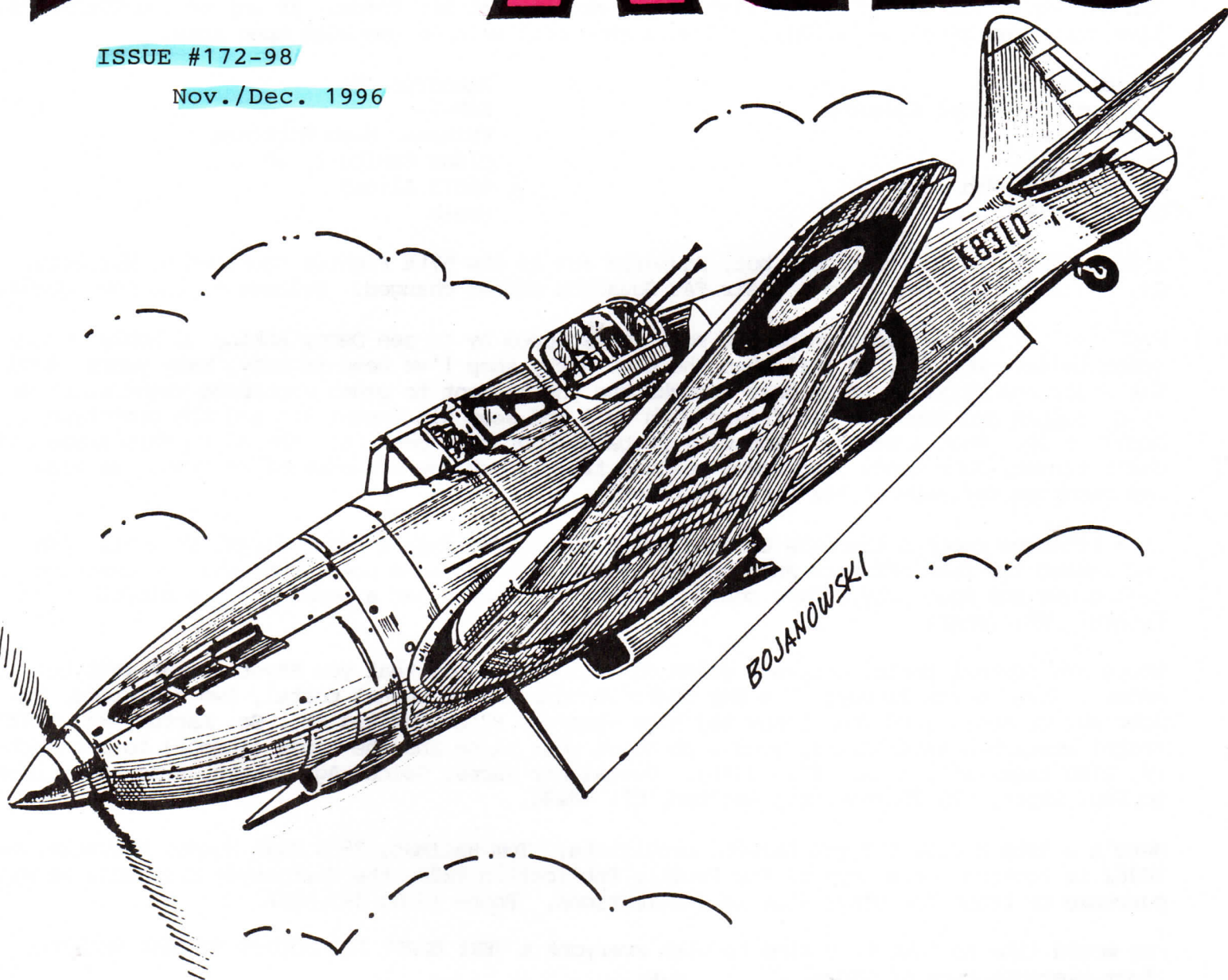


FLYING ACES

ISSUE #172-98

Nov./Dec. 1996



SEASON'S GREETINGS

NEWS ON THE WING!

Our cover of this issue is another great drawing by Bob Bojanowski, he of the giant Rearwin Speedster fame. Nice job, Bob, Thanks.

The plans in this issue are credited to; Pres Bruning for the Boulton-Paul Defiant, the LaGG-3 by Ed Heyn, via the Tailspin newsletter, A nice little Dime Scaler by Florent Baecke, a vintage plan of the Monocoupe by Canadian Model Aircraft Co. sent in from Peter Mann and a Zeppelin-Lindau (Dornier) sent in by Rick Dort. Thanks Clubsters and thanks to all of the other Skysters who contributed to this issue.

We have lost two more of our Sky-Buddies since the last issue, They are Chester Kowalik and Bob Marshall. Our sympathies to their families and friends. They will be missed.

Two new squadrons to add to the list of our growing FAC Air Force. If any of you Clubsters live near them give them a call, I'm sure they will welcome you with open arms.

Squadron #36
The Great Grey Owl Squadron
Jack Hodges
Box 303
St. Germain, Manitoba
Canada R0G2A0

Squadron #58
SAF-15
Fernando Haro Martinez
c/San Benito 2, 3D
03013 Alicante
Spain

I know #36 is out of sequence, but, Squadron #57 is the 57th Fighter Squadron of Marietta, Ga. and they requested to have their FAC Squadron number changed. Welcome to the new squads.

While on our recent vacation to the south we stopped by to see Denny Atkins of Hobby Supply South in Acworth, Ga., he still has the best hobby shop i've seen in many, many years. Send for their new catalog, it is only 4 bucks and you'll want to order something right away! We also stopped and seen our old friend John Bell and seen his latest kit and the prototype model of it. What a beauty! You will probably want this one! See the ad in this issue and don't forget, John sends your order postage free if you are a member of the FAC. He also has canopies for many of his kits and plans.

Dave Linstrum reports that his Coconut Scale model, ROW, made a great flight at McDill AFB and landed 200 feet offshore and was scooped up by a guy in a power boat who was checking crab traps and sped away! Dave couldn't chase as he only had a pedal boat, a bicycle on floats. What next?

There are several postal contests going on besides our own that you Skysters may want to enter. Here is the lineup; The Bay State Squadron has a peanut postal, two divisions, Indoor and Outdoor, send your times to; Mike Nassise, 22 Greenfield St., So. Easton, Ma. 02375. Postal Pistachio Inter-Gnats, send a photo of your plane and the times (indoor) to Doc Martin, 2180 tigertail, Miami, Fla. 33133. Postal Air Races, Golden Age racers, send your times to Paul Stott, 175 Thoreau Dr., Shelton, Ct. 06484.

Here's a late S.O.S. for you helpful archivists. Tom Hallman, 2553 Mill House, Macungie, Pa. 18062 is looking for a copy of the Profile Publication #200, the Martinsyde Elephant. He will purchase or trade for other Profile Publications. Phone (610) 395-5656.

We would like to take this time to wish everyone a VERY HAPPY AND JOYOUS HOLIDAY SEASON from everyone here at GHQ.

BUILD...FLY...WIN!!!!!!! EFF--AAA--CEEEEE!!!!!!!
Lt. Col. Lin Reichel, CinC-FAC

We regret the passing of Bob Leishman, Hall of Fame member. See his story further on.

Contest Calendar

Dec. 28-29-30...2nd Annual FAC Winter Outdoor Champs.
Palm Bay, Fla. 15 FAC events. CD Steve Bacom, 836 Banbury Dr., Port Orange, Fla. 32119. (904) 788-7309.

Jan 19...Midwinter Madness. Durham, Ct. 5 FAC events plus 5 others. CD John Stott, 8 Bradley Lane, Sandy Hook, Ct. 06482. (203) 426-5190.

April 6...Cleveland Free Flight Society Indoor Meet.
Kent State University, Kent, Ohio. CD Mike Zand, 5803 East Ash Rd., Independence, Ohio 44131. (216) 524-3480.
More on this meet in the next issue. GREAT SITE!



Here is the Squadron Logo
for our new squadron #58

The dates have been just confirmed for our two big FAC contests for 1997. The dates for the Geneseo, N.Y. contest will be July 19 and 20. At the A.M.A. Field in Muncie, Ind. the dates are August 30 and 31. We will have more details in the next issue of the newsletter. Hope to see a great turnout for both contests. Plan now!

Chicago Tribune, Wednesday, August 21, 1996 Section 2

FLYING ACES T-SHIRTS

This year's T-Shirt features the Gloster Gladiator and is a very fine T-Shirt. It is a light blue shirt with the aircraft done in Pre-War RAF colors. You'll want one of these for sure. Sizes are; small, medium, large, X-large and XX-large. Price is \$12.50 postpaid. Send order to; FAC-GHQ, 3301 Cindy Lane, Erie, Pa. 16506.

NEW PLAN PACK

Plan pack #4 is now ready. It contains more of those great plans from the early issues of our newsletter. There are plans for 12 models in the pack done on 11 X 17" sheets. CONTENTS;

Yugoslav IK-2 13" span Bruning, Fiat CR-32 13" span Bruning, Gere Sport 19" span Jeff Chrisey, Howard Pete No-Cal Bukowski, Handley-Page W8-F 29" span Stott, Spad 12" span Millers Megow, Blackburn Airdale 13" span Larsen, Page Racer 13" span D. Smith, Pemberton-Billing 13" span Heyn, Dewoitine D-27 13" span Smith, Curtiss OC-2 13" span Bruning, Tractable Trainer Embryo Stott,

\$10.00 each, postpaid, FAC-GHQ, 3301 Cindy Lane,
Erie, Pa. 16506

Plan Packs #1-2-3 are still available, \$10.00 each postpaid.

WW II flying ace Witold Urbanowicz, 88

NEW YORK TIMES NEWS SERVICE

NEW YORK—Gen. Witold Urbanowicz, who flew on three fronts to become Poland's foremost fighter ace of World War II, died Saturday in the Veterans Administration Hospital in Manhattan. He was 88.

Gen. Urbanowicz, who lived in Glendale, N.Y., fought in aerial combat over Poland, in the Battle of Britain and in China with the Flying Tigers of Gen. Claire Chennault. He was credited with destroying 28 German and Japanese planes.

He was born near Augustow in northeastern Poland and joined the Polish air force in 1930. When Germany invaded Poland in 1939, he was an instructor at the Deblin Air Academy, where he had received his own flight training. Pressing his cadets into action, he fought briefly against heavy odds before leading his cadets by foot to neutral Romania, where they boarded a ship for Western Europe and enlisted in the British Royal Air Force.

Once in Britain, he was

assigned to the 145th Squadron of the RAF and took part in the Battle of Britain.

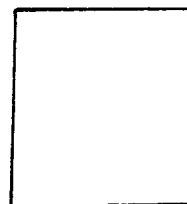
Later that year, he took command of the Polish 11th Fighter Group, and in 1941 he organized and commanded the First Polish Fighter Wing. Having endured his share of dogfights, he was posted to Canada and Washington, where he served the Polish government in exile as assistant air attache.

But the desk jobs soon bored him and, intrigued by what was going on in China, Gen. Urbanowicz went through some refresher training with the American 14th Army Air Force and turned up in China in October 1943.

At 36 he was the second oldest pilot in the Flying Tigers unit after Chennault, and distinguished himself in the battle for Changteh.

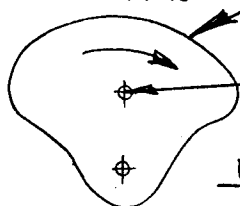
He returned to Washington in 1944 as air attache with the rank of colonel. After the war, he settled in the United States and worked for American Airlines, Eastern Airlines and, most recently, Republic Aviation.

If the box on the right has the dreaded RED "X" in it, it is time to renew your membership which includes the newsletter. Cost is \$15.00 per year in the United States and Canada. Overseas the cost is \$20.00 per year. Six issues per year published every other month. This is your last issue under your old membership. Please make checks payable to "Flying Aces". Send to FAC-GHQ, 3301 Cindy Lane, Erie, Pa. 16506.

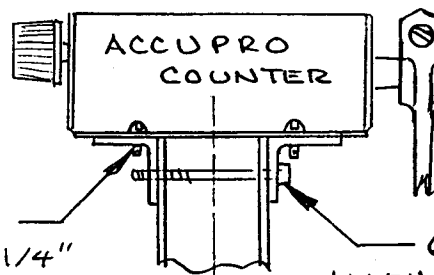


4.

DIRECTION OF ROTATION



NOTE THAT CAM PROFILE APPROACHES OPERATOR LOW & RAMPS UP TO ACTUATE COUNTER.



DRILL & TAP TO ATTACH COUNTER TO ALUM. ANGLES.

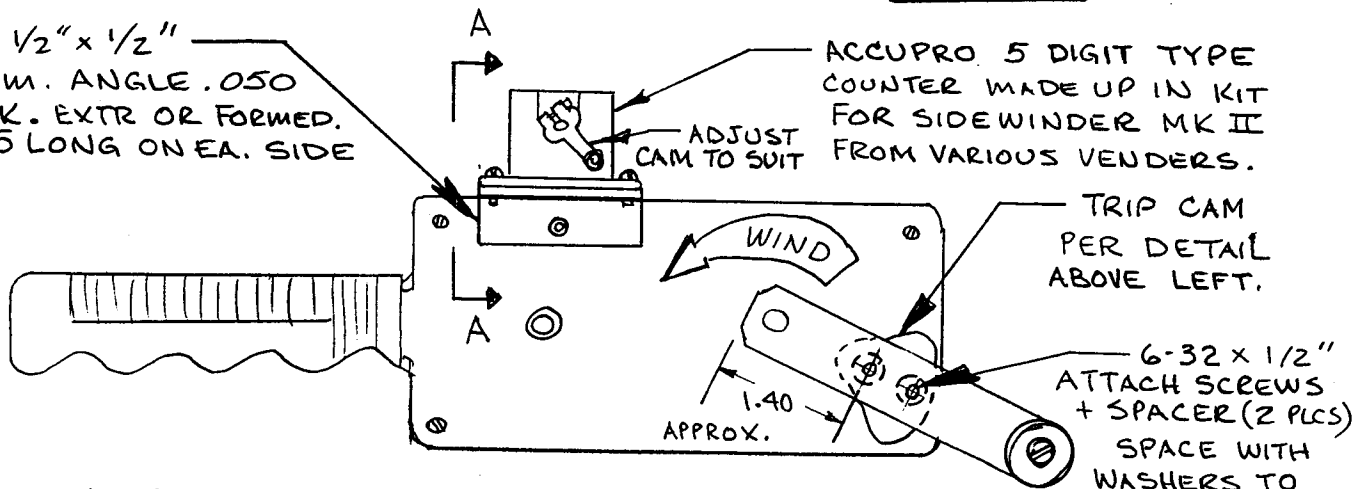
6-32 x 1.25 ALLEN SCREW-TAP FAR SIDE ONLY

VIEW A-A

TRIP CAM DETAIL

MAT'L = .125 ALUM

2 EA 1/2" x 1/2" ALUM. ANGLE .050 THICK. EXTR OR FORMED. 1.85 LONG ON EA. SIDE



ADAPTING A COUNTER TO YOUR SCALEWINDER BRAND RUBBER WINDER.

By BILL SCHMIDT % WICHITA, KS

To: GHQFAC

From: Rio Grande Squadron, FAC

Subj: Casualty Report

It is my sad duty to report the passing of Robert Leishman. Bob took his final flight the 10th Of September at his home in Belen, New Mexico. The squadron then dedicated our yearly contest to his memory and next year plan to have a memorial award in his name.

Bob was born in Scotland in 1922 and began his modeling career in the thirties when free flight was in its infancy and radio control just a dream.

When World War Two broke out in 1939 Bob enlisted in the RAF for pilot training. Washing out of pilot training due to bad depth perception, he accepted training in the then new field of radar technology. As an RAF commando he parachuted into France ahead of D-day to capture and evaluate German Radar.

After the war Bob accepted a job with Philips in Argentina where he met and married his wife, Irene. While in Argentina he was instrumental in sparking an interest in free flight modeling and eventually led that countries national free flight team.

