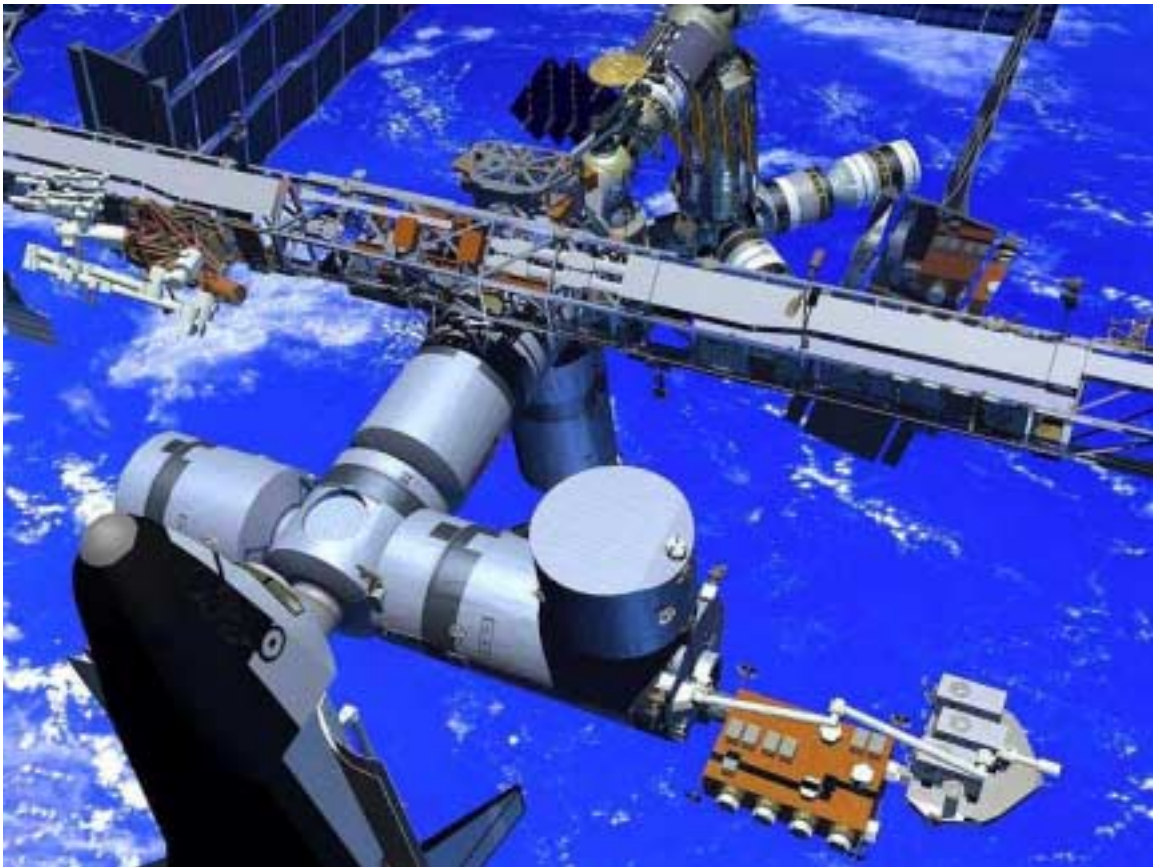


World Space Congress October 11 - 20, 2002



Horizons

August 2002

AIAA Houston Section ◆ ONLINE ◆ www.jsc.nasa.gov/aiaa

News Membership Upcoming Events Committees Leadership Horizons

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.

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September 15 Input Deadline for the Next Edition of *Horizons*

Contributions can be submitted by email to Sophia Bright at sbright@tietronix.com

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Invitation to Join the Professional Development Committee

Jesus Reyna, Jr., Chairman Professional Development

If you have been reading and enjoying the articles presented by the Professional Development Committee in our chapter's newsletter, then you might consider joining the work the committee. Working on this committee is an excellent way to meet other professionals and further develop your own professional career while serving our colleagues in the AIAA organization. Your contribution to the committee can be as little or as much as you like. The effectiveness of the committee is only as great as the diverse contributions that come from its membership.

Feel free to contact me with your interest or questions at jr.reyna@boeing.com or 281-266-5850.

Help Wanted

Contributed by Sophia Bright, Vice-Chair, Operations

Have you been interested in doing 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.



