

Progress at the *AIAA Journal*

THIS year, 1981, the AIAA celebrates its 50th Anniversary, or rather the anniversaries of the two founder societies, the Institute of the Aeronautical Sciences and the American Rocket Society. The *AIAA Journal* plans to participate in this celebration by publishing some historical perspectives of key technologies during the year. In the remainder of this editorial, I would like to bring you, the readership, up to date on changes in policy which will affect the *AIAA Journal*, its authors, and readers.

AIAA Journal. A 6% growth of the *AIAA Journal* is forecast for this year. This indicates a healthy state of aerospace research, particularly since the scope of the *AIAA Journal* was narrowed somewhat by the formation of additional AIAA journals.

Institute Development. During the previous year, much thought and discussion were devoted toward the question of how the Institute can best serve its membership in the future. Prominent was a proposal from the past president, George Mueller, that each existing technical specialty group be elevated to a technical society, with its own meetings and journal(s) with the AIAA becoming an umbrella federation of these societies. This proposal has been slowed down; in its place is an effort to update the type and frequency of services supplied to members. A publications subcommittee of the Institute Development Committee, chaired by Ralph Ragan, adapted a concept authored by Ed Price and myself which could permit an orderly process of formation of new technical journals when and if both a need and support for such arose. The unique feature of this plan is that any new journal can be tested over a sufficient length of time required to judge its viability, before each succeeding step is taken toward a new, completely separate journal. I believe that this plan provides the best concept for any future formation of new journals.

Indexes. Under the leadership of David L. Staiger, Administrator of Publications, we have finally married our computer capability with our electronic typesetting and will, for the first time, produce the combined and separate indexes via a digital data process. The tapes will be kept and stored to permit the issuance of *cumulative* combined indexes in the future. Another concept, still under study, would proceed even further—indexing by key words. This would permit a more rapid search of AIAA publications instead of the present slower technique based on subject categories and titles. The new technique would also make the AIAA compatible with other direct, on-line, data retrieval services.

In a related area, I discovered that AIAA preprints and Progress Series books were not being indexed by the more prominent private services, such as Engineering Index, and hence were not available to the more accessible on-line, data retrieval services. (The AIAA journals are being indexed.) AIAA preprints are currently indexed and abstracted on NASA RECON tapes, but these, at present, are not generally available. Plans are underway to make these tapes generally available. In the meantime, Charles Bauer has successfully negotiated with the Engineering Index for indexing our AIAA preprints and Progress Series books. Requests to the Engineering Index for hard copies will still be fulfilled by AIAA.

Minitexts/Monographs. It has always appeared to me that the AIAA should also publish minitexts and monographs of treatises which are too long for a journal. For example, Charles Steinmetz's famous paper on ac circuit analysis was *not* published by the AIEE because of its excessive length. It was published many years later by a commercial publisher, but only because the cost was underwritten. More recent examples of monographs include the Timoshenko texts, which similarly were published by a commercial publisher. As part of the Progress Series, the AIAA has now published its

first monograph, by Joseph Schetz, on turbulence mixing. Another one, on aircraft design by Leland M. Nicolai, is under consideration, as is the monumental text on propulsion by Gordon Oates. These should help close existing gaps, thereby providing another service to members.

Reader Reviews. At the 1980 Aerospace Sciences Meeting, we tried a brief experiment for preprints; with each one sold, the purchaser was given a modified review form that he was asked to fill out and return. The purpose was to decrease the time delay between presentation of a paper and subsequent publication. The experiment was not a complete success, because only a few reviews were received. In addition, many of the ones which were received conveyed only a general impression of the value of the paper. Nevertheless, the experiment was sufficiently promising to bear repeating. Perhaps a better technique would be to have the review report in the form of a tear-out, with a two month deadline for its return. Also, it may be wiser to select a smaller meeting than the Aerospace Sciences Meeting for experimentation.

