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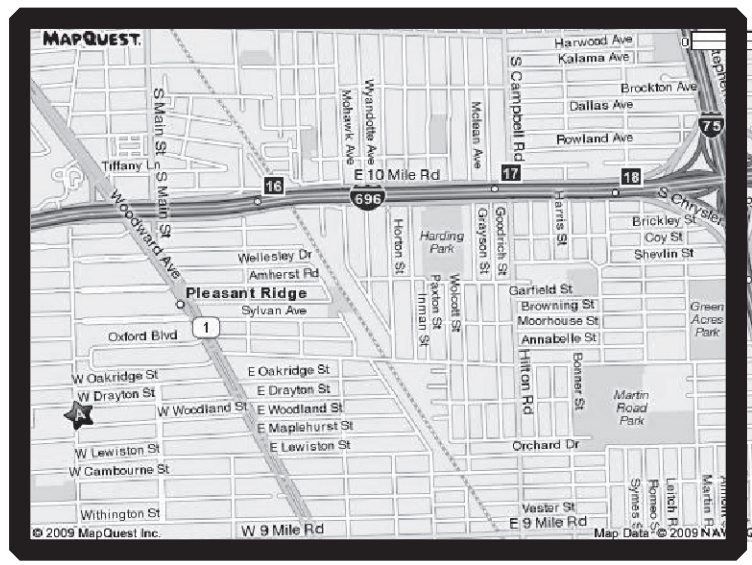
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976 Pearson St.  
Ferndale, MI 48220

Address all regular correspondence to;  
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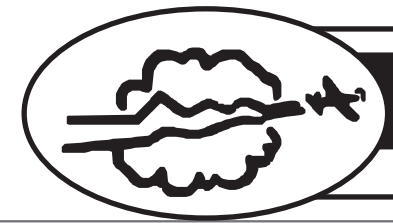
Club Website by Davis Gloff, ([davis.gloff@gmail.com](mailto:davis.gloff@gmail.com))  
[Cloudbustermac.tripod.com](http://Cloudbustermac.tripod.com)

Cloudbusters Model Airplane Club  
976 Pearson St  
Ferndale MI 48220



The Cloudbusters meet at 8pm. on the third Tuesday of the month at Drayton Ave. Presbyterian Church 2441 Pinecrest Avenue Ferndale, MI 48220 The meeting room is #309 No meetings in June, July, or August.

Be sure to visit our web page to get the 2015 & 2016 handouts. If you do not have access to the web or a printer, contact a member who does and get your copies for handout today.

