

You and the Decade Ahead

WITH the 80s behind us, you and I can focus on what's ahead in the next decade for aircraft technology application. I expect that Computational Fluid Dynamic methods, validated with key experimental results, will certainly reduce the conceptual design burden. More aggressive application of composite materials should begin to result in substantial weight savings. Spinoffs from the F-117A and B-2 aircraft should become available. The aerospace plane X-30 vehicle should make its appearance. We should experience far greater understanding of and, hence, safer operation in adverse weather. We should witness applications of agility-driven design, especially in the high angle-of-attack regime. General aviation is likely to break the sound barrier. Two-dimensional, thrust-reversing nozzles will be flight validated. Forward-swept wing technology, shown in the last decade to provide superior transonic maneuver performance, will be flight validated as a candidate for high angle-of-attack agility application. I anticipate wider application of aeroservoelastic concepts, exploiting integrated digital control to reduce weight/cost.

We can expect to see 8000-psi hydraulic systems in operation. Advanced landing gear systems will appear, incorporating advanced materials and electric brakes for increased service life and safety, along with reduced system weight. New avionics systems will address flight hazards, including collision avoidance and weather, as well as provide improvements in navigation. Indications are that a near revolution in ground-based simulation is imminent.

I anticipate, based on some papers in our review cycle, that some novel aircraft operations may emerge. The use of airships and perhaps unmanned surveillance vehicles might complement satellite systems to help us monitor our environment, including weather, oceans, agriculture, rain forests, waste disposal, poaching, air quality, acid rain effects, drug traffic, etc.

I could go on, but my space is limited, and my purpose was to get you to make up your own list of probable applications for the next 10 years. Then scan that list and see where you fit into the picture. Will you be part of making these and other applications happen? If so, plan to write up your results, technical or economic, and send them to me for potential publication in the premier international journal of aircraft technology application—your journal. I suggest you peruse

the pages of this issue, including the inside covers, for valuable information on the proper preparation of a journal article. We can save you substantial time in review and processing if you take care in preparation.

Please take a look at the photographs of the technical editing staff. These dedicated individuals work hard to obtain timely, comprehensive reviews for your papers. If you see them at national meetings, let them know how you would like to see this journal improve. The technical editing staff of all AIAA publications is guided by our Publications Committee, led ably by Vice President Billy McCormac. We are well supported by the Scientific Publications Department at the Washington, D.C. headquarters, expertly administered by John Newbauer and directed by the highly versatile and resourceful Norma Brennan. William O'Connor is our capable Managing Editor, and through August 1989, Evamarie Socha answered my frequent calls and did a fine job as Senior Editor for this journal. She left for greener pastures, and now Sheryl Krieger is our new Production Editor. Welcome aboard, Sheryl. A glance at the inside front cover reveals that we cannot get along without our Editorial Assistant, Jacqueline Edlund; our Production Manager, Richard Gaskin; our Art Director, Sara Bluestone; our Graphics Design team, Reginald Clay Sr. and Jacquelin Razavi; and our Assistant Production Manager, Simki Michael.

With the inside front cover still in front of you, you'll note our Board of International Editors. They represent this journal in their respective countries and seek good papers representing important aircraft technology applications. We publish many international papers, and these individuals have helped make this possible.

The names of our Reviewers over the past year (through October) also appear in this issue. Without their attention to detail and dedication to quality and timeliness, we would not have a journal at all.

Our Publications Committee has recently adopted a set of ethical standards, which is included in this issue. Please look these over because they describe the responsibilities of all involved in the publication of archival papers.

Thomas M. Weeks
Editor-in-Chief

Reviewers for the *Journal of Aircraft* – 1989*

Adams, D. F.	Bartlett, C. S.	Blair, M.	Calico, R. A., Jr.	Cheney, H. K.	Cutchins, M.
Agarwal, B.	Batina, J. T.	Bobbitt, P.	Calkins, R. B.	Childs, R. E.	Cutchins, M. A.
Agarwal, R. K.	Bauchau, O. A.	Bober, L.	Campbell, R. L.	Chopera, I.	
Agarwal, R. U.	Bauer, R. C.	Bocksch, B.	Carlson, H. W.	Christian, T., Jr.	Daniel, D. C.
Allen, D.	Bauer, S. X. S.	Boppe, C. W.	Carlson, L. A.	Christian, T. F.	Darden, C. M.
Allen, D. H.	Beaufre, H.	Bowman, J. S., Jr.	Carr, L. W.	Chrusciel, G. T.	Daves, J.
Allen, L. D.	Beckett, C. L.	Bracalente, E. M.	Caughey, D. A.	Clark, D. R.	David, W.
Anderson, J. A.	Belukbasi, A.	Bragg, M.	Caughy, D. A.	Clark, T. L.	Davis, M.
Andreopoulos, J.	Benek, J. A.	Bragg, M. B.	Cebeci, T.	Clay, C.	Davis, M. W.
Andres, R.	Bennett, R. M.	Brama, R.	Celi, R.	Cole, S. R.	Deese, J. E.
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Ardonceanu, P. L.	Berens, A. P.	Brandon, J. M.	Chandrasekhara, M. S.	Cooney, J.	Dellenback, P. A.
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Atilgan, A. R.	Bernhart, W. D.	Britcher, C. P.	Chang, J. B.	Corsiglia, V.	Denyer, A.
Atilgan, R.	Best, J. T.	Brumby, R. E.	Chaput, A.	Cress, T. S.	Dillenius, M. F.
	Betzina, M. D.	Bryson, A. E.	Chawla, K.	Crittenden, J. B.	Dillenius, M. F. E.
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Barger, R. L.	Birchlbaw, L.	Buttkol, M.	Chen, C.	Cunningham, A.	Dittmar, J. F.
Barthelemy, J.-F. M.	Bisbing, P. E.	Buttrill, C. S.	Chen, H.-C.	Cunningham, A. M.	Dittmar, J. H.
Bartlett, C. J.	Blain, M. F.	Byar, T. R.	Chen, R. T. N.	Cunningham, A. M., Jr.	Dixon, C. H.