Readership Survey. Also at the January 1980 Aerospace Sciences Meeting, a readership survey of the *AIAA Journal* was conducted by Elaine Camhi, our Managing Editor. Some selected comments are given below:

- "...more survey papers... one per issue"
- "Publish indexes of other journals in *AIAA Journal*"
- "Synoptics are a good idea"
- "Preprints are more valuable than published material...make all preprints synoptics [in the Journals]"
- "Journals should print only over-the-transom material"
- "Synoptics are not very useful"
- "AIAA has too many journals...there should be one research journal and one applications journal"
- "Fewer journals so that there are fewer sources to have to reach into"
- "*AIAA Journal* should be larger...but would prefer a specialty journal"
- "More specialty journals or one large journal"
- "Very happy with the present breakup into six journals"
- "Journal is major reason for membership in AIAA"
- "Journal is very valuable and is the primary benefit of membership in AIAA"
- "Journal is doing a good job"
- "*AIAA Journal* has more practical value than...the *Journal of Fluid Mechanics*"
- "Journals are reasonably priced"
- "Very high archival value"
- "AIAA [should] get rid of its corporate members"
- "*AIAA Journal* represents the best"
- "*AIAA Journal* is heavily related to the Fluid Dynamics area"
- "Fields such as structures are only weakly covered"
- "Not enough coverage in the combustion and propulsion areas"
- "Prefers to see Thermophysics in the journals"
- "Time to publish is too long"
- "Review process takes too long"
- "Takes too long to receive annual subject and author index"
- "Long time between submission and publication"
- "Does not like Table of Contents broken into subjects"
- "Satisfied with new Table of Contents format"

As indicated elsewhere in this editorial, we are experimenting with techniques to both reduce the time for publication, and increase awareness of AIAA preprints and Progress Series.

National Economics. Professor Forrester of MIT's Sloan School, in response to last year's editorial on productivity,

sent AIAA a very thought-provoking paper. Briefly, it pointed out that the so-called "supply side" economics, of increasing the productivity per worker is probably doomed to failure, because it merely pushes more workers into non-productive work, such as regulation. His thesis is that it will take political innovation in addition to technical innovation, invention and investment to increase the productivity per worker in the work force as compared to productivity per productive worker. This is initially a shattering thought, but, it is a reminder that our national economic statistics have become politicized. For example, our political leaders like to quote the *unemployment rate*, which is the number of people seeking work divided by those plus the employed work force. But what's really important is the number of consumers, and the number of workers, since it is the fraction employed of total population that is the important parameter. This should be broken out further between those who produce *goods* and those who produce *services* as a fraction of total work force. Certainly something needs to be rectified. But it is still a fact that a Japanese auto worker turns out *twice* as many cars per year as his U.S. counterpart, due to the high degree of plant automation in Japan.

There are also economic myths that need to be re-examined; for example, that the higher the unemployment, the lower the inflation rate. In fact, statistics over the last 10 years show that the higher the unemployment, the *higher* the inflation rate. Although the dependence is weak, the cause is that most unemployed persons receive income maintenance. Thus they have purchasing power, but not productive power; an example of which is the Trade Assistance Act, which will soon have almost a million recipients. This country needs an

educated electorate; the information it is given presently is woefully inadequate for valid decisions on economic policy.

Acknowledgments. Norma Brennan has succeeded Ruth Bryans as Director of the Editorial Department. Ruth did not quite retire as she is currently wrestling with the 50th Anniversary Celebration, as well as an acquisitions of Progress Series books. Elaine Camhi, our Managing Editor, has been responsible for the excellence of the editorial aspects, while Carol Ohrbach gets the credit for your receiving your journal at the *beginning* of each month. The excellent typography has been done by Mildred Daniels, who has mastered the art and science of computerized photographic composing.

I also wish to express, on behalf of the readers and authors, gratitude to our retiring associate editors; Dr. Desmond Arthurs, Dr. Tuncer Cebeci, Dr. John Howell, Dr. Robert Melnik, Dr. George Widhopf, and Prof. Vipperla Venkayya, who have maintained our technical excellence. I also wish to extend our warmest welcome to Prof. Pasquale M. Sforza, Dr. Raphael Hafika, Dr. Al Crosbie, Dr. Arthur Wennerstrom, Dr. Henry McDonald, Prof. Richard Seebass, Dr. Charles Wang, and Dr. Dewey Hodges as new associate editors. I also wish to thank Connie DiStefano for her expeditious handling of papers and problems from my end of the system. Finally, we express our deepest appreciation to our 1980 reviewers who have helped maintain the quality of the *AIAA Journal* through their thorough and thoughtful reviews. Their names are listed below.

