



# Newsletter 2000



## EXECUTIVE ADDRESS

*Jim Chase, Srimal Wangu, and Mindy Delaney  
The Executive Council (ec@nasa-academy.org)*

Greetings from the Executive Council, we are happy to welcome the 40 graduates of the Ames, Dryden, and Goddard Academies into the NAAA. This brings the total number of alumni to 310. This year the Executive Council has worked diligently to promote and expand our organization. The year has also been marked by the active involvement of over 30 members, who have risen to the challenge of helping in several areas, including the email lists, website, and newsletter. We are very grateful for this initiative and perseverance that will lead us into the future

The future of the NAAA continues to have enormous potential. We are an organization that consists of the most promising space-oriented students. The capability of this group to have an impact on the aerospace industry is awe-inspiring. However, this vision needs the help of multiple executive councils. For this reason, we will be stepping down in November, and our hope is that a new set of visionary and proactive alumni will lead the NAAA for another year. If you are interested in being on this team, we encourage you to run in the November elections.

We have had a great year that has included many opportunities, along with gaining a tremendous amount of experience. We would like to thank each member for allowing us this opportunity.

## 2000 NAAA ANNUAL EVENT

*Emily Eelkema, Director of Annual Congress  
(emilyeelkema@yahoo.com)*

This year's annual event will be held October 19-22 in sunny Manhattan Beach, California. The event will be held parallel to the Space Frontier Conference (<http://www.space-frontier.org/Events/SFC9/>), so NAAA members can take

advantage of the Space Frontier Foundation's meetings, events, and special hotel rates. NAAA members will also be able to

register for the SFC Conference at the reduced student rate (see the invitation for details.) NAAA Events will include a Friday night social hour, featured NAAA speakers, the annual NAAA Congress, a Saturday night banquet, and a beach BBQ! Invitations will be mailed shortly, and will also be available on-line. Please see the invitations for conference details, and information on how to register. Hope to see you all there!



VIRGINIA SPACE GRANT CONSORTIUM

## NAAA INITIATION / INTRODUCTION

*Srimal Wangu, Vice-President of Operations  
(swangu@hotmail.com)*

Welcome to all the new NASA Academy graduates! This year the 2000 NASA Academies at GSFC, Dryden, and Ames were introduced to the NAAA through a welcome brochure and an inspirational talk on the benefits of becoming an Alumni Association member. Our own famous writer, Laura (Sachi) Mills, penned the inspiring brochure (which can be found on our webpage). At Goddard, Jim Brice and Jane Thorpe met with the Academy to encourage their participation in the NAAA, and at Dryden Emily Eelkeam spoke to them. I know that the fresh ideas and enthusiasm these new graduates bring to our organization can only make the NAAA better! I look forward to their (and everyone's!) future participation.

## 2000 ACADEMY REPORTS

### 2000 Dryden Academy

*Stephanie Sprague, Dryden Academy Staff  
(ssprague@eagle.cc.ukans.edu)*



This summer's NASA Academy in Aeronautics at Dryden Flight Research Center finished on August 18th, 2000. The Academy consisted of five members: Parag Gupta, Virgil Hutchinson, Chiara Kruse, David Neidig and Kristy Stokke. As always, the Dryden Academy visited the Goddard Academy and the Ames Academy throughout the summer. They also visited local Antelope Valley aerospace industry affiliates and hosted numerous lunch and dinner guests

from around DFRC. For the group project, the team took a flight test project through all of the "hoops" imposed by DFRC and NASA; for instance, they had a Preliminary Design Review, a Critical Design Review, a Flight Readiness Review and a Final Presentation. The flight test project chosen was to compare the aerodynamic characteristics and handling qualities of two gliders with the same swept-wing configuration, but one glider was a straight wing and the second glider had a twist manufactured to resemble a Horten IV twist. Overall, the summer went very well and each of the members learned a lot about teamwork, NASA and each other.

