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

Oran W. Nicks

DESIGN AND CONFIGURATION

John McMasters

AERODYNAMICS

Winfried M. Feifel

METEOROLOGY

Walt Rogers

STRUCTURES AND MATERIALS

Ed Crawley

INSTRUMENTATION

AND EQUIPMENT

Peter Newgard

FLIGHT TESTING Joseph Gera

TOWPLANES AND

LAUNCH SYSTEMS

Jim Indrebo

OSTIV REPRESENTATIVE Bernald S. Smith

OSTIV

PRESIDENT.

Dr. Manfred E. Reinhardt

CHAIRMAN,

TECHNICAL SECTION

Dipl. Ing. Winfried M. Feifel

CHAIRMAN.

SCIENTIFIC SECTION METEOROLOGICAL PANEL

Prof. C.E. Wallington

rior. C.L. wailingto

CHAIRMAN, SAILPLANE DEVELOPMENT PANEL

Prof. Dr. Ing. Piero Morelli

CHAIRMAN,

TRAINING AND SAFETY PANEL

Bill Scull

© 1989 The Soaring Society of America All Rights Reserved

OSTIV SECTION

Cross-Country Flying with Hang-Gliders State of Developments	
and Prospects Ingo Westerboer	106
FS 32-A New Glider Project with Retractable External Airfoil FlapFrieder Schuon	112
Research of Thermal Convection of the Hexi Corridor in Gansu	
Province of China Mai Qingmin	116
Measurements and Recording of Loading Spectrum of Glass-Fiber Sailplane	
Wing Using the Strain Gauges Piotr Lamers	121
Boundaries for World	
Class Sailplanes Frank Irving	127
Flutter Analysis During the	
Design of Sailplanes Wojciech Potkanski and	592 _1
Wojciech Chajec	135

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 \$18.00 (four issues per year) in the U.S., Canada and Mexico; for other foreign countries—\$21.00 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, 1754 El Rey Rd., San Pedro, CA 90732.

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