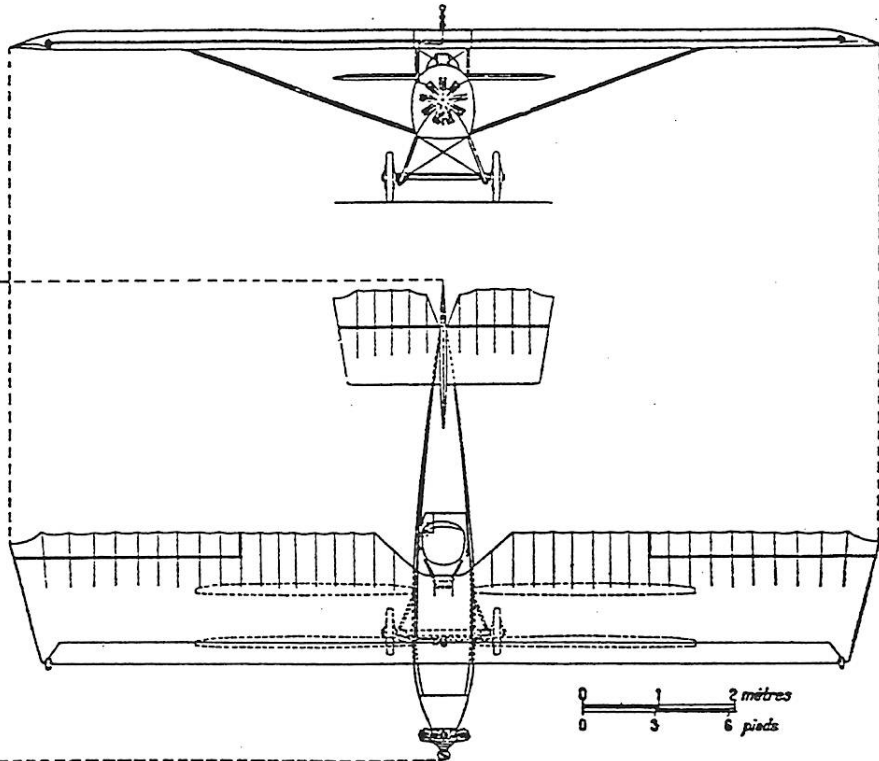
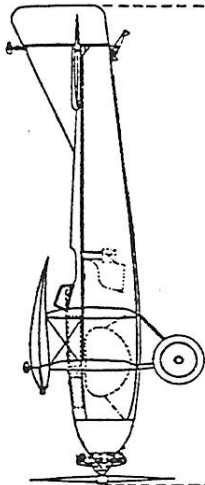


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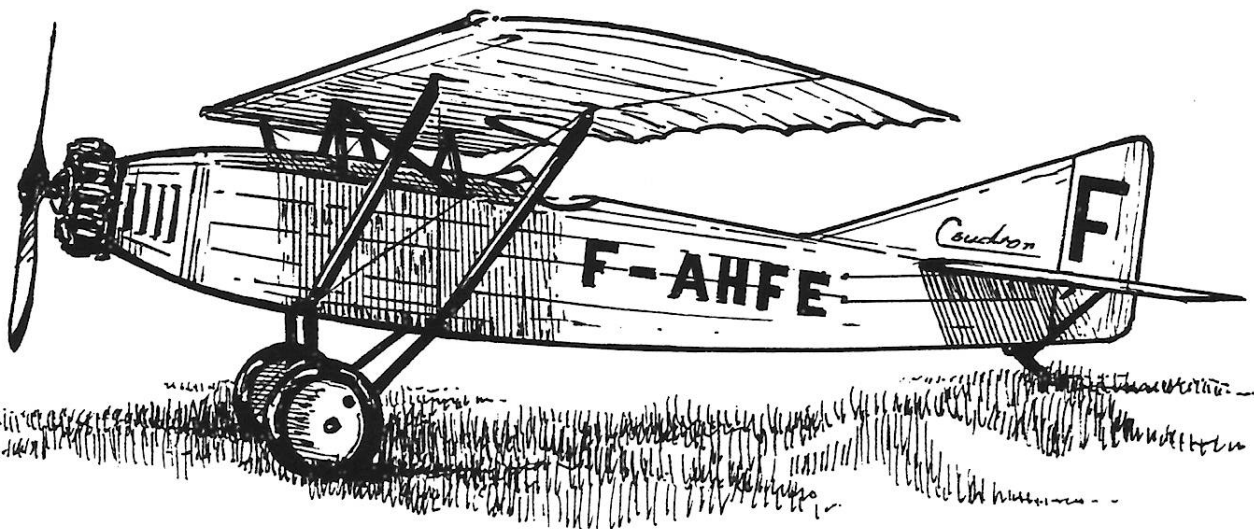
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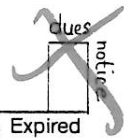
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JULY - AUGUST 1992



—MASSIMO—



Membership Information: Dues are \$15 per year in the USA, Canada, and Mexico, and \$25 per year for all other countries. Expired dues will have a red X in the box at the top of this page. You will receive only one notice for renewal. Make checks payable to the **D.C. Maxecuters** and send to the Treasurer (Frank Rowsome). The D.C. Maxecuters meet the first Wednesday of each month at 7:30pm at College Park Airport, the world's oldest continuously operating airport.

Club Officers

President:	Secretary:	Treasurer:
Jerry Paisley 20 Clearwater Ct. Damascus, MD 20872 (301) 253-5295	Terry Pittman 7863 Col. Village Row Annandale, VA 22003 (703) 698-1726	Frank Rowsome 10904 Bellehaven Blvd Damascus, MD 20872 h-(301) 253-0378 w-(301) 253-0576

Newsletter Contributors: Please send all correspondence and contributions (plans, articles, photos, etc.) for the MAX FAX to the club President. Send all dues to the Treasurer.

Upcoming Events in 1992

July 10-12	FAC Nats at National Warplane Museum in Geneseo, NY.
August 2	Any scale bi-plane contest at Comsat.
August 16	Any Micro-IV electric motor powered plane contest at Comsat.
August 30	Any amphibian or float plane contest at Comsat.
September 12	Maxecuter's Summer Fun Fly at Comsat 9am-5pm.
October __	Kudzu Squadron FAC contest, Raeford, NC (contact Dave Rees 919-778-6652). Note date change. Exact date TBA in next newsletter.
October 4	Old Timers Mini contest at Comsat.

Club News

Parlez vous Francals?

You will probably notice that this issue has a sort of French accent...un je ne sais quoi. C'est vrai. Your two distinguished editors - Hurst Bowers & Terry Pittman -- share a common appreciation for les avions Francais entre les deux guerres (French airplanes between the wars). There's just something about the lines of these aircraft...the elegant Dewotine 33, Henri Farman and his obsession with 90 degree angles, the whimsical Mignet Pou de Ciel (flying flea), and of course the sleek, sexy, Caudron racers.

For this issue Hurst has drawn a beautiful set of plans for the Caudron 109, a cute parasol which set a number of records of endurance and distance in France in the late 20's. With all that wing area you're likely to do the same on a hot summer day.

And you'll find another great set of photo pages by Tom Schmitt.

Summer Fun Fly

It's already June and before you know it the Maxecuter's Summer Fun Fly will be here (Sept. 12). Inside you will find a listing of the events scheduled for this annual event. In celebration of the 50th anniversary of the **Battle of Midway** we will hold a special Midway event. Our special correspondent, Frank Rowsome, has written a fascinating piece on the Battle of Midway, followed by a comprehensive listing of all aircraft which were there (or in the vicinity) and are thereby eligible in the event. Take a close look at this list, pick your favorite and start building.

Viewer Mail

Your letters are always appreciated. Unfortunately we can't respond to them all but every now and then we receive one that deserves mention. Furthermore, this is the edition Francais, oui? M. Eugene CERNY of Toulon, France sent a very nice step-by-step sketch for constructing a yogurt container prop for a Bostonian. As a footnote to his excellent sketches he wrote something simple but profound:

"Small Ideas --- Big consequences"

Contest Results

With an emphasis on fun we scheduled a number of FAC mass launch events for this summer. Results of several of these are included. Also included is a brief account from our stealth reporter of the AMA gala and grand opening at Muncie.

Comsat Saved at Eleventh Hour

As spring arrived this year and we began anticipating those halcyon Sunday evening flying sessions we were surprised and stunned to find ourselves without a place to fly. A policy change at Comsat barred us (and any other group) from using the facilities for any reason. A small task force began searching for alternative sites, while Jerry Paisley and Tom Schmitt began lobbying Comsat for consideration. After all, we had been flying at Comsat for twenty years.

We had essentially given up on Comsat and had identified several marginal flying sites, when miraculously Comsat management changed their minds. The reason: Bob Marchesi, a Comsat employee and Maxecuter member, helped us "inside," and the fact that we are insured through the AMA gave us additional credibility. (Important note: AMA membership is now required for all who fly at Comsat at any time -- weekends and contests -- due to insurance requirements).

Now things have pretty much returned to normal. Five to ten of us show up on Sunday evenings and enjoy our art. And as we chase our planes across the well-groomed (albeit small) field we all breathe a sigh of relief that we have Comsat back. It ain't perfect...but it sure is convenient.

Thanks especially to Comsat and Bob Marchesi, and all the Maxecuters who spent time searching the Virginia/Maryland/D.C. horizon for a alternate site.

Book Review

I frequently travel to New York City on business and have discovered a wonderful aviation bookstore called Sky Books International, located at 48 E. 50th street, NY 10022, (212) 688-5086. They have a wonderful selection of books and magazines on all aspects of aviation. It is worth a visit if you are in the neighborhood. Last visit I picked up a new release entitled "**An American Pilot In the Skies of France --The Diaries & Letters of Percival T. Gates, 1917-1918**" Edited by David K. Vaughan, published by Wright State University Press. I've just begun reading it but so far it is a fascinating look at the excitement, dangers, and difficulties WWI pilots experienced. Here's a brief excerpt from a night patrol flight that went wrong:

"Suddenly my engine began to miss and then quit altogether. It was out of gas on the main tank. I turned on the auxiliary. It ran by fits and starts but not enough to maintain my altitude. Hence I started as best I could determine to keep up as long as possible. As she came down I looked for a place to land. There were roads and dark patches I took for woods but that was all I could see. Ah! at last there were some white hangers. I pulled the string to release my big parachute flare which should light up the country for about two miles around. The old thing fell to earth without opening. Slowly I glided down as close as I could figure in the dark; as I leveled off I lit one wing landing flare. That showed the ground around me but not that [ground] in front.

The wheels touched the ground and then something happened. I am not just sure what, but I found the plane upside down, with me in the seat. That did not worry me as I had been that way before, but I could not get out as the cockpit was flat with the ground. It was only a minute, however, til some fellows lifted up the machine and I crawled out, sick at heart to see my brand new plane all smashed to bits. As usual, I did not even get a scratch."