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Web site: <http://www.jsc.nasa.gov/aiaa>

NICOLE SMITH
CHAIR, 2002-2003

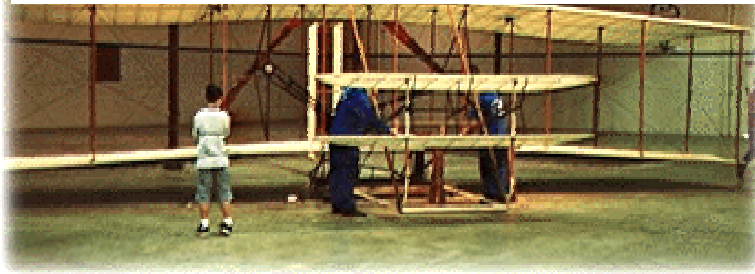
Volunteers Needed for Wright Flyer Tour

AIAA WRIGHT FLYER CENTENNIAL TOUR
NICOLE SMITH 1903 to 2003....
CHAIR, 2002-2003



And Beyond!

CELEBRATING THE EVOLUTION OF FLIGHT



Nearly 100 years after the dawn of powered flight, a highly authentic replica of the plane that launched a century of technological advances launches a journey of its own.

The AIAA 1903 Wright Flyer, the result of a 20-year effort to faithfully reproduce Orville and Wilbur Wright's historic biplane, will visit the **World Space Congress in Houston.**

The AIAA 1903 Wright Flyer Centennial Tour and Exhibition will visit ten destinations nationwide and be seen by an estimated two million people. This AIAA full-scale replica of the 1903 Wright Flyer, and the only one to be wind tunnel-tested, is a virtual museum of the Wrights' groundbreaking work. Among other distinctions, the 650-pound plane was built using drawings from the Smithsonian's National Air and Space Museum, where the original is on display. Rigorous wind tunnel tests conducted at NASA Ames Research Center allowed experienced pilots to virtually

simulate the nearly impossible conditions of that initial flight.

The Wright Flyer will be in Houston from October 14-19, 2002 at the George R. Brown Convention Center as part of the World Space Congress. AIAA Volunteers are needed to staff the booth for 4-hour blocks during these times:

- Monday, October 14; 1200-1730 hrs
- Tuesday, October 15; 1000-1730 hrs
- Wednesday, October 16; 1000-1730 hrs
- Thursday, October 17; 1000-1730 hrs
- Friday, October 18; 1000-1800 hrs
- Saturday, October 19; 1000-1800 hrs

Volunteers will be provided introductory material about the Wright Flyer replica project beforehand, and knowledgeable members of the tour will also be available in the booth for further information. Volunteers will have the opportunity to answer questions from the aerospace community and the general public about the flyer and the future direction of aerospace development to help advance the arts and sciences of aerospace industry.

If you are interested in volunteering, please contact Russ Filler at (281) 483-6904 or russell.e.filler1@jsc.nasa.gov.



Volunteers Needed for World Space Congress Education Events

The World Space Congress (www.aiaa.org/WSC2002) descends onto Houston October 11 – 20, 2002 to shape the next 10 years of space applications. Over 10,000 scientists, engineers, business executives, government officials, and academics from over 70 countries will be in the George R. Brown for a joint meeting of numerous professional societies including the International Astronautical Federation (IAF), International Academy of Astronautics (IAA), International Institute of Space Law (IISL), and Committee on Space Research (COSPAR). The entire event is hosted by the American Institute of Aeronautic and Astronautics (AIAA).

Several activities have been planned to engage the youth and Educators of the Houston area with the 'New Face of Space'.

Enthusiastic support for the educational mission and young people has been received by all sectors. Companies (LEGO®, Boeing, Lockheed-Martin, Blue Lance, Tietronix, and others), universities and school systems (Rice University, University of Houston, Harris County Department of Education, multiple school districts, and others), foundations (Houston Museum of Natural Science, Houston Annenberg Challenge, Eisenhower Southwest Consortium for Improvement of Mathematics and Science Teaching, Center for Technology Literacy), and government institutions (NASA, US Air Force, and others) have already volunteered their resources.

The AIAA Houston Section is taking a lead in organizing these events, and many volunteers are needed. Most positions are for general logistical support, but some positions will require a small amount of training in advance. All volunteers will receive a t-shirt, and those volunteering at the George R. Brown will receive free admission into the Exhibit Hall (there still is a fee for attending the technical sessions). Some volunteers for all day activities will also receive lunch, and some companies have agreed to provide paid time off for their employees to volunteer for these activities (check with your HR department). Please review the list below and sign up at: <http://unsgac.org/sgs/volunteer/> or call Julia Tizard at (281) 226-7777.