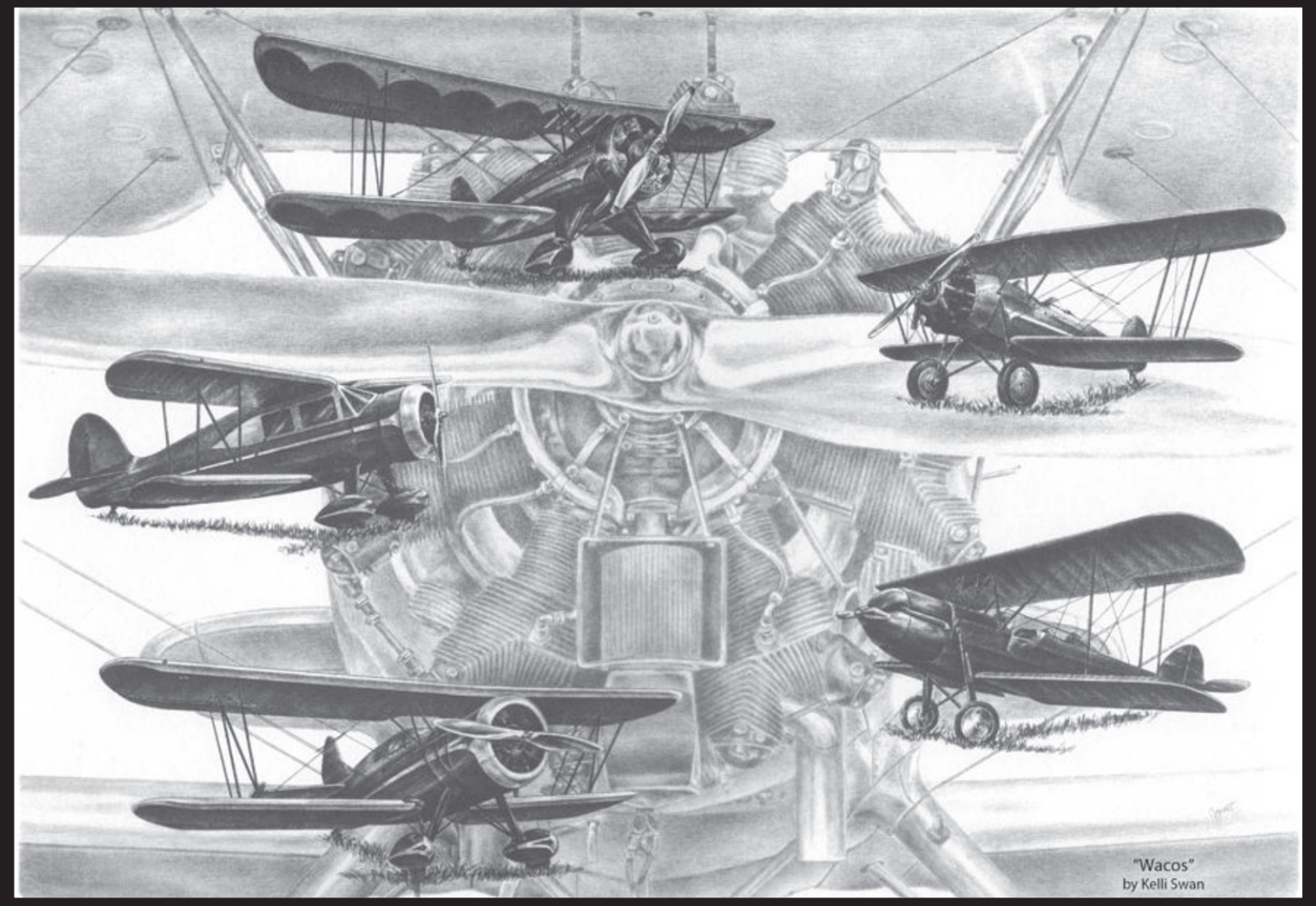


# Cloudbusters NEWSLETTER

Cloudbusters Model Airplane Club of Michigan, Inc

Our 76th Year

Mar-April 2016



**Broome Park 2016 Schedule and Information**  
All FAC events will be flown to the current FAC 2016/2017 Rule Book.

**Dates and CD's**

Sun Apr 3	Winn Moore	<a href="mailto:winn_moore@yahoo.com">winn_moore@yahoo.com</a>
Sun Apr 17	George Bredehoff	<a href="mailto:volare61@gmail.com">volare61@gmail.com</a>
Sun May 15	Winn Moore	<a href="mailto:winn_moore@yahoo.com">winn_moore@yahoo.com</a>
Sun Jun 5	George Bredehoff	<a href="mailto:volare61@gmail.com">volare61@gmail.com</a>
Sun Jun 26	Winn Moore	<a href="mailto:winn_moore@yahoo.com">winn_moore@yahoo.com</a>
Sun July 3	George Bredehoff	<a href="mailto:volare61@gmail.com">volare61@gmail.com</a>
Sun Aug 7	Club Picnic and Contest	
	Chris Boehm	<a href="mailto:merlin236@comcast.net">merlin236@comcast.net</a>
	Mike Welshans	<a href="mailto:mbw Welshans@aol.com">mbw Welshans@aol.com</a>
Sun Aug 28	Winn Moore	<a href="mailto:winn_moore@yahoo.com">winn_moore@yahoo.com</a>
Sun Sept 11	George Bredehoff	<a href="mailto:volare61@gmail.com">volare61@gmail.com</a>
Sun Oct 9	Winn Moore	<a href="mailto:winn_moore@yahoo.com">winn_moore@yahoo.com</a>
Sun Oct 23	George Bredehoff	<a href="mailto:volare61@gmail.com">volare61@gmail.com</a>
Sun Nov 6	Winn Moore	<a href="mailto:winn_moore@yahoo.com">winn_moore@yahoo.com</a>