Moving again in 1954 Bob went to work for RCA in the United States and became a member of the Levittown Flying Bucks, a free flight and control line club. From 1965 to 1970 Bob was a contest director for the Academy of Model Aeronautics and was the free flight director for the 1965 nationals held at Willow Grove Naval Air Station. During 1976 Bob helped to form a new club, the Scale Old Time Society or SOTS. It was at this time that Bob became active with the Flying Aces Club and was an assistant contest director for the first FAC nationals held at Johnsville Naval Air Station in 1982. Bob was the overall contest director for the third FAC NATS also held at Johnsville in 1982.

During this time Bob was a driving force in promoting the Flying Aces Club. Upon retirement from RCA Bob and his family moved to the milder climate of New Mexico where he was active with the Albuquerque Aeromodelers. In 1990 he became a charter member of a new Flying Aces squadron; The Rio Grande Squadron where his was permanent contest director.

During his long and varied modeling career, Bob never failed to excite interest in free flight modeling or to assist, teach and inspire others. Although he enjoyed it for only a short time Bob was very proud of his selection to the FAC hall of fame. His death came as a surprise to all of us and he will be sorely missed. He was a gentleman of the old school and a proud British subject to the end.

For the Rio Grande Squadron:

Phil Thomas

Philip Thomas

SMSGT, USAF, Ret

WANTED: A three-view of the 1929 New Standard biplane. It had elliptical wingtips and a span of 45 Ft. It had a 5 place front cockpit and I had a ride in it this summer! Bob Sullivan, 207A E. Cleveland, New London, Ia. 52645.

5.

5.



They Flew **DEFIANTS**

PHILIP BURDEN tells

of the men who flew

the RAF's turret fighter

ON THE beaches around Dunkirk the remnants of the British Expeditionary Force waited to be evacuated back to England. It was May 29, 1940, and the order of the day for the RAF was to prevent the Luftwaffe attacking the troop-laden beaches at all costs. One of the squadrons entrusted with this unenviable task was No. 264 equipped with Bolton Paul Defiants and they patrolled the area with three squadrons of Hurricanes. The Defiants had been assigned the task of searching

6. for bombers while the Hurricanes scouted for enemy fighters. This was the plan—but in a short while it was the slow Defiants who were taking on Messerschmitt Bf 109s and 110s for the Hurricanes had completely missed the German fighter aircraft!

The tranquillity of the patrol was broken when six Bf 109s pounced out of the sun on the twelve Defiants but they were shaken off for the concentrated fire from the batteries of four Browning 0.303 machine guns in each of the RAF fighters' power operated gun turrets proved decisive and two German machines were destroyed. Moments later No. 264 Squadron faced a much tougher task—or so their pilots thought—when 21 of the Luftwaffe's much-vaunted Bf 110s attacked. There followed a terrific air battle in which the Defiants, although devoid of any forward firing guns, proved vastly superior and fifteen twin-engine "Destroyers," plus a stray Junkers Ju 87 that had somehow become mixed up in the mêlée, crashed to the ground.

Light Losses

When the squadron landed back at Manston, Kent, Sqdn. Ldr. P. Hunter, the commanding officer, discovered that only one aircraft—that of P.O. Kay with LAC Jones as air gunner—had been damaged. Jones baled out when the turret was hit by fire from a Bf 109. Despite extensive damage Kay flew his aircraft home and made a successful landing.

In the evening there was a second patrol and this time the squadron engaged 40 Ju 87s and three Ju 88s bombing Dunkirk. Eighteen of the dive bombers were accounted for, plus one Ju 88. This tremendous success brought a message of congratulations from the AOC No. 11 Group on the shooting down of more than 30 enemy aircraft without losing a single aircraft. One of the reasons given by Sqdn. Ldr. Hunter, in the official squadron records, for destroying such a large number of aircraft was that "the enemy mistook us for Hurricanes." If this is what happened then the Luftwaffe did not make the same mistake again.

This, in fact, proved to be the peak No. 264 Squadron reached as a day fighter unit—although official German records showed that on this day only fourteen aircraft were lost—and those who had predicted a great future for this turret fighter had their dreams shattered during the Battle of Britain for Defiant squadrons, particularly No. 264, took such a mauling from the Luftwaffe that they had to be withdrawn from the battle and relegated to the night fighter role.

The gallant pilots and air gunners who flew in Defiants during the Battle of Britain showed great heroism and fortitude against overwhelming odds.

The rapidity with which the Luftwaffe found an answer to the Defiant is illustrated by the fact that on May 31 five were destroyed. This was to prove the beginning of the end for the Defiant as a front-line day fighter.

Brainchild of the Bolton Paul design team headed by J. D. North, this aircraft was born at a time between the wars when views on fighter armament were undergoing radical changes. There were those in favour of the single-engine single-seat machine with a battery of wing guns who were later to be proved tactically correct, while others favoured the single-engine two-seat fighter with all its armament concentrated in a power operated turret such as the Defiant.

It failed as a day fighter . . . but this was due to no fault of the design team. No designer in the world could have produced a fighter handicapped by the weight and drag of a bulky turret which could match the agility and speed of other contemporary single-engine machines with more conventional armament.

But this was not the most serious drawback, however, for the biggest shortcoming undoubtedly lay in the division of responsibility between the pilot and air gunner. With no forward firing guns the pilot had to continually think of the gunner's likely line of fire and it was easy for an enemy fighter to creep up under the blind spot beneath the tail and deliver the knock out punch.

Although it possessed these drawbacks the Defiant, flown for the first time on August 11, 1937, was undoubtedly an excellent flying machine and had very few vices except for a tendency to swing

to port during take off. Otherwise pilots found it possessed excellent handling characteristics and as well as being pleasant to fly proved extremely sturdy under operational conditions.

Powered by a Rolls-Royce Merlin 111 twelve-cylinder Vee liquid cooled engine, the Defiant Mk. I entered RAF service with No. 264 Squadron in December, 1939. During the usual training period and working up at Martlesham, the Defiant was grounded owing to a number of minor faults, and also due to some malfunctioning of the hydraulics. But these were soon corrected. On March 20, 1940, the squadron had six aircraft ready for operational duties and next day these went to Wittering.

First Blood

On May 10 the squadron moved to Duxford and two days later gained their first "blood." "A" flight flew to Horsham St. Faith and after refuelling linked up with six Spitfires of "B" flight from No. 66 Squadron, and then flew direct to the Dutch coast to patrol an area near the Hague. There were two sections—Red and Yellow—with Sqdn. Ldr. Hunter and LAC King, P.O. Whitehouse and Sgt. Smalley, P.O. Young and LAC Johnson in Red section while Yellow section consisted of Flt. Lt. Cooke and Cpl. Lippett, P.O. Barwell and Sgt. Quinne, P.O. Whitley and LAC Turner. Whitley and Turner returned to base soon after take off with a fault.

Each section flew behind a Spitfire section and soon after commencing their patrol a Ju 88 was spotted. The bomber dropped a bomb near three destroyers and then tried to make its escape by diving low. Red section cut off its escape and an overtaking attack was started, each Defiant making a "cross over" attack in turn. The Ju 88 was repeatedly hit and smoke started pouring from both engines.

Seconds later it crashed in a field. Meanwhile Yellow section, accompanied by a section of Spitfires, spotted a Heinkel He 111 at 3,000 feet which promptly dived to ground level. While three Spitfires attacked from behind Flt. Lt. Cooke with Cpl. Lippett carried out a "cross over" attack from the starboard side. Smoke belched from the bomber's engines. P.O. Barwell and Sgt. Quinne were positioning themselves to make a similar attack from the port side when the enemy machine crashed in another field ending up against a hedge.

Next day was not to prove so successful—in fact it turned out to be a black day for the squadron as they lost five of the six aircraft in "B" flight. Linked up

6. with Spitfires from No. 66 Squadron, the Defiants of "B" flight hoped to emulate the achievements of "A" flight. Their task was to attack German troop transports along the Dutch coast but the patrol was a complete failure.

Over IJmuiden intense Dutch anti-aircraft fire caused the sections to turn about and later more flak, this time German, was met over Maassluis. Soon afterwards the Spitfires turned sharply inland diving from 6,000 feet on a number of enemy aircraft. The Defiants followed close behind and attacked some Ju 87s only to be pounced on by a large formation of Bf 109s. All, with the exception of P.O. Kay and LAC Jones were shot down! Flt. Lt. Skelton was killed but his gunner, P.O. Hatfield, managed to bale out and P.O. Thomas also baled out after his gunner LAC Bromley had been killed. P.O. Hatfield saw an aircraft explode and this was assumed to be that of P.O. Chandler with LAC McLeish. P.O. Kay landed at Knocke, refuelled, and then returned home to England.

The Defiants accounted for four Ju 87s and one Bf 109—but at an exceptionally high price. This was to prove a foretaste of what No. 264 and other Defiant squadrons were to experience during the Battle of Britain.

The squadron moved to Manston on May 23 and the following day a Bf 110 was shot down by Flt. Lt. Whitehouse and P.O. Scott on a patrol of the Dunkirk-Calais-Boulogne area. During the next few days the squadron maintained regular patrols over this area and on May 27 added two Bf 109s and three He 111s to their tally without loss. A day later, however, three of their aircraft were lost in a dog fight with 27 Bf 109s. The squadron claimed six destroyed. Flt. Lt. Whitehouse, P.O.s McLeod, Scott, and Hatfield, Sgt. Daisley, and LAC Revill did not return. At the end of the month the total of enemy machines claimed as "destroyed" was 65 for the loss of 14 Defiants.

BoB Readiness

During June and July they were brought up to full strength in readiness for the Battle of Britain and during this period Sqdn. Ldr. Hunter was awarded the DSO while Flt. Lt. Cooke received the DFC. Also the first night patrols were carried out from Kirton Lindsey, but it was not until August 15 that an enemy aircraft was engaged during one of these patrols.

P.O. Whitley on a routine patrol succeeded in intercepting a He 111 but, as he closed in, came under heavy fire. This did not deter him and he got close enough for Sgt. Turner to fire a number of short bursts before the bomber escaped under cloud cover. There was little further night action at this time and the squadron was still primarily a front line day fighter unit.

Clashes with fictitious He 113s were reported during August and one of these occasions was on August 24. At 0830 hours there was a routine patrol. Flt. Lt. Campbell Colquhoun had difficulty starting his engine and was late taking off. Visibility was not good and he sighted two aircraft which he assumed to be the number two and three aircraft of his section. He soon discovered that they were not when his Defiant received a cannon shell in the fuselage which ignited the Very cartridges. He took evasive action and returned to base where he reported being attacked by a number of He 113s."

Later the same day Manston was attacked by 20 Ju 88s escorted by a large number of Bf 109s.

Sqdn. Ldr. Garvin, P.O. Whitley and Sgt. Thorne each destroyed a Ju 88 while another was damaged by P.O. Knocker. P.O. Barwell shot down a fighter which he identified as an He 113. Three Defiants were lost in this action—including that of Sqdn. Ldr. Hunter who was last seen by the other pilots of Red section chasing a Ju 88 at full throttle.

At 15.40 hours Manston was again attacked, this time by a large formation of Ju 88s and He 111s, escorted by Bf 109s. Sqdn. Ldr. Garvin attacked the main formation and shot down two Ju 88s while P.O. Welsh destroyed a straggler in a "cross over" attack. He also managed to damage a Bf 109 which attacked him with two others. P.O. Young, separated from the main formation, found a solitary He 111 which he shot down in an overtaking attack and Flt. Lt. Banham and P.O. Goodall combined in damaging a Ju 88.

Among the squadron's casualties was P.O. Easkell who put up a terrific fight against half a dozen Bf 109s before being shot down. His air gunner, Sgt. Machin, died from the wounds he sustained in this action while Easkell was more lucky and lived to fight again.

There was more action for the squadron on August 26. Led by Flt. Lt. Banham they were ordered to intercept a large formation of Dornier Do 17s near Dover. The Defiants soon made contact and attacked from below only to find themselves set on by more than 50 Bf 109s! Flt. Lt. Banham was one of the first to be shot down. After destroying a Do 17 his aircraft was set on fire by an explosive shell. He rolled on his back and told his gunner to bale out and then baled out himself. He finished up in the Channel and remained in the water for over an hour and a half before being rescued.

P.O. Goodall was the next to receive the attention of the German fighter pilots but he successfully beat off an attack by some Bf 109s and then himself shot down a Do 17. His last glimpse of the bomber was a ball of fire rapidly losing height with a number of parachutes floating near to it. This was a tough day for all the squadron and even the most inexperienced fighter pilot soon became a hardened veteran. One such was P.O. Hughes who, in his first air engagement, distinguished himself by destroying two Do 17s.

Aircraft Hit

At the height of the battle Sgt. Thorne with Sgt. Barker as gunner destroyed two bombers but soon afterwards were themselves attacked by a Bf 109. Their aircraft was hit and developed oil and glycol leaks. Sgt. Thorne took evasive action and spun away hoping to make a crash landing somewhere near Herne Bay—but the German pilot was not prepared to let his prey escape and closed in for the kill. He scored numerous hits and it seemed as if the Defiant was doomed to a watery grave. But showing great determination Sgt. Thorne managed to keep his stricken machine in the air and succeeded in making a wheels up landing in a field. Just before the Defiant crashed Sgt. Barker fired his remaining rounds and had the satisfaction of seeing the Bf 109 crash. Luck was with the RAF crew for their aircraft finished a mass of twisted metal but neither sustained serious injuries.

Despite the fact that they continued to fight with great tenacity and showed outstanding courage against overwhelming odds the squadron's numbers slowly dwindled and at one time only had three serviceable aircraft. Although the RAF had discovered that the Defiant was unsuitable for day operations there were large numbers coming off the production line and these could not be wasted. So No. 264 along with No. 141 Squadron who had also fared none too well during the Battle of Britain, were assigned the night interception role.

Flame damper exhausts were fitted and the mid-crew perspex panels deleted. Both squadrons participated in the development of night fighting techniques and with the start of the Luftwaffe's night offensive against London were transferred to bases from which they could operate in the defence of London.

No. 307 Squadron, which had started to form as a day fighter unit in September, was the only new night fighter squadron with the Defiant operating at the start of the New Year. But later more Defiant night fighter squadrons came into being. These were Nos. 96, 151, 255, 256, 85, 125, 153, 409, 410, and 456.

Plenty Of Action

There was plenty of night action for No. 264 Squadron towards the end of 1940 and, although not the first squadron to score a confirmed victory during the night offensive, came very near to gaining this honour. It all began with a solitary searchlight probing the night sky. Suddenly its thin beam of light illuminated the distinctive shape of a twin-engined bomber, but seconds later the aircraft disappeared into the protective cover of the clouds. It was November 23, and the searchlight crew at Braintree, Essex, resigned themselves to the fact that yet another German bomber would reach London, adding more weight to the Luftwaffe's night 'blitz' of the capital.

Fate, however, determined that this bomber would not get through for unknown to the searchlight team the pilot of a Defiant had also caught a glimpse of the machine silhouetted against the night sky. P.O. Hughes recognised the aircraft as a He 111 and, after alerting Sgt. Gash in the gun turret, chased after the bomber at full throttle.

Slowly the Defiant crept up on its prey and soon P.O. Hughes had his machine in a position that enabled Sgt. Gash to fire a two seconds burst which destroyed one of the He 111's engines. Hughes closed in for the kill. At this moment, however, the night fighter's gun turret jammed and Sgt. Gash was unable to either rotate or elevate his guns. Then, to make the situation even worse, three searchlights mistook the dark outline of the Defiant for a raider and focused their beams on it. Undeterred P.O. Hughes pressed home the attack. He instructed his gunner to keep firing while he manoeuvred the Defiant into a position where the bullets would hit.

This almost resulted in a collision as the RAF night fighter was only a matter of feet away from the He 111 on several occasions. Although the enemy aircraft evaded the continuous stream of fire it was forced off course and slowly dropped lower and lower. Finally it turned for the coast with the Defiant in pursuit. Elated at having achieved so much under such difficult conditions P.O.

Hughes shadowed the bomber to the coast and then turned for home base at Kochford as he was low on fuel.

