

Chairman's Corner

Shirley Brandt
Chairman

THE AIAA HOUSTON SECTION, with the help of National Headquarters and our Region, is trying to support the members' needs during these troubled times of unemployment. The intent of the workshop, which the Section will be conducting on November 20, is to create a pool of people in our local Section who will be trained to provide employment counseling to other members who are or are about to be unemployed. If anyone has suggestions as to other services that we can provide, please notify any member of the Houston Section Council, as we are interested in implementing anything that can be of help to the members.

I would encourage people to retain their AIAA membership even if your job is terminated. The dues for members who are unemployed are \$25. Membership in a professional society can provide a means to network as well as to fill the temporary void which occurs as a result of the job loss. The local Section is in need of volunteers to work on technical operations and special committees as well as many other tasks. There are opportunities of all magnitudes to become active in the local Section, and all help is appreciated. All you have to do is let us know of your interest to participate. Participating as a volunteer can be rewarding, so give consideration to devoting a little of your time to helping the Section.

In addition to arranging the Employment Counselor Workshop, the Program Chairman, Dr. Zafar Taqvi, has been developing programs for the 1994 monthly dinner meetings. As a change of pace, the October dinner meeting was held at Space Center Houston. The attendees at that meeting expressed favorable comments concerning the location, so consideration is being given to holding other monthly dinner meetings there in the future. ■

In This Issue...

Chairman's Corner	1
Been There, Done That	2
Committee News	3
UH-CL Spring Courses	3
Get Involved!	4
Also Noted	4
AIAA Calendar	4

AIAA Employment Assistance Program

[Reprinted with corrections from *Horizons*, January 1993.]

Steve Zobal

Here's a look at some of AIAA's employment assistance programs. Contact Shirley Brandt for more information.

The booklet *Job Hunting: 9 Steps to Success*, is furnished free to active members of AIAA upon written request.

Many members are unfamiliar with the AIAA policy of charging reduced dues to unemployed members. If a member is unemployed when he receives his dues invoice, he or she can simply turn the invoice over and write that he or she is currently unemployed. On the front of the invoice, change the amount paid to \$25.00. This amount will be credited as full payment for your next year's dues. Then resume your regular dues when you find work.

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, Tek Shrini, U08C, or to the Editor, Lou Livingston, 1911 Pepper Hill, Houston, TX 77058.

Unemployed or about to be unemployed members with at least one year of professional or military experience can run a free, one-time position sought advertisement in the "Available for Employment" column, a regular feature in the Bulletin section of *Aerospace America*. Write to Dept. W.A., Member Services for program guidelines and an advertisement format form.

A bulletin board is available to members at each of over 20 yearly technical meetings for the placing of positions sought information.

Through the On-Line Career Fair, sponsored by Response Technologies Corporation, a member can discreetly evaluate local, national and international positions in engineering, computers, sales/ marketing and finance. The On-Line Career Fair is simple, confidential and it's FREE. Just dial 603/726-3344, press Return twice and key in the password "NEW JOB" (1200/2400 baud). You can upload your résumé, fill out an on-line application or you can mail your résumé directly to the companies of your choice. ♣

Been There, Done That ... 25 Years Ago

David S. F. Portree
History/Heritage Committee

DECEMBER 1968 WAS MARKED BY HUMANITY'S first voyage to another world. In October NASA had decided to fly Apollo VIII as a lunar orbital mission, rather than a second Earth-orbital test of the Apollo Command and Service Module (CSM). Astronauts Frank Borman, Jim Lovell and Bill Anders spent 20 hours on Christmas Eve, 1968, photographing the moon from lunar orbit. The *Space News Roundup* remembers this way...

Landing Prelude—Apollo VIII Lunar Mission Set for Launch Tomorrow

"Apollo VIII, a six-day lunar orbit mission in the step-by-step buildup to a manned US lunar landing, is scheduled for launch tomorrow at 6:51 AM from Cape Kennedy, Florida. The mission will fly the identical profile that will be flown on lunar landing missions with the exception of actual descent and landing on the lunar surface.

"The decision to fly Apollo VIII as a lunar orbit mission was made after ... assessment of risk factors involved in a lunar orbit mission. These risks are total dependency on the service propulsion engine for leaving lunar orbit and an Earth-return time as long as three days compared to one-half to three hours in Earth orbit." (Excerpted, *Space News Roundup*, December 20, 1968.)

Apollo VIII Called 'More Amazing in Fact Than Anticipation.'

"When asked in a press conference about the lack of anomalies in the Apollo VIII mission, Apollo Spacecraft Program Manager George M. Low commented, 'On Apollo VIII, I kept up a list of anomalies ... I think the mark of this flight is that most of us forgot that we even should have a list. There were a few anomalies. They were extremely minor; like I remember Borman reporting one day that his booties were beginning to wear out.' " (Excerpted, *Space News Roundup*, January 10, 1969.)