More information can be found at http://www.aiaa.org/WSC2002/special_educ.cfm.

Event	Place	Date	Time	# Volunteers Still Needed
Educator Enrichment Day Volunteers needed for setup, cleanup, registration, lunch coordination, and classroom help.	U of H Main Campus	Sat. Oct. 12	7:30am - 4pm	20
Mars Rover Project Competition Volunteers needed for judging and registration.	U of H Main Campus	Sat. Oct 12	7:30am – 4pm	25
Student Poster Session Volunteers needed for setup,	George R. Brown	Tue. Oct. 15	mid-day	8

cleanup, and registration				
Make Space for the Worlds Kids Volunteers needed for setup, cleanup, registration, and guides.	Houston Museum of Natural Science	Thurs. Oct. 17	6pm - 10pm	25
FIRST LEGO® League Volunteers needed for setup the night before, cleanup, pit crews, and team support.	U of H Main Campus	Fri. Oct 18	8:30am – 6pm	10
Robotics Invitational Volunteers needed for setup the night before, cleanup, scorekeepers, announcers, referees, and field managers.	U of H Main Campus	Fri. Oct. 18	8:30am – 6pm	35
Space Rocks! Kids Festival Volunteers needed for setup the night before, cleanup, traffic control, security, registration, and perform physics demos.	U of H Main Campus	Fri. Oct. 18	8:30am – 6pm	80
Education Media Theatre/Education Booth Volunteers needed to explain available educational products and run video loops.	George R. Brown	Oct. 14 - 20	2 hour blocks from 10am to 6 pm	75

K-12 Student Activities

FIRST LEGO® League

18 October 2002, University of Houston

Developed by FIRST (For Inspiration and Recognition of Science and Technology) through a partnership with the LEGO® Company, the FIRST LEGO® League presents an interactive program that captivates children's interest in science and technology as they master the dynamics of teamwork and problem solving.

Robotics Invitational

18 October 2002, University of Houston

During this one-day event, secondary school students will bring robots built out of spare parts to participate in a replay of the previous regional competition.

Mars Rover Project Competition

12 October 2002, University of Houston

Primary and middle school students interested in science and engineering will compete in the design and construction of an

inert model of a Mars Rover to carry out a specific science mission on the surface of Mars.

Space Rocks! Kids Festival

18 October 2002, University of Houston

This is a one-day festival dedicated to space pioneers of the future. The event will feature age-specific hands-on learning activities, competitions, information kiosks, and videos. As well as the educational activities, there will be several bands playing throughout the day.



College Student Activities

Student Poster Session

15 October 2002, George R. Brown Convention Center Exhibit Hall

During WSC • 2002, there will be a poster session for undergraduate and graduate



students to display and discuss their current research projects during a lunch reception, jointly sponsored by AIAA and the Student Outreach Programme of the European Space Agency (ESA). Student registration fee required.

Educator Activities

Make Space for the Worlds Kids 17 October 2002, Houston Museum of Natural Science

This will be an evening of space adventure for all ages in a program targeted to everyone—teachers, students, and business leaders—who cares about education. During the evening, visitors will experience many of the most exciting innovations in space science education from full-dome digital planetarium theaters and the International Space Station IMAX film to the latest Mission to Mars in the world's first Challenger Center.

Houston Science Educator Enrichment Day 12 October 2002, University of Houston

The event will be one day of hands-on sessions, wherein pre-college teachers learn effective ways to integrate aerospace, math, and science concepts into the elementary and secondary education process. Separate registration fee.

Education Media Theatre/Education Booth

**14-20 October 2002, George R. Brown
Convention Center Exhibit Hall**

The theatre will showcase existing programs available for aerospace-related educational activities and will include a variety of presentations and handouts on how to access each of the products.

General/Public Outreach Activities

Astronomy Day

12 October 2002, George Observatory

The public will be invited to tour the George Observatory at the Houston Museum of Natural Science and to see how telescopes work.

Public Days in Exhibit Hall

**19-20 October 2002, George R. Brown
Convention Center Exhibit Hall**

The public will be invited to attend the exhibits the last two days of WSC • 2002.



Are You Emotionally Intelligent?