Trimming Tip

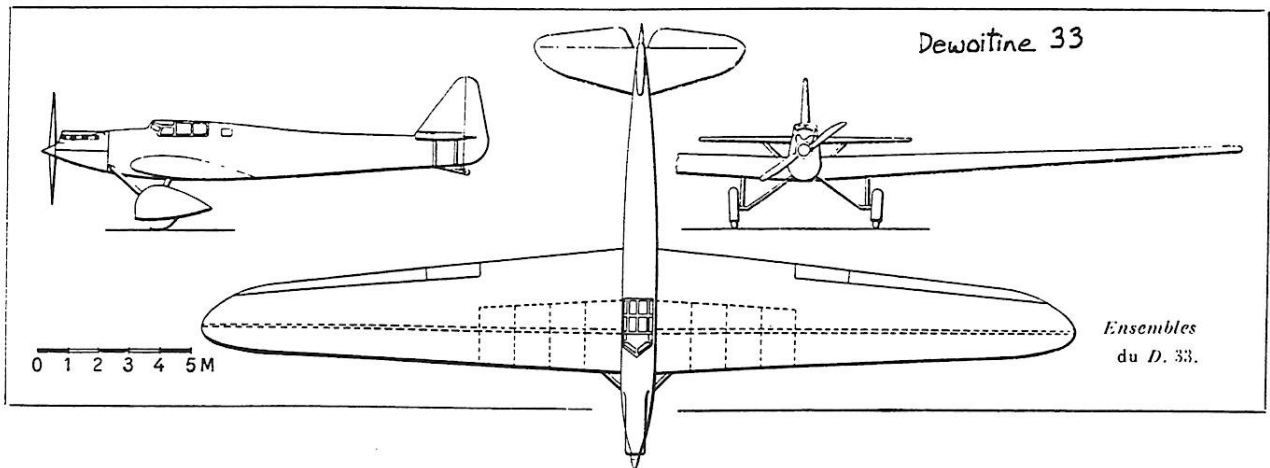
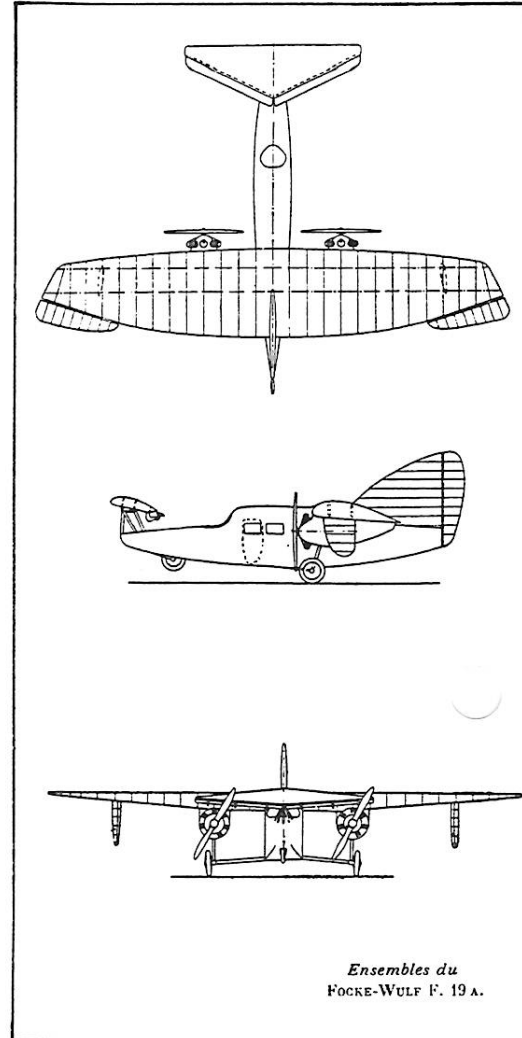
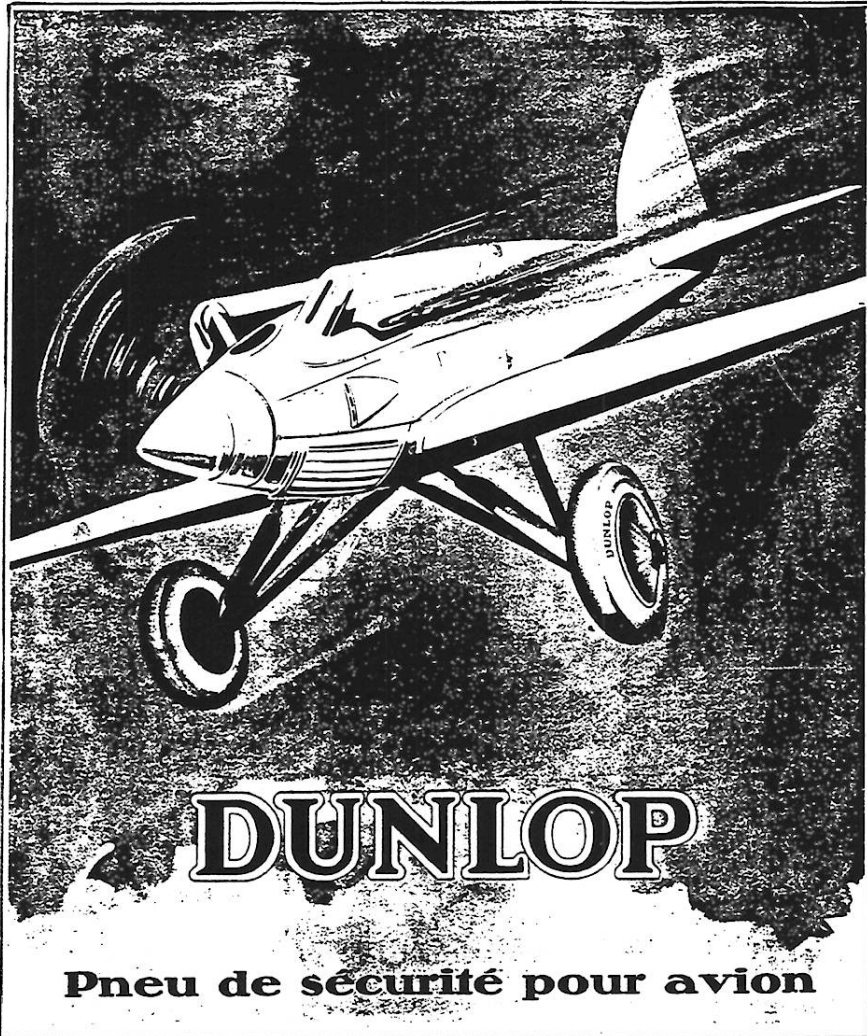
Because I have a penchant for designs which are not inherently stable (i.e. high-aspect wings, stubby fuselages, etc.) I find my self reading and re-reading William McCombs' book: Making Scale Model Airplanes Fly (available from Aircraft Data, Box 763576, Dallas TX 75224). In chapter 2 which deals with trim and stability McCombs offers some formulae which can be very helpful for enlarging **and shrinking** tail surfaces to enhance spiral stability. And all along I had thought the bigger the vertical stab the better...but not so. The only way I was able to get my Bernard 207 (shown in photo pages) to not spiral in was to reduce the vertical stab size by about 20% The full scale aircraft had an enormous fin.

Rather than build several sizes for test flying, I cut a fin from a foam tray used by the grocery store for holding ground beef. I tacked the foam fin and reduced its size until it gained stability. Then I built another balsa and tissue vertical stab the same size.

It seems easier to estimate the size to which the horizontal stab should be enlarged, but a temporary stab made of foam would work just as well here during test flights.

CO2 Motor Fanatics

You may have noticed Tom Ogden's request for names of anyone interested in CO2 motors (Tom Ogden, 27 Cortland St, Norwich, NY, 13815-1317). I wrote him and received a nice note and also a list of accessories for CO2 which I think will be very handy. Unique items include: Filler valve holding clip for charging, Light weight filler valve and line for virtually all popular motors, removable tank charging systems, screw-type filler valves (as opposed to the standard pressure-fit type), replacement tanks for the older "Campus Bee" and "A-100" motors, plus other items.



Hurst Bowers

Since I first saw photographs of the Caudron C.109 I have had a strong attachment to the little parasol wing monoplane and wanted to build a model of it. Unfortunately I could find no 3 views of it for many years, but when I located a good drawing of it in a 1927 French publication I had no excuses remaining except time. Anyway, while discussing contents for a coming edition of MAX-FAX I volunteered to develop a plan for it. I have not had an opportunity to build the model as yet but, with appropriate dihedral, thrust, and trim it should be a reasonably good flyer on either rubber or electric power. I plan to use a HI-LINE "Mini 6" with three cells for my model. Construction is entirely conventional and should pose no problems what so ever for any of our builders. After all, we are Flying Aces; the best of the best!

There are several points which I should clarify as they may not be too clear on the plan. First, I don't believe that any two production C.109s were exactly the same. This situation was quite common at the time. Some aircraft had their wing mounted on the center point rib with a triangular mounting strut arrangement. Others had wings mounted on 4 points with the mounting struts rising from the sides of the fuselage, as shown on the scale three view drawing. Another variance was the provisions for a front cockpit. Most photos show a steel tube landing gear strut arrangement, completely devoid of any fairings. This is a great feature in that it simplifies scale construction to a large extent.

I know that you will enjoy building the Caudron as much as I intend to. It will be a simple building project which should produce a fine flying scale model. Good luck and best wishes.

THE CAUDRON C.109.

The Caudron C.109 is a two-seater school or sporting monoplane, fitted with the 40 h.p. Salmson engine.

This machine won the Coupe du Roi, at Brussels, in 1925, and at the 1925 Vauville Meeting a machine of this type won the fuel consumption competition by covering a distance of 140 kms., with a crew of two, on a petrol consumption of 8.835 litres, at an average speed of 105.4 km.p.h.

It differs from the C.168 only in having a parasol monoplane wing of 20 sq. m. in place of the normal biplane wings and the substitution of the new 3-cylinder Salmson engine for the 70 h.p. 5-cylinder Anzani.

Specification.

Span	11.5 m.
Span, folded	2.45 m.
Length	6.145 m.
Height	2.265 m.
Surface	20 sq. m.
Weight empty	328 kgs.
Weight loaded	555 kgs.
Useful load	175 kgs.
Speed, low down	126 km.p.h.
Climb to 1,000 m.	16 mins. 20 secs.
Climb to 1,500 m.	27 mins. 51 secs.
Climb to 2,000 m.	40 mins.



The Caudron C.109 (40 h.p. Salmson engine)

MUNCIE OPENING

The Grand Opening of the new AMA facility at Muncie, Indiana on 13-14 June has been described as a "formidable" success by the officials. Attendance has been estimated at from 2500 to 15000 visitors, who enjoyed a home-style barbacue. The weather was good and reports are that the flying site was in fine shape. The building under construction to house the museum, workshop, and auditorium was not open but AMA Officials hope that it will be ready during the summer of 1993. I have not seen the facility, but it is described as a 25000 square foot "Butler" type structure with a 12 foot ceiling. Plans are for the entire AMA Headquarters to move to Muncie when a suitable building can be built. This I understand is contingent upon disposing of the Reston property. This may be some time, however, based upon the heavy surplus of business property along the entire Dulles Corridor. Meanwhile the research library is open to visitor members at Reston, so take full advantage of it while still possible.

WOODY BLANCHARD'S "COMMODORE"

Recently several DC MAXECUTERS visited the beautiful flying site at Sugarland, Maryland. Only gliders, rubber, and electric powered models may be flown there, and a glider competition was being held by the local club. We were particularly interested in seeing Woody Blanchard fly his magnificent electric powered Consolidated "Commodore" flying boat. Unfortunately during flight he experienced severe radio malfunction which resulted in a serious crash. Woody is to be congratulated on his many contributions to the world of aeromodeling. Particularly in his development of multi-engine electric powered aircraft. Keep up the fine work, Woody, and thanks for asking us up to Sugarland.

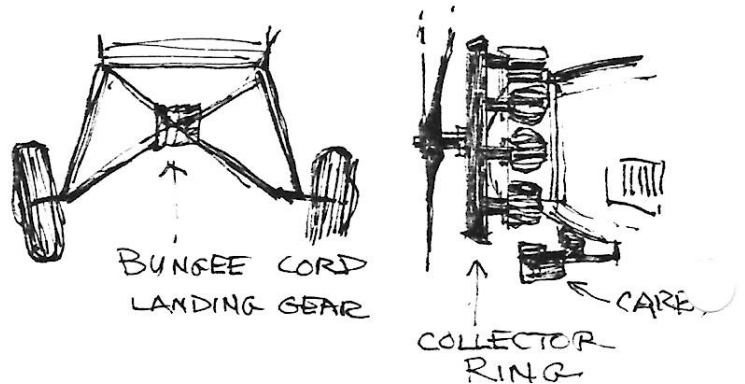


MARTIN P3M-1 Large U.S. Navy patrol bomber. It was produced fitted with amphibious gear.

ATTENTION MAXECUTERS:

The cover drawing of the Caudron C.109 is taken from photos in JAMES ALL THE WORLDS' AIRCRAFT, 1927/29. The aircraft which is on display at the MUSEE de l'AIR at Le Bourget, near Paris, has been restored and differs from original in the use of ballon tires and a different landing gear arrangement. It also has a exhaust collector ring at the front of the engines in my sketches. It is a beautiful aircraft and I hope you will build the model. Many thanks to Hurst Bowers for another great plan.

MASSIMO.....



(Judge.)

Après dîner, chez des aviateurs
(After dinner, at the aviator's house)

D. C. Maxcuters 1992 Summer Fun Fly

Saturday, September 12 - 9 a.m. to 5 p.m.

Events

- F.A.C. Scale:** Judging starts at 11:00 a.m.
Qualifying flight is not required
except to post static scores.
- F.A.C. Power:** Same as above.
- Hand-Launch Glider:** AMA Rules
- Embryo:** F. A. C. Rules

Mass Launches - Single Sortie - Last One Down Wins.

- 1:00 pm - Herb Clukey Memorial Event:** Any Flyline Kit or plan.
- 1:30 pm - Battle of Midway Memorial:** See List of eligible Aircraft in this issue.

Mass Launch - Multi Sortie

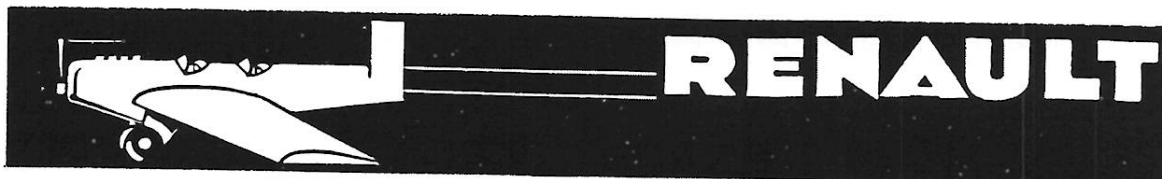
- 2:00 pm - World War I - Any WW I Aircraft w/ Markings, Rigging, & Guns**
- 3:00 pm - World War II - Any WWII Aircraft W/ Markings & guns**
- 4:00 pm - Golden Age - Any non-military aircraft (1920 thru 1942)**
- 4:45 pm - Trans-Comsat speed and Navigation Event. - Any aircraft that flies.**
Except Gliders.

D.C. MAXECUTERS MIDWAY MEMORIAL

To commemorate the Battle of Midway, at the Summer Fun Fly on September 12, 1992 at Comsat or the windy weather alternative site, there will be a special mass-launch event for aircraft that participated in the Battle of Midway, the Aleutian campaign, or were on the Japanese-held Central Pacific islands west of Midway. FAC mass launch rules will apply. Acceptable aircraft are listed below, plus any you can document as being there. Any of the variants are acceptable, e.g., any B5N Kate, not just the B5N2. Non-participants may be torpedoed, strafed or bombed, so bring your Midway ship. I'm building one of McClusky's SBD-3's; what about you?

