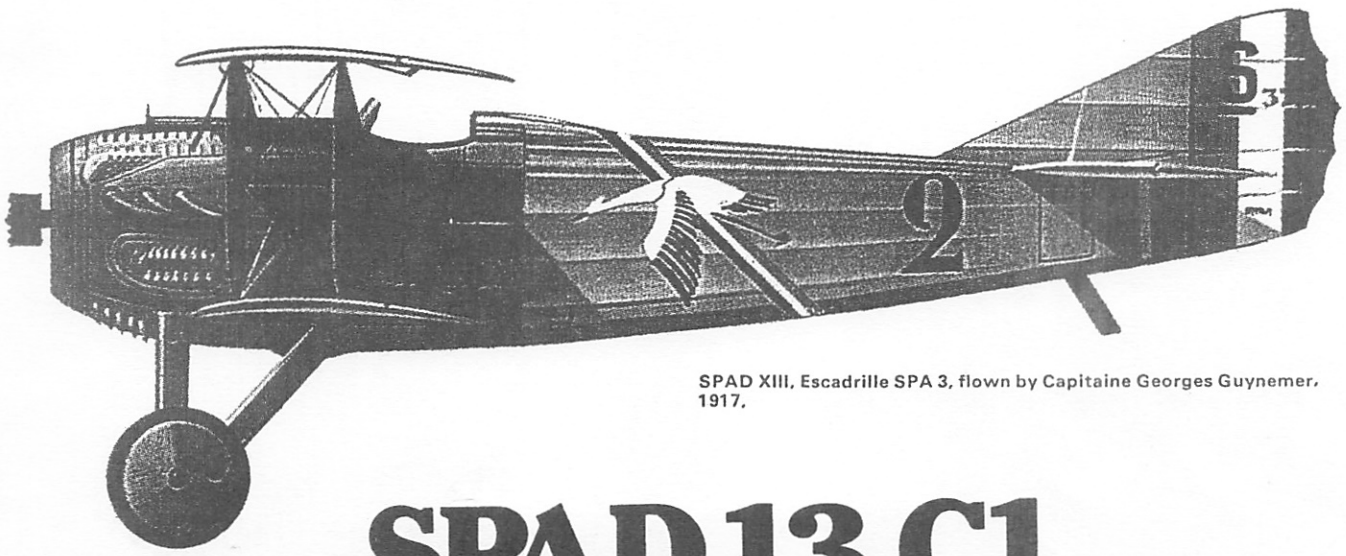
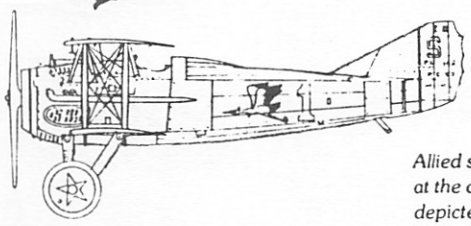
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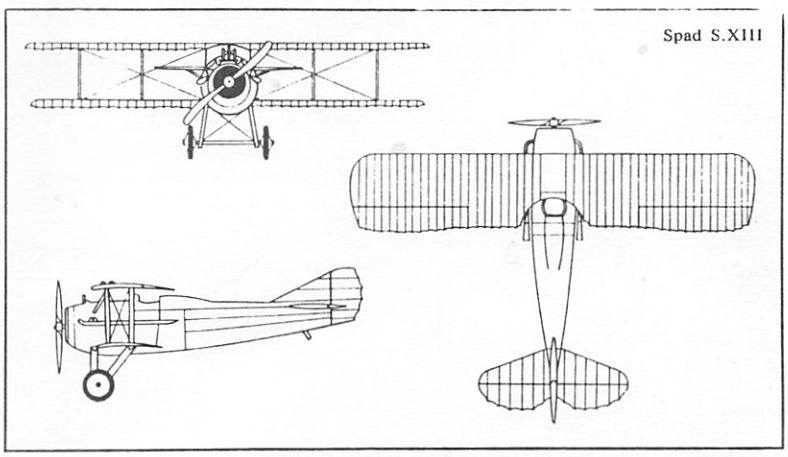
SPAD XIII, Escadrille SPA 3, flown by Capitaine Georges Guynemer, 1917.