**SUMMER IS ALMOST HERE**  
We have suggested before, mark your Calenders! Plan your summer flying today. Browse this issue of our newsletter for contest dates.  
**Get registered now!**

**2016 FAC NATS JULY 13-16**  
Registration and Judging Wednesday July 13, in the big hangar  
Field Barbecue Thursday 14th  
Awards Banquet Saturday 16th  
Events, Registration Forms and general info coming up...

# CLOUDBUSTERS

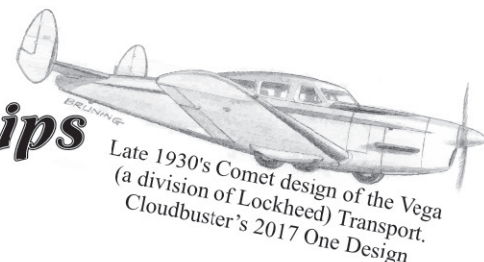


**MODEL AIRPLANE CLUB**  
MODEL AVIATION SINCE 1939

**2016**  
**Flying Aces Club**

## Outdoor Championships

A.M.A. Flying Site - Muncie Indiana  
Sept 22 & 23 8:30 AM to 4:30 PM  
A.M.A. Sanction 565



Late 1930's Comet design of the Vega  
(a division of Lockheed) Transport.  
Clodbuster's 2017 One Design

CD Winn Moore – winn\_moore@yahoo.com Co-CD Pat Murray – pmurray@centerlinedesignllc.com

### EVENTS

#### Thursday 9/22

- #1 FAC Peanut Scale
- #2 FAC Rubber Scale
- #3 FAC Jumbo Scale
- #12 Golden Age Multi-wing
- #13 Golden Age Monoplane
- #22 OT Rubber Fuselage (ROG)
- #35 Embryo Endurance (ROG)\*
- #42 Greve Race (ML)
- #44 WWI Dogfight (ML)
- #99 One-Design Stout\*
- #98 AMA P-30

#### Friday 9/23

- #1 FAC Peanut Scale
- #2 FAC Rubber Scale
- #3 FAC Jumbo Scale
- #11 Low Wing Military Trainer
- #21 OT Rubber Stick
- #32 FAC Dime Scale\*
- #36 Jet Catapult
- #41 Thompson Trophy Race (ML)
- #43 Goodyear/Formula Race (ML)
- #45 WWII Combat (ML)

Schedule changes due to inclement weather are at the discretion of the CD.

All models for scale judging (events 1-3) must be turned in not later than 10:00 a.m. Thur. 9/22

Early registration, compliance and judging will be available Wed 9/21 from 1:00 pm until 5:00p.m.

Scale judged events can be flown either day. Scale judged events lacking 3 participants will be combined with FAC scale.

All mass launch models will require compliance checks not later than 1 hour prior to the event. Launch times will be posted at HQ.

P-30 will be flown to current AMA Rules. (not Kanone Worthy)

\*Events will be flown as best 3 of 6.

Mass launch will be used to break all ties.

