

## Mid-Level Professional's Workshop



Registration at the workshop. See details on page 3.

## Becoming an AIAA member

Are you interested in becoming a member of the AIAA or renewing your membership? You can fill out a membership application online by going to the AIAA membership website at [www.aiaa.org/information](http://www.aiaa.org/information).

## February 15 Input Deadline for the Next Edition of *Horizons*

Contributions can be submitted by email to Nicole Smith at [chair@aiaa-houston.org](mailto:chair@aiaa-houston.org).

## Features

<i>Want to get more involved in AIAA</i> .....	3
<i>Mid-Level Professional's Workshop</i> .....	3
<i>National Engineers Week February 16-22</i> .....	4
<i>Evolution of Flight Art Contest</i> .....	6
<i>Keep an eye out for some upcoming events</i> .....	6
<i>Annual Mars Settlement Design Competition at JSC</i> .....	7
<i>AIAA Congressional Visits Day (CVD)</i> .....	7
<i>Welcome New Members</i> .....	8
<i>Whom You Know</i> .....	8

## In Every Issue

<i>Chair's Corner</i> .....	3
-----------------------------	---

Publications Chair  
John Keener

Editor  
John Keener

### Contributing Authors

Norm Chaffee  
Sophia Bright  
Chad Brinkley

Jesus Reyna  
Joy Conrad King

*Horizons* is the monthly newsletter (except for the months of July and August) of the Houston Section of the American Institute of Aeronautics and Astronautics. It is created by members of the Houston Section and reproduced at the Houston Offices of Lockheed Martin. Opinions expressed herein, other than by elected Houston Section Officers, are those of the authors and do not necessarily represent the position of AIAA or the Houston Section. Please address all correspondence to the Houston Section Chairman, Nicole Smith. Phone 281-244-7145; e-mail [chair@aiaa-houston.org](mailto:chair@aiaa-houston.org).

## Chair's Corner

Welcome to the third Horizons issue for 2002-2003! The Houston Section is off to a great start and has a number of exciting events on the radar screen.

The February dinner program speaker will be an AIAA Distinguished Speaker, Dr. Roger Launius, who is the Chief Historian of the National Aeronautics and Space Administration in Washington, DC. He will be speaking on "Looking Backward/Looking Forward: Space Flight at the Turn of the New Millennium." It will include a review of some of the possibilities available for the next 50 years in spaceflight. This presentation will be given at the AIAA dinner meeting on Thursday February 27, 2003 and will be held at the Gilruth Center at JSC.

Best regards,

L. Nicole Smith  
Chairperson, AIAA Houston Section

## Want to get more involved in AIAA? We have some opportunities...

*By Sophia Bright, Vice-Chair of Operations*

Have you been interested in wanting to do more with your local section of AIAA but just did not know where to begin or how to get involved? Well here is your chance to do just that. We have a couple council positions that are open and need to be filled by some motivated and enthusiastic individuals. Those positions are:

Program Chairman - responsible for organizing and conducting regular and special programs for the Section.

Newsletter Editor – responsible for collecting and reviewing submitted articles and then laying the articles out for print.

If you have additional questions relative to those positions please contact Sophia Bright, Vice Chair Operations, at 281-461-9300, Ext 234.

We also have a few subcommittee chair positions available on the Technical Committee. Those subcommittees are History, Space Science & Astronomy, and Systems Engineering. Please contact

Shirley Brandt, Vice Chair Technical, at 281-483-6609 if you are interested in those areas.

Also if you are interested in getting involved at lower level of commitment we always have activities going on through out the year. Feel free to contact Sophia Bright. Or, just keep an eye open for future announcements indicating when we are in need of help.

## Mid-Level Professional's Workshop A Great Success

*Jesus Reyna, Jr., Chair, Professional Development Committee*

The AIAA Mid-Level Professional's Workshop held Saturday November 16 at the NASA/JSC Gilruth Conference Center was a great success with 55 participants attending the half-day workshop. Our section Chair, Nicole Smith welcomed everyone to the workshop, which was sponsored in part by United Space Alliance. Participants were treated to a continental breakfast, munchies and drinks as the morning session went underway.