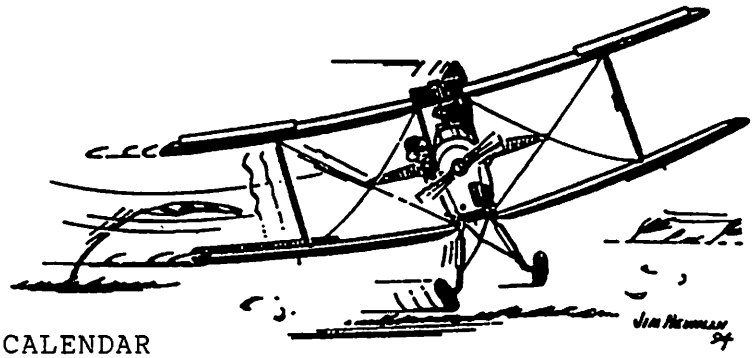
SPAD 13.C1

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LYNDHURST, OH 44124



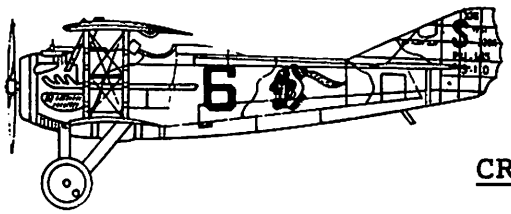
Allied squadrons painted their insignia at the center of the fuselage. The stork depicted above is the emblem of France's Escadrille SPA.167.





CROSSWINDS AERO CALENDAR

SUNDAYS	Indoor flying at Andrews School, Noon to 5. Check with Doc. Hacker 216-486-4990 or Don Slusarczyk 440-918-0290.
February 3- 4	MIAMA Indoor Record Trials at St. Petersburg,FL Tropicana Field, 231' 9-5. Rt.275 Exit 10 Lot 6A, Gate 7. $50. BYO table and chair. CD Steve Norrega 941-504-8727.
February 24-25	MIAMA Ind. at Tampa,FL Armory,R. MacEntee 813-729-1524.
March 24-25	MIAMA Ind. at MacDill AFB, Tampa,FL. Check HANGAR PILOT $ 12.50/yr. from Doc. John Martin Jr. 2180 Tigertail Ave. Miami,FL 33133 USA. 305-858-6161.
March 25	Cleveland Annual Indoor at Kent State, Ohio Field House 8:00 AM-4:30 PM. CD Mike Zand 216-524-3480.
April 28-29	MIAMA at St. Pete. FL USCG.
May 4-6	Air Racing Historians Symposium at Cleveland, Ohio. Bill Meixner 14978 Fayette Blvd. Brookpark, OH 44142
Sat. May 5	Probable date for Erie FAC Outdoor at Prangmore Aerodrome.
Sun. May 6	Probable Cloudbusters Indoor at Flint, MI Indoor Swing 8-8. I-69, Court & Genesee. CD Geo. Lewis 810-329-6833.
Sun. May 27	CFFS FAC Scale & FF at Lorain County Community College, Elyria, OH. I-90 Exit 148 to Rt. 301S,Russ Brown CD.
May 30-June 3	USIC, NFFS Nat's at Johnson City, TN.
Sat. June 2	Probable Erie FAC at Prangmore Aerodrome. Erie, PA.
June 8- 9	FUNK Second Annual Eastern Fly-In at Akron, Ohio.
June 10	CFFS FAC Scale & Free Flight at LCCC.Jim Hyka 216-481-6525.
Sat June 16	Possible date for McCook Sqdn FAC at Dayton WPAFB. Check with Frank Scott at 937-335-3057 for date and gate listing.
June 21-24	Probable date for Nat'l WACO Club Fly-In at Mt. Vernon,OH.
July 6-8	Probable Taylorcraft Fly-In at Barber Field, Alliance, OH.
July 20-22	Possible Geneseo, NY FAC date. Check FLYNIG ACES CLUB NEWS.
July 29	CFFS FAC SCALE & FF at LCCC. Gordon Roberts CD.216-749-4817.