Apollo VIII Flight Logs Long List of Firsts

- First time man has traveled ... 223,000 miles from earth.
- First time man has flown as fast as 24,171 mph.
- First manned flight on a Saturn V.
- First time man has seen the moon closeup with his own eyes.
- First time man has seen with his own eyes the full sphere of the earth." (Excerpted, *Space News Roundup*, January 10, 1969.) ♣


Committee News

National TC Needs Members

Jim Stramler
Treasurer

THE NATIONAL SPACE OPERATIONS AND SUPPORT TECHNICAL COMMITTEE (SOSTC) is looking for new members to replace those whose terms are expiring in April 1994. Senior Members or Associate

Fellows are preferred. The member must attend a minimum of two meetings per year at various locations around the U. S. The member's employer must agree to support the individual's membership, e.g., pay travel expenses

The term of office is two to three years. The committee normally meets four times per year: January, March/April, June and August/September. If you are interested, contact Shirley Brandt at 929-7183. 

UH-CL Spring Courses

new member

THE UNIVERSITY OF HOUSTON-CLEAR LAKE ANNOUNCES the following courses to be offered in the spring of 1994. Regular registration will be Monday and Tuesday, January 3 and 4, 1994, from 10:00 AM to 6:00 PM. For registration and admission information, call the Cullen College of Engineering at 743-4200 or the JSC Training Office at 483-3075.

Required courses in Industrial Engineering:

INDE 6337/10297 Wednesday	Human Factors System Design 4:00-7:00 PM .	Instr. L. Schulze
INDE 6369/10298 Monday	Knowledge-Based Systems 4:00-7:00 PM	Instr. M. Heller

Courses in Aerospace Engineering:

MECE 7397/10303 Thursday	Low Speed Aerodynamics 4:00-7:00 PM	Instr. C. Dalton
MECE 7397/10304 Tuesday (Building and room numbers to be assigned.)	Mod Techs/Structural Dynamics 4:00-7:00 PM	Instr. D. Zimmerman

Additional graduate courses offered via instructional television received at Building 45, JSC:

ENGI 6363/01808 Monday and Wednesday	Methods of Applied Mathematics 4:00-5:30 PM	Instr. Y. Chen
ELEE 6373/02431 Tuesday and Thursday	Advanced Computer Architecture 11:30 AM-1:30 PM	Instr. P. Markenscoff
ELEE 6397/02434 Monday and Wednesday	VLSI Architecture 12:00-1:30 PM	Instr. J.-A. Lee
INDE 6334/10300 Tuesday and Thursday	Statistical Decision Analysis and Design 4:00-5:30 PM	Instr. J. Hunsucker
INDE 6390/10302 Tuesday and Thursday (Room assignments to be posted in Building 45, Room 146, at JSC.)	Management Issues in Systems Engineering 5:30-7:00 PM	Instr. D. Fisher

Get Involved!

AIAA NATIONAL HAS REQUESTED NOMINATIONS for a number of AIAA technical awards for 1994. Nomination deadline for all of the following awards is January 17, 1994. For additional information, contact Merrie Scott, Manager, AIAA Honors and Awards, at 202/646-7534.

The *Aerospace Power Systems Award* is presented for a significant contribution in the broad field of aerospace power systems, specifically as related to the application of engineering sciences and systems engineering to the production, storage, distribution and processing of aerospace power.


The *DeFlorez Training Award for Flight Simulation* is presented for an outstanding achievement in the application of flight simulation to aerospace training research and development.

The *Energy Systems Award* is presented for a significant contribution in the broad field of energy systems, specifically as related to the production, storage, distribution and conservation of energy.

The *Mechanics and Control of Flight Award* is presented for an outstanding recent technical or scientific contribution by an individual in the mechanics, guidance or control of flight in space or the atmosphere.

The *Multidisciplinary Design Optimization Award* was established in 1993 and is presented to an individual for outstanding contributions to the development and/or application of techniques of multidisciplinary design optimization in the context of aerospace engineering.


The *Piper General Aviation Award* is presented for outstanding contributions leading to the advancement of general aviation, honoring William T. Piper, Sr., who made the name Piper synonymous with general aviation.

The *Survivability Award* was established in 1993 and is presented to an individual or a team to recognize outstanding achievement or contribution in design, analysis, implementation and/or education of survivability in an aerospace system. 

Also Noted

Tapes Available

THE HOUSTON SECTION HAS BEGUN DEVELOPING a videotape library for the benefit of its members. Tapes may be checked out for a one-week period for \$1.00 each. If you haven't seen one of these great films, call George Nield at 483-1364 right away and sign up for the tape of your choice. Titles currently available include:

1. "Tour of the Planets"
2. "Desert Storm: Thunder in the Gulf"
3. "SR-71 Blackbird: The Secret Vigil"
4. "Blueprint for Space: Science Fiction to Science Fact" 

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 to Lou Livingston, 1911 Pepper Hill, Houston, TX 77058.

