Included in this Horizons issue is the Houston Section 1993-94 Elections Ballot containing validated nominees, bios and positions to be filled, and the closing date for the return of ballots. Don’t wait until the last minute, though. Mark your ballot now and return it. There’s no easier way to participate in Section activities than to vote for the candidate of your choice.

Last October in this column I gave a brief overview of the Section’s AIAA Spirit of Apollo Scholarship program. I bring this to your attention because we have initiated this year’s process with a mail-out package to nearby college and university financial aid offices. Members of the Houston Section and their families are eligible for award of the scholarship provided the school attended is within the section boundaries as defined by AIAA National Headquarters. Applicants must have defined a scholastic plan that provides entry into some field of engineering or science pertinent to AIAA technical activities and must meet other pre-defined eligibility requirements.

The scholarship was established in 1988 and is funded from interest on moneys the Section maintains in a local savings account. Income derived from the 20th Apollo anniversary banquet in 1989 was added to the scholarship fund principal. Because of today’s low interest rates, the Board has elected to reduce the award from $1,000 to $500 for the 1993-94 school term.

The information contained in the mail-out package to the colleges and universities is in an attachment to this newsletter. Included is a description of the application process, selection criteria, and application forms. The deadline for receipt of completed applications is May 3, 1993. A scholarship committee appointed by the Chairman-Elect will evaluate the applicants and select the recipient for the following fall/spring term. The first half of the scholarship amount will be mailed to the financial aid office at the start of the fall term and the second half at the start of the following spring term.

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Horizons is the monthly newsletter 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 Engineering and Sciences Company. Please address all correspondence to the Vice-Chairman of Operations, Audrey Schwartz, JSC/IA121, or to the Editor, Lou Livingston, 1911 Pepper Hill, Houston, TX 77058.
From National

Educator Membership Program

AIAA National has announced a one-year pilot program for a new Educator Membership category. The objective of the program is to promote active and organized AIAA involvement in the encouragement of the youth of America to pursue studies of mathematics, science and related technical subjects. In this program, AIAA sections will select members who are interested in youth education and working with educators. These members will establish points of contact with teachers in elementary, middle and high schools in the section's vicinity to foster student interest in mathematics and science.

Dues for the first year pilot program are free. Subsequent dues ($35 per year) are to be covered through section funds or by the individual educator.

The pilot program has been funded for one year (1993). During the pilot program, each section will be limited to two educator memberships. On full implementation, educator membership will be limited to educators sponsored by local section Chairmen or Education Officers.

Committee News

Additional Chinese Aerospace Journal Issues

Larry Friesen
International Space Activities Committee

Three more issues of the Journal of the Chinese Society of Astronautics, described in February's news note, have been received. These issues are from 1989. In addition, four issues from 1990 of another Chinese-language journal, Space Flight, have been received. Unlike the Journal of the Chinese Society of Astronautics, articles in Space Flight do not have English abstracts. As before, these periodicals are available to AIAA Houston Section members at my cubicle at Lockheed Engineering & Sciences Company (LESC), mail code B12, phone 333-6799, E-mail LOCK::FRIESEN.

It's Election Time!

We'll remind you one more time to cast your vote for next year's section officers and councillors. The ballot and biographies of the candidates are at the front of this issue of Horizons. Please note that the ballots must be received by the Secretary by May 14. Yes, this means you have plenty of time to take care of this little responsibility. It also means that you have plenty of time to forget about it. So do it NOW, OK?
Wednesday Afternoon at the Movies

George Nield

Education/Professional Development Committee

The Education and Professional Development Committee of the Houston Section is continuing to sponsor presentations of videotapes of interest to the aerospace community. The presentations will be held on site at JSC in Building 1, Room 810, starting at 4:15 PM.

Our next showing will be April 28, 1993, featuring “Blueprint for Space: Science Fiction to Science Fact.” This video, which is narrated by former astronaut Alan Shepard, uses a remarkable combination of rare paintings, historical footage, and computer animation to trace the development of space flight from ancient Chinese rockets to Wernher von Braun, and from Jules Verne’s adventure stories to the Apollo moon landings.