His last sight of the He 111 left no doubt in his mind that it would crash into the sea, but as he was unable to furnish positive proof of its destruction he did not claim it as destroyed. This pursuit later led to P.O. Hughes being awarded the DFC while Sgt. Gash received the DFM.

The first confirmed night victory by a Defiant came a month later when, on December 22, a No. 141 Squadron machine piloted by P.O. Benson with P.O. Blain as air gunner, attacked a He 111 and after firing three bursts from 75 yards had the satisfaction of seeing it crash in flames into the sea off Beachy Head, Sussex.

It was not long before No. 307 (Polish) Squadron earned themselves a great reputation as a night fighting unit. The squadron's first confirmed "kill" came on April 12, 1941, when a Defiant flown by Sgt. Jankowiak with Sgt. Lipinski as gunner shot down a He 111. Having taken off from Colerne they intercepted a He 111 at 13,500 feet. Sgt. Lipinski opened fire into the nose of the enemy bomber from a distance of 40 yards firing one short burst then a long one. He saw several small explosions and pieces began to fall off the aircraft. It dived steeply and disappeared into cloud. Several minutes after the combat the Observer Corps reported a crashed He 111.

Many Hits

On April 16 F.O. Lewandowski with Sgt. Zakrocki, on patrol at 12,000 feet, spotted a He 111 about 300 yards ahead and 150 feet below, flying in the same direction. Sgt. Zakrocki opened fire from about 50 yards and 75 feet below and the bomber immediately returned the fire, but did not hit the night fighter. The Defiant scored many hits and the German machine dropped to 5,000 feet with the Defiant sticking to it and firing continuously, first from port and then from starboard. Finally, having exhausted all its ammunition, the night fighter broke off the action, leaving the bomber plunging towards the ground with smoke pouring from its port engine.

In the autumn of 1941 radar equipped Defiant 1As began to appear. No. 264 Squadron being the first to employ these operationally. The Defiant 1A was equipped with the early A.I Mk. 4 radar with "Arrow head" type aerial on the starboard wing and "H" type aerals on the fuselage sides. The Mk. 1A was also delivered to Nos. 96, 125, 256, and 410 Squadrons.

Although the Defiant failed by day and was by no means a brilliant night fighting machine compared with the Beaufighter and Mosquito it filled a vital gap in Britain's defences. Unlike the Spitfire and Hurricane of Battle of Britain fame, the Defiant never became a household name yet in its own way achieved far more than most experts ever envisaged, for this Bolton Paul machine was as outdated as the biplane at the start of hostilities.

Of those who flew this unusual fighter it will perhaps, suffice to say that they deservedly gained themselves an honoured place in RAF history due to sheer guts, determination and heroism. ●

NEW KIT!...

STINSON

SR-10 RELIANT

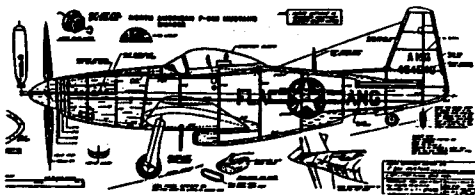
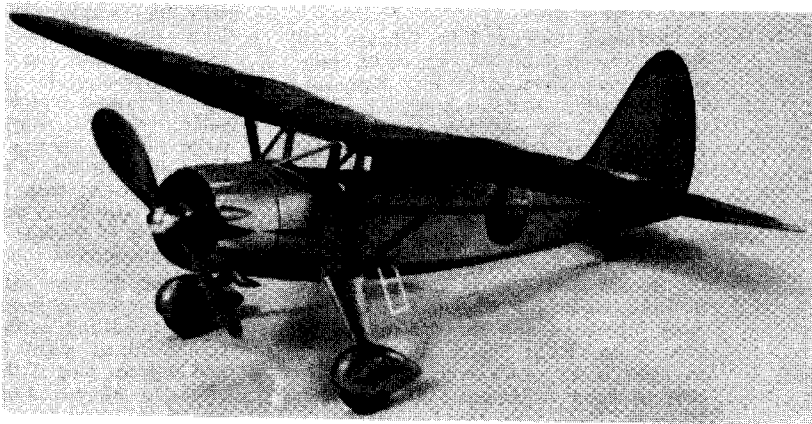
- PRINTED PLANS
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■ Hughes H-1.....20 in.	■ P-80B Shooting Star.....19 in.
■ Knight Twister.....13 in.	■ P-40D Kittyhawk.....28 in.
■ Lockheed Altair.....37 in.	■ Spiteful XIV.....26 in.
■ P-80B Shooting Star.....24 in.	■ Curtiss R3C-3 Racer.....8 in.
■ F-86D Sabre.....23 in.	■ Funk B-85C.....26 in.

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• • Blown Motors • •

Mumbo Jumbo #77 from the pen of the Glue Guru

Salutations, disciples! Today we shall ponder some of the reasons for that great curse upon rubber modelers - the blown motor.

Many of us have tried switching rubber brands, using novel elixers sold as rubber lubes, the various recommended pre-winding stretching strategies, an expensive ball bearing winding rig supposedly sensitive to imminent failure - only to continue bursting motors at the usual rate. Is there any palliative, or is all truly bleak?

Having blown my share of motors, I think some few steps can be taken, but much rests in the hands of the gods. Why? The essential problem is one of poor quality control, inevitable in a product too cheap to afford much inspection.

Most of my rubber has been supplied by SIG. Rumor has it that this brand, though less energetic than some, is more reliable, and reliability is far more important in scale than raw power. Over the years I've been through many pounds of the stuff and have learned that the buyer had better inspect his brand new rubber for such blights as thin spots and odd sized thickness. Thin spots are in the form of a hollowed out depression, rather like a moon crater. The dip may run to only a few thousandths of an inch, but any local weak spot is an explosion waiting to happen. Unfortunately these can't be seen readily, though they are easily felt with your fingers as you apply lube. Finding a dip at that time is mighty annoying, for there is no cure, other than throwing out the motor.

Thickness variation, once recognized, can be offset. For example, what is sold as 1/32 thick rubber, or .032, can in reality be as thick as .040. The thicker stuff will give more torque - but fewer turns. If you insist upon dialing your usual .032 based number of turns into an .040 rubber strand motor, you may well have an explosion. Compensation is easy, once you know the true thickness - but it does require measurement. Once known, you can interpolate between 1/32 and 1 mm. on the max turns chart of your choice.

Those charts are based upon 95% of the turns required to produce an explosion. As our rubber is so irregular, 5% is far too meager a safety factor. Use a much lower % turns to supply some measure of safety. How low a percent is that? For a long time I've used 75% of the 95%. This obviously cuts performance but it does seem to help. Recently a British free flight champ (Aeromodeller), referring to Tan II rubber, said that even two flights at 80% produced visible degradation - the same is certainly true of SIG. What does impending trauma look like, and how do you find it? Grab one strand and stretch a local portion to about 2 or 3 times its initial length. Look closely at the edge of the strand. Damage will be seen in the form of tiny hooks. These are really small breaks. In time, given repeated loading, one of the small rips will extend across the strip width and it's all over.

What is to be done? There is no way to prevent all explosions - I once had a carefully inspected motor let go at 25% max turns, a most improbable event yet it happened anyway. What can be done is to reduce explosion frequency to something acceptable by a process of self-imposed quality control. Inspect that motor carefully as you lube it. Tie a good square knot to join the strands. If you suspect tearing - throw it out. After 4 flights at 75% of 95% turns, throw it out. The type of lube (glycerine, castor oil, silicone grease) is unimportant; what matters is a thorough coating of the motor. Work the entire motor through your fingers at least twice to assure a good coating. If all fails, become a philosopher. As it is written - those who live by rubber power shall die by rubber power.

COVERING WET WITH DOMESTIC TISSUE:

WITH (UG!) A LITTLE HELP FROM THE R.C. CROWD.

By Glenn Bearry

Well, here it is folks! A little contribution from your Sq. leader...finally! I can't take full credit for the following method, as Charlie Hill of the Houston gang has been using this sort of covering tech. for some time now. I don't know if he's ever used it for domestic tissue...but I tell you, it works!

Domestic tissue has gotten a bad rap over the years, but it has several advantages over Jap tissue. These include much cheaper prices, larger sheets, greater strength when doped (just ask Joe Joseph) and, probably most importantly, it comes in a wide range of colors. Weight seems to be only slightly more than that of Jap tissue. I've seen Dave Collen's domestic covered peanuts and Joe's Curtiss Triplane constantly win with super flights. Domestic tissue has one major disadvantage though...it has very little wet strength for covering, leaving the modeler with the task of using several small pieces for compound surfaces. Here lies the problem.

Even with this lack of strength, I've found that domestic tissue has a greater ability than Jap tissue to cover compound curves, if care is taken. The main concern lies in attaching the wet tissue to the framework, as traditional ways of covering fall short. If you use the dope method, the wet tissue can't take the stress of being rubbed onto the frame. If you use the white glue method, the tissue tends to pull away from the framework as the tissue dries, for the wood remains damp. Re-wetting the tissue to allow the wood to dry first seems to slowly disintegrate the tissue, resulting in possible hairline tears forming as it dries.

I reasoned that what was needed was a way to quickly attach the tissue firmly in place, with a minimal amount of stress on the tissue. Charlie Hill's method of attachment provided the answer. A note of warning...this is an advanced technique that will probably take some practice to learn. It took me several pieces of torn tissue to come up with the following assumptions.

In the R.C. world most of the covering is of the iron on type. The heat sensitive glue is found on the covering itself, or is put on the frame with a brush. It is the latter method which interests us, as it can be used with tissue as well. One last note on domestic tissue. Some you may find in the stores is of no use. It utterly falls apart when moistened. Also, some has very soft weaving, forcing a heavy coat of dope to seal the grain. I've found Hallmark tissue (maker of the greeting cards) found at Hallmark stores to be some of the best around. I urge testing of your tissue on a test frame of balsa before buying a large amount of one color.

First, protect any area already covered or, any area that you want to remain uncovered, with a thin 1/8" strip of low tack masking tape. These tapes include drafting tape, "Scotch 2070 Safe-Release Tape" or "Manco Blue Masking Tape" (the latter two are found at hardware stores). Leave at least a 1/32" to

3/32" portion of the wood exposed. You now apply the adhesive to the framework with a small brush, and also to the properly placed thin strip(s) of protective low tack tape. The brand of covering adhesive I used was Sig's "Stix-it", which is a dope type product. Other brands, including water based ones, are also available. I used two parts "Stix-it" thinned with one part M.E.K. (one or two coats are usually enough, with no sanding required). After the glue has dried to the touch, the tissue, cut 1/2 to 1 inch oversize, is placed over the framework of the area to be covered. A wide camel hair brush is then used to saturate the tissue with water.

Now here is the critical point...carefully lift, and lightly "pull" the tissue smooth over the compound curves (If you pull and "slide" the tissue over the wood, it may tear.). Once the tissue is in place and wrinkle free, a small sealing iron with a non-stick coating (approx. \$20.00 from the R.C. hobby shop) set on medium heat is then passed over the framework, using only light smooth pressure with its edge. Different irons have different settings, so you may have to experiment to find the best temperature.

Presto! Instant strong adhesion! If you notice any wrinkles forming as the tissue tightens, simply press the hot iron's tip onto the framework nearest the wrinkles. Using the iron like a finger, stretch the paper wrinkle free. As soon as the iron is lifted off, the tissue becomes re-attached. After the tissue has dried, the section is given one coat of thinned dope. This sets the tissue's smoothness, even if part of the framework doesn't adhere to the tissue.

The excess tissue is then trimmed off with a new double edge razor blade broken in half, using the edge of the thin low-tack tape stripe as a guide. The tape with the excess tissue stuck to it is gently peeled back over itself, leaving the second half of the balsa part or stringer ready for the covering adhesive. The slightly raised edge of tissue is smoothed down with a moist finger, and another strip of the low tack tape is placed along the newly covered section for protection. The edge of the tissue on the newly covered section is used as a guide for placing the next protective tape strip. This helps prevent tissue overlap which can cause lines of a darker color running the length of the model.

When the covering is complete, another coat or two of thinned dope is applied to the total structure. I've covered a round tapered fuselage (WWII style) with 4 sections of domestic tissue, but the adventurous may be able to do it with less.

Glenn is the leader of FAC Squadron #26, The Alamo Escadrille.

WANTED: Three views and/or other scale data for the following aircraft, 1934 Mureaux C-1, Spartan Cabin, Curtiss Monoplane, Bristol 138A, Fleet Trainer Biplane, 1924 Handley-Page Sayres Monoplane, Marcoux Bromberg Jackrabbit AKA Keith-Rider R-5 and American Eaglet Parasol. Frank Hirleman, Box 268, Lincoln City, Or. 97367-0268.

NATIONAL MASS-LAUNCH RESULTS

For the second time, Frank Rowsome is the National Mass-Launch champion!! Our congratulations go to Frank for his superb flight! His thoughtful letter conveyed his enthusiasm quite well for as he termed it, "Wow! That flight(184 seconds) is what it is all about!" Truly it is, for it is some achievement to be able to pull off a Max + flight when necessary, and Frank did! Nice flying, Frank. Can he make it three in a row? We'll have to wait till next year to find out!

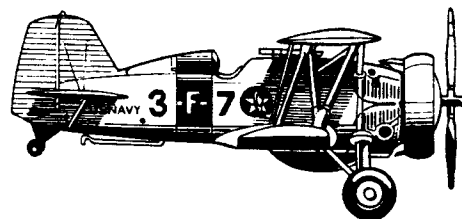
Speaking of next year, it may possibly be a different ball-game as I plan to invite the European FAC flyers to participate, making the event an InterNational Mass-Launch! If the starting/launch time was based on 12:00 EST that would bring in the English and French @ 5:00 and 6:00 their time and would still allow our West coast friends to fly at 9:00 am PST. That will be a unique achievement for us all to be on the same "page" at the same "moment" !!

Thank you all who wrote me to express their gratitude for this event. I must say this happening is not done to promote myself or the local SC FAC group, but rather to provide a neat way for us all to enjoy flying Free-Flight Scale models under the FAC Banner. Long live FAC!

Thanks for flying with us,

Best Regards,

David G. Smith



NAME	SECS.	A/C	TIME	ST					
1. Frank Rowsome	184	Farman 190	4:00 EST	MD	19. David Barfield	30	P-51	4:00 EST	CA
2. David Franks	110	Gadfly	4:00 EST	VA	19. Gary Baughman	30	Lacey	4:00 EST	GA
3. Rich Miller	95	Cessna C-37	4:00 EST	PA	20. Steve Drabick	28	Tailwind	4:00 EST	PA
4. Gordon Roberts	69	Fike	4:00 EST	PA	21. Ronald Carr	27	Stinson L5	3:00 CT	MO
5. Jason Webb	65	Gadfly	4:00 EST	SC	21. Edward McQuaid	27	Comper Swift	4:00 EST	PA
6. Rick Hawley	60	Oriole	4:00 EST	SC	22. Steve McKeown	23	Monocoupe	4:00 EST	NY
7. Stu Weckerly	51	Stout 2AT	4:00 EST	PA	23. Vic Roberts	22	Rubber Stick	1:00 PST	CA
8. Doc Martin	50	Flyabout	4:00 EST	FL	24. Jake Larson	21	Chester Jeep	4:00 EST	FL
9. Bert Phillips	48	Monocoupe	4:00 EST	MD	25. Don Chaputa	20	Lacey	4:00 EST	PA
10. David Smith	47	RE 2005	4:00 EST	SC	26. Lin Riechel	15	Monocoupe	4:00 EST	MD
11. Don Snull	46	Mureaux C-1	4:00 EST	MD	26. Earl VanGorder	15	Tiger Moth	4:00 EST	NY
12. Frank Hirlman	45	Avenger	1:00 PST	OR	27. George Benson	13	Cessna C-37	1:00 PST	CA
13. Tom Savage	44	Found	4:00 EST	SC	28. Alfred McKeown	12	SE5-A	4:00 EST	NY
14. Tony Peters	42	Bell X-1	4:00 EST	PA	29. George Nunez	9	Zeke	4:00 EST	FL
15. John Lewars	41	Vagabon	4:00 EST	PA	30. Carl Hedley	8	Stinson 125	4:00 EST	FL
16. Bob Lundberg	38	Armstrong 'Ape'	4:00 EST	PA	30. Bill Landrum	8	Bird Dog	4:00 EST	SC
17. Ross Mayo	35	Corben Super Ace	4:00 EST	PA	31. Jonathan Nunez	7	Curtiss P-40	4:00 EST	FL
17. Stew Meyers	35	Vega	4:00 EST	MD	32. Fred Komlosy	5	Curtiss Falcon	4:00 EST	FL
18. John Houck	34	Bell XF2L	4:00 EST	PA					

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No. American P-51B Mustang	18 1/2" span
Hawker Hurricane I	20" span
Gee Bee Model "E"	18 7/8" span

WHAT COLOR WAS IT?

