

MAX FAX



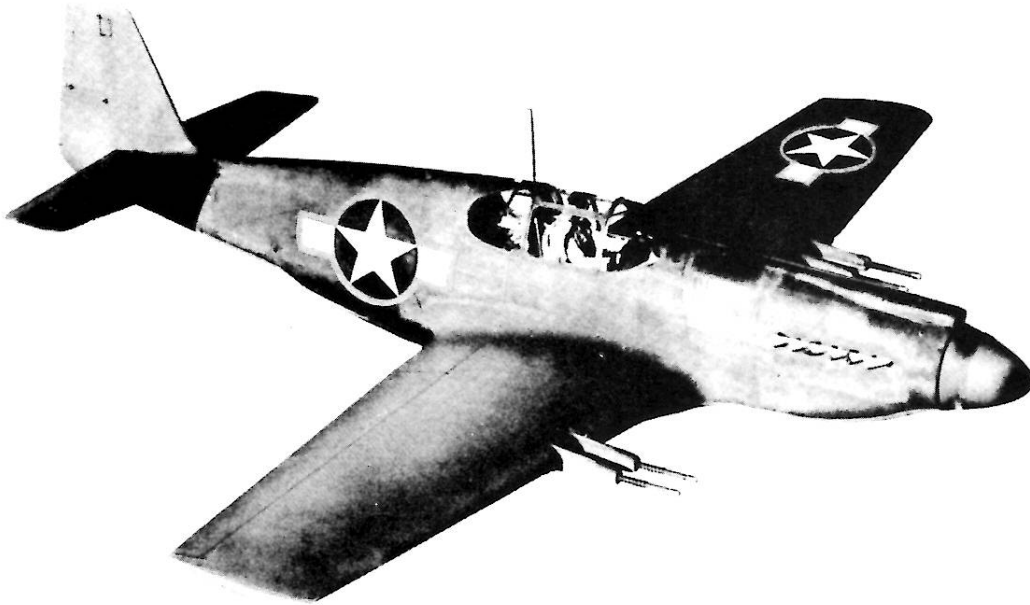
Journal of the D. C. Maxecuters

... home of the dreaded POTOMAC PURSUIT SQUADRON of the Flying Aces Club

Editor: Stew Meyers

JULY - AUGUST 2006

COMET "E" SERIES MUSTANGS



COMING ATTRACTIONS

AUG 25-26, 2006 SUMMER KUZU Goldsboro and Raeford, N.C.

INFORMATION ON WEB SITE www.his.com/~tschmitt

SEPT 11-15, 2006 SAM CHAMPS MUNCIE, INDIANA

WITH 'EARL STAHL' MODEL SPECIAL EVENTS.

SEPT 16-17 2006 FAC AT MUNCIE, INDIANA

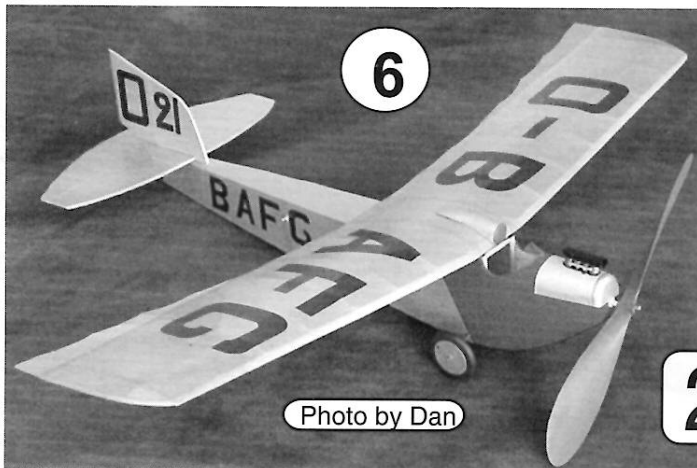
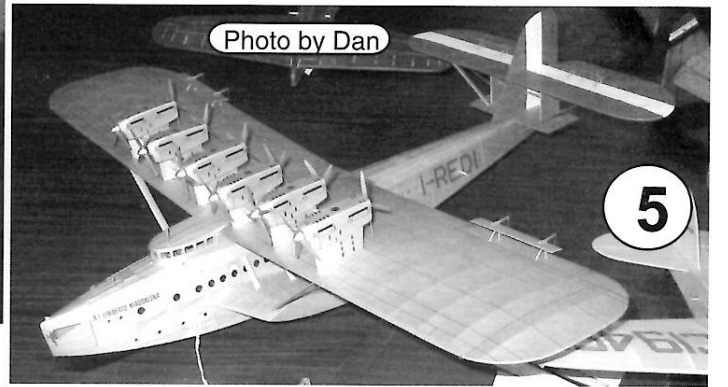
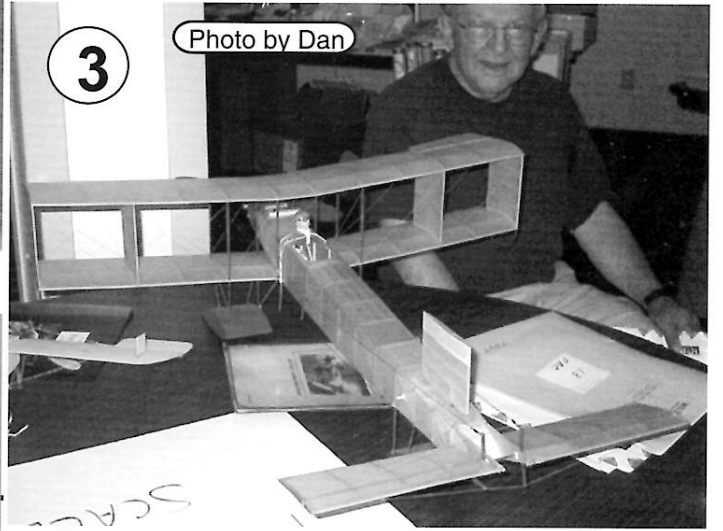
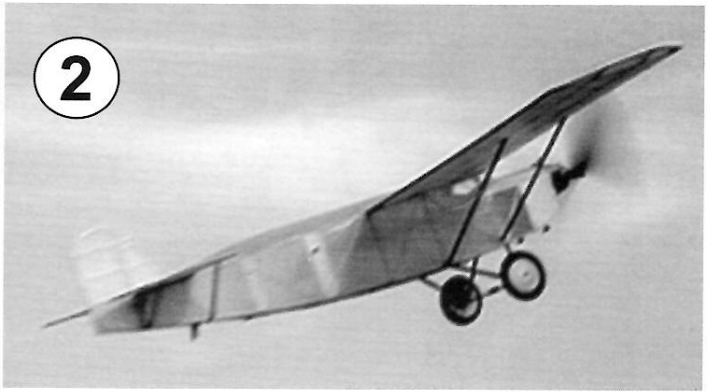
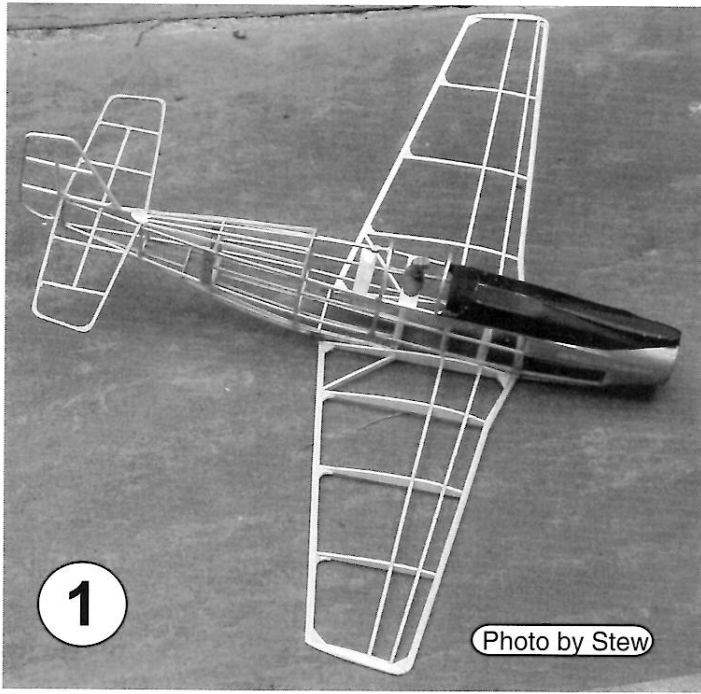
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OCT 7-8-9 2006 GATHERING OF TURKEYS PENSACOLA, FA

Mmid146421@sbcglobal.net MIKE MIDKIFF FOR FAC EVENTS

OCT 21, 22 2006 FAC CONTEST AT WAWAYANDA, NEW YORK

LINKS ON ON WEB SITE www.his.com/~tschmitt



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Comet "E" Series P-51 A Mustang

Stew Meyers

This issue is devoted to the Comet P-51 which completes our reprise of the war time "Speed-O-Matic" "E" series. The war time "Speed-O-Matic" P-51 Mustang like the P-40 reappeared as a longeron and box construction model after the war while retaining its E-8 designation. It soldiered on until the demise of Comet in the 1990's ending as Kit # 3204. I had built the "Speed-O-Matic" version in the 1940's and was surprised when my model building buddy down the block built one that had the same E-8 kit number but a longeron and box construction. The wing and stab were unchanged except for the insignia. This postwar E-8 plan is identical the 3204 plan except for the title block. I built a couple of these in the 1970's. They flew very well. I can't say that about the "Speed-O-Matic" E-8 I built, but that's not the kits fault. In 30 years, even I finally figured how to do things right.

All low wing versions of the "Speed-O-Matic" series used the same E-1 P-40 instructions. Likewise the two mid wings, F4F & P47, used the E-2 F4F instructions. The post war P-40 & P51 used the same modified instructions as well. I have included a page in this issue comparing the instructions. The print wood page shows both sets of print wood as well as the cardboard "Speed-O-Matic" formers. Both the E-8 "Speed-O-Matic" and 3204 box construction plans are shown. Aside from the construction the difference appears to be the elimination of "Plane Facts" and the addition of the canopy to the plan rather than on a separate piece of paper. The canopy and wing covers shown on the wing page will fit either version.

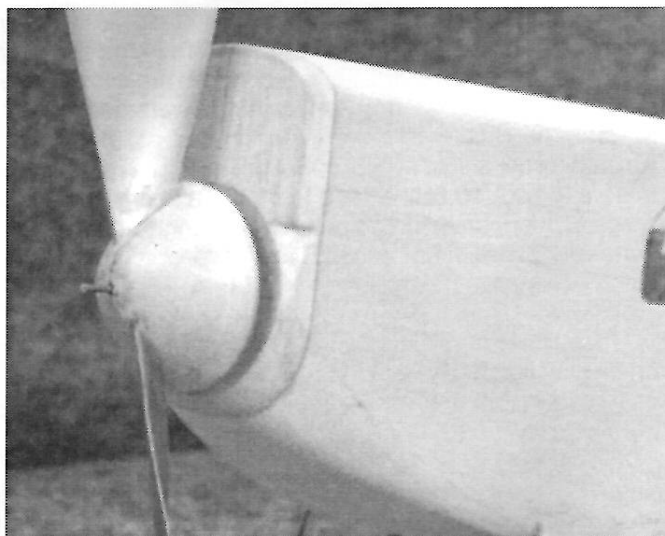
You might want to use the ribs from the later version as they are cleaner and identical. Some times I have added an extra spar, but that is not necessary. I do

like to make the leading edge from 1/8 square. For that mater you might want to make the top and bottom keels from the plan drawing. While you are at it crank in three degrees incidence for the wing. I always layout the side keels and make sure they match the formers and vice versa. I would forgo authenticity and make the keels from laminated 1/16th sq. balsa. Likewise the formers are from 1/16th sheet. Check that the keel notches are correct, but don't cut the stringer notches until after assembly to the keels. The late model formers are a good check for stringer positions and shape.