Spad XIII 1917



CROSSWINDS QUARTERLY

THE JOURNAL OF THE CLEVELAND FREE FLIGHT SOCIETY

ISSUE NO. 97

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CLEVELAND, OHIO 44102 USA
TELEPHONE: (216) 631-7887

EDITORIAL COMMENT:

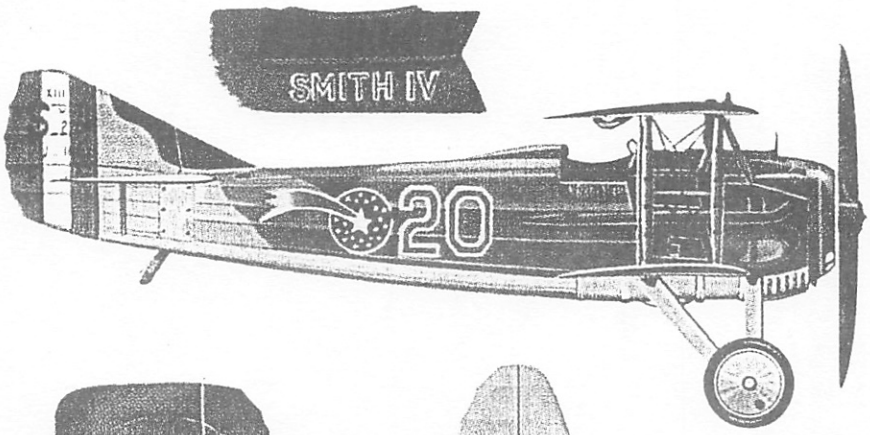
Those of you attending the CFFS Christmas parties in the last ten years or so know that we try to have an evening that is both relaxing and entertaining. Since the Christmas party is usually held on the first Saturday of December, we also try to have some Christmas cheer for those in attendance. Usually we have poinsettia plants for the ladies and a new Peanut scale plan for the modelers.

This year, we were pleased to have Jim Fitzgerald from NASA as our guest speaker. Jim gave an excellent presentation five years ago. In December, 2000, he gave an outstanding slide show and fresh insights into NASA programs, including the International Space Station, youth activities, preparations for the Centennial of the Wright Brothers first flight and NASA's thoughts on creating an aircraft to fly in the atmosphere of Mars. Jim also gifted us with a collection of NASA pamphlets and memorabilia which further enhanced the evening.

In November 2000, a few weeks before the banquet, I was casting about for a subject for the new Peanut scale plan to be used as a favor for our Christmas party. As usual, I consulted with several members of CFFS for their thoughts and suggestions. Gordon Roberts felt that a fresh plan of the French Spad fighter was in order and commented that although the Spad is legendary as a World War I fighter, it has not been seen in local competition.

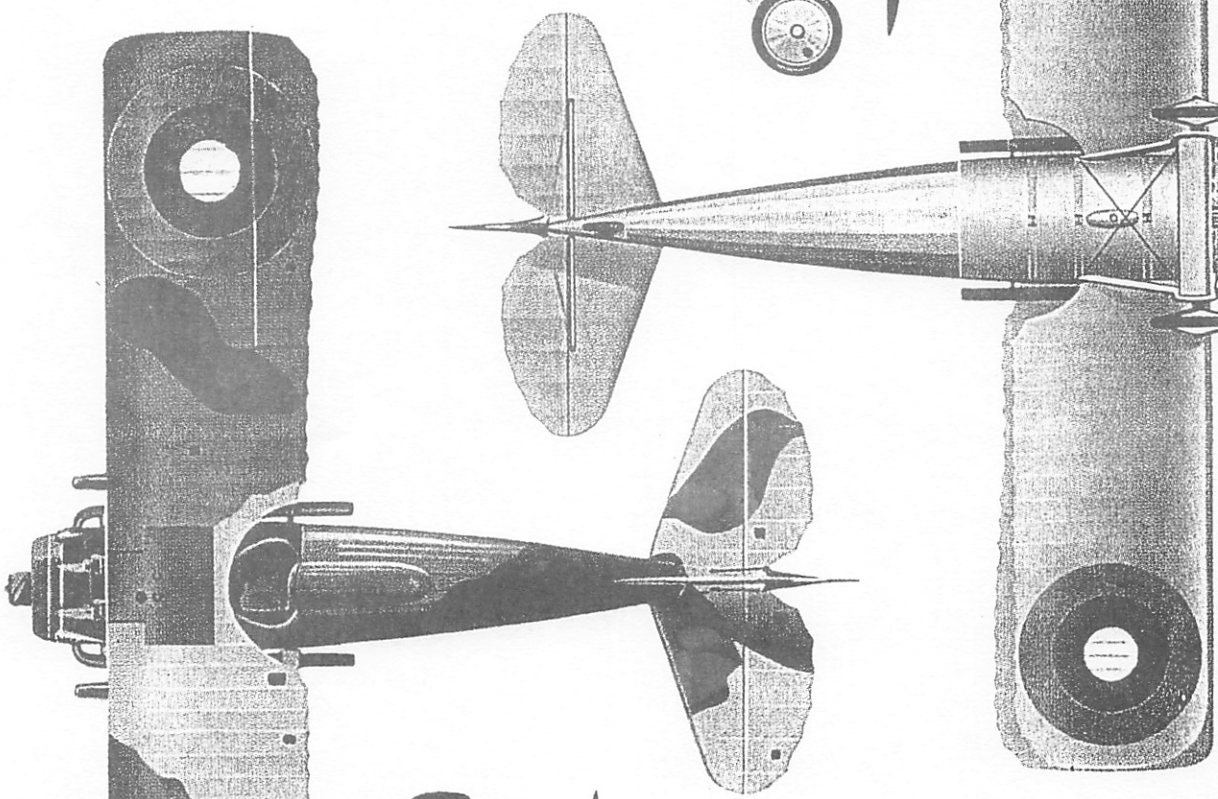
Although the Spad fighters are the stuff of legend in WWI aviation lore, they are somewhat dubious as rubber powered free flight scale subjects. Like many WWI aircraft, Spads have short noses, no dihedral and drag producing structural complexity. Since FAC rules dictate that WWI types must have rigging and armament to compete, there is little that can be done to reduce the drag of the rigging configuration used in the Spads. The classic alternations to making a flying model of such a subject include: using washout and modest dihedral in the wings; enlarging the stabilizer; and keeping the tail as light as possible. In the

