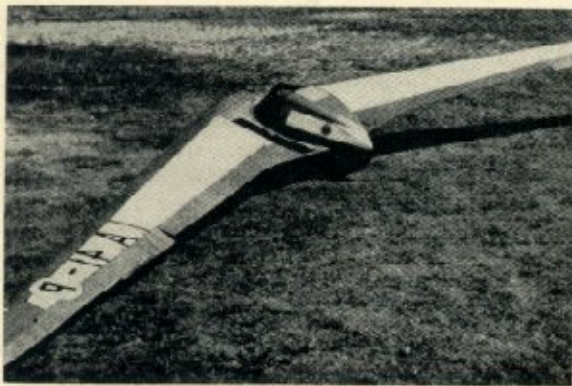


JULY-
AUGUST
1954

Soaring

SIXTH ANNUAL WRIGHT MEMORIAL GLIDER MEET
NORTHERN CALIFORNIA ANNUAL MEET
WINCH TOWING FUNDAMENTALS
TECHNICAL AEROMODELING



I. A. 41 "Uruba, Justicialista del Aire" two-seater flying wing.



The EPB-1 prototype prior to its initial flight.

MODELING EVENTS

DURING

21st NATIONAL



Detailed description of model events to be held at the National Soaring Contest:

Saturday, July 31

- 2-5 p.m. — Hand Launched Glider Limited Towline Glider
- 9-11 p.m. — Judging of scale points for A/2 Flying scale event.
- Judging of solid scale glider event

Sunday, August 1

- 7-11 a.m. — A/2 Flying scale flying
- 1-5 p.m. — Nordic Towline Glider

In general, AMA (Academy of Model Aeronautics) rules will apply, with noted exceptions. Briefly the rules for the event will be as follows:

Hand-Launched Glider — No wing loading requirement; projected area of supporting surfaces must be at least 30 but not more than 130 square inches. No cross-sectional requirements. Models must be thrown by hand. Each contestant is allowed a maximum of three gliders. All timed flights are official. Nine official flights are allowed each contestant. Scoring is the total elapsed time of the best three flights. Maximum flight duration per flight is six minutes.

Limited Towline Glider — projected area of supporting surfaces not more than 350 square inches. Model must weight at least 10 ounces. No cross-sectional requirement. Models must be launched by the use of an inextensible line except for a length of not more than 20" inches which may be of some elastic material. The length of the towline measured without extension shall be no longer than 164" feet. Each contestant may enter no more than one glider. All timed flights of 40 seconds or more duration are official. Three official flights are allowed each contestant with six tries at the three. Scoring is the total elapsed time of the three official flights. Maximum flight duration per flight is six minutes.

Nordic Towline Glider — projected area of supporting surfaces between 496 and 527 square inches. Model must weight at least 14.46 ounces. No cross-sectional requirements.* Launching means same as for Limited Towlines. Each contestant may enter two gliders. All timed flights of 40 seconds or more duration are official. Five* official flights are allowed each contestant with ten* tries at the five. Scoring is the total elapsed time of the five* official flights. Maximum flight duration per flight is three* minutes.



E. J. Berry, Dick Rioux and Bo Robinson show their rubber powered models at Grand Prairie Airport.

A/2 Flying Scale — open to flying scale models of man-carrying aircraft powered by one or more engines not exceeding 050 cubic inch piston displacement each, each engine driving one propeller. Models shall weigh at least 150 ounces per cubic inch piston displacement. Judges will award scale points as per the suggested system in the AMA rules. Models shall be flown as judged. Launch may be either ROG (rise-off-ground) or hand-launched with bonus for ROG. Maximum flight time limited to 3 minutes. Engine run unlimited, minimum recorded will be 20 seconds for ROG, 30 seconds for hand launched flights. Four flight attempts are permitted. Best ratio of total flight time to engine run will be scored. Final official score will

be determined by multiplying scale points by flight ratio.

Age groups: Two, those older (senior) and those younger (junior), than 21st birthday.

Entry Fee: 50¢ per event.

Prizes: *Hand-launched glider*

Senior—1st—Glider ride
Subscription to SOARING
Trophy

2nd—Introductory membership in S.C.S.A.

\$5. merchandise slip

3rd—Introductory membership in S.C.S.A.

Junior—Same as Senior

Limited Towline Glider and Nordic Towline Glider

Senior—1st—Glider ride
Subscription to SOARING
Trophy

2nd—Introductory membership in S.C.S.A.

Nylon towline and reel

3rd—Introductory membership in S.C.S.A.

Junior—Same as Senior

A/2 Flying Scale.

Senior—1st—Glider ride
Subscription to SOARING
Trophy

2nd—Introductory membership in S.C.S.A.

\$5. merchandise slip

3rd—Introductory membership in S.C.S.A.

Junior—Same as Senior

1953-1954 AMA rules are in general stated but figures with an () are changed to conform to recent amendments to the F.A.I. Sporting code for Model Aircraft.

