



AMERICAN  
INSTITUTE OF  
AERONAUTICS AND  
ASTRONAUTICS  
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HOUSTON SECTION

# newsletter

OCTOBER 1977

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## "FROM THE CHAIRMAN"

A portion of Kipling's poem "If" reads  
"...If you can fill the unforgiving  
minute with sixty seconds worth  
of distance run..."

and I personally believe that this typifies the collective attitude of the Houston Section of the AIAA. As a Section we work hard to achieve our program goals for each year and distribute our efforts in the professional community which we serve. Our September program dealt with the private sector's views on space industrialization and attracted some 60 attendees. The October, November and December programs have been finalized and as a Section we should strive to support each of them. The October program will provide information on the Technology of Remote Sensing of the Oceans from Space. In November we will get insights into the Soviet Manned Space Program, and finally in December the topic will be the Cruise Missile. With a membership of 500 plus we should have in excess of 100 attendees at each monthly program. I encourage each and every one of you to "fill the unforgiving minute" with sixty seconds worth of effort and help make this an outstanding year of achievement for the Houston Section.

*Tom Murtagh*

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## HELP!

We need your help! Our monthly program meetings have started up again with the interesting talk by Art Dula on who, how and when Industry supports the space program. These meetings, as you probably know, are not intended to be profit-making events. At the same time they should not show large losses either.

Our perennial problem is one of no-shows that are beginning to cost you and me, the membership, money. We currently are not allowed a pad whereby the no-shows could be accommodated. Based on last year, our *no-shows* were approximately 10 percent of the reservation list. Stand-by attendees do not offset this at all, Our current policy for program reservations will be:

1. Call in reservation to give name, number of attendees and a phone number you can be reached at in case of a program change. Note that no reservation is required for the program only.
2. If for some reason you are unable to attend, please call one of the reservation personnel or Ernie Hillje at 483-2040, even if it is past the reservation cut off time.

Your Houston Section AIAA program personnel are attempting to keep the programs running smoothly at the least cost possible to the members and their guests. The next step, if no-shows cannot be eliminated, would be to bill the errant person(s) directly. We desperately want to avoid this. Your help and cooperation are needed!

*Ernie Hillje*

## EMPHASIS ON YOUTH

The Houston Section has experienced a dramatic increase in young members in the last two years. This is a real asset to the organization and is an indication that we have had programs that the younger engineer can associate with. However, it also means that the organization can best serve its membership by increasing its emphasis on youth. This can be done in several ways.

Perhaps the main one is in assisting the young engineer in career development. Our mini-symposium is one step in this direction. Another thing we should consider is a local lecture series by nationally recognized experts on technical topics of interest. I think also we should provide a section award for the outstanding technical achievement by a young person - a Young Engineer of the Year Award.

Yet another aspect of our program might be providing more historical perspective on what has been learned on recent space programs. Many of us were here, but most of the younger members were not. How about a program like "Apollo - Lessons Learned" or "Skylab - Lessons Learned". A program on aviation history is in planning and should add a lot in this respect.

If we all do what we can to make the organization an asset for the young people, I think we'll experience an even greater participation by youth. Why not let the council know what ideas you have along these lines?

*Bill Hayes*

### HOUSTON SECTION MAY HOST FOR OTHER GROUPS

The Third Annual Mini-Symposium will again be the highlight of the Chapter's technical activities. Current plans call for an afternoon and evening program similar in format to the program of last year. Formal announcement of the program and solicitation of proposals for papers will be made by the end of the month.

The approaching flight era of the Shuttle has directed the attention of a number of technical sections and other groups to the possibility of holding their annual meeting in Houston sometime in 1979, 1980 or 1981. A study is in progress to assess what the implications for the Houston Chapter are in acting as host for one or more such national meetings. The obvious incentives are the opportunities for Chapter members to attend and participate in major meetings of the association. The other considerations are the logistics efforts required to support such meetings effectively. To date the information available indicates that it could be a fruitful activity for the Chapter.

*Joe Loftus*

### U OF H INTERNATIONAL STUDENT HOSPITALITY PROGRAM

The AIAA Houston Section and other local professional and civic organizations have recently received invitations from the University of Houston to participate in their International Student Hospitality Program. Of the 30,000 plus students at the U of H, nearly 2300 are visitors from approximately 90 countries around the world. While these students are in the US primarily to further their education, they are also here to learn about the American people and our culture. The Hospitality Program affords both organizations and families the chance to meet these students and to share our way of life.

As an organization, the Houston Section is exploring ways that we can participate in this worthwhile program through invitations to attend various section activities. Your family may also be interested in participating. By including an international student in your activities once, perhaps twice, per month your family can help him or her through the initial experience of cultural shock and, at the same time, learn something of how people live in other parts of the world. If your family is interested please call Margie Escalera at the U of H (749-3624).

