MAXFAX

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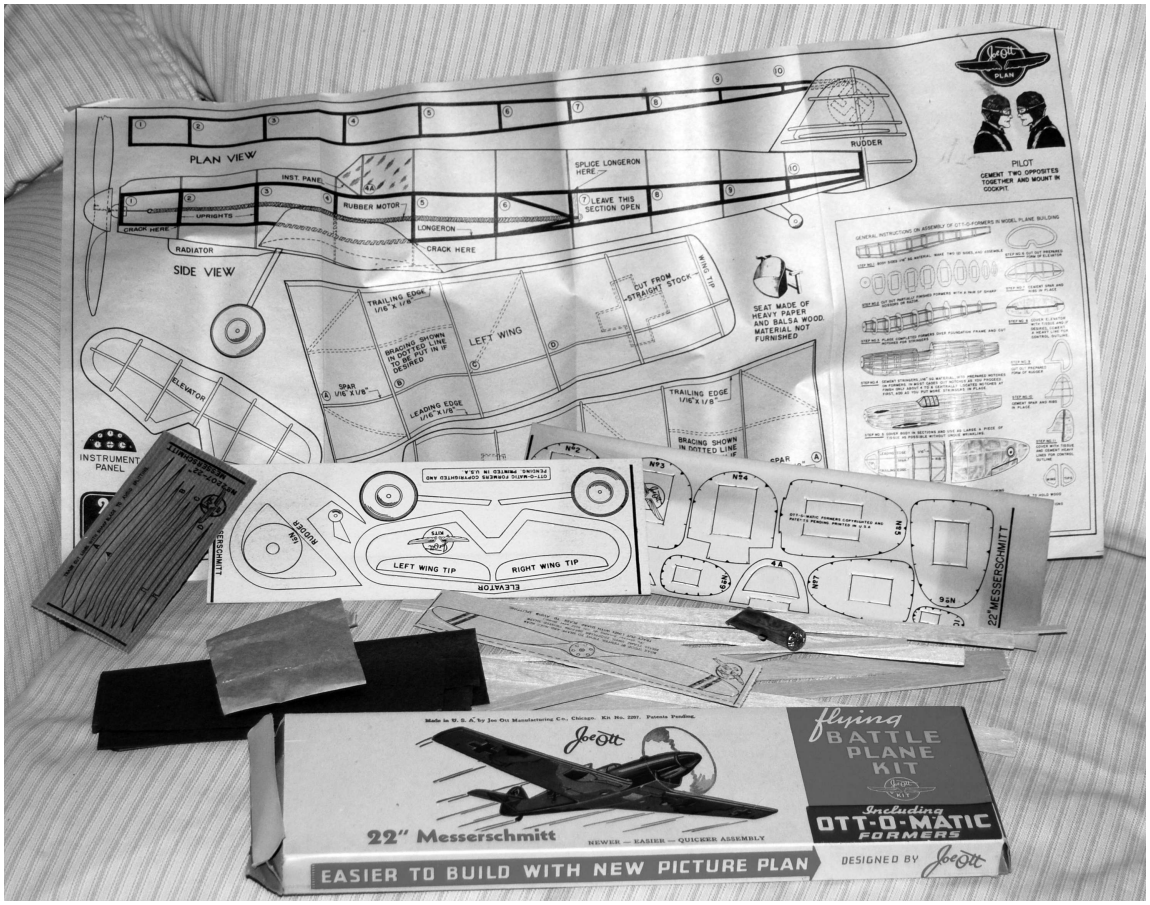
Editor: Stew Meyers **2014-2**



JOE OTT ISSUE

COMING ATTRACTIONS

INDOOR FLYING HAS RESUEMED AT BAUER MON & WED 12;45 TO 2:15 PM SEE WEB SITE

NOV 8-9 2014 CAFFA RAEFORD, N.C. NOVEMBER HURICANE SEE FLYER ON PAGE 18

JANUARY 18 2015 NATIONAL BUILDING MUSEUM EVENTS TO BE SCHEDULED

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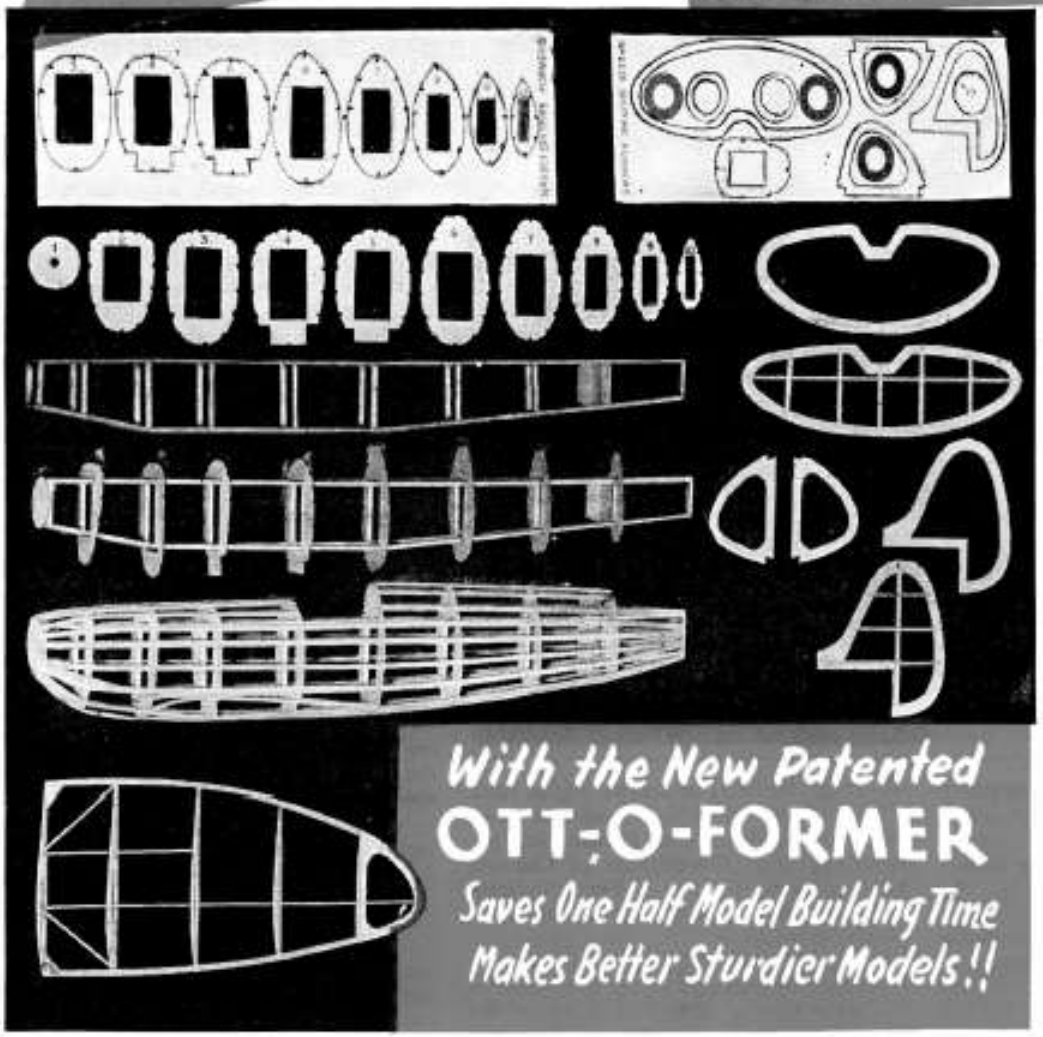

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MaxFax 2014- 2

NOTE - WE HAVE GONE FROM BIMONTHLY TO QUARTERLY

Stew Meyers Editor

JOE OTT ISSUE

Here it is fall already. It's high time to put out another issue of MaxFax. The spring NBM and Kudzu contest results are finally presented. I had intended to do an issue on Joe Ott and Ace Whitman models. However this never seemed to get written. I knew Joe Ott designed many Ace Whitman kits. In fact I thought he designed them all.. Well when I did some research, it's not so. True, he stated Ace Whitman, but left it to start his own company before the war. An innovative engineer he developed the technique of replacing balsa with cardstock. This served him well during the war with it's balsa shortage. He continued with cardstock after the war, but with balsa again plentiful the popularity of these models declined. He left the model business and became a successful packaging engineer. It makes sense to limit this issue to Joe Ott and put out a Ace Whitman issue later. Bill Albin sent in some ad-photos he got from Joe's widow and Dan Discoll supplied the Joe Ott Me-109, a typical WWII kit. (The prewar Joe Ott Miles Mohawk was included in the 2011-1 issue of MaxFax.) I have cribbed some Joe Ott history from the defunct Kappa Kollector. Claude Powell sent in an interesting article on low power trimming. The CAFFA November Hurricane Contest flyer is presented.

