 1971: U.S.S.R.'s Mars 3 spacecraft makes first soft landing on Mars
- * Dec. 15, 1970: First soft landing and return of signals from Venus, by Russian Venera 7
- * Dec. 24, 1968: Apollo 8 is first manned spacecraft to orbit Moon

(SUPER) NOVA

Winter 2005 Issue

December 1, 2005

Our Newsletter is Back!

Hooray! The SEDS newsletter is back! Called "NOVA," our newsletter has been on hiatus for a few years. This special first edition, dubbed "(SUPER)NOVA," is meant to reacquaint individual SEDS chapters across the nation to the national organization.

This year, NOVA will be a quarterly publication with Winter (December), Spring (March), Summer (June), and Autumn (September) issues.

I hope to make this publication a true reflection of the national organization. To do so, I am going to need your help. All SEDS members are welcome to send story ideas or already written articles for the

newsletter to:

hardegree@email.arizona.edu

Just make sure to put NOVA somewhere in the subject line. Story ideas might not always be used, but already written articles will almost certainly be published in following newsletters. Student, Chapter, and Alumni Spotlights, as well as space industry related articles are strongly encouraged.

I look forward to a great year full of stellar publications for the SEDS organization.

*Emily Hardegree-Ullman
Director of Publications, SEDS-USA

From the Chair

A quarter of a century since its inception, SEDS stands on the pedestal of being one of the biggest student space networks across the globe. It's been an eventful, learning, and undulating journey for SEDS to reach the stage that it is at right now. Over the years, as it has overcome many challenges, including periods of dormancy, SEDS today stands as consolidated as ever and ready to take big leaps. Starting the year with a successful National Conference, Space Vision 2005, the plans and prospects look great — thoroughly organized and effective national projects like zero-gravity, SEDS Academy, continued expansion and outreach not only in the United States but in other parts of the world, and increased co-operation amongst various chapters as well as other space-interest groups. This past year has witnessed SEDS undertake new ventures as well as re-organize its internal structure for efficiency and better administration. The goal of the new executive board 2005-06 will be to not only maintain the past achievements but continue improvement in every aspect.

This edition of (SUPER) NOVA holds a great significance as it is being launched at the silver jubilee of SEDS, reinforcing the fact that we, the student generation, still do and will always have the ability to influence the society in a positive way, which in this case represents the spread of space knowledge.

I take this opportunity to thank the numerous SEDS members from over the years who have contributed to SEDS in their own capacities to keep it up and running since its birth in 1980. One of the important projects this year will be to trace back the open strands of alumni network. Hence, I ask all the SEDS alumni to come forward and once again rejoin SEDS, this time as mentors and counselors to the current SEDS members.

Enjoy NOVA 2005 and the SEDS Experience and become a part of it today!

Onward and Upward!

SEDS Students Land in Urbana-Champaign for Space Vision 2005

By David Bullock
University of North Dakota

Students came from as far south as the University of Central Florida and as far west as the University of Washington to network and socialize at the SEDS career fair and space conference known as Space Vision 2005. Celebrating 25 years of the existence of SEDS, the event held at the University of Illinois at Urbana-Champaign was coordinated by that school's SEDS leader, Kirk Kittell.

A career fair and several panels on students' space future in a changing industry captured the interest of those that attended the informal weekend from November 10 through 13. As the commercial space sector increases in significance, many questions raised to panel members such as Mike Lembeck and Alan Ladwig of Northrop Grumman and political consultant Jim Muncy were economic in nature, as some students were eager to find out more about projects and funding.

Loretta Hidalgo, space professional and founder of Yuri's Night, reminded students in a workshop "Creating Your Own Career," that to get ahead in the ever-changing space arena one has to be more pro-active in meeting people. According to Hidalgo, one should network with peers, find a mentor, attend

conferences, contact the local NASA Space Grant, and join synergistic organizations like SEDS, ISU, and the Space Generation. Going forth with a positive attitude is one way to advance your personal goals in space.

Lockheed Martin, Physical Science Inc., the Zero Gravity Corporation and Ball Aerospace were some of the companies that attended the small but focused career fair held on Saturday. The organizations were looking for interns and engineers to work on electronics, spacecraft, and aspects of human space flight. They gave out T-shirts and other novelty items as representatives engaged in small informal interviews with interested students.

Elon Musk, founder of Pay Pal and the commercial rocket launching company Space X, highlighted the conference by giving a talk to the students attending. Despite a busy schedule, he said he came to Space Vision 2005, because he "made a commitment," thus showing his continued support for space activism and space interests. With all the different issues that surround space affairs, Musk emphasized that, "The biggest problem remains entering space." He is hoping his business, will ameliorate that problem. Space X stands strong in doing this, as Musk noted that in its three year existence no one within Space X has left for another company. The focus of his efforts is the Falcon 9, a reusable vehicle that will possibly launch in mid-2007.