The stab is shown on the 3204 plan. You might want to enlarge it by 10 %; I didn't. I found I needed two degrees right and three degrees down thrust even with the three degrees of wing incidence. The stab is kept at zero. I sheeted around the nose to add strength, provide a ballast platform, and a good mounting position for the chin guns, exhausts, and air scoop. Remember this is an A model with an Allison engine and chin guns. The ventral radiator on the plan is characteristic of the A series and changed drastically in later Merlin powered versions.

Photo #1 shows my 30 year old fuselage with a new set of wings and tail. If doing the fuselage again I would move the rear peg forward one bay and lower its position to the center line to give more rubber room and eliminate the added center line side stringer.

Comet also put out a big P51A, their 24" span P1 kit. Of course, Collector Dan has one. The reduced plan is shown in this issue. The "E" series is only a notch up from a dime scaler. In fact the dime scale D-7 and Spad were included as "E" s in the postwar period. The P1 is some what more scale. I modeled my ventral radiator similar to this version, by extending the front end further forward and fairing in the aft end to make it a little more scale.



The spinner on Dave Mitchell's Aero A. 10. Dave's clutch arrangement can be adapted to the Mustang.

Thanks go to Alan Schanzle for handling back issues for the last couple years. They are now available from Stew Meyers see address on back page. \$3.50 a pop.

PHOTO PAGES PAGE 2

1. From the theme plan of this MaxFax issue, Stew Meyers' Comet P51 A.
2. Free flight for those who don't enjoy chasing -Don Srull's Alto Sport - Rubber Powered with R/C assist.
3. Don with his well traveled Voisin in Pioneer' at the FAC Nats. Unfortunately too windy to get an official flight on Saturday.
4. Sunset shot of David Mitchell launching his Triplane at the FAC data. Another victim not flown due to the wind on Saturday.
5. Tom Hallman's FAC Scale Rubber Powered DO-X. Also on the Cover of the AMA rag. It flew great on Sunday.
6. Dan Driscoll's entry in the Hurst Bower Memorial events at the FAC NATs, the Poncelet.
7. Vance Gilbert's masterful ANEC 111 'Peanut' for the FAC Nats, he got a great flight on this.

Allison Engined Mustangs

Dan Driscoll

In early 1940, the British government was desperate for fighter aircraft. A request was made to the U.S. company, North American Aviation, to produce license-built Curtiss P-40's powered by the Allison V-1710 engine. North American countered with a proposal to design and build a new aircraft, with improved performance, around the same engine. The British accepted the proposal and placed an order, with the proviso that a prototype be completed within 120 days and meet specifications. The first prototype rolled out in 117 days.

The first prototype was designated NA-73X and crashed in early flight tests in the U.S. The second prototype, NA-73, was shipped to England. The British dubbed the aircraft "Mustang" and tests showed it to be the best fighter yet purchased from the U.S.

It was quickly determined that the unsupercharged Allison engine was not adequate above 15,000 feet where most fighter activity was occurring at that time. However the aircraft's excellent low level performance and heavy armament (eight machine guns) made it very suitable for ground support and tactical reconnaissance. (Only later, when the airframe was mated to the supercharged Rolls-Royce Merlin engine, did the Mustang become a superb high altitude fighter.)

Mustang I/XP-51

The first group of Mustangs delivered were nearly identical to the NA-73 and were designated Mustang I by the British. The fourth and tenth production machines were delivered to the U.S. Army Air Corps and were designated XP-51. All U.S. P-51's were designated as Mustangs. Armament consisted of two .50 caliber machine guns in the nose and two .50 caliber and four .30 caliber guns in the wings. (The nose mounted guns were staggered - the port gun was positioned slightly more forward than the starboard gun.)

The restored fourth production machine is currently on display at the EAA Museum.

Mustang IA/P-51/F-6A

The second production group was divided between the British and the U.S. and designated Mustang IA and P-51, respectively. On this model, all machine guns were replaced by two 20mm cannons in each wing.

The 55 U.S. Mustangs were fitted with two cameras. One camera was mounted behind the pilot and facing out of a bulged port window. The other shot straight down from slightly behind the radiator. The official designation for this camera version was F-6A, but in the field they were only know as P-51's.

A-36

The A-36 was a U.S. derivative of the P-51 for dive bombing. Dive brakes were fitted to upper and lower wing surfaces to slow down the aircraft (it could reach over 500mph in a dive from 14,000 ft) and improve bombing accuracy. Also, bomb racks were fitted under each wing for 500 lb bombs. Armament consisted of six .50 caliber machine guns - two in the nose and two in each wing.

Some A-36's operating in the North African desert had a slightly wider intake above the nose to accommodate a carburetor filter.

Apparently, the A-36 never received an official name although it is sometimes referred to as the "Apache" or "Invader".

A single example was sent to the British for evaluation.

Mustang II/P-51A/F-6B

The final Allison engined variant was designated the British Mustang II and U.S. P-51A. This model carried two .50 caliber guns in each wing and no nose guns. There were underwing racks for 500 lb bombs or 75 gallon fuel tanks. There was also provision for fitting "bazooka" rocket tubes under each wing.

Camera carrying versions were designated F-6B.

Rubber Powered Models

Although completely overshadowed in the model world by the later Merlin engined versions, there are several decent versions of the Allison Mustangs. This issue features the three Comet versions, which are pretty accurate. The E-8 was available from its release in 1943 to the 1990's. However, it is unclear which variant of the Mustang it represents. The plan shows four wing guns and two nose guns - this matches the A-36, but the plan shows no dive brakes or bomb racks. The photo on the plan shows a P-51 with the four 20mm cannons.

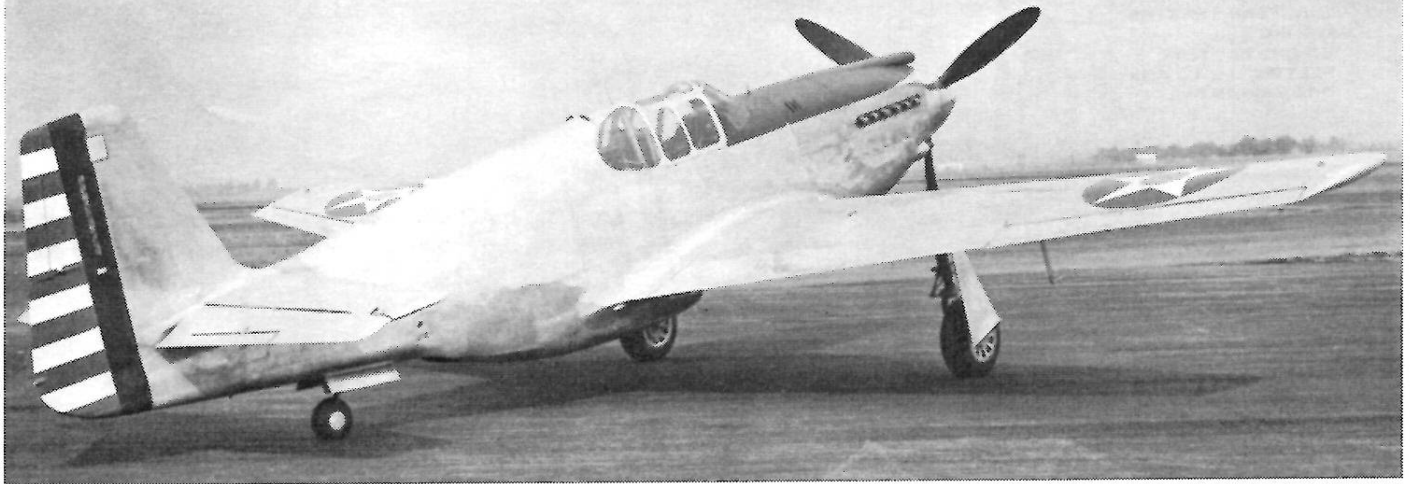
Earl Stahl had a good plan in the May 1944 Model Airplane News. Rolfe Gregory flew one of these many years ago.

The only kit of an Allison engined Mustang that I am aware of as being currently available is by Bell Model Company and is listed on the Penn Valley Hobby Center website. I have not inspected this kit, but several clubsters report that it is a high quality item.

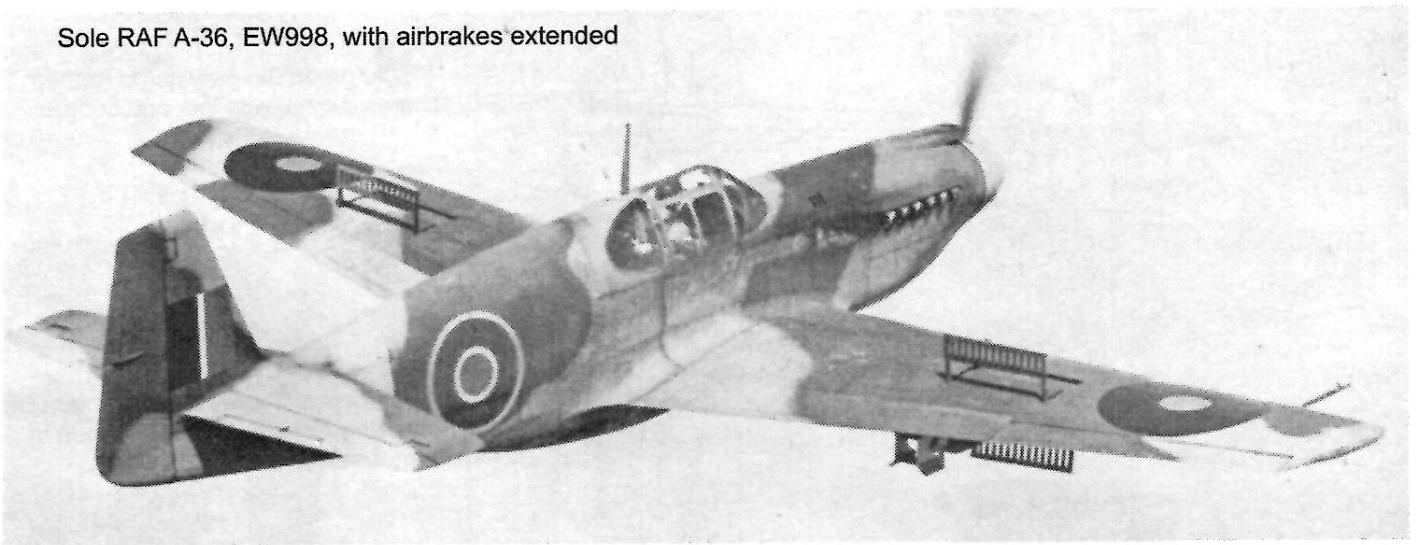
www.pennvalleyhobbycenter.com

BELL-05 P-51-1A Mustang 23-5/8" span \$30.95.

Beautiful XP-51 in standard USAAC markings prior to U.S. involvement in WWII.
Overall natural with dark green antiglare, U.S. ARMY across bottom of wings. No serials visible.



