

Journal of Aircraft

VOLUME 3

JANUARY-FEBRUARY 1966

NUMBER 1

Looking Backward—and Forward

AS the *Journal of Aircraft* begins its third year of publication, it is appropriate to look back to review past progress and forward to examine our future prospects. In its first two years, the *Journal of Aircraft* has grown from a 48-page weakling to a healthy 96-page adolescent. If present trends continue, additional expansion will be necessary to supply the demand for space.

This demand reflects renewed interest in atmospheric flight on the part of industry, government, the public, and the engineering profession, and the increased attention being given in aerospace research to solving fundamental problems and enlarging the scope of aircraft utility for transportation and defense. Our task is to record advances in these arts, suitably, so that all those engaged in such pursuits will have access to this basic knowledge.

Volume of material, however, is not a sufficient criterion for fulfillment of this objective. We do feel that the *quality* of papers printed in the *Journal of Aircraft* has improved steadily. This can be attributed to the efforts of authors to achieve goals of clarity, conciseness, and style. Even more, however, it is the result of diligence and conscientious toil on the part of Associate Editors and Reviewers in assisting authors through editing, revision, and modification of manuscripts. The Editor-in-Chief wishes to express his personal appreciation to his associates, and to the reviewers listed on the following page, who have given so generously of their time in this way to make the journal more effective.

There is still room for improvement. Many of the manuscripts we receive are excessively long, unnecessarily review well-known theory or data, contain "tinges" of sales promotion, are vague in reasoning or conclusions, or are written in flippant or "chatty" language appropriate for oral presentation but not suitable for archive literature. The Journals of AIAA, it must be remembered, are designed to serve two functions: first, to inform readers of current progress in the various disciplines of aeronautical science and engineering, and second, to form a body of knowledge of lasting technical significance. If these objectives are kept in mind, the usefulness of our publications will be enhanced.

Authors can be most helpful in three ways: 1) by adhering to the rules, *guidelines*, and instructions contained in the "Information for Contributors" printed on the inside back cover of each issue of the journal; 2) by paying special attention to clarity of statement, taking into account the reader's degree of familiarity with his subject; and 3) by eliminating unnecessary words, phrases, redundancies, and descriptions which are covered in references. The editors will try to do their part by expediting the review and selection process and giving authors help where it is needed.

Our readers also can make significant contributions to the

WINFIELD H. ARATA JR.
Associate Editor

B.S. (Engineering), University of California.

Professional interests include aircraft design and operation, advanced marine systems, and transportation systems analysis.

Corporate Marketing Staff, Northrop Corporation, Beverly Hills, Calif.



effectiveness of the *Journal of Aircraft* by advising the editors of areas of research, development, and design in which recent advances merit exposure to the engineering community. We do our best to keep abreast of these activities, but in editing an "interdisciplinary" journal it is difficult to maintain contact with all of these frontiers of progress. Your constructive criticism also is most welcome. It is only through such communication that we can determine whether the interests of all our readers are being properly served.

As one part of our effort to improve this service, we are pleased to announce the appointment of Mr. Winfield Arata as an Associate Editor for Marine Systems. Mr. Arata is well known throughout the industry for his participation in AIAA activities, his service on government and industry committees, and his valuable contributions to the literature. We welcome his association with the *Journal of Aircraft*.

No list of acknowledgments would be complete without recognition of the outstanding and devoted work of Ruth Bryans, Managing Editor, AIAA Scientific Publications, who bears the real burdens of producing the journals with forbearance, patience, and tolerance for the idiosyncracies of editors, authors, and reviewers. Our deep appreciation goes also to her staff, particularly to her assistant, Susan Gritz, and to Norma Herrin Brennan who has now left us in favor of family management.

In looking backward we can, with humility, point to certain accomplishments and to many errors of omission and commission. Recognizing these faults, we can look ahead to finding ways to correct them and to make the *Journal of Aircraft* the meaningful and useful publication that our readers deserve.

