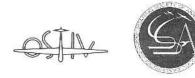
# Technical Soaring



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

# CHAIRMAN.

# SAILPLANE DEVELOPMENT PANEL

Prof. Dr. Ing. Piero Morelli

CHAIRMAN.

### TRAINING AND SAFETY PANEL

Bill Scull

1988 The Soaring Society of America All Rights Reserved

# **OSTIV SECTION**

The Spin Manoeuvre C.A. Martin and D.J. Pilkington	103
Pilot Safety and Spinal Injury Dr. T. Segal	111
Microburst at Murray	
Bridge W.J. Grace and M.J. Hancy	116
Nonsense of Winglets G. Waibel	123
Flight Measured Wing Loading Spectrum in Aerobatics on SZD-51-1	104
"Junior" Club-Class Glider Dr. W. Staffiej Convective Waves and	124
Cumulus Growth T. Hauf and T. Clark	129

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 Ray 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,