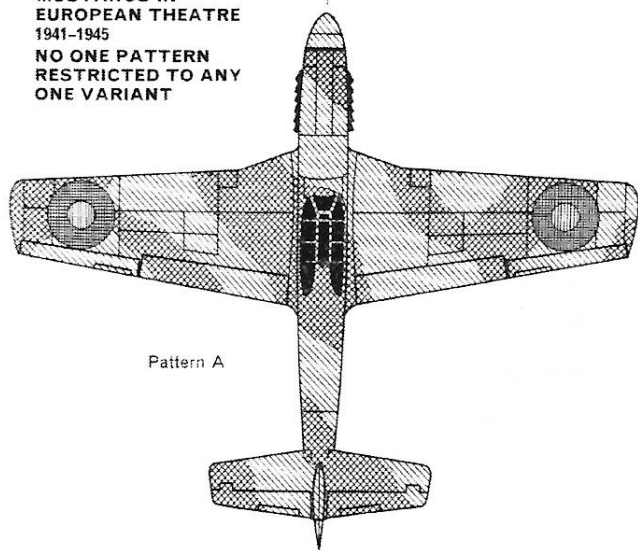
Sole RAF A-36, EW998, with airbrakes extended



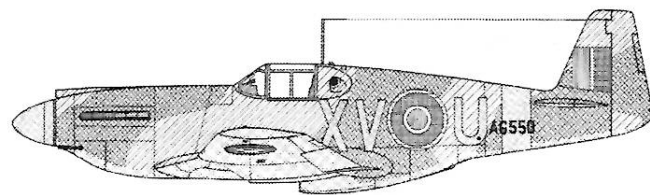
P-51A, 36005, in standard olive drab over neutral gray. Yellow serials. Stars in four positions.



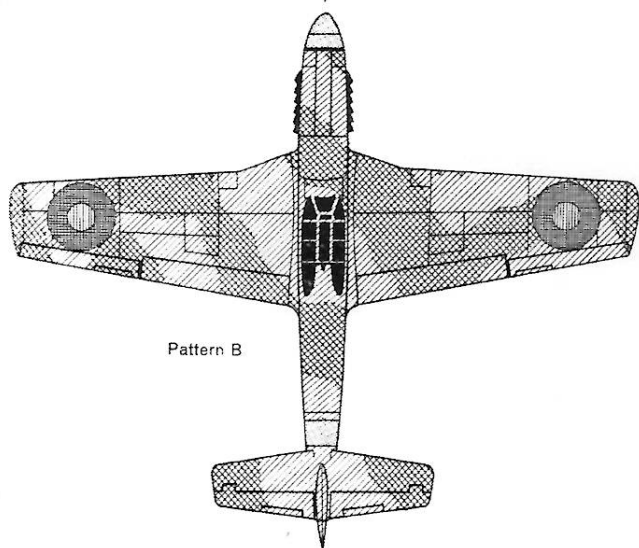
TYPICAL PATTERNS
AS APPLIED TO
MUSTANGS IN
EUROPEAN THEATRE
1941-1945
NO ONE PATTERN
RESTRICTED TO ANY
ONE VARIANT



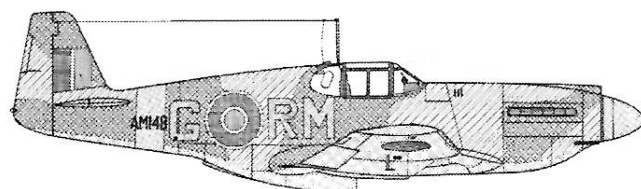
Pattern A



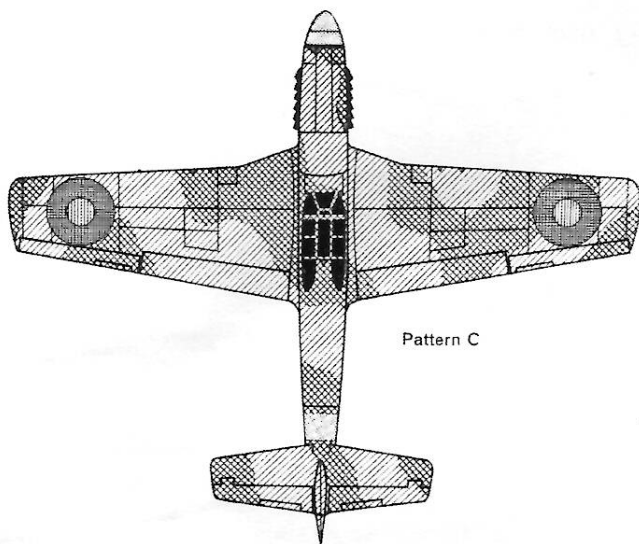
Mustang I, AG550 - dark green/dk. gray camo (pattern A) over sea gray. Sky spinner, fuselage stripe, and codes.



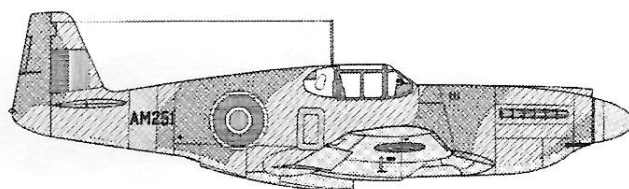
Pattern B



Mustang I, AM418 - dk. green/dk. gray camo (pattern C) over gray. Sky spinner, fuselage stripe, and codes.



Pattern C



Mustang I, AM251 - dk. green/dk. gray camo (pattern B) over gray. Yellow leading edge from outboard gun to wingtip. Sky spinner, fuselage stripe, and code.

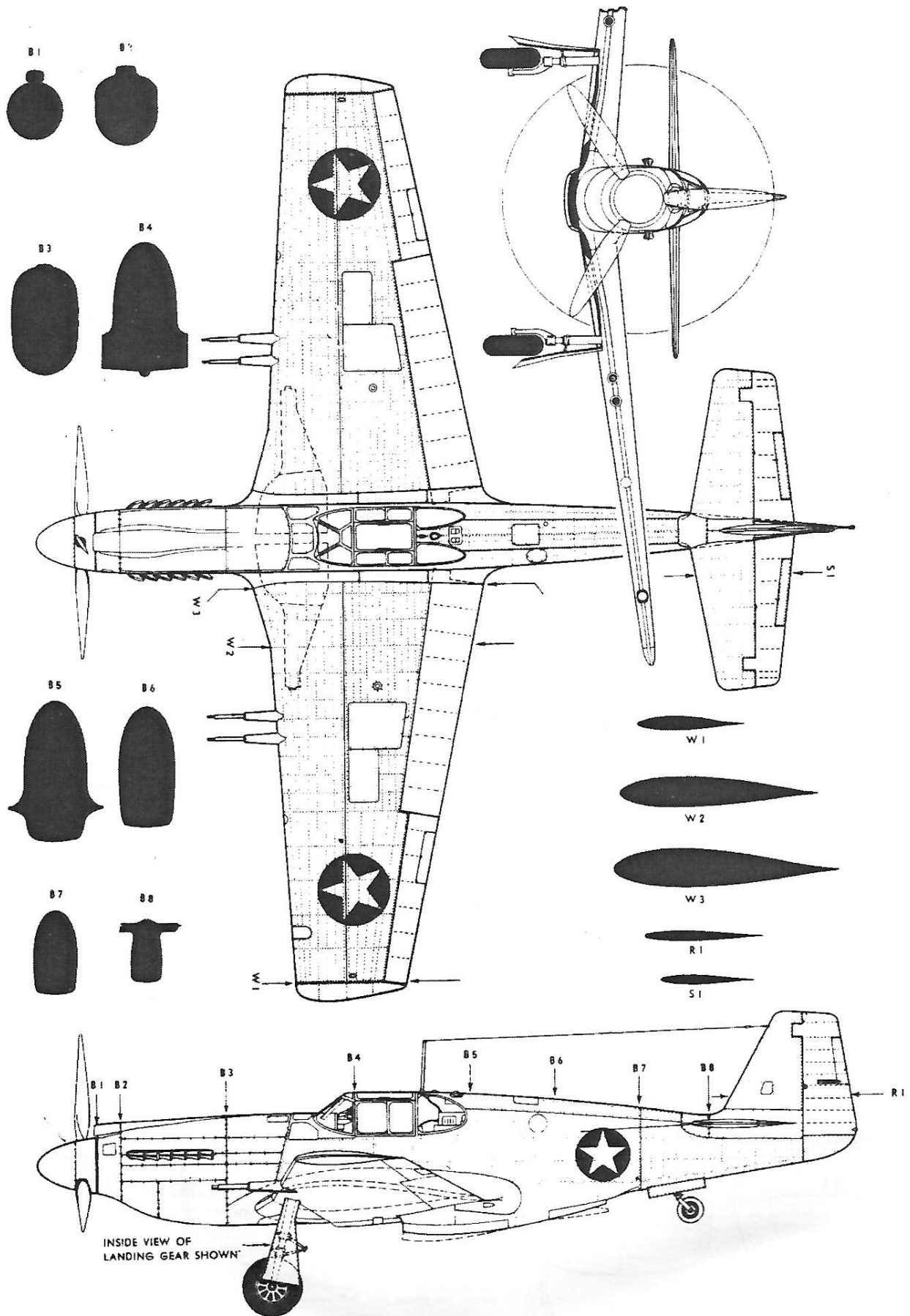
References for Allison Engined Mustangs

Allison Engined Mustangs, Walk Around No. 13,
Squadron/Signal Publications, 1998

The Allison-Engined Mustang, Air Enthusiast Quarterly,
No. 2.

NA-73 The Forgotten Mustang, Airpower, Vol. 1, No. 2,
November, 1971.