For questions, please call George Nield at 483-1364.

March Dinner Meeting

Lou Livingston
Editor

The Houston Section’s monthly dinner meeting was held Wednesday, March 24. Mr. Peter J. Rots, Senior Director of Engineering and Technical Publications for Continental Airlines, discussed engineering in the airline industry, an interesting change of pace from the usual space-related topics. In the airlines, safety is a paramount consideration in engineering, but engineering is basically the same everywhere; only the details differ.

Mr. Rots went on to look 25 years into the airlines’ future. The information revolution that is now under way will have a major impact. Rapid data transfer, teleconferencing, etc. will continue to reduce the need for frequent business flying (the bulk of air travel used to be for business; it’s now about an even split between business and pleasure). As the proportion of pleasure travel increases, on-board comfort will become more important than time-saving. Thus, supersonic and hypersonic transports will have no significant future.

Airlines may become more like cruise lines, in that the trip itself is more important than simply getting somewhere. Air freight will also be a major factor in air transport.

Technical Career Day Set

The Houston Engineering and Scientific Society is sponsoring a Technical Career Day and employment fair on Saturday, April 24, from 9:00 to 4:30. It will be held at the Society’s facility at 3121 Buffalo Speedway, one and a half blocks north of I-59 in the Greenway Plaza area. Admission is $2.00; students are admitted free with valid identification.

The Career Day is planned as an opportunity for technical professionals and prospective employers to get together. There will also be seminars and company presentations.

For more information, call 613-8871.
The University of Houston has announced several courses in their graduate degree programs in Industrial Engineering and Aerospace Engineering. These include off-campus television courses and courses offered at UH-Clear Lake. For information on registration and admission, call the Cullen College of Engineering at 743-4200.

**Television Courses - JSC Building 45**

**Beginning Monday, June 7, 1993**

Registration:
Wednesday, April 28, 1993
10:30 AM to 2:00 PM
Lobby, JSC Building 45

ELEE 6370/04510
Advanced Digital Design - D. Stauffer
6:00-8:00 PM Monday/Wednesday

ELEE 6342/04513
Digital Signal Processing - B. Jansen
4:00-6:00 PM Monday/Wednesday

INDE 6365/04515
Engineering Economy II - J. Hunsucker
4:00-6:00 PM Tuesday/Thursday

**Television Courses - JSC Building 45**

**Beginning Monday, August 30, 1993**

(Building and room numbers to be assigned.)

Required course in Industrial Engineering:
INDE 6336/10366
Reliability & Quality Control - C. Donaghey
4:00-7:00 PM Wednesday

Courses in Aerospace Engineering:
MECE 7397/10732
Propulsion and Engines - J. Yang
4:00-7:00 PM Tuesday

MECE 7397/10380
Orbital Mechanics I - instructor to be arranged
4:00-7:00 PM Thursday
The AIAA Calendar is intended to encompass all Houston Section events and significant dates. This includes Executive Council meetings, which are open to interested members, and Horizons deadlines. It will also include committee meetings, Lunch & Learns and similar events if Horizons hears about them in time for inclusion. Please send pertinent details either to Audrey Schwartz, JSC/IA121, or to Lou Livingston, 1911 Pepper Hill, Houston, TX 77058.

April

7 - Wednesday
Automation & Robotics TC.
"Control of Hyper-Redundant Manipulators in Space Environment," Dr. Reginald Berka, JSC.
JSC Gilruth Center, room 206, 11:30 AM.
Information: Dr. Zafar Taqvi, 333-6544.

22 - Thursday
Executive Council meeting.
MDC Tower 1, Rm. 160, 5:00-6:15.

26 - Monday
Inputs due COB for May Horizons.

29 - Thursday
Monthly dinner meeting.
Program TBD.
JSC Gilruth Center, 5:30/6:30/7:30.

May

20 - Thursday
Executive Council meeting.
MDC Tower 1, Rm. 160, 5:00-6:15.

21 - Friday
Inputs due COB for June Horizons.

27 - Thursday
Monthly dinner meeting.
Program TBD.
JSC Gilruth Center, 5:30/6:30/7:30.