**\$25.00 Entry fee includes all events. Trophies (Laser Etched Glasses) awarded to third place.**

**All entrants must hold**

**valid A.M.A. or M.A.A.C. license (May purchase A.M.A. license on site or at A.M.A. HQ).**

**FAC Membership if Flying FAC Events**

**Entry includes:**

A. Complimentary Theme "T" Shirt (circle size on your early entry form to insure availability)

B. The Theme Model plan, Stout 2 AT Pullman (the One-Design model for 2016)

is available on the Clodbuster web site or as kitted by Volare Products.

Note: Additional Theme "T" shirts will be available for \$10.00 after 2 PM Thursday 9/22.

**EVENT SPONSORS ARE WELCOME. (SPONSORSHIP \$40 /EVENT)**

**Bring something from your excess model "stuff" for the raffle.**

Registration: Make checks payable to Clodbuster MAC and mail to Winn Moore 2389 Olds Rd Metamora, MI 48455

or Use the PayPal option at the Clodbuster Web Site.

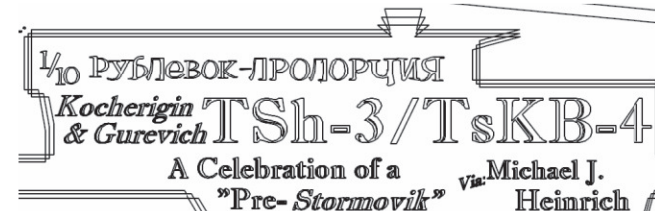
**Early Registration encouraged!**

Name \_\_\_\_\_ A.M.A. # \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Email Address \_\_\_\_\_ "T" Shirt size S - M - L - XL - 2XL

**Remember  
Ted Dock Memorial  
Sept 24 & 25  
Same Field**



A Celebration of a "Pre-Stormovik" via Michael J. Heinrich

Heavy armored ground attack monoplane aircraft, built following the TTKh of the VVS command. Monoplane scheme was chosen by S.A.Kocherigin (head of attack aircraft brigade at the TsKB) after TSh-1 and TSH-2 failed satisfy the requirements and biplane solutions became obviously obsolete.

Airforce requirements included speed of 250km/h and ceiling 4000m. Aircraft had to carry strong armament in different combinations.

TSh-3 was built of metal and fabric. Front fuselage was a steel armor box held together by duralumin profiles frame. Front armor plate was 8mm thick. Side, bottom and back plates: 6mm, top plate: 5mm. Engine was not protected from the top. Retractable underfuselage radiator was protected by 6mm armor too. In the retracted ('attack') position cooling air was sucked in through the armored 'scoop' intake under the propeller, fraction of the heat also was absorbed by 106kg of water in the cooling system. Specially for this purpose radiator was made with oversize.

Tail section (behind the gunner's turret) was simple steel tube frame covered with fabric. It provided less than 10% of the airframe weight (55kg). Wing had duralumin frame and fabric cover. Each wing carried five ShKAS machineguns and three cartridges for six small shrapnel bombs each. Hardpoints were integrated into wing structure and could carry heavy bombs and Special Aircraft Mounted Devices (stays for chemical agent dispensers). Ailerons served also as a flaps.

TSh-3 was flown in 1932 by V.K.Kokkinaki. Performance was well above requirements of 1932. But... Trials and refinements continued until Spring 1934. Fast progress of aircraft designs made speed 250km/h already insufficient. Angular shape of the armor shell was the major obstacle.

The main purpose of the armored attacker was not well defined yet, and TSh-3 did not enter series production.