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on the flow around an airfoil will be discussed. Emphasis will be on an appreciation of separation and its importance in determining the performance of models and sailplanes. There will also be a resume of the Nordic Model Towline Glider Finals results from Denmark and descriptions of other important model glider contests, both past and pending.



LARGEST ENTRY EVER INDICATED FOR 21st NATIONAL

Probably More Than One Hundred High Performance Sailplanes To Take Part

The start of the 21st American National Soaring Championships, the first to have been held on the West Coast, is now less than one month away.

This national aviation event, sanctioned by the Soaring Society of America through its affiliation with the National Aeronautics Association and the Federation Aeronautique Internationale, is now this country's largest sporting aviation activity.

This year's contest to be sited at Lake Elsinore in Southern California, will likely see more than 100 machines entered. This expanded pilot entry list (the largest heretofore, 70 odd ships at Wichita Falls, Texas, in 1947) along with its crews, official observers, SSA officers and directors, and the many persons attracted by the special events, should add up to a gathering of around a thousand persons, exclusive of the visitors, spectators, etc.

Activities will probably get underway well in advance of the contest starting date on July 27. Many contesting pilots will likely be on hand at the contest site for a few days practice and recon flights before the starting date. The wide variety of soaring conditions, as well as the terrain over which these motorless flights will be made, will prompt many contestants to come early in order to familiarize themselves thoroughly.

New and Unproved Sailplanes (for tournament work) To Be in Competition

Many new machines, some never publicly shown before, will be entered in these competitions, and it is anticipated that a greater variety of high performance ships will be flown here, than has ever previously assembled in any soaring event anywhere in the world. This in itself will attract avia-

tion designers and technicians from all over the country and especially from the vast aviation industry domiciles on the West Coast. It is also expected that military aviation experts will find this array of some of the world's most efficient flying machines to be of more than passing interest. Foreign air attaches of friendly nations and whose present assignment is in this country will be issued a special invitation to observe this event.

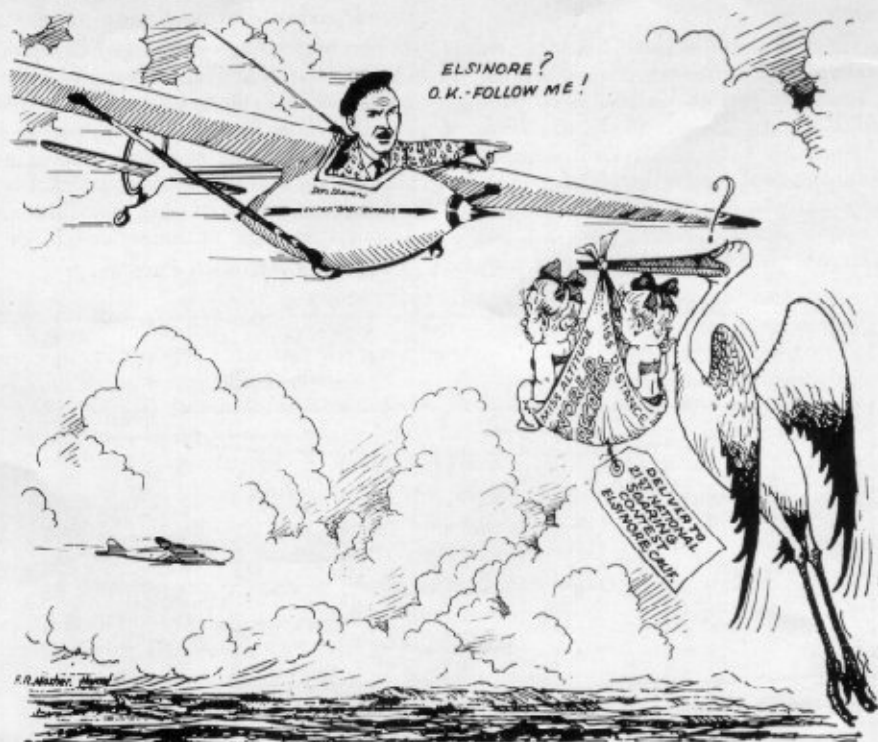
Dick Johnson Favored by Many

Former National Champion and current holder of the International Distance Soaring Record (535 miles) Richard H. Johnson of Grand Prairie, Texas, will fly his world-famous sailplane, the 'Ross-Johnson 5.' Many dopsters, and, naturally, those in Texas, are favoring Johnson as the

winner. His machine, declared by experts to be the world's most efficient flying machine, will be of special interest to those who have not seen it before. It has a measured and proved glide ratio of more than 40 to 1, and even to the untrained eye, it becomes fantastically apparent that this machine is something apart.