June

17 - Thursday
Executive Council meeting.
MDC Tower 1, Rm. 160, 5:00-6:15.

24 - Thursday
Monthly dinner meeting.
Annual Honors and Awards Banquet.
JSC Gilruth Center, 5:30/6:30/7:30.

Please note that the deadline for material for the June issue of Horizons is Friday, May 21, not Monday, May 24, as previously scheduled. The change is necessary to accommodate travel schedules. If you have anything to be included in the June issue, it must reach Audrey Schwartz, Vice-Chairperson, Operations, or Lou Livingston, Horizons Editor, by close of business May 21.
Thursday, April 29, 1993

OPERATION SKUNK WORKS

MR. BEN R. RICH
Past President, Lockheed Advanced Development Co. (Skunk Works)

Ben R. Rich became a consultant to Lockheed and Rand Corp. after retiring from Lockheed on Jan. 1, 1991. He became president of the Lockheed Advanced Development Company, known also as the "Skunk Works", when it separated from Lockheed Aeronautical Systems Company to become its own branch in 1990. Rich joined Lockheed in 1950, participating in aerodynamic, thermodynamic, propulsion and preliminary design aspects of the F-104, U-2, YF-12, SR-71, & other technologically sophisticated programs earning international recognition. He was named senior engineer for advanced programs in 1963 and served as program manager and assistant chief engineer. He became vice president for fighter programs and preliminary design in 1972. In 1988, he was the AIAA/Royal Aeronautical Society Wright Brothers Lecturer and winner of Aviation Week & Space Technology's Aero/Propulsion Laurel Award. He is a recipient of the 1989 Collier Trophy for production and deployment of the F-117A Stealth fighter. Mr. Rich is an AIAA Honorary Fellow.

Executive Host
RON MODES
Director
Space Systems Dept
Intermetrics, Inc.
Houston

DINNER MEETING
SOCIAL: 5:30
DINNER: 6:30
PROGRAM: 7:30

MENU: CHICKEN IMPERIAL
MEMBERS & SPOUSES $9.00
NONMEMBERS $10.00
STUDENTS/YOUNG MEMBERS $8.00

AIAA HOUSTON SECTION MEETINGS
ARE HELD AT THE JOHNSON SPACE CENTER
ROBERT R. GILRUTH RECREATION CENTER

Frankie Hap
333-6064
Lockheed

Ardell Broussard
283-1040
McDonnell Douglas

Kim Wunsch
483-1350
RSOC

Sarah Leggio
282-3160
Bendix

CALL ONE OF THE ABOVE FOR RESERVATIONS.
DEADLINE IS MONDAY, APRIL 26, AT 12:00 NOON.
ANY CANCELLATIONS ARE REQUIRED PRIOR TO DEADLINE. NO-SHOWS WILL BE BILLED.
ALL ARE WELCOME.

DINNER RESERVATIONS ARE NOT REQUIRED FOR ATTENDING THE PROGRAM ONLY.
AIAA Houston Section Annual Election

The 1993-94 Houston Section Nomination Committee has complied with the process defined in our bylaws to determine the attached slate of officers and councilors for the 1993-94 office term. These candidates have agreed to serve the Section to the best of their capabilities.

Please mark your ballots and return to Tek Shrinki, 1992-93 Houston Section Secretary, mail code U08C (for inter-office mail) or to the AIAA Houston Section, P. O. Box 57524, Webster, TX 77598, on or before May 14, 1993.

Dr. George C. Nield

Dr. Nield is currently serving as Manager of the NASA Flight Integration Office within the Space Shuttle Program at JSC. His previous work assignments have included Assistant Professor of Astronautics at the United States Air Force Academy in Colorado Springs, and Flight Test Engineer at Edwards Air Force Base. He holds a B.S. in Engineering Science from the United States Air Force Academy, and an M.S. and Ph.D. in Aeronautics and Astronautics from Stanford University. He is also a graduate of the USAF Test Pilot School and is a registered Professional Engineer.