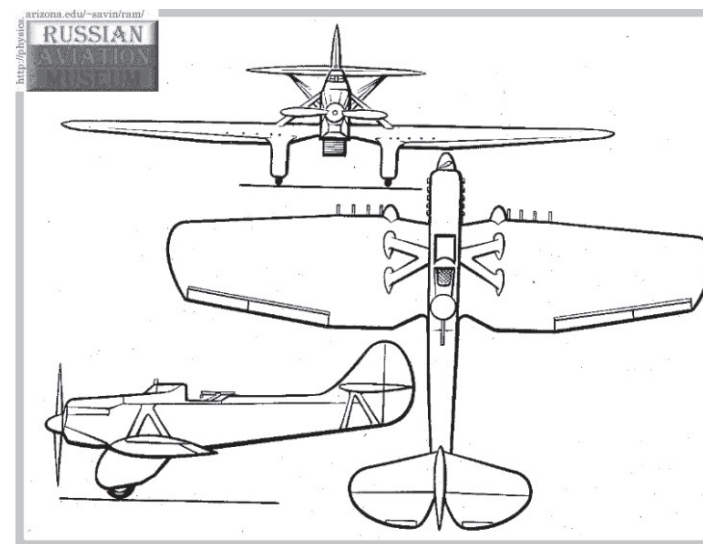
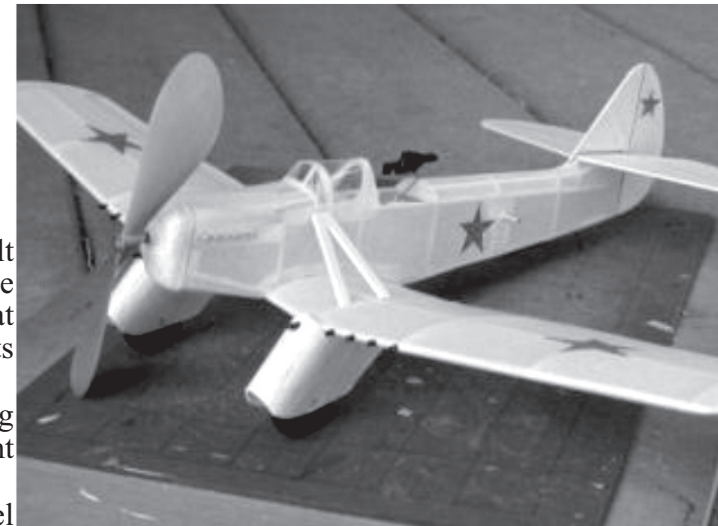
It took almost 8 years before Ilyushin's Il-2 emerged as an fully operational heavy armored aircraft with exceptional performance.