The sessions offered were:

*Financial Planning* presented by Crista F. Boyles, Vice President, Retirement Specialists, Inc. *Working With International Partners* presented by James F. Peters, Ph.D., Principal Scientist and Engineer, ISS & Shuttle Program, Boeing. *Promotion Training and Personal Development*, presented by Kimberly B. Jacobs, Employee Development Specialist, Lockheed Martin Space Operations. *Role of Physical Fitness in Employee Health* presented by Larry T. Wier, Ph.D. Director, Health Fitness, NASA/JSC. *Career Path Options: Technical or Management* presented by Lauri N. Hansen, Deputy Director, Engineering NASA/JSC and Brain W. Brown, Deputy Program Manager, SEAT Operation, Lockheed Martin Space Operations. *Coaching for Performance & Personal Development* presented by Robert N. Korin, Manager, ISS VIPeR Team Boeing.

At the conclusion of the morning sessions, the participants were invited to a panel discussion led by key leaders and mentors in the NASA/JSC aerospace community. The panel discussion was moderated by Susan H. Garman, Associate Director (Management) at NASA/JSC. The panelists included John B. Vollmer, Director, ISS Program Integration, Boeing, Yolanda Y. Marshall, Director, Safety, Reliability & Quality Assurance, NASA/JSC, Steven A. Gonzalez, Chief, Operations Research & Strategic Development, NASA/JSC, and Hasan H. Rahman, Project Manager, Mission Data Systems, Lockheed Martin Space Operations. After a brief

introduction by each of the panelist, the moderator opened the floor to questions by the participants. The rapport between the audience and panelist was quite inspiring.

Following the lively panel discussion, which could have gone all day, the participants were treated to gourmet sandwiches made by Frenchies Restaurant. While some dined, others took the opportunity to meet representatives from a local chapter of Toastmasters, who were on hand to promote their organization.



*Panelists prepare for their upcoming session*

The activities for the day were brought to a very exciting and motivational end with AIAA Distinguished Lecturer and accomplished motivational speaker Jack Bacon, Ph.D., PE. He wowed the audience with his awe-inspiring presentation titled: Forecasting Your Future. Dr. Bacon, having sat through the morning sessions and the panel discussion was able to reference examples and techniques mentioned by the earlier presenters to support his presentation. When all was said and done, the participants left feeling energized and motivated to further develop their professional careers.



*Taking a break between sessions.*

The workshop was put by the MLPW Committee made up of: Jesus Reyna, Jr. Aerospace Engineer,

Passive Thermal Integration, Boeing, Sophia Bright, Software Quality Manager, Tietronix Software, Inc., Norman H. Chaffee, Education Outreach Specialist, INDYNE, Inc., Bradley S. Files, Acting Deputy Branch Chief, Materials and Processes, NASA/JSC, Steven R. King, Project Manager, Advanced Vehicle Mechanical/Structural, Lockheed Martin Space Operations, and Paula D. Smith, Project Manager, Advanced Vehicle Software/Simulation, Lockheed Martin Space Operations. Special thanks to Glenn Jenkinson, Safety & Mission Assurance, Boeing, and Brenda Webber, CAU Display Development Group, United Space Alliance.



*Participants listen to the Coaching for Performance & Personal Development presented by Robert N. Korin*

## National Engineers Week: February 16-22, 2003 Activities Roundup

From Eweek website

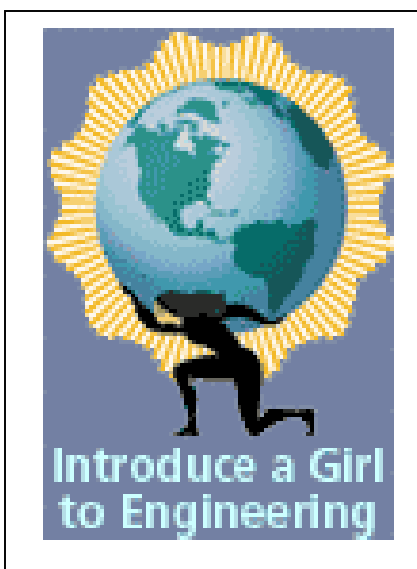
<http://www.eweeek.org/site/news/Eweek/2002/roundup.shtml>



