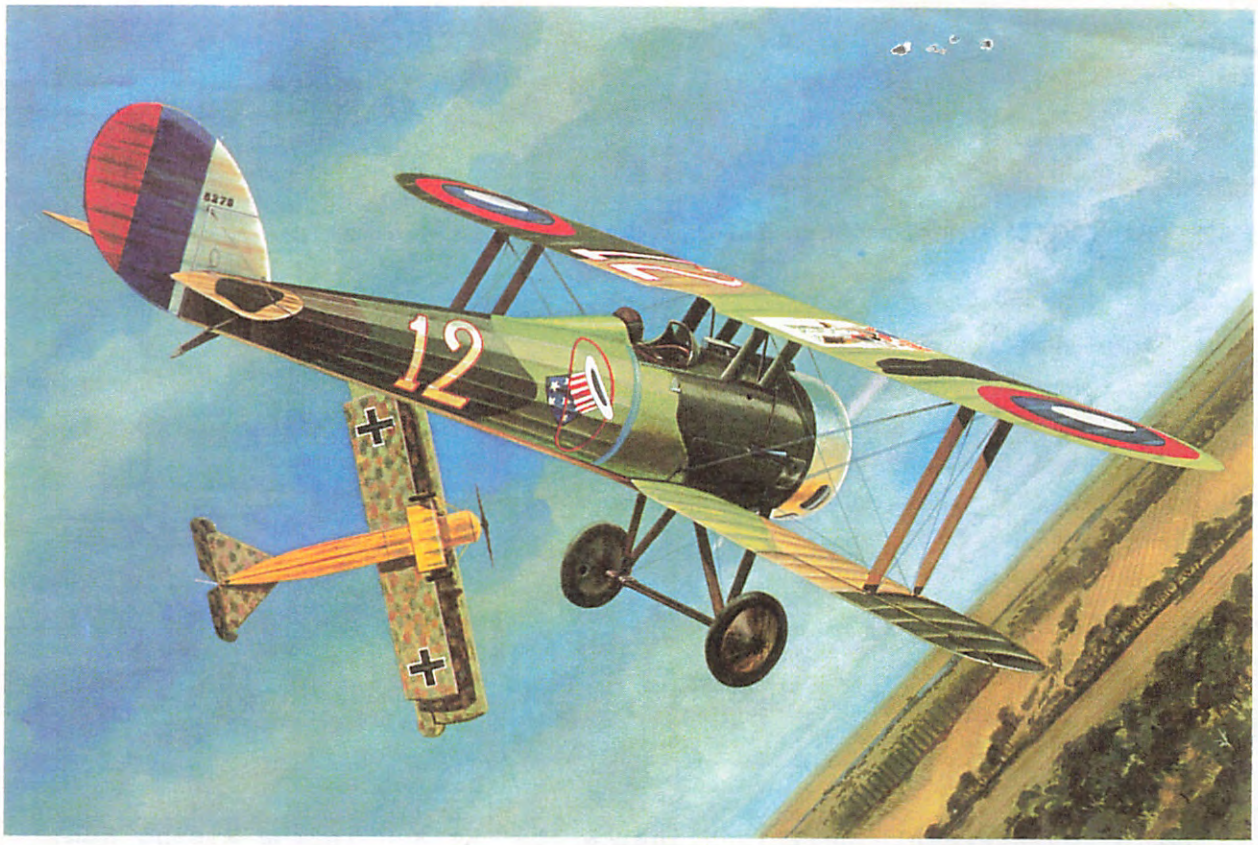
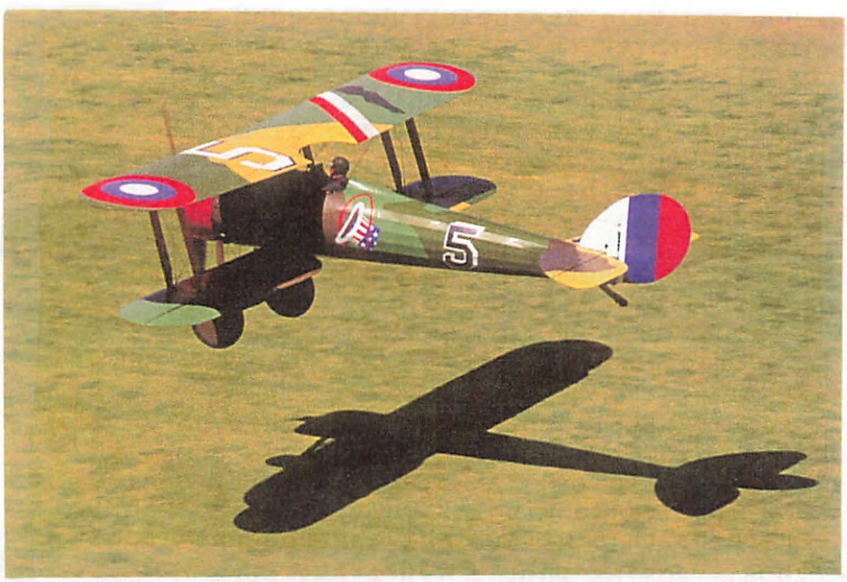


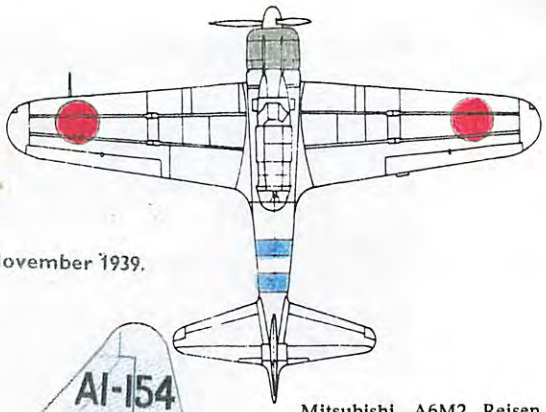
CAPT. E. V. RICKENBACKER'S
NIEUPORT 28

CROSSWINDS
RUSS BROWN
4909 N. SEDGEWICK
LYNDHURST, OH 44124

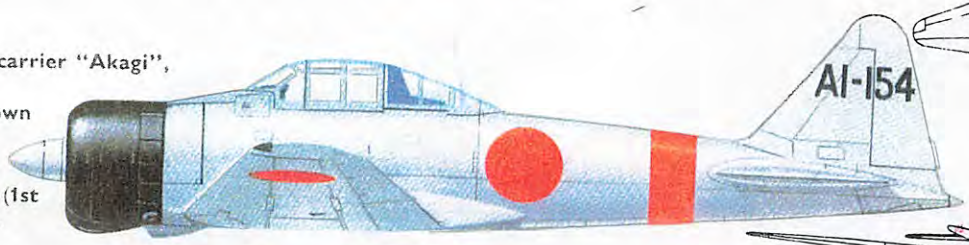




Navy experimental 12-Shi Carrier Fighter A6M1, second prototype; Yokosuka, November 1939.

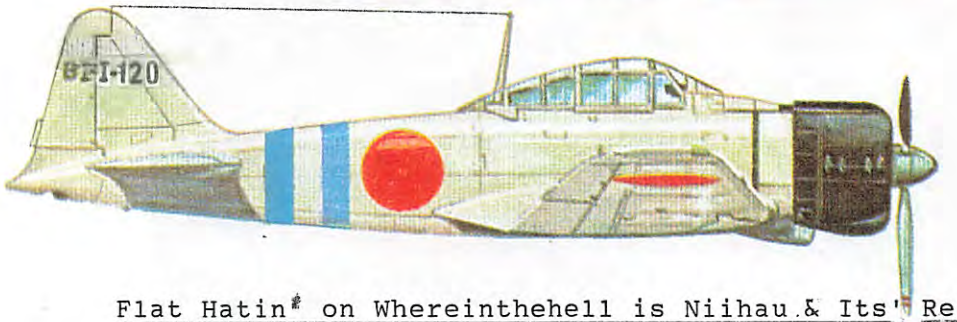


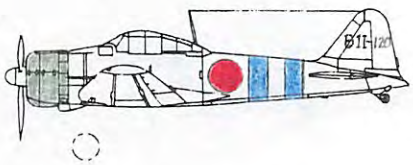
Model 21 A6M2 from carrier "Akagi", 1st Carrier Division. First Zero-Sen shot down at Pearl Harbour, 7th December 1941; flown by Petty Officer (1st Class) Takeshi Hirano.



Mitsubishi A6M2 Reisen







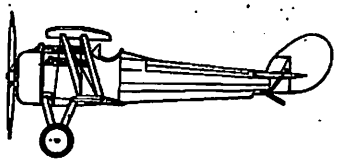
Flat Hatin* on Whereinthehell is Niihau & Its' Reisen in the Rising Sun?

The Robinson family bought Niihau Island from Hawaiian King Kamehamela in 1863. Niihau is 30 mi. West of Kauai, over 120 mi. N.W. from Pearl, where P/O 1st C Shigenori Nishikaichi attacked Pearl's Bellows Field and Kaneohe on Dec. 7,1941 from the carrier Hiryu at sea 250 mi. N.W.. His Mitsubishi built A6M2 Zero Sen BII-120 was one of eight lost when ground fire holed his gas tank. Niihau was to be the emergency field for pilot pick-up by Sub. Unknown by the Imperial Navy was the patriotic defensive step taken 10 years earlier by Niihau owner Aylmer Robinson to have his Cleveland Tractor plow all over the 30 sq. mi. of Niihau plains. Plowing was completed in 1941! This effort followed awareness of Gen. Billy Mitchell mid-1920's prediction that a Japanese attack of Pearl Harbor would be launched on a Sunday morning from Niihau. The fuel dry Zero Sen crash-landed, and Hawiian Howard Kaleohano dragged out the pilot. Japanese born Niihau resident Ishimatsu Shintani was asked to interpret the detained pilot, but when he heard of the war, he left whithout telling.Second generation Jap'-AM. islanders Yoshio Harada and wife Irene were also told of the attack and need to aid the Emperor of Japan. While rancher Howard Kaleohano rowed 30 mi. to Kauai, Pilot Nishikaichi was helped by the Haradas to capture residents Ben and Ella Kanahele, who fought back. Ben was shot three times and well enraged, threw the pilot into a stone wall, where his head beat on a rock held by Ella, and his throat engulfed a knife. No further need of Japanese intrepretation was necessary.Shintani was arrested Dec 14 after Harada shot himself. Harada's wife was interned for 31 months.

With NEWS OF THE LOYALTY TO THE EMPEROR GOD shown on Niihau a consideration, FDR ordered 12/19/42 " designated persons could be excluded from perscribed areas". Thus dislocation internment of Japanese Americans from the West coast. The Cleveland Tractor is due a kill red dot with the galvanically corroded bones of BII-120 in the new Pacific Aviation Museum in the Ford Island Hangar. It remains for an inspired FAC flier to build a BII-120 to fly in Stottsan's annual try for a Dec 7. Storkville's Balunek san has potential n'est-ce pas? S.W.A.G. Blue fuselage bands on BII-120 represent Aircraft Carrier Hiryu A/C.

DIELS ENG PO Box 263 Amherst, OH 44001, http:// pageproducer.acnic.net/ dielsengr/ Kit #18 A6M2 Zero by Bob Peck from the MODEL BUILDER Plan Book is a composite A6M2 fuselage on a 1943 Reisen clip wing A6M5 wing. Crafty Bob! Extend each wingtip 27/32" for an A6M2 long range wing as on BII-120 at Pearl. Dija know Nakajima built built more Reisens than Mitsubishi and the Rufe too!

References: FLIGHT JOURNAL Nov-Dec 2006, PROFILE PUB. # 129 A 6M2 Type O. B.



CROSSWINDS QUARTERLY

THE JOURNAL OF THE CLEVELAND FREE FLIGHT SOCIETY

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EDITORIAL COMMENT:

In Crosswinds No. 117 it was mentioned that I would be extending the WW I reviews with a fresh view on a French two seater biplane in this issue. I have long admired the Salmson 2 A2 and will do a presentation on that subject eventually, but I am even more smitten by the Nieuport N.28C-1 and I have decided to dedicate this issue of Crosswinds to that handsome subject.

The Nieuport scouts were among the most widely produced French fighters of the First World War. Most of the earlier Nieuports were characterized by the distinctive sesquiplane format which featured a full chord upper wing, but a much narrower chord lower wing. The wings were attached by distinctive "V shaped" struts between their outer panels. This configuration was used for all production Nieuport models from the tiny Nieuport 11 through the Nieuport 27. With the Nieuport 28 there was a return to the more conventional two strut design of most biplanes of the period.

Other design refinements combined to make the Nieuport 28 one of the most elegant looking airplanes of the First World War. The fuselage was rounded, the wings featured stabilizing dihedral and their tips were gracefully curved. The empennage retained a resemblance to earlier Nieuport designs, but was much more pleasing to the eye. In my opinion the Nieuport 28 is to the fighters of WW I what the Spitfire is to the fighters of WW II: the epitome of aeronautical design aesthetics.

Aside from its beauty the Nieuport 28 proved problematic. It was pleasant enough to fly, but showed some disturbing flaws (like shedding the covering of its wings during prolonged dives and spontaneous engine fires) which were not endearing qualities. Because of this it was rejected by the French, but offered to the new American Expeditionary Force as there was a shortage of Spads. The Nieuport 28 became the first operational fighter in the AEF and, despite its flaws, it proved to be a valiant, if somewhat fragile, weapon in American hands.

For reasons unclear, the Nieuport 28 is seldom seen as a model in Free Flight Scale competition. Apart from its slightly more complicated round fuselage the Nieuport 28 should be a highly desirable free flight subject. In this issue we present a new plan of the Nieuport 28 in Peanut size. Those wishing a larger size will find help at their nearest Kinko's. For additional perspectives we are also presenting you with numerous scale drawings, reduced plans from earlier kits, historical background, full scale construction insights, photographs, color schemes, and more.

CROSSWINDS READERS WITH THE DREADED RED X AT ISSUE RENEWAL CODE #119 OR LOWER CAN SEND $16 PER YEAR TO RUSS BROWN 4909 N. SEDGEWICK, LYNDHURST, OH 44124 – U.S.A.

Five original Nieuport 28s survive in the US. A few of these were used in films and suffered alterations to strutting. Three of these had wingspans reduced when with Paramount Pictures. The unaltered one belongs to Robert Rust of Atlanta, Georgia, and of the other four, two remain in the Tallmantz collection at Los Angeles, another is in Cole Palen's flying collection, the fourth went to E. Carlson of Spokane. In Europe, the sole survivor appears to be that in the Swiss Air Force Museum at Dubendorf.