Part 14. By Dave Stott.

In this part we will be looking at some civilianised military jobs as well as the those born civil airplanes. All of the color schemes presented are tied to a registration number.

AERONCA: L3B NC46184 Blue and yellow
 CULVER: 1942 LFA Yellow with Stinson green trim.
 DEPERDUSSIN: 1913 Schneider, Fuselage blk. Blue-grey flt. surf. ale blue spinner. Nat wood struts and floats. White race #19 on wing & fuselage. White logo with black letters on rudder.
 FAIRCHILD: Super 71 on floats. CF-AUJ All silver, black registration and black rubber tips on floats.
Model 71 with triangular aft fuselage section, and on floats. All white with black regist. and floats below water line. Registered 1654. (No "NC" was in use at this time.)
FC-1 OX-5 engine. Photo in U.S.Civil A/C., Vol.1, Juptner. All white with black "FAIRCHILD" across wing top and bottom as well as both sides of triangular section fuselage. Black "12" both sides of nose. No registration in use at this time.
FC-2W P&W Wasp. NX-5501 "City of New York" round the world flyer. Yellow lettering on black fuselage and fin. "Fairchild" & logo on fin were exception, being white. American flag on fuselage and unknown design on fuselage near L.G. strut. Yellow wing and stab. L.G. and other struts black. Photo in U.S. Civil A/C, Vol. 1, Juptner. Wheels also black.
FC-2W2 P&W Wasp. NX8006 in red letters with white outline on rudder. "BYRD ANTARCTIC EXPEDITION" same way on fuselage. "STARS" in red, "AND" in white, STRIPES" in insignia blue with white outlines on each side of nose. "FAIRCHILD" in white on fin. "NX 8006 in black on wing. Wing, stab & top of fuselage from wing to tail is red. Rest of fuselage, fin & rudder, wheels and all struts are medium blue. Flat black anti glare panel on top of nose windshield to engine. Photo U.S.Civil A/C, Vol 1, Juptner.
KR-21 7 cyl. Warner. X576E Silver wings with black registration. Fuselage top & nose, stab., fin & rudder are dark blue. Rest of fuselage pale blue with white separation line. White registration and "CHALLENGER" logo on rudder. All struts and wheels are dark blue. Photo U.S.Civil A/C, Vol 3, Juptner.
Model 24 Ranger engine. All red, white trim, Blk. ltrs. NC16817
Model 24 145 Warner. NC20603 Yellow & blue.
PT-19A NC51835 Maroon fuselage, yellow wings and stab.
M-62A NC52428 Red and black.
 HOWARD: DGA 15 NC52964 All white with red trim and letters.
DGA 15 NC66289 Deep green with cream trim.
DGA 15 NC66284 Deep blue with cream trim.
DGA 15 NC66288 Maroon with cream trim;
 MONOCOUPÉ: 1941 Franklin engine (Flat) NC38907 Lemon yellow, blue trim. Wide tread L.G. with wheel pants.
 NOORDUYN: Norseman. NC49663 & NC48993. Both silver and black.
 STINSON: SR-10 NC17114 Two tone blue, light and medium shades.
SR-8B NC16161 Pearl grey and red.
 REARWIN: Sportster, 8500. 85 HP LeBlond NC15896. Bright red.
 WACO: Model 125 Ryan-Siemens radial. NC4711. Yellow and black, then repainted yellow and blue.
DSO Hiss. Green fuselage, yellow wings. NC4045.

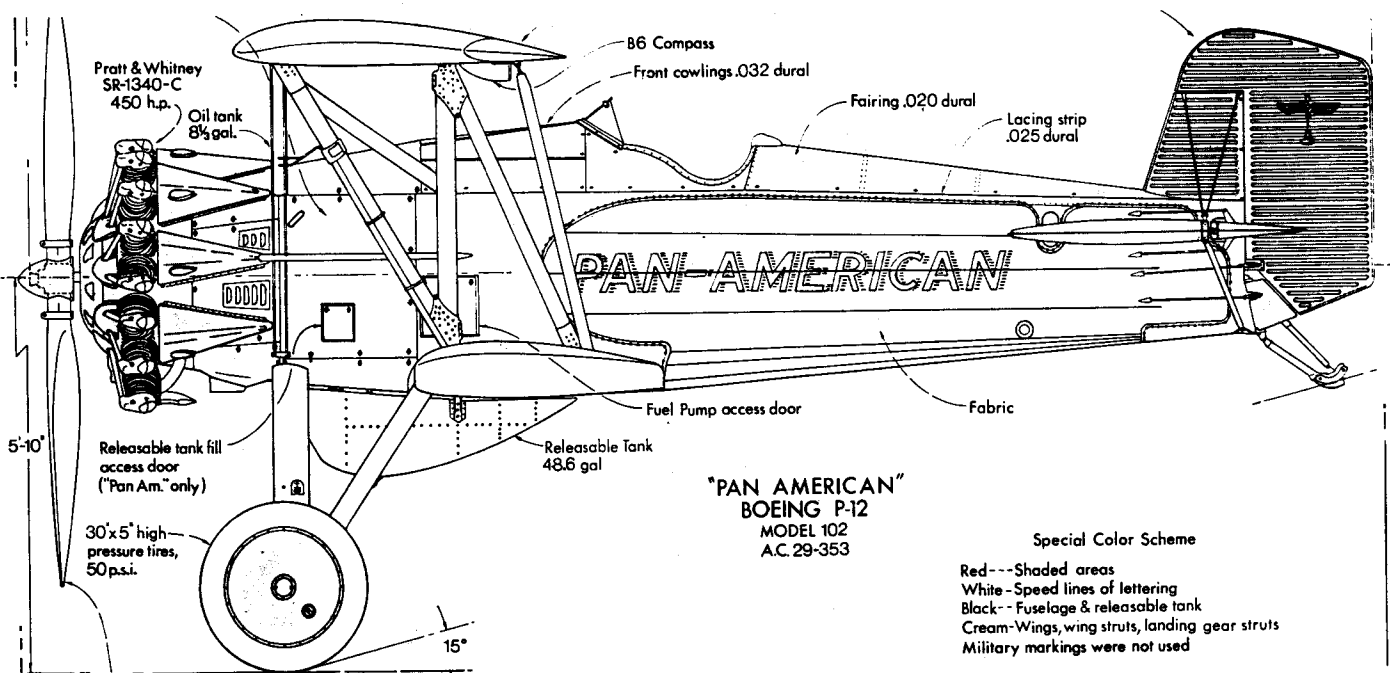
What Color Was It?, cont'd.

In Juptner's "U.S. Civil Aircraft", Vol. 1. the factory color scheme for the model DSO was a two tone green fuselage with silver wings. Later some were available in blue and silver and maroon and silver.

In Vol. 6 of the Juptner series there is a photo of two Rearwin Sportsters, model 8500 in civil paint with factory stripes yet bearing the national insignia of Siam on the rudder and wings. They were exported to that country to be used as trainers.

A Bellanca monoplane was exhibited at the American Airshow at Convention Hall in Detroit April 6 thru 14, 1929. It belonged to movie actress, Ann Harding. It was two tone green with Green trim. It was probably a CH-300 Pacemaker, which received it's ATC in May of that year. No "N" No. avail.

Looks like ventriloquist Edgar **Bergen** traded in his Stinson 105 for something hotter. Loading "Charlie" into his Vultee BT-13 post-war time. Ship looks polished natural aluminum in original photo. No "N" No. avail.



What Color Was It?, part 14, cont'd.

Clubster Bob Clemens has come up with some reliable color info on the Heath Center Wings. He got the info right from a chap who made propellers for them at the Heath factory in Michigan, Roger Lorenzen. (And who has not heard of a Lorenzen Propeller that was fitted to so many American light planes.)

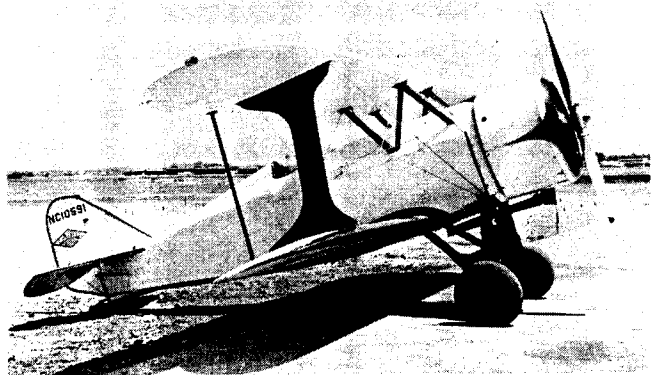
Mr. Lorenzen says that three Center Wings flew from the Heath plant at Niles, Michigan, to land on one of the streets at the Chicago World's Fair in 1933. They had blue fuselages and silver wings and stab. These were the official colors of the Fair. In some photos, glare makes it appear that the top of the fuselages were some very light color. Mr. Lorenzen says not to be fooled. It is simply glare. (Lesson to be learned here, eh lads?) The three Center Wings bore registration numbers NC12851, NC12881, & NC12882. Mr. Lorenzen added that all the other Center Wings built at the factory were also blue & silver as the 3 World's Fair jobs. There may have been other kit-built Center Wings with other coloring, of course. There were at least 5 Center Wings that were factory-built. The three World's Fair ships had unique markings and lettering on fuselage and rudder. These were the early (1933) versions with a taller vertical fin than the later models.

Clubsters Vance Gilbert and Bill Hannan have been busy running down the color schemes of T. Claude Ryan's conversion of ex-military Standard J-1 trainers into cabin jobs to be put to work on Ryan Airlines in the early 1920s. The cabins in these early Hiss jobs simply had open rectangular ports with no window glazing. Ryan converted 3 trainers to airliners, the first with a standard width fuselage, the next with the fuselage 6 inches wider, and the third widened even more with a 3-bay wing and side by side cockpit. This third ship was named "Palomar". An interesting side light is that the widened versions were 10 mph faster than the standard width ship!

While they were about it, Bill and Vance got the colors of the Douglas "Cloudster" that also flew the Ryan Airlines routes. All these ships operated before regulations and carried no registrations,

RYAN: Hisso Standard J-1 converted to cabin airliner. Bright blue upper fuselage with clear varnished, or doped on the rest of the A/C. The clear doped areas look like they may have been doped cream, or yellow later on.

DOUGLAS: Cloudster Deep, bright blue upper fuselage, lettering, and number "9" on rudder. Remainder of A/C was silver.



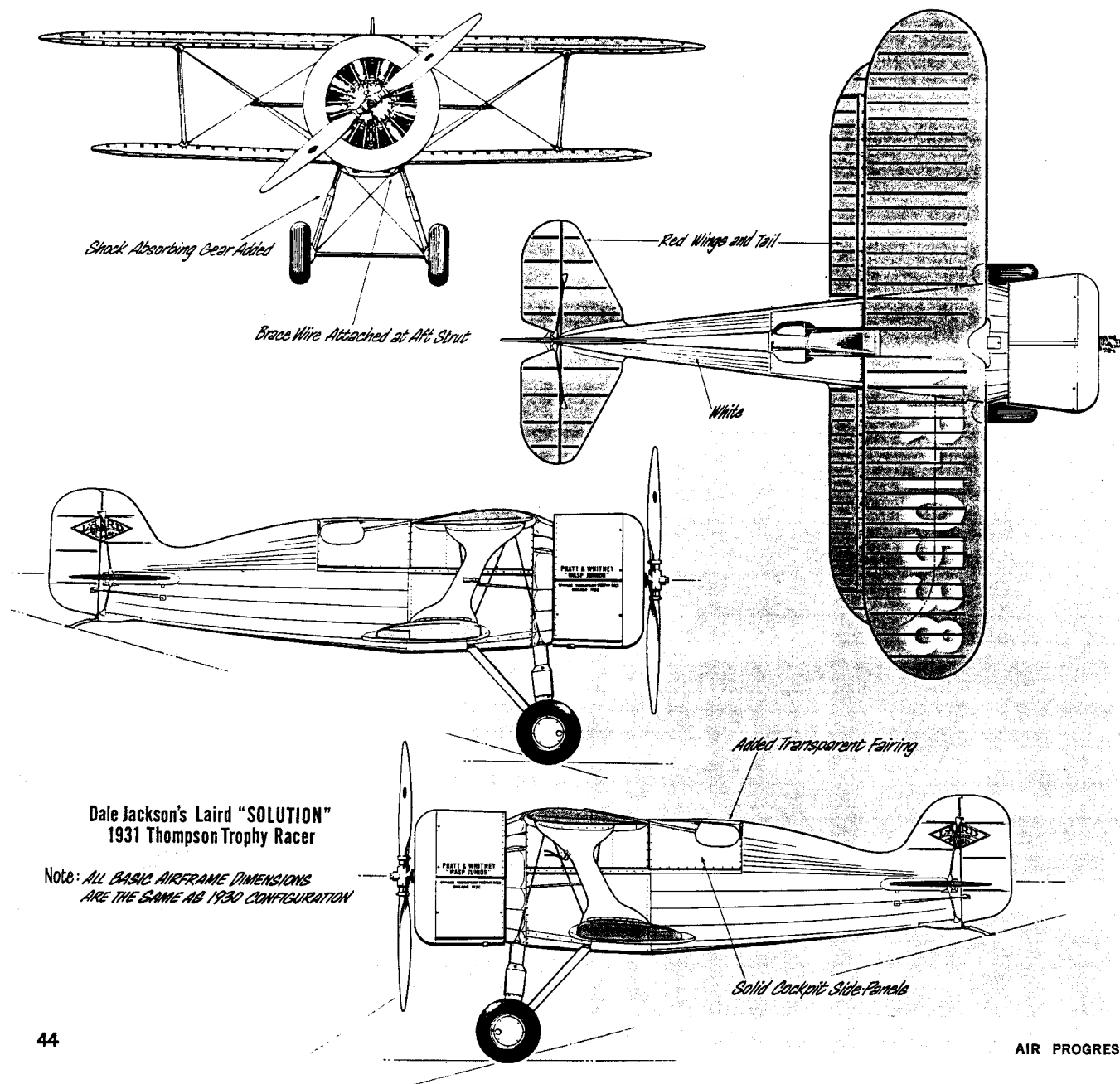
LC-RW 300 Speedwing Special (s/n 180) with 300-hp Pratt & Whitney Wasp Jr. Cost about \$14,500. White and Irish green.

Most of Matty Laird's airplanes were black and gold. One of the exceptions is shown (albeit, not too clearly) on the right. This clip is from the June 1967 issue of Air Progress magazine.

On another page you will see Dale Jackson's White and red Laird Solution as raced in the 1931 Thompson. Note the shock strut added to the landing gear. 1930 T.T. winner had stiff L.G. and Black and gold paint scheme.

ADDENDUM.

AERONCA: L-3 Tandem, ex-military. NC47426 Blue and yellow.



