

Message from the Chairman

Shirley Brandt
Chairman

During these uncertain times of unemployment in the aerospace industry, I want to call to your attention the AIAA-provided services for helping with the problems of being unemployed. National Headquarters maintains a directory of employment opportunities, both within and outside of aerospace. Some of these jobs are provided in the "Career Opportunities" section of the *Aerospace America* magazine. In addition, AIAA provides the following services:

- Reduced annual membership fee for unemployed members.
- A résumé referral service, which allows members to place position wanted ads in *Aerospace America*.
- Access to a data base containing a list of companies hiring.
- Group rate insurance programs.
- A free booklet with suggestions about the process of job hunting.

The Houston Section of AIAA is developing a workshop which will provide tips for seeking employment. This workshop is being planned for late fall. Watch for further information concerning this program. National Headquarters has indicated that there will be updated information throughout the year concerning their career opportunity services. This information will be disseminated to all of you through announcements at planned programs, as well as being published in *Horizons*.

It is important to maintain your membership in AIAA through this difficult period. Also, I encourage all of you to become active in the local section activities, either through volunteering for any of the section committees and/or attending the programs which will be presented throughout the year.

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Volunteering can provide a rewarding experience and can help to increase self-esteem. Take full advantage of your membership in this dynamic organization. Utilize the provided services, and get involved. H

Events

The Clear Lake Chapter of the National Space Society will hold its monthly meetings October 11 and November 8 at 7:00 PM. The November meeting will be at the Freeman Memorial Library on Diana Lane. Call Rich Kolker at 480-0758 for the October location and other details. H

Continuing Education

Dr. L. S. "Skip" Fletcher
Vice-President, AIAA

The AIAA continues to expand its professional development offerings to meet the needs of the aerospace community. AIAA's continuing education program provides comprehensive educational opportunities for aerospace professionals, promotes professional growth, and provides a forum for the

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exchange of new developments on the cutting edge of technology.

Professional Study Series courses, which comprise the core of the program, are intensive two to five day courses. They range from overviews of emerging technology to fundamental theory and applications-oriented courses. Home Study Correspondence courses are self study courses designed for the working professional. Participants progress through the material at their own pace, receiving personal instruction from the instructor as they work through the course. If your travel budget is tight, home study is a great way to get the expert instruction you need to stay current.

These courses are also available on an in-house basis, which offers the advantage of customization and can result in substantial savings on travel and time away from the office. In-house programs can be tailored to your company's needs and do not waste time on subjects that are not applicable to your situation. And you can choose the location and time that are compatible with your schedule.

AIAA will be offering over forty short courses in 1994. To receive a complete schedule of available courses, please call AIAA Continuing Education at National Headquarters, 202-646-7527 or fax 202-646-7508.

1994 upcoming presentations include:

- CFD of Aeroacoustics in Aerodynamics
- CFD of Turbulence Modeling
- Fundamentals of Hypersonic Waveriders
- CFD on Parallel Processors
- Spacecraft Systems Design and Engineering
- Space System Costing and Economics
- Radar Cross Section/Stealth Technology
- Pyrotechnic Design, Development and Qualification
- Introduction to Aircraft Design Loads
- Introduction to Optimal Design of Laminated Composites
- An Overview of Technology Transfer

- Introduction to Space Flight
- Quantitative Risk Assessment and Management
- Projects in CFD

AIAA Calendar

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 Shirley Brandt, Grumman/A03-400, or to Lou Livingston, 1911 Pepper Hill Way, Houston, TX 77058.

October

12 - Tuesday

Horizons inputs due COB.

14 - Thursday

Monthly Executive Board meeting.
Grumman Bldg., 5:15-6:30 PM.

21 - Thursday

Monthly dinner meeting.
Program TBD.
Space Center Houston, 5:30/6:30/7:30.

November

4 - Thursday

Monthly Executive Board meeting.
Grumman Bldg., 5:15-6:30 PM.

8 - Monday

Horizons inputs due COB.

13 - Saturday

Texas A&M Field Trip.
Information: Susan Cisneros Vascoe, 488-6842.

15 - Monday

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

December

2 - Thursday

Monthly Executive Board meeting.
Grumman Bldg., 5:15-6:30 PM.

9 - Thursday

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

20 - Monday

Horizons inputs due COB.

January

20 - Thursday

Monthly Executive Board meeting.
Grumman Bldg., 5:15-6:30 PM.

24 - Monday

Horizons inputs due COB.

27 - Thursday

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

February

1-4 - Tuesday-Friday

Dual-Use Space Technology Transfer Conference and Exhibition.
JSC Gilruth Center.
Information: Dr. Kumar Krishen, 283-5875.

17 - Thursday

Monthly Executive Board meeting.
Grumman Bldg., 5:15-6:30 PM.

24 - Thursday

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

28 - Monday

Horizons inputs due COB.

March

24 - Thursday

Monthly Executive Board meeting.
Grumman Bldg., 5:15-6:30 PM.

28 - Monday

Horizons inputs due COB.

31 - Thursday

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

April

21 - Thursday

Monthly Executive Board meeting.
Grumman Bldg., 5:15-6:30 PM.

25 - Monday

Horizons inputs due COB.

28 - Thursday

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

May

19 - Thursday

Monthly Executive Board meeting.
Grumman Bldg., 5:15-6:30 PM.

31 - Tuesday

Horizons inputs due COB.

June

23 - Thursday

Monthly Executive Board meeting.
Grumman Bldg., 5:15-6:30 PM.