### **2000 Ames Astrobiology Academy**

*Joe Tamer, Ames Academy Staff (j\_tamer@yahoo.com)*

Things wrapped up very nicely for the Ames Academy this year. They received some very positive press at the end of the year from some local papers and news programs. People seemed to be very interested in the opportunities that this year's students had including visits to Lawrence Livermore, the Desert Research Institute, Lick Observatory, the Jet Propulsion Laboratory, NASA Dryden, the Monterey Bay Aquatic Research Institute, and local industry partners.

Their final presentations were well attended and they gained much applause. In fact it was standing room only when they presented the results of their group project of a "manned sample return mission to Haughton Crater". They collaborated with the NASA Haughton Mars Team that worked all summer on Devon Island in the Canadian Arctic and the entire Academy received mission patches for what the project lead, Pascal Lee, called "a substantial and significant experiment in the exploration of life in extreme environments".

The thirteen students returned safely home after the Academy and are now working on their own to present their work at a future conference and possibly to have it published in a peer-reviewed journal. Way to go NAABA2K!!!

### **2000 Goddard Academy**

*Laura Burns, GSFC Liaison (laura.burns@prodigy.net)*

On August 8, 2000 I had the privilege to attend the final presentations and graduation of the 2000 GSFC NASA Academy. The student presentations were a joy to witness, and it is obvious that they made an impact at GSFC during their summer. The group project this year was focused on outreach. The RAs put together an excellent set of presentation materials that covered everything from the history of the space program to experiments one can do in the classroom. The presentation was highlighted by two professional public radio announcements created over the summer, which the students plan to put on the air in their hometowns. They did exceptionally well, and I want to strongly encourage them to make these materials available to the entire alumni base.

There was an additional bonus this year with a presentation by

Erin Roye on Moon Based Astronomy. Challenged by Dan Goldin to create a report on the feasibility of this project, Erin spent her free time this summer creating a feasible plan to create an unmanned observatory on the moon. She plans to present this report to Goldin in a few months. The special award for the summer, entitled the "Copernicus Award", was presented to Dariusz Golda for his outstanding and influential contribution to the "Super-Resolving Rotary Actuator" project. Vanessa Stroh was also presented with the "Director's Award" by Dr. Soffen for her hard work and service. Congratulations to all of the graduates.

### **VISITING UNIVERSITIES VIA NASA ACADEMY**

*Jim Chase, President (jimchase@mit.edu)*

Each summer, approximately 40 students attend NASA Academy, most of which are interested in pursuing advanced degrees. Meanwhile, colleges and universities are very interested in recruiting the "best and brightest" students to their schools and will often organize and fund visits by students. The synergy here is remarkable. Thus, I am in the process of proposing the following idea to the NA directors. During the academy, a 3-day weekend could be set aside to visit universities. Students could select a participating university and visit for the weekend. Groups (comprised of students from all academies) could then visit the schools. Not only would this facilitate higher education opportunities, but it would provide for a greater association between the academies. Additionally, colleges and universities might be willing to coordinate and fund this experience.

### **WEBSITE UPDATE**

*Elisa Quintana, Webmaster  
(equintan@estrellas.arc.nasa.gov)*



The NAAA website (<http://www.nasa-academy.org/>) has been slightly restructured to allow easier access to alumni resources and the latest news on alumni projects and meetings. Under "The Alumni" link, you will find general information about all of our members, as well as their accomplishments. The "Alumni Resources" link should be especially valuable to those alumni seeking internships or employment, or who are interested in graduate schools (and funding!). For the latest information on this year's reunion, check out "Annual Conference". The "Alumni Message Forum" has been recently added for further discussion, so feel free to post your thoughts/ideas!

If you would like to add anything to the alumni accomplishments page, or if you have any information that would be helpful to the alumni (cool jobs available, fellowships/internships that aren't listed, thoughts on graduate school programs etc.) please send them to me. Hope to see many of you at the annual

event in southern CA!