In addition to being an Associate Fellow of the AIAA, Dr. Nield is a Member of the Society of Flight Test Engineers and a Fellow of the British Interplanetary Society. A member of the AIAA since 1973, he has served as Secretary and Treasurer of the Antelope Valley Section and as Faculty Advisor for the AIAA Student Branch at the USAF Academy. He has been a Councillor for the AIAA Houston Section since 1989, and was responsible for organizing the "Wednesday Afternoon at the Movies" aerospace video series.

Dr. Dudley Nelson

Dr. Nelson is currently Manager of the Structural Analysis and Test Department at Lockheed Engineering and Sciences Company. He has supported the JSC Structures and Mechanics Division for over 18 years while at Lockheed and McDonnell Douglas. He received his B.S. and M.S. in Aerospace Engineering and his Ph.D. in Engineering Mechanics.

He is an AIAA Associate Fellow and has a number of AIAA publications. Dr. Nelson has supported the Houston Section as a councillor, member of the Technical Applications Committee, member of the committee to set up invited lecture series on Fundamentals of Spacecraft Design (1986 AIAA Special Event Award), twice Chairman of the Materials, Structures and Dynamics Technical Committee, and session Chairperson for local symposia.

Tek Shrinki

Mr. Shrinki, also known as T. K. Srinivasan, is a Senior Member of AIAA and is affiliated with Paramax (formerly UNISYS) Corporation. He obtained a Bachelor of Engineering degree in Mechanical Engineering from the University of Madras, India, and a Master of Science from the School of Aerospace, Georgia Institute of Technology. He has been an active member of AIAA since graduation. He chaired the Membership Committee in the Los Angeles Chapter in 1984. He contributed to the requirements analysis of Space Shuttle FSSR documents while at

Chairman-Elect

Vice-Chairman, Technical

Vice-Chairman, Operations
Lockheed, Houston. He formulated design reliability prediction methodology for aircraft engines at Pratt & Whitney and for missile systems at LTV Corp. He did research on the guidance and control of ballistic missile defense systems at Vought Corp. His last assignment with General Dynamics included optimal trajectory analysis of hypervelocity vehicles. He currently supports the day of launch software systems for the Space Shuttle Operations Division. His current interests are in guidance & control and propulsion sciences. He served as Houston Section Secretary for the past year.

**Mike Begley**

Mr. Begley earned a B.S. in 1983 and an M.S. in 1990, both in Electrical Engineering from the Georgia Institute of Technology. He is Principal Engineer for Lockheed Engineering and Sciences Company, conducting frequency response analyses and time domain simulation of the Space Shuttle first stage flight control system for the Advanced Solid Rocket Motor program.

He has been a Senior Member of AIAA since 1986. He has served as Chairman of the Houston Section Student Activities/Young Members Committee since February 1992 and is Chairman of the 1993 AIAA Region IV Student Paper Competition.

**Dr. James Stramler**

Dr. Stramler graduated with a B.A. in 1970 from California State University, an M.S. in 1977 and a Ph.D. in 1978 from the University of Houston. All degrees are in psychobiology. He has been at JSC for almost twelve years, and is currently with Barrios Technology, working in the Astronaut Station-Exploration Office in Bldg. 4S. He works with Man-Systems issues, the Crew Health Care System, and human factors for Space Station.

Dr. Stramler is an AIAA Associate Fellow. He served as Chair of the Houston Section's Space Systems Technical Committee in 1987, and is currently a member of the National Space Operations and Support TC.

Dr. Stramler taught for three years in the Biology Department of Texas A&M University prior to coming to JSC, and recently had a book published by CRC Press, *The Dictionary for Human Factors/Ergonomics*.

**Dick Bennett**

Dick Bennett holds a B.S. in Electrical Engineering from the University of Kansas (1956), an M.S. in Servomechanisms from St. Louis University (1961) and an Ed.D. from the University of Houston (1975). He has been a member of AIAA since 1963 and was granted the rank of Associate Fellow in 1990. He is currently employed by McDonnell Douglas on the Space Station Program. Other engineering experience was with Lockheed Electronics and TRW in Houston, and Emerson Electric and McDonnell Douglas in St. Louis. In addition, he has been a member of the Psychology Department faculty at Texas Woman's University. His most recent post with the Houston Section was as Vice-Chairman, Technical. He also served two years as Chairman of the Student Affairs Committee and was a member of the original Scholarship Committee. He worked on each of the three Region IV Student Paper Competitions held in Houston, serving as Chairman for the 1991 competition.