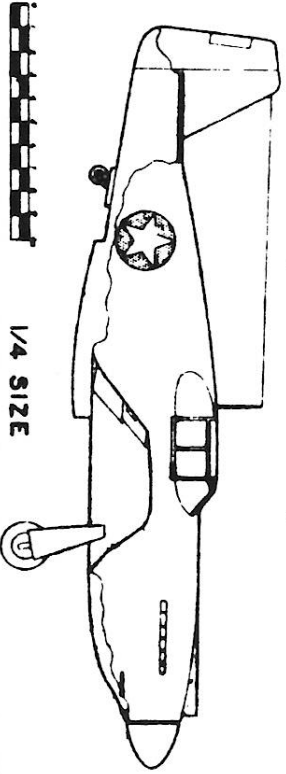
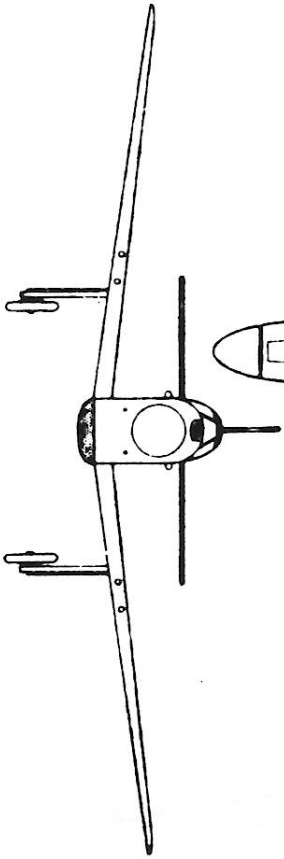
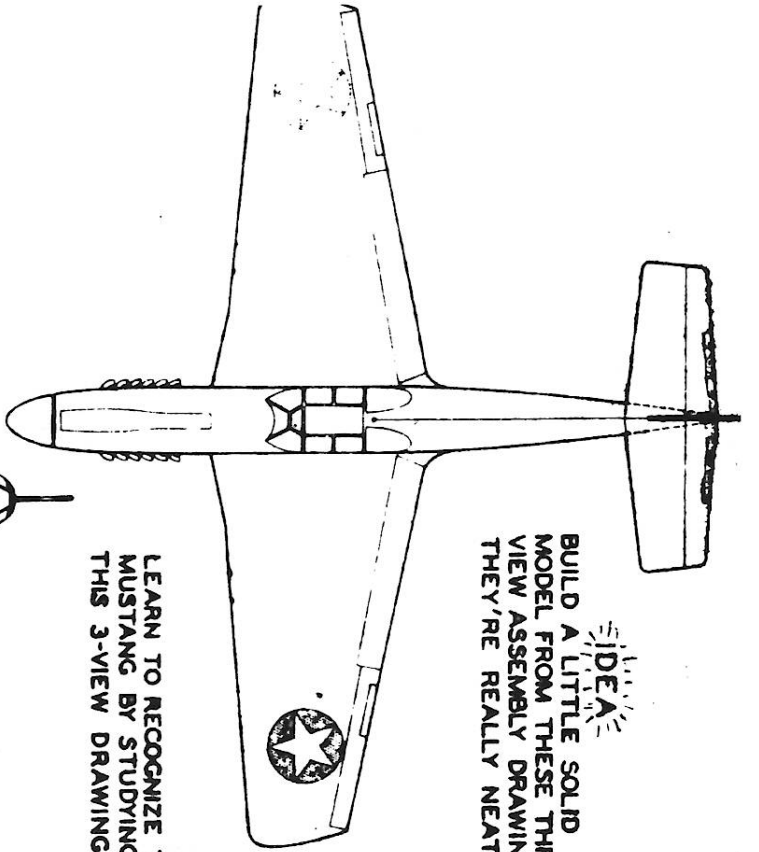
P-51 Mustang in Action, Aircraft No.45, Squadron/Signal
Publications, 1981



INSIDE VIEW OF LANDING GEAR SHOWN

IDEA
 BUILD A LITTLE SOLID
 MODEL FROM THESE THREE
 VIEW ASSEMBLY DRAWINGS.
 THEY'RE REALLY NEAT.

LEARN TO RECOGNIZE THE
 MUSTANG BY STUDYING
 THIS 3-VIEW DRAWING.



1/4 SIZE

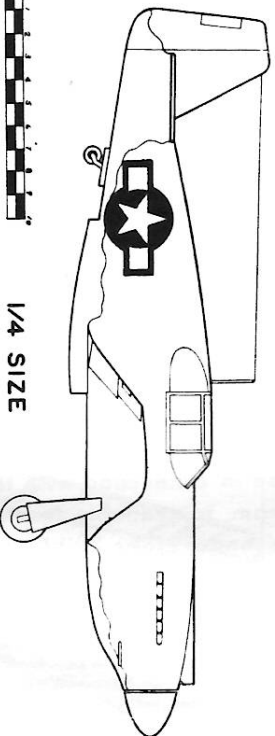
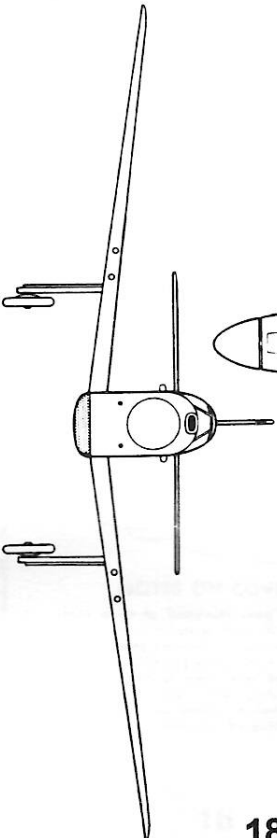
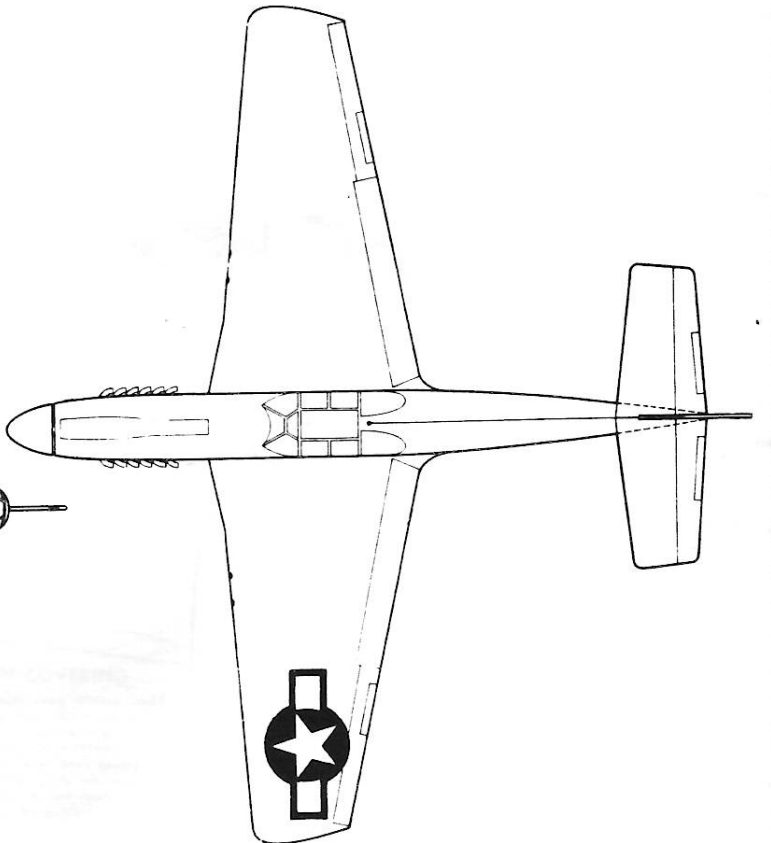
NORTH AMERICAN "MUSTANG" P-51

WINGSPAN - 18 INCHES LENGTH 15-11/16 INCHES

KIT NO. E 8

DRAWN BY *Ed. J. Zimmerman*

Copyright 1953 BY COMET MODEL AIRPLANE & SUPPLY CO.



1/4 SIZE

NORTH AMERICAN "MUSTANG" P-51

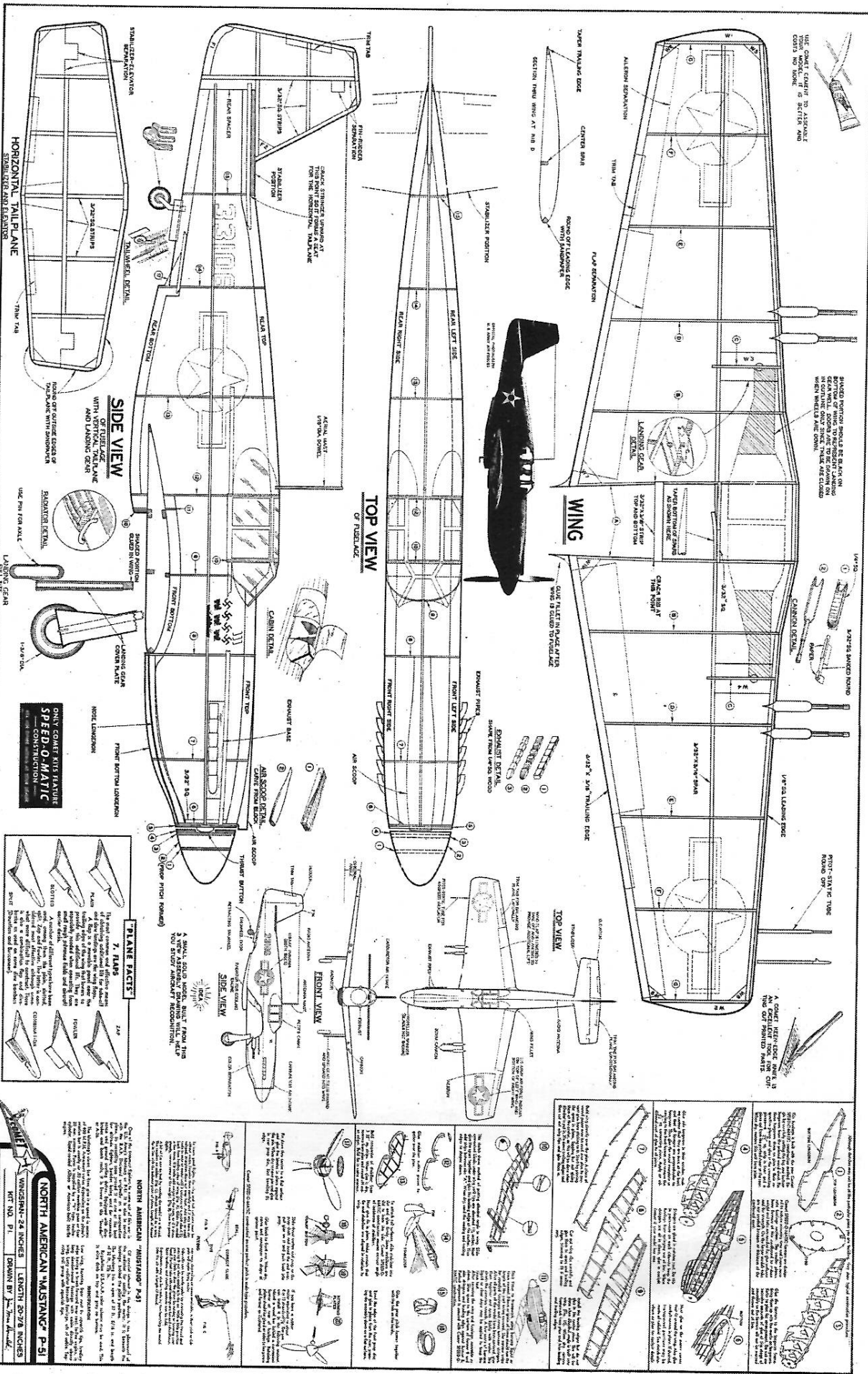
WINGSPAN - 18 INCHES LENGTH 15-11/16 INCHES

KIT NO. 3204

DRAWN BY *Ed. J. Zimmerman*

COMET MODEL HOBBYCRAFT CORP., CHICAGO, ILL.

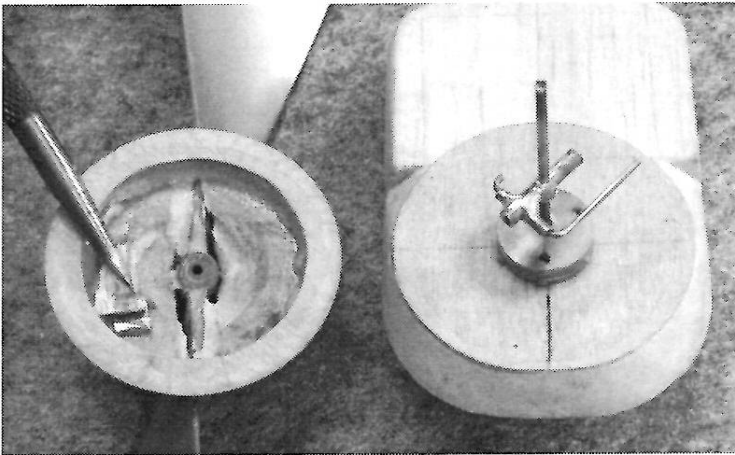




Spinner Clutch

by Dave Mitchell

The aristocratic nose of my free-flight Aero A.10 has a wide, blunt spinner, which begged for an invisible and compact freewheel clutch mechanism. I came up with a design featuring a free-swinging bale wire (mounted to the prop shaft) that engages a ramped catch recessed into the back of the spinner (indicated by the pointer in the photo). Recessing the catch allows the spinner to be mounted close against the nose and maintains scale appearance.