4 MM. COMPOSITION BOARD PANELS

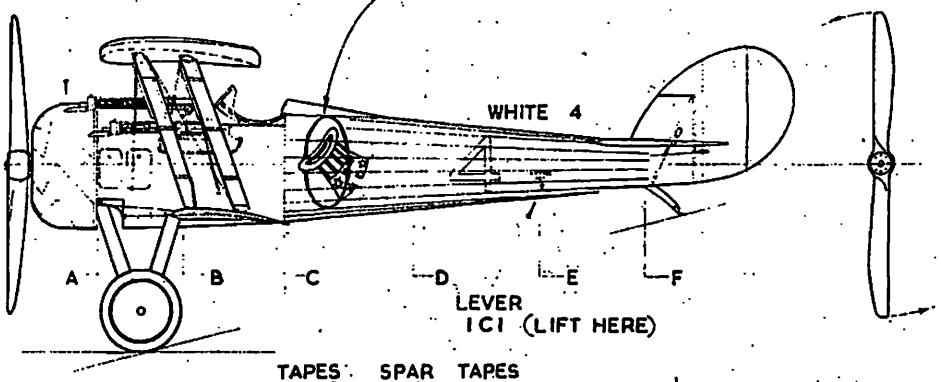
Colour detail: Machines were camouflaged on upper and side surfaces in irregular patches of light grey-green, dark olive green, light earth shade and dark brown. Colours on the fuselage were in order: dark brown (nose) light green, dark olive green and small patch of dark brown under tailplane. Under-surface of wings and tailplane was natural fabric clear doped and varnished. Interplane struts were natural varnished spruce, undercarriage and centre-section struts were painted green. Roundels were carried on both surfaces of upper wings and underneath lower wings but NOT on fuselage sides. 'U.S.A. Roundels': Red outer, blue, white centre spot. 'French roundels': Red outer, white, blue (cobalt) centre spot. Rudder: equal stripes of Red (leading), white, blue (rear) both U.S.A. and French. 'N.B.' The earlier U.S.A. rudder stripes were in order: white (leading), blue, red (rear), approx April/May 1918 period.

Specification

Manufacturer: Société Anonyme des Etablissments Nieuport.
Power Plant: 150 h.p. Gnome Monosoupape 9N rotary.
Span Upper: 8.16 m. (26ft. 9¼ in.).
Lower: 7.753 m. (25ft. 5¼ in.).
Chord Upper: 1.3 m. (4ft. 3¼ in.).
Lower: 1.0 m. (3ft. 3¼ in.).
Length: 6.4 m. (21 ft.),
Height: 2.46 m. (8 ft. 1 in.).
Dihedral Upper only: 1½ deg.
Weight empty: 436 kg. (961 lb.).
Weight loaded: 698 kg. (1,539 lb.).
Maximum speed: 206 km. hr. (128 m.p.h.).
Ceiling: 6,000 m. (19,685 ft.).
Duration: approximately 2 hours.
Armament: Twin Vickers machine guns mounted to port side of fuselage.

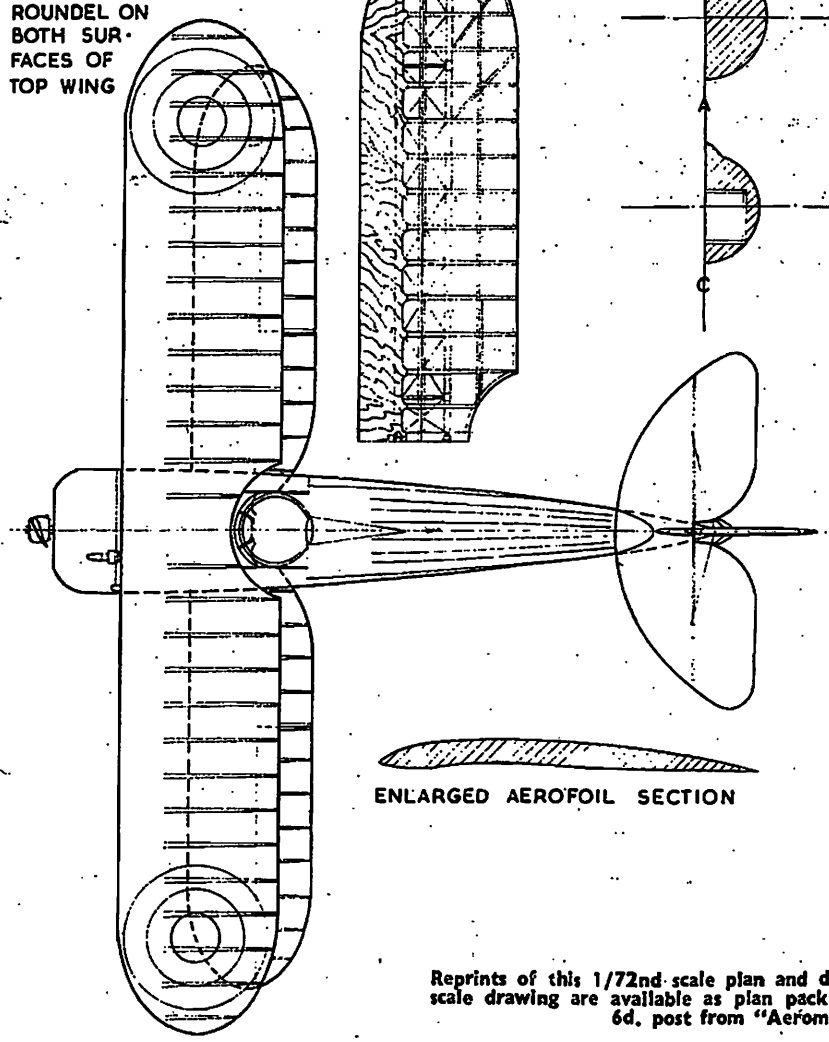
RED & WHITE ZIG-ZAG ON SOME 94TH COWLS

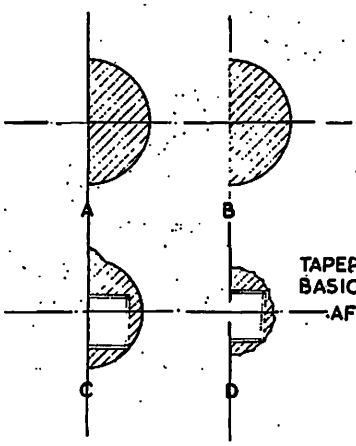
94TH SQDN. INSIGNIA. CROWN BLUE WITH WHITE STARS. RED & WHITE BAND



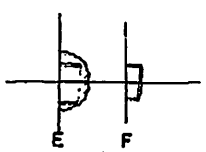
TAPES SPAR TAPES

ROUNDEL ON BOTH SURFACES OF TOP WING

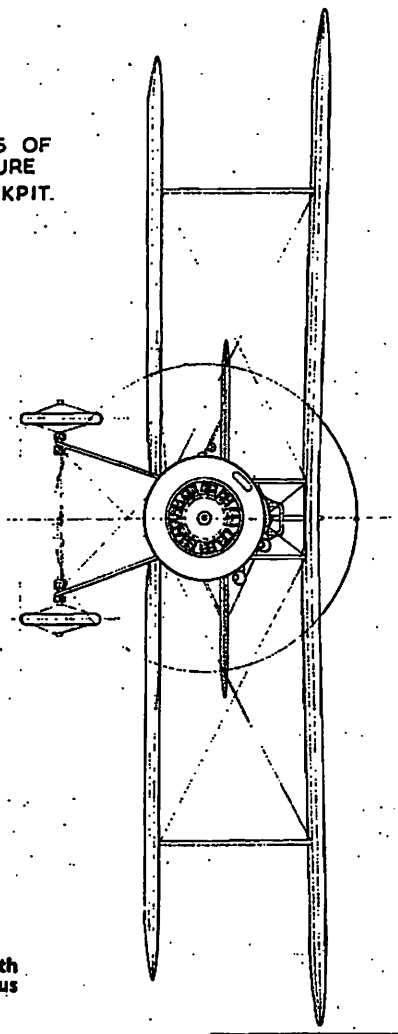




TAPER ON SIDES OF BASIC STRUCTURE AFT OF COCKPIT.



ENLARGED AEROFOIL SECTION

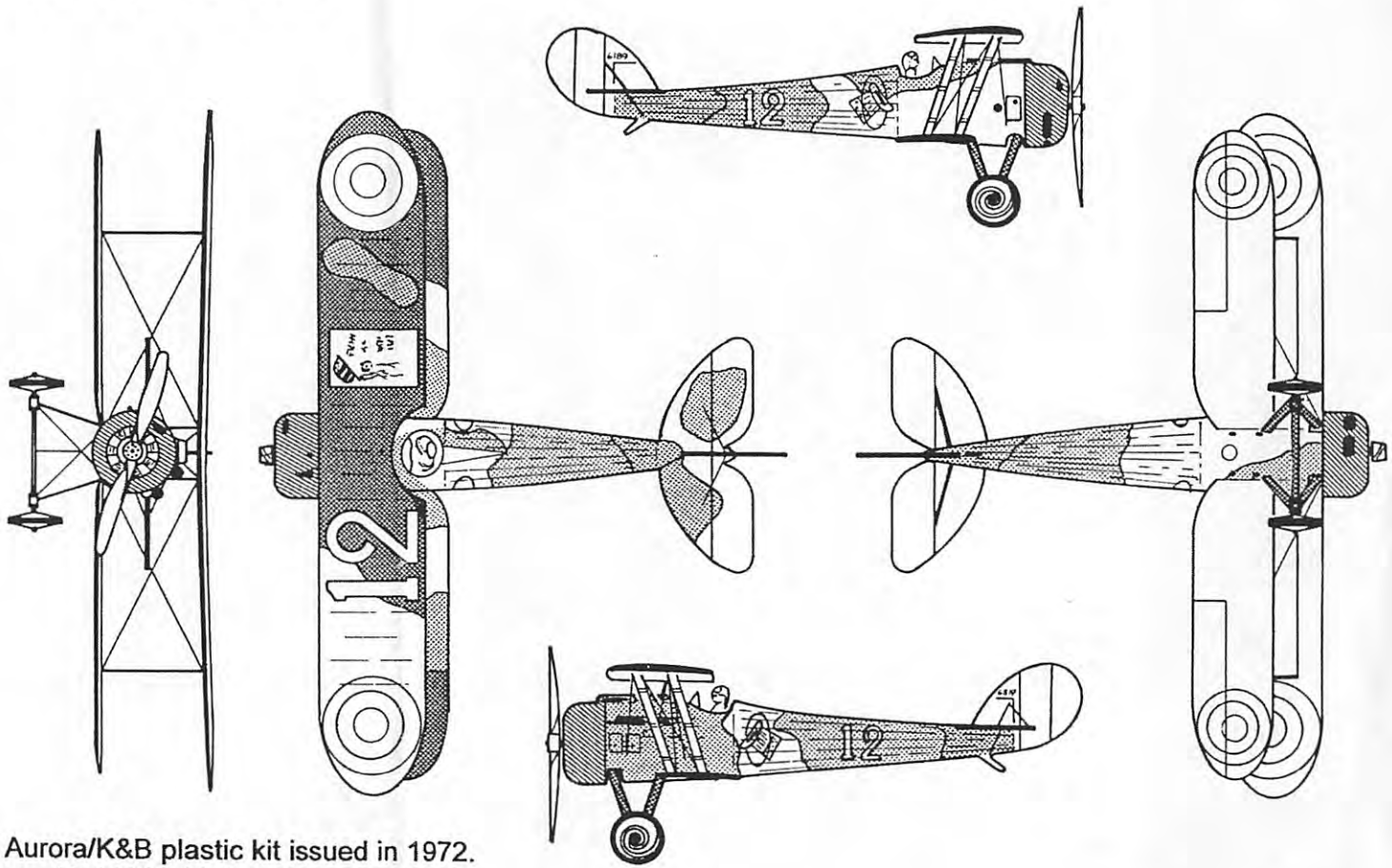


Reprints of this 1/72nd scale plan and dye-line prints of the 1/48th scale drawing are available as plan pack AJ2776. Price 2/6d. plus 6d. post from "Aeromodeller".

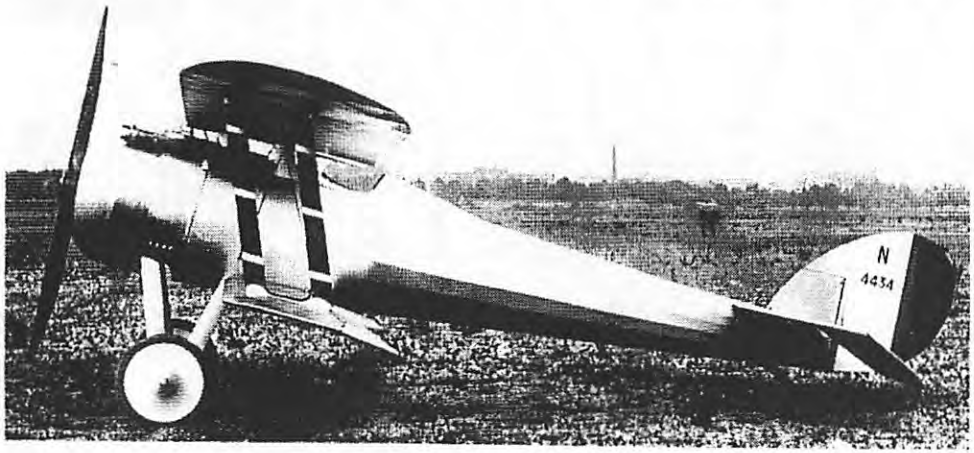
SCALE VIEW OF NIEUPORT 28 C.1

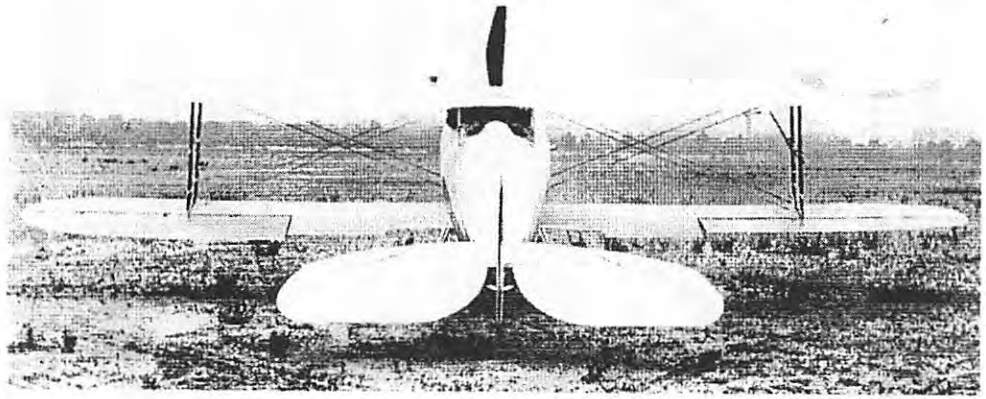
COLOR SPECIFICATIONS

OUTER CIRCLE OF ROUNDEL REAR STRIPE ON RUDDER STRIPE ON WHEEL COWL	Red (21302)
NUMBERS CENTER OF ROUNDEL FORWARD STRIPE ON RUDDER NUMBERS ON WING & FUSELAGE WHEEL HUB	White (27886)
MIDDLE CIRCLE OF ROUNDEL CENTER STRIPE ON RUDDER	Blue (15200)
CAMOUFLAGE	
GREEN	(34097)
TAN	(20450)
BROWN	(20140)
DARK BROWN	(30108)
Orange	(22144)
PILOT	— Helmet, Coat, Pants, Boots — Medium Brown
MECHANIC	— Coveralls — Medium Grey Cap — Grey Shoes — Black
INSTRUMENT PANEL	— Brown, Black Instrument with Silver trim
PROPELLER	— Brown (Wood Grain)



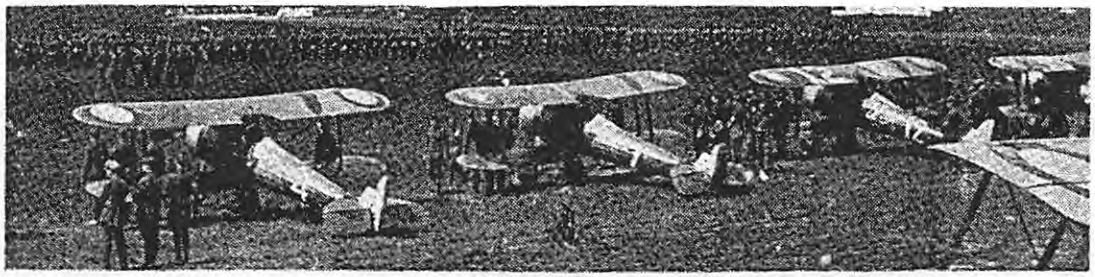
The above coloring chart was taken from the Aurora/K&B plastic kit issued in 1972.
The below photographs show two other angles of N4434 with its full dihedral.