December

2 - Thursday

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

(continued on page 5)

December (cont.)

9 - Thursday

Monthly dinner meeting.
Director's Reception.
JSC Gilruth Center, 5:30/6:30/7:30.

20 - Monday

Horizons inputs due COB.

January

20 - Thursday

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

24 - Monday

Horizons inputs due COB.

27 - Thursday

Monthly dinner meeting.
National Aerospace Plane (tentative).
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.
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

21-24 - Monday-Thursday

AIAA/NASA Conference on Intelligent Robots in Field, Factory, Service and Space (CIRFFSS).
South Shore Harbour Resort and Conference Center.

Information: Mary Stewart, 483-1724 (fax 483-7580).

24 - Thursday

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

28 - Monday

Horizons inputs due COB.

31 - Thursday

Monthly dinner meeting.
DC-X (tentative).
JSC Gilruth Center, 5:30/6:30/7:30.

April

21 - Thursday

Monthly Executive Board meeting.
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

19th Annual Technical Symposium.
Details TBD.

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

31 - Tuesday

Horizons inputs due COB.

June

23 - Thursday

Monthly Executive Board meeting.
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

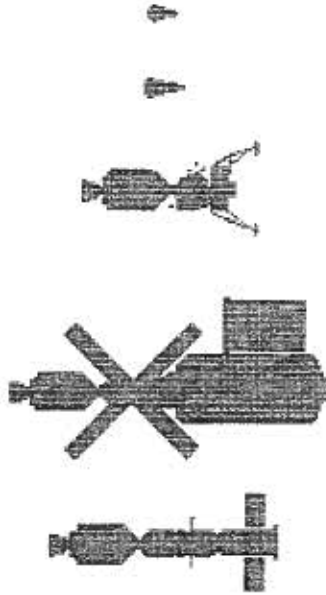


1975-1976
1976-1977
1979-1980
1980-1981
1981-1982
1983-1984
1986-1987
1988-1989

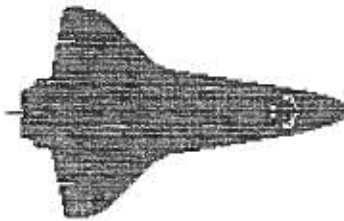
SECTION SPECIAL EVENT AWARD



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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SHIRLEY BRANDT
CHAIRMAN 1993-94

American Institute of Aeronautics and Astronautics
HOUSTON SECTION P.O. BOX 57524 WEBSTER, TEXAS 77598

ANNUAL DIRECTOR'S RECEPTION *STATE OF JSC*

Thursday, December 9, 1993
at
Robert R. Gilruth Recreation Center
Johnson Space Center

Dinner Meeting
Social: 5:30
Dinner: 6:30
Program: 7:30

MENU: TEXAS BAR-B-QUE
(Includes Beef, Chicken & Sausage)

Members	\$9.00
Non-Members	\$10.00
Students/Young Members	\$8.00

FRANKIE HAP
333-6064
Lockheed

ARDELL BROUSSARD
283-1040
McDonnell-Douglas

MARY ANN BIVONA
483-1350
RSOC

SARAH LEGGIO
282-3160
AlliedSignal

CALL ONE OF THE ABOVE FOR RESERVATIONS
DEADLINE IS MONDAY, DECEMBER 6, 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.



SHIRLEY BRANDT
CHAIRMAN 1993-94

American Institute of Aeronautics and Astronautics

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

Monday, November 15, 1993

AN OUTLOOK FOR THE SPACE PROGRAM

AARON COHEN

**ZACHRY PROFESSOR
TEXAS A & M**



DINNER MEETING

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

MENU: ROAST BEEF

MEMBERS & SPOUSES \$10.00
NONMEMBERS \$11.00
YOUNG MEMBERS \$9.00

**ROBERT R. GILRUTH RECREATION CENTER
JOHNSON SPACE CENTER**

Frankie Hap
333-6064
Lockheed

Ardell Broussard
283-1040
McDonnell Douglas

Mary Ann Bivona
483-1350
RSOC

Sarah Leggio
282-3160
Bendix

**CALL ONE OF THE ABOVE FOR RESERVATIONS.
DEADLINE TUESDAY, NOVEMBER 9, 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.