Carl F. Schmidt
Editor-in-Chief

Reviewers for *Journal of Aircraft*, 1965

Victor J. Adams
 M. J. S. Alford
 Winfield H. Arata Jr.
 Henry A. Arnold
 G. W. Ashu
 Mervin Ault
 Robert W. Austin
 Martin E. Barzelay
 W. E. Beck Jr.
 Eugene F. Beeler
 D. B. Benepe
 Charles Bert
 Paul Bikle
 B. B. Blake
 Glenn H. Brink
 Clinton E. Brown
 Gifford Bull
 Richard J. Campbell
 Renso L. Caporali
 Edward S. Carter Jr.
 Sherman F. Cauldwell
 R. L. Chapman
 Wallace Chinitz
 T. Coleman
 Robert C. Collins
 De Ves Colson
 Everett L. Cook
 Blake W. Corson Jr.
 John de S. Coutinho
 Robert F. Crawford
 E. L. Crosthwait
 Robert A. Darby
 Ward D. Davis
 J. M. Dees
 Gilbert DeVore
 Richard R. Dieckmann
 Philip Donely
 Norris F. Dow
 Edward J. Dowe
 Jan M. Drees
 Wilfred Dukes
 H. P. Durand
 W. J. Eggington

Albert L. Erickson
 Jere Farrah
 Robert W. Fralich
 R. C. Frost
 Richard H. Gallagher
 James R. Gannett
 Donald R. Geoffrion
 George Gerard
 Donald P. Germeraad
 Leo A. Geyer
 Frank Gifford
 Arthur Gilmore
 William G. Gisell
 Allen Goldstein
 C. A. Gongwer
 George S. Graff
 J. J. Green
 Robert L. Hall
 William Hamilton
 F. R. Haselton
 J. M. Hedgepeth
 Robert E. Henderson
 James A. Higgins
 Richard F. Hoener
 James Hong
 Isaac H. Hoover
 Jack I. Hope
 Robert C. Hornburg
 Clarence S. Howel
 Abe Hyatt
 Albert Jacobs
 Daniel Jacobson
 David James
 Arthur E. Jenks
 Robert P. Kaiser
 H. Kasten
 Bartram Kelley
 Paul Kuhn
 Zvi H. Landau
 T. M. Laughney
 Robert L. Lichten
 Newton A. Lieurance

Jay L. Lipeles
 George L. Litchford
 David S. Little
 F. W. S. Locke Jr.
 R. L. Loesch
 Robert G. Loewy
 Samuel M. Y. Lum
 Robert R. Lynn
 Harold C. Martin
 Bernard Mazelsky
 P. D. McKeel
 M. Melcon
 David L. Mellen
 Jack Mercier
 O. E. Michaelsen
 Rene H. Miller
 Gene Moddux
 William W. Moss
 James Muncy
 Theodore C. Nark Jr.
 Paul A. Noxon
 Owen H. Oakley
 William J. O'Donnell
 Donald R. Olson
 Vincent A. Padovano
 John B. Parkinson
 Wilbur H. Paulsen
 M. Pean
 George Pedderson
 Frank Pfyl
 Demetrius Philippou
 Charles G. Pieroth
 W. G. Pierpont
 E. Poalillo
 William Polhamus
 J. S. Przemieniecki
 John P. Reeder
 George Rosen
 Robert Rosenbaum
 J. Roskam
 R. J. Ross
 T. W. Sanford

Claude A. Sarro
 Ray F. Schaefer
 Sidney Serebreny
 Herman E. Sheets
 William T. Shuler
 J. C. Smith
 P. A. Soderlind
 Melvin A. Sousa
 Herbert C. Spicer Jr.
 John Stack
 Warren Stauffer
 Manuel Stein
 W. Z. Stepniewski
 Don L. Stevens Jr.
 Ernest Stout
 Donald E. Strand
 Joseph Sutter
 Robert L. Swaim
 Harold Switzky
 Sidney Thurston
 Alanson D. Topping
 William V. P. Tull
 M. Jonathan Turner
 F. Tuttle
 G. T. Upton
 Edward R. Van Driest
 Ernst Volgenau
 Donald Van Z. Wadsworth
 Henry W. Weeks
 Joseph Weil
 Clem Weismann
 James R. Welsh
 Richard T. Whitcomb
 William D. White
 Robert Widmer
 George J. Wile
 John K. Wimpres
 L. C. Young
 Maurice I. Young
 Stanley Youth
 Bernard Zapotowski
 Paul C. Zmola