AIRCRAFT DESCRIBED
Number 130

by P. L. GRAY



NIEUPORT 28 C-1

The 1st Pursuit Group AEF on parade for Decorations at Toul. Unlike aircraft No's 7, 12 & 18 (at right), number 4 does not have its numeral above the upper wing. (H. Wynne collection photo).

THE ENTRY OF THE United States into the first World War with aircraft manufacturing resources limited to trainers rendered them largely dependent on the other Allied countries for the supply of their operational machines. The main fighter supplies came from the French in the shape of Nieuport 28 C1 and later the Spad 13 as more supplies became available. The first American fighter units to be formed were the 94th and 95th Aero Squadrons, arriving at the recently organised Pursuit Training and Organisation Centre at Villeneuveles-Vertus from the main A.E.F. training centre at Issoudun during February and early March 1918: they were equipped with Nieuport 28 C1 machines.

Moving down to Toul on 9th April the 94th (Hat in the Ring) first became operational on the 14th and the first American victories were claimed that day when Lt. Alan Winslow and Lt. Douglas Campbell climbed out of the mist over Toul airfield to shoot down an Albatros DVa and a Pfalz DIII from Jasta 64 which had followed back Capt. Peterson and Lt. Rickenbacker from an earlier patrol. On 4th May the 95th (Bucking Mule) arrived at Toul thereby forming the nucleus of the First Pursuit Group which was completed at the end of the month by the arrival of the 27th and 147th Aero Squadrons. All flew Nieuport 28s and operated quietly on this sector of the Front until 28th June when the Group was moved up to the Champagne district to take part in the anticipated offensive at Chateau Thierry.

Here they were opposed by some of the crack German Jagdstaffeln including the whole of Geschwader I (Richthofen) now commanded by Göring. Although quite agile, it was found that the Nieuport 28 was no match for the Fokker D VIIs which now outnumbered it. In spite of their spirit and dash the American pilots could not be expected to successfully compete with such skilled and experienced adversaries and in six short weeks the Group lost 36 pilots to the enemy. On the 1st August the 27th Aero Squadron lost no less than six pilots and after this disaster the Group gradually withdrew from operations to re-equip with Spads.

The Americans were under a handicap from the start in having to fly an aeroplane with a reputation for shedding its wing fabric at high speed, which in fact was true, and which prevented diving away at high speed to break off a combat. A pretty devastating thought for a pilot to realise he could not dive away from the immensely strong Fokkers if he so wished. Their manœuvrability was good but that alone wasn't enough. The Nieuport 28 also had something of a reputation for catching fire although this was mainly due to 'pilot error'. No throttle was fitted to the Gnome engines and reduced power was obtained by controls which cut out ignition and fuel from certain cylinders. Should the pilot forget to cut the fuel when cutting the ignition, raw fuel spilled out of the exhaust valves into the cowling there combining with the air to form an inflammable, high explosive, mixture.

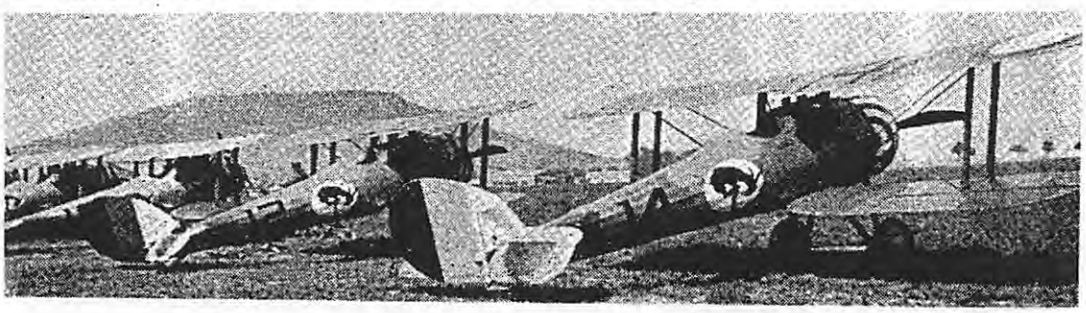
In appearance the Nieuport 28 was undoubtedly one of the best-looking fighters to emerge from World War I, an atmosphere of typical French elegance surrounding it, although its style of construction was comparatively orthodox. Power was supplied by a 150 h.p. Gnome Monosoupape (single valve) 9N rotary engine housed in a circular cowl with smaller than usual frontal opening which was compensated by additional venting slots being fretted in the sides. The basic fuselage structure was a braced spruce box-girder with fretted formers and stringers maintaining the circular cowl section, with a gradual flattening of the sides, to a vertical knife-edge at the tailpost. From the rear of the cockpit to the cowling the fuselage was covered with preformed composition board panels with removable metal access doors where necessary.

Of differing span, the wings were based on two hollow box-spars which were equidistant in both wings, this resulting in parallel interplane struts in spite of different chord on upper and lower planes. Leading edges were sheeted with three-ply and ribs were capped with tapering ply strips, the wing tips were truly eliptical. Ailerons were fitted to the lower wings only all controls being cleanly kept within the wing. Tail unit construction was unique in that a moulded two-ply skin, composed of 25 mm. strips of tulip wood laid diagonally to each other (90 deg.), was pinned and glued to the basic structure and covered with fabric and doped.

The interplane struts were of hollowed spruce with linen binding at intervals: centre-section and undercarriage vee struts were of steel with aluminium sheet fairings. Twin spreader bars braced the undercarriage vees and the split axle was bound with elastic shock cord to provide the springing, likewise the sturdy ash tailskid was sprung with this material.

Many Nieuport 28s survived the war, the Swiss Air Force used them sor some while and several wound up in Hollywood where they were used in such films as "Dawn Patrol", "Sky Devils", "Men with Wings", and "Hell's Angels".

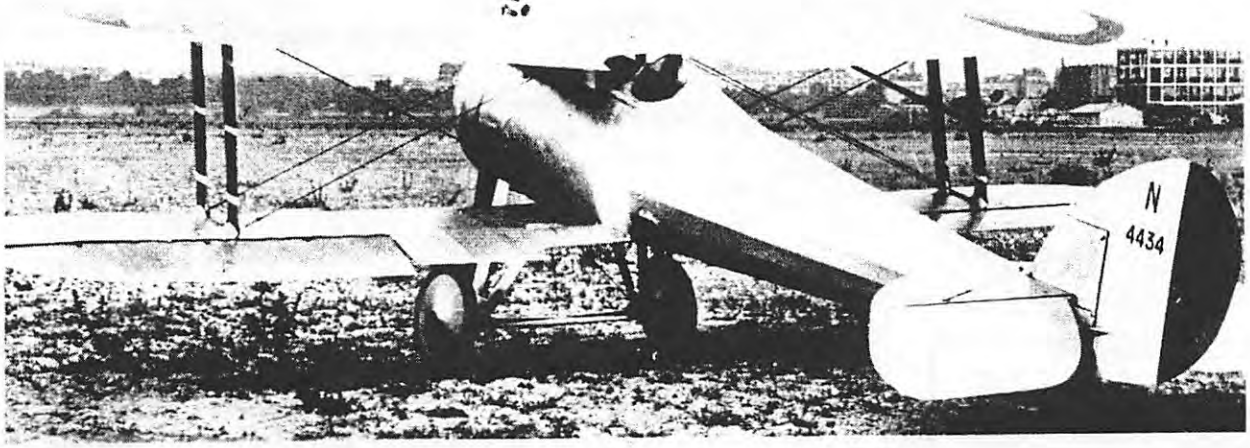
The 95th (Bucking Mule) Aero Squadron AEF at Toul. No's 12 and 14 had repeated numerals above upper starboard wing. Cowl stripings vary though camouflage pattern is identical for all Nieuport 28s (H. Wynne collection photo).



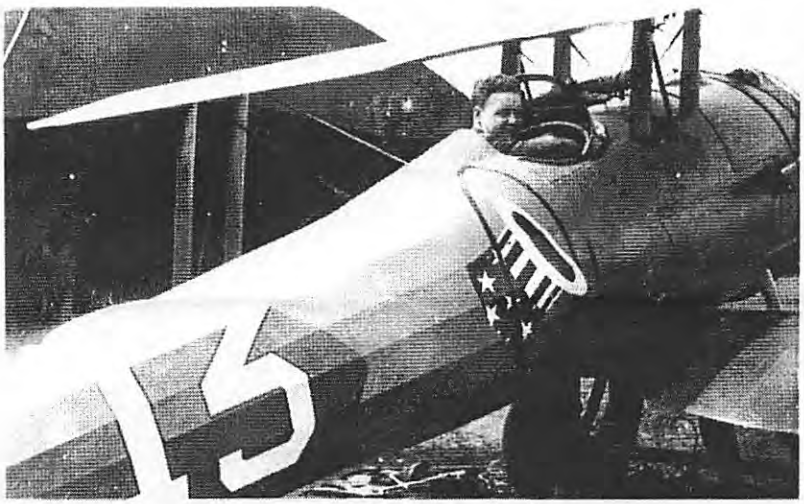
PECK-POLYMERS PRODUCTS

Indoor material supplier Tim Goldstein will continue Peck Polymers with laser cut kits.

Try Tim @ www. PECK-POLYMERS .com for news.

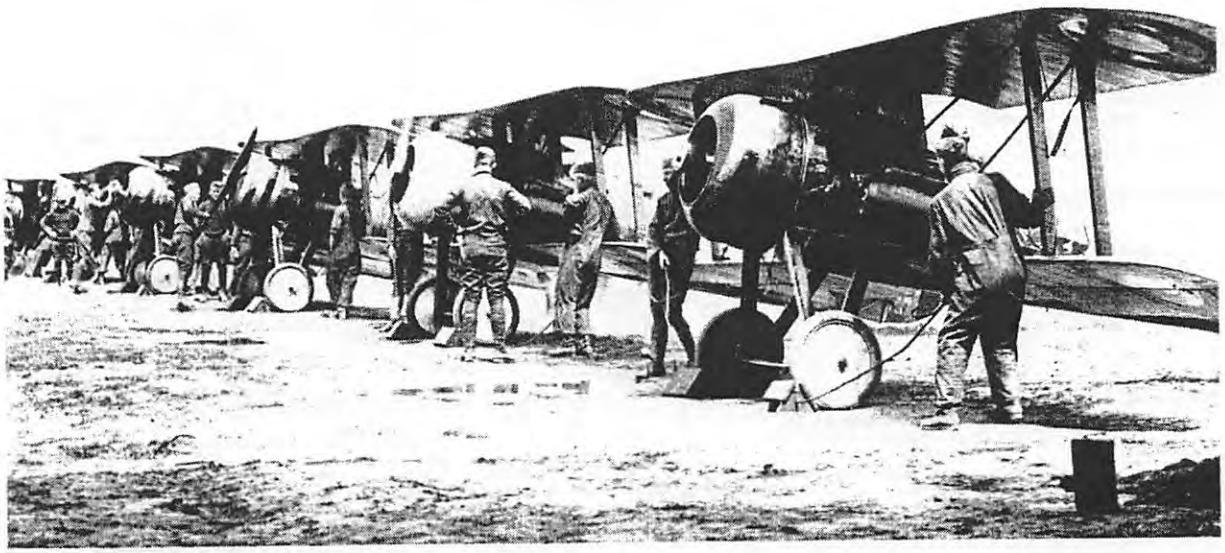


N4434 (above) was a Nieuport 28 prototype rigged with dihedral on the top wing only.

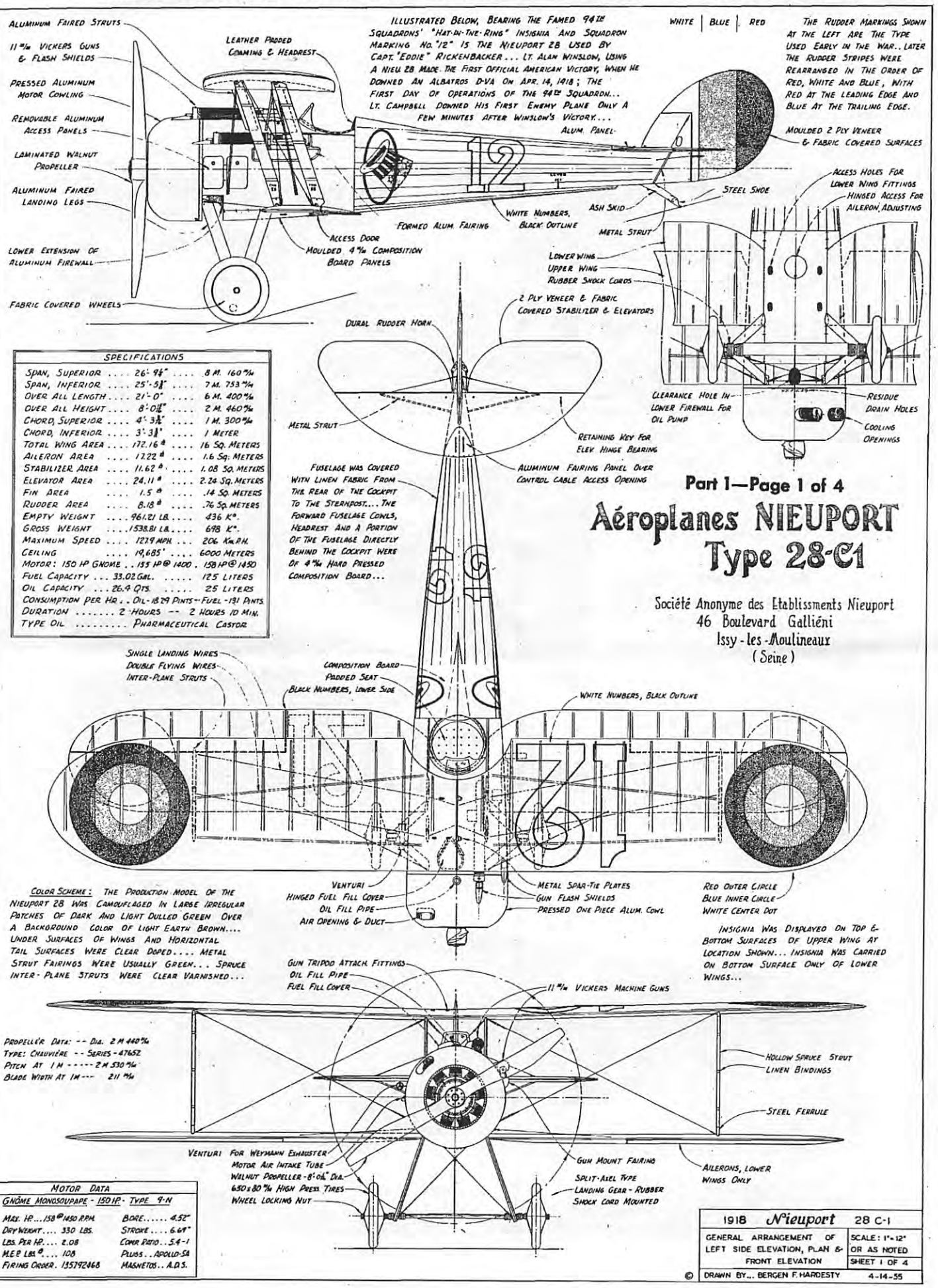


First Lieutenant Thorn C. Taylor in N6180 (white 13) which, below the cockpit, showed his personal insignia Delta-Tau-Delta, his college fraternity.