AIRCRAFT TYPES IN THE BATTLE OF MIDWAY

- I. **American:** 1) Aboard the Carriers *Enterprise*, *Hornet*, and *Yorktown*: F4F-4 Wildcat, SBD-1,2, and predominantly -3 Dauntless, TBD-1 Devastator; 2) on Midway: PBY-5 and -5A Catalina, TBF Avenger, F2A Buffalo, F4F-3 Wildcat, SB2U Vindicator, SBD Dauntless, B-26 Martin Marauder, B-17 Boeing Flying Fortress; 3) types at Aleutian or Alaskan bases: P-36, P-38, P-39, P-40, B-17, B-18, B-26, and LB-30.
- II. **Japanese:** 1) Aboard the *Akagi*, *Kaga*, *Soryu*, *Hiryu* (also on the light carriers): Mitsubishi A6M3 Type 0 fighter, Reisen, "Zeke;" Aichi D3A1 Type 99 dive bomber, "Val;" Nakajima B5N2 Type 97 bomber, "Kate;" Yokosuka D4Y1-C Suisai, "Judy;" 2) reconnaissance aircraft aboard various battleships, cruisers, and seaplane tenders: Aichi E13A Type 0 Reconnaissance Seaplane, "Jake;" Mitsubishi F1M2 Type 0 Observation Seaplane, "Pete;" Nakajima E8N Type 95 Reconnaissance Seaplane, "Dave;" Nakajima A6M2-N Type 2 Floatplane fighter, "Rufe;" 3) Japanese types in the Aleutian campaign are all believed to be present at Midway as well, 4) additional types on Wake, Jaluit, Kwajalein, Aur, and Wotje: Kawanishi H8K1 Type 2 flying boat, "Emily;" Kawanishi H6K flying boat, "Mavis;" G3M "Nell;" G4M "Betty."



THE BATTLE OF MIDWAY

by Frank Rowsome

As June of 1942 approached, the Japanese forces had known nothing but unparalleled victories. To consolidate their control of the Pacific, Admiral Yamamoto wanted a string of bases between the Aleutians in the north, Midway (the last island to the east before Hawaii) and in the south east. They also wanted to draw what remained of the U.S. Pacific Fleet into one last, decisive battle to complete its destruction. Japanese occupation of Midway would threaten Hawaii. They calculated -- correctly -- that an invasion of Midway would draw out the remaining American carriers in the Pacific. So their main thrust would be to invade and occupy Midway, with a coordinated attack on the Aleutian Islands.

Some in the Japanese high command favored alternatives, but Jimmy Doolittle's raid on Tokyo, in B-25's launched from the *Enterprise* and *Hornet*, flying on into China, silenced the opposition to Yamamoto's Midway invasion plan.

To be sure, the Imperial Navy had stubbed its toe in the Coral Sea. The Port Moresby Invasion Force had retreated after SBDs and TBDs, protected by F4Fs from the *Lexington* and *Yorktown*, had sunk the light carrier *Shoho* accompanying the Invasion Force on May 7. But in the first great carrier battle of the war, on the next day, the Japanese believed that they had sunk both of the American carriers.

On the morning of May 8, both Admiral Fletcher, commanding the *Lexington* and *Yorktown*, with 122 aircraft, and Admiral Takagi, commanding the fast, heavy carriers *Shokaku* and *Zuikaku* with 121 aircraft, knew the other was near by in the Coral Sea, but neither knew the location of the other. Both launched early morning reconnaissance patrols to find the other. Both succeeded in locating the opposition carriers and launching airstrikes before the other engaged.

As the American planes came in to attack, *Zuikaku* disappeared into a rain squall. Only *Shokaku* could be targeted. The TBDs failed to score with torpedoes, but SBDs managed five non-fatal hits on the *Shokaku*. She was severely damaged and the fires barely controllable at times, but she managed to limp home, nearly capsizing on the way.

At the same time, 70 Japanese planes were attacking the *Lex* and the *Yorktown* under clear skies. The *Lex* was caught between pincers: eleven Kates launched torpedoes at the same time from both bow quarters. Two torpedoes and two bombs dropped by Vals found their mark. The more agile *Yorktown* evaded less-well-coordinated torpedo attacks, but took one heavy bomb amidships, and several near misses that did light damage. The *Lexington* had to be evacuated and scuttled that afternoon, done in a very orderly manner.

The *Yorktown* hightailed it for Pearl and repairs. With astonishing speed, she was drydocked, largely repaired, and relaunched within 48 hours. She was fit to fight at Midway. Meanwhile, the Japanese took their time refitting the undamaged *Zuikaku* and repairing the *Shokaku*.

Still, Admiral Yamamoto assigned the other four of the six heavy carriers in the Imperial Navy to Admiral Nagumo, commanding the Midway Carrier Striking Force, the *Akagi*, *Kaga*, *Soryu*, and *Hiryu*. He set up a line of sentry subs between Midway and Hawaii to warn of the approach of the American Pacific Fleet. The subs were two days late in taking up positions on the line, getting there on June 3.

Nimitz, with a mix of outstanding intelligence, good guesswork, and luck, had already sent the *Enterprise*, *Hornet*, and *Yorktown* past the line before the cordon was in place. Nimitz had also mined where the Japanese had been refueling their long range Kawanishi H8K1 Type 2 (Emily) flying boats from submarines, shutting down the Japanese far-reaching

reconnaissance flights over Hawaii and the approaches to Midway.

A small Japanese force attacked the Aleutians on June 3, a day before the Midway attack. Kates, Vals, and Zekes from two small carriers, the *Ryujo* and *Junyo* started with an attack on Dutch Harbor, producing little damage. Land-based P-40's blunted later Japanese armed reconnaissance by E8N Daves, but the Japanese succeeded in occupying Kiska and Attu.

A PBY spotted the Midway Invasion Force at 0900 on June 3, about 700 miles from Midway, but saw nothing of the Japanese Carrier Force. Nine B-17's from Midway bombed the Invasion Force at 1624 that day, claiming many hits, but really scoring none. Three PBYs equipped with primitive radar and one torpedo each found the Invasion Force that night, and launched their fish by moonlight. One found its mark in the oiler *Akebono Maru*, killing many of her crew. It slowed the ship temporarily, but she regained formation. No American saw the Japanese carrier force that day.

In the pre-dawn light on the 4th, Nagumo launched the first wave of his attack on Midway: 36 Kates, 36 Vals, with 36 Zeke fighters to cover them. He ordered the simultaneous launch of reconnaissance patrols to scout for U.S. naval forces: 2 Kates from his carriers, 4 Jakes and one Dave catapult-launched float planes from his accompanying battleships and cruisers. There was one new high-speed D4Y1-C Judy on *Soryu*, adapted for reconnaissance, but it was not deployed. Several of the cruiser-based float planes were late in taking off. *Tone* had catapult problems and one on *Chikuma* had engine trouble. It ultimately had to turn back without completing its mission. These were the observation planes assigned the sweep north of Midway where the American carriers were. Nagumo reserved half of his Kates and Vals armed with armor-piercing bombs and torpedoes for any naval forces found by his patrols.

A PBY that had left Midway well before dawn radioed the first sighting of Nagumo's carrier force at 0534 and reported many enemy aircraft on their way toward Midway. The carrier forces were then 200 miles apart. Midway scrambled bombers and torpedo planes to attack the Japanese carriers.

Radar on Midway picked up the approaching Japanese aircraft 93 miles out. Everything remaining on Midway that could fly took off. Six Marine Corps Wildcats and 20 Buffalos attempted to intercept, but were hopelessly outnumbered and out-performed by the Zeke fighter cover. None managed to keep a bomber from its run. The Kates dropped their 805 kg bombs from 14,000 feet around 0630 with their accustomed accuracy, followed by the Val dive bombers, into a furious hail of anti-aircraft fire. They both did considerable damage, but failed to render the runways unusable. Still, pitifully few Wildcats and Buffalos survived to use them.

At 0700, Lieutenant Tomonaga, commanding the aircraft that had just bombed Midway, radioed Nagumo that a second air strike on Midway was needed. At 0710, 6 TBFs and 4 B-25s, also armed with torpedoes, and all from Midway, attacked the Japanese carriers. Many were shot down by Zekes before they could make their runs, and many more fell to AA. None scored on the Japanese. Only one TBF and two Marauders made it back to Midway. None of the Japanese reconnaissance patrols had yet reported a sighting of enemy naval forces. So Nagumo ordered the Kates of his second attack group taken below decks to be rearmed with bombs in place of torpedoes for a second strike on Midway, a job that took an hour.

At 0728 a tardy Jake from *Tone* radioed a sighting of ten enemy ships north of Midway, but initially made no mention of carriers. The fast Judy was launched to confirm the sighting.

The rearming of the second wave aircraft continued for another 15 minutes. Then Nagumo wavered; should he attack Midway or the U.S. naval forces? He ordered the Kates still armed with torpedoes to be left that way, and preparations made for an attack on the U.S. ships. He also had to recover his aircraft returning from Midway.

At 0755, 16 SBDs from Midway attacked the Japanese carriers. Due to the inexperience of the pilots, their commander ordered a shallow dive attack. Many fell before the Zekes; others to AA fire. None did more than strafe the deck of one carrier, killing four sailors. Eight made it back to Midway, six damaged beyond repair.

At 0810 15 B-17s bombed the Japanese carriers from 20,000 feet. None scored, although, like the surviving B-26's an hour earlier, they returned to Midway with tales of glorious hits.

Eleven Vindicators from Midway found the Japanese carriers at 0820. The Zeke defense was so deadly that the survivors turned to attack the less well-defended battleship *Haruna* but all missed it.

Nagumo recovered his Midway attack aircraft between 0837 and 0905. He then turned 90° to ENE to close with the American Navy, during a respite as the wave after wave of unsuccessful assaults by Midway-based aircraft ceased. He now had all of his bombers aboard, and was feverishly rearming and refueling them. There was no time to take the bombs meant for Midway down to the well-protected magazines. Thus far, he had been spectacularly successful in fighting off the many attackers. His carriers were unscratched and most of his aircraft in fit shape to fight. But he was vulnerable.

While this was going on, Admiral Spruance, commanding *Enterprise* and *Hornet*, launched everything but his defensive fighter cover to attack the Japanese carriers, timed to catch them while they were recovering their Midway attack aircraft. Fletcher's *Yorktown* waited, and then launched a second wave an hour later.

First to arrive at the projected location of the Japanese carriers were Stanhope Ring's 35 SBDs and their F4F escorts. The sea was empty of ships. No one knew that the Japanese carriers had turned ENE some time before. He turned to follow the original carrier heading toward Midway and found nothing. All of his F4F escorts and two of his SBDs ran out of fuel before reaching Midway and had to ditch.

Following were Waldron's flight of TBD-1s which had become separated from their F4F escorts. These turned NE when they found the intercept point unoccupied, and so found their way to the enemy carriers around 0930. So, too, did Massy's TBD's flying a more direct path from *Yorktown*. Every one of Waldron's the 15 TBDs was shot down, as were nearly all of Massy's 21 TBDs. None scored a hit on the Japanese carriers. Of the thirty naval airmen with Waldron, only Ensign George Gay survived, floating in the middle of the enemy carriers, to report on their fate after he was picked up by a PBY the next day.

Commander Clarence McClusky's 37 SBDs, without fighter cover, tried searching to the southwest when the intercept point proved vacant. Soon running low on fuel and finding nothing they turned back. He picked up the trail of a destroyer hurrying to rejoin Nagumo after lagging behind to run depth-charge patterns on an American submarine. Meanwhile the one of the F4Fs that had lost contact with Waldron's TBDs radioed a rough position of the Japanese carriers. McClusky soon found them around 1000, still wildly maneuvering as the TBD attack was massacred. All the 50 Zekes scrambled at the TBD approach were still at low altitude well below. He split his squadrons to attack the *Akagi* and *Kaga* simultaneously. They came in at 70° at 280 knots, meeting only light AA fire, releasing their bombs at about 500 meters. The first bomb

aimed at Nagumo's flagship *Akagi* missed. The second struck near the elevator amidships, detonating the torpedoes in ready storage there. The third exploded among the Kates being refueled and rearmed with torpedoes on the aft flight deck. Raging fires and secondary explosions wracked the *Akagi*.

Kaga took four hits; these were even more promptly devastating than the two on *Akagi*. At the same time, Leslie's SBDs on a direct route from the *Yorktown* found the enemy carriers and fortuitously targeted *Soryu*. They, too, found themselves well above the Zekes and dove out of the sun. Three scored hits causing massive damage, raging fires, and secondary explosions.

The Japanese were determined to continue the fight with their one intact carrier. Admiral Yamaguchi in *Hiryu* launched 18 Vals and 6 Zekes at 1100 for the American carrier force. The missing *Judy*, whose radio had failed, then appeared and landed on *Hiryu*, reporting the sighting of *Enterprise*, *Hornet*, and *Yorktown*. Yamaguchi now knew he had three enemy carriers to deal with. At 1331 he launched all that remained of the Japanese attack aircraft: 10 Kates armed with torpedoes with an escort of 6 Zekes, lead by Lieutenant Tomonaga, in a damaged Kate unable to take on more than half the normal fuel load, with no hope of making it back to *Hiryu*.