30 - Thursday

Monthly dinner meeting.
Annual Honors & Awards Banquet.
JSC Gilruth Center, 5:30/6:30/7:30.

OUTSTANDING SECTION AWARD

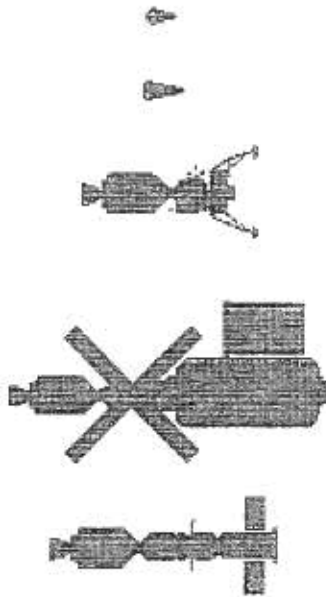


1975-1976
1976-1977
1979-1980
1980-1981
1981-1982
1983-1984
1986-1987
1988-1989

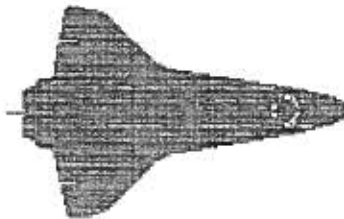
SECTION SPECIAL EVENT AWARD



1971-1972
1972-1973
1979-1980
1981-1982
1983-1984
1985-1986
1988-1989



AIAA Houston Section
P.O.Box 57524
Webster, TX 77598



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American Institute of Aeronautics and Astronautics

HOUSTON SECTION P.O. BOX 57524 WEBSTER, TEXAS 77598

SHIRLEY BRANDT
CHAIRMAN 1993-94

Thursday, October 21, 1993

THE STATE OF THE ART IN SPACE AUTOMATION AND ROBOTICS



CHARLES R. PRICE
CHIEF, ROBOTICS SYSTEMS
TECHNOLOGY DEVELOPMENT BRANCH
NASA/JSC

PROGRAM

Automation for real time flight systems monitoring and diagnosis, use of intelligent schedulers for complex facilities, and fault diagnosis of system designs are expanding. Virtual reality based systems are becoming more common including a training system prototype that is being evaluated by the flight crew for the Hubble repair mission. Use of economical computer graphics engines for space robotics systems design and analysis are widespread.

In space, the ROTEX robotics experiment was successfully performed in 1993; headed towards space in 1994 are the Dexterous End Effector flight experiment and the Spacehab applications robot "Charlotte". The replacement arm for the Space Shuttle Remote Manipulator Systems lost on Challenger has been completed. The technology of the cancelled Flight Telerobotic Servicer program has been captured in the completion of the flight manipulator and a high fidelity hydraulic ground emulator. Remote control of terrestrial robotics thousands of miles away from their operators is occurring routinely.

Charles is past Chair of the AIAA Space Automation and Robotics Technical Committee, is a Senior Member, and has been an AIAA member since 1978.

DINNER

MEETING

SOCIAL: 5:30

DINNER: 6:30

PROGRAM: 7:30

MENU: SEAFOOD Buffet

SPACE CENTER HOUSTON
SILVER MOON CAFE

MEMBERS & SPOUSES \$11.00
STUDENTS/YOUNG MEMBERS \$10.00

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, OCTOBER 18, 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.



**TEXAS A&M
FIELD TRIP -
REVIVING A HOUSTON
SECTION TRADITION!**



The Trip Includes:

- Round-trip transportation from JSC
- Coffee and donuts with the aerospace engineering students
- A tour of the aerospace facilities
- A special tour of the 7'x10' wind tunnel at Easterwood Airport
- A Texas BarBQ hosted by the Student Chapter
- The Texas A&M vs. Louisville football game

Saturday, November 13, 1993

7:30 AM - 7:30 PM

Cost: \$26 per person

Trip limited to 47 participants

First come, first served



For reservations, call Susan Cisneros Vascoe at 488-6842.
A \$20 non-refundable deposit is due by October 27
to purchase block seating at the game.



**GIG 'EM
AGGIES**

**NASA Alumni League
Space Exploration '93
October 25-28, 1993**

Program

Monday 10/25	Tuesday, 10/26	Wednesday, 10/27	Thursday, 10/28
9:00 - 9:30 AM	Keynote: Dan Goldin NASA Administrator (Invited)		
	Lowering the cost of Space Shuttle Operations Moderator: Glynn S. Lunney NAL Director	NASA Center Directors Panel Moderator: Gerald D. Griffin NAL Director	International Space Programs Moderator: Jack C. Heberlig NAL Director
11:30 - 1:30 PM	Lunch	Lunch	Lunch
Registration Noon-8:30 PM	Space Station Plans and Design Moderator: Robert F. Thompson NAL Director	Political Panel Moderator: H. Hollister Cantus NAL Director - House & Senate Congressional Committees - OMB - OSTP - NASA HQ - Space News	NASA JSC briefing tours (Like the NACA inspections) Moderator: Chester A. Vaughan President AAS Southwest Section
5:00 PM			
Opening Reception		Banquet	Closing Reception
6:30 PM 8:30 PM Reception in Exhibit Hall		7:00 PM Reception in Exhibit Hall 8:00 PM Banquet 11:00 PM	5:30 PM 7:00 PM JSC Gilruth Center

Banquet address: Invited

**The Honorable George E. Brown Jr. (D-CA)
Chairman
Committee on Science, Space, and Technology
U.S. House of Representatives**

with introductions by
The Honorable Jack Brooks (D-TX)

July 7, 1993
J. C. Heberlig
President
NAL JSC Chapter