Before the conference's end on Sunday, Bob Richards, one of the

founders of SEDS and the International Space University (ISU), led the Awards Banquet on its last night. The Saturday evening's event was webcast for those who

could not attend in Illinois. As Richards looked back to his 25 years connected with SEDS and his time with ISU, he recalled the work he did starting up the two organizations with Peter Diamandis, now head of the space aggregator the X-Prize, and the late Todd Hawley. In his talk, Richards

took time to remember Hawley and Hawley's commitment to the international aspects of space before an early death from AIDS complications.

Others attending the week-ends events included the National Space Society's George Whitesides, the Phoenix Mars Scout Mission's Chris Lewicki, and Dr. Robert Farquhar, the Mission Manager for the New

Horizons Pluto-Kuiper Belt Mission. SEDS members attending the conference looked forward to maintaining an active membership and to another successful conference next year.



Liftport demonstration on the Quad

"The biggest problem remains entering space."



Gregg Maryniak demonstrating the relative sizes of the Earth and Moon

Congratulations to the University of Central Florida for being chosen to host Space Vision 2006!



Conference-goers eagerly awaiting Elon Musk's talk

Executive Board Member Biographies

Name: Megha Sharma

Position: Chair

School: Embry-Riddle Aeronautical University

Major: Aerospace Engineering

Contact: sharm4f5@erau.edu

About me in a nut-shell:

My name is Megha Sharma, and I hail from a small town at the foot-hills of some big mountains -- the Himalayas. I am two years in school and a seven-month internship old.

Space and aviation are some of my great passions, making me pick Aerospace Engineering as my major at Embry Riddle Aeronautical University and effectively magnetizing me towards SEDS. Going up in space some day is definitely one of my most cherished dreams and astronauts who have achieved those dreams for themselves remain my personal heroes. Often times I like to devour any space literature, excluding my space me-

chanics text book. But I am fascinated by the principles and laws in my physics book and their applicability in our day-to-day lives. I love talking to people and learning about their own experiences in life. As a person, I try hard to cling on to my set of values and principles that would raft me through the hardest of my times. Other than that, I am just one of you. You, whose lives will exemplify the choices and changes in all fields facing our generation leading us into this century. You, who in Lord Alfred Tennyson's words "wants to strive, to seek, to find and not to yield".

Past/Current Offices

* Director of Chapter Affairs, SEDS-USA-Past

* US Representative to Space Generation Advisory Council, Vienna-

Current

* Peer Mentor for Freshmen at Embry Riddle Aeronautical University, 2004

* Secretary, ERFSEDS, 2004

* Student Representative-Elect for Student Government from College of Engineering, 2005

* Staff-member, ACM Programming Competition of South-Eastern Universities, 2003

* Publicity Chair, IEEE-ERAU Chapter 2004



Megha Sharma

Affiliations:

* Member, Sigma Gamma Tau (Aerospace Engineers Honor Society)

* Member, Model United Nations

* Member, AIAA

* Member, NSS

Name: Todd Romberger

Position: Vice Chair

School: University of Central Florida

Major: Aerospace Engineering

Contact: rstones8@yahoo.com

I grew up in Boca Raton, Florida, where during high school I was active in the Marching Band and was an anchor on the school-wide morning announcements. At 21 years old, I am currently a senior at the University of Central Florida in Orlando, majoring in Aerospace Engineering. I have been active in SEDS-UCF since it was revived two years ago. During that time I have held various officer positions and currently serve as the chapter's President. SEDS-UCF has seen tremendous growth recently, and I will strive to continue this growth for SEDS on both the local and National level. I also serve as President of the

UCF chapter of Sigma Gamma Tau, the National Honor Society in Aerospace Engineering. I am a member of the National Engineering Honor Society Tau Beta Pi, the Honor Society of Phi Kappa Phi, and the American Institute of Aeronautics and Astronautics. Last summer I worked as an intern for the Zero Gravity Corporation where I completed my training as a crew member for ZERO-G weightless flights. I was a delegate in the 2005 Space Generation Congress in Fukuoka, Japan, where I began work on a worldwide space outreach program called "DoSpace." When I get a chance, I enjoy surfing, sailing, amateur astronomy, and playing guitar.

I am looking forward to serving as Vice Chair this year and working with the dynamic and talented group on the Board of Directors. It is my goal to increase the visibility of SEDS

in the professional space community by organizing representatives to attend the many different space conferences throughout the year. This will open up opportunities not only for those attending these conferences but for all of us, by increasing the already great recognition and credibility that members receive for being a part of SEDS.



Todd Romberger

Executive Board Member Biographies, Continued

Name: John Evans

Position: Director of Finance

School: University of Illinois

Major: Aerospace Engineering

Contact: jaevans2@uiuc.edu

Hello everyone. I'm a senior in Aerospace Engineering at the University of Illinois. I've been a SEDS member since 2003 and served as the Director of Finance on the previous Board. Before school, I worked as a dice dealer in the casino industry for a few years. However, I eventually became bored with my job, and since I've always loved space and science fiction, I decided to become a rocket scientist. I'm looking forward to working with the new Board, and helping SEDS return to the national scene.