**Secretary**

**Treasurer**

**Councillor**
Paul Judas  
Mr. Judas graduated in 1988 from Iowa State University with a B.S. in Aerospace Engineering, specializing in spacecraft systems design. He is currently working as an engineer specialist with McDonnell Douglas Aerospace, Houston Division, in the Shuttle GN&C FSW Verification Task. He was promoted in June 1991 to technical lead of the group which supports IBM in certifying the on-orbit portion of the Shuttle GN&C flight software and simulated vehicle performance for each mission. He has been with the task for four years. He is a certified private pilot and is a member of the Ellington Field Aero Club. He is also an avid scuba diver.

While in college, Mr. Judas served the ISU AIAA student section in several capacities, including Engineer's Week Council representative and liaison to the SAE Mini-Formula project group. He has served the Houston Section as Secretary for the 1990-91 section year and as Treasurer for the 1992-93 section year.

Lou Livingston  
Mr. Livingston received a B.E. degree in Civil Engineering from Yale University in 1949 and an M.S. in Mechanical Engineering from Rice University in 1965. He worked at Boeing-Wichita for three years on the B-52 and advanced programs. He retired from JSC in 1989 after 26 years devoted primarily to conceptual design and systems engineering of advanced concepts. He was awarded the NASA Medal for Exceptional Engineering Achievement in 1982.

Mr. Livingston has been an Associate Fellow of the AIAA since 1986 and a member since 1969. He served as Houston Section Councillor from 1983 to 1985 and as Vice-Chairman, Operations in 1986-87. He has been Editor of Horizons, the Houston Section newsletter, since 1989.

Emyré Robinson  
Emyré Barrios Robinson is a native Texan from El Paso. She attended UCLA and received her B.A. degree from the University of Houston in 1971. She worked for Kentron International for over seven years starting as a technical editor. She was Business Manager for Kentron when she left in 1980 to form Barrios Technology, Inc. Ms. Robinson and seven engineers and professionals worked together to submit a proposal to JSC to do the flight design support services that would be required for the operational phase of the Space Shuttle flights. Barrios Technology was awarded the contract and the company opened its doors with 15 employees. The company currently employs 250 people and has offices in Washington, D.C.; Reston, Virginia; Huntsville, Alabama; and Colorado Springs. The company headquarters are in Houston. She served as President, Chief Executive Officer and Chairman of the Board of Directors from 1980 to 1990. In January 1992 the company was acquired by Ceridian Corp., formerly Control Data Corp. Ms. Robinson is currently supporting Ceridian as its Director of Public Relations.
Audrey Schwartz  
Audrey L Schwartz currently serves as Vice-Chairman, Operations for the Houston Section and previously co-chaired the Public Policy Committee. She is a program analyst with the JSC New Initiatives Office, where she works with planning, policy issues and technology assessment. Before joining JSC in 1990, she had nearly 17 years public affairs and marketing management experience with such corporations as Motorola, ITT, ABC, and General Growth Development. She also was an editor with the Des Moines Register and Tribune. Ms. Schwartz holds a bachelor of arts degree in journalism and mass communication from Iowa State University and a master of science degree in future studies (strategic planning/issues management) from the University of Houston-Clear Lake.

Marv White  
Mr. White is a Director of Engineering at Lockheed Engineering and Sciences Company. He has been at JSC working on various space programs since 1964. He started his work at JSC as Lockheed’s Manager of the Engineering Simulation Laboratory and progressed through a series of systems engineering management positions with increasing levels of responsibility. He is a graduate of Texas Christian University.

Mr. White has been an active supporter of AIAA for many years. He has served as Section Secretary, as a Councillor since 1987, as Special Award Coordinator, a member of the Total Quality/Vision Committee, and as a Session Chair at the technical conferences. He is an Associate Fellow of AIAA.