Vitality and diversity move front and center for National Engineers Week 2003 with the launch of The New Faces of Engineering, a new program spotlighting the outstanding contributions of America's youngest engineers. For the past several years, National Engineers Week activities have targeted students in an effort to expand the potential ranks of "the engineers of tomorrow." The New Faces of Engineering program extends those efforts by showcasing the exciting new talents that epitomize the dynamic innovations and advancements that are engineering. Founded in 1951 by the National Society of Professional Engineers and sponsored by more than 100 engineering, scientific, and education societies and

major corporations, National Engineers Week is dedicated to increasing public awareness and appreciation of engineers and to encouraging precollege interest in science, technology, and engineering. National Engineers Week is celebrated annually by thousands of engineers, engineering students, teachers, and leaders in government and business. Co-chairs for National Engineers Week 2003 are the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) and Lockheed Martin. "We want to provide stimulation and incentive for college students," explains Donald Colliver, Ph.D., P.E., president of ASHRAE. "The New Faces will reflect the broad spectrum of engineering today, including women and underrepresented minorities, and let the next generation of engineers 'see' where their degrees might take them."

Nominations were received for engineers in industry and academia through engineering societies on the National Engineers Week Committee. Nominees must hold an engineering degree, be employed as an engineer from two to five years, and have been involved in projects that significantly impact public welfare or further professional development and growth. Sixteen outstanding individuals will be featured in USA Today during National Engineers Week and in a poster distributed to young students. All nominees will be included on the EWeek website at [www.eweek.org](http://www.eweek.org). Along with New Faces, ZOOM™ into Engineering, an educational program aimed at 6- to 11-year-olds and designed in conjunction with the popular PBS television show "ZOOM," returns for National Engineers Week 2003. Engineers use the program at schools, libraries, technology museums, and other public venues with the help of a ZOOM into Engineering toolkit containing an activity guide, CD-ROM, and video. The program offers intriguing glimpses into the world of engineering with simple and fun experiments, insights on teaching,



and tips on how to organize workshops and events.

Introduce a Girl to Engineering Day, now in its third year, also returns. So far, an estimated two million girls have participated. Supported by more than 100 organizations, who hope to mobilize at least 10,000 women

engineers, along with their male colleagues, the goal for 2003 is to reach another one million girls. Planned for February 20, 2003, Introduce a Girl to Engineering Day is led by the National Engineers Week co-chairs, along with Agilent Technologies, Inc., the Elizabeth and Stephen Bechtel, Jr. Foundation, CH2M HILL, Girl Scouts USA, the Society of Women Engineers (SWE), and Women in Engineering Programs & Advocates Network (WEPAN). SWE plans to send out more than 1,000 volunteers in the program. Other important National Engineers Week activities include:

The National Engineers Week Future City Competition™, now in its 11th year, expands to 31 regions across America: Albany (New York), Buffalo, Northern California, Southern California, Chicago, Colorado, South Florida, Hampton Roads (Virginia), Indiana, Iowa, Kentucky, Las Vegas, Louisiana, Massachusetts, Michigan, Milwaukee, Minnesota, New York City, North Carolina, Northern Nevada, Ohio, Oklahoma, Omaha, Philadelphia, Phoenix, Pittsburgh, St. Louis, Texas-Fort Worth/Dallas, Texas-Houston, Washington, D.C., and Washington State. The competition asks middle school students, working under the guidance of teachers and volunteer engineers, to build computer and three-dimensional scale models of cities of tomorrow. They must also defend their designs to a panel of engineer judges at the competition and research and write essays. Students begin in the fall and compete in regional competitions in January. Winners then go to national finals in Washington on February 17-19. For more information, visit <http://www.futurecity.org>. National Engineers Week also supports the "Sightseers Guide to Engineering" at <http://www.engineeringsights.org>, which debuted February 2001. The site, created by the National Society of Professional Engineers, celebrates engineering in all 50 states and encourages public recognition of engineering achievements and understanding of their importance in everyday life. It also welcomes additional entries.