To make the spinner:

1) Turn a piece of medium-hard balsa to the desired shape of the spinner. Glue a piece of 1/64" ply to the rear and shape to the spinner. Use a razor blade to slice off the portion of the spinner that will fall aft of the prop. Use a Dremel tool to grind out the center of this piece, leaving you with a reinforced ring.

2) Using a combination of advanced geometry, needle files and swear words, dry fit the forward portion of the spinner to the prop. Follow this by gluing the aft ring back onto the front portion, capturing the prop. Fit the assembly to the prop shaft and spin it to make sure the spinner runs true before gluing it permanently to the prop. Wait to make the ramped catch until after you have made the clutch.

Make the clutch as follows:

1) Using a drill press and a centering jig, drill two holes in a piece of 3/32" brass tube, at right angles to one another and about 1/4" apart. One hole is for the prop shaft; the other is for a short length of 1/16" brass tube that will carry the bail wire. Solder the 3/32" tube to the prop shaft, then fit the 1/16" tube into place and solder. You should now have something like a cruciform mounted at a right angle to the shaft (see picture).

2) Take a piece of wire, fit it into the 1/16" tube and bend both ends up. Make sure this "U" shaped bail rotates freely in the brass tube. Clip one end short; cut the other as long as you can and still have it clear the inside surface of the reinforced ring when positioned as in the above photo.

The ramped catch:

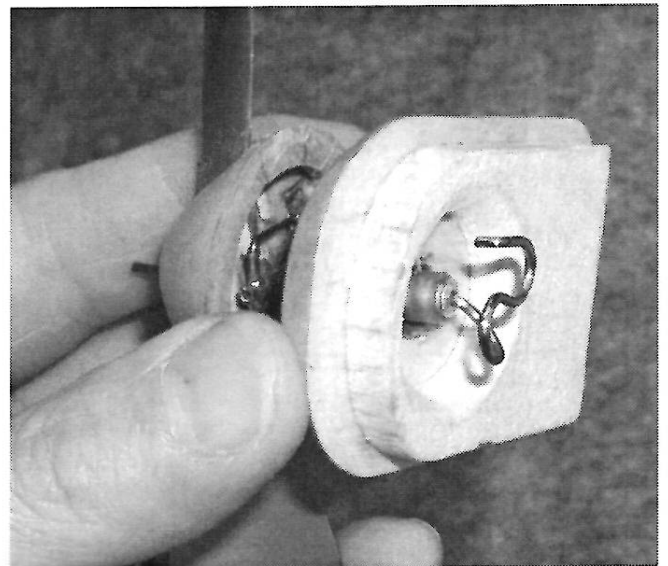
1) Cut a piece of brass sheet, about 1/4" x 1/2". Form into a "C" shape, bending it around a piece of wire of slightly larger diameter than your bail wire, and leaving one leg longer than the other. File 1/8" of this long leg into a sharp point, and bend it down (away from the mouth of the "C").

2) Fit the spinner assembly to the prop shaft and make a line on the recessed surface of the spinner where the long end of the bail wire falls. You will use this mark to position the brass catch. Remove the spinner. Glue the long leg of the brass catch onto the recessed surface, forcing the sharpened point into the balsa. Make sure that you have positioned the catch properly to engage the bail wire cleanly AND that it is pointed in the right direction.

3) Use balsa to build up a ramp to the back side of the "C" catch. When the prop goes into freewheel mode, this ramp rides the bail wire clear of the catch. Saturate with thin CA and sand smooth.

4) Fit the prop and check for proper operation. The prop shaft on my unit pokes out through the tip of the spinner, and I retain the prop with a tight fitting nylon washer.

There you have it. The design works very well; the clutch engages positively, and has so far not let go in flight. There are two caveats to bear in mind, however: you will need to allow enough a long enough prop shaft (aft of the bearing) to allow you to get your finger in between the nose and the spinner to set the clutch wire into the catch after winding. You will also need to make the spinner an integral part of the prop, so choose your prop with care—or make a spinner with plug-in prop blades that will allow you to experiment. I have not spent any time at all refining this design; doubtless, there are improvements that could be made. Doubtless, as well, somebody else came up with something like this a long time ago.....



Needless to say this could be made with square brass tubing. I intend to adopt this for the P51....stew

Hurst at the Stick

Being a True Account of the Almost Last Flight of a Certain General Aristocrat

By O. Leo Strutte, boy reporter

It was sometime around the Fourth of July when Don Srull, plugging away on his Poncelet Vivette in preparation for the Nats, first heard it. "What the.....". He paused; knife in mid stroke over the little planes' belly; the doctor at work. He listened intently. Nothing.... nothing. Some old model settling its bones into oblivion on a shelf, that was it. Back to the task at hand. Ta de, ta dum, dada dee dum de da dum...whoa! There it was again. Srull palmed the x-acto, turned and scanned his shop. He had always meant to install more lights in here; now at 2:30 AM, the shadows were deep. Whoever was in here was going to have as hard a time seeing him as he...

"Don."

A slightly gravelly voice, decidedly bemused, with a southern twang...

"Don, it's me, Hurst."

"Hurst?!!!"

"Yes, Hurst. How are you?"

"Uh, fine. Fine! Hurst, where are you?"

"Good question. The weather's great, wherever I am, but they don't have any model airplanes."

"Good lord! That's terrible! How can I help?"

"Remember the old Aristocrat? Fit her out with an electric motor and some LiPolys and send her ...ahh....up. I think I'm up."

"Sure. Sure! Anything else? Need a charger? Radio gear?"

"No, I think I can take care of that. Just make sure it's got enough juice to go a long way. Gotta go now—you wouldn't believe how expensive these direct com links are. Thanks Don!"

And with that, silence fell upon the room. Don knew what had to be done. Left rear corner of the shop, top shelf. There it was—the old General Aristocrat. Orange and black. Veteran of some 30 years of continuous experimentation, this ship had carried it all. Gas, electric, free-flight, R/C-----Hurst and Don had installed practically every disreputable engine, motor and radio system ever invented into that thing, and still it remained. Proud and sturdy, a Bowers airplane to its core. Even better with the Bill Winter balsa figure in the left seat. He dusted it off, checked the alignment, and got to work.....

A few weeks later, a large crowd gathers in a field in Geneseo, NY. They surround a solitary model airplane—the old Aristocrat, noble in bearing, freshly outfitted with a new electric motor and batteries. Heartfelt words are spoken; tributes to Hurst Bowers made; and by and by the time comes to send her aloft. The soft sound of scores of paper-cup toasts fills the air as Don flips the switch, and gives her a gentle heave heavenward. She makes a wide circle over the crowd, gains a bit of altitude in the dusky sky, and begins to drift downfield. Not quite like a homesick angel, but probably close enough, maybe. Going - going. Sort of. Well,

maybe....maybe....maybe not....in fact, she's looking a bit out of trim now....dag! Zooming! Losing altitude! Not ten minutes into the flight.....

"Wally, chase that thing down and let's see if we can't straighten her out...."

Walt Ferrell lights out across the field, determined to preserve the sanctity of the ceremony. Closing in on the Aristocrat, he is within a few yards of the flailing ship when he stops dead in his tracks. Wha.....

"Thanks Wally, but I've got her."

"Can it be? As if by magic, the Aristocrat, doomed just moments before to an ignominious nose-over in the rough, lightly touches its wheels to the turf and begins to climb out again, this time with purpose. Perfect trim. A cheer rises from the crowd, as they watch the bird gain air, circling majestically, another ten minutes or so, higher and higher until it's but a speck in the sky, and then....in time...it's gone. The crowd murmurs appreciatively...Hurst will be pleased with that one, by gum! Why, it's almost as if he was in the cockpit, right there next to Bill Winter! What a flight!incredible.... slowly, darkness falls, and the crowd filters away, comforted by the ritual sacrifice.

BAM BAM BAM BAM BAM! Don starts from his sleep.

"What the hell....didn't I put out the "Do Not Disturb" sign?"

BAM BAM BAM! "O.K., O.K., I'm coming. Geez..." He fumbles for his glasses, rolls out of bed, and makes his way to the door of the hotel room.

"Hey, look, you don't have to ..." he stops in mid sentence. There's nobody there. He steps outside the door, and nearly crushes the orange and black Aristocrat parked at the threshold. "What the..."

"Don."

"Hurst?!!!"

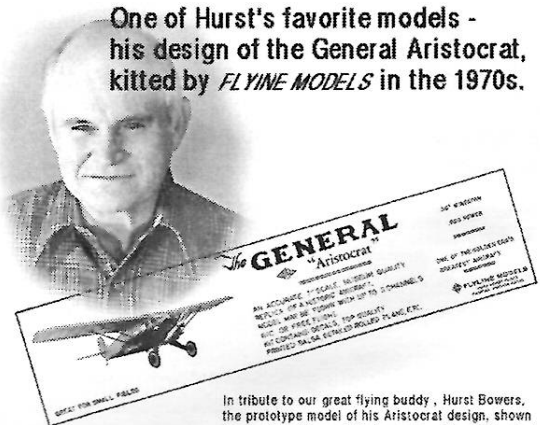
"I had to put her down in a farmer's field. I think we need a bigger motor, pardner, or maybe another cell."

"Hurst, are you telling me you can fly this thing?"

"Seems that way."

A smile steals across Don's face---FAC Power Scale is the next day.....

One of Hurst's favorite models - his design of the General Aristocrat, kitted by FLYING MODELS in the 1970s.



In tribute to our great flying buddy, Hurst Bowers, the prototype model of his Aristocrat design, shown here, will be flown off to Hung on a (hopefully calm) evening after official flying. Be there! Check with Don Srull for time & place.

Hurst Bowers Tribute

Tom Hallman

A tribute to Hurst Bowers was organized for Friday evening on the field. Forty friends and flyers came together as one, sharing thoughts and stories about Hurst. We toasted to his memory. Don Srull brought along an electric powered General Aristocrat which was built by Hurst 30 years ago. The model had flown in every possible configuration during it's lifetime.

Tonight the model was going to have one final flight, powered by an electric motor and a 25 minute battery. As Don launched the model into the calm, evening air, we stood and toasted Hurst once more while the model circled high above us....surely it was on it's way to an OOS flight....but then the unthinkable happened. The model seemed to lose it's trim, and began a scalloping pattern. As the model continued this roller coaster motion, we feared the bird would nose in and cut short the intended tribute.

Wally Farrell gave chase a few hundred yards away, hoping to quickly turn off the motor once it landed, saving further damage to the model. As the model gained speed, zooming closer and closer to the ground, we stood frozen on what was surely to be an ugly meeting with the turf. Instead....the model grazed the earth, ran along the grass for a few feet, then lifted once more in to a pattern that could only be described as one 'in perfect trim'. We left out a loud, anxious, spontaneous roar, nearly collapsing in laughter and astonishment. Hurst had pulled another one....he was on his way again, ready to finish this flight...

