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Milestones and Challenges

AVIATION progress has been marked by significant events or developments which opened the way to new applications of the technology of flight. Some of these milestones are easily recognized—the Wright brothers' successful powered flight; design of the DC-3, bringing air transport within the reach of a substantial portion of the public; invention of the turbojet engine; and achievement of supersonic flight. We are now witnessing the beginning of a vast expansion in passenger and cargo air transportation made possible by the development of massive subsonic aircraft, the SST, and vertical takeoff and landing capability.

The implications of this "transportation explosion" permeate the very fabric of our civilization. Time and distance are no longer barriers to the interchange of people, ideas, and goods. Limitless opportunities exist for improvement of understanding among men and elevation of the human condition through the medium of air transport. Indeed, the social and political patterns of the world could be influenced mightily by the availability of this means of social intercourse.

The aeronautical engineer is thus confronted with a sociological challenge. The new frontiers are no less exciting than those of the past. They demand continued exploration of VTOL techniques for economical short-range transport, new and improved propulsion concepts, new materials and processing methods, practical application of hypersonic flight, and application of aviation disciplines in solution of related problems on the surface of the earth.

The *Journal of Aircraft* seeks to record the milestones of aviation and the progress made toward meeting these challenges. Through dissemination of new knowledge in aviation technology, we hope to stimulate development of advanced concepts and new approaches to problems encountered on the frontiers. Our success in achieving these goals depends on continued and expanded participation by the engineering community through contributions to the literature and constructive criticism of our efforts.

High quality, accuracy, readability, and usefulness of the articles published in the *Journal* can be attained only through the conscientious efforts of authors, supplemented by the diligence of reviewers. We take this occasion to thank the authors whose papers we have published during the past year for their excellent cooperation and patience in assisting us to provide a publication of value to our readers. A special measure of appreciation goes also to the publications staff of AIAA, headed by Managing Editor, Ruth Bryans, and her able assistant, Susan Gritz, who handle the eccentricities of editors and authors with remarkable aplomb. Finally, we express particular gratitude to the reviewers who have anonymously devoted countless hours to the assessment and study of papers under consideration and preparation of constructive comments. We are glad to have this opportunity to give them recognition.

Carl F. Schmidt
Editor-in-Chief

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