John Evans

Name: Matthew Cruce

Position: Director of Expansion

School: University of Illinois

Major: Aerospace Engineering

Contact: mcruce2@gmail.com

My name is Matthew Cruce. I am the new Director of Expansion on the SEDS-USA Board of Directors. I am a sophomore at the University of Illinois at Urbana-Champaign studying Aerospace Engineering. I am the

Name: Elizabeth Bozek

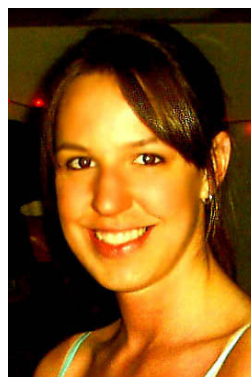
Position: Director of Chapter Affairs

School: University of Illinois

Major: Aerospace Engineering

Contact: Elizabeth.Bozej@gmail.com

Hello! My name is Elizabeth Bozek and I am a sophomore in Aerospace Engineering from the University of Illinois. Volunteering at the launch of SpaceShipOne and the International Space Development Conference were my most valuable experiences that SEDS has provided me with, and I want to give other students opportunities as great and inspiring as the ones I had. In my free time I enjoy meeting new people, working out, traveling, cooking, watching movies and attending concerts. My future plans include an externship with NASA and focusing my major on propulsion.



Elizabeth Bozek

I am very excited to be the Director of Chapter Affairs this year. Besides managing the internal relations of SEDS, I plan on composing and distributing a formal space proposal to NASA, private companies and congressmen across the nation. My primary goal is to get the ideas of SEDS members solidified in writing and considered by leaders in the space industry. I also plan on working with Pro-Space, an activist group, to give our document to congressmen in Washington DC in person during March Storm. By being a part of the political space agenda, we will take SEDS beyond our network of students and alumni and have our ideas considered by those who make policy about the future of space exploration. I can't wait to get this important project underway. Please don't hesitate to contact me with questions, ideas or suggestions. Thanks!

youngest of four children and grew up in a small town in central Illinois. I enjoy all things having to do with aviation and space. I have been very involved with student organizations since I arrived on campus. Currently, I am Assistant Director of the U of I SEDS chapter as well as part of the Engineering Council Leadership Committee, research assistant in the Plasma Materials Interaction Group, and an active member of the Sigma Phi Epsilon Fraternity. Also, I have had the opportunity to work for an aerial application business the past three summers which has given me great opportunities to get involved in the aviation community. I have earned my private pilot license and plan to pursue more



Matthew Cruce

ratings. I am inspired by the possibility of one day being able to travel to space and am choosing a career path that will hopefully take me there. I joined SEDS because I truly believe in the idea of the education and development of space.

Executive Board Member Biographies, Continued

Name: Emily Hardegree-Ullman
 Position: Director of Publications
 School: University of Arizona
 Major: Astronomy and Physics
 Contact: hardegree@email.arizona.edu

Happy almost winter break everyone! My name is Emily H-U and I am the new Director of Publications for SEDS-USA. I hail originally from Boise, Idaho, where those great potatoes come from. Back home are my two parents and 5 siblings (ages 18, 16, 6, 6, and 20 months).

I am an Astronomy and Physics double major at the University of Arizona. Along with being the treasurer for UASEDS, I am a team leader in the Arizona Blue Chip program. I have a job updating an educational astronomy database, and am conduct-



Emily
Hardegree-
Ullman

Name: Jennifer Kissinger
 Position: Director of External Affairs
 School: Florida Institute of Technology
 Major: Space Sciences
 Contact: jkissing@fit.edu

My name is Jennifer Kissinger and I am the new Director for External Affairs. I am attending college as a junior at the Florida Institute of Technology in Melbourne, Florida, and am majoring in Space Sciences. I am originally from Reading, Pennsylvania. I became president of the FIT chapter of SEDS when I went

ing research on planetary disks around binary star systems.

This year my goal is to resurrect the NOVA newsletter, and hopefully make it better than ever. Please make my job easier and let me know what y'all want to see in YOUR newsletter.

to a meeting and found that nominations for the next year's officer positions were being conducted, and I have enthusiastically tackled the position for two years. I am very excited to be working for SEDS-USA.



Jennifer Kissinger

Name: Joshua Vincent Nelson
 Position: Director of Special Projects
 School: University of Arizona
 Major: Astronomy and Physics
 Contact: jediarizona@yahoo.com

I am an astrophysicist by major, and have been a passionately involved in space sciences since the age of 9 years old when I first learned to use a telescope. Ever since then I have taken an interest in space and educating the general public in the areas of astronomy and space exploration.

I am a telescope operator, soccer referee, theatre technician, and all around sci-fi nerd. When not staring off at the Orion Nebula (also known as M42), I

can be found volunteering at public outreach events with SEDS at the Lunar and Planetary lab in Tucson.



Joshua Vincent Nelson

Name: Lindsay Newton
 Position: Director of Educational Outreach
 School: Texas A&M
 Major: Aerospace Engineering
 Contact: liz_skier@tamu.edu



Lindsay Newton

Hi! My name is Lindsay, but most people call me Liz, and I'm a senior aerospace engineering major (with minors in math and philosophy) at Texas A&M University. Other than being completely obsessed with space, I love to water ski and surf, so I want

to always live near the coast. When I have time, I play Halo (the video game) or read, but I used to dance, play piano, and I spent ten years taking martial arts. Also, I live for comedy so I like to be around people that make me laugh.