At noon, *Hiryu*'s Vals closed on the *Yorktown*, just as she was getting ready to land Leslie's SBDs. They were waved off, and most made it to the other carriers. Thach's F4Fs shot down or fought off many of the Vals, and AA got two more, but six got through, scoring three hits on *Yorktown*. Damage control was getting the *Yorktown* back in business when Tomonaga's Kates came in and attempted the coordinated pincers attack that had sunk the *Lex* in the Coral Sea. Four Kates made it through, making two torpedo hits, finishing the *Yorktown*. Only a handful of planes straggled back to *Hiryu*.

Admiral Fletcher had sent out scouts to look for surviving Japanese carriers at mid day, but *Hiryu* was not located until 1445, after the fatal blow to *Yorktown*. Twenty four SBDs, all veterans of the morning attack and some orphans from *Yorktown*, were sent to attack her. They closed at 1700, scoring four hits, starting fatal fires. Additional, repeated attacks were made by Midway-based B-17s. No hits were scored, but they weren't necessary. *Hiryu* was already doomed.

By the next day, *Akagi*, *Kaga*, *Soryu*, *Hiryu*, and the *Yorktown* had sunk. The once-invincible Japanese Imperial Navy would never recover. Four of its six heavy carriers -- amounting to nearly half of its flattop tonnage -- had been lost in a few hours. To the surviving *Enterprise* and *Hornet*, were soon added the *Saratoga*, repaired after taking a torpedo lauched from a Japanese submarine, and the *Wasp*, transferred from duty in the Atlantic, shifting the balance of carrier power in the Pacific. In August, the Marines landed on Guadalcanal, and the roll-up of the Japanese conquests begun.



Old Timer Contest

We held an Old Timer Contest at Comsat on May 31. The weather was gloomy all day, and probably kept several flyers from coming out, but at about 7 p.m. it turned into a perfect cool and calm evening that was great for flying. Frank Rowsome, Doug Buchanan, and Don Srull each landed one in a tree, but all were retrieved. How do you do that on an evening with no drift you ask?? Those of you that fly know that it happens but I'm convinced that no one really knows why. Out of three mass launches we had two winners. Frank Rowsome won the Peck Moth and the All Old Timers events. Rolfe Gregory won the 30" and under wingspan Old Timer event. A delightful time was had by all.

D.C Maxcuters Mini -Contest at Comsat

	Peck Moth	Mass Launch
Name	Aircraft	Place
Frank Rowsome	Moth	1
Rolfe Gregory	Moth	2
Scott Paisley	Moth	3

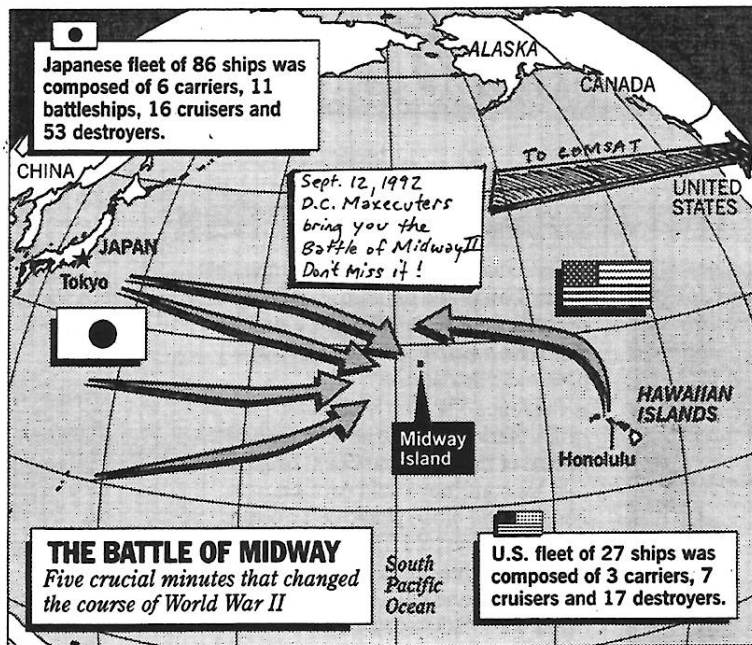
	Old Timer	Mass Launch
Wingspan 30" or under		
Name	Aircraft	Place
Rolfe Gregory	Moth	1
Frank Rowsome	Moth	2
Doug Buchanan	Old Reliable	3
Scott Paisley	Moth	4

	All Old Timers	Mass Launch
Name	Aircraft	Place
Frank Rowsome	Moth	1
Scott Paisley	Moth	2
Jerry Paisley	Sparky	3
Doug Buchanan	Old Reliable	Broken Motor
Rolfe Gregory	Moth	Broken Motor

"TEN-CENTER" CONTEST 21 JUNE 1992

The wind blew and only the fools flew over the gale swept slopes of "Shangrila" at our recent contest for old-time 10 cent scale kit planes. Three daredevil pilots tossed (literally) their aircraft into the turbulent air with Jerry Paisley the winner and KANONE recipient by a split second over Doug Buchanan and Scott Paisley. Jerry was flying a Stinson Voyager, Doug his venerable Allied Sport, and Scott a Taylorcraft. Unfortunately the wind was blowing so strongly that this reporter's notes (read that memories) were blown away and no records are available at this printing concerning the plan origins. All witnesses to this debacle felt that Scott underwound in deference to Jerry on FATHER'S day.

Five other intrepid souls appeared to watch all the acrobatics and attempt a few test flights in the lee of the giant oaks. Our good friend Bob Wetherell journeyed all the way from sunny San Diego to visit and was test flying a diesel powered De Havilland Moth Minor. The engine is a relatively new one, the CLAN .25 cc, and performed remarkably good considering the temperature. We are all looking forward to the next mini-contest at COMSAT, hopefully without a world class acrobatic display! Come on out Maxcuters; you are missing all the fun.

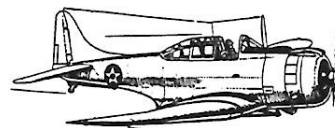


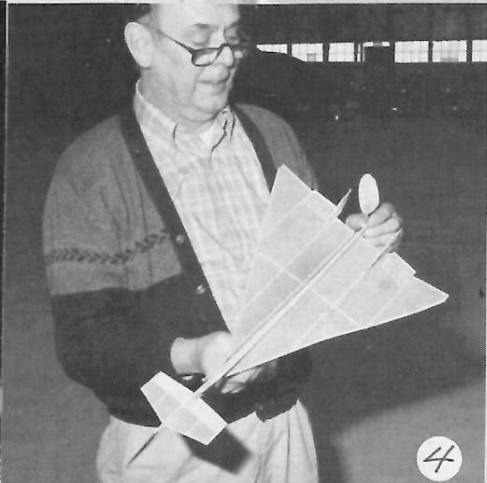
**** NOTICE ****

Hi Line Ltd, producer of electric motors and accessories for flying models, has moved. New address:

Hi Line
P.O. Box 11558
Goldsboro, N.C. 27532

All of Hi Line's great electric line is available from the new source.





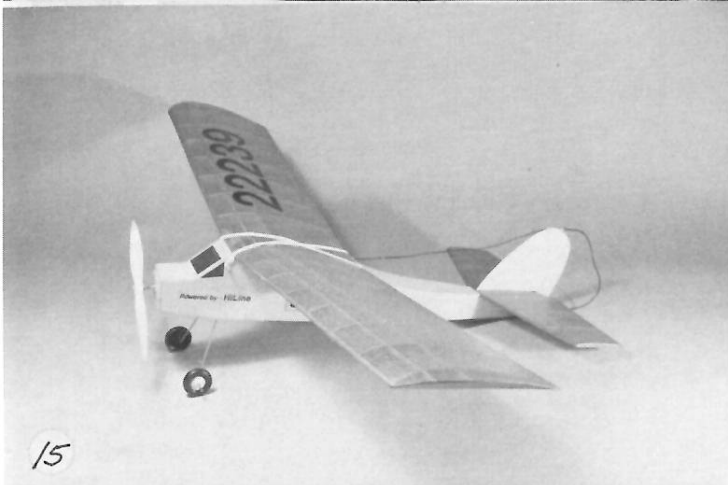
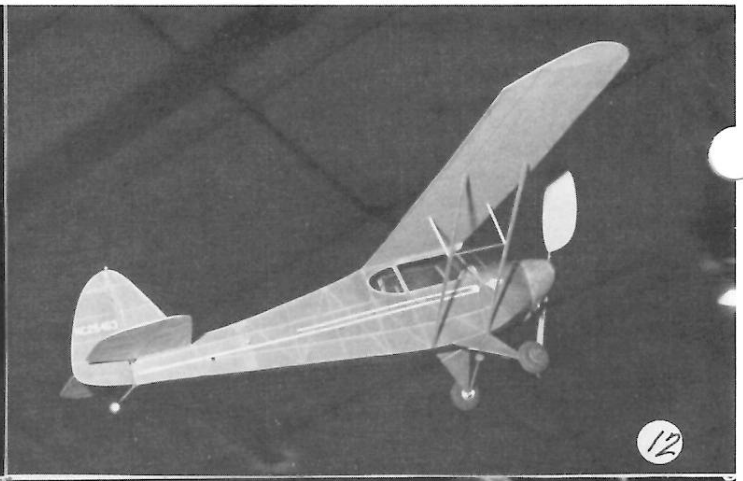


PHOTO PAGES

1. Terry Pittman is a co-editor of this MAX-FAX; shown here holding his Bernard built from an Emmanuel Fillon plan. It is powered by a Hi Line MICRO-4 electric motor system.
2. Our other co-editor Hurst Bowers is too busy drawing the full size plan of a Caudron 109 for this issue to stop for a photo. But we do have a nifty bones shot of another recent model of his, a Farman 192 destined to be powered by a Hi Line MINI-6 electric motor system.
3. Bert Phillips seen here with his Sopwith Tripe, probably a Wherry plan. We extend our deepest sympathy over his recent tragic loss of Barbara.

PAX RIVER SPRING FLY PHOTOS

4. Bud Carson shown here with his semi-scale B-70 profile, grabbed first place in the NO-CAL event with his high flying Cessna CR3.
5. The front end of Terry Pittman's PISTACHIO Renard shown a little larger than real life size with a tiny Gasparin CO2 motor installed; it is a great flyer. The motors are available from PECK-POLYMERS.
6. Here is Terry with the airplane for a size comparison.
7. It was great to see Bill Bell back in action at the Pax meet. Bob Kennedy is holding Bill's venerable T4M-1.
8. Brian Koppenhaver took away the first prize in NAVY SCALE MASS LAUNCH with his very pretty F4U Corsair.
9. Jerry Paisley, our pres, built a COCONUT Piper J4E from Dave Rees's plans and came in a close second behind Dave.
10. Not to be outdone by dad, Scott Paisley garnered a first place in BOGUS SCALE BOSTONIAN with his version of Allan Schanzle's Skyfarer BOSTONIAN. Russ Sandusky provided the photo.
11. Look out for this one at the FAC NATS this summer! Dave Rees built this A-10 for 2 Hi Line MICRO-JET systems. Initial test flying has begun and it should be a great flyer.
12. Here we have Dave's J4E COCONUT high in the hangar at Pax River.
13. Glen Simpers joined us for the fun and picked off a second place in the GOLDEN AGE MASS LAUNCH with his Taylorcraft.
14. Don's acquaintance is looking for a place to install an R/C system like the one by Fritz Mueller in Don's MICRO-JET powered HUMMER.
15. Don's enlarged MINI-E (about 140 squares) with a Cox Fail-Safe R/C system is a great fun flyer powered by a Hi Line MINI-6 electric motor and using a (4) cell 150 MAH battery. Look for a possible future article in Flying Models Mag.
16. Paul Spreiregen picked up a first place in the CONSOLATION MASS LAUNCH event with his Fairchild 24. Everyone seemed to enjoy this event and we will try it again this fall.
17. Another great model and photo from Jiro Sugimoto; here his PEANUT BD-4.
18. Lou Buffardi sent this photo of his nifty Arado 96 with a 24 inch span built from an enlarged 16 inch Comet plan.



Terry Pittman's Mauboussin P.M. X (or P.M. 10) from an enlarged E. Fillon plan. Almost identical to the Mauboussin P.M. 4 shown elsewhere in this issue. The P.M. X set a number of distance and endurance records in France in 1929 and 1930. Model is powered by a Brown A-23 CO2 motor with a sleek streak prop. Tricky to trim with all that vertical stab, short moments, and high aspect wing, but has done 90+ seconds outdoors.

