# Technical Soaring





The Technical and Scientific Journal of The Soaring Society of America and
Oganisation Scientifique et Technique du Vol a 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

TOWPLANES AND

LAUNCH SYSTEMS

E.J. Indrebo

#### **OSTIV REPRESENTATIVE**

Mark Maughmer

# AIRWORTHINESS TECHNICAL STANDARDS

STANDARDS

Al Blackburn

#### OSTIV

#### PRESIDENT,

L.M.M. Boermans

CHAIRMAN.

#### TECHNICAL SECTION

Dipl. Ing. Winfried M. Feifel

CHAIRMAN,

SCIENTIFIC SECTION

METEOROLOGICAL PANEL

Dr. H Trimmel

CHAIRMAN,

#### SAILPLANE DEVELOPMENT PANEL

Dr. Ing. M. Rehmet

CHAIRMAN,

#### TRAINING AND SAFETY PANEL

S. Havbrandt

v 1999 The Soaring Society of America All Rights Reserved ISSN# 0744-8996

Ernst Schoeberl	66	æ
Glider Accidents in France from 1989 to 1993: The Role of the Pilot Frank Caron	71	ø
Risk Evaluation Through the Glider Stall Stanislaw Suchodolski, Jacek Wisniewski and Pawel Zak	76	-¢
Tree Methods for Risk Evaluation of the Glider Flight Tomasz Pancewicz and Tadeusz Szopa	79	-04
Trajectory of the Parachute Bag During the Deployment Phase Stefan Melber and Wolf Roger	84	4
MacCready Theory with Uncertain Lift and Limited Altitude John H. Cochrane	88	•

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 75070. 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.