As for SEDS, I am thrilled to be the Outreach Director... because I love outreach! I have the same position in the TAMU SEDS Chapter, and have designed an outreach plan for a proposal to the NASA Microgravity University (cross your fingers – we find out any day now if we get to fly on the "Vomit Comet"). We all have our stories of how we first developed an interest in space, and I want SEDS to be a huge part of that story for the next generation.

Executive Board Member Biographies, Continued

Name: Ryan McLinko

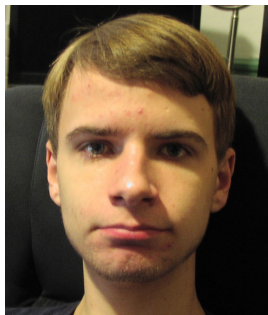
Position: Webmaster

School: Massachusetts Institute of Technology

Major: Aerospace Engineering

Contact: mclinkor@mit.edu

My name is Ryan McLinko and I am this year's webmaster. I am a freshman at MIT and will be majoring in aerospace engineering. I have therefore just gotten involved in SEDS recently. I chose this position so that I could learn about the inner



Ryan McLinko

workings of the executive board and get more involved in SEDS while contributing to the website, since I have a lot of experience in that area. As webmaster, it will be my job

to continue the revamping of seds.org while continuing to update it with current events in SEDS and else-

where. I will work to make seds.org more visible for the public community so that others can easily learn what we do and why. I would also like to intertwine the seds.org website more with the individual chapter websites. Most importantly, I would like to make sure that the website embodies all the aspects of SEDS in that it helps to give people information about space and space exploration. If anyone ever has suggestions for the website, then please let me know about them.

Name: Stephanie Jones

Position: Secretary

School: University of North Carolina at Chapel Hill

Major: Chemistry

Contact: stephanie.r.jones@gmail.com

I'm a sophomore chemistry major (biochemistry concentration) at the University of North Carolina at Chapel Hill. I have lived in N.C. for sixteen years and am finally in the process of becoming a dual Canadian-

U.S. citizen. I came into the space community at sixteen, when I decided that I want to go to Mars. My space interests include astrobiology, environmental/habitat engineering, and space policy. My earthly interests are mainly mountain biking, literature, drinking tea, and hanging out with cool geeks.

As secretary, my job is not just to take meeting minutes, update the SEDS wiki, and organize the enormous flow of information in the SEDS human networks, but also to facilitate

communication between different directors and committees. Don't hesitate to email with questions or concerns. If I don't know the answer, I should, and I'll know where to find out!

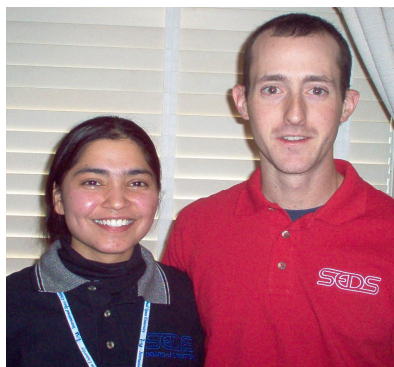


Stephanie Jones

Student Spotlight: Kirk Kittell

If you attended SpaceVision2005, or if you are on any one of the SEDS email lists, you've got to know him. For more than two years now, he's been working continuously not only to revive SEDS but also to keep it going in full swing. He has been the behind-the-curtain guy to initiate and carry out a large number of activities for SEDS-USA. If you haven't already guessed, yes we are talking about Kirk Kittell.

Kirk hails from Lewistown in central Illinois. Since his Lewistown



Megha Sharma and Kirk Kittell

Community High School years, Kirk has been actively involved in several clubs and leadership positions. He is an Eagle Scout and developed much of his leadership experience while working as a summer camp staff member at Ingersoll Scout Reservation. Awed and intrigued by space since receiving the National Geographic book *Our Universe* at age 6, he decided to pick Aerospace Engineering as his course of study at University of Illinois at Urbana-Champaign. In 2003, Kirk founded the Illinois Space Society with Derek Meyer as a SEDS chapter

Continued on page 7

Student Spotlight, Continued

at his school, and since then there has been no looking back. Not limiting his efforts to his own chapter, Kirk has been successful in reaching out to a huge number of students all around United States and has helped establish SEDS Chapters in several schools. He also founded SEDS-Earth, the international chapter of SEDS, in

2004 with Pradeep Nair of India. He currently chairs SEDS-Earth and is looking forward to expanding the SEDS network across the globe. He has also been instrumental in involving SEDS alumni to use their experiences and guidance for current students. From keeping the website up-to-date, to reaching out to students all across the country, to representing



Kirk Kittell

SEDS at other space advocacy groups, Kirk has done it all. He is also helping out Space Gen and has been actively involved with Yuri's Night. For the past year, he has worked tirelessly, along with members at Illinois and Purdue to put together SpaceVision2005 — the SEDS-USA National Conference at the University of Illinois — which turned out to

be an immense success. He represented SEDS at the AAS National Conference in November 2005 at Houston, Texas, to muster support and mentorship for SEDS from the industry.