95th Aero Squadron showed its variety of brightly painted cowls. A bucking mule was the unit insignia.



NIEUPORT 28—FRENCH FIGHTER FLOWN BY RICKENBACKER.



SPECIFICATIONS		
SPAN, SUPERIOR	26'-9 4/5"	8 M. 160 m/m
SPAN, INFERIOR	25'-5 1/2"	7 M. 753 m/m
OVER ALL LENGTH	21'-0"	6 M. 400 m/m
OVER ALL HEIGHT	8'-0 1/2"	2 M. 460 m/m
CHORD, SUPERIOR	4'-3 1/2"	1 M. 300 m/m
CHORD, INFERIOR	3'-3 1/2"	1 METER
TOTAL WING AREA	172.16 ft²	16 SQ. METERS
AILERON AREA	17.22 ft²	1.6 SQ. METERS
STABILIZER AREA	11.62 ft²	1.08 SQ. METERS
ELEVATOR AREA	24.11 ft²	2.24 SQ. METERS
FIN AREA	1.5 ft²	.14 SQ. METERS
RUDDER AREA	8.18 ft²	.76 SQ. METERS
EMPTY WEIGHT	961.21 LB.	436 K°.
GROSS WEIGHT	1538.81 LB.	698 K°.
MAXIMUM SPEED	122.9 MPH.	206 Km. P.H.
CEILING	19,685'	6000 METERS
MOTOR: 150 HP GNOME	135 HP @ 1400	158 HP @ 1650
FUEL CAPACITY	33.02 GAL.	125 LITERS
OIL CAPACITY	26.4 QTS.	25 LITERS
CONSUMPTION PER HR.	OIL-18.29 PINTS	FUEL-131 PINTS.
DURATION	2 HOURS	2 HOURS 10 MIN.
TYPE OIL	PHARMACEUTICAL CASTOR.	

COLOR SCHEME: THE PRODUCTION MODEL OF THE NIEUPORT 28 WAS CAMOUFLAGED IN LARGE IRREGULAR PATCHES OF DARK AND LIGHT DULLED GREEN OVER A BACKGROUND COLOR OF LIGHT EARTH BROWN.... UNDER SURFACES OF WINGS AND HORIZONTAL TAIL SURFACES WERE CLEAR DOPED.... METAL STRUT FAIRINGS WERE USUALLY GREEN... SPRUCE INTER-PLANE STRUTS WERE CLEAR VARNISHED...

MOTOR DATA			
GNÔME MONOSOUPAPE - 150 HP - TYPE 9-N			
MAX. HP	158 @ 1450 R.P.M.	BORE	4.52"
DRY WEIGHT	330 LBS.	STROKE	6.69"
LBS. PER HP.	2.08	COMP. RATIO	5.4-1
M.E.P. LBS.	108	PLUGS	APOLLO-SA
FIRING ORDER	135792468	MAGNETOS	A.D.S.

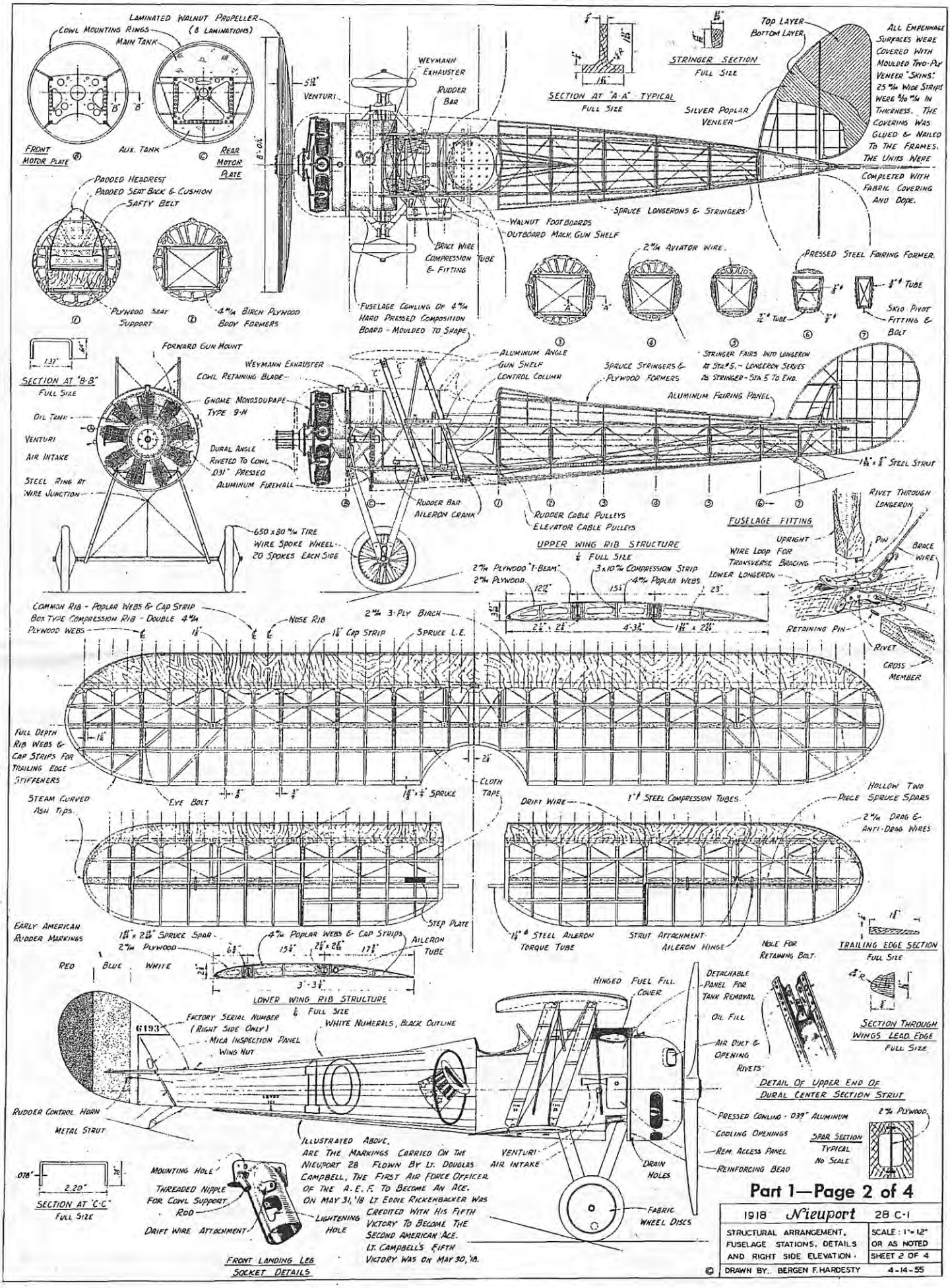
Part 1—Page 1 of 4

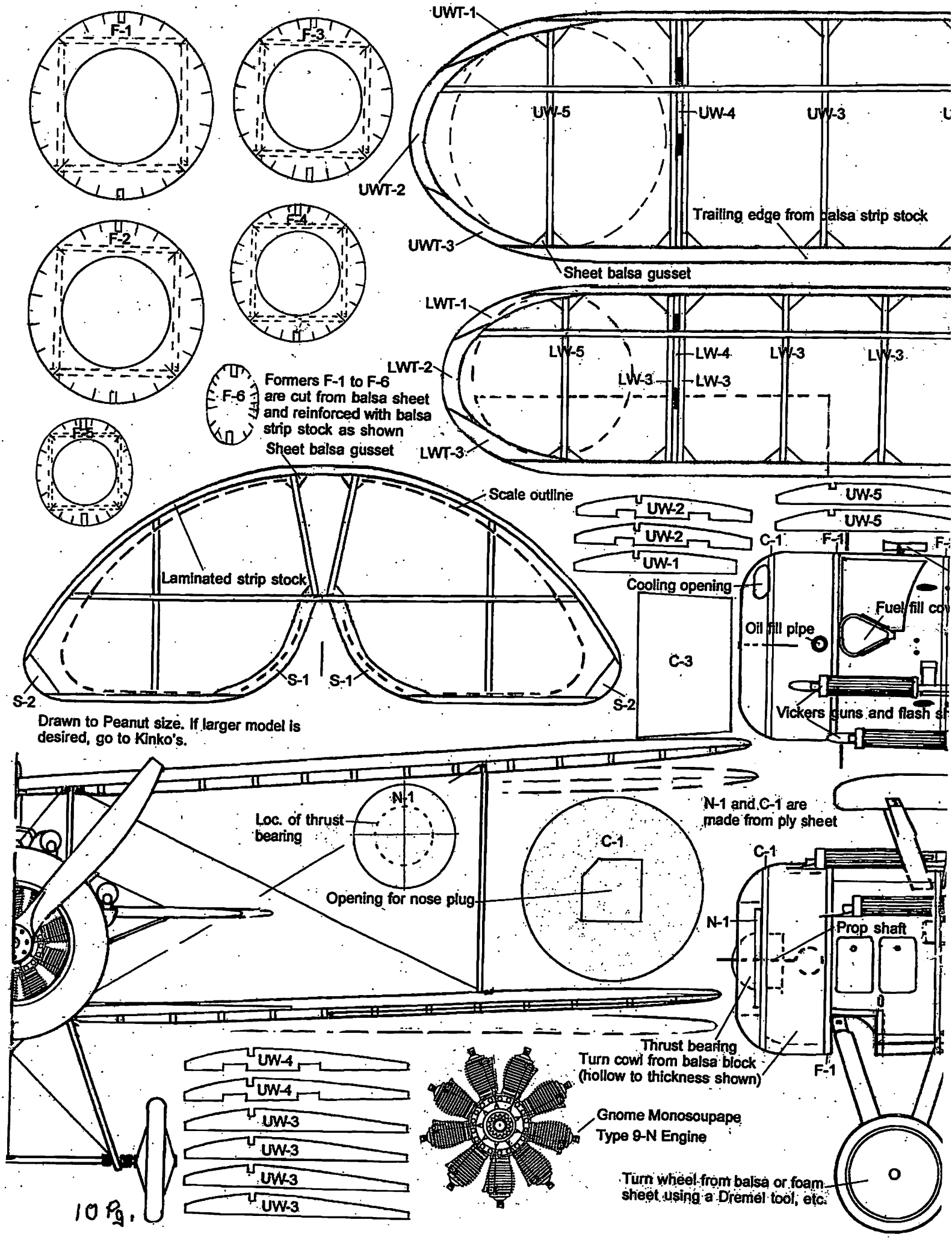
Aéroplanes NIEUPORT Type 28-C1

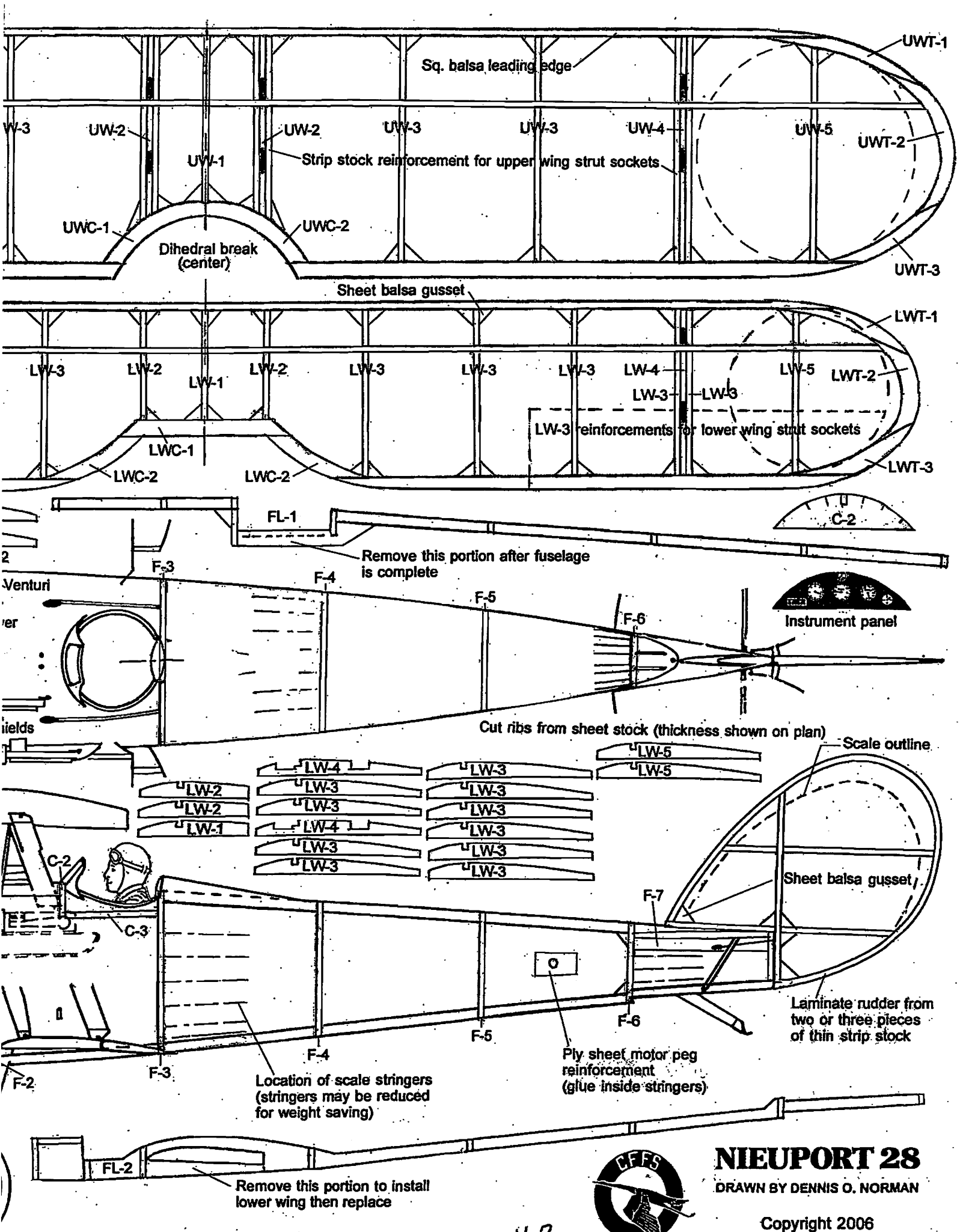
Société Anonyme des Etablissments Nieuport
46 Boulevard Galliéni
Issy-les-Moulineaux
(Seine)

1918 Nieuport 28 C-1	
GENERAL ARRANGEMENT OF LEFT SIDE ELEVATION, PLAN & FRONT ELEVATION	SCALE: 1"-12" OR AS NOTED
	SHEET 1 OF 4
© DRAWN BY... BERGEN F. HARDESTY	4-14-55

THE COMPLETE DRAWINGS TO BE PRESENTED IN TWO ISSUES.