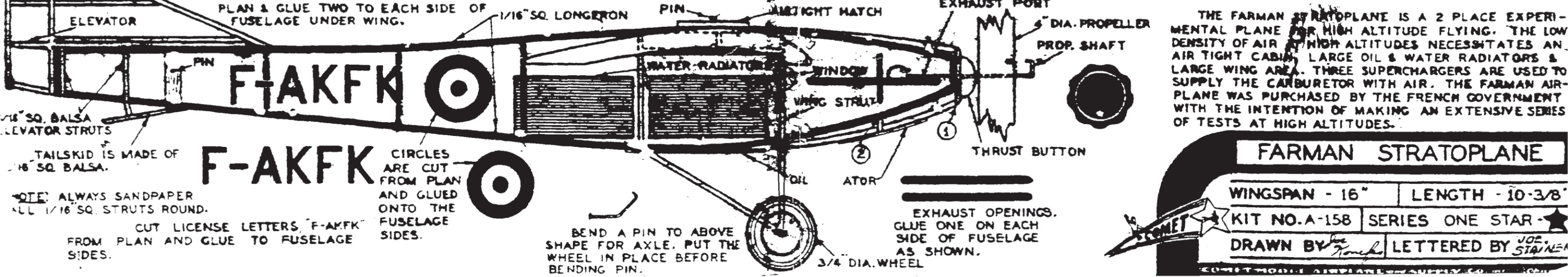
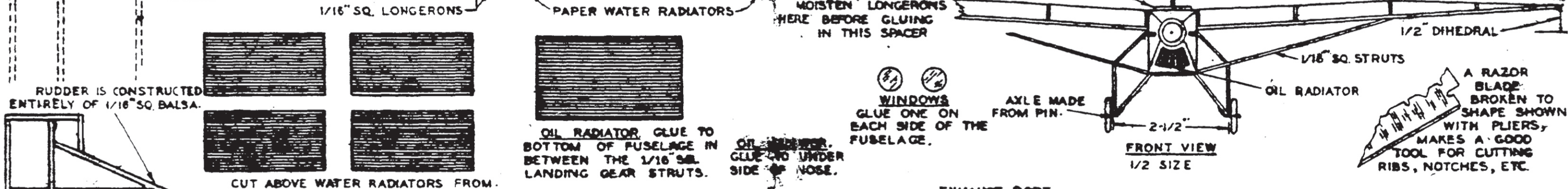
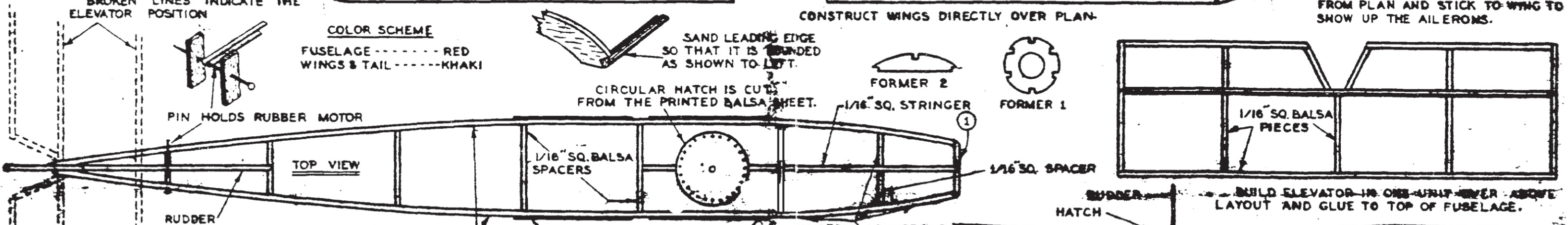
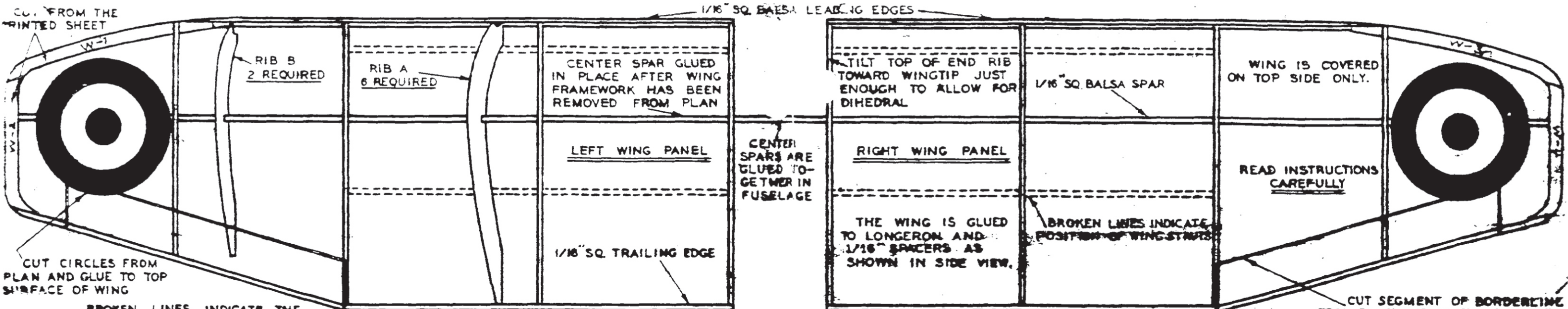
A little more information on the TSh from a piece in the Russian Aviation Research Group Bulletin No 142 written by VI Perov and OV Rastrenin on SA Kocherigin aircraft.