*Mark Craig*

### SECTION TREASURERS' REPORT

Notice has been received from the Region IV Director, Mr. James McLane, that an \$1800 rebate has been authorized the Section for the 1977-78 year. This is the same we received last year and, with careful management, should enable us to have another productive and successful season of activities.

A part of careful management to which every member can contribute is reducing the number of "no-shows" at the dinner meetings. If a member makes a reservation and does not show up, a dinner is paid for, out of Section funds, which was not even enjoyed. Very unproductive. So if you make reservations and find you or your guest can't attend, please cancel before the deadline. It will do the Treasurer's balance a lot of good.

## TECHNOLOGY APPLICATION COMMITTEE SELECTS UNIVERSITY OF KANSAS IN AIAA/BENDIX DESIGN COMPETITION

This year, as in the past three years, the Technology Application Committee prepared the RFPs and judged the proposals submitted against the RFPs for the AIAA/Bendix design competition. This year there were three requests for proposals for (1) Design of a Sport Aviation Aircraft Kit, (2) Design for a Light Surface Effect Vehicle, and (3) Design of a Spacelab Mission.

Seven proposals were received which expressed varied amounts of imagination and creativity.

Bob Stephens, the Judging Chairman for this activity for TAC, developed the criteria to be used in judging the RFPs. Members of TAC were divided into teams and graded each of the seven proposals according to the criteria developed. The results are as follows:

<u>PLACE</u>	<u>TEAM</u>	<u>RFP</u>
1	University of Kansas	Sport Aircraft
2	Mississippi State University	Sport Aircraft
3	Texas A&M University	Surface Vehicle
4	Virginia Polytechnic Inst. (Lanham Team)	Sport Aircraft
5	Virginia Polytechnic Inst. (Hraka Team)	Sport Aircraft
6	Virginia Polytechnic Inst. (Huff Team)	Surface Vehicle
7	Virginia Polytechnic Inst. (Bright Team)	Spacelab Mission

The Director of Student Programs at AIAA Headquarters has been notified of the results of the competition and the standings of the teams. Formal announcements to the colleges will be made this month.

Next year the judging will be turned over to the Los Angeles Chapter.

This chapter can be proud of the fine effort produced by the TAC members for the past three years in improving the judging and handling of the AIAA/Bendix Design Competition.

*D. E. Hass*  
TAC Chairman

## SYSTEM EFFECTIVENESS COMMITTEE MEETS

The AIAA's Technical Committee on System Effectiveness and Safety met on September 20 and 21, 1977. The Boeing Company hosted the meeting and the AIAA Houston Section, through the fine efforts of Tom Murtagh and Jim McLane, provided an informative and interesting tour of selected JSC facilities and activities.

*Bob McMurdo*

## OCTOBER DINNER MEETING

The Houston chapter of the Marine Technology Society will join our AIAA Section meeting Wednesday, October 19, 1977, to hear Mr. Francis L. Williams of NASA Headquarters speak

on "Seasat's Contribution to Ocean Remote Sensing and Forecasting". This subject should be of interest to both groups in that Mr. Williams will give NASA's philosophy on the application of Seasat and will use Seasat as an example of how we can pull the community, industry and government together. Based on the new NASA Administrator's public statement and former experience, we can anticipate there will be much cooperation and activity involving space and the sea in the future.

We look forward to having members of the MTS with us at our next meeting. The social hour will give us an opportunity to exchange information and ideas and, who knows, this exchange could be the beginning of a new program.

*Dorothy Lee*

#### AIAA SEPTEMBER MEETING REVIEWS PROSPECTS FOR SPACE INDUSTRIALIZATION

The American Institute of Aeronautics & Astronautics, at its recent meeting on September 20, 1977, was given an unusual presentation on the "Legal, Economic and Business Realities of Initial Space Industrialization" by Arthur M. Dula, an expert in the field and prominent Houston Patent Attorney with Butler, Binion, Rice, Cook & Knapp.

Mr. Dula teaches Environmental Law & Policy at the University of Houston, Bates College of Law, and is a consultant in Medical Physics to the University of Texas System Cancer Center. He is a member of IEEE, the Space Law Committee of the American Bar Association, the International Institute of Space Law, and the British Interplanetary Society. Mr. Dula received a Law Degree with honors from Tulane University in 1975 and recently has published an article in "Astronautics & Aeronautics" entitled "How Do U.S. Companies View Space Industrialization?"

Mr. Dula described the results of a carefully prepared questionnaire on Space Industrialization submitted to 378 companies selected from Fortune Magazine's 500 American Industries, and from Fortune's list of 300 American Service Industries.