44

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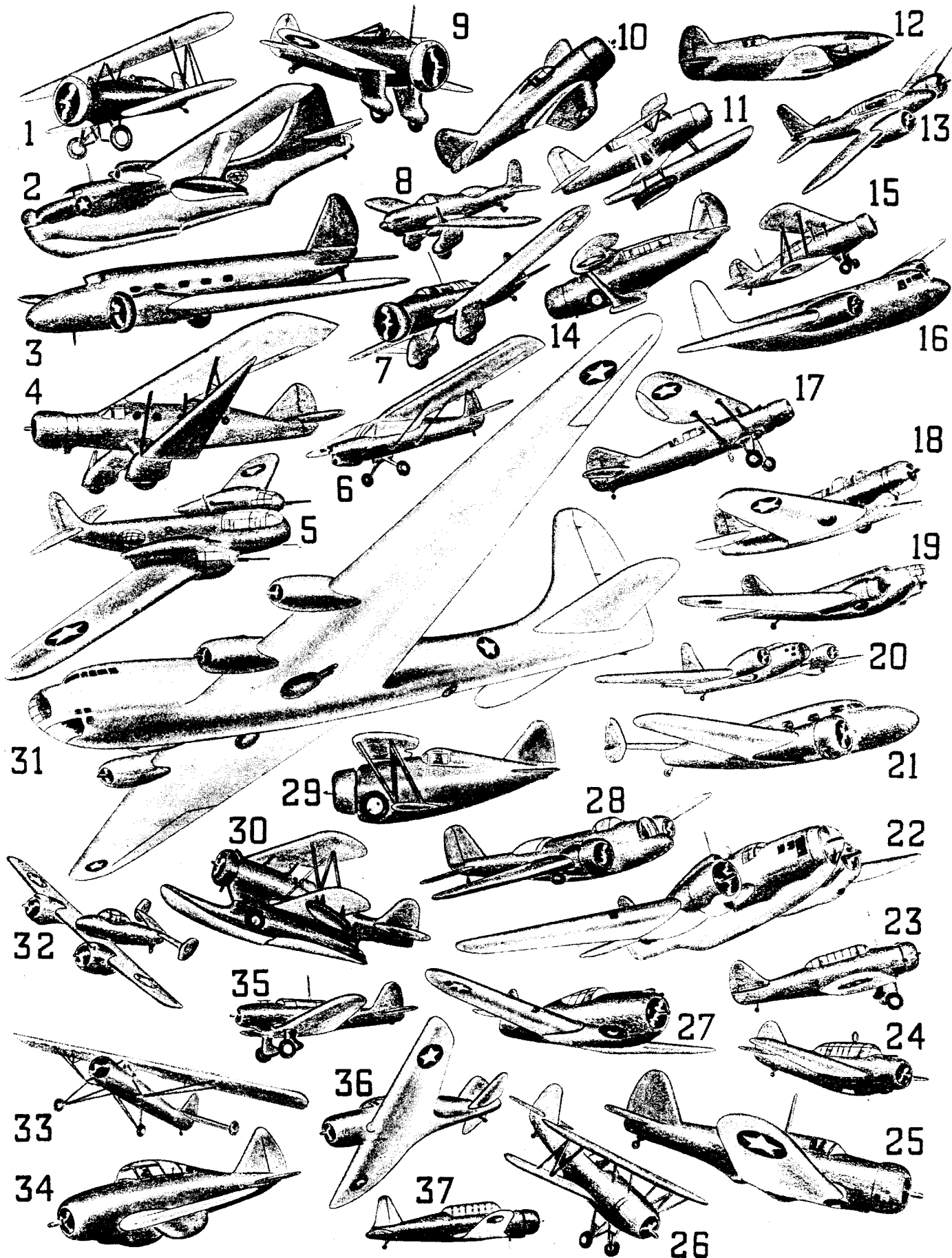
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15.



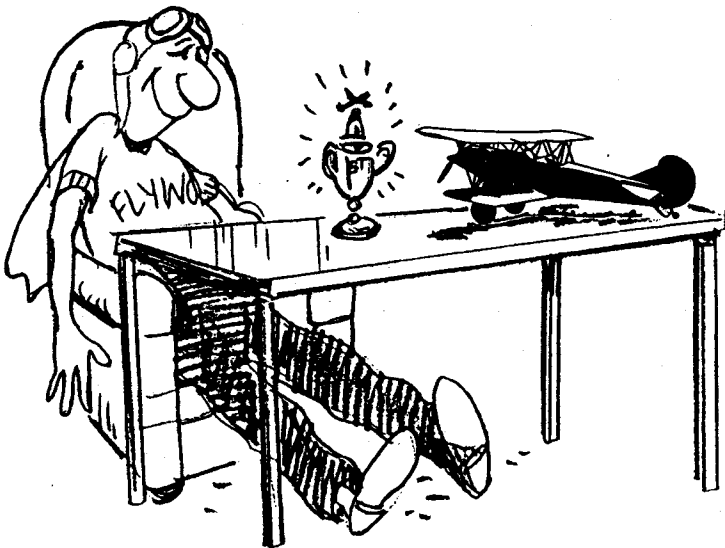
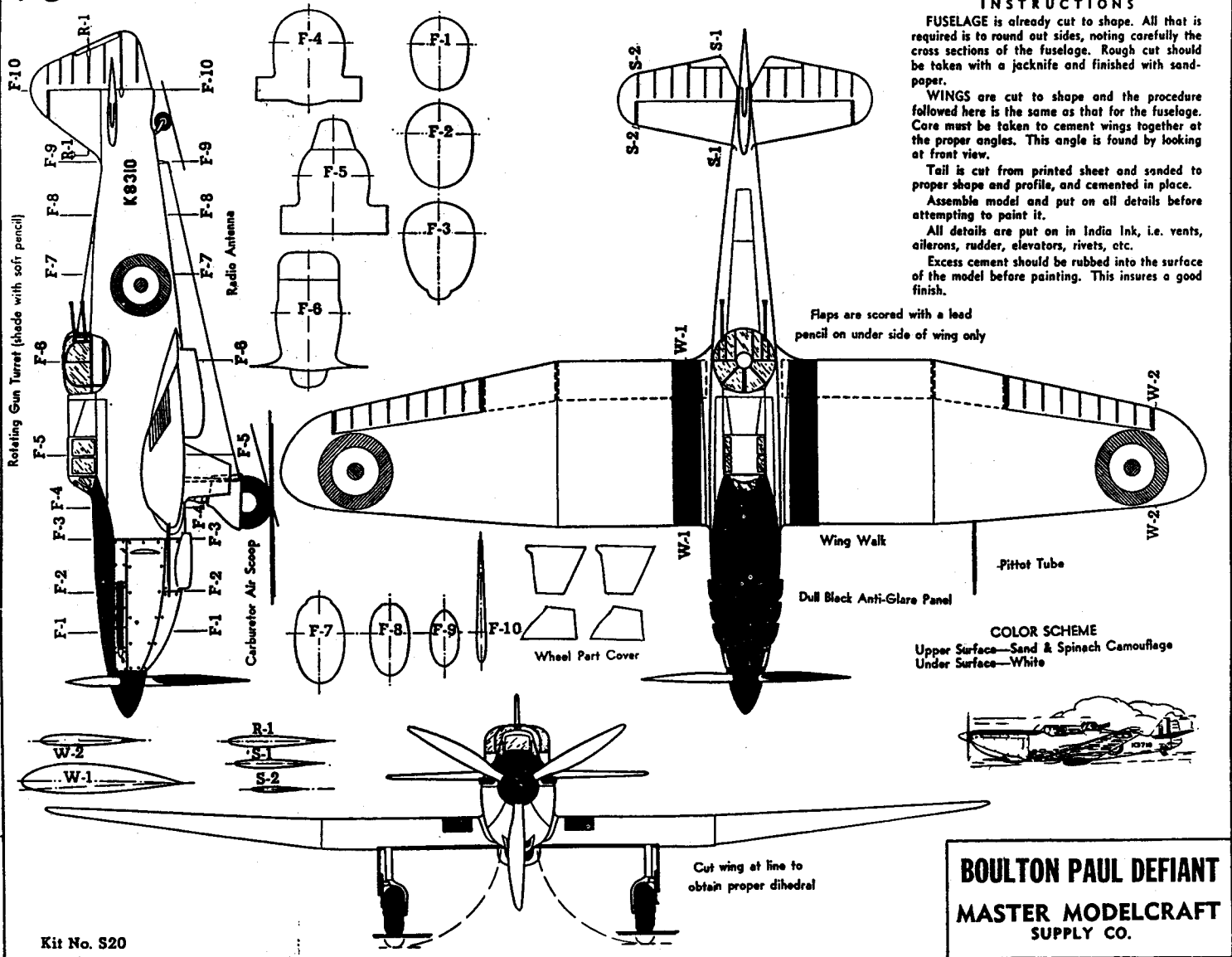


PHOTO PAGE Top left;

Zeppelin-Lindau CS-1, plan and photo sent in by Rick Dort.
Lozenge pattern seems to be three shades of blue, sides and
bottom of fuselage are light blue. Plan in this issue.

Top right; Roy Wilson's photo of his Sig kit Mr. Mulligan.

Middle left; Miles Mohawk and Megan McGowan. Beautiful!

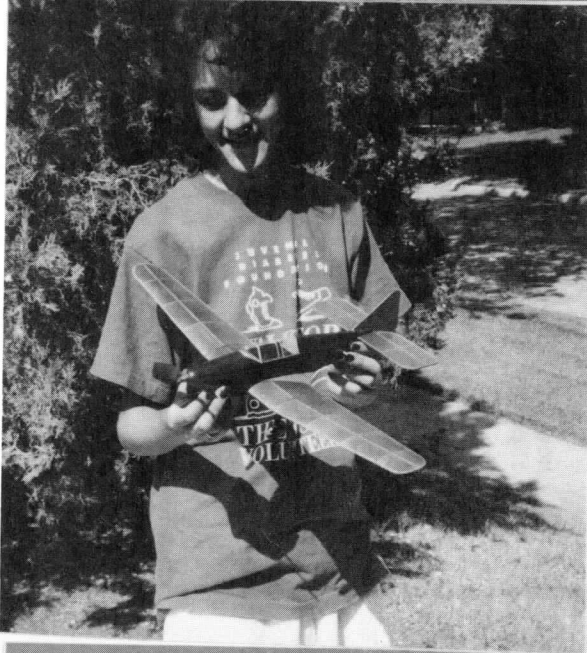
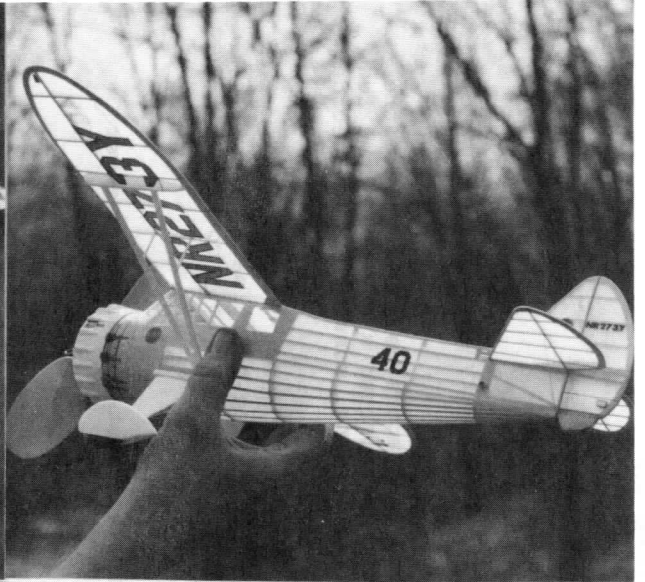
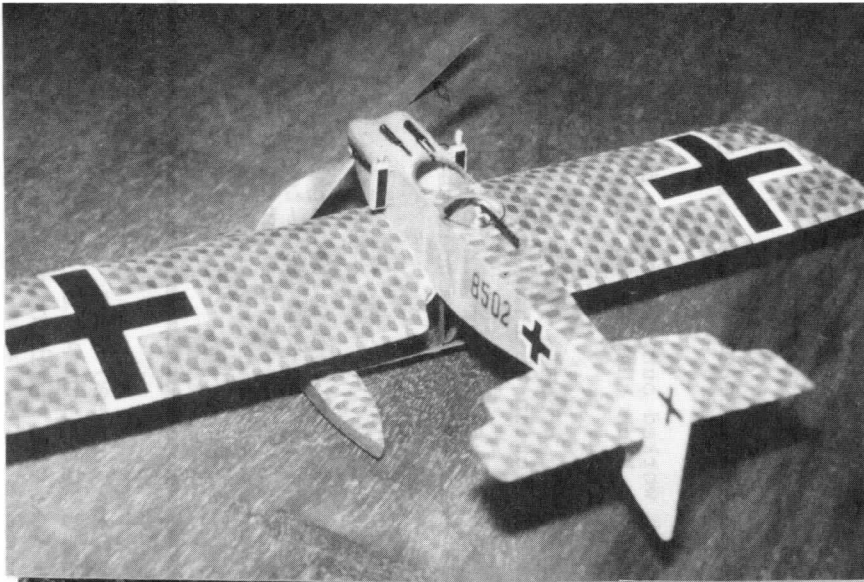
Middle right; One more Shot of Phil Cox and hid Waco "D" built from a Pres Bruning plan which is still available from GHQ for \$5.00 postpaid. Photo by Fred Wunsche.

Bottom left; Blohm/Voss BV-141 by Mel Roth. Model built from Al Lidberg plans, a GREAT flyer! Photo by Wunsche.

Bottom right; Neat looking model of the Douglas YO-43 by George Lewis from a Golden Age Reproductions kit. Photo by Fred Wunsche.

WANTED: The actual colors of the Hall Cicada Racer. John Oian, 3636 N. 1st Street #126, Fresno, Ca. 93726.

WANTED: A plan for the Burrows R-5 Racer. Scot Dobberfuhl, Bilkent University, Faculty of Humanities & Letters, 06533 Bilkent, Ankara, Turkey.



POSTAL CONTEST---FINAL STANDINGS

GOLDEN AGE CIVIL

Pilot	Plane	Time
1. Bill Schmidt	Aeronca TC	1631 sec.
2. Tom Hallman	Nicholas Beazley	263 "
3. Tom Hallman	Loose Special	228 "
4. Ron Hummel	Howard DGA-8	214 "
5. Barrie Taylor	Waco SRE	188 "
6. Dave Linstrom	DH Puss Moth	185 "
7. Ron Hummel	Farman 400	172 "
8. Tom Hallman	Gadfly	171 "
9. Nick Peppiatt	Rearwin Speedster	144 "
10. Doc Martin	Dornier Komet	134 "
11. Dave Stott	Aeroneer	127 "
12. Bob Isaacks	Rearwin Speedster	118 "
13. Doc Martin	Mechanics Flyabout	104 "
14. Frank Hirleman	American Eaglet	96 "
15. Juanita Reichel	Piper J-3	77 "
16. Les Burdsal	Fairchild 24	65 "
17. Frank Hirleman	Keane Ace	62 "
18. George Nunez, Jr.	Gipsy Moth (floats)	61 "
19. Darold Wilken	Leopard Moth	45 "
20. Steve McKeown	DH Puss Moth	41 "
21. Jonathon Nunez	Bellanca Skyrocket	39 "
22. Walt Leonhardt	Mouboussin	36 "
23. Ed McQuaid	Comper Swift	35 "
24. George Nunez, Sr.	Ryan ST (floats)	30 "
25. George Nunez, Sr.	Stinson SR-5	30 "
26. Chris McKeown	Cessna Airmaster	26 "

GOLDEN AGE MILITARY

Pilot	Plane	Time
1. Jim Miller	Martin MO-1	582 sec.
2. Dave Stott	Ryan Dragonfly	160 "
3. Bob Isaacks	Heinkel 100-D	157 "
4. Les Burdsal	Avia BH-3	82 "
5. Ron Hummel	Curtiss Falcon	59 "
6. Doc Martin	Beardmore Inflex.	57 "
7. Doc Martin	Dornier Falcke	56 "
8. Paul Stott	Spartan Fighter	43 "
9. Walt Leonhardt	Mureaux C-1	30 "

WANTED: Any kind of line drawings for documentation purposes of the Fairchild PT-23, the 220 HP radial engine version of the famed PT-19. Bill Hunter, 6 Ginger Forest Ct., Glen Carbon, Ill. 62034. Phone (618) 656-5446

THE GOLDEN AGE

by

Fran Ptaszekiewicz

Golden Age Aviation Fillers

These fillers have been gleaned from old, very old, newspapers of the 1930's period.