F-1
F-3
F-2
F-4
F-6
F-5
Formers F-1 to F-6 are cut from balsa sheet and reinforced with balsa strip stock as shown
UWT-1
UWT-2
UWT-3
UW-5
UW-4
UW-3
Trailing edge from balsa strip stock
Sheet balsa gusset
LWT-1
LWT-2
LWT-3
LW-5
LW-4
LW-3
LW-3
LW-3
LW-3
Sheet balsa gusset
Scale outline
Laminated strip stock
S-1
S-1
S-2
S-2
Drawn to Peanut size. If larger model is desired, go to Kinko's.
UW-2
UW-2
UW-1
Cooling opening
C-3
UW-5
UW-5
C-1
F-1
F-
Fuel fill co
Oil fill pipe
Vickers guns and flash s
N-1
Loc. of thrust bearing
Opening for nose plug
C-1
N-1 and C-1 are made from ply sheet
C-1
N-1
Prop shaft
F-1
Thrust bearing
Turn cowl from balsa block (hollow to thickness shown)
UW-4
UW-4
UW-3
UW-3
UW-3
UW-3
Gnome Monosoupape Type 9-N Engine
Turn wheel from balsa or foam sheet using a Dremel tool, etc.
10 Pg.



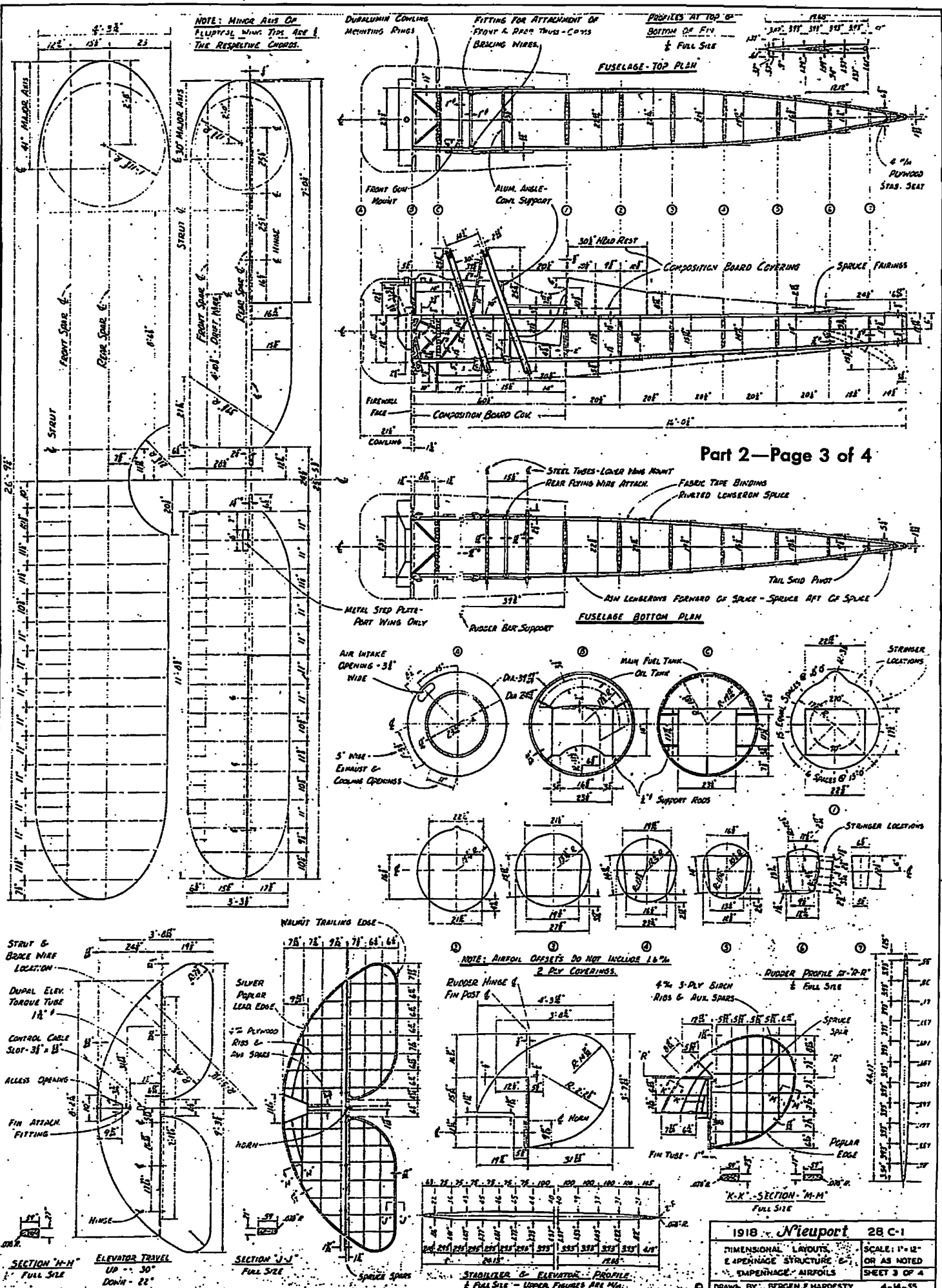
NIEUPORT 28

DRAWN BY DENNIS O. NORMAN

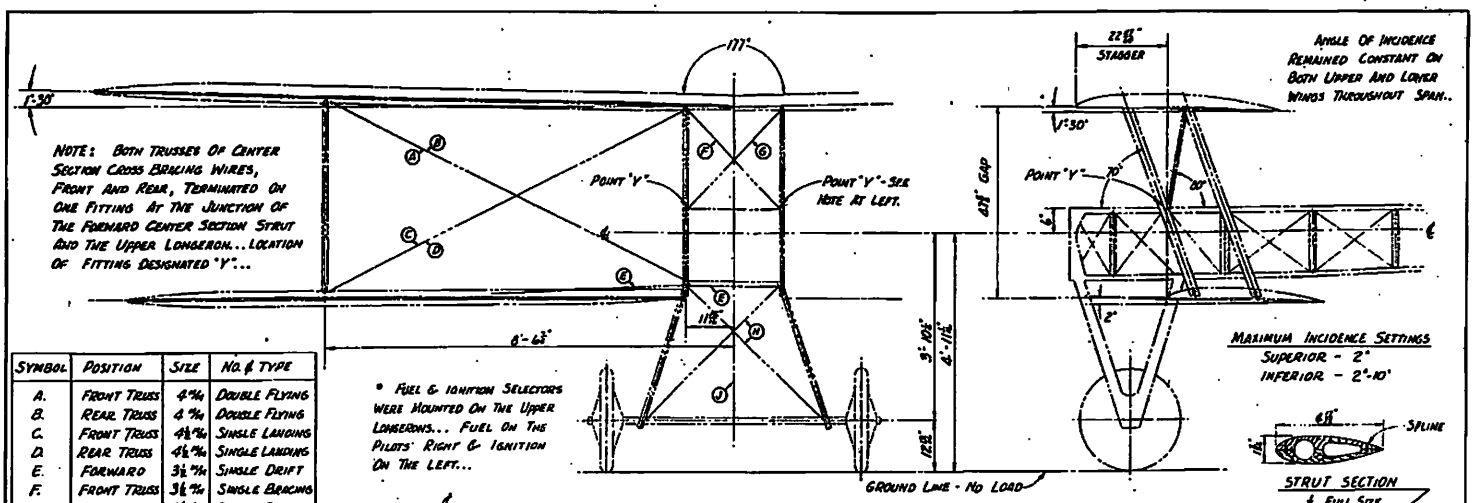
Copyright 2006

11 Pg.

NIEUPORT 28—FRENCH FIGHTER FLOWN BY RICKENBACKER.



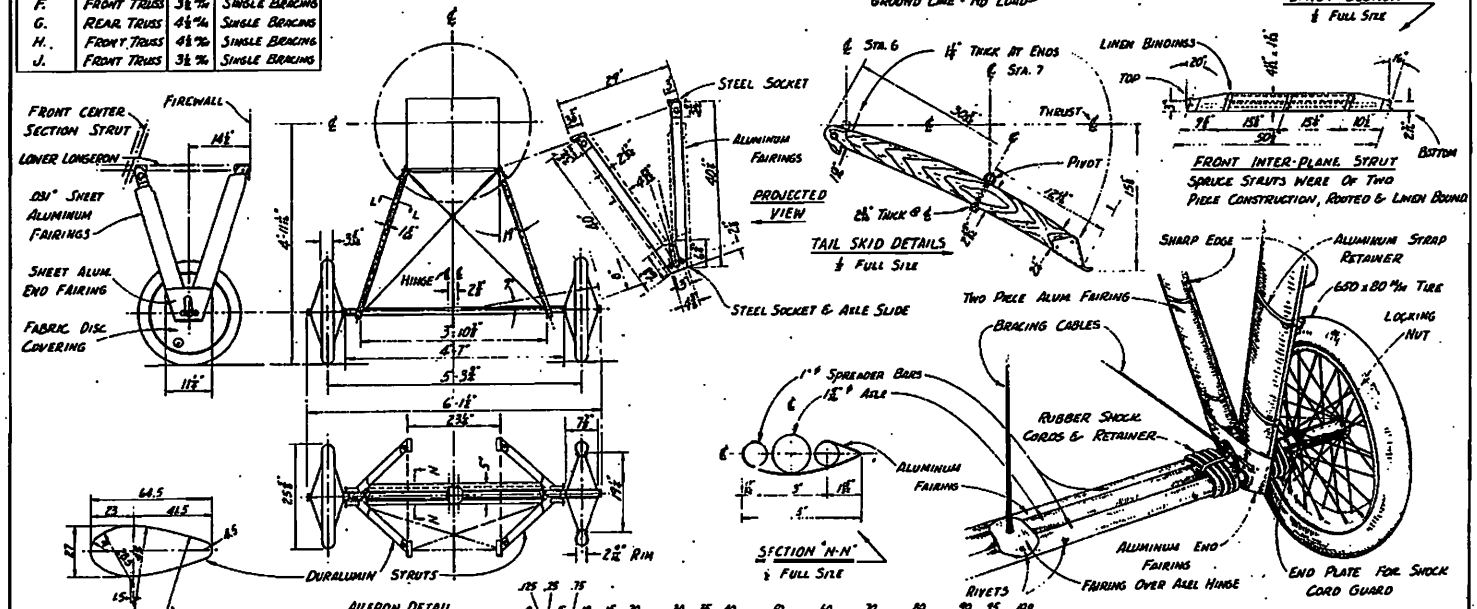
THESE DRAWINGS COMPLETE: A TWO-PART PRESENTATION.



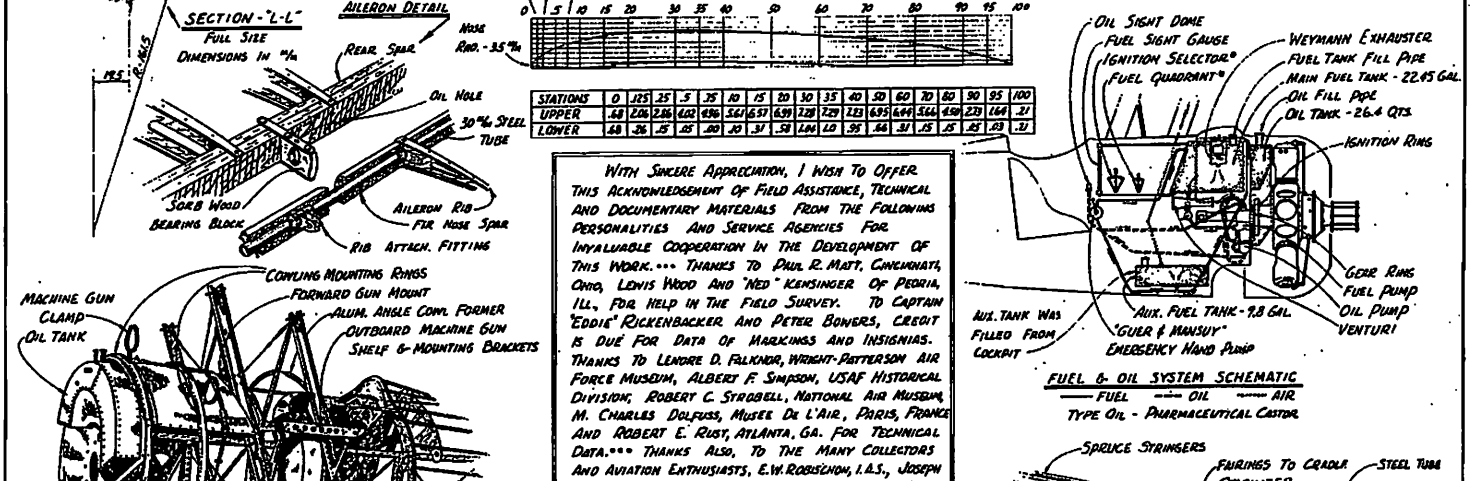
NOTE: Both Trusses Of Center Section Cross Bracing Wires, Front And Rear, Terminated On One Fitting At The Junction Of The Forward Center Section Strut And The Upper Longeron... Location Of Fitting Designated "Y"...

Symbol	Position	Size	No. & Type
A.	Front Truss	4 3/16	Double Flying
B.	Rear Truss	4 3/16	Double Flying
C.	Front Truss	4 1/2 3/16	Single Landing
D.	Rear Truss	4 1/2 3/16	Single Landing
E.	Forward	3 1/2 3/16	Single Drift
F.	Front Truss	3 1/2 3/16	Single Bracing
G.	Rear Truss	4 1/2 3/16	Single Bracing
H.	Front Truss	4 1/2 3/16	Single Bracing
J.	Front Truss	3 1/2 3/16	Single Bracing

* Fuel & Ignition Selectors Were Mounted On The Upper Longerons... Fuel On The Pilots' Right & Ignition On The Left...