The National Academy of Engineering will present the annual \$500,000 Charles Stark Draper Prize, the profession's highest honor for engineering achievement and innovation, and the biennial Fritz J. and Dolores H. Russ Prize, also worth \$500,000, at a black-tie dinner on Tuesday, February 18. For more information on these prizes, visit <http://www.nae.edu/awards>.

Engineering and the emergency room will be the focus of a special National Engineers Week event to be held Saturday, February 8, at Southern Methodist University in Dallas. The event, titled "Visioneering: Designing the Future" will be broadcast nationwide to up to eight million students on February 21 on Cable Channel One in conjunction with National En-

gineers Week. The event is sponsored by the SMU School of Engineering and The Institute for Engineering Education at SMU and co-sponsored by Accenture and Texas Instruments. Other sponsors include Tyco Electronics, Austin Industries, EDS, EXE Technologies, Esoftsolutions, HKS Architects, Methodist Hospitals, National Engineers Week, Cable ChannelOne and The Science Place. For more information, visit <http://www.theinstitute.smu/visioneering.html>.

The NSPE Federal Engineer of the Year Award will be announced at a banquet luncheon on February 20 at the National Press Club. The Chinese Institute of Engineers (CIE/USA), which joined National Engineers Week as a sponsor in 2002, will announce the Asian American Engineer of the Year at an award banquet in Dallas on Saturday, February 22. Dr. Leo Esaki of IBM and Chancellor Chang-Lin Tien of the University of California-Berkeley shared the award in 2002.

<http://www.discoverengineering.org>, a Web site developed, sponsored, and launched during National Engineers Week 1999 by that year's co-chair, Eastman Chemical Company, educates middle school students with information about what engineers do and how to become one. The site, praised by the Los Angeles Times and Newsday, among others, offers comprehensive information on the engineering of nine "cool things" -- including CD players, roller coasters, high performance sporting goods, and cars -- background on careers in engineering, games, downloadables, and hundreds of links to corporations, engineering societies, and other resources. The site received additional support this year from Tokyo Electron (TEL).

A Drive-Time Radio Tour will highlight the New Faces in Engineering program, ZOOM into Engineering, Introduce a Girl to Engineering Day, and the Future City Competition in dozens of cities across the country.

Discover "E," a nationwide program of 40,000 engineers helping more than five million elementary, junior and senior high school students discover practical applications of math, science and technology with hands-on activities through school and extracurricular programs.

Engineering Goes Public where hundreds of libraries, science/technology centers, engineering project sites, and local malls -- in conjunction with the Boy Scouts, Girl Scouts, Boys and Girls Clubs, and the Junior Engineering Technical Society -- host Engineering Day to educate the public during National Engineers Week.

## Evolution of Flight Art Contest

*By Joy Conrad King*

WHO: Students from all over the world, ages 5-16.

WHAT: Entries must be original artwork on an 8-1/2" x 11" sheet of white paper (no computer generated or three-dimensional art is eligible). Artwork should be based on the theme "Celebrating Flight - The Next 100 Years". Winning artwork will be featured on the AIAA Evolution of Flight web site and in other AIAA promotional materials. Prizes will be awarded.

THEME: "Celebrating Flight - The Next 100 Years". In 2003, we will celebrate the accomplishments of Orville and Wilbur Wright and the technological advancements in flight over the past 100 years. As we celebrate the 100<sup>th</sup> anniversary of the Wright brothers' first flight, we'd like for you to share your vision of what air or space travel will look like in the next 100 years. Use your imagination!

WHEN: Entries must be postmarked by **31 March 2003**. Entries postmarked after 31 March 2003 will not be considered in the contest.