JOE OTT

Early days

Josef Stephen Ott was born on 28th April 1900 in Freidorf, Austria. His parents emigrated to the United States when he was about three years old and settled in Windber, Pennsylvania, where he spent his early years growing up with his cousin Johnny Weissmuller, who was later to achieve world-wide fame as an Olympic swimmer and as the star of Tarzan films. Moving to Chicago, Joe got the aviation bug when in 1911 he witnessed early flights of Lincoln Beachey, the American pioneer aviator, and soon afterwards he joined the newly-formed Illinois Model Aero Club. He built his first model aeroplane in 1912 and while still a teenager helped various aviation undertakings in the area in a spare-time capacity, amassing a wealth of technical knowledge which was augmented by further study when he took correspondence courses in aeronautics. He joined the US Army as soon as he could and hoped to gain entry into the Aviation Section of the Signal Corps; however, with the end of WWI this was not possible, but on sheer ability he was able to obtain an assignment as an instructor in aeronautics at Kelly Field and at the Texas Agricultural and Mechanical College where he taught the Aviation Unit of the ROTC. He was also involved with the introduction and use of working model aircraft into the US Army, and it was during his army service that he patented his first invention, a securing clip for spiral puttees. Other inventions were to follow, many of them related to model aircraft. After three years' service he found himself home in Chicago where he managed to obtain employment with local aircraft companies converting wartime machines for civil use. At one time he was engaged in work for the US government modifying DH4 bombers into mailplanes. Despite this full-size aviation involvement, Joe was a very industrious modeller who made all types. In 1923 he began to consider the commercial aspects of the hobby, being particularly interested in producing components that enthusiasts found difficulty in making themselves. As well as working on the development of compressed air engines and associated items, he sought to publicise successful designs by making up working drawings and compiling descriptive articles in order that other modellers might benefit from his experience. The article that he wrote for Aerial Age in May 1922 describing two of his hydro models was the first of many contributions that he would write for a number of magazines over the next twenty years.

Compressed air

By making a close study of German and British compressed air engines Joe began to develop motors of this type, leading the way to mass production of light, inexpensive practical power units that were within the reach of the average model enthusiast. Forming an association with the Amalgamated Sales and Service Corporation, Joe Ott designed items were available from late 1928 from the Model Aircraft Division of this company. For models to fly well they had to be light, and the reduction of weight clearly became an

MEMBERSHIP - Dues for membership in the DC MAXECUTERS are **$25** per year for residents of the USA, Canada, and Mexico, and **$35** for all other countries. You may now use PayPal at the website:
www.dcmaxecuter.org
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 - Four issues of MaxFax are sent each year, one each quarter, but since this is a volunteer publication nothing is guaranteed except that four issues will be sent to all members. (***Rising costs and dwindling membership have forced us to go to four issues a year in 2014.***)

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

obsession with Joe, who named his products 'Featherweight.' Compressed air engines and containers, flash steam boilers, floats, and wheels were so labeled, and he also produced propellers and accurately-shaped wing ribs based on full-size aerofoils, as well as supplying miscellaneous materials and tools especially for the model aeroplane builders. Additionaly, he undertook to design two new flying models every month, one for rubber power and one for compressed air. These plans and building instructions were given away free of charge, this gambit possibly being the first Joe Ott sales device designed to attract customers. Despite apparently good results, Joe set his sights on even higher production figures than had been possible with Amalgamated. and arranged for production and sales via The Norlipp Company early in 1929. It was at this time that he produced a kit of components for a suitable model for his compressed air units. This was a 48 in. flying scale model of the Fokker Super Universal high-wing monoplane, complete with pneumatic tyres on the wheels. The model was covered in high grade Japanese silk. Just what amount of prefabrication was involved in this model is not known, but all parts were said to be ready formed, requiring only assembly. The model sold less engine, propeller and air container for $7.50. Suitable power plants were also available, prices varying between $13.00 and $16.00, depending on the type chosen. The Ott Featherweight engines were manufactured in various configurations and assembly kits as well as complete engines were available in single to six-cylinder configurations. The three-cylinder type was the most popular; indeed, very few of the Ott four, five, or six-cylinder engines were actually sold. One feature that aided production was that cylinders, pistons and connecting rods were all the same size for these 1/2 in. bore and 3/8 in. stroke engines which were fairly large, having a diameter of six inches. Cylinders were made from brass tube with soldered end caps; but during the association with Norlipp, solid, drawn cylinders were introduced which, being of slightly shorter length, reduced the stroke to half-an-inch. The air containers at this time were made from seamless copper foil, but the demise of the manufacturer who supplied this material brought about a reversion to the normal type with soldered seams.

In the midst of all this activity the Wall Street Crash in October 1929 knocked the bottom out of everything, including the compressed air engine market. But surprisingly, despite the difficult financial situation prevailing, Joe somehow managed in 1930 to obtain a business relationship with a large Chicago correspondence school. This caused the appearance of a new engine known as the Dobe-Ott. Much more compact than previous designs, it had a reduced overall diameter, the three cylinders being held in a circular frame while a spun brass `crankcase' fitted to the engine gave it an improved appearance. However, the commercial arrangements did not 'pan out' (as Joe later said), and the enterprise lasted only some six months. Joe now decided to promote and sell his products through his own company, Model Aviator Products, which was run from the basement of his home. After offering the Dobe-Ott engine with its reduced stroke and enclosed crank cover, and the remaining Featherweight engines, Joe introduced a third main engine type from the end of 1931. Called the Sky-Flyer, a name that he had adopted as his trademark for other products, this was really a composite motor embodying the best features of the Featherweight and Dobe-Ott engines, and as it also cleverly utilised components for previously-manufactured engines, no costly re-tooling was necessary. No longer of enclosed type, most engines were of three-cylinder layout. Overall diameter was now 3-1/2 in. as a result of soldering the cylinders further down the stamped brass frames than had been done previously on the original Featherweight. The Sky Flyer 3C, which weighed 1-1/4 oz. produced ten ounces of thrust driving a coarse pitch 16 in. propeller at almost 1000 revolutions per minute on 110 pounds of air pressure. It sold at $3.50 completely finished but was also available in kit form at $1.50, although to combat competition these prices were eventually reduced to $2.95 and 99 cents respectively. This engine and other variations were advertised until the beginning of 1934 when, apart from the increasing availability of practical internal combustion engines for model work like the Brown Junior reducing the demand for compressed air motors to a point that made their continued production uneconomical, Joe was fully occupied in creating the mass production of his model aircraft kits that would establish him as America's leading model designer in this field. He stated that some 40,000 units of his engine designs had been sold in one guise or another during the active years of production.

Model writer

In the late 1920s the use of balsa wood and quick-drying cement saw a marked change in model aeroplane construction in the USA. Hitherto these materials had been used mainly to produce 'stick' models, but soon `fuselage' designs appeared, and the ability to construct varied shapes of light, strong construction naturally led to flying scale models. This activity required drawings of the various aircraft types, and Joe Ott was one of those who rapidly drew-up working drawings for suitable models. By this time he was writing regularly for Popular Aviation and he quickly made a name for himself because of the excellence of his articles. The model size given in these descriptions varied, but full-size wing rib and fuselage former shapes meant that modellers had little difficulty in making the model. He chose appealing designs like the wartime SE5 and Fokker Triplane as well as modern military and civil machines in the news, and at one time plans for featured models were given away by the publisher for only the five cents mailing cost, using a clip-out coupon from the magazine. Joe's own Sky Flyer series presented the most popular designs in 15 in. span size that could easily be doubled up to make a 30 in. span model, and these plans were such a success that Joe was swamped with the response to his advertisements. Many dealers and other kit

manufacturers were not slow to react. The plans did not include any identification other than stating the 'Joe Ott' design origin so they could be used in kits or by stores, there being ample space for such agencies to apply their own names. Megows and Scientific amongst others took advantage of Joe's 10-cent plans, whose sales reached a peak of 10,000 copies per week. When bought in bulk the attractive dealers' discount could make them as cheap as two-and-a-half cents each. It was the great demand for his plans that caused Joe to embark on kit production, although effective distribution of these was to present a major problem at first.

In the Chicago area Joe was secretary of an association called International Model Flyers (other officers being Joseph Lucas and Paul Lindberg) which aimed at providing courses of instruction in building via selected Joe Ott-designed models which Joe made available on demand in kit form to department, hardware and school supply stores. He was also responsible for the compilation of the IMF Model Maker's Manual, a forty-eight-page handbook which, apart from containing introductory explanations and building instructions, gave details of the organisation structure and planned competitions. Experience with the IMF led Joe to form the Junior Sky League of America which had its clubroom in the administration building at Sky Harbor aerodrome in Northbrook, Illinois. Joe's aim was the promotion of airmindedness. It was the beginning of his campaign to equip boys with an aeronautical foundation through model aeroplanes that would fit them for careers in full-size aviation. With all this activity, just how Joe ever found the time in 1931 to write the excellent book already mentioned is not known, but the need for a standard text book to replace the basic IMF Model Maker's Manual was sufficient reason... and he did it, dedicating it to `...boys - of all ages - who find interest in doing things, and in doing them well...' Popular Aviation commented that it was '...the best model airplane hook that we have seen, both in the matter of the contents and in its general makeup. The instructions are complete, and it is copiously illustrated with photographs and scale drawings of all sorts of models... That Ott knows his stuff, you'll agree, and he has more than turned himself loose in this volume...'

The book was so far ahead of its time that it was a sensation, but in the depth of the Depression not everyone had the $2.50 to spare. Its distribution through the publishers' outlets also provided a means to recruit further modellers to the JSL and Joe seized upon it, ensuring that publicity material and enrollment forms were included with the book.

Joe's Model Aviator Products 1932 catalogue, heavy with compressed air items, lists twenty Sky Flyer plans and states that three new plans would appear every month. His own plans were now getting ahead of the Popular Aviation series, since he was listing models that would not appear in article form for some six months to come. Although he was now the Model Editor of Popular Aviation, he did not confine himself to that journal, but wrote for Popular Mechanics, Aviation Mechanics, and Model Airplane News, amongst others_ His own business had also expanded to the extent that he was supplying the trade with finished and saw-cut propellers, insignia, celluloid wheels, tissue, dope, banana oil, thinners, cement and other materials. Joe Ott had definitely arrived. He had done this by sheer ability and hard work. Here was a man who worked literally until the task was completed. Tireless and enthusiastic, he could accomplish more in one day than most others would achieve in a week. His boundless energy was prevented from further production only by the mere fact that there were just twenty-four hours in the day. Often when he had finished his usual work he would dictate his articles far into the night. However, working on new designs, the time-consuming assembly of drawings, photographs and all the other tasks necessary before submitting material to a publisher had to take second place to a new venture that had been born out of the ever-increasing demands for his designs. He now embarked on the work that would make the Joe Ott name a household word in the hobby: the manufacture and marketing of popular priced complete model aircraft kits.

