

Technical Soaring



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

EDITORS

Rob Sjostedt
Dr. Ing. Ladislav Smrcek

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
TOW PLANES AND
LAUNCH SYSTEMS

E.J. Indrebo
OSTIV REPRESENTATIVE

Mark Maughmer
AIRWORTHINESS TECHNICAL
STANDARDS

Al Blackburn

OSTIV

PRESIDENT,

L.M.M. Boermans

CHAIRMAN,
TECHNICAL SECTION

Mark Maughmer

CHAIRMAN,
SCIENTIFIC SECTION

METEOROLOGICAL PANEL

Dr. H Trimmel

CHAIRMAN,
SAILPLANE DEVELOPMENT
PANEL

Dr. Ing. M. Rehmet

CHAIRMAN,
TRAINING AND SAFETY PANEL

S. Havbrandt

In Memory of Hans Zacher

Manfred E. Reinhardt.....66

OSTIV Definitions of Light and Ultralight Sailplanes. A Proposal to FAI-IGC

Piero Morelli.....67



Some Events in Suction Stabilization of the Laminar Boundary Layer, or anyone for 100% Laminar Flow?

Bruce H. Carmichael.....70

SSA

The Design and Testing of a Winglet Airfoil for Low-Speed Aircraft

Mark D. Maughmer, Timothy S. Swan, Steven M. Willis.....76

SSA

The Development of a New Concept for Pilot Protection

S. Meintjes, R. S. Huyssen and N. J. Theron.....89



Volume 26, Number 3

Printed October 2003

Due to errors in the printing of "Proposal for a Certification
Procedure of Extended Sailplane Lifetime" by Christoph W.
Kensche, this article will be reprinted in the next issue of
Technical Soaring.

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 2100, 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.

Members of OSTIV will receive *Technical Soaring* as part of their membership. 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 and scientific review before being accepted for publication. Manuscripts should be sent complete with illustrations and cover letter to: Rob Sjostedt, 1800 Meadow Ranch Road, McKinney, Texas, USA 75071.

Papers submitted for consideration by OSTIV should be sent to:
Dr. Ing. Ladislav Smrcek, Dept. of Aerospace Engineering, University of Glasgow,
University Avenue, Glasgow-G12 8QQ Great Britain.

©2002 The Soaring Society of America
All Rights Reserved
ISSN# 0744-8996