Of those companies responding, thirty percent were interested and aware of the possibility of their organizations becoming involved in a "Shuttle"-based program, as well as "solar-power" and "communication" satellites. About one tenth were interested in "space colonies", Pharmaceuticals, Ultra-Pure Chemicals or Exotic Materials. Forty-five percent of the respondents felt that there was a possibility of becoming directly involved in a Space Industrialization Program. Twenty-five percent indicated the possibility of involvement as either "fair" or "extensive". A large majority indicated that an agreement with the government to waive claims to "patent rights" on space related discoveries would encourage company participation in space industrial ventures.

A body of law is being built up concerning extra terrestrial activity.

#### TAM/RICE GAME ATTENDANCE PLANNED - FIELD TRIP TO RICE 22 OCTOBER

The field trip this year has been scheduled for 22 October to Rice University. The program will include a student presentation and tour, a fried chicken picnic dinner, and the Rice/Texas A&M football game.

The group will meet at campus parking lot "F" for Student chapter presentation beginning at 4:30 p.m. A picnic dinner will begin at 6 p.m.; food, etc., will be available at lot "F" and carried to the picnic area. The game is scheduled for a 7:30 p.m. kickoff.

Reservations may be through Ernie Hillje or Norm Chaffee; tickets must be picked up by 18 October. Cost \$12.50 includes dinner and game.

MEMBERSHIP MATTERS \* (\*Verb)

First Things First. A hearty welcome to the following new members of the Houston Section. We urge you to actively participate in the Section activities, for only in this manner can you realize the full benefits of your membership, particularly in these days of travel restrictions!

NAME	ORGANIZATION	OFFICE PHONE
<u>July 1977</u>		
Kelso, Robert M.	JSC/EL3	483-2254
Gibson, William L.	McDonnell Douglas	488-5660 X293
#Kutz, Edward D.	Singer	333-5200 X223
Langston, Linda S.	McDonnell Douglas	488-5660 X238
Morrison, Dennis R.	JSC/DB4	483-5281
Patterson, Ann Marie	McDonnell Douglas	483-6226
#Smith, James C.	Dresser Industries	749-6161
<u>August 1977</u>		
*Bauer, Thomas P.	JSC/CG	?
Bump, Paul B.	McDonnell Douglas	488-5660 X270
*#Eisenberg, Alvin B.	McDonnell Douglas	488-5660 X ?
Gillespie, Frederick D.	Pullman Kellogg	960-4698
#Glock, David A.	JSC/EW	483-3375
#Goodyear, William H.	IBM	333-3300 X3706
#Gray, Edward A.	Sunstrand	?
Morrison, Gerald L.	Texas A&M University	?
Navqi, Sawar	McDonnell Douglas	488-5660 X233
*#Schmidt, Harry C.	JSC/?	*
Sumner, J. Brian	McDonnell Douglas	488-5660 X298

# Member transferred from another AIAA Section

\* Call Bill Simmons (483-3918) and provide missing information

Advances in Grade. Our congratulations are extended to the following members who have been advanced to Associate Fellow grade:

<u>July 1977</u>	
Frank, M. P. III	JSC/CF
Goodrich, Winston D.	JSC/ES3
Howell, John R.	University of Houston
Lee, Dorothy B.	JSC/ES3
McMurdo, Robert B.	Boeing
Riordon, John A.	McDonnell Douglas

<u>August 1977</u>	
Bennett, Floyd V.	JSC/TL
Czarnik, Marvin R.	McDonnell Douglas
Dietlein, Lawrnce F.	JSC/DA

Membership Status - Section in Region IV. We are off and running toward our June '78 goal of 558 assigned members. This is a 10% increase plus a replacement for every member lost to the section. RECRUITING IS EVERY MEMBER'S BUSINESS. (September figures not available at publication date)

	ASSIGNED MEMBERS			MEMBERS RECRUITED #	
	6/30/77*	8/31/77	% Change	Number	% of Base
Albuquerque	160	167	+ 4.4	6	3.8
Central Texas	22	22	0.0	1	4.5
Holloman-Alamogordo	34	33	- 2.9	1	2.9
Houston-----	507	517	+ 2.0	11	2.2
Inland Missile Range	39	41	+ 5.1	1	2.6
North Texas	541	551	+ 1.8	10	1.8
Oklahoma	90	97	+ 7.8	5	5.6
Southwest Texas	100	98	- 2.0	0	0.0
REGION IV	1493	1526	+ 2.2	35	2.3

\*Base #Cumulative this year

Comment: OK, fellers, let's get crackin'! Sign up a new member. Bob Glowczwski (488-5660), your Membership Chairman, has recruiting materials and application forms he'd be most happy to give you for such a worthy cause!