A filler is that little blurb that newspapers use to complete the end of their news columns, should the reported story come up a few lines short. Some make interesting reading, some, well you decide.

Retractable floats

The German Dornier 26 has a retractable wing-tip float that will retract into a motor nacelle, where it is completely covered.

Women like to fly

It is reported that 33 percent of the coast-to-coast passenger trade on one major airline are women.

Increase speed

It is estimated that by retracting the landing gear on airplanes, the speed may be increased by about twenty five miles per hour.

Four-eagle power

A patent was issued in the United States in 1881 for an airship to be powered by four real eagles.

Comment; One has to wonder how that worked out, catching four eagles had to be a lot of fun, then to hook them up to this device, must have been even more fun.

Now that you have them all attached, the problem is to try to get them to all go in the same general direction at the same time.

Obviously there were no animal rights advocates or other save the eagle conservation groups going at that time. No wonder the eagles needed to be protected.

Rooftop Airport

A rooftop airport has been suggested for New York City's parcel post buildings. It would make possible, three-hour desk-to-desk mail between New York and Philadelphia and ten-minute shuttle service to the Newark airport. The suggested platform would be 200 by 750 feet and would cost less than \$1,000,000.

WANTED: Sidney Gilbert is in need of a plan for a rubber powered Pitcairn Autogiro. If anyone can help him you can reach him at 955 Patterson Dr., Sarasota, Fla. 34234.

An Answer to the Mass Launch Dilemma??

Don Snull

Oh please, Pinky,...not another proposal for mass launch rules! But wait, this one may *really* be a simple solution to those exhausting, cardiac-stressing mass launch retrievals, and the sometimes too drawn-out (bordering on tedious) mass launch events. Such problems seem to be occurring more often as FAC modelers achieve better and better endurance potential with their mass launch models. Add to this fact the usual windy contest weather, and mass launch events can be difficult to keep running smoothly and safely.

Two new mass launch proposals were designed to reduce these problems, and are to be tested at this year's FAC Nats:

(a) Dave Stott's 15% rubber rule, which limits model endurance by reducing the amount of rubber normally used in high performance mass launch models, and

(b) Tom Arnold's "flight must remain within a designated area of the field" rule, which disqualifies models that fly too far.

Each of the new proposals basically try to handicap long endurance flying by either making it difficult to achieve or risky. Both have a certain appeal, and deserve to be tested to gauge their acceptance. But both have perceived disadvantages, too. The 15% rubber rule means that many of our old models may no longer cut the mustard - new ones with different trim methods likely are called for. Some of the guys like the idea of new tricks and new models- others don't. Also, some of the newer FAC flyers have just started to learn how to stuff lots of rubber into their models - and would prefer to continue trying to achieve lots of endurance potential in a scale model - it can be fun! The field restriction concept simply hasn't been tested yet, and monitoring the designated boundaries, especially on a big field in windy conditions sounds kinda hairy. Complications a mass launch event director may not need!

So, here's a different idea to have your mass launch cake and fly it, too. Some of the advantages of this new concept are:

- no new models needed;
- mass launches can be tailored to exactly fit the local field and wind conditions, even as they change during a contest;

- old style mass launches can be replicated when wind conditions permit;
- more participation of less experienced modelers;
- a little more luck and excitement is introduced; and
- it's extremely easy to administer.

Not bad, eh? The one disadvantage is that every flyer's mechanic needs a stop watch to time his pilot's flight. Not that big a problem really, considering the advantages.

The rules proposed here would basically change a mass launch event from an ENDURANCE event into a TARGET TIME event. It would work like this: At the start of each heat, when the event director calls out "two minutes to wind!", he also calls out a previously undisclosed TARGET TIME for that particular heat; anything from 20 seconds to 2 minutes. Selection of a target time would depend on the wind, field size, number of entrants, and anything else the event director wishes. Each model would be timed, and the CLOSEST TO THE TARGET TIME wins. Contestants would have to estimate how much to wind their models to best achieve the specified target time, not necessarily winding for max endurance. No dethermalizers would be allowed. High performance models, as well as the larger number of average performing models would all truly have a shot at winning. "Knowing your model" would be more important than being able to build and trim an ultra-light endurance-type model. To replicate a traditional mass launch heat, the event director would simply call out "unlimited time" as the target time; in which case the last one down, as in the past, wins.

Let me emphasize that this "Target Time Mass Launch" variation is proposed only as an alternative to, NOT as a replacement for, the traditional mass launch event. It should only be used when conditions seem to preclude the old fashioned all-out-endurance mass launches we've grown to love.

As far as testing this idea goes, we tried it out of desperation at a recent contest under blow-out conditions. To our surprise it seemed to work remarkably well - and prevented further model losses and exhausting, cross-country chases. We'll try it again at our relatively small COMSAT club field when wind conditions dictate. If other clubs give a go at it please let us know what you think. Remember - the model, or life, you save might be your own.



This first appeared in the D.C. Maxcutters newsletter.

Peanut & No-Cal Scale Postal Meet

Our annual winter postal contest will start on Nov. 1, 1996 and end on April 30, 1997. Entries postmarked after May 1, 1997 will not be accepted.

As usual there will be four classes, or wings. Indoor Peanut, Outdoor Peanut, Indoor No-Cal and Outdoor No-Cal. All you have to do to enter is fly your model, time it, and send the name of your model, the flight time, what wing you flew it in and your name to FAC-GHQ, 3301 Cindy Lane, Erie, Pa. 16506. You may enter as many models as you wish in any of the events. Every time you better a previous time with a particular model send the time in. Contest times also count.

BUILD--FLY--WIN--EFF--AAA--CEE

INDOOR NO-CAL;

Lincoln Ross F4F Wildcat 244 sec.

No other entries as yet.



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MODEL WARPLANES 1996

Compiled By
John C. Fredriksen, Ph.D



Volume 3:
World War Two, 1939-1945: Axis

Vol. 1: World War One, 1914-1918 (Available now)
[220 aircraft types, 192 kits, 1,388 plans, 155 sources]

Vol. 2: Golden Age, 1919-1939 (Available April, 1996)
[272 aircraft types, 155 kits, 1,361 plans, 200 sources]

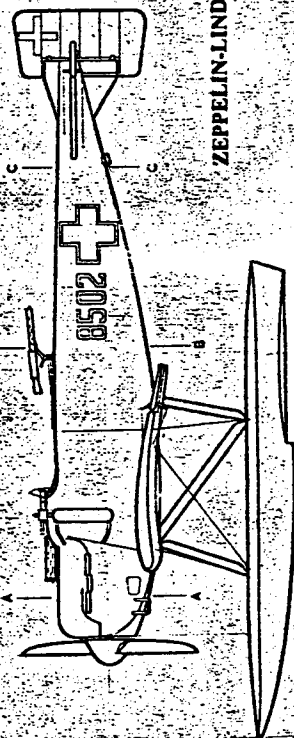
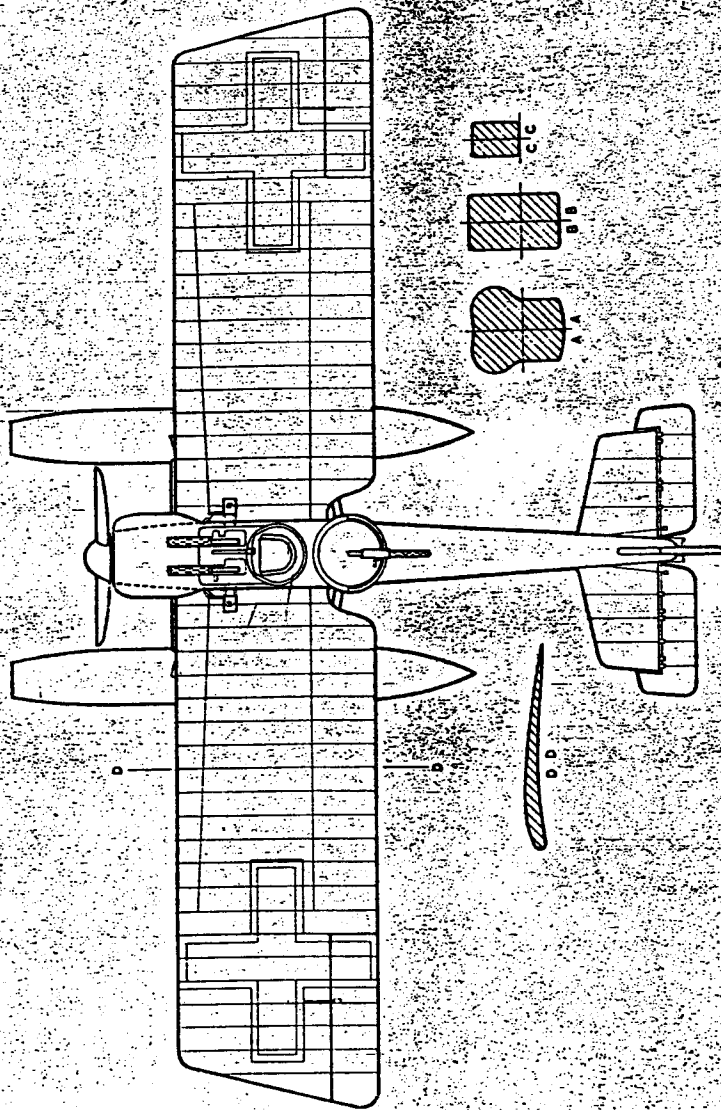
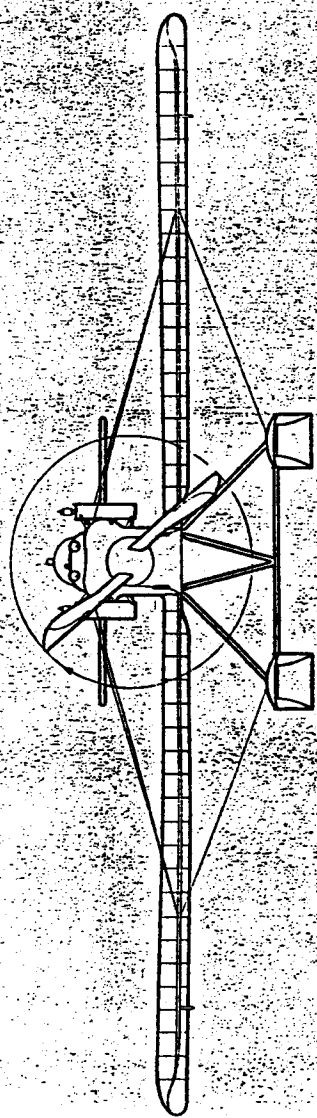
Vol. 3: World War 2, 1939-1945-Axis (Available May, 1996)
[143 aircraft types, 281 kits, 628 plans, 204 sources]

Vol. 4: World War 2, 1939-1945-Allied (Available May, 1996)

Vol. 5: Jet Age, 1946-1996 (Available, June, 1996)