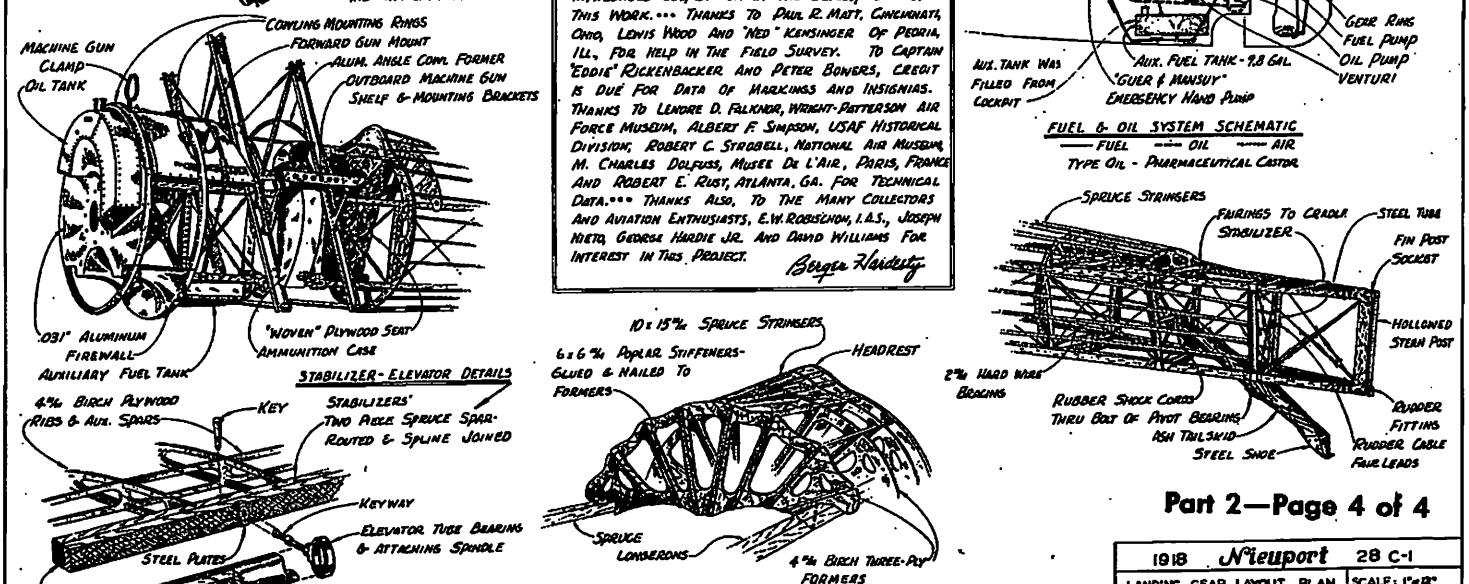


Stations	0	.125	.25	.5	.75	10	15	20	30	35	40	50	60	70	80	90	95	100
Upper	.68	2.06	2.86	4.02	4.96	5.61	6.57	6.99	7.28	7.29	7.13	6.95	6.49	5.64	4.68	2.31	1.64	.31
Lower	.68	.36	.15	.15	.00	.10	.31	.58	1.04	1.0	.95	.64	.31	.15	.15	.15	.03	.31



With Sincere Appreciation, I Wish To Offer This Acknowledgement Of Field Assistance, Technical And Documentary Materials From The Following Personalities And Service Agencies For Invaluable Cooperation In The Development Of This Work.... Thanks To Paul R. Matt, Cincinnati, Ohio, Lewis Wood And "Ned" Kensinger Of Peoria, Ill., For Help In The Field Survey. To Captain "Eddie" Rickenbacker And Peter Boners, Credit Is Due For Data Of Markings And Insignias. Thanks To Lenore D. Falkner, Wright-Patterson Air Force Museum, Albert F. Simpson, USAF Historical Division, Robert C. Strobell, National Air Museum, M. Charles Dolfuss, Musee De L'Air, Paris, France And Robert E. Rust, Atlanta, Ga. For Technical Data.... Thanks Also, To The Many Collectors And Aviation Enthusiasts, E.W. Robischon, I.A.S., Joseph Nieto, George Hardie Jr. And David Williams For Interest In This Project.

Bergen Hardesty



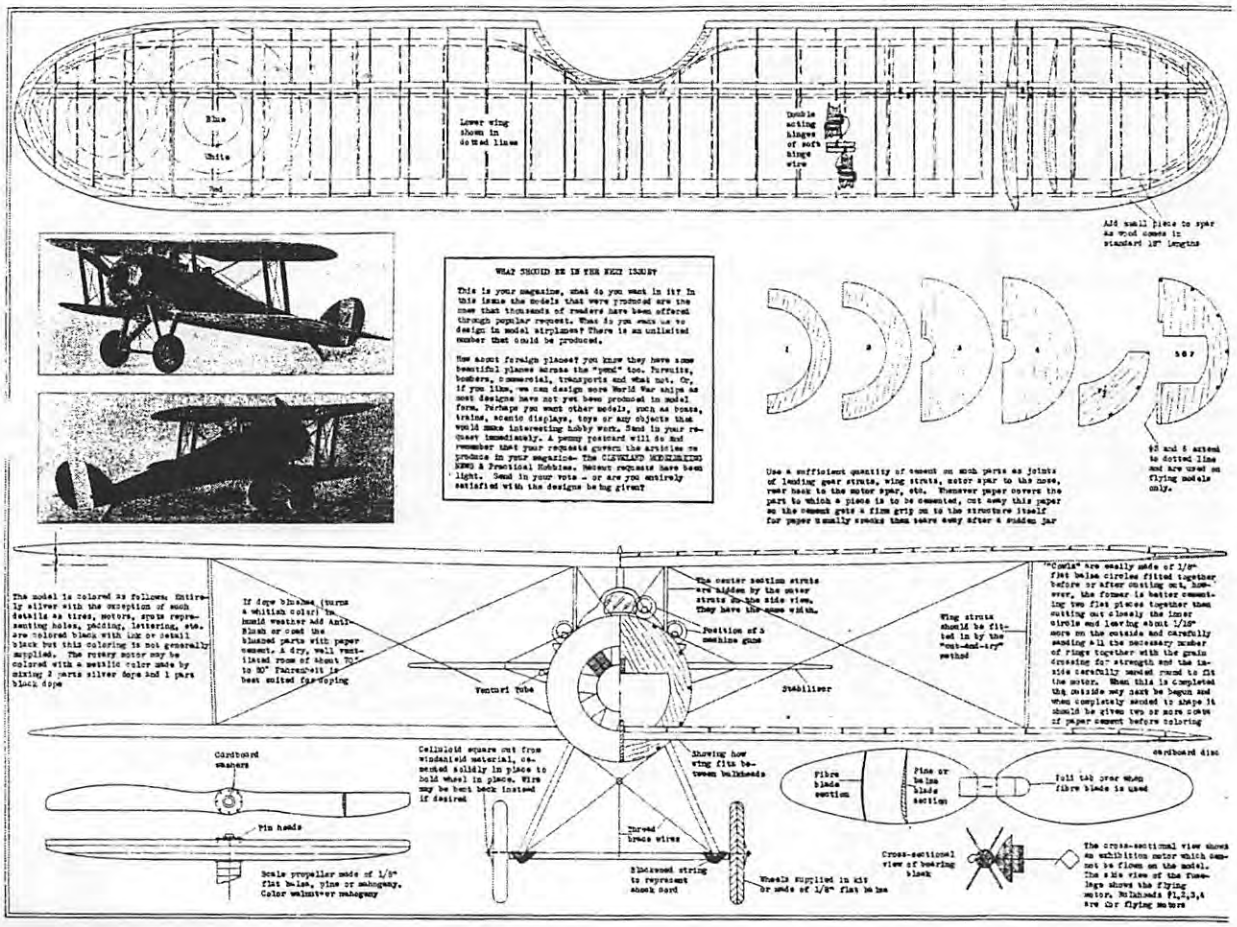
Dimensions & Structural Data For These Drawings Were Obtained From Remnants Of A Nieuport 28..., Details & Dimensions Of The Empennage Were Taken From Original Factory Drawings....

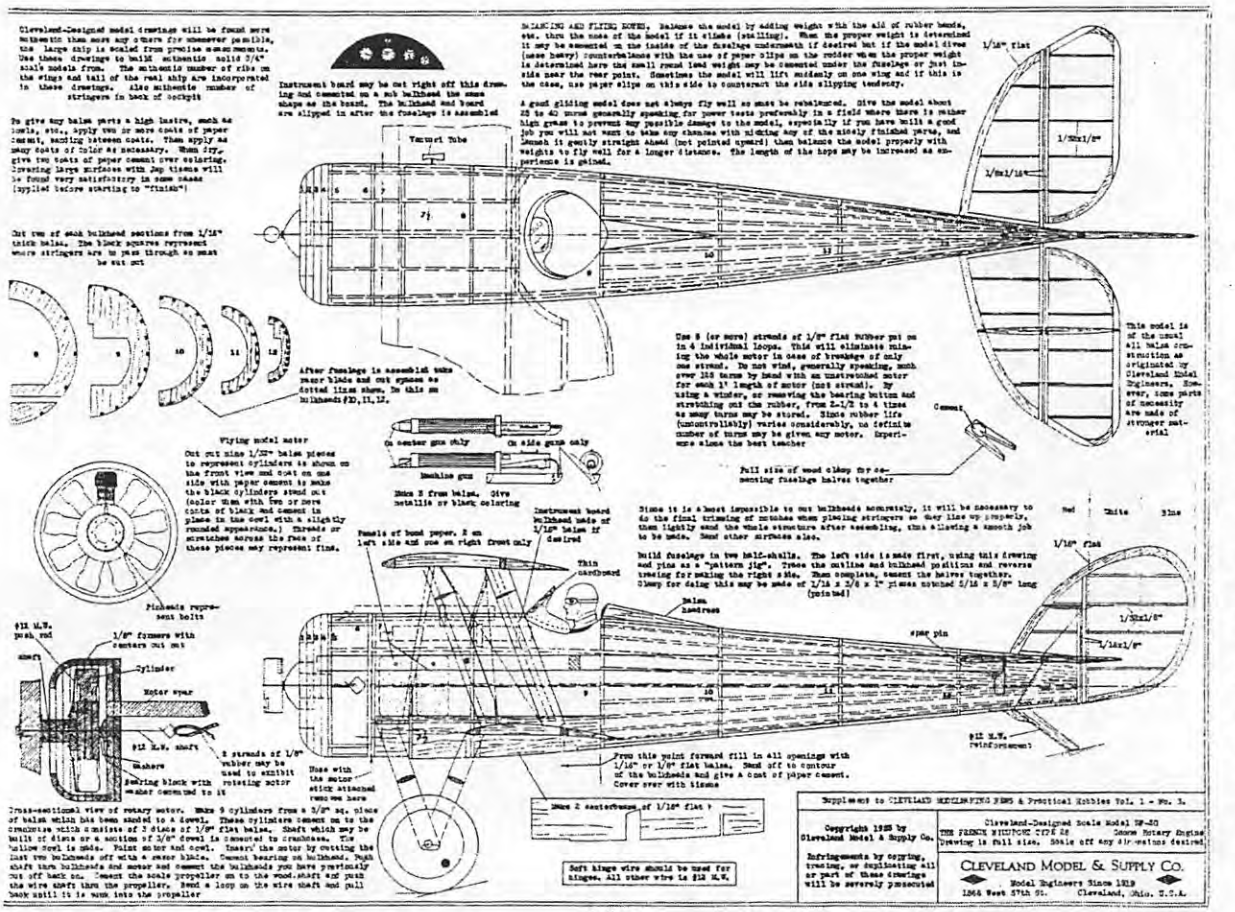
Part 2—Page 4 of 4

1918 Nieuport 28 C-1	
Landing Gear Layout, Plan Of Rigging, Sections And Construction Notes	Scale: 1"=12" Or As Noted
	Sheet 4 Of 4
© Drawn By... Bergen F. Hardesty ... 4-14-55	

2007 CON-SOLIDARITY WITH NOFFA IN CFFS
The dynamic free flighters of the Northern Ohio Free Flight Association are merged in CFFS.

Sat. Feb 17 CFFS meeting 7 pm at Dennis Normans', 11216 Lake Ave. Cleveland, OH.
RSVP 216-631-7887.
Sun. Feb 25 CFFS exibit & Flapper Wing flying at Independence,OH Civic Ctr. at
6363 Selig Dr. 12-4 pm. "Tropical Beach Blast 2007".





CFFS AMA Sanctioned

Indoor Contest & Time Trials

SATURDAY, March 31, 2007 Kent State University Fieldhouse

SCHEDULE	AMA & Jetco
7:30 a.m.	Building opens (test flying)
8:00-12:00	1. *Hand Launch Glider*
	2. *Standard Class Catapult Glider.*
	3. *Unlimited Catapult Glider*
8:30	4. *EZB* - Scoring is the best of five officials.
to	5. *Limited Penny Plane*
4:00	6. *Mini-Stick* - - Best flight of 5 officials. 20 second minimum
9:00 a.m. to 3:00 p.m.	7. *Seven Gram Bostonian* - A.M.A. rules.
	8. *Jetco R.O.G.* - CFFS Rules.

F.A.C. EVENTS 9:00 a.m. to 4:00 p.m.

9. *GHQ Peanut Scale* (see p.10 FAC Rulebook)
10. *Golden Age Civil Scale*
11. *Dime Scale*
12. *No-Cal Profile Scale** (3 flight total) Minimum weight - 6.2 grams without motor.
13. *Phantom Flash* - Best two of five officials.
14. *WW II Combat* - Flown at 12:30
15. *W.W.II No-Cal Combat** Minimum weight - 6.2 grams without motor. Flown at 3:30

*Please Note: Different models must be flown in WWII and No-Cal Profile Scale.