Membership Status - AIAA Regions (Column Headings as above)

Region I	6477	6527	+ 1.1	114	1.8
Region II	1750	1808	+ 1.1	47	2.7
Region III	1835	1834	- 0.1	27	1.5
Region IV-----	1493	1526	+ 2.2	35	2.3
Region V	1536	1555	+ 1.2	33	2.1
Region VI	7967	8090	+ 1.5	159	2.0
NATIONAL	21058	21359	+ 1.4	415	2.0

Comment: Region IV has the enviable record of being tops for several years - We (Houston) must hold up our end!

Membership Chairman Awards. This year we're competing in the "big league" of sections with over 500 assigned members and we are in direct competition with North Texas. As of August 31st Houston is running 3rd; Pacific Northwest is #1 with 18.44 points, Philadelphia #2 with 8.84, Houston #3 with 7.78 and North Texas #4 with 7.40. Points are awarded for each new member recruited and for changes in assigned strength. While the Awards are made to the Membership Chairmen, they are indicative of the support given to him by the Section Membership as a whole. You won 1st Place in 1975-76 and 2nd Place in 1976-77 for Bill Simmons; now let's get behind Bob Glowczwski and get him that First Place plaque for 1977-78! RECRUIT NEW MEMBERS!

AIAA Incentive Program. Want some "AIAA Money"? You can get \$10 in AIAA Member Services coupons for every new member that you recruit! Just list yourself as the first reference on the application form, followed by "INCENTIVE"; Headquarters will send you the coupons when the application (and check for the first year's dues) is received. You can use the coupons within AIAA just like money -- pay part of your dues, subscribe to journals, etc.



If you prefer, you can assign the coupons to the applicant, thereby reducing his first year's dues. List yourself as above and attach a slip (signed by you) saying "Assign my incentive to this new member's first year's dues." The applicant's check is then for \$10 less than the full amount, which varies according to age and subscriptions desired.

If both you and your recruit are independently wealthy, why don't you collect the coupons and give them to Earl Crum, our Section Treasurer; he can use them and he might even thank you for them!

New Section Roster. A limited number of copies of the 9/1/77 Roster are available; call Bob Glowczwski (488-5660) or pick one up at the membership table at the next meeting. Bring errors to the attention of Bill Simmons, 483-3918, or Bob.

Member Data File Changes. Headquarters has a big job in trying to keep up with changes in member data. Not being endowed with ESP, the only source of addresses, business affiliations and telephone numbers are the members themselves. The Section needs this info, too! There have been instances where the latest data on a member showed residence in Los Angeles, home phone in San Francisco, office in Washington and office phone in Philadelphia! That's an extreme case, but how would you like to try contacting that member in a hurry? When any of these data on you change, why not drop a note to Headquarters or to your Membership Chairman? It would really help!!

Dues are Due! If you haven't paid your dues, why not DO IT NOW? Those delinquent on November 1st will be suspended and all mailings to them will cease. Help yourself, your Membership Chairman (who is required to contact suspended members) and AIAA by sending in your check NOW. Above all, please don't "drop out" -- AIAA needs YOU and hopes that this is reciprocal; we constitute a team for the betterment of our profession and our members. Stick with us and you'll have radishes at least as big as diamonds! That's a guarantee!

#### A/A PRESENTING CAREER OPPORTUNITIES PAGES

Gene Pettler, AIAA Career Opportunities, Los Angeles, has called attention to the pages which have been appearing in Aeronautics & Astronautics during recent months. Proofs have been received prior to the appearance in the periodical, and would be available to those of the members interested. Call Tom Murtagh,

#### ATMOSPHERE SEEMS CLEARER

An almost hysterical antitechnology attitude which developed during the early seventies considered the aerospace industry a profligate nuisance and space shots a crime against common sense. Definite signs have developed that indicate that there is a reversal underway.

The benefits from the ERAP programs and the follow-on have been detailed and are beginning to be recognized by the general public, and apparently by some in the Congress. Several industries are reported to see the Shuttle as the initial step toward the establishment of manufacturing plants in space, where the very important advantages incident to weightlessness can be exploited. Not the least of these are the ball bearing manufacture.

Politicians are considering the establishment of space located power generating systems as something definitely in prospect, no longer a mere pipe dream. The bias of recent years is fading; the bogeyman of Martian invasion may have been unmasked.

In all this AIAA has played a very important part, bringing the facts to the public forums, and making its voice heard in testimony before Congress. The welcome given by the legislators to the availability of factual material has surprised some, but the demand continues.

The Institute activity must continue and increase.