HOW: Complete your artwork and write your first and last name and age on the front of your entry in the bottom right corner in black marker ink. Have your parent or guardian fill out and sign the AIAA Entry/Parental Contest form from [http://www.flight100.org/activities/artcontest\\_2003.html](http://www.flight100.org/activities/artcontest_2003.html) and mail the entire package to:

Evolution of Flight Campaign Art Contest  
Attn: Kimberly Grant  
1801 Alexander Bell Drive, Suite 500  
Reston, VA 20191-4344

WHY: AIAA wants to excite and engage children of all ages in the centennial of the first successful, manned, controlled, heavier-than-air, powered flight by Orville and Wilbur Wright on December 17, 2003.

## Keep an eye out for some upcoming events!

*By Sophia Bright, Vice-Chair of Operations*

Happy holidays! It is hard to believe that it is already 2003 and there is so much left to do this year. It was pretty quiet on the program front for AIAA last fall, but we hope to kick it up a notch with several activities planned this spring. Here are some of the

activities we are planning or supporting over the next few months:

- Fly-In Event at a local airfield in support of the Evolution of Flight Centennial
- Several dinner meetings, including Distinguished Lecturer Dr. Roger Lanius in late February
- Lunch & learns coordinated by our Technical Committees
- Region IV Student Paper Conference in April at the University of Houston

If you have ideas for other activities that you would like to see AIAA sponsor please contact me at 281-461-9300, Ext 234 or at [sbright@tietronix.com](mailto:sbright@tietronix.com).

## Call for Participants and Volunteers for Fifth Annual Mars Settlement Design Competition at JSC

*By Norm Chaffee*

The Houston Section - AIAA, along with NASA - JSC, The Boeing Company, Dow Chemical Company, and Clear Creek ISD are once again sponsoring the annual Mars Settlement Design Competition, to be held at the Gilruth Center at JSC over the weekend of February 21 - 23, 2003. This will be the fifth year for this competition, which is open to high school students in grades 10 - 12, in the Houston and southeast Texas area. The Competition is an industry simulation game, in which the students are divided into four competing student companies and asked to design a large human base on Mars, in a scenario set 75 years in the future. The students experience the feeling of being part of an aerospace company proposal team, trying to respond to an RFP with too little time and information. Each student team is provided technical training and a NASA/Contractor CEO to help guide their activities. After training sessions on Friday night and Saturday morning, the student companies prepare their proposals over a 24-hour period, and then present the results to a team of professional judges on Sunday morning. The judges select the winning team. All participants receive Certificates, tee shirts, and mementos.

AIAA members who have children in high school in grades 10 - 12, are urged to bring this exciting competition to their attention. Up to 160 students can participate. Complete details of the Competition are available at the Competition website at

<http://marsbase.jsc.nasa.gov>. More details and application forms for students can be obtained from Councilor Norman Chaffee, at 281-483-3777 or [Norman.H.Chaffee1@jsc.nasa.gov](mailto:Norman.H.Chaffee1@jsc.nasa.gov)

In addition, AIAA-Houston Section members are sought to volunteer for several supporting positions in the competition as follows:

Act as a Co-CEO of one of the Student Teams (Commitment is for all day Saturday, February 22)

Act as a student technical trainer in one of the following areas:

- Structural Engineering
- Human and Life Support Systems Engineering
- Operations Engineering
- Automation and Robotics Engineering

The commitment for technical trainers is for 2 - 3 hours on Saturday morning, February 22, using pre-prepared training briefings.

Act as a Librarian for the reference materials available to the student teams. The commitment is for a 4 - hour shift during the day or evening of Saturday, February 22

Act as a Judge of the student proposals. The commitment is for most of the day on Sunday, February 23.

This Competition is an exciting activity for the students and volunteers.

PLEASE TELL YOUR CHILDREN ABOUT IT, AND CONSIDER VOLUNTEERING TO SUPPORT IT. Contact Norman Chaffee at the number and email address above for more information.

## AIAA Congressional Visits Day (CVD)

*Chad Brinkley – DD Region IV & Houston Section Public Policy*

The AIAA is fast approaching its annual Congressional Visits Day (CVD) to be held April 8th and 9th in Washington, D.C. The Institute would now like to take the opportunity to extend to you an invitation to participate in this event. Your role as a Section member is instrumental to the success of this activity.