At the end of 1932 Kocherigin began development of the TSh-3 (Tyazhelyi Shturmovik=heavy armoured attacker) strutted low-wing armoured ground attack monoplane.

Powered by M-35F engine, problems with cooling were never entirely solved. The types protective armour was strong and weighed about 576 kg. Its angular construction generated much drag and hindered performance.

Two examples built for the company flight development trials at 39 GAZ where Ilyusin also directed the TsKB. The types tactical technical requirements were drawn up by SV Ilyushin who was working at the Scientific Commission of the UVVS. It never entered the Soviet State Acceptance Programme and no other examples were built. It was Kocherigin's first attempt at a single-seat armoured ground attack aircraft.





THE FARMAN STRATOPLANE IS A 2 PLACE EXPERIMENTAL PLANE FOR HIGH ALTITUDE FLYING. THE LOW DENSITY OF AIR AT HIGH ALTITUDES NECESSITATES AN AIR TIGHT CABIN, LARGE OIL & WATER RADIATORS & LARGE WING AREA. THREE SUPERCHARGERS ARE USED TO SUPPLY THE CARBURETOR WITH AIR. THE FARMAN AIRPLANE WAS PURCHASED BY THE FRENCH GOVERNMENT WITH THE INTENTION OF MAKING AN EXTENSIVE SERIES OF TESTS AT HIGH ALTITUDES.

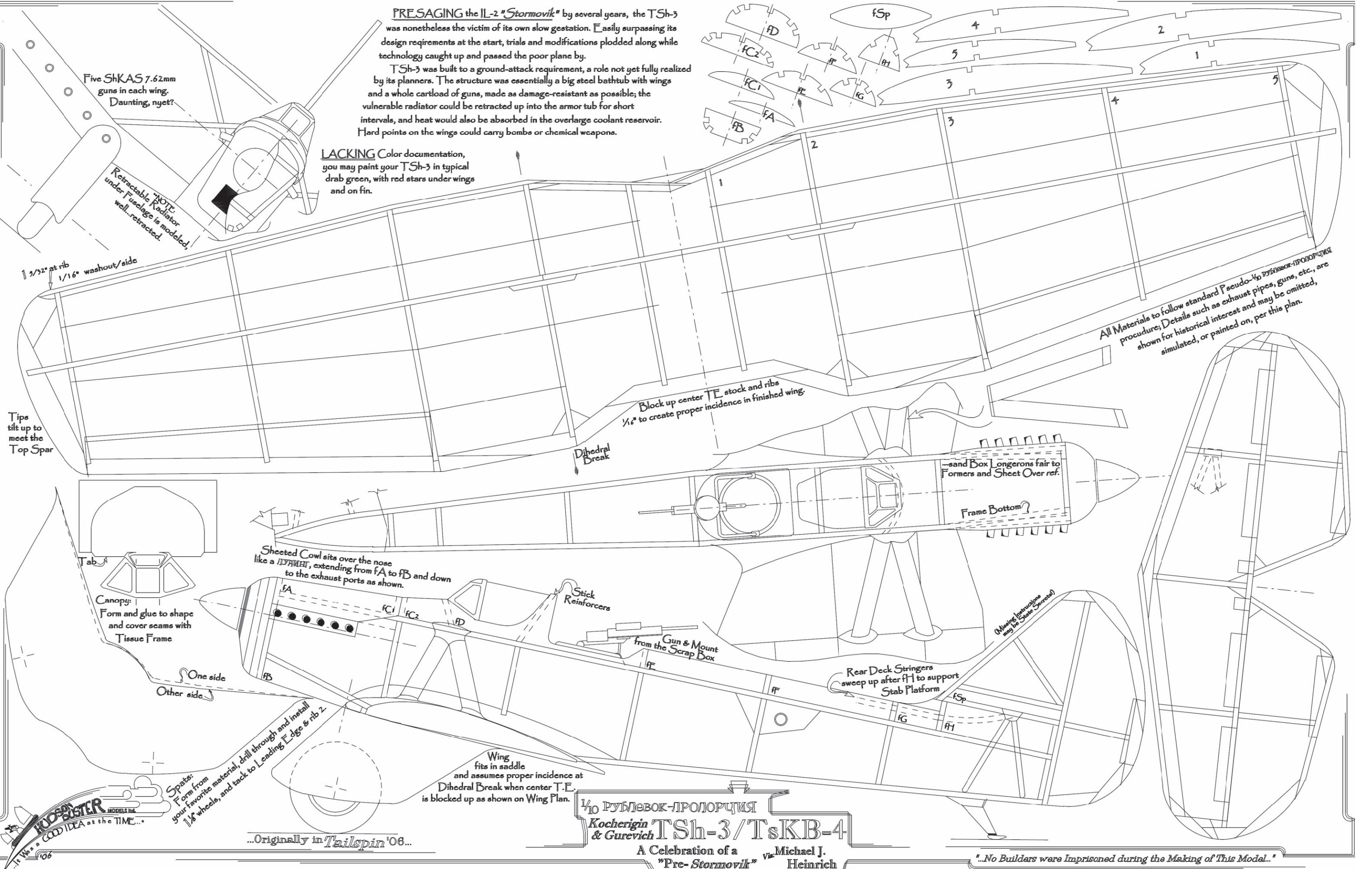
FARMAN STRATOPLANE	
WINGSPAN - 16"	LENGTH - 10-3/8"
KIT NO. A-158	SERIES ONE STAR
DRAWN BY <i>Joe Starnes</i>	LETTERED BY <i>JOE STARNES</i>