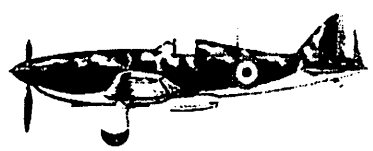
4:00 PM to 8:00 PM AMA Record Trials - Category II

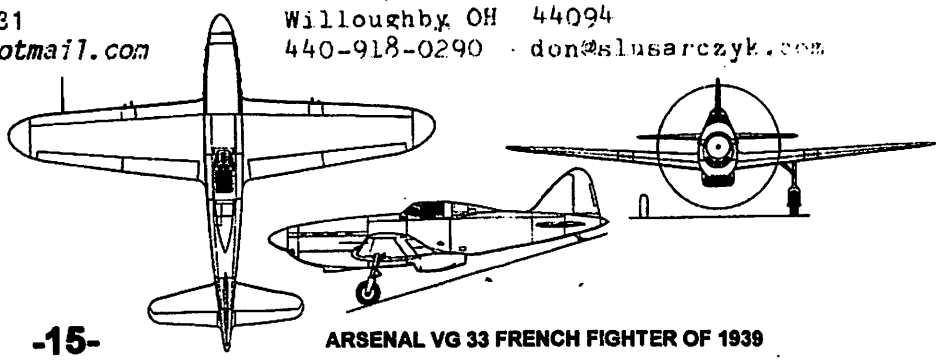
1. All events are JSO combined.
2. Steering of Models: as per A.M.A. rulebook.
3. Entry Fees: - *Open* - $30.00 - *Junior* $2.00
4. **VERY IMPORTANT** - You must provide your own table and chair.
5. KSU Fieldhouse is a non-smoking facillity.
6. **No Indoor RC flying permitted during the contest and all flyers must have a valid AMA license.**

Contest Directors

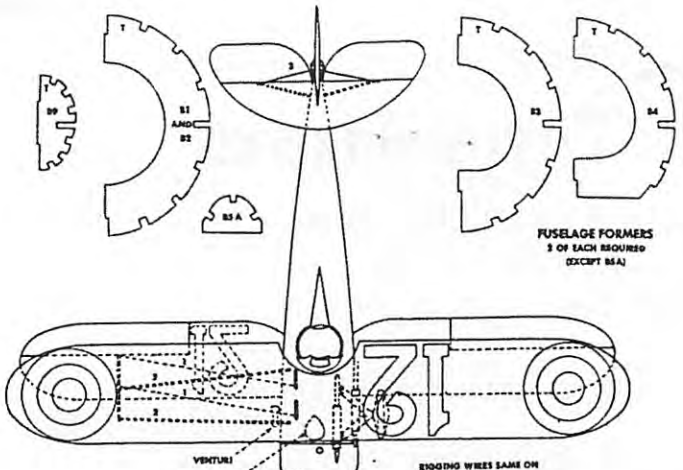
Michael C. Zand
5803 East Ash Road
Independence, OH 44131
216-524-3480 *imzand@hotmail.com*

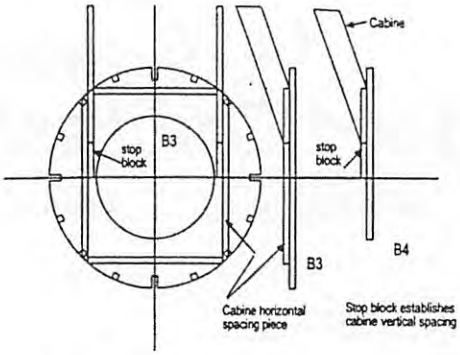
Don Slusarczyk
868 Eaglewood Drive
Willoughby OH 44094
440-918-0290 · don@slusarczyk.com



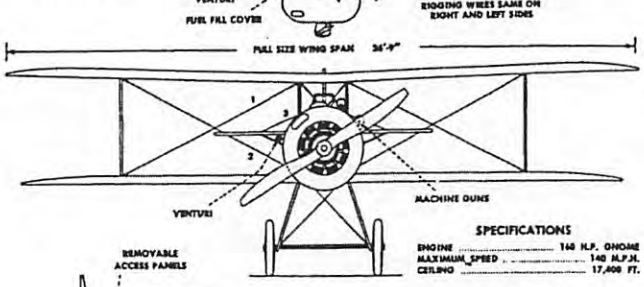


ARSENAL VG 33 FRENCH FIGHTER OF 1939



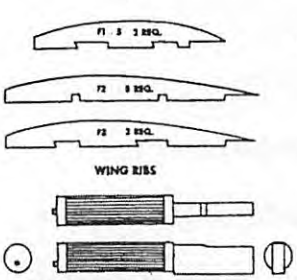


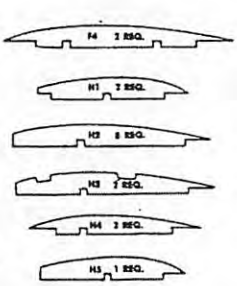


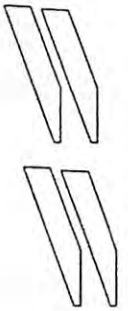


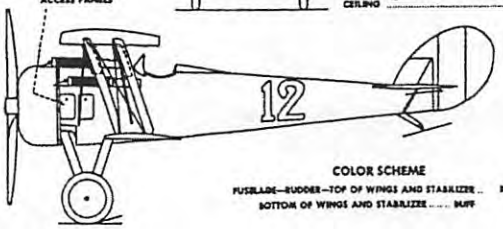
SPECIFICATIONS

ENGINE	160 H.P. GNOME
MAXIMUM SPEED	140 M.P.H.
CEILING	17,000 FT.



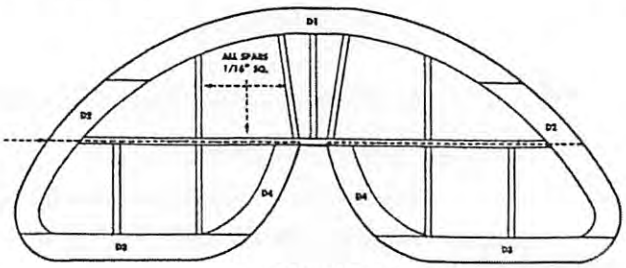




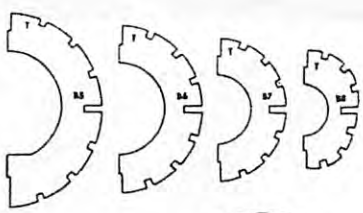


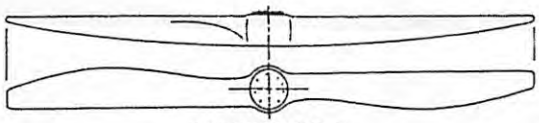
COLOR SCHEME

FUSELAGE—RUDDER—TOP OF WINGS AND STABILIZER .. KHAKI
BOTTOM OF WINGS AND STABILIZER ..... BUFF

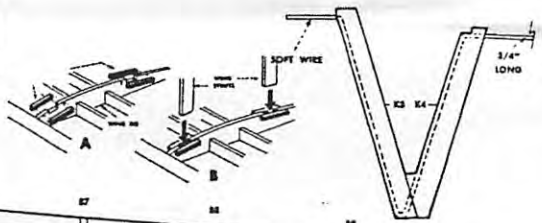


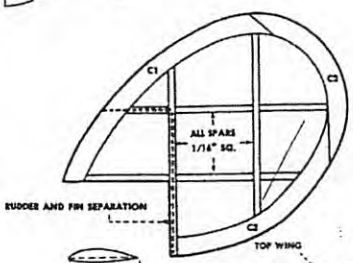
STABILIZER LAYOUT

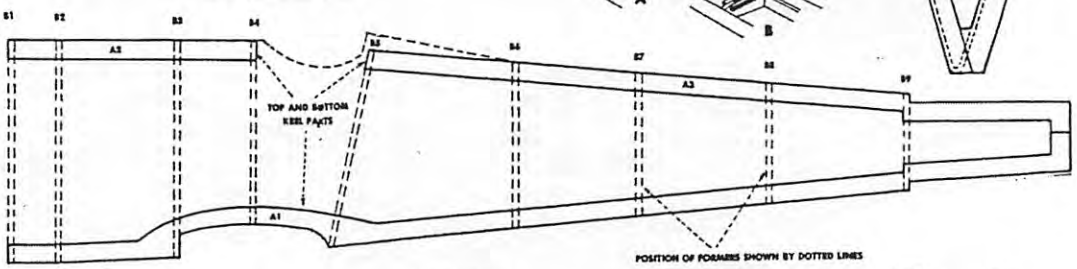




FULL SIZE SCALE PROPELLER
MATERIAL NOT FURNISHED IN KIT







FUSELAGE LAYOUT



FUEL FILL COVER

FULL SIZE SIDE VIEW

STIFF PAPER COCKPIT PATTERN

WINDBREAKER PATTERN
CUT FROM CELLOPHANE OR THIN ACETATE SHEET

KIT WW-2

Guillow's **FRENCH NIEUPORT 28**

WING SPAN—18" App. Scale 11/16" = 1'-0" LENGTH—13½"

PAUL K. GUILLOW, INC., WAKEFIELD, MASS.

COPYRIGHT 1937 BY PAUL K. GUILLOW, INC.

Guillow's Nieuport 28 Building Comments by Stew Myers

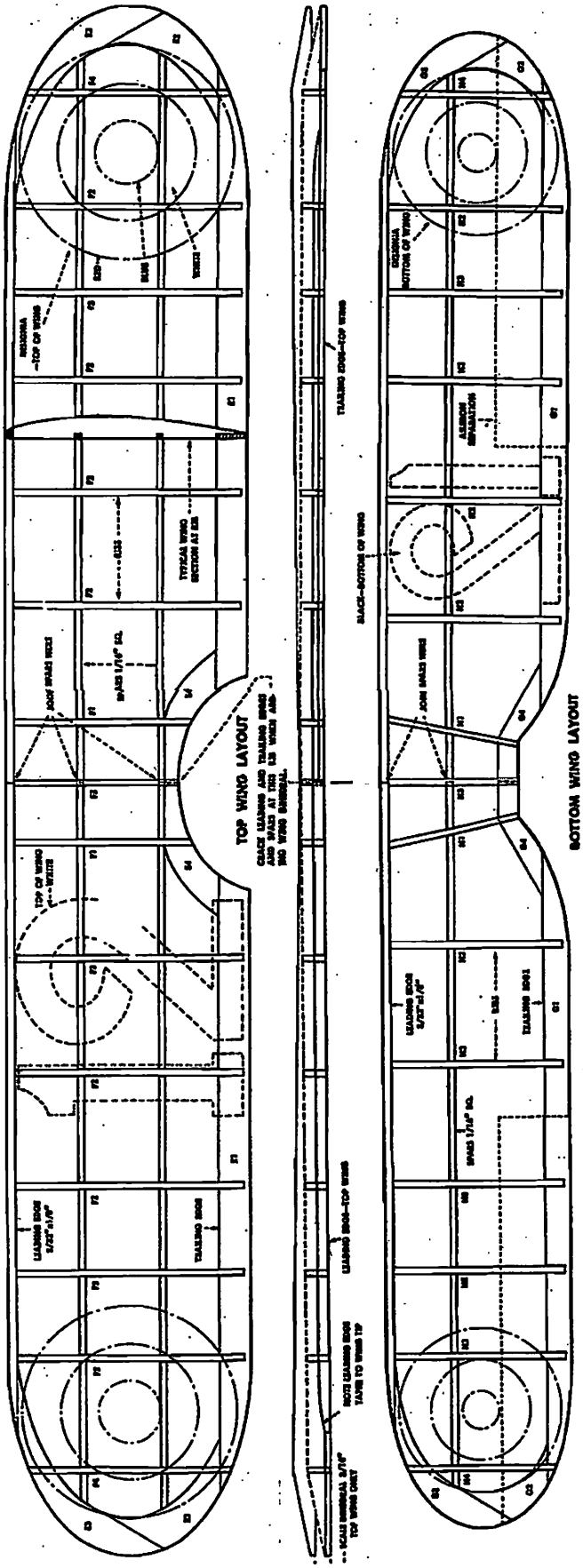
This kit is closer to scale than most of the rest of the series. Since the fuselage is nearly circular, it is best to keep with the original construction suitably lightened. The areas to pay attention to are the cabines and under carriage.

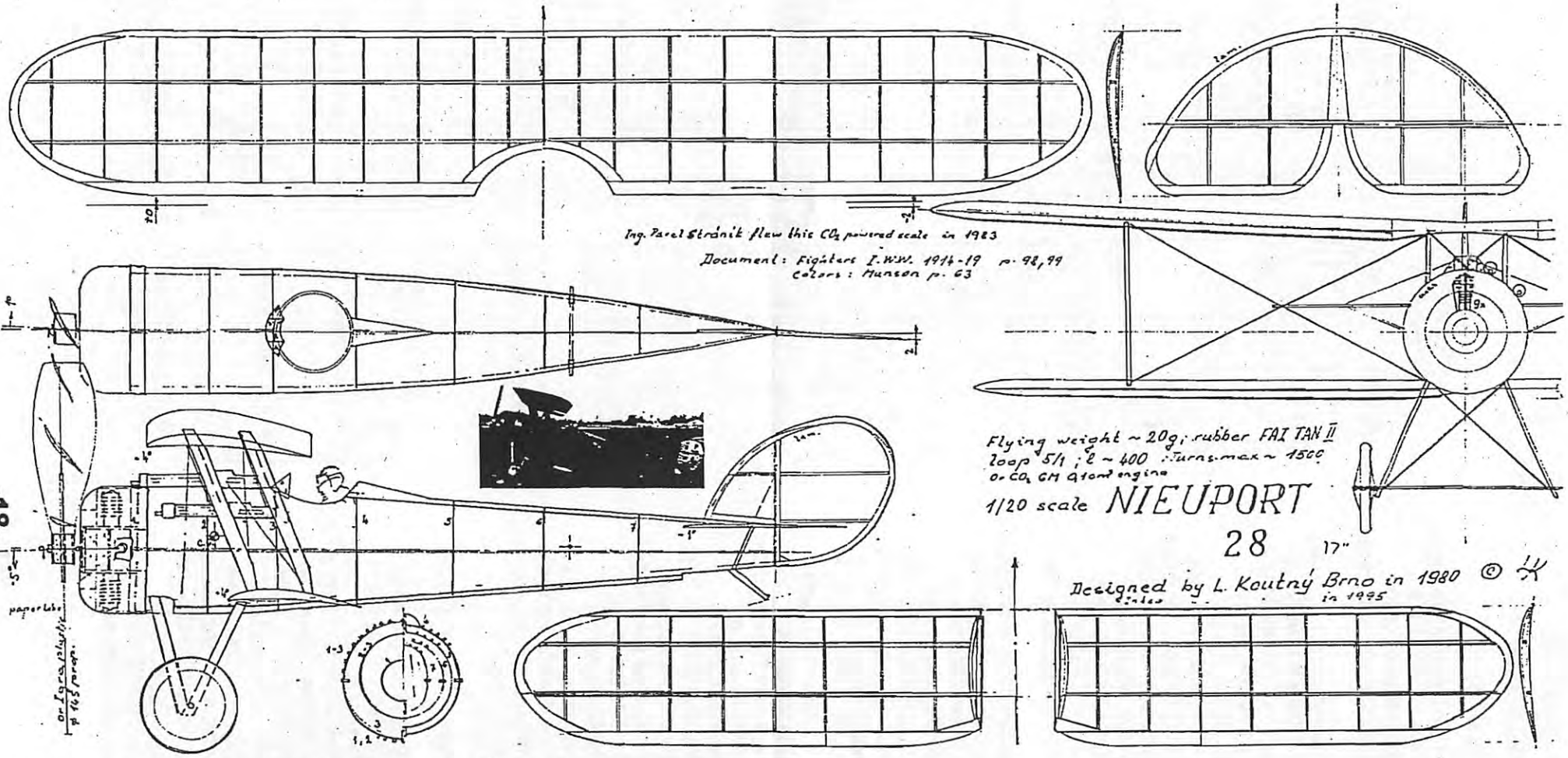
In the case of the u/c they nearly got it right with their soft wire reinforcement. This really is better than hard music wire because it is easier to form and in the case of a hard landing won't take a set that can't be easily removed. If the leg is basswood or Guillow's grade balsa, the wire only needs to extend a half inch into the the leg and into a tube in the fuselage. Fit a tube horizontally behind B2 and B3 to accept the wire. Bind the wire to the upper ends of the legs with thread or carbon cloth. I like to add a scarf of 1/64th ply cross grained at the vee. File a slot in the vee crotch so a piece of .025 music wire can flex upward to spring the gear.