George W. Sutton
Editor-in-Chief

Reviewers for *AIAA Journal*, September 1, 1979-August 31, 1980*

Abarbanel, Saul	Ballantyne, A.	Brandt, Achi	Coakley, Thomas J.	Dowell, Earl H.
Abramson, H. Norman	Ballhaus, William F., Jr.	Briley, W. R.	Cohen, Norman S.	Driscoll, James F.
Ackerberg, R.	Bannerot, Richard	Broadwell, James E.	Collier, F.	Drummond, J. P.
Ackerberg, R. C.	Barnwell, Richard	Brock, J. R.	Collyer, M. R.	Dugundji, John
Acrivios, Andreas	Barton, J. Michael	Brockman, Philip	Cooke, Charlie H.	Dunn, Michael G.
Adams, Donald F.	Batt, Richard G.	Brown, Robert S.	Cooper, Morton	Dwyer, H. A.
Adamczyk, John J.	Bauer, Andrew B.	Browand, F. K.	Corrsin, Stanley	Earnshaw, P. D.
Adamson, Thomas C., Jr.	Bauld, Nelson R., Jr.	Brune, Guenter W.	Corsiglia, Victor	Eaton, John K.
Agarwal, B. L.	Baum, Joseph Y.	Burton, Rodney L.	Craig, Roy R.	Eberle, A.
Agarwal, Ramesh	Beam, Richard M.	Card, M. F.	Crichton, D. G.	Edelman, Raymond B.
Ahern, J. E.	Beckstead, M.	Carlson, Leland A.	Crosbie, Alfred L.	Edwards, D. K.
Albano, Eli	Beddini, Robert	Carter, James	Crossman, Frank W.	Edwards, John W.
Almroth, B. O.	Belytschko, Ted	Carter, James E.	Crowe, Clayton T.	Ekdahl, Carl A.
Amiet, Roy	Berke, Laszlo	Cary, Aubrey M., Jr.	Culick, Fred E. C.	El Raheb, Michael
Anderson, E. Clay	Berndt, Sune B.	Catalano, G.	Curtiss, H. C., Jr.	Epstein, Melvin
Anderson, John D.	Bertoni, H. L.	Caughey, D. A.	Daiber, J. W.	Erickson, J. C., Jr.
Anderson, Mel S.	Bigio, Irving	Cerasoli, Carmen	Dalton, Charles	Farassat, Fereidoun
Anglebeck, Albert W.	Binion, Travis, Jr.	Chajes, Alexander	Dash, Sanford	Fearn, R. L.
Anyiwo, J. C.	Birch, S. F.	Chakravarthy, Sukumar	Davis, Randall Thomas	Felippa, Carlos A.
Appa, Kari	Blackwelder, R.	Chamis, Christos C.	Davis, Sanford S.	Fidler, J. E.
Arlinger, Bert G.	Blake, Ralph E.	Chan, Y. Y.	Daywitt, James	Fink, Martin R.
Arora, J. S.	Bland, Samuel R.	Chaussee, Denny S.	Deffenbaugh, F. D.	Flanagan, Joseph E.
Azad, R. S.	Blankenship, Gary L.	Chattot, Jean-Jacques	Deiwert, George S.	Fleeter, Sanford
Babcock, D. Charles	Bliss, Donald	Chen, Jay C.	Delaley, Feridun	Forester, Clifford K.
Back, Lloyd H.	Boerstol, J. W.	Cheng, H. K.	Demetriades, Anthony	Foss, John F.
Bailey, Frank R.	Boggs, Thomas L.	Chin, Wilson	Demitriades, S. T.	Fourney, Michael E.
Baillie, J. A.	Bogner, F. K.	China, Rodrick V.	Derr, R. L.	Francis, John E.
Baker, Allen J.	Borland, C. J.	Chiu, Y. T.	Dittmar, James H.	Friedmann, Peretz
Baker, Richard L.	Boyer, Don L.	Chung, Paul M.	Dodge, Paul	Fulmer, Louis C.
Ball, Robert E.	Bradshaw, Peter	Clark, Kenn Edward	Dosanjh, D. S.	Gaffey, Troy M.

*Because it is difficult to include the reviewers from September, October, November, and December 1980 in this issue of the Journal, they will be listed with the reviewers for 1981 in the January 1981 issue.