**PRESAGING** the IL-2 "Stormovik" by several years, the TSh-3 was nonetheless the victim of its own slow gestation. Easily surpassing its design requirements at the start, trials and modifications plodded along while technology caught up and passed the poor plane by.

TSh-3 was built to a ground-attack requirement, a role not yet fully realized by its planners. The structure was essentially a big steel bathtub with wings and a whole cartload of guns, made as damage-resistant as possible; the vulnerable radiator could be retracted up into the armor tub for short intervals, and heat would also be absorbed in the overlarge coolant reservoir. Hard points on the wings could carry bombs or chemical weapons.

**LACKING** Color documentation, you may paint your TSh-3 in typical drab green, with red stars under wings and on fin.

All Materials to follow standard Pseudo-1/10 Russian model-building procedure; Details such as exhaust pipes, guns, etc., are shown for historical interest and may be omitted, simulated, or painted on, per this plan.



Five SHKAS 7.62mm guns in each wing. Daunting, nyet?

Retractable Radiator under Fuselage is modeled well...retracted.

1/32" at rib 1/16" washout/side

Tips tilt up to meet the Top Spar

Block up center TE stock and ribs 1/16" to create proper incidence in finished wing.

Dihedral Break

Scrap Box Longerons fair to Formers and Sheet Over ref.

Frame Bottom?

Sheeted Cowling sits over the nose like a DUBININ, extending from fA to fB and down to the exhaust ports as shown.

Canopy: Form and glue to shape and cover seams with Tissue Frame

One side Other side

Stick Reinforcers

Gun & Mount from the Scrap Box

Rear Deck Stringers sweep up after fH to support Stab Platform

(Missing Instructions may be Scrap Concrete)

Wing fits in saddle and assumes proper incidence at Dihedral Break when center T.E. is blocked up as shown on Wing Plan.

Spats: Form from your favorite material, drill through and install 1/8" wheels, and tack to Leading Edge & rib 2.



1/10 РУБЛЕВОК-ПРОПОРЦИЯ  
Kocherigin & Gurevich TSh-3/TsKB-4

A Celebration of a "Pre-Stormovik" via Michael J. Heinrich

"No Builders were Imprisoned during the Making of This Model..."