Kirk loves traveling and making new friends, hiking in the desert, and playing bass guitar. With

friends in several different countries, Kirk appreciates other cultures and wants to use space as means to bridge gaps between people. According to Kirk, the real challenge in life is not competing and winning, but continuing to compete when you cannot win. And with this as one of his mantras, Kirk wants to continue striving to look for interesting and innovative projects which he can not only enjoy doing but which will give him a chance to help other people learn. Kirk graduates with a masters degree in aerospace engineering in May 2006, and we wish him all the best in all his future endeavors!

"The real challenge in life is not competing and winning, but continuing to compete when you cannot win."

Alumni Spotlight: Peter Diamandis

Dr. Peter H. Diamandis is a pioneer and leader in the commercial space arena having created many of the leading commercial space companies opening the personal spaceflight industry.

Dr. Diamandis is the Chairman and CEO of the X PRIZE Foundation (www.xprize.org), which awarded the \$10,000,000 Ansari X PRIZE (www.xprize.org) for private space-flight and is now implementing prizes in a variety of different arenas. He is the Chairman & Co-Founder of the Rocket Racing League (www.xracing.com). Diamandis also serves as the CEO of Zero Gravity Corporation (www.nogravity.com), a commercial space company developing private, FAA-certified parabolic flight utilize Boeing 727-200 aircraft. Diamandis is a co-founder of Space Adventures, Inc. (www.spaceadventures.com), the company which brokered Dennis Tito and Mark Shuttleworth's flight to the In-

ternational Space Station.

In 1987, Diamandis co-Founded the International Space University (ISU) (www.isunet.edu) where he served as the University's first managing director. Today he serves as a Trustee of the \$30M ISU that is based in Strasbourg, France. Prior to ISU, Diamandis served as Chairman of Students for the Exploration and Development of Space (SEDS) an organization he founded at MIT in 1980. SEDS is the world's largest student pro-space organization.

Dr. Diamandis attended the Massachusetts Institute of Technology (MIT) where he received his undergraduate degree in molecular genetics and graduate degree in aerospace engineering. After MIT he attended Harvard Medical School where he received his M.D. In 2005 he has also been awarded an honorary Doctorate from the International Space University.

He is the winner of the Konstantine Tsiolkovsky Award, twice the winner of the Aviation & Space Technology Laurel, and the 2003 World Technology Award for Space. In 8th grade, while living in New York, Dr. Diamandis won first place in the Estes rocket design contest.

Diamandis' mission is to open the space frontier for humanity. His personal motto is: "The best way to predict the future is to create it yourself!"



A flying Peter Diamandis

For more, go to www.diamandis.com

Chapter Biographies

University of North Carolina at Chapel Hill

The SEDS chapter at UNC-Chapel Hill is an outgrowth of SpaceTalk, a local university-based space organization devoted to the promotion of the exploration of space and of the space sciences. SpaceTalk was founded in 2001 by Kate Harris, who is currently interviewing for the Rhodes Scholarship. It was not until the summer of 2005 that SEDS and SpaceTalk discovered each other and

made a glorious union. Since UNC-Chapel Hill is a liberal arts school, SpaceTalk (as the name suggests) has focused on raising awareness on happenings in the space world, on social events such as movies and star-gazing sessions, and on bringing to campus inspiring



speakers such as Robert Zubrin, Nancy Currie, Story Musgrave, and most recently Chris McKay. Our listserv includes over 150 students, faculty, and members of the community. For more information, check out spacetalk.info on the web.

George Washington University

Greetings from our Nation's capital! The GW Space Society was slowly resurrected last semester and is starting to emerge this year.

We are fortunate to be in our location because our upcoming events are uniquely tied to resources in the area. We will be attending a showing of the newly released 3D IMAX feature "Walk on the Moon" as well as sending volunteers over to the Air & Space Museum's SpaceShipOne

exhibit later in the semester.

Our launch party will be a recruitment event complete with space food, space cadet t-shirts and bowling!!! Hopefully a moonbounce will

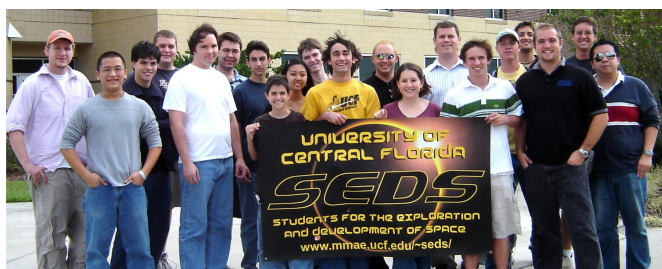
make an appearance! Maybe we can teach some folks to moonwalk?

Stay tune for updates, you can visit us at:
<http://studentorgs.gwu.edu/gwss>

University of Central Florida

The University of Central Florida chapter of SEDS has seen a huge surge of growth this semester. Now with over 50 dynamic members from all fields of engineering, we have added several new projects to our ever growing list.