Mass Production

Joe's last Popular Aviation article as Model Editor was on the Gee Bee Transport in the November 1933 issue. From the beginning of 1934 he entered into partnership with Donald F. Duncan Inc, the makers of the famous Gold Seal Yo-Yo. Joe's expertise was responsible in this association, known as Model Aircraft Products, for the mass production of many different types of model aeroplane kits at a scale previously unheard of in the industry. Many of the kit manufacturers were newcomers with products of questionable quality, and there was fierce competition amongst them in those lean Depression years, but Joe Ott already had an excellent reputation, and when Duncan sold his half interest Joe had no difficulty in joining in a new partnership with the Whitman Publishing Company of Racine, Wisconsin, to produce and sell his kits.

These partnerships obviously allowed Joe to enjoy mass production facilities. His inventive mind was put to good use in modifying and updating their existing plant and machinery to suit working in model aircraft materials. He was the first to cut balsa with specially-sharpened saws that produced a smooth cut at a single pass; other manufacturers at this time used a two-stage procedure of 'cut and sand.'

However, equally important was the fact that these partners had already established sound distribution outlets for their products and these were used to the full with the new line of model kits. It was Joe's ideas that gave expression to the standard of the kits produced. Although these were generally of the low priced variety sold by the '5 and 10 cents' stores like Woolworths and Kresges, he insisted on having bright multi-coloured boxes, full-size clear plans, top grade balsa wood, machine-cut propellers and complete, excellent hardware.

Jim Noonan, when reflecting on the Ott kits of this period some fifteen years ago recalled that `...the balsa that

went into these kits would bring tears to your eyes today. I saw three and four-pound indoor stock, white and flawless, go into millions of kits which retailed for ten cents or a quarter.' By 1936 a figure of 30,000 kits per day had been achieved and in a marvel of distribution, Joe Ott-designed kits were made available right across the United States, not only in city stores, but also in drug stores, gas stations, and on newspaper stands. Thus, even in the smallest township in the land, anybody could reach these breathtaking boxes with their infectious contents. Is it any wonder that in the prevailing fever of aviation enthusiasm that American boys went `Joe Ott mad'? The emphasis was on flying scale types including modern military and civil aircraft, record breakers, air-race winners, and well known lightplanes.

These kits were available in a selection from 12 to 24 in. wingspan, there being also a number of non-scale flying models and a selection of solid kits for the true scale enthusiast. The choice was vast, the quality first class, and they were cheap. No wonder Joe Ott kits were popular!

Joe Ott was never one to live in the past or to rest on his laurels. In business he was continually looking ahead and seeking any changes that would increase the mass production of his kits or improve their distribution. With this go-ahead attitude, he naturally had changes in business associates, but when these partnerships dissolved and Joe moved on to fresh associations, his kits were still manufactured and sold by the previous companies, and his freedom was such that he was still able to supply these agencies with certain new designs. A major change in this procedure took place at the end of 1937 when J.L. Wright Inc, the makers of Lincoln Logs and Allied Toys, contracted to manufacture and sell all of the Joe Ott kits. This entailed a complete take-over of all kits from previous outlets. Doubtless Donald F. Duncan, Western Coil and Electrical Company (the Whitman manufacturer), and Samuel Dubiner (for whom Joe had also designed kits) had a backlog of Joe Ott kits and presumably sold these until their stocks were exhausted, but the manufacture was now firmly under the banner of J.L. Wright Inc.

Joe Ott Manufacturing Company

With the coming of reliable model petrol engines, Joe built a number of large flying scale models powered by Hurleman Aristocrat, Brown Junior, and Baby Cyclone motors. However, it was not until the appearance of the small bore engines like the Ohlsson .23 that he introduced a number of power models that were marketed as kits through the J.L. Wright outlet. These included the 50 in. Howard DGA 11 and Roscoe Turner's Pesco Special, as well as the Gas King Junior which could also be flown as a tloatplane. In 1939 he developed his 60 in. Kingfisher which when operated on floats employed an additional 12 in. centre section, increasing the wingspan to six feet. This model, described in the February 1940 Air Trails, was Number One of a projected series of Joe Ott designs for that magazine, but in the event they only published this first model.

Joe now formed the Joe Ott Manufacturing Company which at first, continued to market kits under the J.L. Wright arrangement until the demise of that concern. These numbered some seventy different models varying from 5-1/2in. span solids to the Kingfisher, but the majority were rubber-driven flying scale models of eleven to forty-two inches wingspan retailing from five cents to one dollar each. Most of these kits featured the now famous Joe Ott Picture Plan, which was a blueprint-type full-size drawing on the rear of which were detailed constructional sketches in black and white.

In mid-1941 the Joe Ott Company was completely re-organised to occupy a new, modern three-story building. Some 500 people were eventually employed in the production and packaging of kits; twelve handsaws were working three full shifts each day, and a large railway freight car of bulk balsa was transformed into kit contents, which numbered 50,000 daily at times. When this mass of kits was distributed on the efficient network that Joe Ott kits had established throughout the USA, one can all the better believe the claim that `...probably more youngsters were introduced to model aeroplane construction by Joe On kits than by all other kit manufacturers combined!'

At one time a built-up model was given away with each gross of kits ordered as part of the promotional campaign, but this seemingly simple device produced a major problem when sales to a nationwide department chain store produced an order for several hundred thousand kits. It was not possible for the company's employees to make these built-up models in the time available, and an advertisement was placed in a local Chicago newspaper offering $1.75 for building one. The response was overwhelming. 1800 youngsters turned up. Each was given three kits, and within a week some 2500 finished models were ready and the contractual arrangements were met. Although this procedure sufficed on this occasion, there was an ever-increasing demand for completely built-up Joe Ott models for display by dealers, and a group of eight experienced Chicago model builders performed this work at home, each being paid on a pro-rata basis. Eventually the demand was such that the normal guaranteed delivery of about three weeks could no longer be made. Possibly the standard of the hurriedly-made enthusiasts' models did not warrant using this method again! New models were continuously being added to the Joe Ott range, and the draughting and tooling that this entailed meant that Joe could no longer do all this unaided, so he employed a team of eight designers who worked under his personal supervision.

Ott-O-Former

Coincident with the latest reorganisation was the introduction of a new line of models to be sold by Sadler Sales Inc; and some of these designs incorporated a completely different approach to modelling than that used hitherto. This was hailed by the trade as '...positively the easiest to build ever. At least seven Patents cover the jig type of construction by means of which the models are assembled. The plan makes the

jigs and bond paper substitutes for balsa in many structural parts. The whole set-up looks very good and is the first new development in model construction in years! Joe Ott knows how to merchandise. His boxes were always superb, and his plans are so good we are surprised other manufacturers haven't followed suit long ago!'

The prefabrication of model aeroplane kits obviously made them more appealing as it removed most of the intricate cutting-out of parts that many beginners found irksome. But there was a more important aspect that plagued many modellers, and this was the tedious work needed to ensure accuracy of assembly. One of Joe Ott's main endeavours was directed to this end. He wanted each and every model to be a success; boys were his public and many boys were impatient to fly, so everything done to ensure them speedy, accurate construction was effort well spent. The fuselages of scale models could be complicated structures, and Joe simplified the construction of such models with his Ott-O-Former method as well as halving the usual building time. This system employed formers with rectangular central openings that were slipped over a basic fuselage shape; but because balsa formers tended to split easily, he developed the use of card formers for this purpose. These were far stronger and more flexible than balsa and therefore quickly gained acceptance with modellers. The die-cut card parts, which included tailplane, rudder, and wing tip outlines as well as fuselage formers were first produced in a 22 in. series of models selling at 15 cents each. Eventually this was extended to all the Joe Ott kits.

Balsa shortage

When by mid-1942 a balsa shortage made the industry look at means to surmount this, Joe was already well established with the use of his card formers. He had found that thin card was a better material for this purpose, doubtless also finding it more economical. Balsa was a critical wartime material and model manufacturers would only be granted 100-board-feet allocations. Poplar and pine were pressed into use while Joe Ott was by now using basswood with jute board formers. He was now offering thirty different kits (in various sizes) of the popular wartime types of aircraft that appealed to the youth of America. While some manufacturers held to the normal type of construction using substitute materials, the bigger kit producers turning out large numbers of flying scale models were quick to emulate Joe's Oft-O-Former type of construction, although they had to be careful not to infringe the patents that protected his system. One example was Comet's Speed-O-Matic, which was really a keel type of construction rather like our own Keelbild, which was in turn related to the Cleveland systems; but it used card formers like the Ott kits. Comet's Speed-O-Matic did away with the fuselage foundation frame of oblong cross section and used both vertical and horizontal outline crutches on the card formers.

Ott-O-Tube

Late in 1943 Joe Ott produced his 40-1/2in. (3/4 inch to 1 foot) Mosquito. Because of the slender rear fuselage he was forced to use a tube jig which became part of the fuselage structure, thus introducing his Ott-O-Tube construction. On the Mossie, he used motors enclosed in tubes of rolled paper which acted as jigs for the nacelles and extended aft to give reasonable motor length. Later the Ott-O-Tube method was used on various single engine types, but it did not enjoy the success that had accompanied the original Ott-O-Former system. This period marked the crest of the wave for the Joe Ott Manufacturing Company with their rubber powered Battle Plane kits of famous wartime types. The Company had three full pages of colour adverts in the November 1943 issue of Model Airplane News.