CROSSWINDS readers with the dreaded RED X at issue renewal code No. 97 or lower can avoid the chop to address label by sending $ 12 or more to Russ Brown at 4909 N. Sedgewick, Lyndhurst,OH 44124. Thank you.

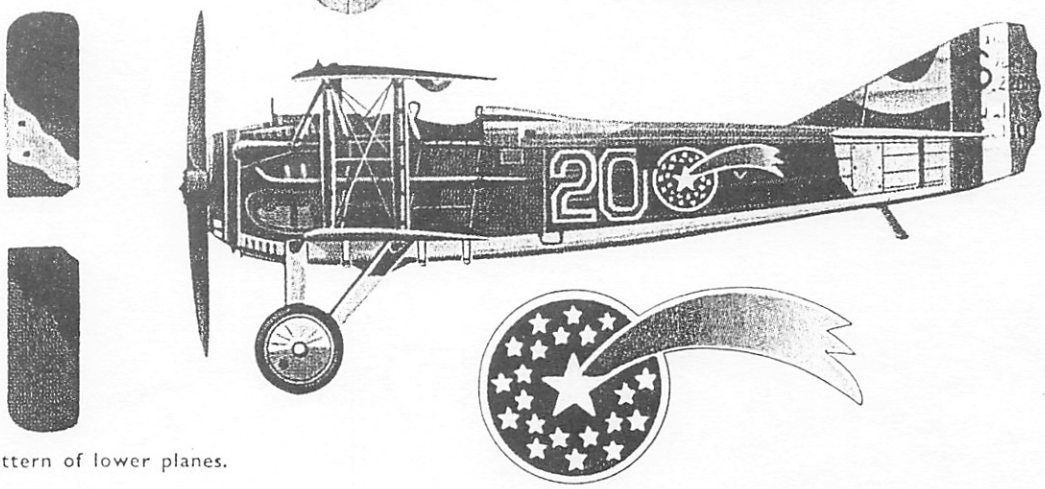




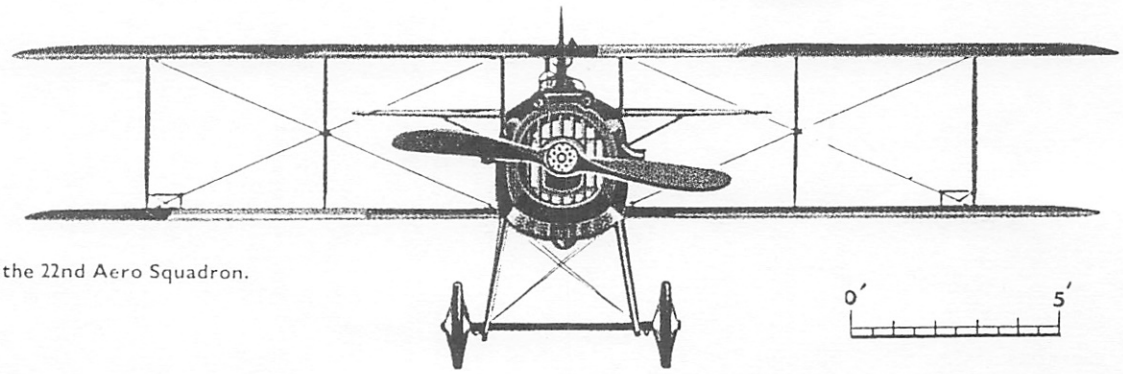
The aeroplane illustrated was flown by two different pilots and shot down six enemy aircraft.



Where enemy bullets struck the aeroplane the repair patches were painted black as an indication. These are shown in their correct position on the illustration.



Camouflage pattern of lower planes.



Spad XIII C1 of the 22nd Aero Squadron.

0′ 5′

instant case, the fuselage has been built with a stout nose for the attachment of struts, exhausts, etc. The rear motor peg has been moved forward in an effort to keep the C.G. as far forward as possible to minimize the need for nose weight. It is unlikely that a model of a Spad will outperform a model of a S.E.5 or a Fokker DVII in a "fair fight," but anything is possible in FAC mass launch competition. If nothing else, the Spad can give you some pleasurable hours of building and a colorful addition to your collection.

SPAD 13.C1:

The name "Spad" stands not for a specific aircraft, but for the French firm known as the "Societe Provisoire des Aeroplanes Deperdussin." When the name Spad comes up, most aviation buffs think of the sturdy bi-planes designated as the Spad 7, the Spad 12, or the Spad 13. The three were very similar in appearance, but were in fact distinctly different airplanes. The Spad 7 with a wing span of 25'8" and a length of 19'11-1/4" was the smallest of the three. It is most easily distinguished in photographs by its single Vickers machine gun, its large cylinder head fairings, its wrap around wind screen and by its tail plane which included blunt stabilizer tips, and a fairly straight trailing edge on its rudder.

The Spad 12 was a larger and heavier machine with a more powerful engine and a more streamlined shape with the elimination of the characteristic cylinder bank fairings. The Spad 12 was armed with both a synchronized Vickers machine gun and a 37mm Hotchkiss cannon which was mounted between the engine's cylinder banks and fired through the propeller hub. The Spad 12 also was fitted with a small wind screen and its wings had a slight positive stagger with rounded wing tips. The rudder and elevator trailing edges were also more rounded than those of the Spad 7.