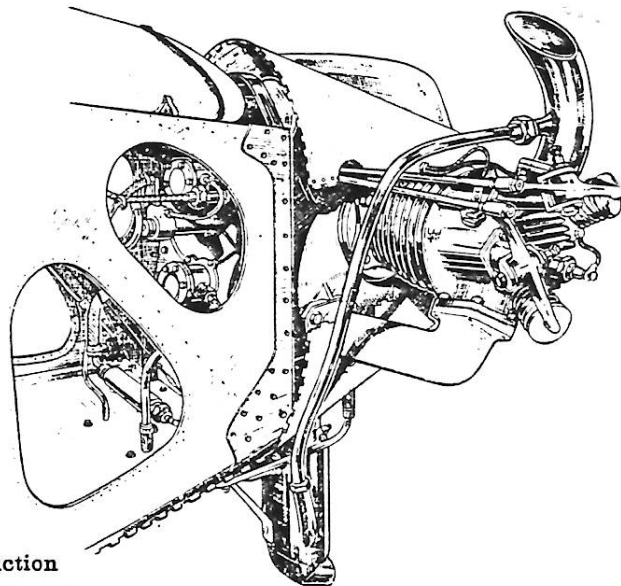
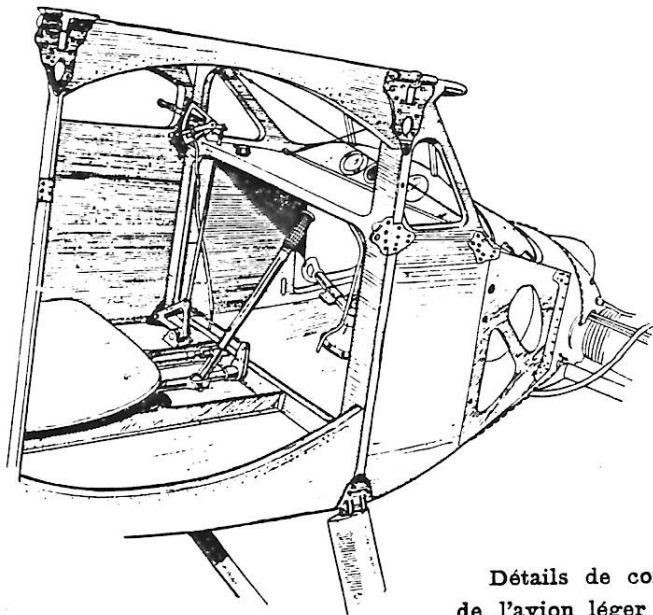


LE POTEZ 36
Avion de tourisme
biplace à
ailes repliables
munies de "bec
de sécurité"

LES POTEZ 29
— 32 ET 38 —
avions de trans-
port commerciaux
pour les grands
— courriers —

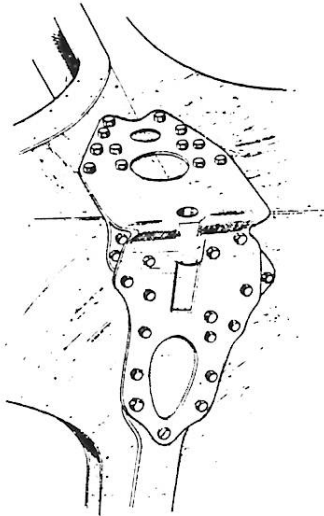
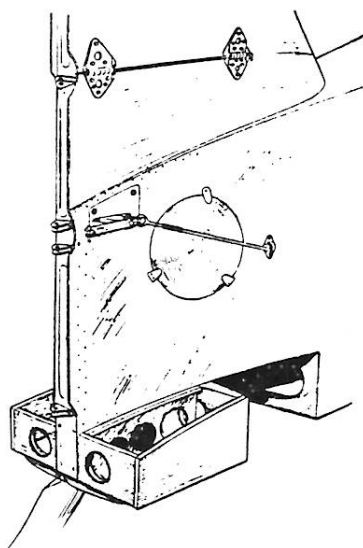
LE POTEZ 25
avion d'observation
et de reconnaissance
LE POTEZ 33
avion colonial et
de liaison

LES POTEZ
— 33 ET 29 —
avions sanitaires
— multiplaces —
pour le transport
rapide des blessés

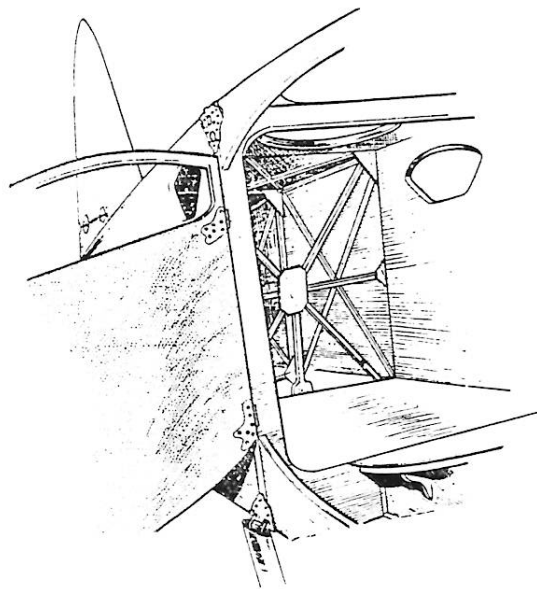
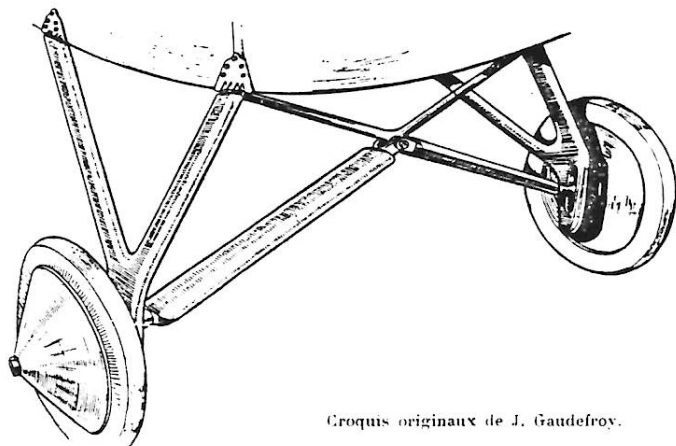


**Détails de construction
de l'avion léger Mauboussin.**

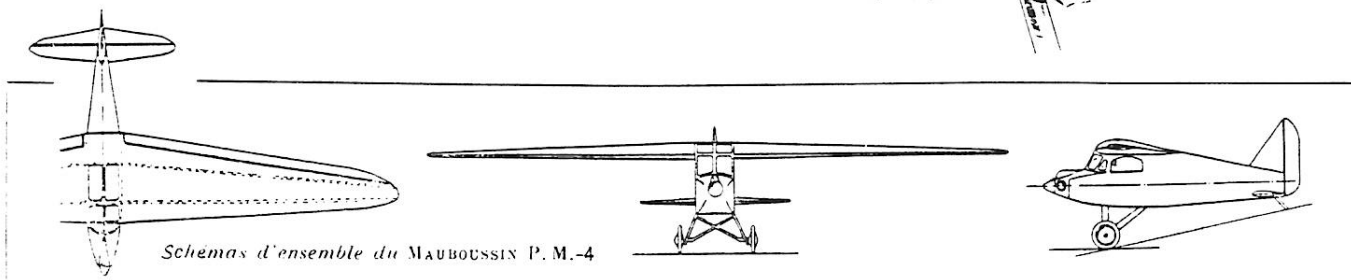
En haut, à gauche, structure de l'avant du fuselage et du support-moteur, montrant la cabine, les commandes et les attaches d'aile. A droite, installation du moteur A. B. C. « Scorpion » 34 HP, à carburateur réchauffé. Ci-contre, à gauche, étambot, attaches du gouvernail, dérive à charnière se repliant lors du démontage de l'appareil, renvoi de commande de gouvernail, porte de visite; en bas du dessin, caisson de fixation de l'empennage horizontal, placé ici à la partie intérieure du fuselage, contrairement à la pratique courante. A droite, détail d'une des ferrures d'attache des ailes, prolongée par une ceinture de duralumin rejoignant la ferrure du train.



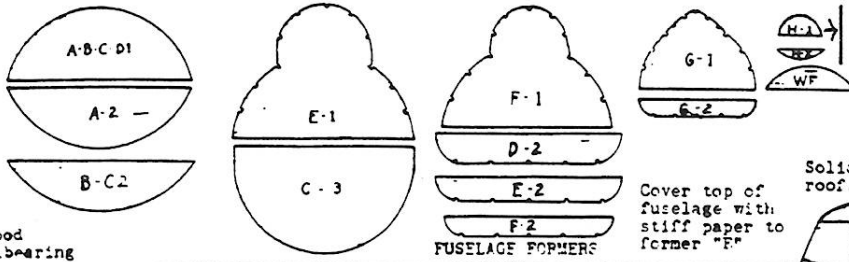
En bas, à gauche, ensemble du train articulé sans essieu, suspendu par sandows. A droite, l'intérieur du fuselage vu vers l'arrière et la porte d'accès; on remarquera que celle-ci s'ouvre vers l'arrière, à l'inverse de la disposition généralement adoptée.



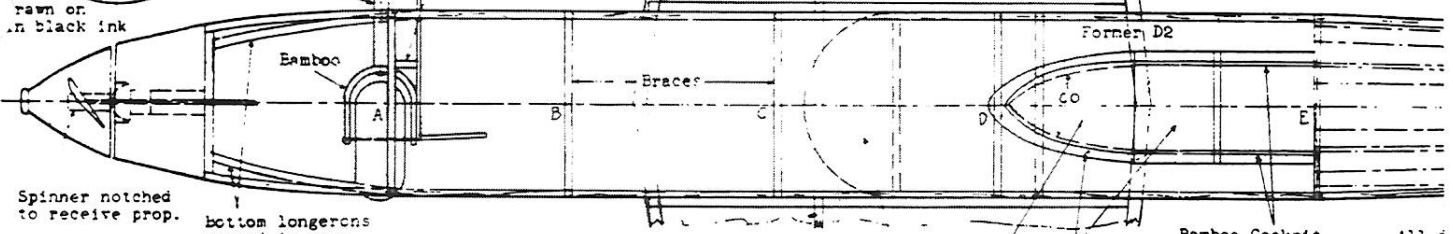
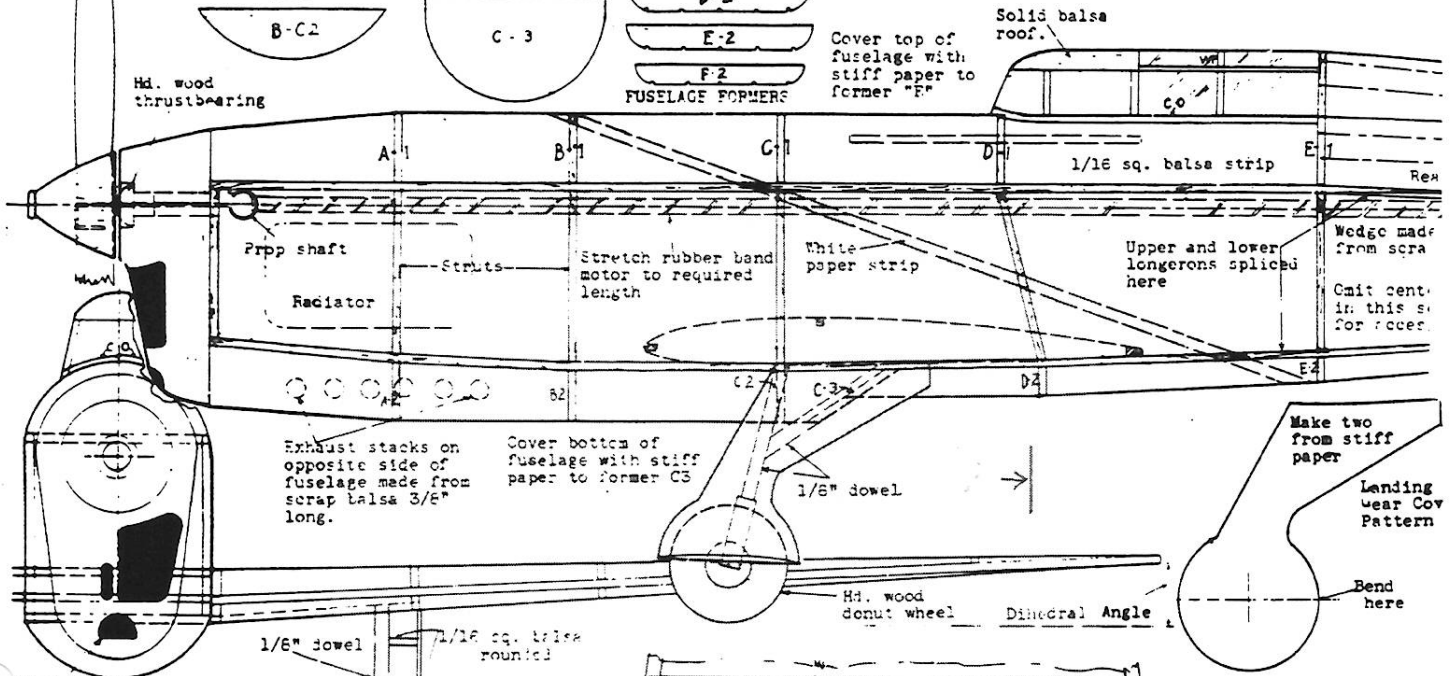
Croquis originaux de J. Gaudefroy.