Bild-A-Set

Joe Ott was continually creating new ideas, and produced yet another system of model assembly for practical kits he designed for D.A. Pachter Co. for ten months from the end of 1943. The result was known as Bild-A-Set. Ribs and formers of a patent coated newsboard (all completely prefabricated) were held vertically in slotted card jigs of triangular cross-section which were pinned down over the plan with drawing pins. Special wire clips retained the longitudinal members in place while the cement dried. This 'assembly line' method of model construction was said to he the 'greatest advancement ever made in the model airplane industry'. The Pachter kits available from early 1944 included all the well known fighting planes of the time; but before long balsa again gradually became available. Modellers who had been starved of their favourite commodity for two years were keen to see the end of substitute materials.

Final approach

Balsa was, of course, also being increasingly used during 1944 by the Joe Ott Manufacturing Company in kits that had previously relied on card for speed of assembly and strength with basswood stringers. With balsa stringers, Joe maintained that the card formers were still better than balsa and the resilience of this material made it more suitable anyway; thus the balsa formers were replaced by card again in 1945 despite the plentiful balsa supply. Although the Joe Ott Manufacturing Company continued for some time and Joe Ott kits were still being sold into the late 1940s, Joe left the model industry and started a packaging company, designing over the next twenty years his own highspeed machinery for filling collapsible metal tubes with various substances. This was followed by work as a design engineer in industry for fifteen years thereafter. Ile followed the changes that took place in the model aircraft hobby and returned to his first love briefly when at over eighty years of age he undertook to design and produce a highly prefabricated radio-controlled model. That Joe had faith in the old Bild-A-Set system is shown by his adoption of some of its methods in the construction of his non-scale "Golden Falcon" radio control model, which was his last venture.

BUILD AND FLY 'EM *QUICKER* WITH THE NEW

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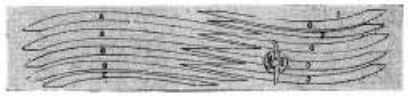
THE BEST MODEL AIRPLANE KITS WE HAVE EVER MADE!

NO BALSA or OTHER CRITICAL WARTIME MATERIAL USED!

The best flying model airplanes are being built without balsa and the new BETTER THAN EVER OTT-O-FORMER KITS prove it! If you haven't already built a model from one of these new kits get one today from your dealer and get started at once. You'll be thrilled with the fine ship it will make. You'll be amazed how easy it is to build and how quick you can get it into the air.

Models built from the new OTT-O-FORMER KITS have every advantage of light weight balsa-construction. They are stronger than balsa ships. They have more stability and fly better than any model you ever built before.

Building Time Cut One-Half



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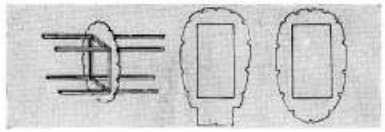

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Ready-Cut Jute Board . . . Time-Saving Construction

All Ott-O-Former Kits contain ready-cut wing ribs and Ott-O-Formers. They are plainly printed and perfectly cut and save one-half the building time required with old style kits.

BOMBERS
★
PURSUITS
★
FIGHTERS
★
Complete Kits
15c to $1.50
★
22 to 50 Inch WING SPAN
★
FULL SIZE THREE VIEW PLANS
★

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Airabonita	Lockheed Intercepter
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Consolidated Catalina	Mustang
Curtis P-40	North American
Curtis O-52	Spitfire
Douglas Dauntless	Stuka
Grumman	Vought-Sikorsky
Hurricane	Vultee Vengeance

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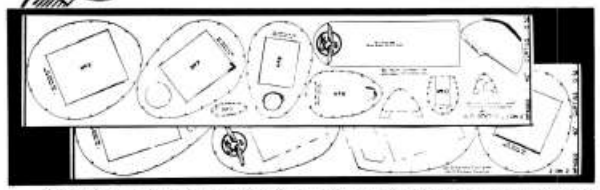
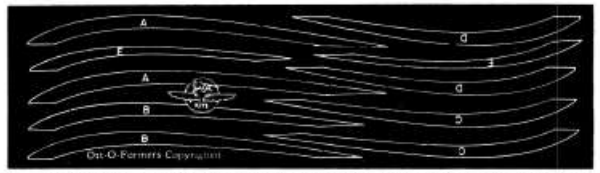


★ SEE THESE! They're OTT-O-FORMERS. They're made of light weight, strong Jute Board and they form the body of your model plane. Before Joe Ott invented and patented OTT-O-FORMERS, body formers had to be built up and cut out of wood by hand. It was a long, hard job.

★ IT'S EASY NOW! OTT-O-FORMERS are completely cut out in the center. You remove them from the sheet as shown in the top picture and then they look like those in the picture just above, but of course full size. How simple! How easy! And just think, OTT-O-FORMERS save one-half of the time usually required for building model planes.

★ USE THEM LIKE THIS! OTT-O-FORMERS slip on the foundation frame like this. They fit snug and make a strong, sturdy job. You'll be surprised how strong they are and how much lighter than formers made of wood or other materials.



★ THESE ARE WING RIBS! Wing ribs in OTT-O-FORMER KITS are made of selected, lightest weight basswood, printed and numbered and ready-cut. You can push them out of the rib sheet, as shown in the picture, with your thumb.

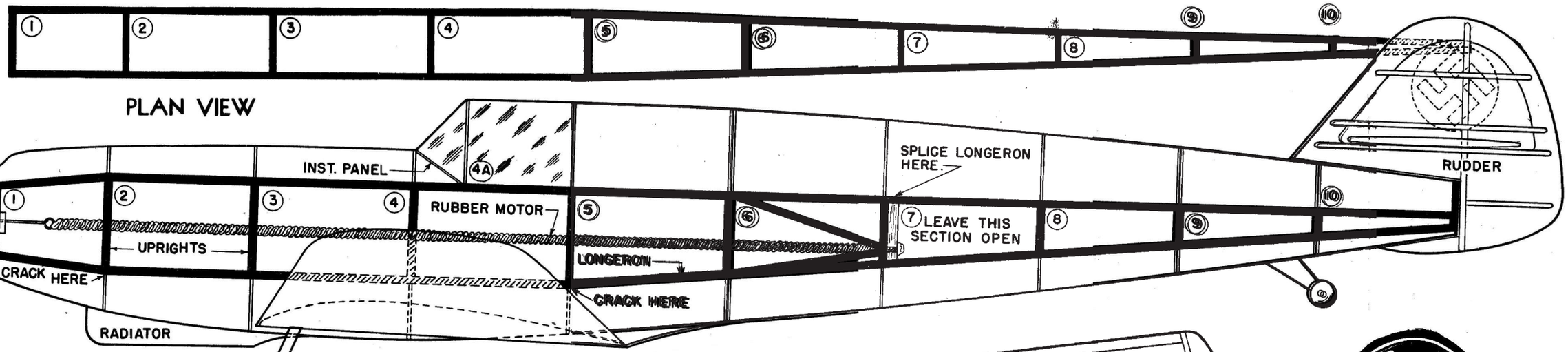
★ OTT-O-FORMER KITS ARE "TOPS." No wonder! You can make better models, easier and quicker with these kits. And OTT-O-FORMERS are strong and sturdy but only about one-fifth as thick as other formers and weigh only one-third as much. See comparison with wood former below.

PILOT

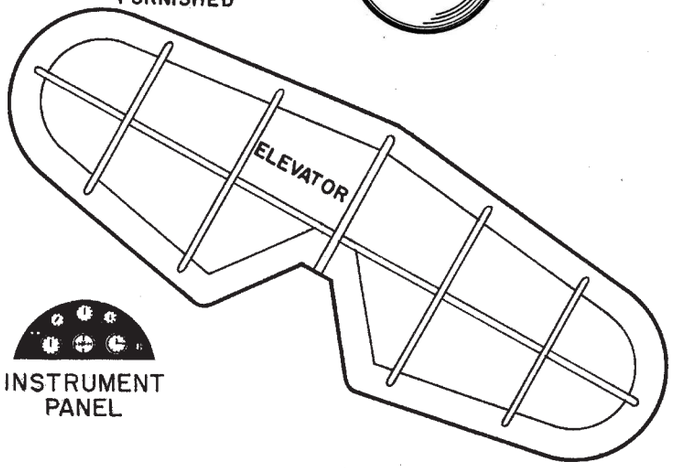
CEMENT TWO OPPOSITES TOGETHER AND MOUNT IN COCKPIT.

HERE ARE THE GENERIC INSTRUCTIONS AND PILOT THAT I COLDN'T FIT ON THE ME-109 PLANS PAGE. I ALSO HAVE INCLUDED AN AD FOR JOE OTT DOPE AND CEMENT.