The subject of this issue of Crosswinds is the Spad 13 which was also larger than the Spad 7 with a wing span of 26'6" and a length of 24'3-3/8". Like the Spad 12, the early versions of the Spad 13 had rounded wing tips, but these were replaced with a more square cut wing tip in later production. The Spad 13 eliminated the cannon found on the Spad 12, but replaced it with twin Vickers machine guns mounted in deep troughs on the upper fuselage decking in front of the cockpit. The Spad 13 also reverted to the use of tear drop shaped cylinder bank fairings, but these were smaller and not as prominent as those on the Spad 7.

Confidence must have been high on the Spad 13 as no less than 20 preproduction prototypes were built! No doubt, the success of the earlier Spad 7 and Spad 12 configurations contributed to this, but the Spad 13 was not without its challenges. Problems with the propellers, the engine mounts, the engine lubrication system and cooling required several months of testing before production accelerated in 1918.

The total number of Spad 13s built is estimated between 7300 and 8,472. It is thought that the latter number may be the total ordered, while the former number represented the number actually produced. Either way, the Spad 13 was produced in large numbers and enjoyed considerable success. According to the Champlin Fighter Aircraft Museum, the Spad 13 was the most famous French design fighter of WWI and was reported to out climb the Fokker D. VII and could dive at speeds approaching 300 mph with impunity. The Spad 13 was structurally robust and had twice as many ribs in its wings as its contemporaries.

SPAD 13.C1 IN SERVICE:

Considering the numbers in which they were produced, it comes as no surprise that Spad 13s equipped squadrons in a number of air forces. Not only were they extensively used by the French, but also the British, Belgians, Italians, and Americans during WWI. Post war Spad 13s were found in the air forces of Argentina, Brazil, Czechoslovakia, Greece, Japan, Poland, Russia, Siam, Spain, Turkey and Uruguay! Spad 13s stayed on service with the French and U.S. Army Air Service until the mid-1920's.