Schémas d'ensemble du MAUBOUSSIN P. M.-4



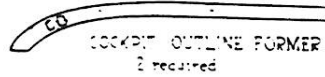
COLOR SCHEME
 Blue - Entire ship
 White - Numerals, lettering, striping.
 Black - Details



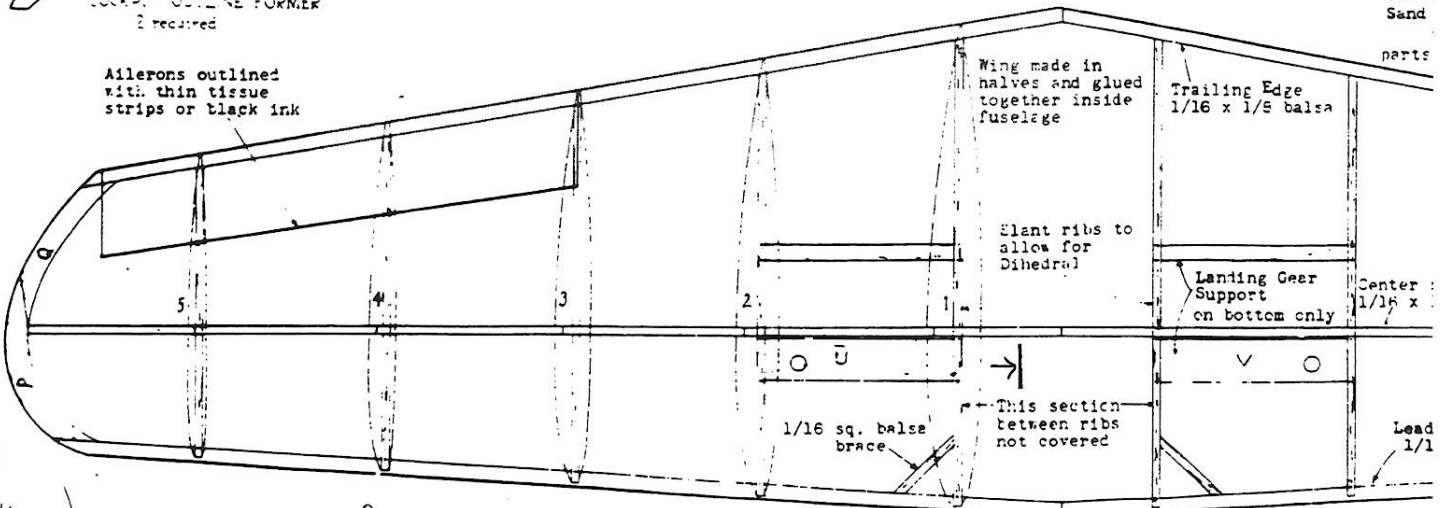
Spinner notched to receive prop.

bottom longerons curved in more than upper longerons.

Wing is in reality butt jointed against the sides of the fuselage. However the spars continue into the fuselage and meet at the center. Cover the fuselage before attaching the wings!



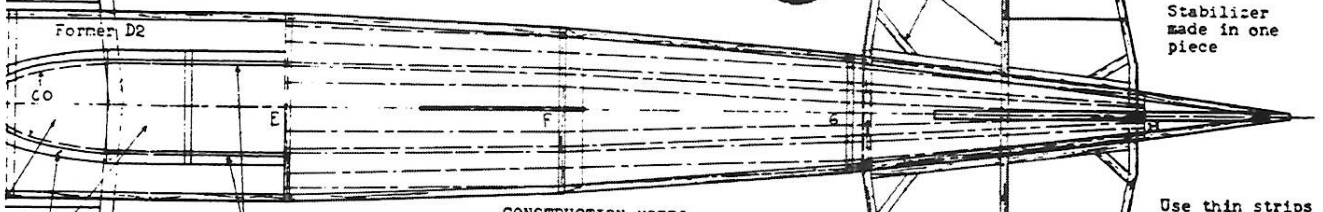
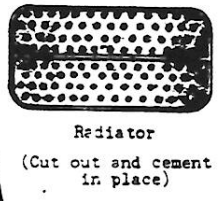
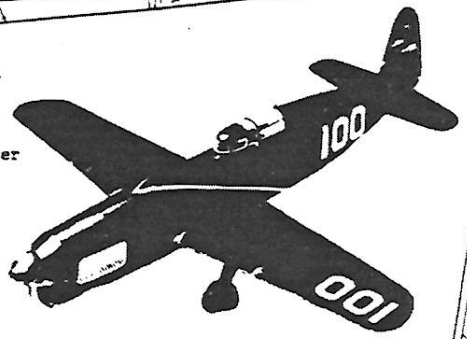
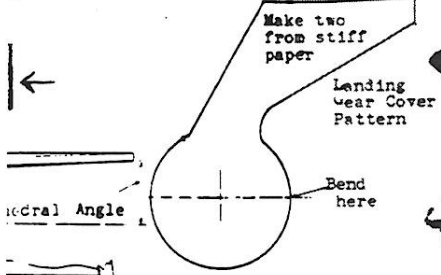
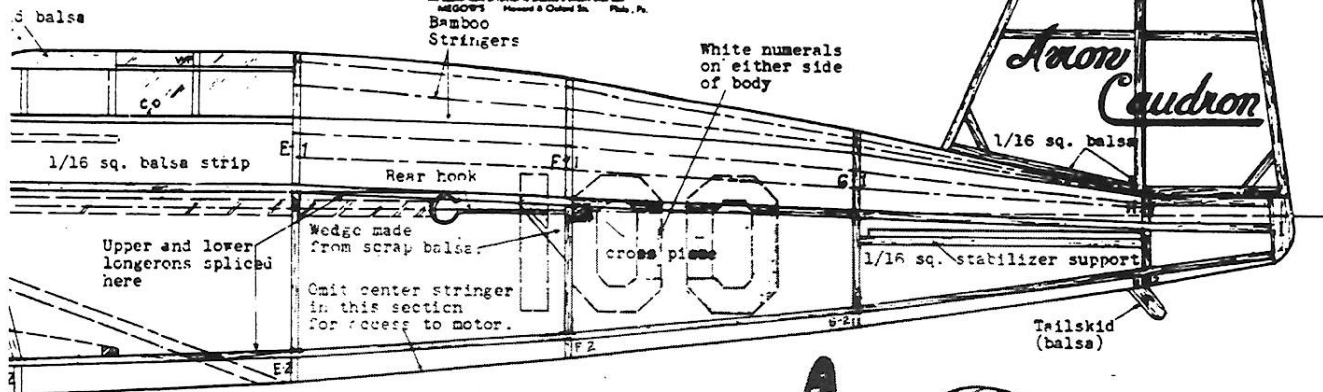
Ailerons outlined with thin tissue strips or black ink



COLOR SCHEME
 Blue - Entire ship
 White - Numerals, lettering, striping.
 Black - Details



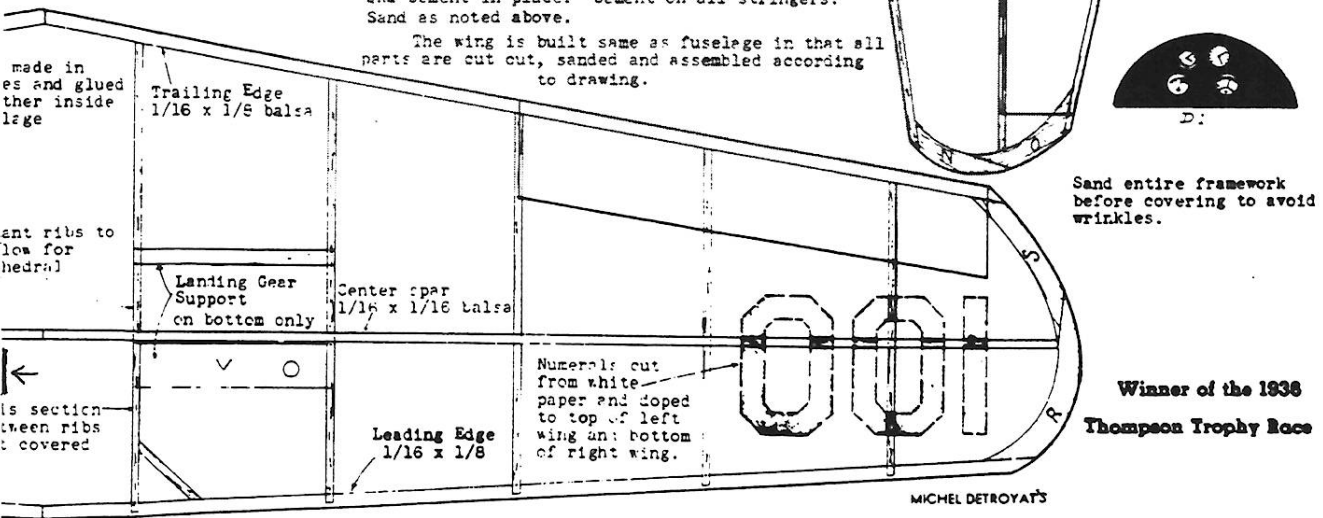
Note: Kit is planned for a flying model. No dope is included



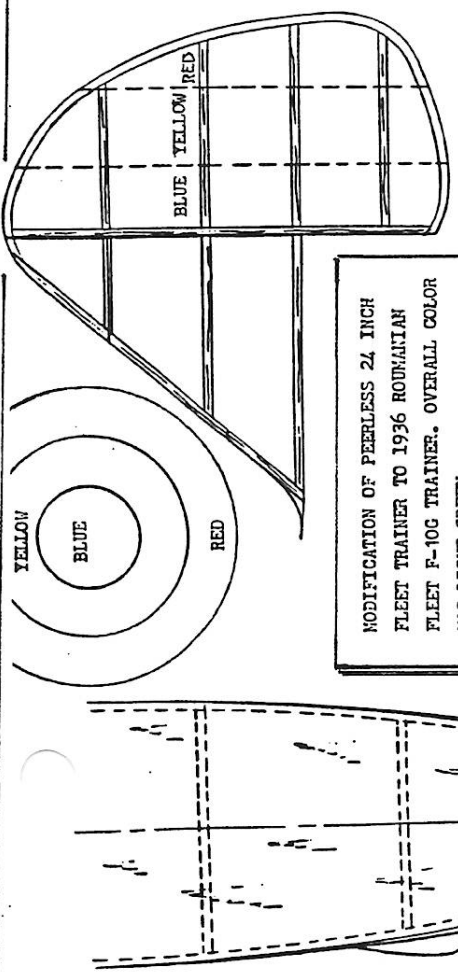
CONSTRUCTION NOTES

All dimensions on plan are exact. To determine size of part measure from plan, or compare material. Build fuselage first. Make two fuselages from sideview. Next cut cross braces according to top view and cement in place. Cut formers from printed piece, sand to center of line and cement in place. Cement on all stringers. Sand as noted above.

The wing is built same as fuselage in that all parts are cut out, sanded and assembled according to drawing.

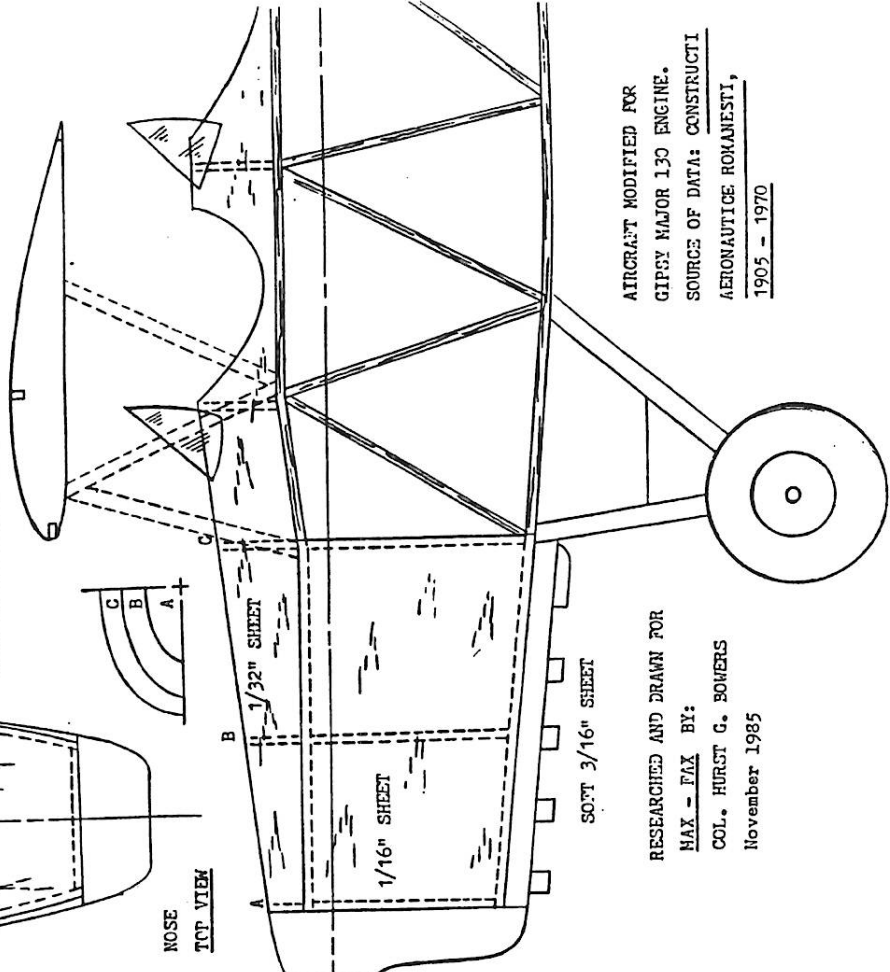


French Caudron C-460 Racer



MODIFICATION OF PEERLESS 24 INCH
 FLEET TRAINER TO 1936 ROMANIAN
 FLEET F-10G TRAINER. OVERALL COLOR
 WAS LIGHT GREEN.