IEEE Videoconference

Engineering Applications for Monte Carlo and Other Simulation Analyses

Presented by: IEEE Galveston Bay Section
 Location: Gilruth Recreation Center, NASA/JSC
 Date: Thursday December 2, 1993
 Time: Video Conference Presentation
 11:00 AM -2:00PM (Houston Time)

Refreshments, parking, and lecture materials are included with the registration. For additional information, please call:

Site Questions	Dr. Zafar Taqvi	333-6544
Registration	Frankie Hap	333-6064
Arrangements	Andy Lindberg	532-4450

Coordinated by: IEEE Education Committee, Galveston Bay Section
 Dr. Zafar Taqvi, Chairman

Register Now!! Attendance Is Limited!!!

Fees:	IEEE Members	\$ 50
	Student Members	\$ 15

(Please, no refunds or cancellations after Friday, Nov. 26, 1993)

Make checks payable to CLCTS and mail check and registration form to:
 CLCTS c/o Frankie Hap
 Lockheed-ESC; Mailcode C87
 2400 NASA RD 1
 Houston, Texas 77058

Registration Deadline Is Friday November 26, 1993. Please return this portion to the address above with payment to attend the IEEE Videoconference "Engineering Applications for Monte Carlo and Other Simulation Analyses"

Name _____
 Company _____
 Mailstop _____ Work/Day Phone _____
 Address _____
 City _____ State _____ Zip _____
 (Circle) IEEE ISA AIAA ACM Student None
 Membership Number _____

An Invitation to Attend A Live IEEE Satellite Videoconference



ENGINEERING APPLICATIONS for Monte Carlo and Other Simulation Analyses

Thursday, December 2, 1993 12:00 Noon-3:00 P.M. USA E.S.Time

This videoconference will provide a practical introduction to analyzing the effects of uncertainty on complex systems. Simulation modeling can be done before a system is altered or a new one is built, to emulate the risk of unforeseen bottlenecks, cost overruns, or failure to meet specified system requirements. These techniques work by subjecting computer models to repeated random inputs and monitoring the results. We will present a basic overview of these techniques. Also shown will be how these techniques may be applied using a wide array of tools ranging from common electronic spreadsheets to highly specialized simulation software.

Intended Audience:

- Engineers
- Business Managers
- Project Managers
- Designers
- Professionals
- Scientists
- Students

Supporting Documentation:

- A set of notes
- Biographies
- Bibliographies

LOCAL INFORMATION

Location, Time,
Fees,
Contact for Details

Lead Presenter: Dr. Sam L. Savage, Consulting Professor, Stanford University
Presenters: Dr. Averill M. Law, President, Averill M. Law & Associates
Dr. Peter W. Glynn, Associate Professor, Stanford University

Topics covered:

Overview of Modeling Uncertainty with Simulation	Sam L. Savage
An Application: Simulation of Communications Networks	Averill M. Law
Pushing The Limits of Simulation	Peter W. Glynn

Course objectives you will learn from this broadcast:

- The basic theory of uncertain events (random variables).
- How to assess the effects of uncertainty through Monte Carlo and discrete event simulation on microcomputers using spreadsheets and more specialized software.
- How simulation can be used to improve the performance (throughput, delays, etc.) of a proposed or existing communications network.
- How to push simulation to the limits and extend your knowledge of the subject.

Engineering Applications for Monte Carlo and Other Simulation Analyses

This videoconference will provide a practical introduction to analyzing the effects of uncertainty on complex systems. For example, consider predicting the performance of a communication network with uncertain traffic volume, line noise, and equipment failure. Problems like this may be virtually impossible to tackle from a purely theoretical perspective. However, simulation modeling can be done before such a system is altered or a new one is built, to emulate the risk of unforeseen bottlenecks, cost overruns, or failure to meet specified system requirements. These techniques work by subjecting computer models to repeated random inputs and monitoring the results.

This program presents a basic overview of these techniques. It also shows how they may be applied directly by engineers and managers using a wide array of tools ranging from common electronic spreadsheets to highly specialized simulation software.

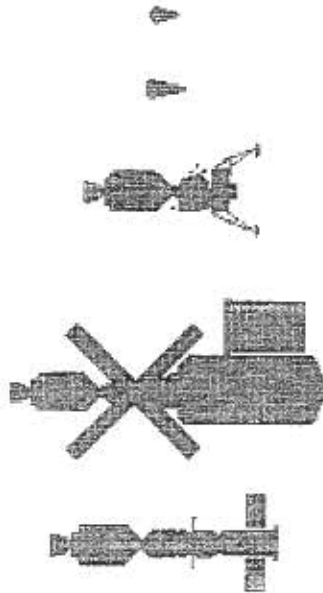
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and
other data

OUTSTANDING SECTION AWARD



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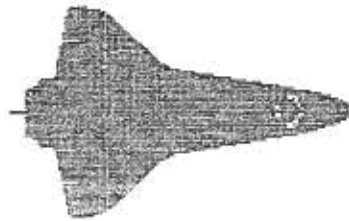


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League City TX 77573-9220