He has also been an active supporter of the National Management Association and for many years Lockheed Houston Chapter’s company representative. He has been awarded the Silver Knight of Management by the Association.
SPIRIT OF APOLLO SCHOLARSHIP

AIAA HOUSTON SECTION SCHOLARSHIP PROGRAM -1993-94

The AIAA Houston Section is pleased to announce the SPIRIT OF APOLLO scholarship for the 1993-94 school year in the amount of $500.00. One-half ($250) will be available for the Fall Semester. The second half ($250.00) will be available for the Spring Semester. Eligibility requirements must be met for both the Fall and Spring semesters.

OBJECTIVE:

The objective of the American Institute of Aeronautics and Astronautics (AIAA) is to advance the arts, sciences, and technology of aeronautics and astronautics.

The AIAA encourages original research, furthers dissemination of new knowledge, fosters the professional development of those engaged in scientific and engineering activities, improves public understanding of the profession and its contributions, fosters education in engineering and science, promotes communication among engineers and scientists and with other professional groups, and stimulates outstanding professional accomplishments.

ELIGIBILITY

The following eligibility requirements shall be met by the applicants for the AIAA/Houston Section Scholarship award.

1. Applicant must have completed at least one (1) academic year of full time college work at the time of receiving the scholarship.
2. Applicant must have a college grade point average not less than 3.0 on a 4.0 scale.

3. Applicant shall be enrolled in an accredited college or school.

4. Applicant's scholastic plan shall be such as to provide entry into some field of engineering or science (i.e., physical science, mathematics, or computer science) which is pertinent to the technical activities of the AIAA.

5. Applicant shall not have, or subsequently receive, any other scholarship award which combined with the AIAA award would provide a stipend greater than the tuition plus direct educational expenses (such as books, lab fees, etc.) estimated by the educational institution he or she plans to attend.

6. Students who receive an award are eligible to reapply in succeeding years. It should be stressed that regardless of GPA, renewal is not automatic. To apply for renewal, and individual must follow the application procedure indicated below.

7. Applicants must be either U.S. citizens or Permanent residents of the U.S.

SELECTION CRITERIA

The recipients of the scholarship awards will be selected on the basis of the following criteria which are listed in the order of importance.

1. Scholarship
   The criterion will be evaluated on the basis of the applicants grade point average or its equivalent. A grade point average of not less than 3.0 (B) will be required.

2. Personal Assessment of Career Goals
   The criterion will be evaluated by an assessment of a 500-1000 word typewritten essay. The essay should specify the career objectives of the applicant and should outline the academic program required to achieve those career objectives.
3. Recommendations
Each applicant will be judged on personal and academic merit based on letters of recommendation.

4. Extra-curricular Activities
Each applicant's high school, college, and community activities, offices, awards, and work experience will receive due consideration.

APPLICATIONS PROCESS

Each applicant will provide the following information:

1. A completed application form.

2. A current college transcript.

3. Each new applicant must include no more and no less than three (3) typewritten letters of recommendation. Individuals seeking renewal shall supply two (2) and only two letters. Recommendations from relatives will not be accepted. The letters of recommendation may be attached to the application or sent under separate cover at the address indicated below. Recommendations must be post-marked no later than the due date of the application.

4. A 500-1000 word typewritten essay as described in selection criteria.

The Applications (including transcripts, essays, etc.) for the next academic year must be post-marked no later than 3 May of the current academic year.

Applications and related materials should be addressed to:

Chairman, Scholarship Program
AIAA-Houston Section
American Institute of Aeronautics and Astronautics
P.O. Box 57524
Webster, TX 77598
ADMINISTRATION OF THE SCHOLARSHIP PROGRAM

The AIAA-Houston section's scholarship committee will be responsible for selecting the recipients of the awards.

SELECTION OF THE SCHOLARSHIP RECIPIENTS

The decisions of the AIAA Scholarship committee are considered to be final and the winner for the next academic year will be advised of the outcome by 14 May of the current academic year.