The rest of the story:

As the 25 minute flight faded into the horizon, most of us left the field to recover from the day's events. Unbeknownst to all of us, a farmer working his crop saw the model land on his property about 3/4 mile away from the field. The gentleman brought the Aristocrat back to the flying field and gave it to a few of the flyers who remained, thinking one of us had surely lost this bird. Dumbfounded, we took the model back to the motel, placed it in front of Don Srull's motel room door, and knocked a few times. I'm pleased to report that Don's knees only buckled slightly, and that he didn't collapse or clutch his heart....

What happens next? Who knows. The amazing story of Hurst Bowers and his 30 year old Aristocrat continues.....

Pix: <http://www.hallmanstudio.com/HurstTribute.jpg>
Movie, Don's tribute:
<http://www.hallmanstudio.com/HurstTribute.MPG>
Movie, The Flight:
<http://www.hallmanstudio.com/HurstFlight.MPG>

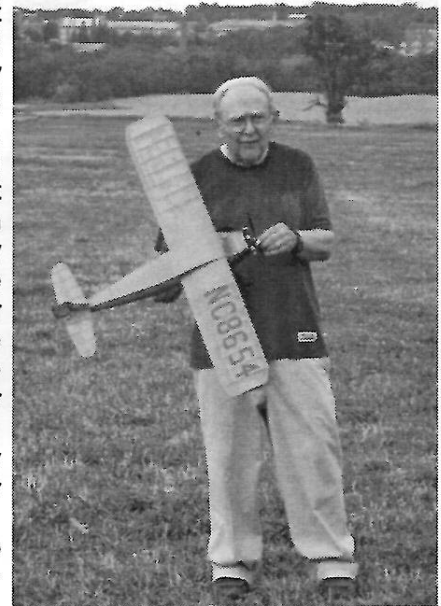
PHOTO PAGES

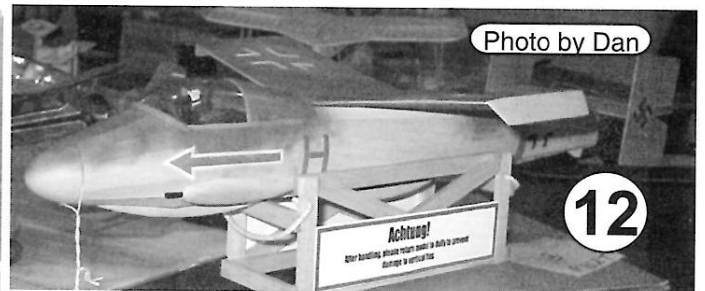
PAGE 23

- 8 Chris Starleaf's terrific rubber powered FAC Scale B-24 at the FAC Nats -note nose art on inset photo.
- 9 Buzz Trabbic and Mike Midkiff of Rockytop Models at the FAC Nats - inset photo is their latest kit an Albatros.
- 10 Dan and Megow AYA Project #4 Old Timer at the FAC Nats.
- 11 Martin Mariner by Bob Bojanowski. Winner of the multi engine power scale at the Nats. Bob flew in these in the Navy.
- 12 There were many great flying Rapier powered aircraft by our friends from England at the FAC Nats here is the Peanut Heinkel P.1077 by Bruce Finley - be sure to visit Mike Stuart's website at <http://www.ffscale.co.uk/>. Mike entered a beautiful Rapier powered Fiat G.91.
- 13 Mark Fineman with his YP-38 at the FAC Nats.
- 14 Paul Boyanowski's Spartan Executive waiting to be judged at the Nats.
- 15 Dan Marek's electric powered Staken ready to launch at the FAC Nats.
- 16 A rubber powered Spruce Goose at the FAC Nats by Vic Nippert.

Post flight analysis:

The switch was found welded on and the motor burnt out. But the battery was still at 6.9 volts. Evidently on landing the ship nosed over and the prop was stopped stalling the motor and the stall current burnt it out before it drained the battery. A new motor was slipped in the VL gearbox. The re-engined ship was flown at the sod farm with the same battery and a timer. The new motor produces more power and the model flies faster and climbs better. Maybe it will fly again at Kudzu or Muncie. Don Srull ready to launch.>





Hurst's favorite ship, the General Aristocrat



Wally Farrell hoping to snag her on the ground



Ray, Mike, Don & Lindsey, suspecting the bird will nose in...only to see her 'touch and go'!!!



The photos above are from Tom Hallman's excellent *Geneseo 2006 - A Journal* as is the tribute on page 22. The other photo is the Hurst Bowers mass launch event participants. Jack Moses at left was the winner with his Poncelet one of four that competed. Jack Felter took the picture.

CLUB OFFICERS -President: Stefan Prosky 414 11th Street SE., Washington, DC 20003
 Secretary: David Mitchell 230 Walnut St. NW., Washington, DC 20012
 Treasurer: Stew Meyers, 8304 Whitman Dr., Bethesda, MD 20817 ---- Note change - Stew has replaced Norm!
 Editor: Stew Meyers, 8304 Whitman Dr., Bethesda, MD 20817

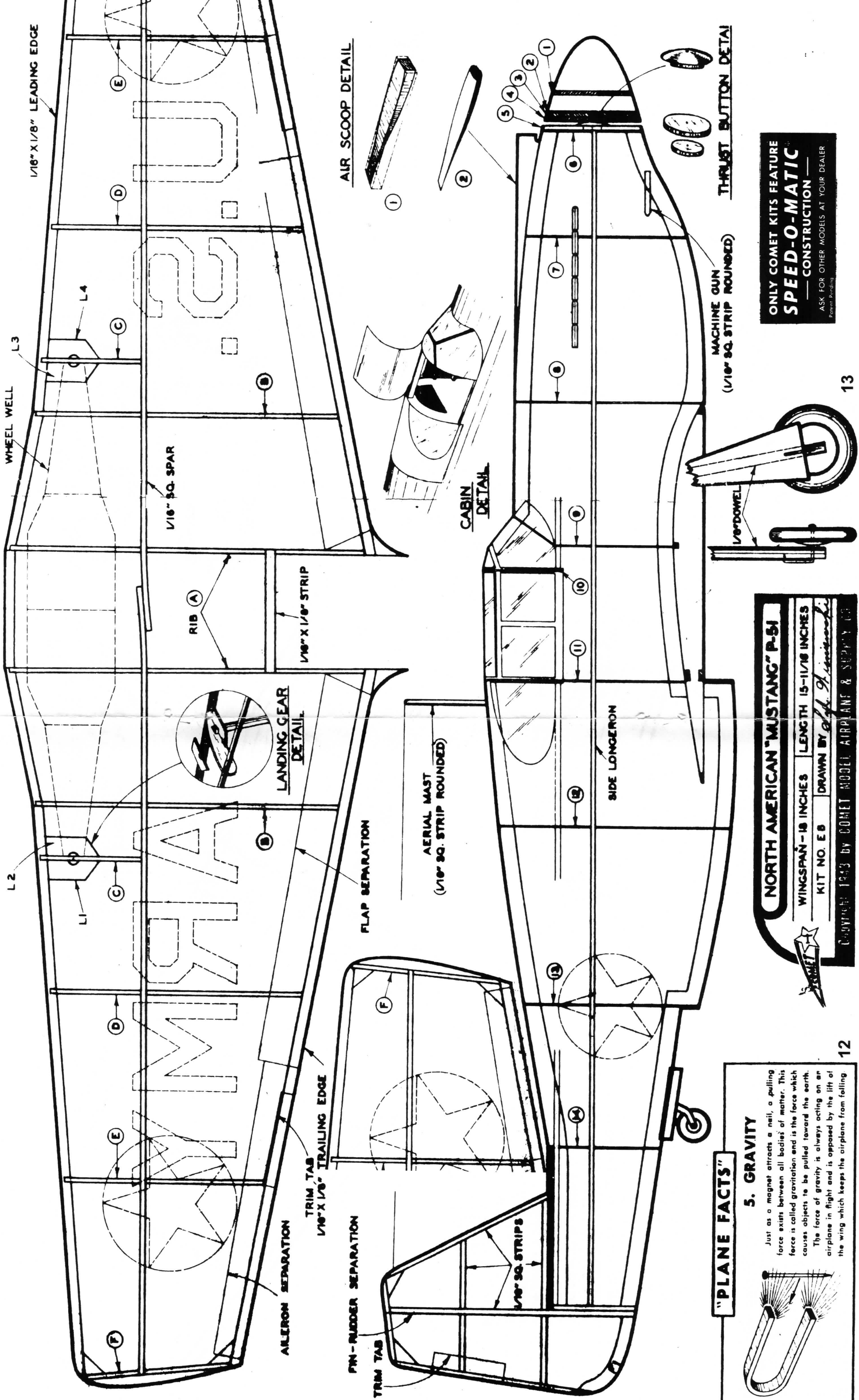
MEETINGS - The D.C. MAXECUTERS hold meetings at 8:00 pm on the first Tuesday of every month at the College Park Airport, the oldest continuously operating airport in the world.

MEMBERSHIP - Dues for membership in the D.C. MAXECUTERS are \$15 per year for residents of the USA, Canada, and Mexico, and \$25 for all other countries. Your mailing label indicates the year and month of the last issue of your current membership. A red "X" in the box below is a reminder that your dues are due. Send a check, payable to the "D.C. MAXECUTERS", to the treasurer, Stew Meyers.

PUBLISHING DATES - Six issues of MaxFax are sent each year as close to the nominal dates as possible, but since this is a volunteer publication nothing is guaranteed except that six issues will be sent to all members.

CONTACTS - Material for the newsletter and membership questions should be addressed to Stew Meyers phone 301-365-1749. Email gets immediate attention. stew.meyers@erols.com

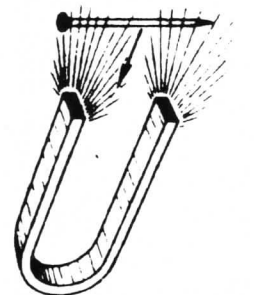
Maxecuter web site: <http://www.his.com/~tschmitt/> Your DUES are due



"PLANE FACTS"

5. GRAVITY

Just as a magnet attracts a nail, a pulling force exists between all bodies of matter. This force is called gravitation and is the force which causes objects to be pulled toward the earth. The force of gravity is always acting on an airplane in flight and is opposed by the lift of the wing which keeps the airplane from falling.