### UPDATING YOUR MEMBERSHIP

Mike Moreau, Email List Manager ([moreau@colorado.edu](mailto:moreau@colorado.edu))

It is important to keep your membership information current. The following is the necessary procedure.

- Check your database entry: <http://www.nasa-academy.org/ph/AcademyPh.cgi?DB=ns-academy>
- Update your database entry: <http://www.nasa-academy.org/members/member.form.html>
- Reminder: personal email aliases that are set up for everyone: [firstname.lastname@nasa-academy.org](mailto:firstname.lastname@nasa-academy.org)

### GODDARD ACADEMY INTERNAL REVIEW

By Brian Roberts ([broberts@ssl.umd.edu](mailto:broberts@ssl.umd.edu))

Dr. Soffen has asked a small human factors engineering/consulting firm that I am working for part time to put together a short assessment of the Academy program at Goddard (what has worked in the past? what might be changed to improve the program? etc.). All alumni (even those who didn't attend the Goddard Academy) are encouraged to assist us in any way they feel is appropriate. We are currently in the process of working on a contract with Goddard, but it looks like we plan on having a draft together by the end of September/beginning of October and a final draft around the end of October/mid November. If you are interested in reading a draft, contributing thoughts and ideas, or helping out in any way, can contact me at [bjr@po.cwru.edu](mailto:bjr@po.cwru.edu).

### EDUCATIONAL OUTREACH

Srimal Wangu, Vice-President of Operations

This past July, Markus Wilkinson started an inventive educational outreach program in his hometown of Aurora, Colorado. He ran a pilot space education program with a local Boy Scout troop. Markus describes his outreach program and the scouts' experiences: "...they had a great time. I reviewed the history of space flight and threw in several anecdotes (many of which I got from Space Academy). Those always make history more interesting. We discussed the design of rockets, and demonstrated the stability about the axes of a vehicle. We discussed the systems level design of a satellite and discussed the future of space flight (space stations, manned planetary missions, etc). For the finale, the boys designed and built their own model rockets. The excitement level they had launching rockets they designed, tested, built themselves was too large to measure..."

Overall, Markus believes the educational outreach program he

is developing can be a great success, and can be expanded for use in schools, Boy and Girl Scout troops, church groups, and other community organizations. The next step? Developing a mini-curriculum, advertising the program and inspiring the interest of more teachers and group leaders.

Community educational outreach is a wonderful way to educate the public about the Academy and NASA in general. Other NAAA members have also given their time to talk to community groups, schools, and other organizations about the Academy, NASA, and space in general, with much success. If you would like to participate in this worthwhile effort, or if you have ideas of your own, please contact me. Thank you!

### NAAA SHORT TAKES

#### Update on the 2001 JSC HEDS Academy

Deon Brown, JSC Liaison ([deon.d.brown1@jsc.nasa.gov](mailto:deon.d.brown1@jsc.nasa.gov))

We had a very productive meeting with Mr. George Abbey and several NASA Center representatives on August 25th, where we presented the details of the NASA Academy program. Mr. Abbey seemed receptive and asked quite a few good questions. He tasked JSC Human Resources to look into our proposal and see what they could do. The Houston alumni are following up on a few actions from this meeting and will report on new developments as they become known in the process of getting a JSC Academy.

#### Board of Advisors

Jacob Yates, Director of BoA ([jjyates@denali.gsfc.nasa.gov](mailto:jjyates@denali.gsfc.nasa.gov))

Preparation is underway to set-up and recruit the Board of Advisors for the NASA Academy Alumni Association. Stay tuned for upcoming announcements as well as information posted at the "Working Group" section of the NAAA web page (<http://www.nasa-academy.org/projects/>).