FIN-RUDDER



NOSE
 TOP VIEW

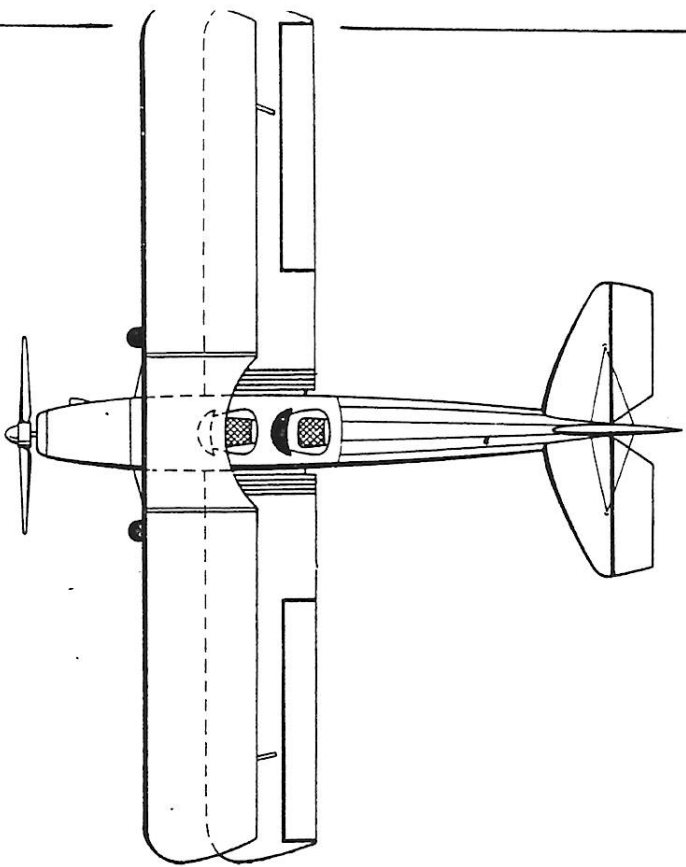
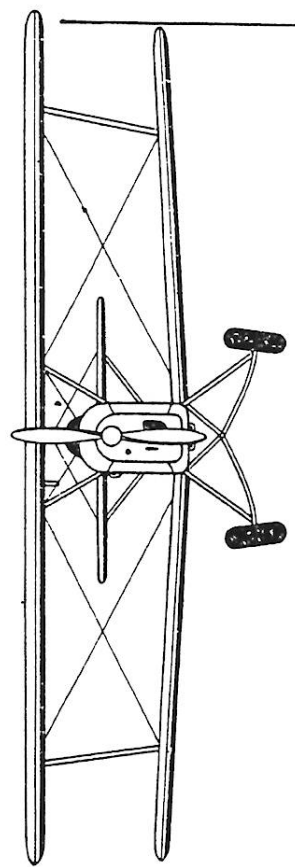
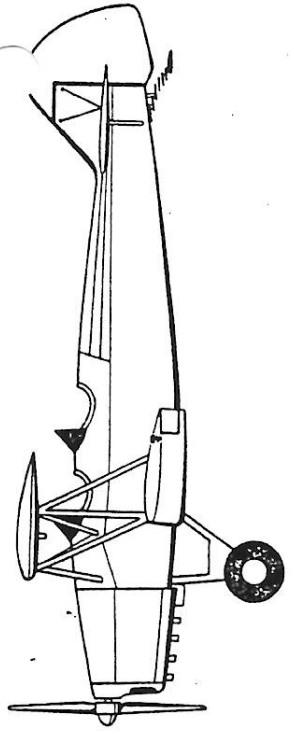
1/32" SHEET