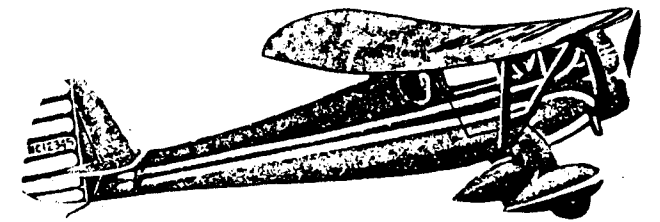
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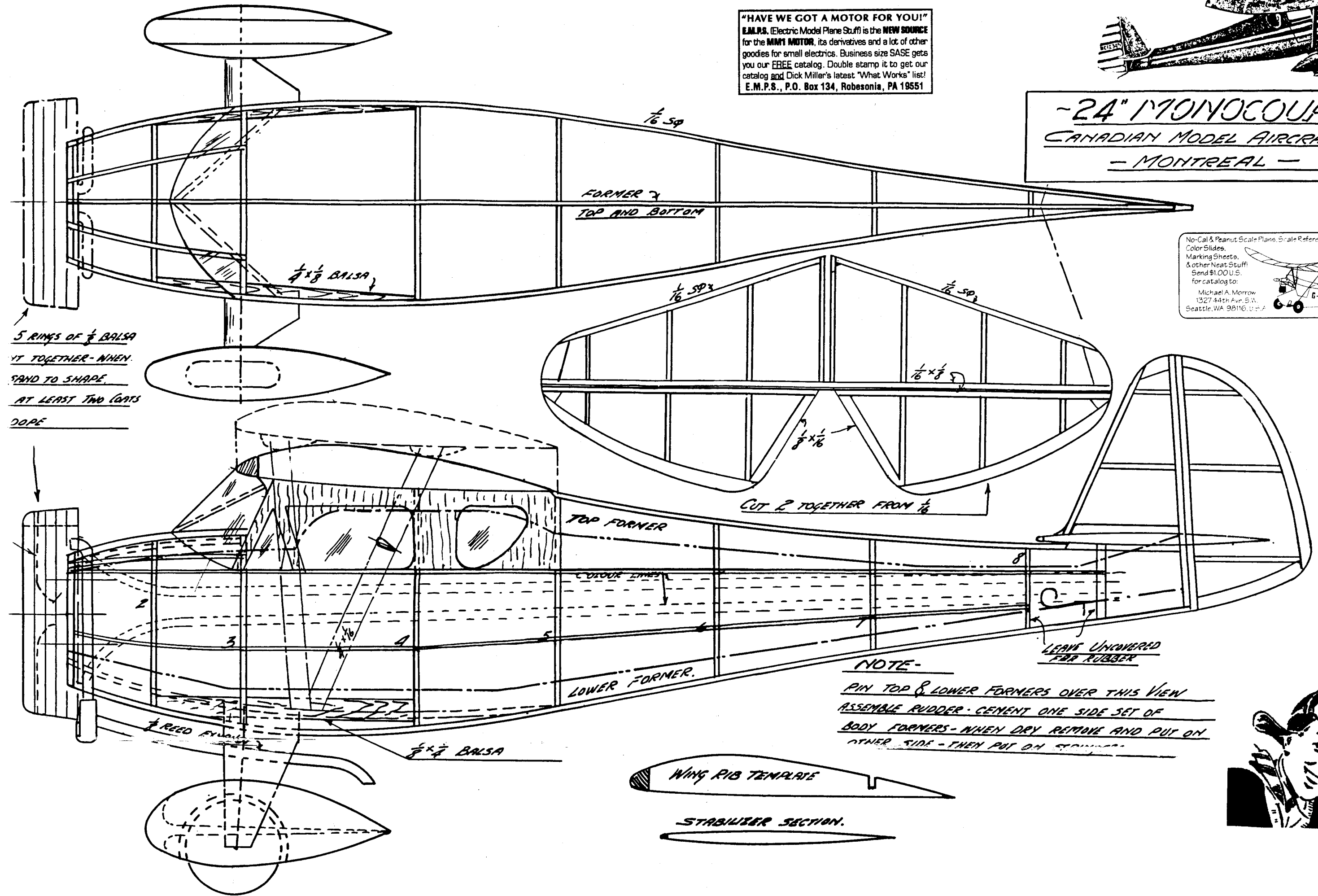
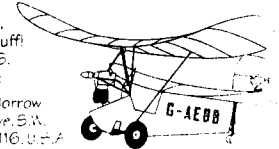
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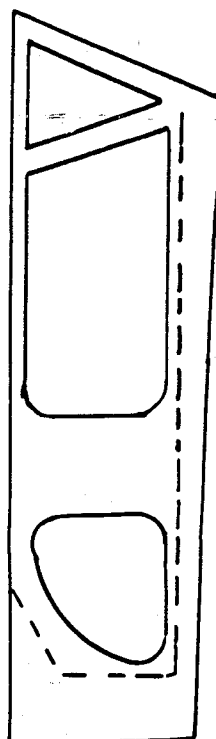
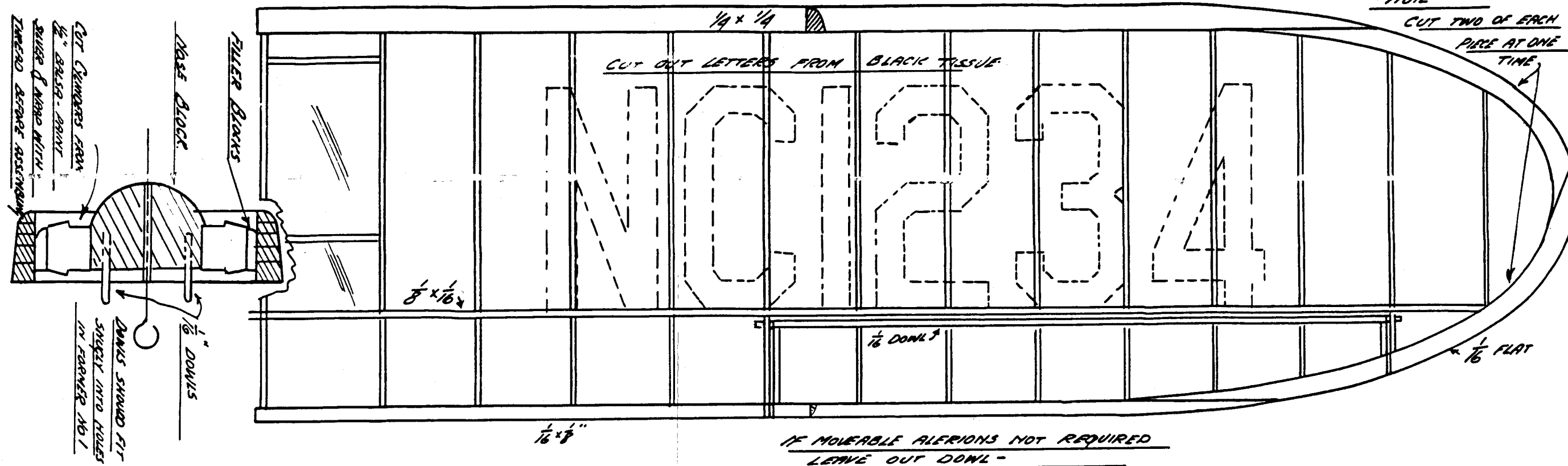
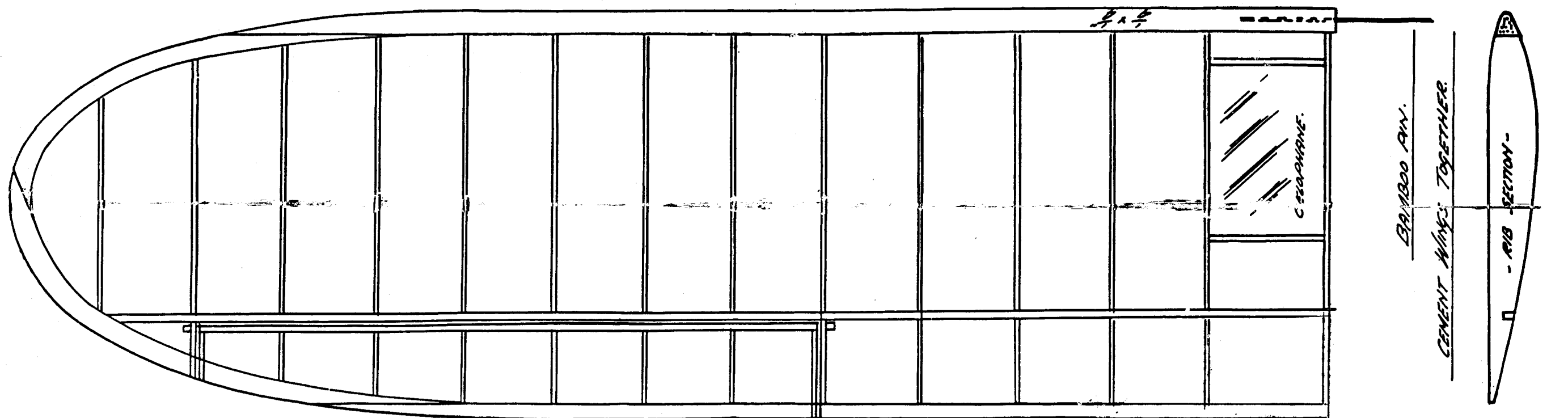
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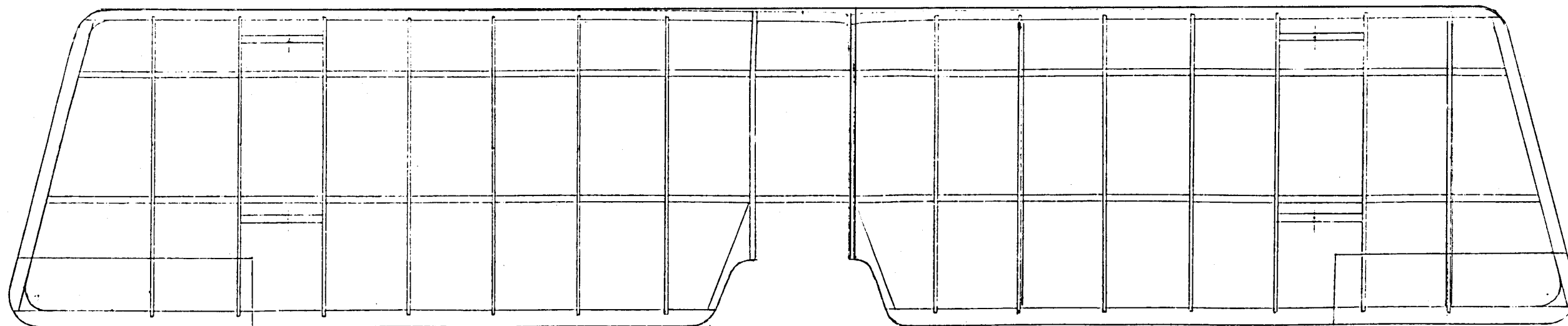
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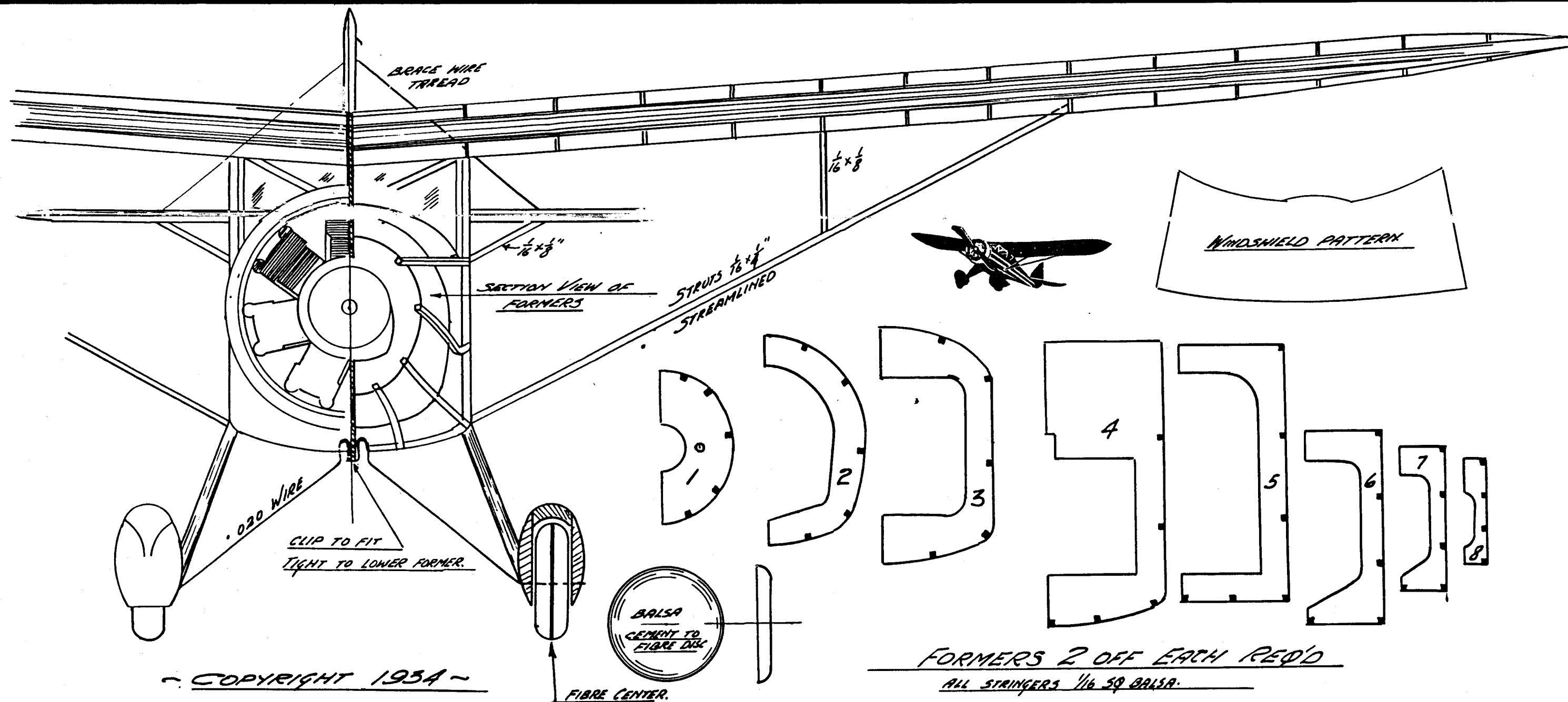
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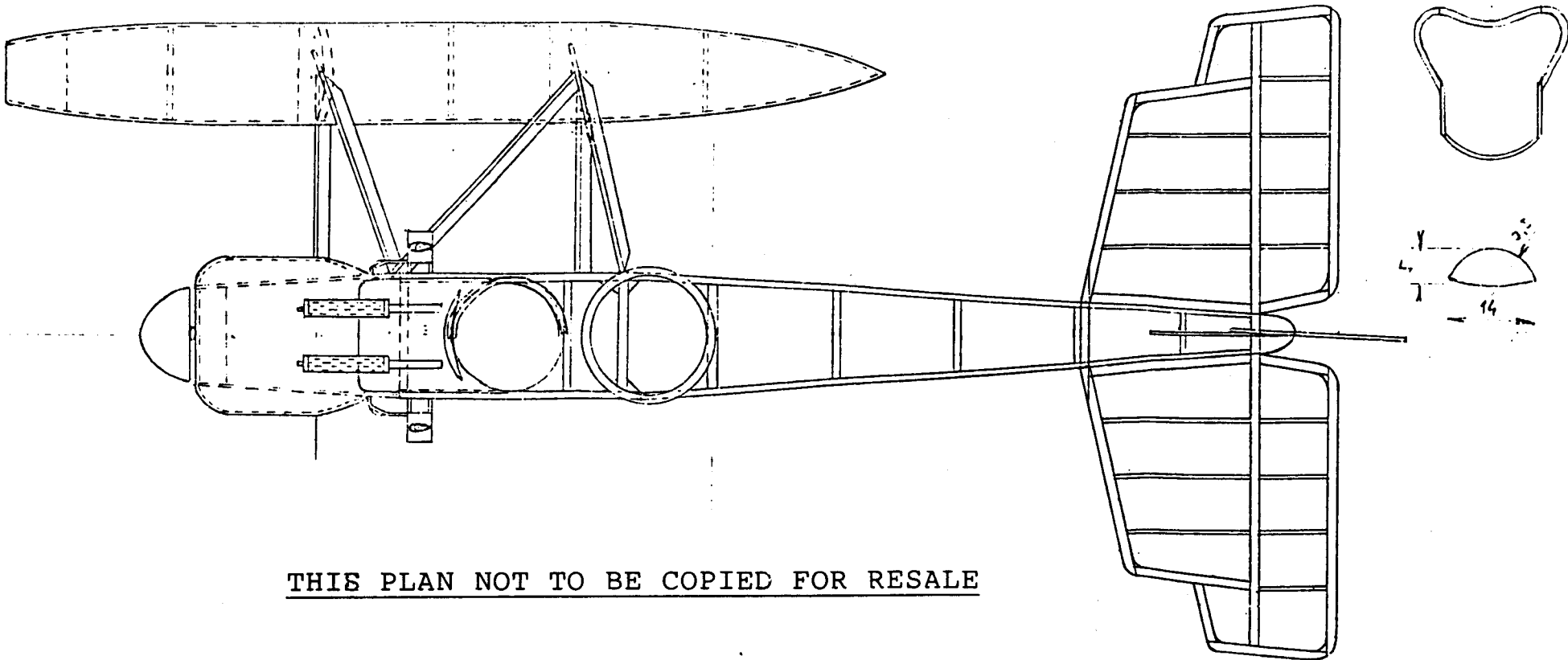
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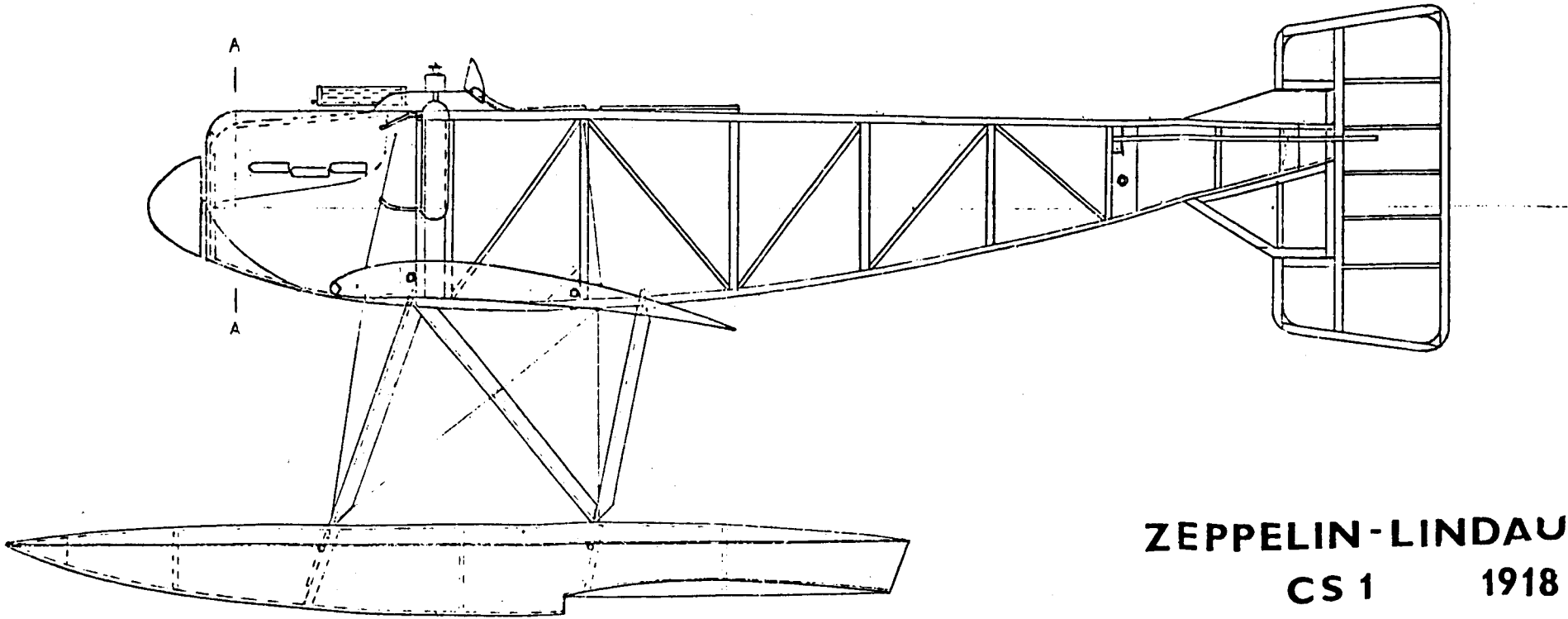
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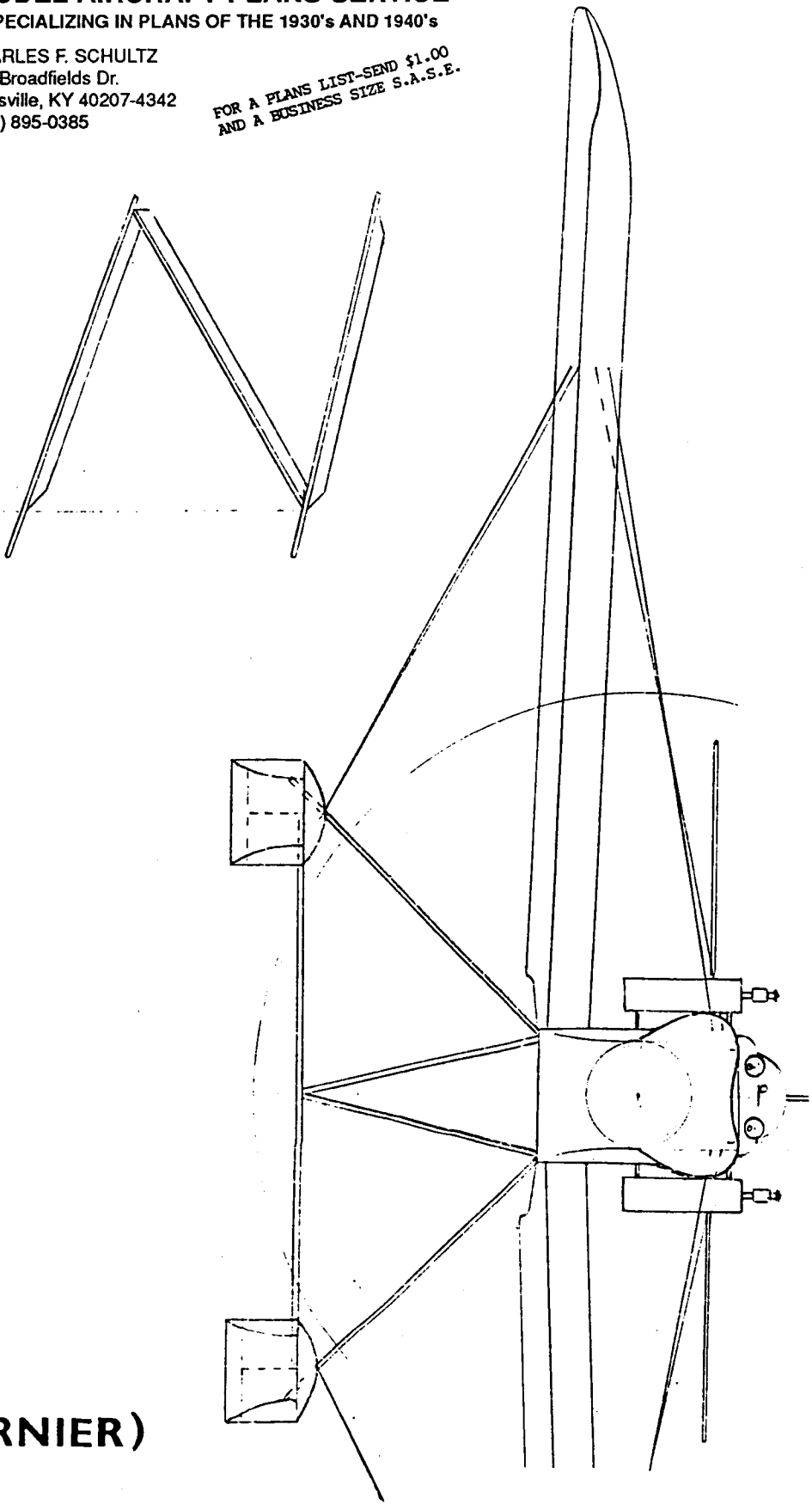
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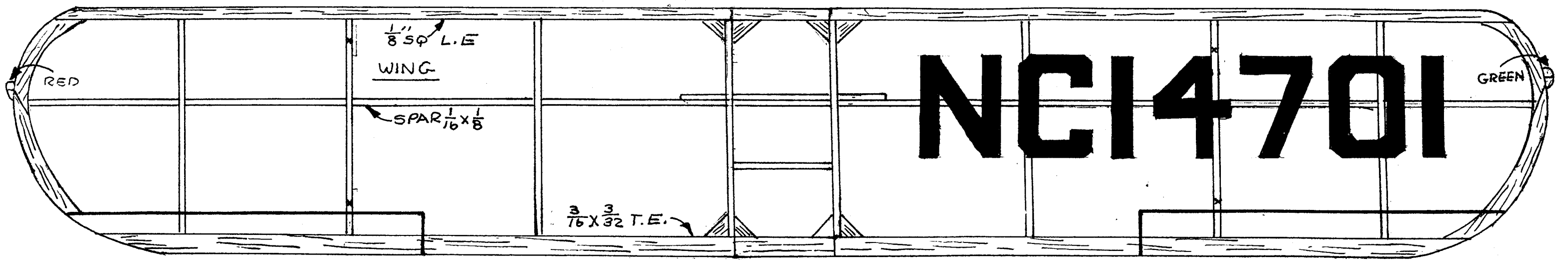