Jesus Reyna, Jr., Chairman Professional Development

I have been doing quite a bit of business travel lately and flying across the country has given me time to read Primal Leadership: Realizing the Power of Emotional Intelligence, the latest book from psychologist Daniel Goleman with researchers Richard Boyatzis and Annie McKee. In fact, the May issue of Continental Airline's in-flight magazine showcases the book, which suggests that emotional intelligence is a better indicator of a successful leader than cognitive intelligence. The idea is not new and I gave an overview of it at this year's AIAA Young Professionals Development Workshop in February along with a very poignant demonstration of it. For those that missed it, here are the basics of Emotional Intelligence.

Emotional Intelligence demonstrates four competencies characteristic of resonant leaders – self-awareness, self-management, social awareness, and relationship management.

- Self-awareness is being in tune with your emotions and knowing how they affect you and your performance.
- Self-management involves knowing how to keep your own distressing emotions in check to prevent them from controlling your behavior and leveraging your positive emotions to radiate enthusiasm to others when working toward a common mission.
- Social awareness means practicing empathy. It means being receptive and sensitive to the emotional states of others.
- Relationship management requires proactively acting in ways that inspire and motivate others to help them achieve their full potential.

Many of the advances in the aerospace industry have been the result of effective collaborative teamwork involving large-scale integration programs. Understanding and further developing your Emotional Intelligence skill set will help you work more effectively in a team environment toward a common

vision, whether it be at home, work, or in your community.

This book is a "MUST READ" for every leader of our industry to optimize their team's performance.

Exercise: Evaluate how well you rate on these four competencies. What are your strengths? What are your weaknesses?

Call for Nominations for AIAA National Awards

Contributed by Rakesh Bhargava, Honors & Awards Chair

The AIAA is now accepting nominations for the following 2003 awards. The deadline date for the awards listed below is **1 October 2002**.

What are the awards?

Goddard Astronautics Award is the highest honor AIAA bestows for notable achievement in the field of astronautics.

It was endowed by Mrs. Goddard to commemorate her husband, Robert H. Goddard-rocket visionary, pioneer, bold experimentalist, and superb engineer, whose early liquid rocket engine launches set the stage for the development of astronautics.

Reed Aeronautics Award is the highest award an individual can receive for achievements in the field of aeronautical science and engineering. The award is named after Dr. Sylvanus A. Reed, the aeronautical engineer, designer, and founding member of the Institute of Aeronautical Sciences in 1932.

Aeroacoustics Award is presented for an outstanding technical or scientific achievement resulting from an individual's contribution to the field of aircraft community noise reduction.

Aerodynamics Award is presented for meritorious achievement in the field of applied aerodynamics, recognizing notable contributions in the development, application, and evaluation of aerodynamic concepts and methods.

Aerodynamic Measurement Technology Award is presented for continued contributions and achievements toward the advancement of advanced aerodynamic flowfield and surface measurement techniques for research in flight and ground test applications.

Aerospace Design Engineering Award is presented to recognize design engineers who have made outstanding technical, educational or creative achievements that exemplifies the quality and elements of design engineering.

Aerospace Software Engineering Award is presented for outstanding technical and/or management contributions to aeronautical or astronautical software engineering.

Air Breathing Propulsion Award is presented for meritorious accomplishment in the science or art of air breathing propulsion, including turbo-machinery or any other technical approach dependent upon atmospheric air to develop thrust, or other aerodynamic forces for propulsion, or other purposes for aircraft or other vehicles in the atmosphere or on land or sea

Distinguished Service Award give unique recognition to an individual member of AIAA who has distinguished himself or herself over a period of years by service to the Institute. (Current or past national officers and directors are ineligible for this award.)

Engineer of the Year Award is presented to an individual member of AIAA who has made a recent significant contribution that is worthy of national recognition.

Fluid Dynamics Award is presented for outstanding contributions to the understanding of the behavior of liquids and gases in motion as related to need in aeronautics and astronautics.

Ground Testing Award is presented for outstanding achievement in the development or effective utilization of technology, procedures, facilities, or modeling techniques or flight simulation, space simulation, propulsion testing, aerodynamic testing, or other ground testing associated with aeronautics and astronautics. For this award, please ensure that the package includes a chronological history of the nominee's contributions to ground testing, hard data such as patents, awards, and publications to support the write-up, and at least three letters of endorsement from outside the nominee's parent organization

International Cooperation Award is presented to recognize individuals who have made significant contributions to the initiation, organization, implementation and /or management of activities with significant United States involvement that includes extensive international cooperative activities in space, aeronautics, or both.