#### NAAA-ISU Cooperative Efforts

Srimal Wangu, Vice-President of Operations

The NAAA Executive Council and the ISU-USA Alumni organization have been discussing the possibility of future participation in joint efforts. If you are interested in NAAA -- ISU-USA cooperative efforts, or have some ideas about projects or activities that the two groups could jointly pursue, please contact me. Thank you!



MASSACHUSETTS SPACE GRANT CONSORTIUM  
MIT, Room 33-288, 77 Massachusetts Ave, Cambridge, MA 02139

## FUNDRAISING

*Mindy Delaney, Vice-President of Finance  
(mdelaney@mit.edu)*

As most of you are aware, we had a donation contest between the 5 major regions of NA alumni that ended on June 15 of this year. We raised \$992 and the DC-area alumni won the contest with contributions of \$445. The DC area alumni were awarded \$150 for a DC-area get together, which they gracefully allowed the NAAA to keep. Thank you to all who contributed this year!

We are currently in the process of raising money for the Annual Event, with \$1500 received to date from the Virginia, Massachusetts, and New Jersey Space Grants, along with e-Aerospace, an MIT non-profit organization. We are looking to raise at least \$5,000 more from Space Grants and Aerospace companies. If you would like to volunteer your time to help in this cause, please email me.

Thanks to Aaron Jacobvits, Dave Goldstein, Jessica Marquez, Jake Vachan, Chelle Crowder, Brian Roberts, Rich Sturfels, Robin Smith, Robert Bayt, Stephanie Thomas and Jim Chase for their help in raising this money.

Donations can be sent to me at my home address:  
Ms. Mindy Delaney  
60 Wadsworth Street Apt. 6C  
Cambridge, MA 02142

## ALUMNI DATABASE ARCHITECTURE WORKING GROUP.

*Mike Baine, Director of Communications  
(mbaine@hq.space.com)*

A new database architecture is being studied as a possible replacement for the academy electronic phone book. The original electronic phone book was intended for members to keep in touch with each other and not designed to do the in-depth tracking of alumni we are envisioning for the next generation database. The recent reviews of the GSFC program as well as the JSC academy presentation have highlighted problems with the database as well as the gaps in the data. Metrics such as "How many people work for NASA?" or "What is the break down by discipline?" are extremely hard to quantify. In addition, the alumni database requires an extensive amount of manual processing to keep updated. Mike Moreau has processed all the renewals and uploaded them to the web server. Chris Lewicki

has been generous enough to keep the server going with his computer prowess. The major thrusts of the redesign are:

- Addition of a username and password for access
- Additional statistics for help in evaluating member progress
- Improved security and privacy

The basic design that is still being finalized is based on a database engine (MySQL) running on the Alumni (or similar) web server. A web-based interface (PHP3) would allow members to securely update their data. The process will be much easier than in the past because all the data will be presented on-screen and the alumni will simply scan for those items that need updating.

The next item that needs to be addressed is the re-establishment of contact with those members that have not updated their memberships. Nearly a quarter of our members have lapsed their membership leaving big holes in the program statistics. Since NASA spent in the neighborhood of \$10K to provide each RA with an academy experience; we should be able to update our membership so that we can justify the existence of the program.

As of September 1, 2000

- 269 alumni are in the database (not including 2000 RAs)
- 33 memberships have lapsed within the last 8 months
- 58 more are considered 'lost' because they have been out of touch for more than a year

## FORMING AN NAAA RESUME DATABASE

*Jim Chase, President*

Part of the mission of the NAAA is to assist members in their pursuit of opportunities in the aerospace industry. Typically, this has been accomplished via the website and <alumni> email list. However, I have been working on a third area: an NAAA database that can host alumni resumes for inquiry by organizations. I have spoken with collegerecruiter.com, and they are interested in this idea. NAAA members could upload their resumes to a job service (such as collegerecruiter.com) that promotes these resumes to interested parties. Members can designate their level of interest and the types of opportunities in which they are interested. Companies could also post job opportunities. The end result would be a forum that assists members in getting the best jobs available in the industry.