NORTH AMERICAN "MUSTANG" P-51

WINGSPAN - 18 INCHES LENGTH 15-11/16 INCHES

KIT NO. E8 DRAWN BY *Ed. A. ...*

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**ONLY COMET KITS FEATURE
SPEED-O-MATIC
— CONSTRUCTION —**

ASK FOR OTHER MODELS AT YOUR DEALER
Patent Pending

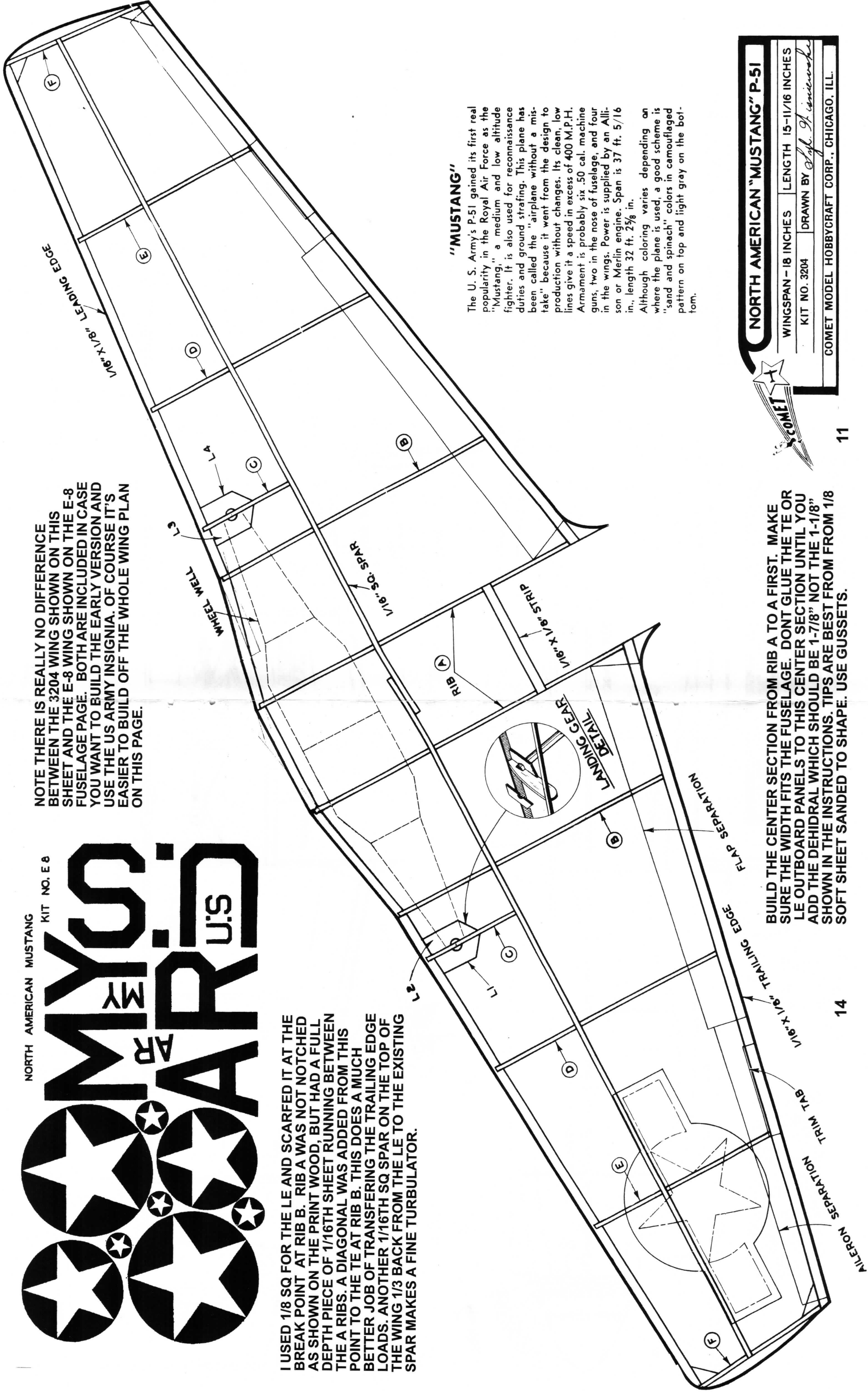
NORTH AMERICAN MUSTANG

KIT NO. E 8



I USED 1/8 SQ FOR THE LE AND SCARFED IT AT THE BREAK POINT AT RIB B. RIB A WAS NOT NOTCHED AS SHOWN ON THE PRINT WOOD, BUT HAD A FULL DEPTH PIECE OF 1/16TH SHEET RUNNING BETWEEN THE A RIBS. A DIAGONAL WAS ADDED FROM THIS POINT TO THE TE AT RIB B. THIS DOES A MUCH BETTER JOB OF TRANSFERING THE TRAILING EDGE LOADS. ANOTHER 1/16TH SQ SPAR ON THE TOP OF THE WING 1/3 BACK FROM THE LE TO THE EXISTING SPAR MAKES A FINE TURBULATOR.

NOTE THERE IS REALLY NO DIFFERENCE BETWEEN THE 3204 WING SHOWN ON THIS SHEET AND THE E-8 WING SHOWN ON THE E-8 FUSELAGE PAGE. BOTH ARE INCLUDED IN CASE YOU WANT TO BUILD THE EARLY VERSION AND USE THE US ARMY INSIGNIA. OF COURSE IT'S EASIER TO BUILD OFF THE WHOLE WING PLAN ON THIS PAGE.



"MUSTANG"

The U. S. Army's P-51 gained its first real popularity in the Royal Air Force as the "Mustang," a medium and low altitude fighter. It is also used for reconnaissance duties and ground strafing. This plane has been called the "airplane without a mistake" because it went from the design to production without changes. Its clean, low lines give it a speed in excess of 400 M.P.H. Armament is probably six .50 cal. machine guns, two in the nose of fuselage, and four in the wings. Power is supplied by an Allison or Merlin engine. Span is 37 ft. 5/16 in., length 32 ft. 25/8 in. Although coloring varies depending on where the plane is used, a good scheme is "sand and spinach" colors in camouflaged pattern on top and light gray on the bottom.

BUILD THE CENTER SECTION FROM RIB A TO A FIRST. MAKE SURE THE WIDTH FITS THE FUSELAGE. DONT GLUE THE TE OR LE OUTBOARD PANELS TO THIS CENTER SECTION UNTIL YOU ADD THE DEHIDRAL WHICH SHOULD BE 1-7/8" NOT THE 1-1/8" SHOWN IN THE INSTRUCTIONS. TIPS ARE BEST FROM FROM 1/8 SOFT SHEET SANDED TO SHAPE. USE GUSSETS.

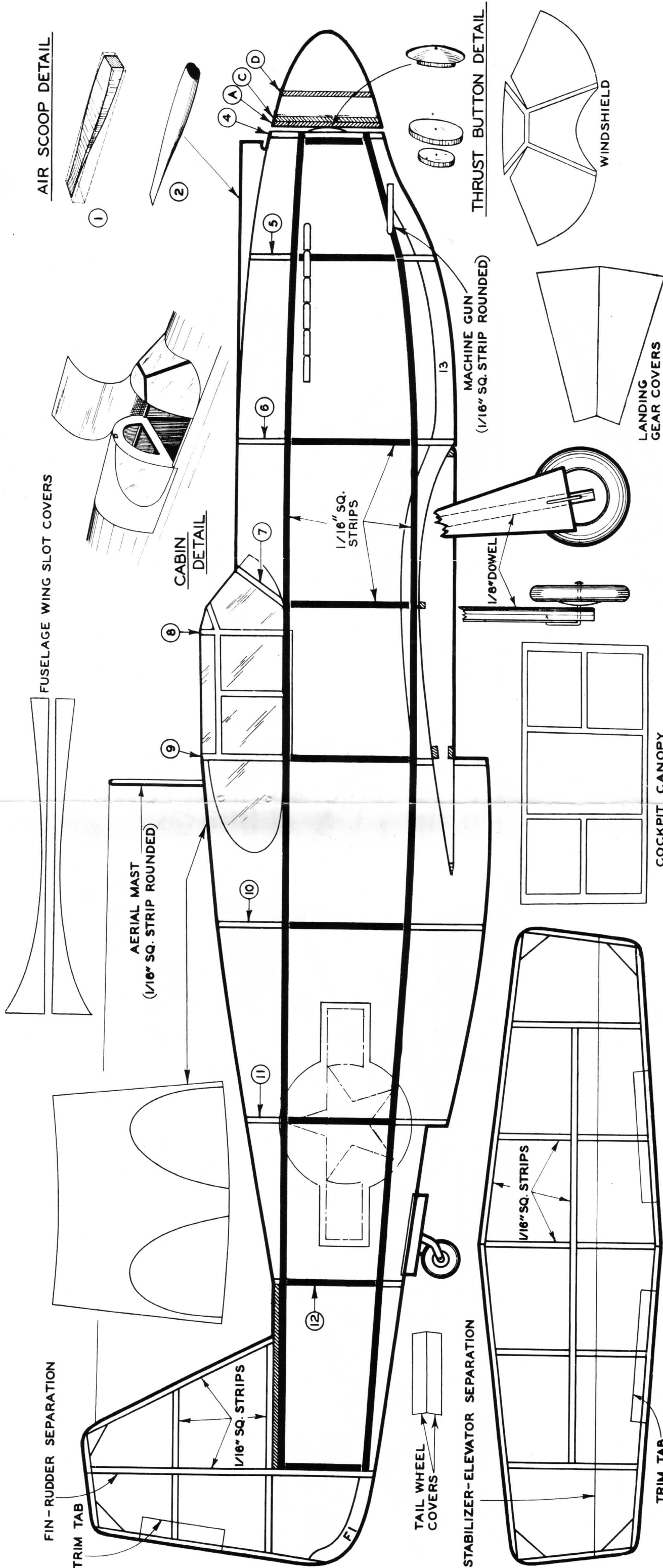
COMET

NORTH AMERICAN "MUSTANG" P-51

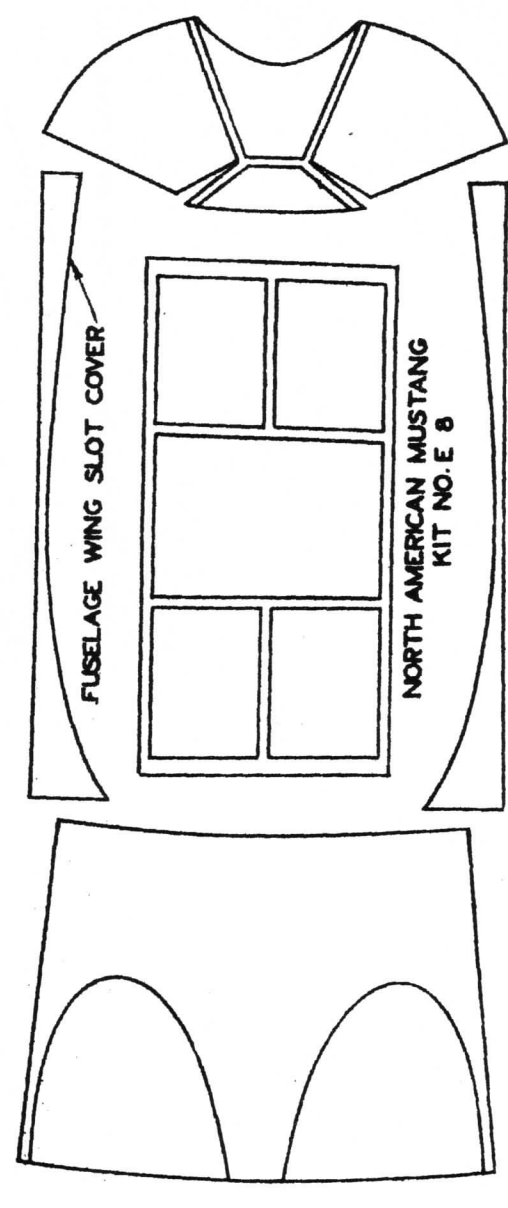
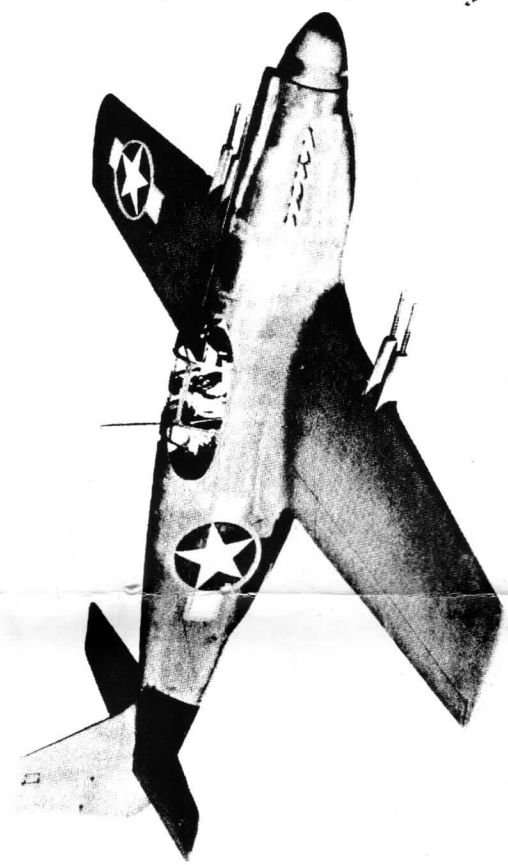
WINGSPAN - 18 INCHES LENGTH 15-11/16 INCHES

KIT NO. 3204 DRAWN BY *Prof. J. J. J. J.*

COMET MODEL HOBBYCRAFT CORP., CHICAGO, ILL.