For those who have not participated previously, CVD is AIAA's annual grassroots educational outreach activity to Congress and the Executive Branch. Each year, nearly 40 Sections participate in this event. AIAA strongly believes that because of our long history as the principle aerospace society and its

unique membership structure, we are in a good position to communicate matters of aerospace policy and critical technical issues in an objective and effective manner. Now is your opportunity to pass along your expertise to key policy makers in Washington.

If you are interested in attending CVD, please call me at 281-226-5175 or email me at [cbrinkley@cimarroninc.com](mailto:cbrinkley@cimarroninc.com). In preparation for this event, I will be leading a group to create a list of issues that are important to the Houston Section. Our voice is important and will be listened to by Congress, especially the Texas Delegation. We can promote the benefit of our profession the best, and as constituents, we have a vote. If we do not voice our ideas, concerns, and wishes, then no one will. Additionally, if we are not active, you can guarantee that some other organization will be; we cannot simply rely on the merits of our work.

I look forward to working with some of you to articulate our messages, which will influence National AIAA and their overall "Issues List" to be presented.

## Whom You Know

*Jesus Reyna, Jr., Chairman Professional Development*

Have you heard the expression, "It's not what you know, but whom you know?" When it comes to developing your professional career, your success will be governed to a large degree by size of your social network. This network will include your close circle of friends and extends to what I call your circle of acquaintances. Who is more important – your closest friends or acquaintances? Sociologist Mark Granovetter in the classic 1974 book, "Getting A Job." describes the paradox between strength of acquaintances vs. closest friends. Granovetter believes that if you are looking for new opportunities, they are most likely to come from outside your immediate circle of friends. This emphasizes the importance of networking and collaborating with others throughout the course of your career. A friend of mine made it a practice to meet someone new everyday to expand his circle of acquaintances. Once a week he would have lunch with a new acquaintance and continue to develop a positive relationship with them. Not long after I met him, he was offered a job he could not refuse by an acquaintance he had met several years earlier.

Perhaps it is not exactly whom you know, but whom they know that makes the difference. We all have certain strengths and weaknesses, with respect to what we can or are capable of doing. When others recognize and appreciate our strengths and accom-

plishments, they tell others about us. They are our advocates, speaking on our behalf. The third person may likewise speak well of you to others among their circle of friends or acquaintances and so on and so forth. Before you know it, there are people that know of your strengths and accomplishments that you have not ever met. The doors of opportunity will be opening without you actually pushing on them personally.

The importance of building and sustaining your social network is of paramount importance to the success of your professional career. It's easy to do: Get out and meet some new today.

## Welcome New Members to Houston Section of AIAA

*By Sophia Bright, Vice-Chair of Operations*

On behalf of the Houston Section of AIAA, I would like to recognize and welcome several new and long-standing members to the Houston Section Professional Membership.

Dr. Kyaw Aung	Mr. Jan Ott
Ms. Melissa Bestick	Mr. Phil Restivo
Mr. Martin Cabaniss	Mr. James Sewell
Mr. Robert Goetz	Mr. J. Britton Walters

Welcome again to the Houston Section! If any of you would like to find out more about the organization please feel free to visit the section website at <http://jsc.nasa.gov/aiaa/>. Additionally there are a number of activities that we sponsor throughout the year and we encourage the participation of all of our members not only from the aspect of attending the activity, but also in planning and coordinating the activity.

If you have any ideas for activities or services you would like to see from this section please feel free to pass that information on to us. If you have specific Membership questions please feel free to the section Membership Chair. We are currently transitioning our Membership Chair position so you may either contact me, Sophia Bright, at 281-461-9300, Ext 234, or you can contact our section Membership Chair, Henry Schmidt at 281-244-4629. If you prefer to contact us by e-mail our addresses are [sbright@tietronix.com](mailto:sbright@tietronix.com) and [henry.j.Schmidt@boeing.com](mailto:henry.j.Schmidt@boeing.com), respectively.

