

Technical Soaring



The Technical and Scientific Journal of The Soaring Society of America and
Organization Scientifique et Technique Internationale du Vol a Voile

MANAGING EDITOR
Rob Sjostedt
OSTIV EDITOR
Cedric O. Vernon

SSA TECHNICAL PANEL

**CHAIRMAN,
SSA TECHNICAL BOARD**
Stephen Northcraft
DESIGN AND CONFIGURATION
Mark Maughmer
AERODYNAMICS
Dan Somers
METEOROLOGY
Harry Senn
STRUCTURES AND MATERIALS
Ed Crawley
**INSTRUMENTATION
AND EQUIPMENT**
John Hansman
FLIGHT TESTING
Einer Enevoldson
**TOWPLANES AND
LAUNCH SYSTEMS**
E.J. Indrebo
OSTIV REPRESENTATIVE
Bernald S. Smith
**AIRWORTHINESS TECHNICAL
STANDARDS**
Al Blackburn

OSTIV

PRESIDENT,
Dr. Manfred E. Reinhardt
**CHAIRMAN,
TECHNICAL SECTION**
Dipl. Ing. Winfried M. Feifel
**CHAIRMAN,
SCIENTIFIC SECTION**
METEOROLOGICAL PANEL
Dr. H. Trimmel
**CHAIRMAN,
SAILPLANE DEVELOPMENT
PANEL**
Prof. Dr. Ing. Piero Morelli
**CHAIRMAN,
TRAINING AND SAFETY PANEL**
Bill Scull

©1994 The Soaring Society of America
All Rights Reserved
ISSN# 0744-8996

OSTIV SECTION

OSTIV Announcement.....	by Manfred Reinhardt	66
Critical Flutter Speed of Sailplanes Calculated for High Altitude - Examples of Computation.....	by Wojciech Chajec	69
ALPTHERM - A PC-Based Model for Atmospheric Convection Over Complex Topography	by O. Liechti and B. Neining	73
What Price Performance?	by Richard Eppler	79
Minimum Weight Design of Composite Sailplane Structures	by Stevan Maksimovic and Zdravko Gabrijel	85
Dynamic Netto Variometer	by Branko Stojkovic	90

The objective of *Technical Soaring* is to document recent advances in the science and technology of motorless aviation.

Technical Soaring is published quarterly by the Soaring Society of America, Inc., P.O. Box E, Hobbs, NM 88241 (505) 392-1177. Subscription price for SSA members is \$24.00 (four issues per year) in the U.S., Canada and Mexico; for other foreign countries—\$27.00 per year. Subscription for non-members of the SSA is \$30.00 per year.

First class or airmail can be arranged for an extra fee. Subscribers should send change of address notices to the above Hobbs box number, being sure to mention *Technical Soaring*.

Submitted papers will be subjected to a technical review before being accepted for publication. Manuscripts should be sent complete with illustrations and cover letter to: *Rob Sjostedt, 1544 Blue Heron Way, Oregon, WI 53575.*

Papers submitted for consideration by OSTIV should be sent to: *Cedric O. Vernon, 15 The Piccards, Chestnut Ave., Guildford/Surrey GU2 5DW.*