Jeffries Aerospace Medicine and Life Sciences Research

Award is presented for outstanding research accomplishments in aerospace medicine and space life sciences.

Plasmadynamics and Lasers Award is presented for outstanding contributions to the understanding of the physical properties and dynamical behavior of matter in the plasma state and lasers as related to need in aeronautics and astronautics.

Propellants and Combustion Award is presented for outstanding technical contributions to aeronautical or astronautical combustion engineering.

Public Service Award honors a person outside the aerospace community who has shown consistent and visible support for national aviation and space goals.

Structures, Structural Dynamics and Materials Award is presented to an individual who has been responsible for an outstanding recent technical or scientific contribution in aerospace structures, structural dynamics, or materials.

Survivability Award is presented to recognize outstanding achievement or contribution in design, analysis implementation and/or education of survivability in an aerospace system.

Theodore W. Knacke Aerodynamic Decelerator Systems Award is presented to recognize significant contributions to the effectiveness and/or safety of aeronautical or aerospace systems through development or application of the art and science of aerodynamic decelerator technology.

Thermophysics Award is presented for an outstanding singular or sustained technical or scientific contribution by an individual in thermophysics, specifically as related to the study and application of the properties and mechanisms involved in thermal energy transfer and the study of environmental effects on such properties and mechanisms.

Wyld Propulsion Award is presented for outstanding achievement in the development or application of rocket propulsion systems.

How do I obtain and submit a nomination application?

All award nominations must be submitted on the AIAA nomination form. A summary of the nominee's accomplishments must accompany this nomination form. Additional pages may be

used to provide the nominees justification, education, professional assignment, honors, etc. The nomination must be supported by a minimum of three and a maximum of five letters of endorsement. Nominations involving more than one individual should be combined. The submitted material should not exceed ten (10) pages. To request a nomination form, please contact Aimée Munyan, Honors and Awards Liaison, at 703/264-7623 or via e-mail at aimée@aiaa.org.

You can also direct any questions to our Houston Section Honors & Awards Chair, Rakesh Bhargava. You may contact him at 713-977-7770 Ext 1319 or via e-mail at bhargava@uei-houston.com.

Technical Committee Membership

Contributed by Shirley Brandt Vice-Chair, Technical

The Houston Section has a number of active Technical Committees (TC), which provide the opportunity to share information with others in your field or related disciplines. By being active in a Technical Committee, you get to know your colleagues and can gain experience in making presentations. The following is a list of the active Technical Committees, and the chairperson for each one. Anyone interested in becoming a member, can get in contact with the Chairperson. However, all of the technical meetings are open to anyone, whether or not you are formal a member of the committee. There are several committees, which have no assigned chairperson. If you are interested in chairing either one of these committees, please contact me. The AIAA National TCs are described on the AIAA website. If there is a National TC, for which you would like to start a local committee, please let me know. My phone number is: 281 483-6609.

Astrodynamics

Dr. Albert Jackson (281) 483-5037; Lockheed Martin

Automation & Robotics

Dr. Zafar Taqvi - (281) 244-4436; Dynacs;
z.taqvi@ieee.org

Communication & Tracking

Dr. Zafar Taqvi - (281) 244-4436; Dynacs;
z.taqvi@ieee.org

EVA

William W. West - (281) 244-1976; NASA

Guidance, Navigation, & Flight Control

Douglas Yazell - (281) 244-3925; Honeywell

History

Open

In-Space Imaging and Observations

Dr. Kamlesh Lulla - (281) 483-5159; NASA;
lulla@snmail.jsc.nasa.gov

International Space Activities

Dr. Zafar Taqvi - (281) 244-4436; Dynacs;
z.taqvi@ieee.org

Life Sciences, Space Processing, & Human Factors

William (Bill) Atwell - (281) 853-1636;

Boeing

Propulsion Guy Thibodaux - (281) 333-5340; Boeing

Safety, Reliability, and Quality Assurance

Toby Holowaty - (281) 212-1212; Wyle

Space Science and Astronomy

Open

Systems Engineering Jeff Booher (281) 336-4127; Boeing; Jeffrey.Booher@SW.Boeing.com

In addition to our local Technical committees, there is an opportunity to become a member of a National Technical Committee. The list of these committees is provided on the AIAA website. These committees meet several times a year, usually in conjunction with a conference. The committees are limited to 35 members. However, any AIAA member, who is under the age of 35, can qualify as an Associate member. An Associate Member does not count in the limitation of the 35 members.