IN ADDITION TO THE CANOPY AND OTHER PAPER PARTS SHOWN ON THE 3204 KIT PLAN, THE CANOPY SHEET FROM THE E-8 KIT IS PRESENTED ON THIS PAGE. IT'S EASIER TO USE THIS THAN HUNT AROUND THE PLAN FOR THE PARTS. THE STAB IS IDENTICAL IN BOTH KITS AND SHOULD BE ENLARGED 10 TO 20%. NOTE THE E-8 KIT HAD THE LANDING GEAR FAIRINGS OF CARD STOCK ALONG WITH THE FORMERS.



NORTH AMERICAN "MUSTANG" P-51

WINGSPAN - 18 INCHES	LENGTH 15-11/16 INCHES
KIT NO. 3204	DRAWN BY <i>Clay Stinson</i>

COMET MODEL HOBBYCRAFT CORP., CHICAGO, ILL.

INSTRUCTIONS FROM THE WAR TIME E-8 KIT ARE SHOWN ON THE TOP OF THIS PAGE. INSTRUCTIONS FROM THE 3204 KIT ARE SHOWN BELOW. THE FLYING INSTRUCTIONS ARE IDENTICAL AND NOT REPEATED HERE.

1 TOP LONGERON
BOTTOM LONGERON
TABS

This fuselage is built with the new Comet SPEED-O-MATIC construction method. Begin by carefully cutting the top and bottom longerons from the printed wood sheet. Pin these longerons down on plan in their respective places and glue in the connecting pieces—a 1/16" sq. strip in front and a piece cut from the printed sheet at the rear. When dry, remove this unit from plan.

Comet SPEED-O-MATIC formers are designed to reduce the assembly time and insure accurate fuselage sections. The tabs serve as glue surfaces and the 1/16" sq. ones can be bent over with the aid of a small piece of 1/16" sq. strip. The long center tab acts as a stiffener.

2

Stringers are glued in notches next. Do this in pairs—one on each side—to keep the fuselage from springing out of line. When stringers are all in place, glue in cockpit former if your model has one.

3

Glue the formers to the longeron frame, lining them up with the marks on longerons. Refer to plan for arrangement. Do not use excessive amounts of glue at this stage of assembly to the formers will not be warped and thrown out of line.

4

Glue side longerons in their notches, making certain that they are even at the back and that all formers are perpendicular to longerons. Then glue the wood noseplate or cowling to the front former and remove the 1/16" sq. connecting piece. Apply an additional coat of glue to all joints.

5

Next glue on the paper covers that fit around the wing. Also glue cockpit covers in place. If desired, transparent portions may be made of celluloid. See sketch elsewhere on plan for cockpit details.

6 BOTTOM

7

Build wing directly over the plan. A piece of waxed paper may be used over plan to prevent glue from sticking to it. Start by pinning down the leading and trailing edges. Don't glue them together at the center as this will be done when dihedral is built in. Cut out wing tip pieces and glue them in.

8

Cut out wing ribs carefully, and glue them in place to leading and trailing edges, trimming to fit if necessary. Leave out center rib until dihedral is built in.

9

Install the top spars, lapping but not gluing them at the center. These are glued when dihedral angle is built into wing (Fig. 10). When dry, remove framework from plan.

Bevel end of spar, break it at the end rib and glue down to the wing tip.

10

This sketch shows method of putting dihedral angle in wing. Slide convenient blocks under wing until tips are 1/8 inch above the work surface. Bevel ends of leading and trailing edges and glue them together. Next glue in center rib, at the same time gluing top spars together. Sandpaper leading and trailing edges to shape shown.

11

JOIN SIDES AT REAR AND CEMENT FORMER 6 IN PLACE. THEN ADD REMAINING FORMERS.

12

Glue stabilizer outline pieces together over plan.

13

Build remainder of stabilizer from 1/16" sq. strips. When glue is dry, remove from plan and round off outer edges. Build fin in same manner.

14

FIN
STABILIZER

To attach tail surfaces slide stabilizer into slot and glue firmly. Some stabilizers are slanted in from the side. Comet SPEED-O-MATIC construction assures correct angle of incidence of stabilizer. Next glue fin in place. Make certain that fin and stabilizer are aligned in relation to wing.

15

BEGIN FUSELAGE CONSTRUCTION BY ASSEMBLING TWO SIDES OVER HEAVY BLACK LINES ON PLAN. USE WAX PAPER TO KEEP PARTS FROM STICKING TO PLAN.

16

JOIN SIDES AT REAR AND CEMENT FORMER 6 IN PLACE. THEN ADD REMAINING FORMERS.

17

Build wing directly over the plan. A piece of waxed paper may be used over plan to prevent glue from sticking to it. Start by pinning down the leading and trailing edges. Don't glue them together at the center as this will be done when dihedral is built in. Cut out wing tip pieces and glue them in.

18

Cut out wing ribs carefully, and glue them in place to leading and trailing edges, trimming to fit if necessary. Leave out center rib until dihedral is built in.

19

Install the top spars, lapping but not gluing them at the center. These are glued when dihedral angle is built into wing (Fig. 10). When dry, remove framework from plan.

Bevel end of spar, break it at the end rib and glue down to the wing tip.

20

This sketch shows method of putting dihedral angle in wing. Slide convenient blocks under wing until tips are 1/8 inch above the work surface. Bevel ends of leading and trailing edges and glue them together. Next glue in center rib, at the same time gluing top spars together. Sandpaper leading and trailing edges to shape shown.

21

CEMENT WING RIBS IN PLACE. ADD 1/16" SQ. SPARS.

22

Build wing directly over the plan. A piece of waxed paper may be used over plan to prevent glue from sticking to it. Start by pinning down the leading and trailing edges. Don't glue them together at the center as this will be done when dihedral is built in. Cut out wing tip pieces and glue them in.

23

Cut out wing ribs carefully, and glue them in place to leading and trailing edges, trimming to fit if necessary. Leave out center rib until dihedral is built in.

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Install the top spars, lapping but not gluing them at the center. These are glued when dihedral angle is built into wing (Fig. 10). When dry, remove framework from plan.

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25

This sketch shows method of putting dihedral angle in wing. Slide convenient blocks under wing until tips are 1/8 inch above the work surface. Bevel ends of leading and trailing edges and glue them together. Next glue in center rib, at the same time gluing top spars together. Sandpaper leading and trailing edges to shape shown.

26

COVER SPACES BETWEEN BLADES WITH PAPER, TRIMMING TO FIT BEFORE GLUING.

27

Slide thrust button and prop on the prop shaft and bend the end over, put glue on it, and push back into part "D".

28

Glue black to front end. When dry, curve and sandpaper to shape of spinner point.

29

Glue front spinner (D) over prop former (E) over blades, lining it up with a pin.

30

Pin to a flat surface and glue prop blades to "A", even with guide lines.

31

Glue front spinner (D) over prop former (E) over blades, lining it up with a pin.

32

Glue front spinner (D) over prop former (E) over blades, lining it up with a pin.

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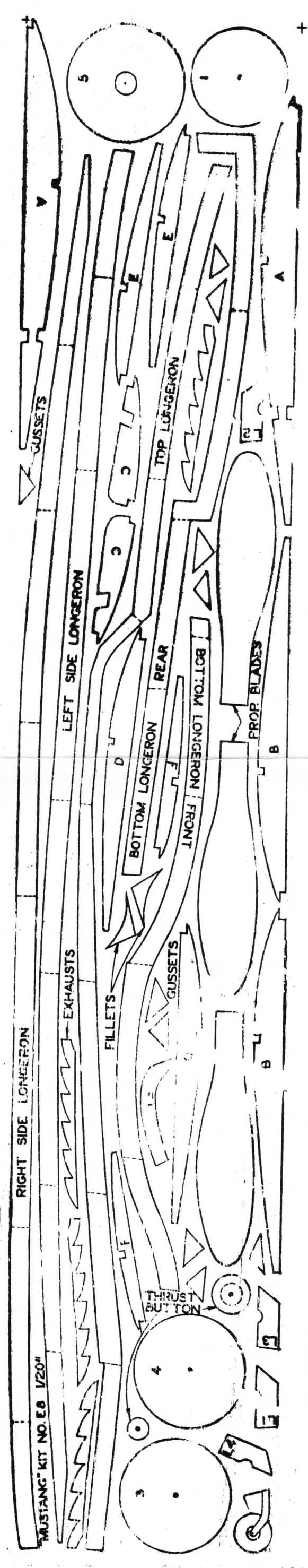
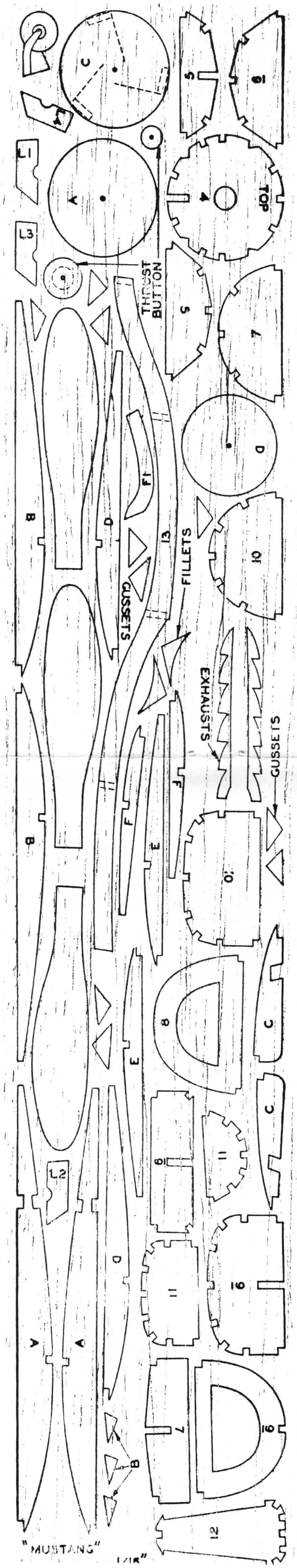
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