1/16" SHEET

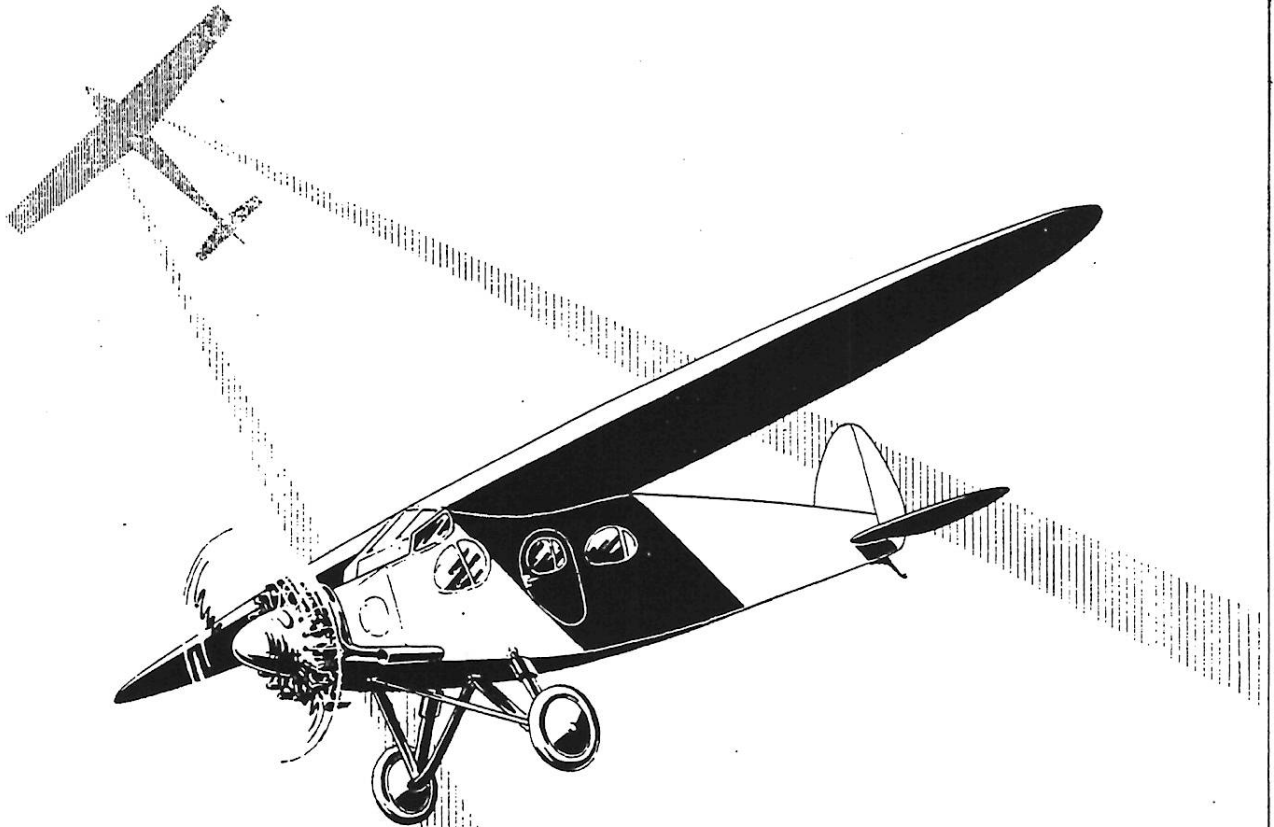
SOFT 3/16" SHEET

RESEARCHED AND DRAWN FOR
 MAX - FAX BY:
 COL. HURST G. BOWERS
 November 1985

AIRCRAFT MODIFIED FOR
 GIPSY MAJOR 130 ENGINE.
 SOURCE OF DATA: CONSTRUCTI
 AERONAUTICE ROMANESTI,
 1905 - 1970



Fleet F-10 G

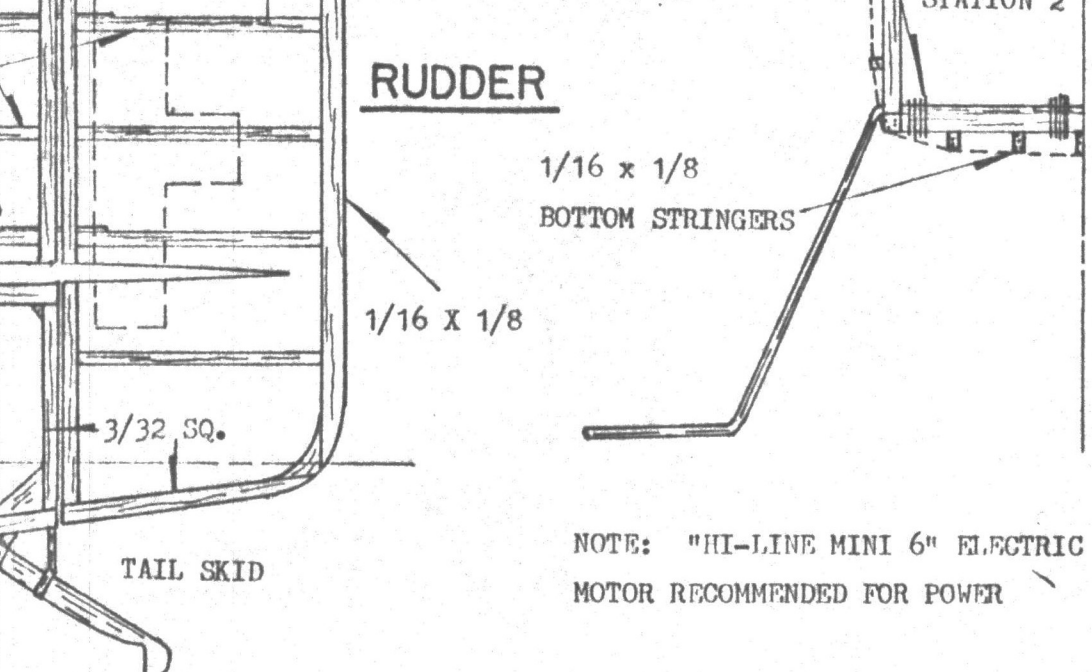
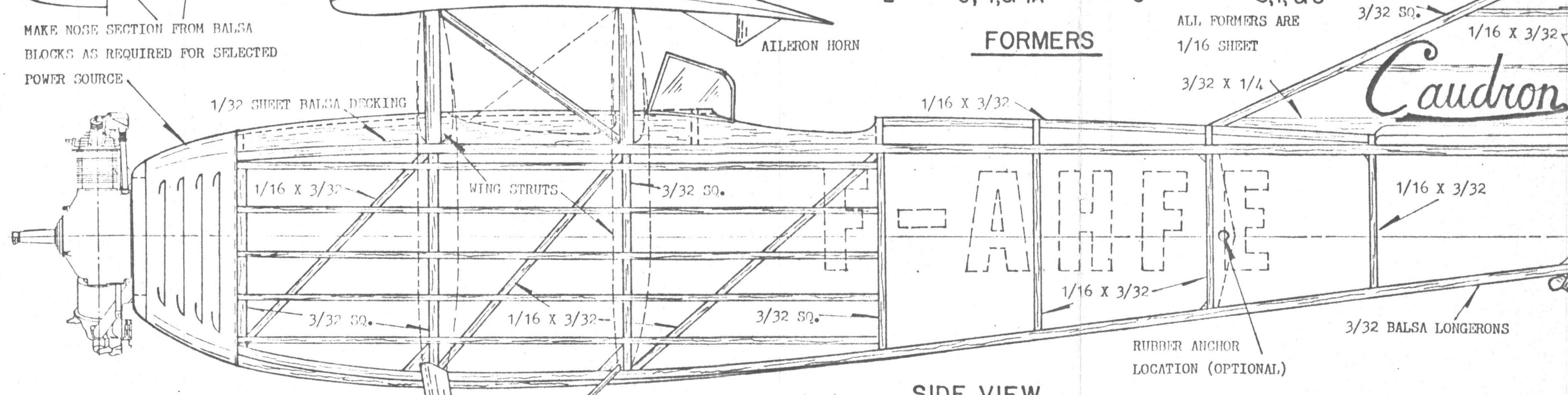
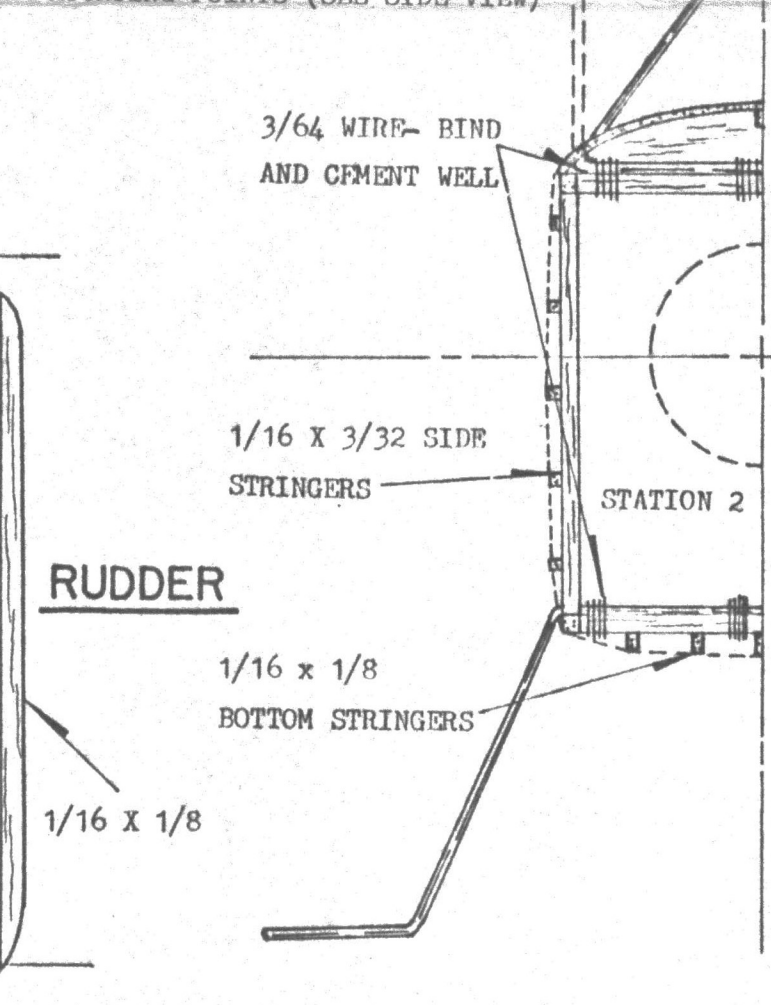
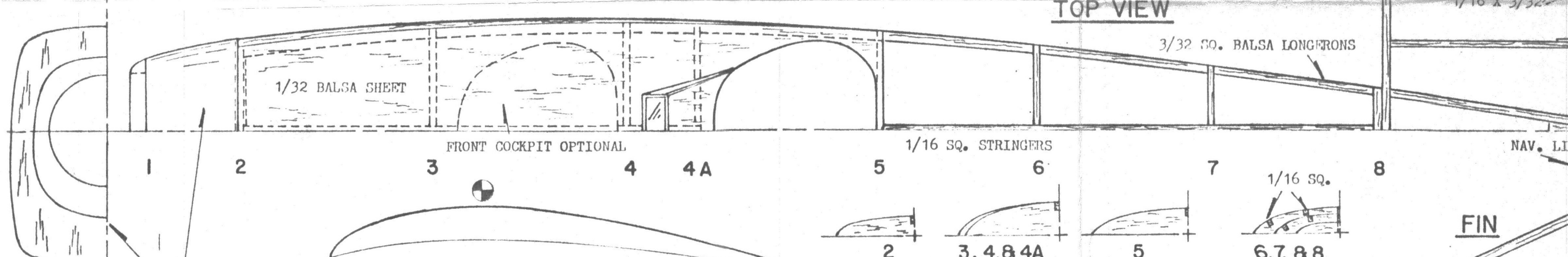
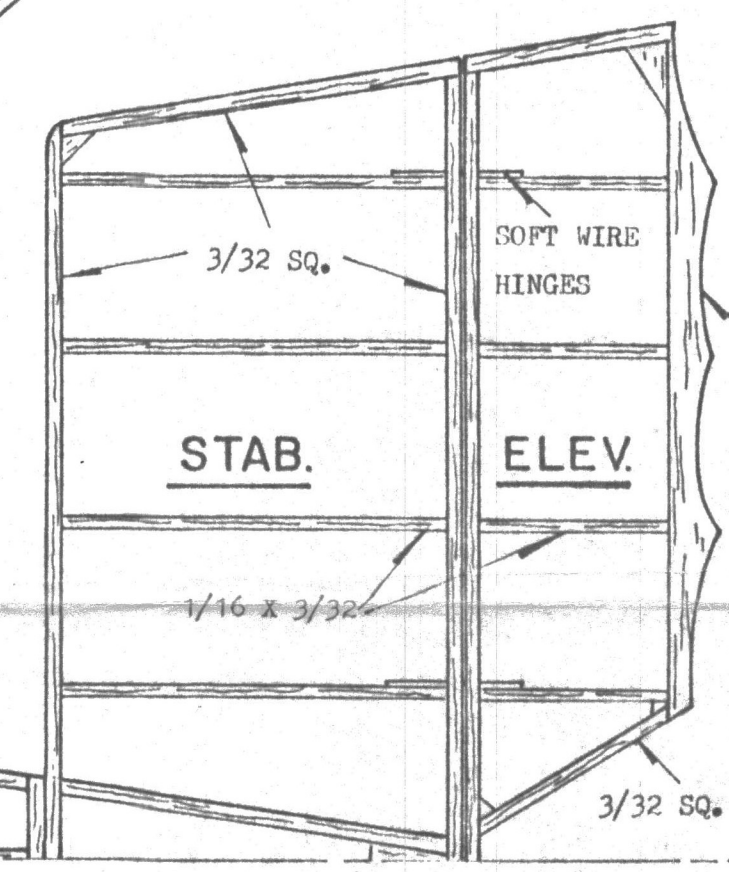
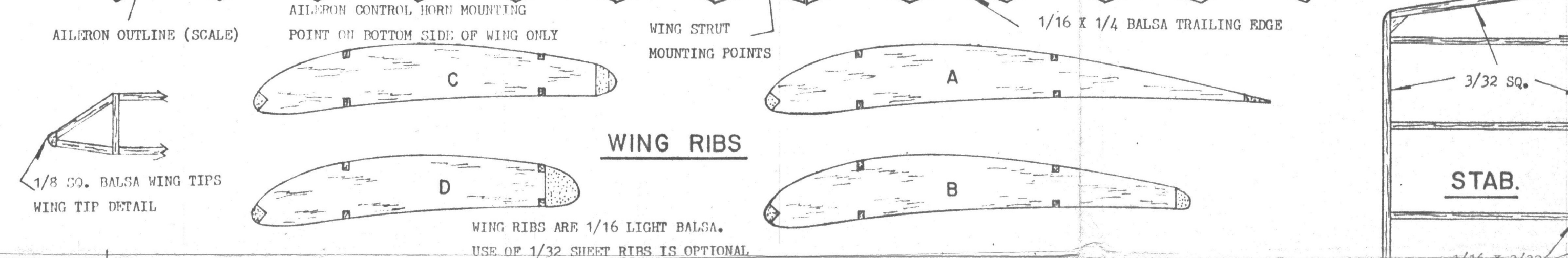
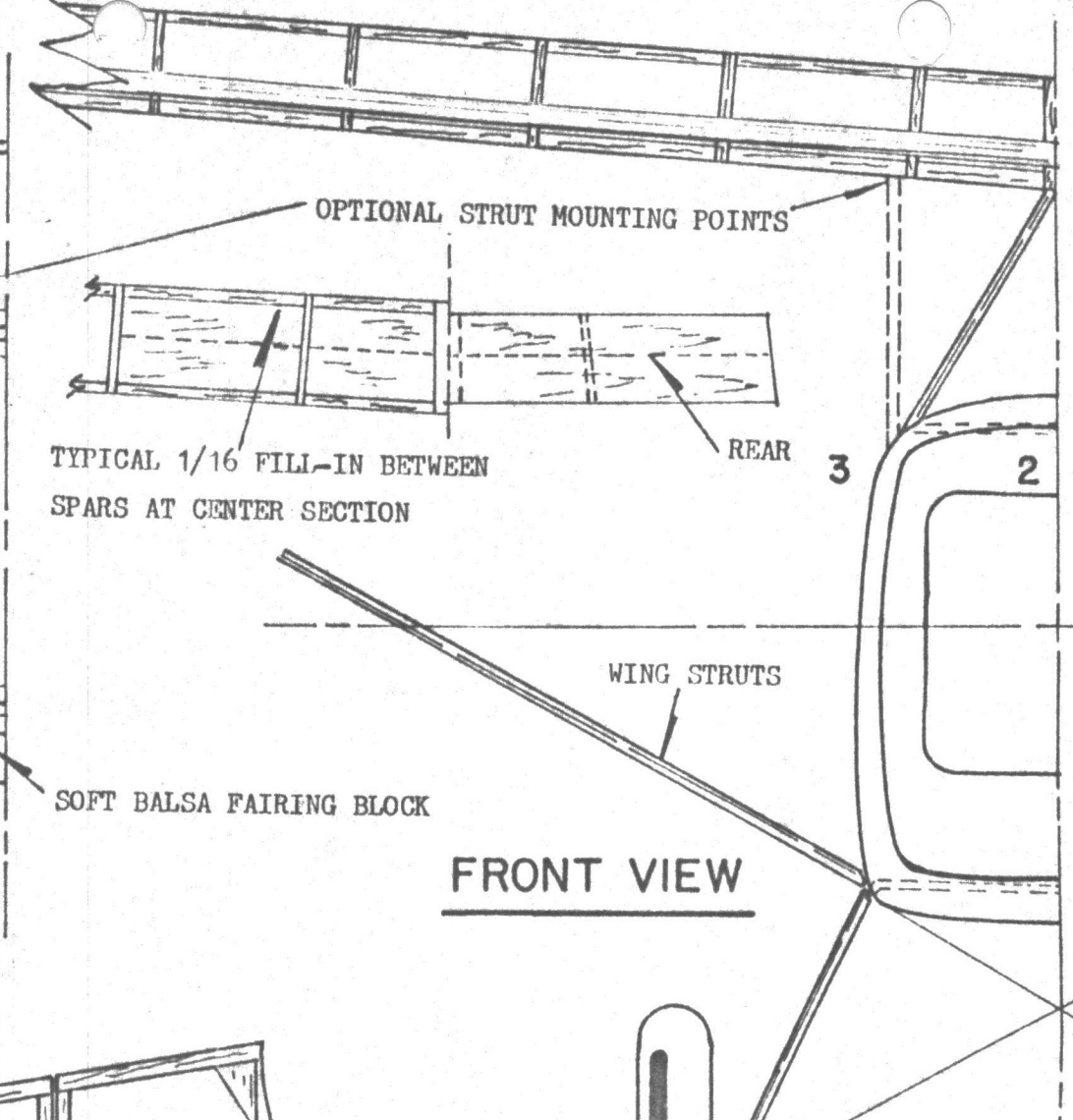
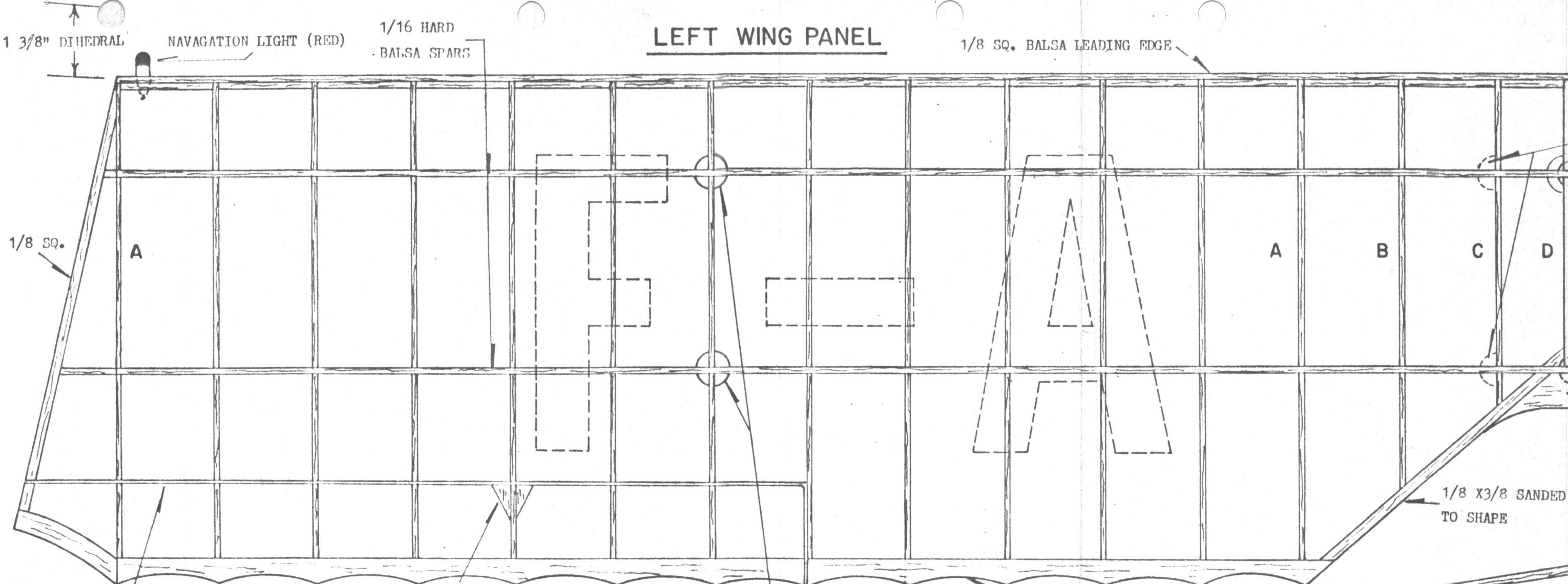


LES AVIONS COMMERCIAUX

NIEUPORT- DELAGE,

RAPIDES ET CONFORTABLES,
SONT LES PLUS ECONOMIQUES

Nieport



TYPICAL RADIAL ENGINE INSTALLATION SHOWN, NOT TO SCALE. AIRCRAFT WAS POWERED WITH A 40 H.P. SALMSON, 9 CYLINDER ENGINE.

COLOR DATA
EXCEPT FOR THE AIRCRAFT CURRENTLY ON EXHIBIT AT THE MUSEE DE L'AIR, PARIS, ALL AVAILABLE PHOTOGRAPHS INDICATE THAT THE ENTIRE AIRCRAFT WAS FINISHED IN SILVER, FROM ALUMINUM POWDER IN CLEAR DOPE. THE REGISTRATION LETTERS AND DETAILS WERE BY

SOURCES OF DATA
* JAMES ALL THE WORLDS' AIRCRAFT - 1928/29/30
* FICHE NO. 16, TECHNIQUES DE "L'AERONAUTIQUE"
* " " 101, " " " (OCT. 1927)
* BROCHURE OF EXHIBITS, MUSEE DE L'AIR, PARIS

CAUDRON
"C-109"
RUBBER OR ELECTRIC POWERED FREE FLIGHT SCALE
31 1/2" WINGSPAN, 17 1/2" LENGTH, 150 SQ. IN. AREA
DESIGNED & DRAWN BY COL. HURST BOWERS, JUNE '92

NOTE: "HI-LINE MINI 6" ELECTRIC MOTOR RECOMMENDED FOR POWER