We are continuing work on Project Daealus, a sub-orbital rocket that will reach the edge of space. The upper stage is almost complete and will be launched independently later this semester, reaching an altitude of over 30,000 feet carrying a SEDS-built camera payload.



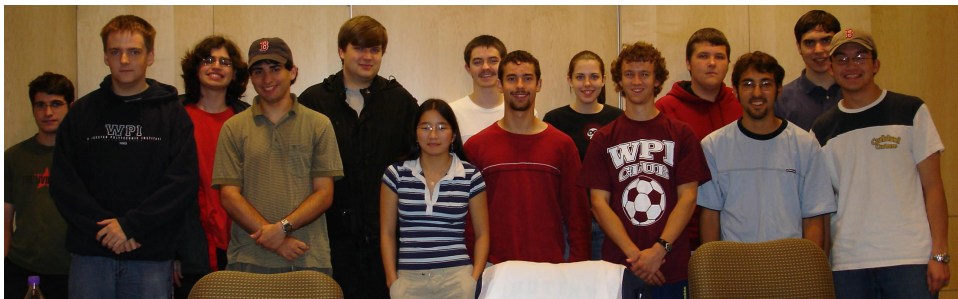
Our new projects starting up this semester include design of an unmanned aerial vehicle, an in-situ resource utilization reactor for use on Mars, and a machine to demonstrate the possibility of making bricks on the Moon. We are also aiding in research for the LiftPort Group that supports the development of the Space Elevator. Our social events throughout the semester have included several parties,

tailgating, and SEDS football games after the meetings on Fridays. We attended SpaceVision 2005 at the University of Illinois with thirteen members, and are looking forward to next year's conference!

North Carolina State University

This is the first year for NCSU to have a chapter of SEDS. Our goal is to uphold the SEDS mission statement of beginning a group that consists of individuals who are interested in the exploration and development of space and inspiring people to support and pursue careers in this amazing and necessary field of the future. The experience of beginning SEDS at NCSU was fun and easy due to the willingness of National SEDS to help us in getting started. There is also another chapter, UNC's Spacetalk, of SEDS that is only a 30 minute drive away from NCSU. Since both campuses are so close together, we are planning on having some joint meetings or participating in some activities together. There are many possibilities for meetings for our chapter and activities that the chapter can participate in here in Raleigh. We are excited about becoming a part of National SEDS and are looking forward to the future of our chapter!

Chapter Biographies, Continued



Worcester Polytechnic Institute — American Institute of Aeronautics and Astronautics

The student chapter of the AIAA has existed for well over a decade at the Worcester Polytechnic Institute (WPI), and we recently became co-affiliated with SEDS. We have over twenty active members that attend our weekly meetings, with others attending our larger events and doing project work. We're primarily comprised of Aerospace Engineers, although we also have people from Mechanical and Electrical Engineering and Physics.

Our primary focus is our experimental rocketry program, dubbed WARRIORS. This was proposed in spring of this year and is now a joint effort between the Aerospace department, where students are actually graded for this, and AIAA volunteers. Notable aspects about the WARRIORS rocket is that we're using strap-on side boosters that are jettisoned via electromagnets. We're also using spring-loaded pistons to deploy the parachutes, igniting the sustainer motor in flight, and developing some basic radio hardware for basic telemetry and finding the rocket if it drifts out of eyesight.

We also have a solid-state digital video camera onboard in the payload bay that uses a small side fairing with a mirror attached so we can see the staging and other rocket events (not unlike the camera attached to the External Tank on recent Shuttle flights — just much smaller & cheaper).

Our inaugural flight is less than a month away, and there is much to be done! I'd like to thank the other chapters with rocketry programs for their advice. We're open to other chapters developing CanSat-like payloads, and we want to serve as a template and resource for anybody that would like to start a rocketry program at their own university. We're starting small, and from scratch, so any university should be able to mirror our activities.

There's so much more to discuss - including WPI's Space Policy Initiative and other WPI AIAA events, but I've already gone way past the 200 word profile! I strongly encourage everybody to visit <http://space.wpi.edu/> to learn more about what we're up to. This website is constantly having new information added to it, so be sure to check back regularly!

Sincerely,
Ryan Caron

Massachusetts Institute of Technology

Started in 1980, MIT SEDS is an enthusiastic group of students who enjoy space. We meet once a month to discuss upcoming events and field trips to different space related places and just hang out and have fun. Whether it's astronomy or rocket launches or just talking about new developments in the community, we're ready and willing to do it. Contact: cain@mit.edu

University of Colorado at Boulder

We are pleased to announce the recent formation of a chapter of SEDS at the University of Colorado at Boulder! Right now, we only have a couple active members... but we plan to have our first general meeting by the beginning of next semester. Many have expressed interest in SEDS here at CU, so we're sure to have a great pool of passion and talent. We kicked off our inception in style by attending the Space Vision 2005 conference. Our goals for our first semester are to unite the space advocacy groups around the CU campus and to help organize community events like Yuri's Night. Outreach is sure to be a major activity for our young group until we establish ourselves enough to begin work on a technical project. We hope to be an active member of the SEDS community in the future and look forward to working with all of you.