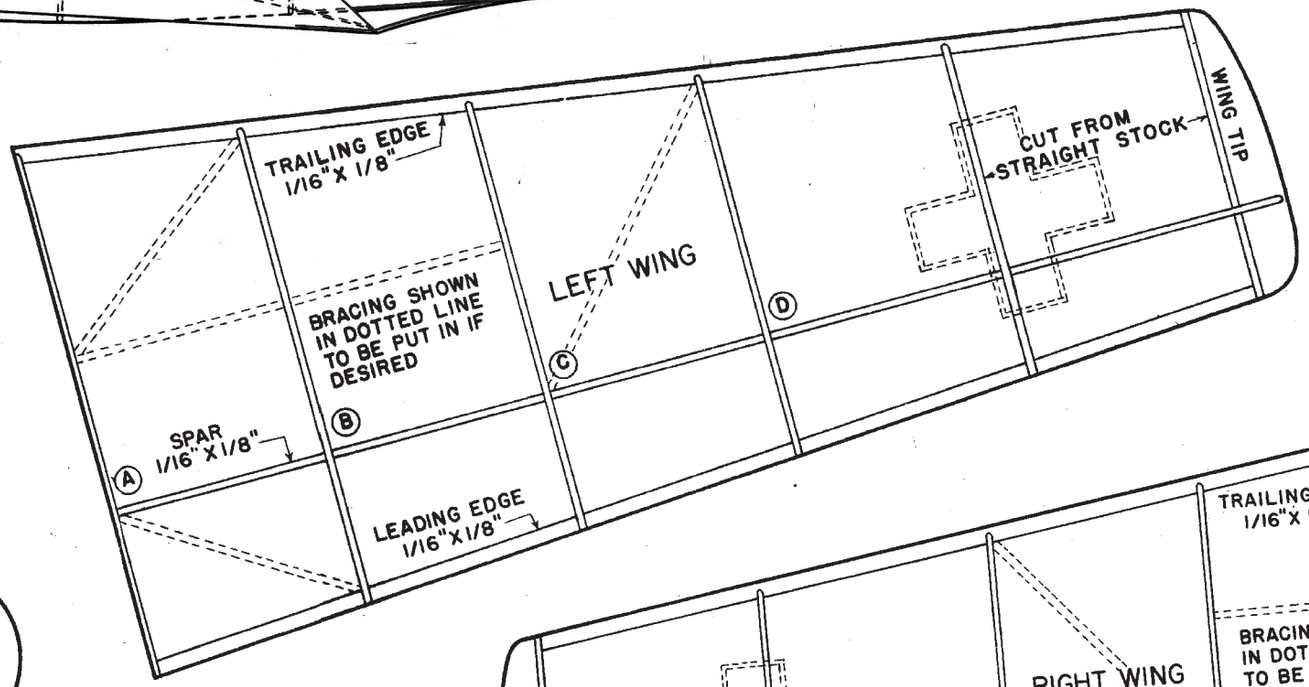
ELSEWHERE YOU WILL FIND SCALED COPIES OF EARLIER JOE OTT PLANS. FOR A CUB AND SKY PURSUIT