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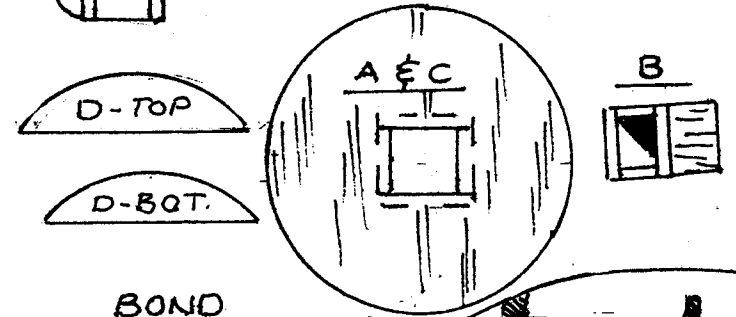
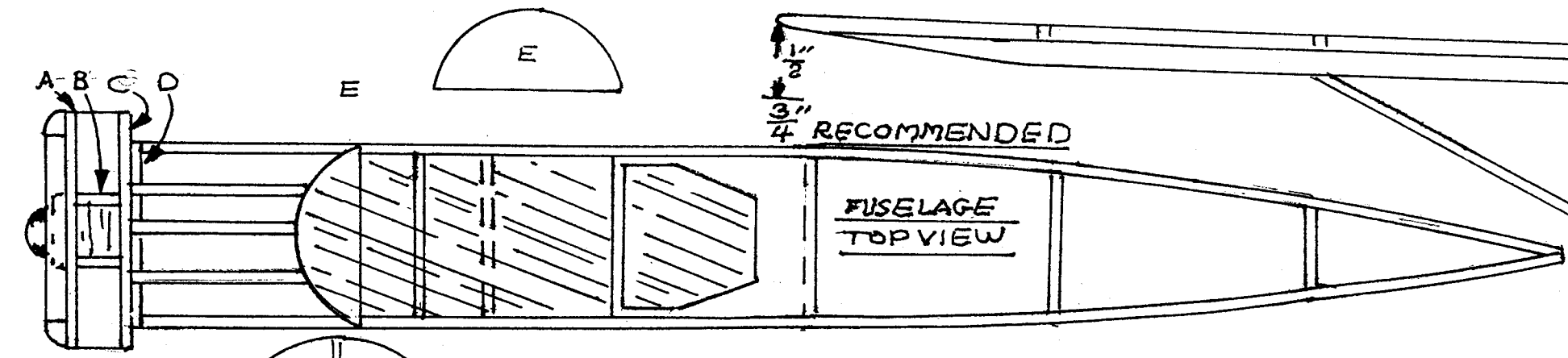


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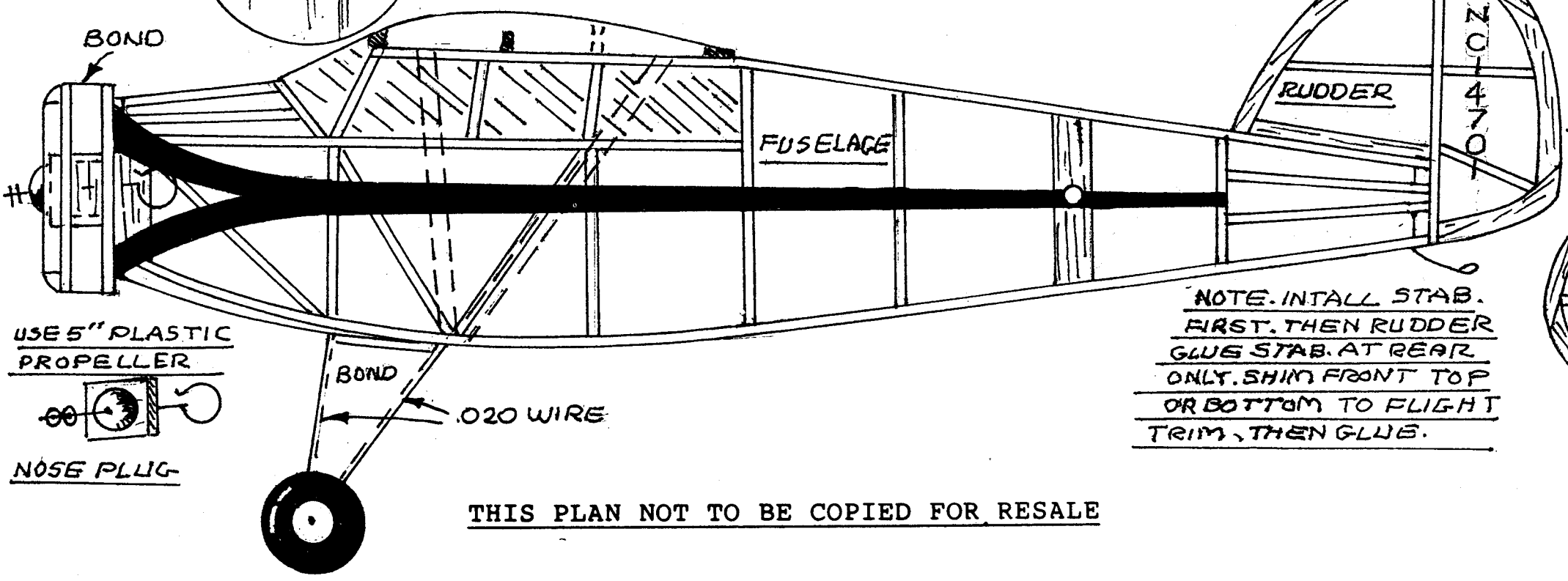




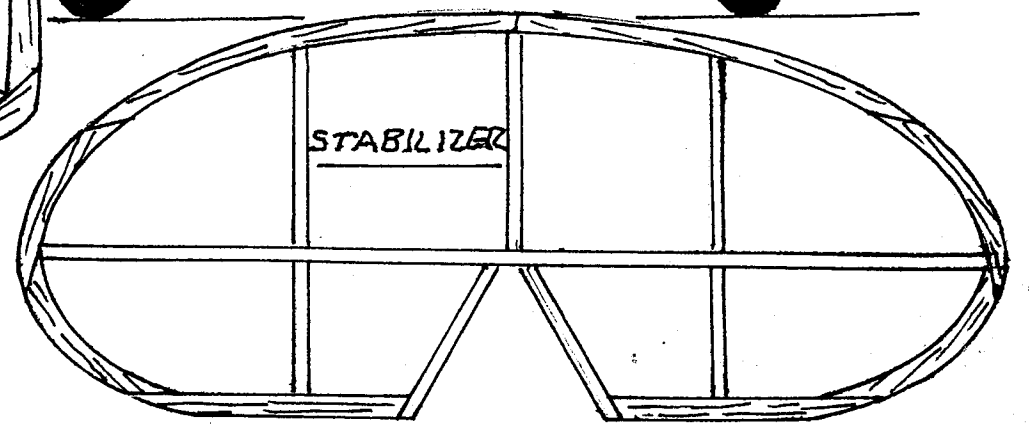
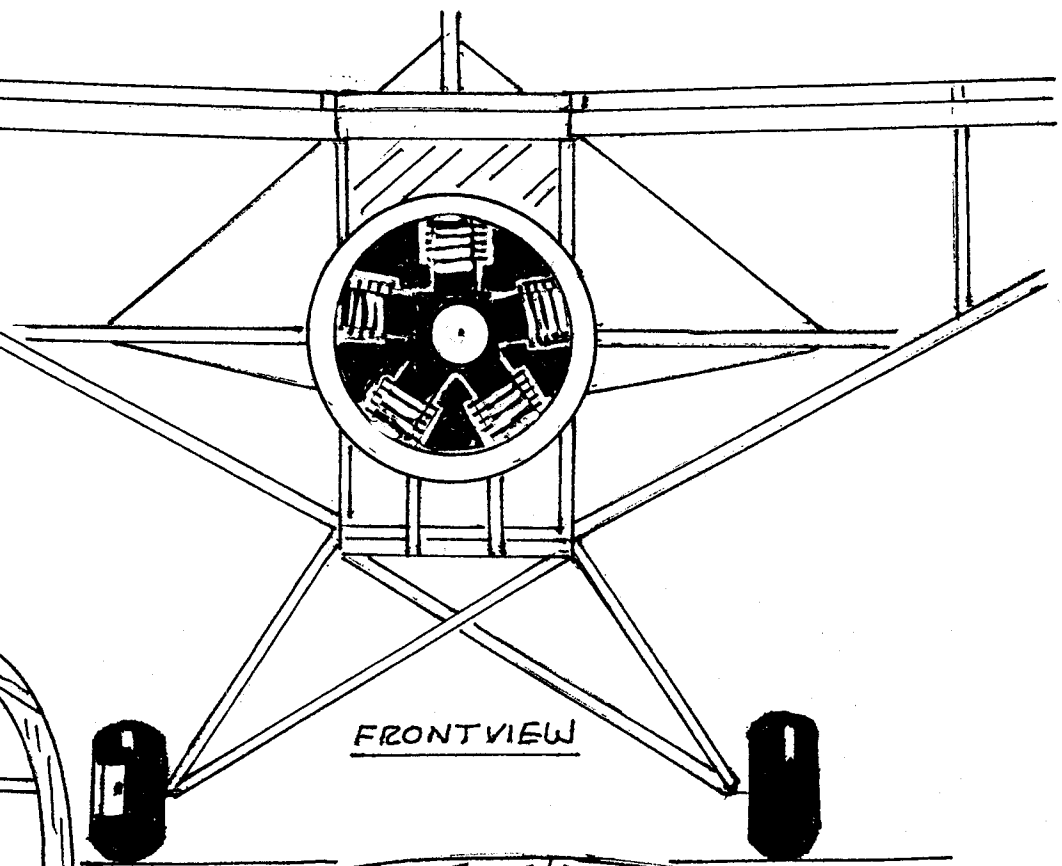
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NOTE. INTALL STAB.
FIRST. THEN RUDDER
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OR BOTTOM TO FLIGHT
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REARWIN SPORTSTER
A 16 IN. SCALE MODEL BY F. BAECHE

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A BAY STATE SQUADRON PLAN

L.E. 3/32" sq.

2 lams 1/32" x 1/16"

Bond Paper Fillet

Foam Scoop

Tips from 2 lams 1/32" x 1/16"

W1

W2

W3

W4

W5

Ink Lines

1. 25" dihedral each tip

T.E. 1/16" x 1/8"

Exhaust Stacks from 1/8" sq. (both sides)

Spars and joiner 1/16" sq.

1/16" sheet fairing

Bottom longerons, crosspieces, and stringers omitted from top view for clarity

1/32" ply

A

Soft Balsa Block

Longerons, uprights, and crosspieces 1/16" sq.

Celluloid

Top stringer 1/16" sq.
All others 1/20" sq.

Hollow as shown

1/16" sheet

Radiator of 1/20" sheet

W1 wing ribs from 1/16" sheet

All formers from 1/16" sheet

Model all balsa except as noted.

W2 - W5 wing ribs from 1/32" sheet

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RUSSIAN LaGG-3 FIGHTER
DESIGNED BY MAJ. ED HEYN USAF (RET)
Traced & Inked by Mike Nassise 8/96

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