Other Soaring Aces Who Will Fly

Practically every top soaring ace in this country will fly in the 21st National tourney. Most of these men have been runners-up in previous national and regional meets. Texas' second ace after Johnson will be Wally Wiberg who currently holds the national goal (333 miles) record. He will be flying the original small span 'Screaming Weiner' now greatly modified and designated the 'Lil Doggie.' Another famous pilot and veteran



tournament soarer Ray Parker of Mississippi, will operate with another small span ship the 'Tiny Mite.' Still a third contestant with a small span ship will be Bill Bomar of California with his 'Rigid Midget.' Several of the Schweizer designed all-metal 1-23's will be seen in action at Elsinore, and Bill Ivans and Paul Bickle, both Californians, will be at the controls of one of these. The Schweizer Aircraft Corporation of Elmira, N. Y., has just announced that every effort will be made to have one of its newly designed 1-26 sailplanes in the competitions. Harry Perl in his personally designed and built 'Penetrator' will join the action as will one or more pilots in the sleek all-metal Prue ships. Several newly designed machines along with radically modified older designs will be unveiled during this tournament.

Many Special Events Planned

A full calendar of special events will be unveiled during the two-week contest period. SSA President Jon Carsey, accompanied by Mrs. Carsey, will be in attendance for the duration, and will preside in the several meetings of the SSA board at which time a new slate of Officers will be elected. Also he will lead the meetings of the SSA membership.

Soaring modeling will be a special and refreshing feature of this 21st National. Many SSA members and active soaring pilots engage in the sport of designing and flying model sailplanes.

Trophies will be awarded in a design competition, the selection to be made from among those ships actually flying in the tournament and whose design has been originated since the last competition of this class. In view of the many new ships to be seen in action during this tourney, this award will have more than the usual meaning.

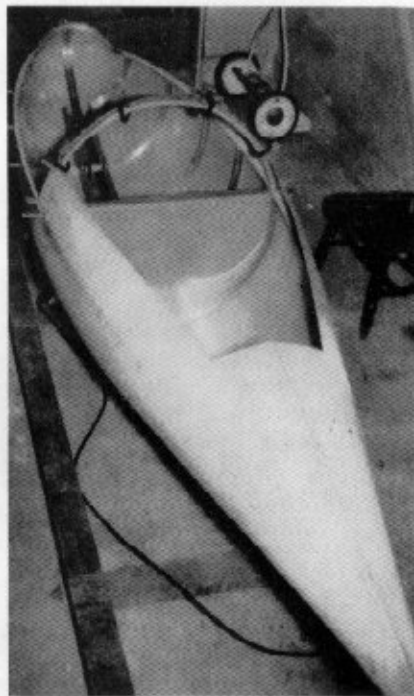
The Helms Hall of Soaring Fame Awards will be officially announced during the meeting at Elsinore and will be presented at that institution in Los Angeles on the day after the contest closes.

The many attractions held by Southern California for the traveler and tourist will, of course, have direct bearing on the attendance from the eastern part of the country. Especially will this be a factor in attracting more than the usual number of family groups to our major tournament. Soaring enthusiasts have long since found that a contest offers great pleasure and satisfaction for those who may attend other than as a pilot,

(Continued from Page 17)

covered and use of the formed-in-place plastics is planned for their construction. For construction of wing tips, control tips, and fairing, "Celastic" (a colloid treated fabric) is planned. Celastic is a remarkably formable material. It can even be formed into a perfect sphere. When cured it presents an extremely tough and durable surface.

The cockpit as designed provides plenty of elbow room but vertical



Even at this early stage of construction the Mach 1 clearly demonstrates its sleek lines.

crewman or official. In fact our national contest is coming more and more to be an ideal vacation for the entire family and it develops into a congress of flying devotees, designers and aviation technicians.

Task Type Contest Planned

The greatest number of the contest days in this tourney will send the competing pilots along the same course in an attempt to accomplish a flight task previously designated by the Disciplines Committee. Some of these tasks will be attempts to reach a predetermined goal in the shortest elapsed time and others will require the pilot to reach and turn at this goal and attempt a return, without landing, to the contest take-off site at Elsinore. Other tasks will require the pilots to attempt to accomplish flights around a triangular course of 100 kil-

ometers. Several open days will be allowed on which a pilot may fly in any direction of his own choosing. These task flights will ensure the quick and easy return of the pilots and crews to the contest site, and will make possible their enjoyment of the many social and other meetings to be held at or near the operating base.

The following specifications for Sailplane Mach 1 are given as points of interest:

Span	52 feet
Wing Area.....	124 Sq. Ft.
Aspect Ratio	21.8
Geometric Twist	0°
Empty Weight.....	400 pounds
ULT. Load Factor.....	9 @ 150 MPH
L/D (Calculated)	35-1

Home Built Sailplanes

Among the many home built under construction in the U. S. and Canada the Fauvel AV-36 is the most popular.

The Fauvel incorporates the simplest form of construction and is the only ship that can be constructed in a reasonable time and for which plans are available.

Drawings, specifications and instructions are available from the Soaring Society.

For descriptive literature, send a stamped addressed No. 10 envelope to 3106 Fairmount Street, Dallas, Texas.

At This Meet

Never before has a national contest been held in an area offering such variation in atmospheric conditions and terrain. The new and different is always of interest to the motorless flight man, and here in this contest many pilots will find something really new and interesting.

The 21st National bids fair to be America's greatest motorless flight event.