Whether you are interested in chairing a committee, or just want to participate, Technical Committee involvement provides a learning experience and an opportunity to network.

Calendar of Events

October 2002

10/11 – 10/20 World Space Congress 2002

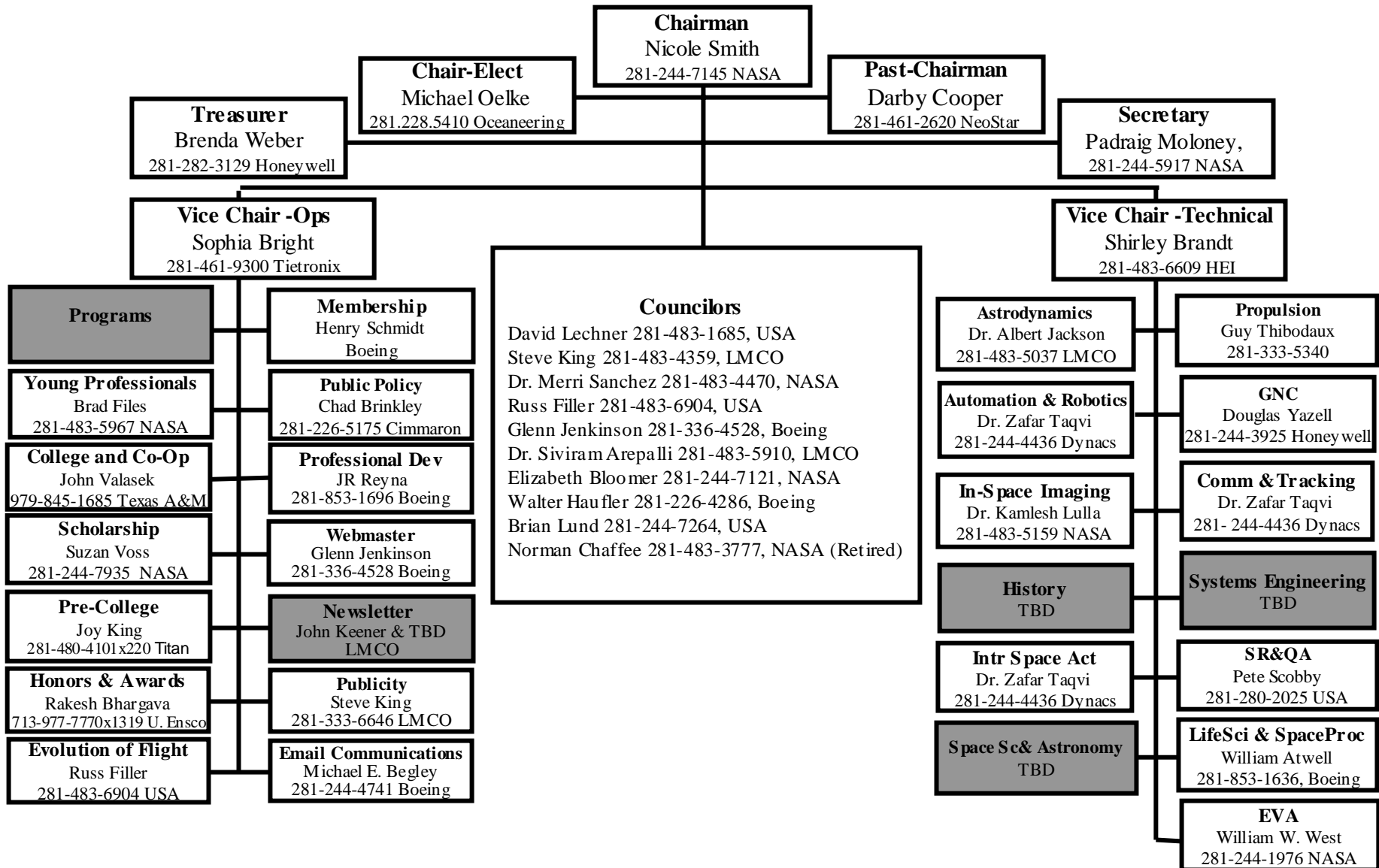
George R. Brown Convention Center, Houston.
Event is billed as the “meeting of the decade for space professionals.”

See the AIAA Houston Section website at <http://www.jsc.nasa.gov/aiaa> for more information on any of these events.

Houston Section Executive Council for 2002-2003

Org Chart

as of 06 August 2002





Houston Section

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August 2002