Spad 13's were the mounts of numerous aces. In France, Spad 13's were flown by Capt. Rene Fonck, (75 victories), Capt. Georges Guynemer (54 victories), Lt. Charles Nungesser (45 victories), Lt. Michel Coiffard (28 balloons, 6 airplanes), Adj. Jacques Ehrlich (19 victories), Capt. Armand de Torenne (15 victories), and Lt. Gilbert Sardnier (14 victories) among others. Markings for Spad 13s flown by all of these French Aces are presented for your consideration.

Spad 13s were also flown by American Aces such as Capt. Edward V. Rickenbacher (American's top scoring Ace with 26 victories) and the daring Lt. Frank Luke, Jr. (American's 2nd highest scoring WWI Ace) with 21 victories (including 13 balloons) in only 17 days of combat. Markings for Rickenbacher's and Luke's Spad 13s are presented.

As mentioned, Spad 13s were also flown by the Italian Air Force and the markings of Maggiore Francesco Barraca (34 victories) are presented. There are a number of other marking possibilities and these may be found in the publications listed in the references cited for this presentation.

Dennis grades A for this CROSSWINDS SPAD XIII, 'Nes Paw? A whole flight build of this might be a great FAC club action theme a-la the Detroitengeschwader Red Haters club builds (A1b D-V & Erie Times).

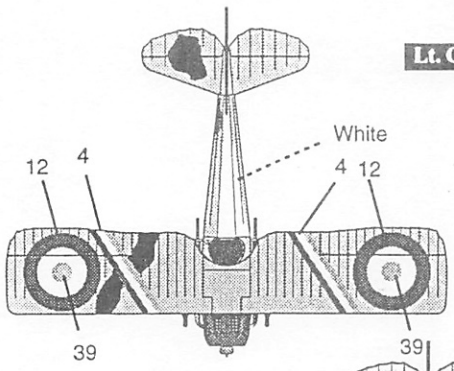
For plan B variety, a special Spad can be had by kit bashing this XIII into the same frame badest Spad of all by minor fuselage fix as the cannon Spad XII. Storks Escadrille idol Captain Georges Guynemer flew a Vieux Charles 37-mm cannon Spad XII briefly when the big geared Hisso engine would behave. See Squadron/Signal SPAD Fighters in Action book / profiles to zoom up to peanut plan size. The thrust line is a bit high. The CFFS stork is from SPAD Escadrille 167. It may get lucky judging!B.

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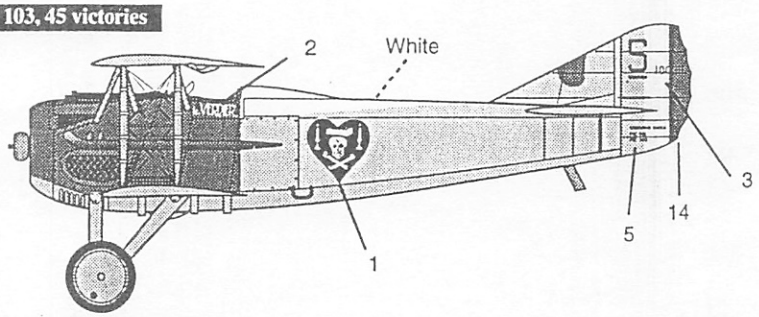
SPAD XIII DECAL PLACEMENT

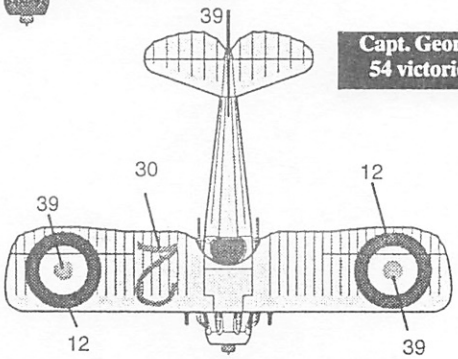
Decal numbers not shown are used on the opposite side of the airplane.