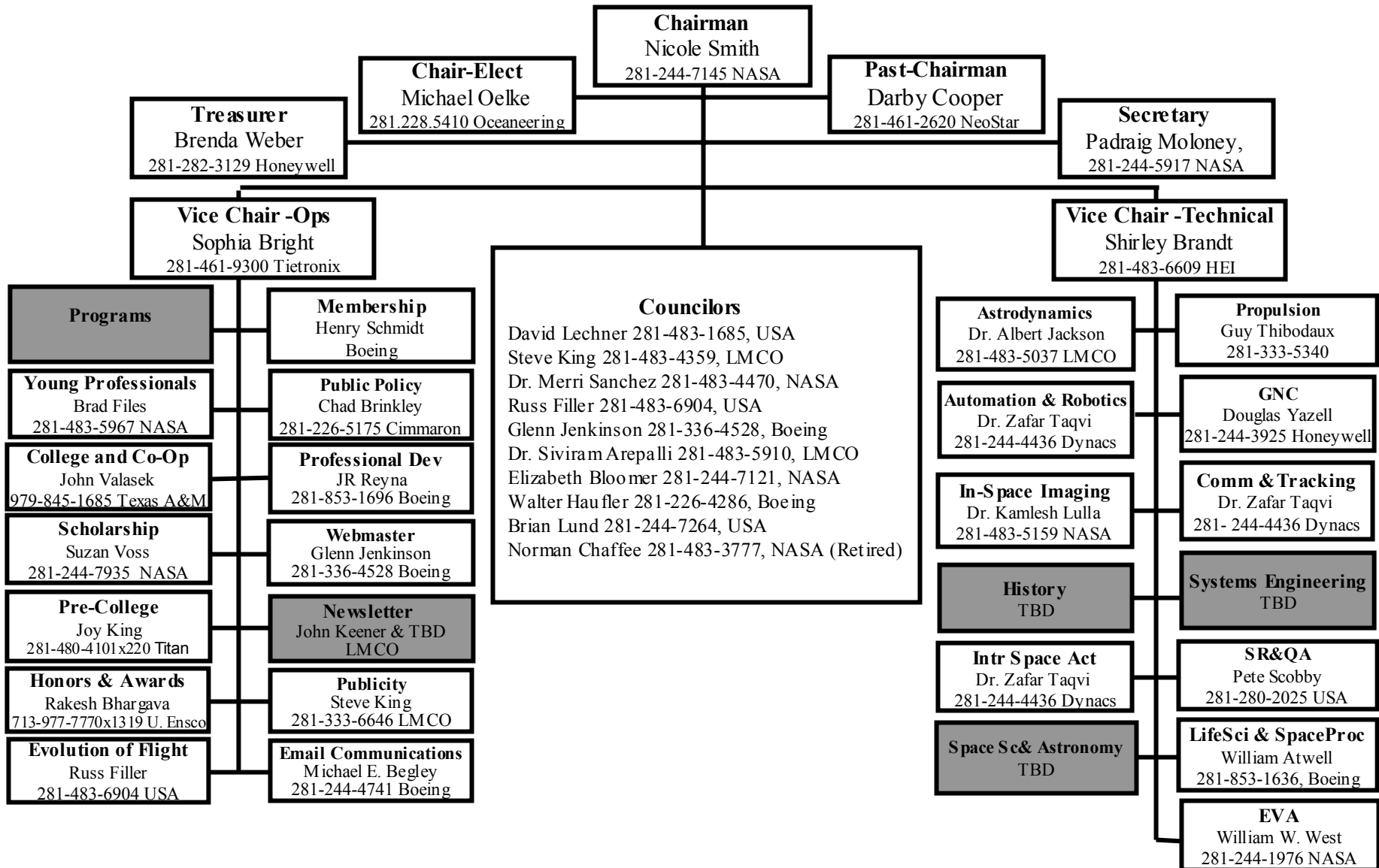
If you have specific questions regarding activities and other services please direct your questions to either myself or other members of the Executive Council.



# Houston Section Executive Council for 2002-2003

## Org Chart

as of 06 August 2002





**Houston Section**

P.O. Box 57524  
Webster, TX 77598

Non-Profit Organization  
U.S. POSTAGE PAID  
PERMIT NO. 1  
Webster, Texas



**February 2003**

---