pression for the velocity of the discrete vortices that are used to represent the sheet. I have not compared the results obtained by the Fink-Soh method with those obtained by the simple discrete-vortex method and, therefore, am not able to evaluate or comment on the virtues of their technique. The purpose of this Reply is to point out that their method applies only to those cases where rollup of a continuous vortex sheet is being analyzed, e.g., the tailored and elliptic loading cases presented in Ref. 2. Such a method does then not apply to systems of vortices in general nor to vortex wakes that are composed of discrete vortices such as the stepped and sawtooth loadings in my paper.[2]

Based on the experience with the method of Fink and Soh that Prof. Sarpkaya reported in his Comment, it appears unlikely that inclusion of the logarithmic term in the velocity expression would significantly alter the results presented in Ref. 2 for tailored and elliptic loadings. Also, as noted in Ref. 2, the numerical calculations were monitored with accuracy parameters and then terminated to prevent error growth beyond a specified limit. The resulting wake vortex structure was then found to be in good agreement with Betz' rollup theory (Figs. 6 and 10 of Ref. 2). Therefore, all of the numerical results remain correct as presented in Ref. 2, and the conclusions drawn in the paper need not be modified.

As pointed out in Ref. 2, the erratic character and large magnitude of the excursions predicted for the vortices shed by stepped and sawtooth loadings has been confirmed qualitatively by experiments conducted at NASA Ames Research Center (e.g. Ciffone and Orloff[3]). It still remains however, to apply these loading concepts effectively so that the wake-dispersive motions of the vortices bring about adequate alleviation of the wake hazard behind large aircraft, as well as to compare the alleviation achieved and penalties incurred by the various aerodynamic-alleviation schemes with vortex avoidance systems.

References

[1]Fink, P.T. and Soh, W.K., "Calculation of Vortex Sheets in Unsteady Flow and Applications in Ship Hydrodynamics," Rept. NAV/ARCH 74/1, School of Mechanical and Industrial Engineering, The University of New South Wales, Australia, April 1974.

[2]Rossow, V.J., "Theoretical Study of Lift-Generated Vortex Wakes Designed to Avoid Rollup," *AIAA Journal*, Vol. 13, April 1975, pp. 476-484.

[3]Ciffone, D.L. and Orloff, K.L., "Far-Field Wake-Vortex Characteristics of Wings," *Journal of Aircraft*, Vol. 12, May 1975, pp. 464-470.

Index of Papers Published in AIAA Journal

Volume 13—January through December 1975

Issue	Pages	Issue	Pages
January	1-128	July	841- 968
February	129-256	August	969-1128
March	257-416	September	1129-1256
April	417-544	October	1257-1416
May	545-704	November	1417-1544
June	705-840	December	1545-1704

SYN, SA, TN, TC., and ERR indicate Synoptic, Survey Article, Technical Note, Technical Comment, and Errata, respectively. All other items are regular full-length articles. In the Subject Index, papers are listed alphabetically by title, regardless of category.

SUBJECTS

AIRCRAFT TECHNOLOGY, CONVENTIONAL