University of Illinois

The Illinois Space Society was founded as a chapter of SEDS in 2003. Over the past year our focus has been to attend most of the major aerospace events, such as X-Cup, the Space Generation Council, the International Space Development Conference, and more. One of our major accomplishments was sending 34 Illinois Students to the X-Prize Launch of SpaceShipOne in September 2004. In addition to these events, we just hosted the SEDS National Conference for 200 people from over 30 schools and organizations. We look forward to the continued growth of SEDS through local and national participation in the next year.

Chapter Biographies, Continued

Florida Institute of Technology

The Florida Institute of Technology chapter of SEDS is an active force in the Physics/Space Sciences department and the school as a whole. Most of our 25-30 members are in the PSS department studying Physics, Space Sciences, or Astronomy/Astrophysics. Membership also includes chemistry, engineering, and other science majors. FIT SEDS is active in community outreach, having participated in the Halloween Outreach



for elementary school children for the past two years as well as forming a team, called the Space Cadets, for Relay for Life for the past two years. Along with the Society of Physics Students chapter, SEDS helps organize the department picnic every semester, and arranges an annual trip to visit the Kennedy Space Center. Other previous and planned activities include a visit to the local Planetarium, Physics Fun Night (bowling was done last year), and Physics Talent Night, where the members of the club show off their numerous and remarkable talents. Finally, SEDS members are very involved in research. A large number of our members were involved with ISRU FIT last year (<http://astro.fit.edu/isru/>). This year, we are participating in the Electron Deposition Project (EDEP). FIT SEDS activity has increased in the past two years, and will continue to do so in 2006 and beyond.

Purdue

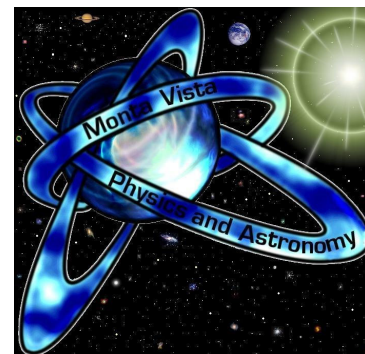
Purdue SEDS was established at Purdue University in West Lafayette, Indiana on December 7th, 1994. Since then, Purdue SEDS has been organizing the Spring Space Forum on which two speakers with vast experience in the aerospace industry such as astronauts, engineers, and scientists discuss a topic related to current and future events that will affect the course of the future of the aerospace industry.

Another important event is carried on during the fall semester, where Purdue SEDS and other organizations and companies organize a student-run outreach program; this activity is called Fall Space Day. Here, hundreds of elementary and middle school students have the opportunity to interact with an astronaut and obtain hands-on experience on aeronautics and aerospace activities.

Another small project that is being

carried on within the organization is the design and construction of a Solid Rocket Motor from scratch and which will be utilized for static and flight testing. Besides these long term activities, the members of Purdue SEDS are invited to participate in diverse activities such as star gazing and fieldtrips to museums, telescopes, and more.

The current officers of Purdue SEDS organization are Lloyd Dropers as President, Jon Fromm as Vice President, Dan Gilles as Secretary, Molly Kane as Treasurer, Brandon Anderson in Publicity, Dan Uffelman in the Web Development area, and Juan Carlos Vergara as Purdue SEDS National Representative. The faculty advisor of the organization is Professor Filmer from the Aeronautical & Astronautical Engineering department.



Monta Vista High School

The Monta Vista Physics and Astronomy Club is located in Monta Vista High School in Cupertino, California. Comprised of about 20 members, the club focuses on topics in physics and astronomy during alternating weeks, but the physics we cover is very related to astronomy (E.g. Kepler's Laws). Generally, the club is structured upon a lecture basis where a new topic is covered each week. For more advanced topics, we invite guest speakers. Most recently, Mr. Jon Stark a former professor at the University of Illinois gave a lecture about how eclipses are predicted. In the future, a guest speaker from NASA (Ames Research Center) is scheduled to speak to the club on a date in February. Additionally, to keep up interest among members, we perform regular activities as well. Most recently, as a group, we created a 2 meter large astrolabe with which relatively accurate astronomical readings can be taken. We plan to become involved in some way with at least one of the national projects proposed during the conference. Also, we have access to a software called Starry Night Pro, with which we hope to conduct virtual tours of space for at least 10 minutes a meeting.

Chapter Biographies, Continued

University of Arizona

In recent years, UASEDS has become very active. Just this year we have nearly finished building an 18-inch telescope, and we attended the Countdown to the X-prize Cup.

In previous years we have: attended the X-prize launches, built and launched model rockets, toured the Titan Missile Museum, and hosted numerous star parties for various organizations.

This year, we plan to: put on a star party for the Arizona School for the Deaf and Blind, build a satellite the size of a pop can, go on day trips and overnight trips in and out of state to space-related facilities, and renew our model rocket program.