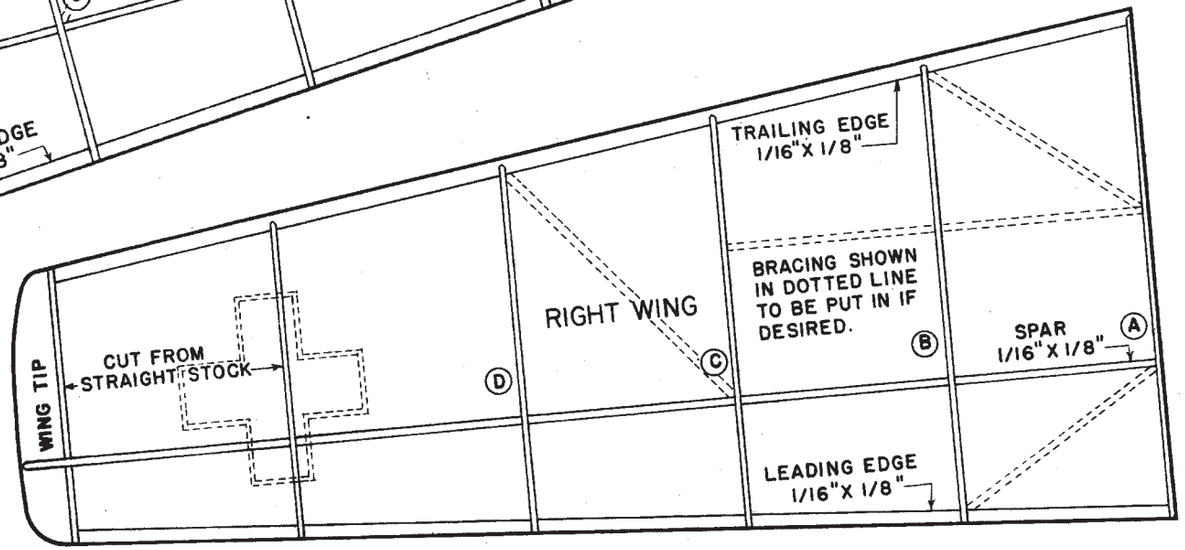


SEAT MADE OF HEAVY PAPER AND BALSA WOOD. MATERIAL NOT FURNISHED



INSTRUMENT PANEL





Joe Ott PLAN

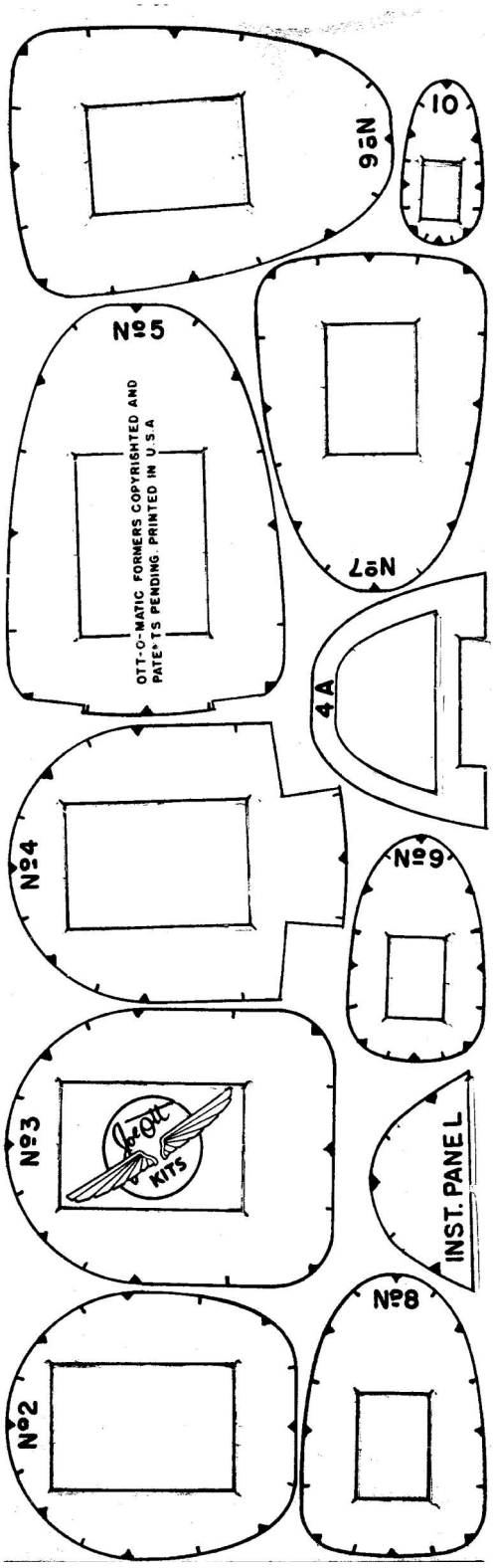
22" Messerschmitt

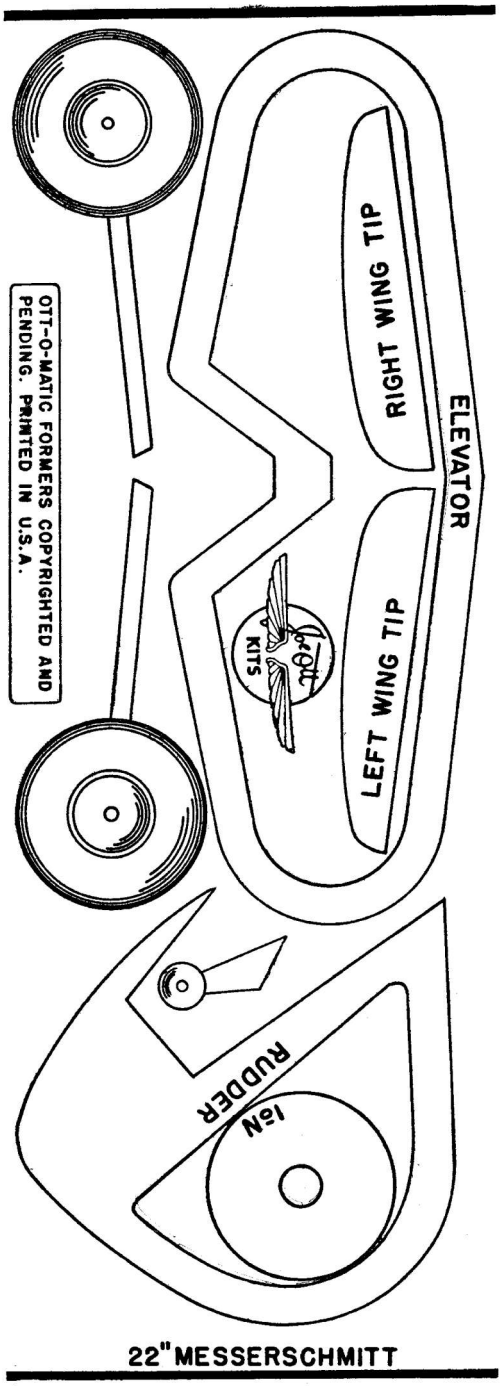
FLYING PLANE KIT Nº 2207

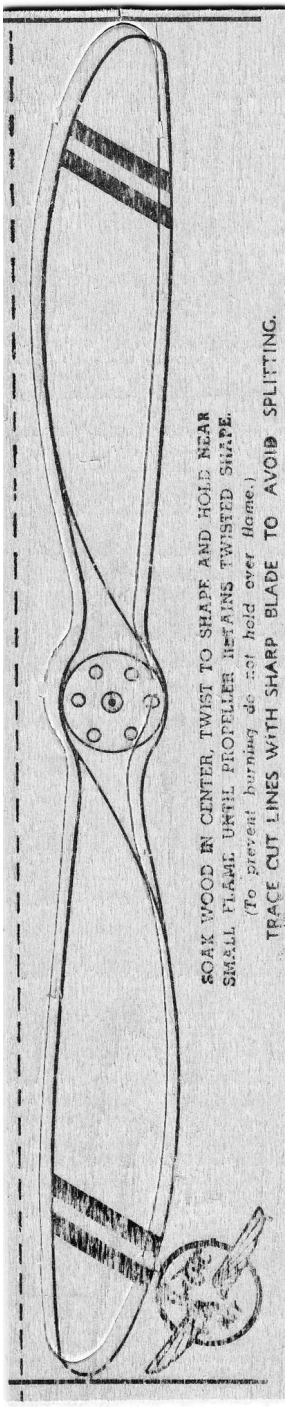
DESIGNED BY JOE OTT

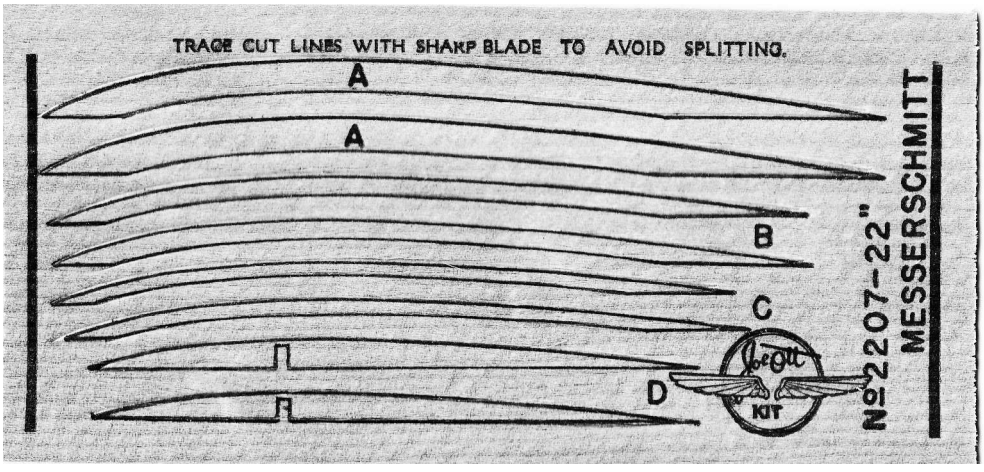
THIS PLAN HAS BEEN REARRANGED TO FIT ON THIS "B" SIZED PAPER.

THE INSTRUCTIONS ARE ON ANOTHER PAGE.









CARDSTOCK AND PINE PIECES FROM THE WAR TIME KIT.

NATURALLY NO RUBBER WAS INCLUDED IN THE KIT.
THE INSTRUCTIONS CAGELY REFER TO 1/16 SQ MATERIAL FOR THE BOX LONGERONS AND STRINGERS.

THE MISSING TRIMMING LINK

Claude Powell

This article is for the neophyte modeler although it may give the experienced modeler food for thought. I've read all the different trimming procedures I've seen and they are all good, accurate and informative, as far as they go. They basically divide the trimming procedure into two steps, trimming the glide and then trimming the powered flight. The problem I've had is with the powered flight trimming. It introduces too many variables at the same time. Thrust adjustments are expected but other problems can show up under power, that were not apparent in the glide, such as too small a rudder or an unnoticed warp and since these affect the thrust adjustments they can cause all sorts of confusion at the same time. My solution, and this has really helped me, is to add an additional trimming step between the glide trimming and powered flight trimming. It might help you. Refer to your favorite trimming article to set the glide correctly and establish a CG before proceeding. This is absolutely necessary.

"Low powered flight trimming" is the missing link and can eliminate many of these variables before going to "powered" flight trimming. Consider the new model that you have carefully trimmed the glide and are ready to start trimming the powered flight. The model has a 7" prop and you expect to use two loops of 1/8"x30" as the flying motor. The idea of low power trimming is to trim the model as you would for indoors, trying for a level and circling flight pattern and a smooth glide without concern for altitude. Use a shorter and weaker motor of two loops of 3/32"x15", half the length of the flying motor (not just one long loop folded over). This shorter motor will reduce long chases and the weaker motor should provide enough power to achieve level flight. Minor thrust adjustments will probably be required but not enough to be of concern. Be sure to re-balance the model to the established CG after installing the motor. Now, you can concentrate on establishing a smooth and circling cruise pattern with a good glide without having to control a strong motor at the same time. The first flight should tell you if the model has a "natural" turn. If so, don't fight it and adjust the model to circle in that direction. Any problems with the model, that would adversely affect a successful flight, will definitely show up at this stage and can be more easily corrected. When you have completed this "missing link" you will have insured the correct CG and the correct flight adjustments for the model. Understand, if you can't accomplish this missing link you'll never get the model trimmed satisfactorily and there is a good chance you'll damage/destroy the model while trying. Before installing the flying motor replace one of the 3/32" loops with a loop of 1/8"x15". You might have to adjust the down thrust to accommodate the added power. This should give some climb before entering your cruise pattern which will insure you're on the right path and will help to boost your confidence. If satisfied, install the flying motor and re-balance to the established CG. Start out with only several hundred turns and adjust the thrust as needed. With crossed fingers and a little luck, 90% of your adjustments will ONLY be thrust adjustments. Consider this, trim side thrust for a straight out climb and down thrust only as needed. I believe there are two points to watch for while adjusting down thrust. Obviously the launch, but more importantly I think you also need to watch for the top of the climb to see if there is a smooth transition to the cruise. If there is a stall at the top of the cruise instead of a smooth transition then the down thrust was compensating for a bad glide trim and this needs to be revisited until a smooth transition is accomplished. This is really important because a high climb doesn't help if it stalls at the top and loses much of the altitude before stabilizing into the cruise. On the other hand, if it drops like a rock when the power runs out and you have no significant cruise phase, this tells you your prop/rubber combination is too strong. You probably need a longer weaker motor with less down thrust. This motor will require less down thrust and will result in a slightly lower climb angle, but will result in a longer run and more time in the air. You might also have to readjust the glide.

Take this article with a grain of salt. These are only my thoughts and observations and they seem to work for me. Try them with your next model, or better still one of your hangar queens, to see if they might work for you. I'd appreciate your comments, good or bad.