DISBURSEMENT OF THE SCHOLARSHIP FUNDS

Disbursement of the scholarship awards shall be made in the form of a check in the name of the recipient and sent to the educational institution of the selected candidate. Educational institutions attended by the recipients will be notified of the scholarship awards so that the institutions can coordinate the financial resources of the recipients.
American Institute of Aeronautics and Astronautics  
- Houston Section -  
Application for Scholarship

19____ - 19____

Personal Information (please type)

Name: ________________________________________________ Social Sec. number: ______________________

Local Address: _____________________________________________ Tel: (_____) __________

no. & street            city          state        zip

Date of Birth: ____________________________ School Tel: (_____) __________

Citizenship [ ] U. S. Citizen [ ] Permanent Resident of the U.S.

Current Class Rank _________ of __________

List all of your educational experience to date

<table>
<thead>
<tr>
<th>Name of High School and Colleges</th>
<th>Dates Attended</th>
<th>Graduation Date</th>
<th>Degree</th>
<th>GPA</th>
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Indicate the school year for which the scholarship is requested: [ ] Graduate [ ] Senior

[ ] Junior [ ] Sophmore

Degree sought (major) __________________________

Activity and Employment Information

List High School, College, and community activities, including offices held and awards received.

<table>
<thead>
<tr>
<th>Organization</th>
<th>Offices/Awards</th>
<th>Dates of Involvement</th>
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List work experience during the last four years.

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<th>Employer/Company</th>
<th>Dates of employment</th>
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</table>

Signature of applicant ___________________________ Date __________________________

If additional space is necessary please continue on a separate sheet.
# Houston Section

## Officers 1992-1993

### COUNCILLORS:

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Phone</th>
<th>Fax</th>
</tr>
</thead>
<tbody>
<tr>
<td>William Geissler</td>
<td>LESC/C87</td>
<td>333-6863</td>
<td>333-6808</td>
</tr>
<tr>
<td>Larry Gudnitz</td>
<td>MDC-1/52AE</td>
<td>283-1245</td>
<td>283-1819</td>
</tr>
<tr>
<td>Michael Laible</td>
<td>Grumman</td>
<td>929-7320</td>
<td>929-7333</td>
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<tr>
<td>Dr. George Nield</td>
<td>JSC/TM2</td>
<td>463-1364</td>
<td>483-8998</td>
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<tr>
<td>Malik Putcha</td>
<td>IBM/5606</td>
<td>282-7244</td>
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<tr>
<td>Emmy B. Robinson</td>
<td>Barrios</td>
<td>280-1801</td>
<td>283-7900</td>
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<tr>
<td>Bob Savely</td>
<td>JSC/PT41</td>
<td>483-8105</td>
<td>483-5200</td>
</tr>
<tr>
<td>Dr. Clayton Shadeck</td>
<td>GE</td>
<td>486-9005</td>
<td>486-1020</td>
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<tr>
<td>Dr. Zafar Taqvi</td>
<td>LESC/C80</td>
<td>333-5544</td>
<td>333-7620</td>
</tr>
<tr>
<td>John Trebos</td>
<td>JSC/SDS</td>
<td>483-7215</td>
<td>483-6227</td>
</tr>
<tr>
<td>Mary White</td>
<td>LESC/C27</td>
<td>333-6161</td>
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</table>

### SPECIAL COMMITTEES:

<table>
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<tr>
<th>Name</th>
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<th>Phone</th>
<th>Fax</th>
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<tr>
<td>International Space Activities</td>
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<tr>
<td>Dr. Zafar Taqvi</td>
<td>LESC/C80</td>
<td>333-6544</td>
<td>333-7620</td>
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<td>Jim McLane - China</td>
<td>1702 Fairwind, Houston, TX 77002</td>
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<td>Malik Putcha - India</td>
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<td>EPD - SCW - Bob Savely</td>
<td>JSC/T41</td>
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### OFFICERS:

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<th>Name</th>
<th>Address</th>
<th>Phone</th>
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<td>Chairman</td>
<td>MDC-1/215</td>
<td>283-1023</td>
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<td>Steve Zobal</td>
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<td>929-7333</td>
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<td>JSC/A121</td>
<td>244-8111</td>
<td>244-8589</td>
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<td>Audrey L. Schwartz</td>
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<td>Richard P. Bennett</td>
<td>MDC-5/2196</td>
<td>244-4532</td>
<td>244-4037</td>
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<tr>
<td>Secretary</td>
<td>UO8C</td>
<td>282-6643</td>
<td>282-4277</td>
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<td>Tek Shanina</td>
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<tr>
<td>Treasurer</td>
<td>MDC-1/601DE</td>
<td>283-1212</td>
<td>283-1855</td>
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<tr>
<td>Paul Judas</td>
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**Wallet Reference Card 1992-93 (revised)**

Many officers' addresses and phone numbers have changed recently. This wallet card replaces the card published in *Horizons* last fall.

**Assembly Instructions:**

1. Cut along line. (Neatness counts.)

2. Fold in half with the AIAA logo on the inside.

3. Fold in quarters, putting the logo and officers (Chairman, etc.) on the outside.

### OPERATIONS COMMITTEES:

<table>
<thead>
<tr>
<th>Committee/Function</th>
<th>Address</th>
<th>Phone</th>
<th>Fax</th>
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<tbody>
<tr>
<td>Communications/Publicity</td>
<td>Avi Lunsford, Bendix/BOA</td>
<td>283-7312</td>
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<td></td>
<td>Dr. Clayton Shadeck, GE</td>
<td>488-9005</td>
<td>488-1092</td>
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<td>Educational/Professional Development</td>
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<td>Honors &amp; Awards</td>
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<td>280-7777</td>
<td>480-2456</td>
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<td>Jim Visentine, JSC/E95</td>
<td>483-9923</td>
<td>483-2162</td>
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<tr>
<td>Programs &amp; Events</td>
<td>Chair: Dr. M. M. Miller, LESC/C24</td>
<td>333-6301</td>
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<td>Admin: Sonya Yoder, LESC/C24</td>
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<td>Horizons Editor:</td>
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<td></td>
<td>Lou Livingston, Houston, TX, 77050</td>
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<td>Chris Burnmeister, LESC/C87</td>
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<td>William Geissler, LESC/C87</td>
<td>333-6693</td>
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<td>Student Activities/Young Members</td>
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<td>Mike Begley, LESC/C87</td>
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### TECHNICAL COMMITTEES:

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<tr>
<td>Automation &amp; Robotics</td>
<td>Dr. Zafar Taggi, LESC/C80</td>
<td>333-6544</td>
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<td>Communications &amp; Tracking</td>
<td>Dr. Kumar Krishen, JSC/A4</td>
<td>283-5875</td>
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<td>Computer &amp; Software Systems</td>
<td>Cora Carmody, PRC</td>
<td>282-6580</td>
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<td>Ground Test &amp; Simulation</td>
<td>Dr. Sharam Atefali, LESC/C51</td>
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<td>Guidance, Navigation &amp; Flight Control</td>
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<td>David Clark, MDC/B2MB</td>
<td>486-6468</td>
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<td>History/Heritage</td>
<td>Joey Kuhlemann, JSC/8Y4/HEI</td>
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<td>Human Support</td>
<td>Dr. Hallow Cullingford, JSC/XE</td>
<td>283-8229</td>
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<td>In-Space Imaging &amp; Observations</td>
<td>Dr. Kamesh Lilla, JSC/SN15</td>
<td>483-5159</td>
<td>483-2911</td>
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<tr>
<td>Life Science &amp; Space Processing</td>
<td>Bill Agee, P.O.Box 590004, Houston, TX, 77259</td>
<td>496-9343</td>
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<td>Dr. John Hansacker, Univ. of Houston</td>
<td>749-2545</td>
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<td>Materials, Structures &amp; Dynamics</td>
<td>Don Proct, LESC/B14</td>
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<td>Space Operations</td>
<td>Tony Marino, MDCU/2143</td>
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<td>Harry Johnsons, Grumman</td>
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<td>Thermal Physics, LESC/C70</td>
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Rev. 3/24/93