The cabines in the kit are butt glued to stringers. (Boo-Hiss) By moving them in slightly and lengthening them to meet formers B3 & B4 we can mimic full-scale practice and get the load into something solid. Add 1/16th alignment strips to the front of the formers. Add a piece of 1/16 x 1/8 to the inside of rib F1 to accept the upper end of the struts. Set the upper wings parallel to the lower wing (increase the incidence to 2.5° each).

Build the fuselage using a keel laminated from two pieces of 1/16 square. Span the cockpit and wing cutouts with the keel. Add the piece over the wing to the keel during assembly. Don't remove the bottom spanning piece until you are ready to fit the wing. Formers should be light 1/20th or 1/16th sheet. B3 & B4 should be medium 1/16th sheet reenforced as shown. B1 should be moved forward to the tangent point of the cowl, since I doubt you are going to use the kit plastic cowl. The damn things tend to shatter in a crash and make thrust adjustment and rubber access a pain any way. Turn a balsa cowl front and use bond paper for the cylindrical section between B1 & B2. Make a ply disk dummy motor that is removable to provide thrust adjustment and rubber access. Glue the cabines in place before you cover the fuselage sides to get access to where they join B3 & B4.

I would build the bottom wing in one piece per the kit. Keep the spar position and size, but move it to the top; also keep the airfoil shape and LE size Laminate the tip and root curve from 3 pieces of 1/32 x 1/16 and use1/16 x 1/8 for the TE. I would dispense with H4 and move the last H2 outboard. Reenforce H3 with 1/32 on each side and drill a hole for mono-filament strut attachment. On the upper wing move the forward spar to the top and keep the rear spar as is. Add gussets at the outboard dihedral break; the 1/8 x1/16 suffices on the inside. Add 1/16 sq inside F3 for rigging attach points. I like to use a small hoop of .010 MW hotstufffed in place after covering. Two lb test monofilament is my rigging of choice.







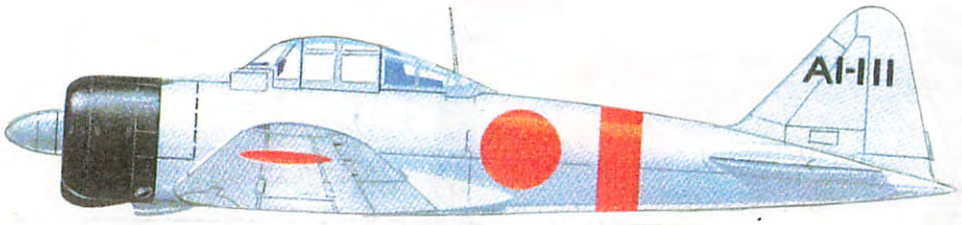
A reduced version of the 1/20 scale (16 1/8 inch span) Nieuport 28 designed by Czech Master Lubomir Koutný in 1980. This model weighed 20 grams and was powered by rubber. A CO2 powered version was also flown. A small electric motor would also be appropriate for a "School Yard Scale" version of this little beauty.

GONE WEST
Charles Schobloher departs a lead role with Cloudbusters Detroiten Geschwader Red Hats.

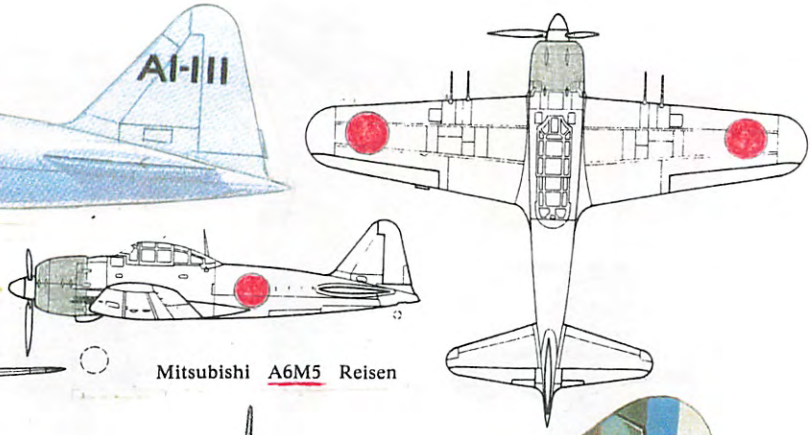
Leonard Wieczorek wings West leaving a legacy in aviation view graphics of lasting intrest.

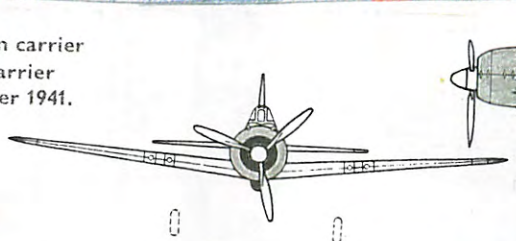
FLASH! ARSENAL VG 33 FRENCH FIGHTER OF 1939
The Arsenal VG-33 is approved for FAC WW II Combat by GHQ with production over HE-100D.

LEONARD WIECZOREK

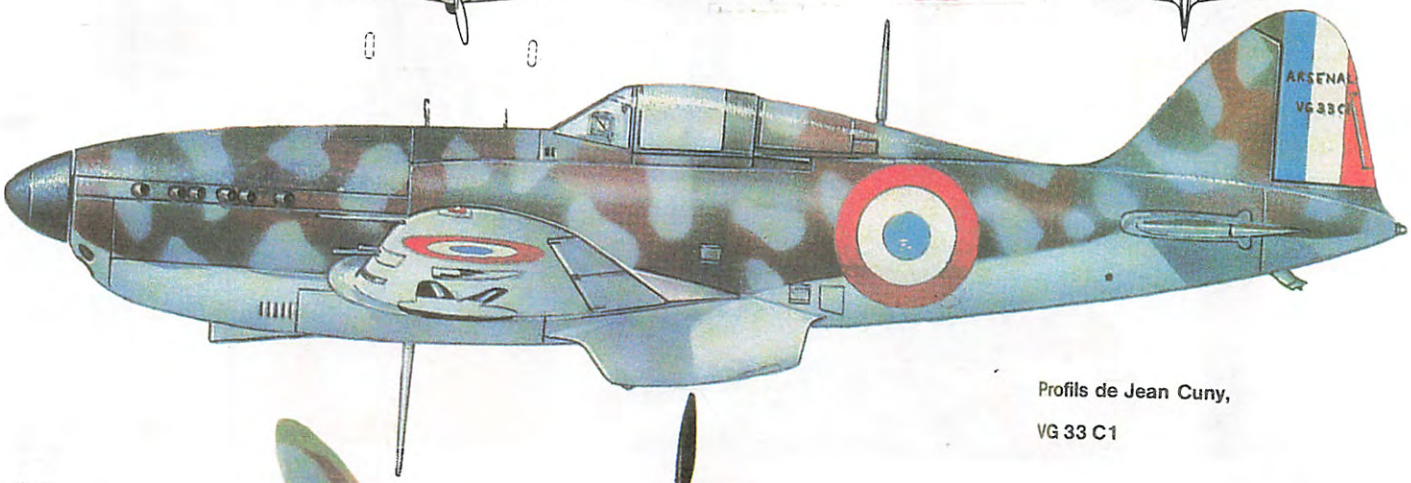


Model 21 A6M2 from carrier "Akagi", 1st Carrier Division, December 1941.



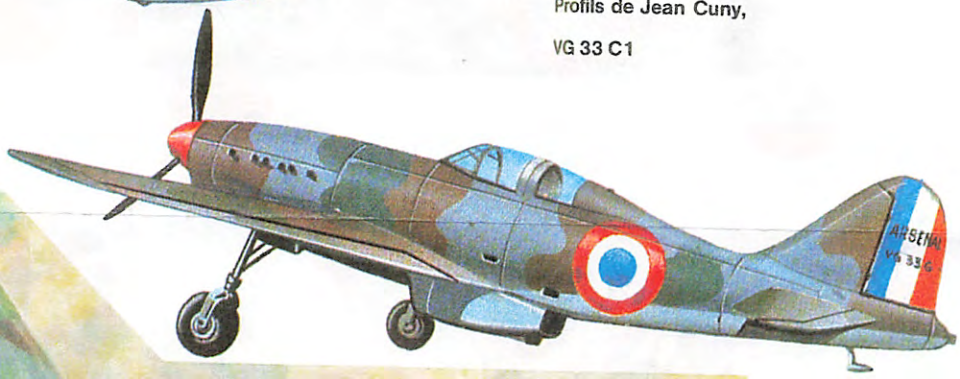


Mitsubishi A6M5 Reisen



Profils de Jean Cuny,

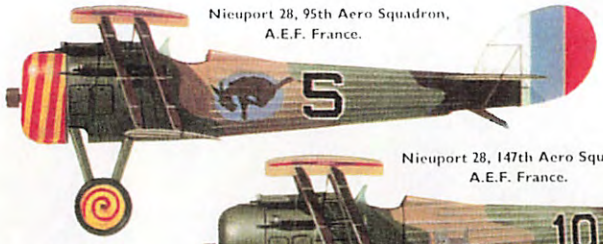
VG 33 C1



ARSENAL VG 33 FRENCH FIGHTER OF 1939

The "Arsenal" VG 33 was a clean, light weight fighter derived from the earlier VG 30 and was built entirely of wood. It was first flown in 1939. Although 1000 machines were ordered, only 160 of them were partially built but only nineteen were completed. Twelve were flown from Villacouby by the Vichy Air Force at Châteauroux, and they were taken over by the Nazis during the occupation of France in June, 1940.

Nieuport 28, 95th Aero Squadron, A.E.F. France.



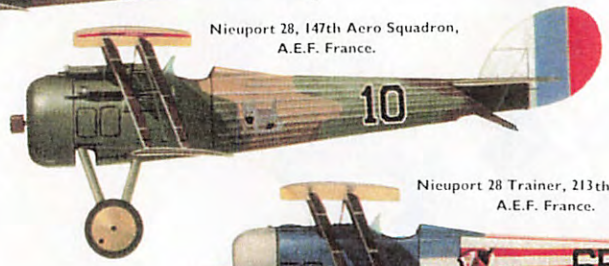


95th Squadron.

213th Squadron.



Nieuport 28, 147th Aero Squadron, A.E.F. France.





147th Squadron, Motto "Who Said Rats"

Nieuport 28 Trainer, 213th Squadron, A.E.F. France.



213th Squadron variation.

Nieuport 28, 27th Aero Squadron, A.E.F. France.



A.E.F. roundel, six positions on 27th, 95th and 147th Squadron aircraft. 213th Squadron four positions only.



Nieuport 28, Test aircraft, McCook Field, Dayton, Ohio, U.S.A.





27th Squadron.

Upper wing detail of 95th and 27th Squadron aircraft.

Nieuport 28 Trainer, 1921 scheme.





Upper wing detail of 147th Squadron aircraft.

Nieuport 28, Combat Squadron Three, VF-2, 1921. U.S. Navy. Flotation bags stowed. Serial 5800.



U.S. Navy, four positions.



Nieuport 28 Trainer, Swiss Air Force.

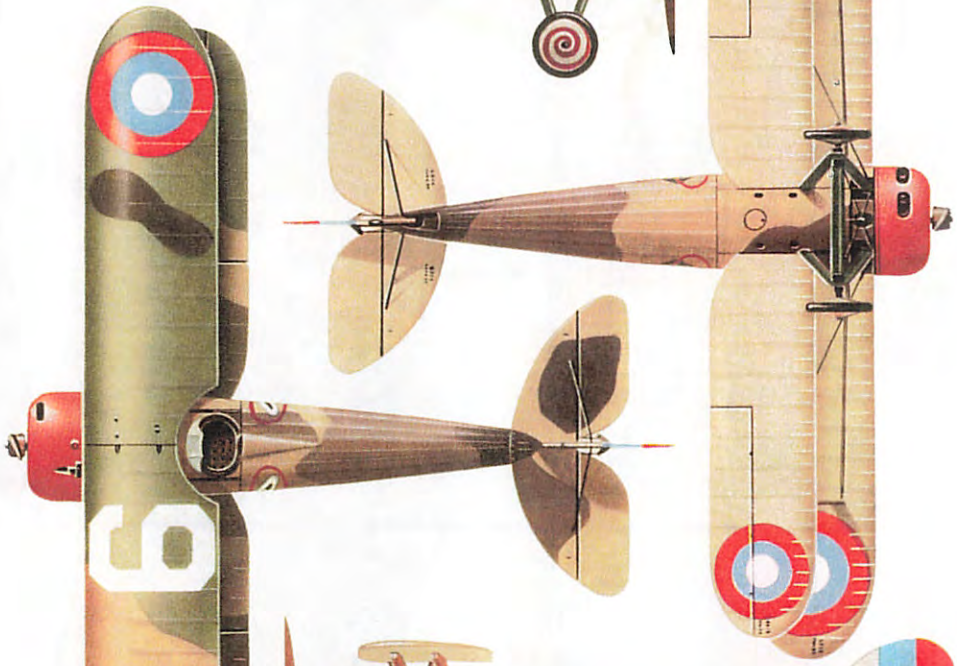




Wing detail for 5800. "21" in four positions, port and starboard upper, port and starboard undersurfaces.

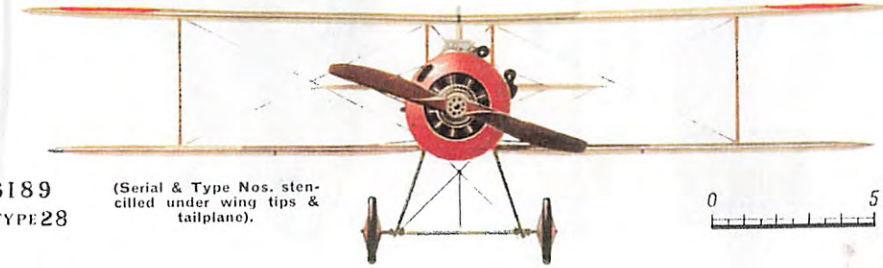
Swiss National insignia, four positions.







NIEUPORT 28 C-I (150 h.p. Gnome Monosoupape 4-N) of the 94th Aero Squadron, A.E.F., May, 1918.



6189
TYPE 28

(Serial & Type Nos. stencilled under wing tips & tailplane).

0 5'