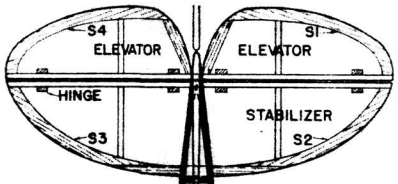
powellchp@frontiernet.net

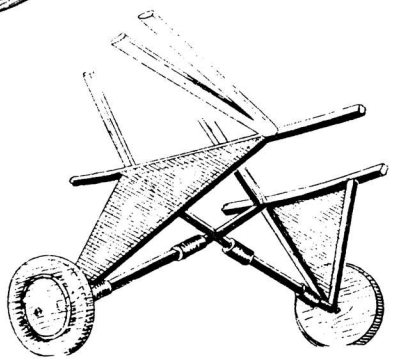
17" 1938 CUB Sport

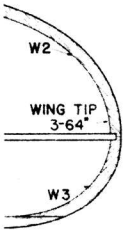
FLYING SCALE MODEL Nº1703

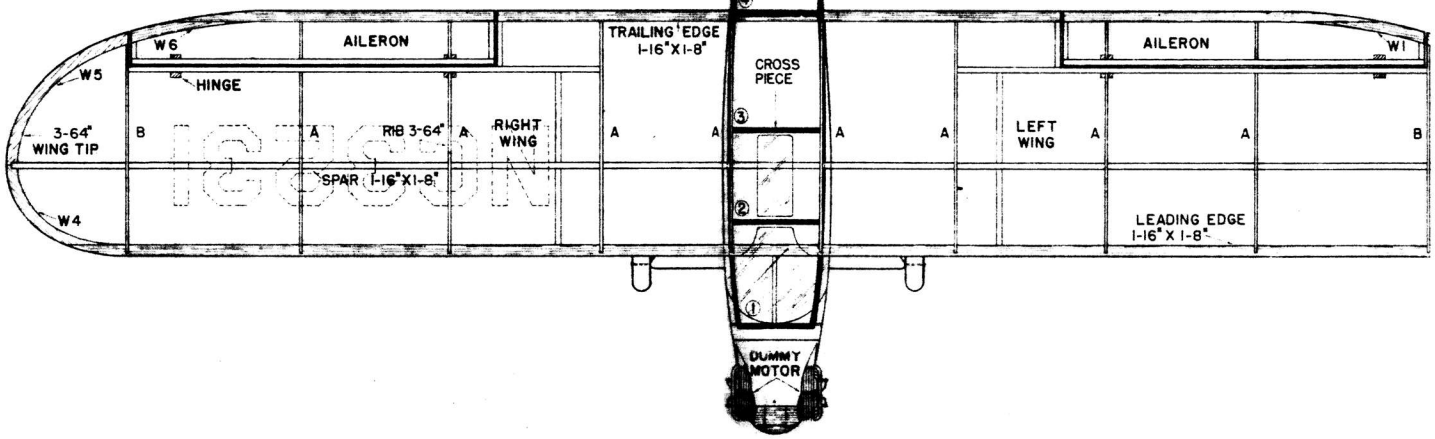
NC3231

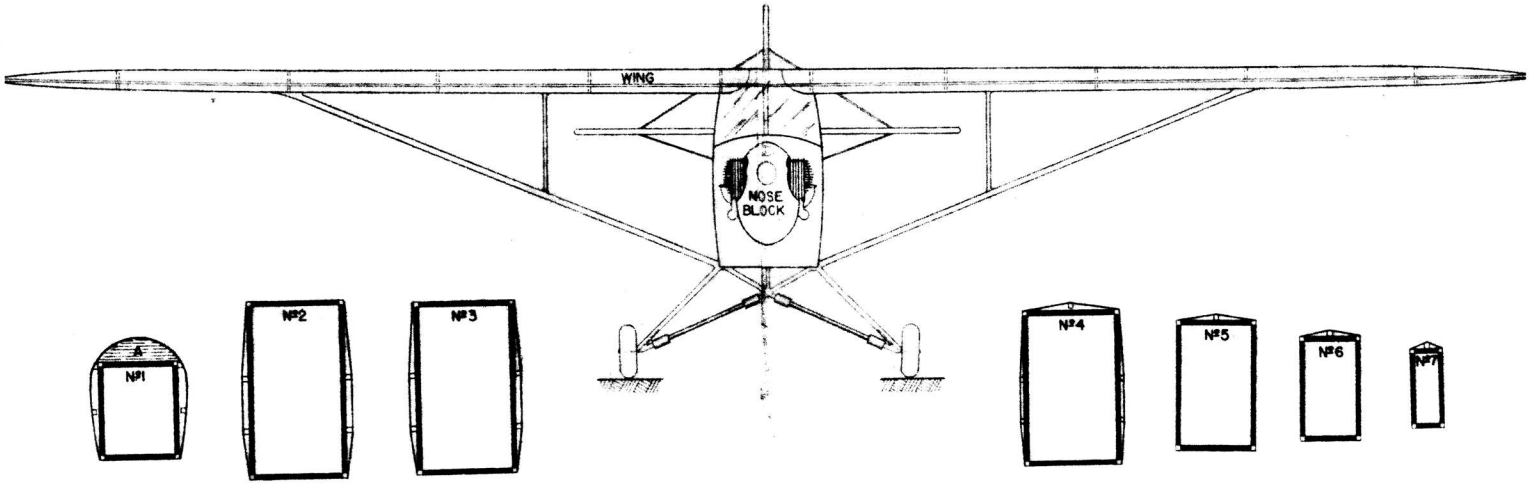
NC3231

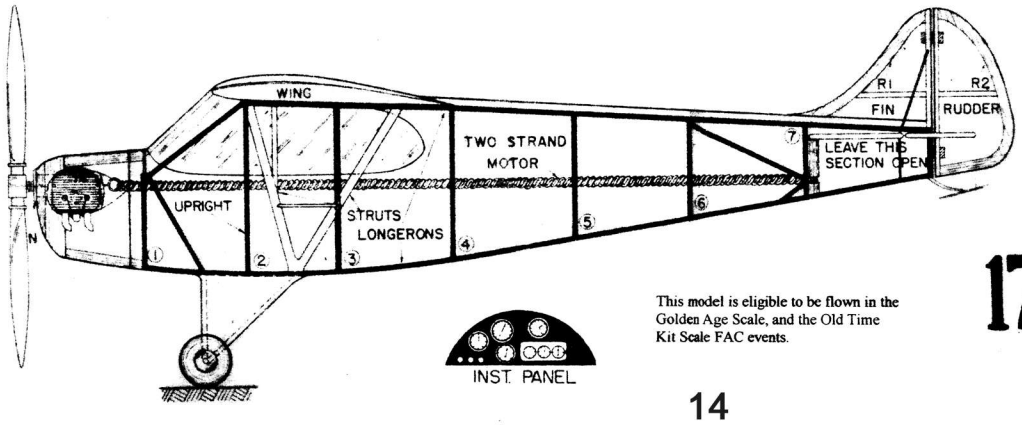












This model is eligible to be flown in the Golden Age Scale, and the Old Time Kit Scale FAC events.

17" 1938 CUB Sport

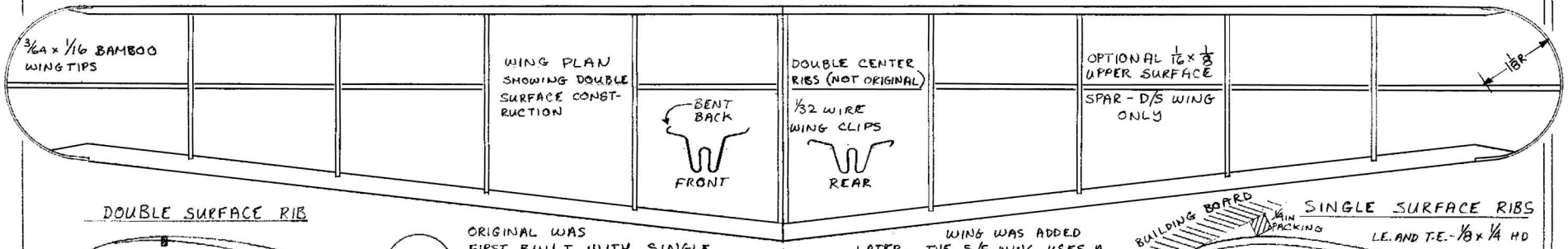
FLYING SCALE MODEL Nº1703

EARLY JOE OTT DESIGN

18 × 24

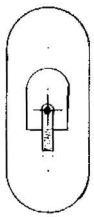
$2\frac{1}{2}$ INCHES DIHEDRAL PER PANEL

COVERING - FOR TAIL SURFACES AND SINGLE SURFACED WING COVER WITH PRE-SHRUNK, PRE-DOPED TISSUE ON TOP SURFACES ONLY TO AVOID WARPING. OTHER STRUCTURE CAN BE HANDLED NORMALLY. PRE-SHRINK AND DOPING CAN BE DONE ON FRAMES MADE OF ¼ × ½ BALSA. TO CONTROL SHRINKING TRY USING VERY THIN BALSARITE INSTEAD OF DOPE.



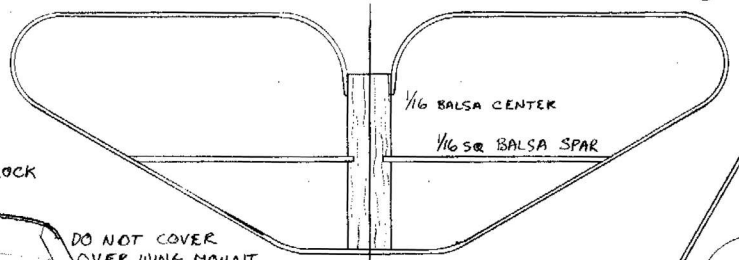
DOUBLE SURFACE RIB

L.E. ⅜ × ¼ HD — CUT TAPERED RIBS FROM ROOT TEMPLATE BY CUTTING BOTTOM CURVE FIRST THEN DROP T.E. OF UPPER CURVE DOWN TO T.E. OF RIB FOR CORRECT LENGTH AS SHOWN ABOVE
- ORIGINAL USED D/S RIBS CUT FROM 1/32 SHEET SUGGEST USING 1/16



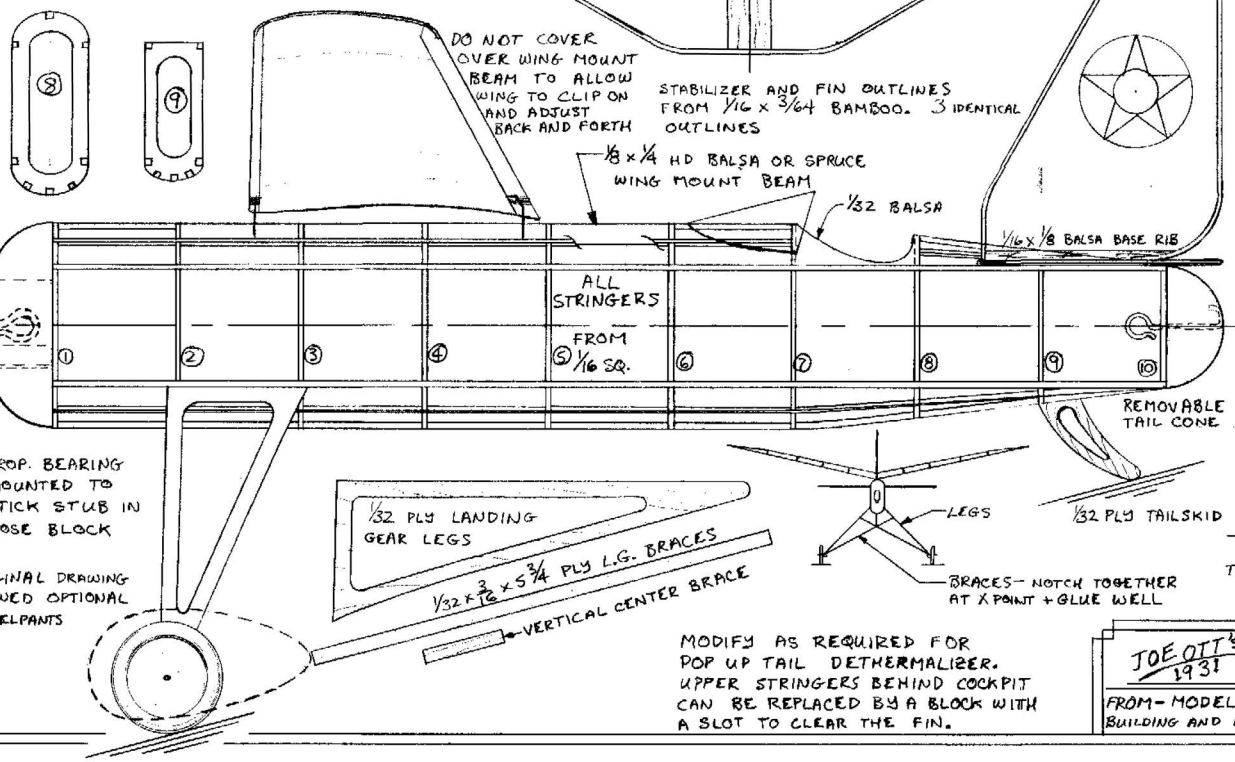
REMOVABLE NOSE BLOCK FRONT VIEW

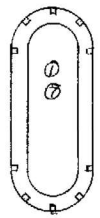
ORIGINAL WAS FIRST BUILT WITH SINGLE SURFACE WING. THE DOUBLE SURFACED WING WAS ADDED LATER. THE 5/5 WING USES A FINER PITCH PROP (TRY 1 × ⅞ × 9)