Harrisonburg High School

The Harrisonburg High School SEDS chapter had its first meeting on Monday, September 12th, and is pleased to announce that it will be competing in the Team America Rocketry Challenge, entering two teams of eight.

Other SEDS chapters include:

Caltech, South Dakota School of Mines and Technology, Texas A&M, University of Florida, University of Maryland, University of Washington, University of Virginia's College, Iowa State, Indiana University, University of North Carolina — Charlotte, University of Wisconsin, Embry Riddle Aeronautical University at Prescott, Virginia Tech-NASA DEVELOP, University of Alabama at Huntsville, University of Kansas, Salt Lake Community College, University of Minnesota, Cleveland State, New Mexico Institute of Technology, University of Texas at Austin, Montclair State University, Saint Louis University, Illinois Institute of Technology, University of North Dakota, University of Houston.

Auburn University

Everything's brand new in Auburn. SEDS-AU formed in Fall '05 in co-operation with the Auburn University Student Space Program and has hit the ground running by carrying on the AUSSP's two lead projects, both of which are completely student run. First is the Auburn High-Altitude Balloon Program, or AHAB. AHAB is a fully functioning test bed, and is used as an outreach program for high schools across the state to design experiments to be carried to the edge of space. The second project is AubieSat, a CubeSat funded by Space Grant. AubieSat's goal is to develop an effective method of maintaining constant communication with a satellite that has lost attitude control. SEDS-AU is currently about 25 members strong and growing and will be established as an active campus organization by the end of the year.

Embry-Riddle Aeronautical University

The Embry Riddle chapter of SEDS (ERFSEDS) was chartered in 1992. Its size has fluctuated through the years, but it has always been a well known organization on the Embry Riddle campus. Currently the chapter has about 30 active members.

The club enjoys almost bi-weekly "x-launches" where students build impromptu rockets out of odds and ends supplied to them to either compete in competitions or reflect themes, like pumpkin launching in October. Each semester the club holds certification workshops, allowing stu-

dents to get their NAR level 1 High Power certifications with as much of the cost being covered as possible.

The chapter is currently involved in a long term sounding rocket development program, with several vehicles being built currently. The first

will be flown from Wallops Island, Virginia in March with the goal of reaching 62.5 miles, the edge of space. Another vehicle will be flown in the "Pioneer Cup" competition being held at Kennedy Space Center, this one focusing on carrying a scientifically significant payload to as close to 50,000 feet as possible.

The included picture is of 4 club members in front of the Space Shuttle Main Engine display at Kennedy Space Center. From the Left; Jacklyn Duff (Secretary/Treasurer), Markus Zimmerman (Public Relations Officer), Ron Driggers (Member in good standing), Mike Stackpole (President).



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Peter's Laws

* Perfection is not optional.
* When faced without a challenge,
make one.

ACRONYMS! The space community is full of them. Who are we to be any different? Send in your best acronyms for NOVA. Your creative inventions will be published in the Spring 2006 issue.

Coming up in the Space Community, December

National Conferences:

- Dec 01-02 - Conference: Transforming Space - Innovation, Infrastructure and Intellectual Capital, Los Angeles, California
- Dec 03-04 - JPL Educator Conference: Comets, Asteroids, and Much More - Small Bodies, The Solar System's New Zoo, Pasadena, California
- Dec 05-09 - American Geophysical Union (AGU) Fall Meeting, San Francisco, California
- Dec 06-08 - NASA Annual Risk Management Conference, Lake Buena Vista, Florida
- Dec 08-13 - Symposium: New Views of the Universe, Chicago, Illinois
- Dec 09 - Lecture: Astronomy - The Infrared Universe, Pasadena, California
- Dec 10 - 2005 Reentry Signatures Workshop, Mountain View, California
- Dec 14-17 - Conference: Relativistic Jets - The Common Physics of AGN, Microquasars and Gamma-Ray Bursts, Ann Arbor, Michigan
- Dec 15-20 - Pacificchem 2005 - Symposium 47: Astrochemistry - From Laboratory Studies to Astronomical Observations, Honolulu, Hawaii

International Conferences:

- Dec 01-02 - International Workshop: Rotation of Celestial Bodies, Namur, Belgium
- Dec 05-09 - ESO Workshop: Groups of Galaxies in the Nearby Universe, Chile
- Dec 05-09 - 9th COROT Week, Noordwijk, The Netherlands
- Dec 07-09 - Workshop: The Transient Milky Way - A Perspective for MIRAX, Sao Jose dos Campos, Brazil
- Dec 07-10 - Grote Reber Memorial Conference: New Techniques and Results in Low Frequency Radio Astronomy, Hobart, Australia
- Dec 08-10 - Latin American Astronomy Summer School, Santiago, Chile
- Dec 11-14 - Star Formation Workshop, Taipei, Taiwan
- Dec 12-14 - Workshop: Cosmological Radiative Transfer Comparison Project, Leiden, The Netherlands
- Dec 12-16 - 11th Latin-American Regional IAU Meeting (LARIM-2005), Pucon, Chile

For more information, visit
<http://www2.jpl.nasa.gov/calendar/>