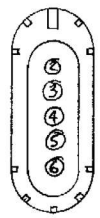


SINGLE SURFACE RIBS

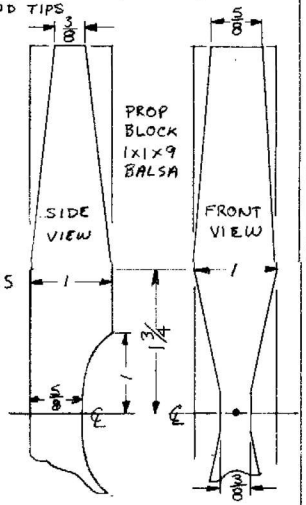
- SLICE RIBS FROM 1/16 SHEET
- SUGGEST EXTRA LENGTH TO ALLOW NOTCHING IN TO LEADING AND TRAILING EDGES AS PER WING PLAN
- GLUE RIBS TO L.E. FIRST IN UPSIDE DOWN POSITION WITH ¼ IN PACKING AS SHOWN ABOVE THEN LAY UPRIGHT TO ADD T.E. AND TIPS







TAILCONE TOP VIEW



MODIFY AS REQUIRED FOR POP UP TAIL DETHERMALIZER. UPPER STRINGERS BEHIND COCKPIT CAN BE REPLACED BY A BLOCK WITH A SLOT TO CLEAR THE FIN.

JOE OTT'S 1931 **SKY PURSUIT**

FROM - MODEL AIRPLANES BUILDING AND FLYING, JOE OTT

DWN BY BRUCE MATTHEWS NOV 8 1991

KUDZU KLASSIC MAY 17-18 2014

GRAND CHAMP -- Wally Farrell

WWI		4
WALLY FARRELL	MARTINSYDE ELEPHANT	1
GEORGE WHITE	FOKKER D-VII	2
DAVE MITCHELL	AVIATIK D-1	3
NAVY SCALE		6
WALLY FARRELL	DEVISTATOR	1
DAVE MITCHELL	HELLCAT	2
CLAUDE POWELL	TENZAN	3
MODERN MILITARY & CIVIL		3
CLAUDE POWELL	PIPER PA-20	1
WALLY FARRELL	CESSNA 140	2
DAVE MITCHELL	SWALLOW	3
WWII		6
WALLY FARRELL	CORSAIR	1
DAVE MITCHELL	HELLCAT	2
CLAUDE POWELL	HURRICANE	3
COMBINED RACES		6
WALLY FARRELL	MR. SMOOTHIE	1
FRANK ROWSOME	CHAMBERMAID	2
DAVE MITCHELL	MR. SMOOTHIE	3
GOLDEN AGE CIVIL & MILITARY		4
WALLY FARRELL	MILES FALCON	1
CLAUDE POWELL	TAYLOR CUB	2
STEW MEYERS	AERONCA 7AC	3
EMBRYO		8
WALLY FARRELL	PRAIRIE BIRD	1
GEORGE WHITE	GONZO	2
BOB BENNETT	DEBUT	3
FAC JET CATAPULT		3
WALLY FARRELL	P-59	1
JOHN DIEBOLT	ARADO 230	2
RAY RAKOW	HUNTER	3
DIME SCALE		4
WALLY FARRELL	STAGGERWING	1
RAY RAKOW	HOWARD GH-2	2
JOHN DIEBOLT	BAT	3
SIMPLIFIED SCALE		3
WALLY FARRELL	FIAT G46	1
DAVE MITCHELL	O-49	2
CLAUDE POWELL	GLEN	3

2BIT +1 OLD TIME RUBBER		3
GEORGE WHITE	KING HARRY	1
JIMMY JORDAN	F A MOTH	2
RAY RAKOW	BANTAM	3
LOW WING TRAINER		3
DAVE MITCHELL	MAGISTER	1
CLAUDE POWELL	PT-19	2
DAVE FRANKS	FIAT	3
NO-CAL		3
WALLY FARRELL	CARDINAL	1
JOHN DIEBOLT	CARDINAL	2
RAY RAKOW	CARDINAL	3
FAC & PEANUT SCALE COMBINED		3
DAVE MITCHELL	WACO QVC	1
CLAUDE POWELL	P-39	2
WALLY FARRELL	MILES FALCON	3
CLASSIC TOWLINE GLIDER		2
PHIL HARTMAN		1
CARL DOWDY		2
HAND HELD CATAPULT GLIDER		2
KIT BAYS		1
JOHN DIEBOLT		2
HAND LAUNCH GLIDER		2
KIT BAYS		1
BRIAN MALIN		2
P-30		3
CARL DOWDY		1
JIMMY JORDAN		2
BOB BENNET		3
E-36		1
BRIAN MALIN		1
E-20		1
BRIAN MALIN		1

National Building Museum Fun Fly – May 4, 2014

Attendance was off a little probably due to the late date, nice weather, school endings, etc. However, competition was keen, and a good time was had by all. We had 15 registered flyers for free flight and 14 for RC.

Free Flight Results:

Mass Launch:

14g. Bostonian ML (4 entrants)		
1	Randy Kleinert	Great Expectations
2	Tim Thompson	Pup
3	FS Gilbert	Helio

Parlor Fly ML (6 entrants)		
1	Steve Fujikawa	-
2	Tim Thompson	-
3	John Murphy	-

Phantom Flash ML (2 entrants)		
1	Doug Griggs	-
2	John Murphy	-
3		-

WW II No-Cal ML (7 entrants)		
1	Doug Griggs	Hellcat
2	Steve Fujikawa	Hellcat
3	FS Gilbert	P-40

Dime Scale ML (3 entrants)		
1	Steve Fujikawa	Farman
2	Bruce Foster	Potez 34
3	John Murphy	Stinson 108

Timed:

Pennyplane (3 entrants)		MIN
1	Abram Van Dover	4:55
2	Walt Collins	4:34
3	Dean Giacopassi	1:07

P-Nut (4 entrants)			SEC
1	Randy Kleinert	Lacey	177
2	Walt Collins	Cougar	139
3	Steve Fujikawa	Zero	95

A-6 (3 entrants)		
1	Dean Giacopassi	3:44
2	Walt Collins	2:25
3	Paul Buck	2:12

FAC No-Cal Profile Scale (3 entrants)			
1	Walt Collins	Ch'maid	314
2	A. VanDover	Farman	108
3	FS Gilbert	SE-5	47

Grand Champion: Steve Fujikawa

RC Results:

Mini Vapor Race (5 entrants)		
1	Paul Stamison	-
2	Pat Dunlap	-
3	Ross Clements	-

Mini Vapor Combat (4 entrants)		
1	Pete Carpenter	-
2	Pat Dunlap	-
3	Ross Clements	-

Tortoise and Hare (1 entrants)		
1	Paul Stamison	
2		
3		

Foam Beautifully Crafted (2 entrants)		
1	John Krause	Dragonfly
2	Jin Choe	Flying Boat
3		

Balsa Beautifully Crafted (2 entrants)		
1	John Krause	Orange Crush
2	Pat Dunlap	Lil Squirt
3		

Creative - Unique (2 entrants)		
1	Joe Barish	Toilet Lid Plane
2	John Krause	Prop Fan
3		

CAFFA

Carolina Area Free Flight Association

KUDZU FLYING CORPS

FAC Squadron 13

CAROLINA AREA FREE FLIGHT ASSOCIATION

RAEFORD, N. C. NOVEMBER 8 - 9, 2014

FREE FLIGHT CONTEST

SATURDAY, NOVEMBER 8	SUNDAY, NOVEMBER 9
FAC WW II Mass Launch	FAC Combined Racers Mass Launch
FAC Embryo (ROG)	FAC Two-Bits + 1 (ROG)
FAC NoCal	FAC Dime Scale
FAC Jet Catapult	FAC Phantom Flash (ROG) **(#2)**
AMA Catapult Glider	FAC Simplified Scale
AMA P-30	AMA E-36
NFFS Classic Towline	NFFS E-20
Fixed Time Target (Any Model) **(#1)**	SAM Twin Pusher Mass Launch

(#1) One (1) point for each second flight misses target time. Target will be between 40 and 60 seconds. Low score wins.

(#2) Best three (3) of six (6) flights. Back-up models allowed.

No motorized chase vehicles allowed on the field

On field comfort facility provided

Contacts: Contest Director: **John Diebolt** jdiebolt@mindspring.com 919 467-1025

CAFFA Secretary: **Jimmy Jordan** jjordan18@ec.rr.com

Entry Fee: $10.00 (Juniors Free)

Field location for MapQuest/GoogleMaps/GPS: 114 Ratley St, Raeford, NC 28376 (34.972354, 79.201538)

Take US-410 / Raeford Rd. West out of Fayetteville. After the Food Lion shopping center on the left, US-401 divides; bear LEFT (south) on US-401 Bus. Go 2.6 miles, turn LEFT at Oakdale Gin Rd. Go 0.4 miles, turn LEFT at Ratley St. Ratley makes a 90 deg bend to the left, the field and dirt access road is on right.

Display of Joe Ott models in a S. S. Kresge five and dime store.

MaxFax 1402

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JOE OTT ISSUE

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