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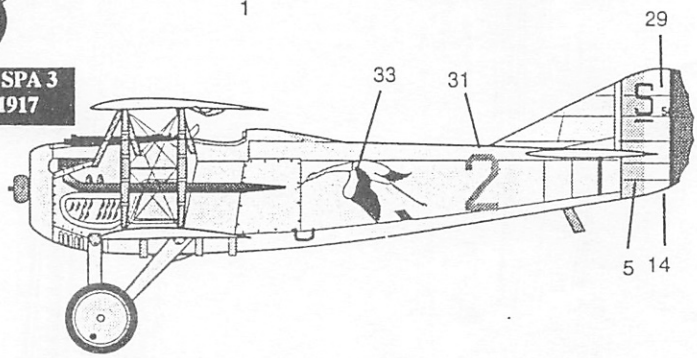


Lt. Charles Nungesser, SPA 103, 45 victories

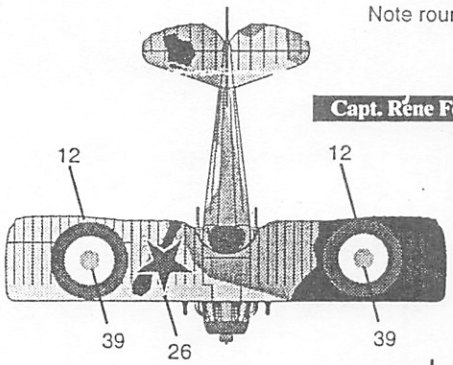




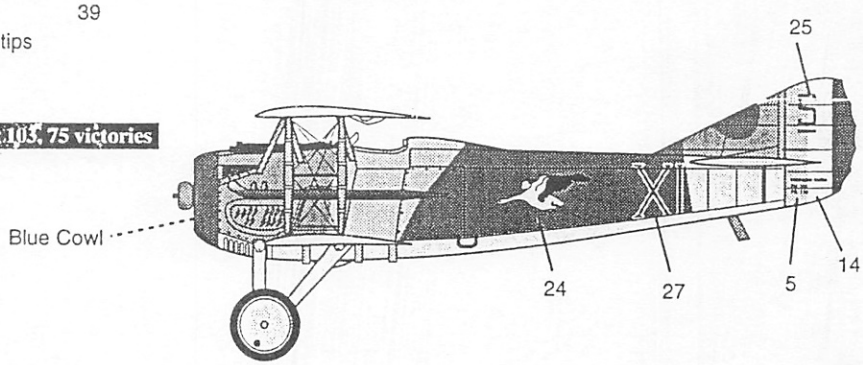
Capt. Georges Guynemer, SPA 3 54 victories, KIA 9 Sept. 1917

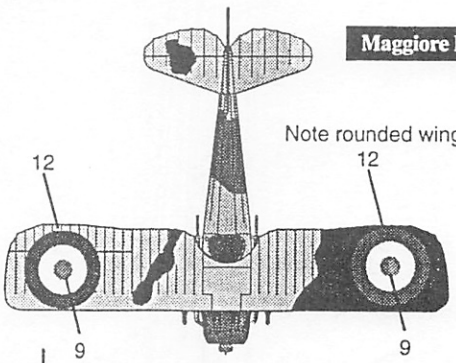


Note rounded wingtips



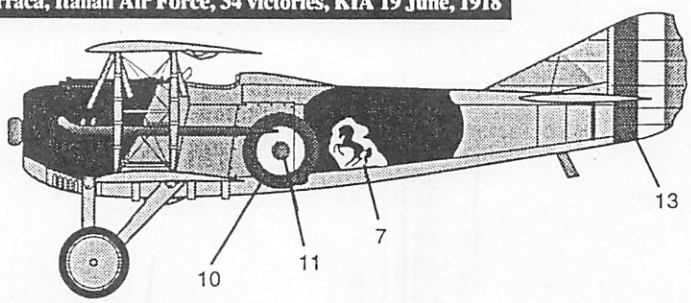
Capt. Rene Fonck, SPA 103, 75 victories

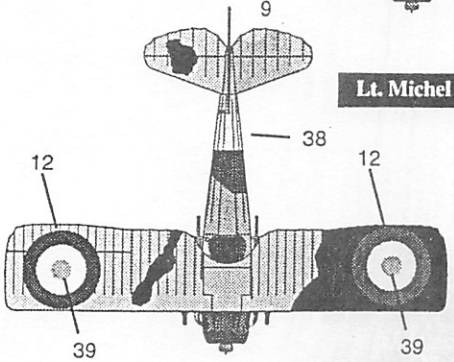




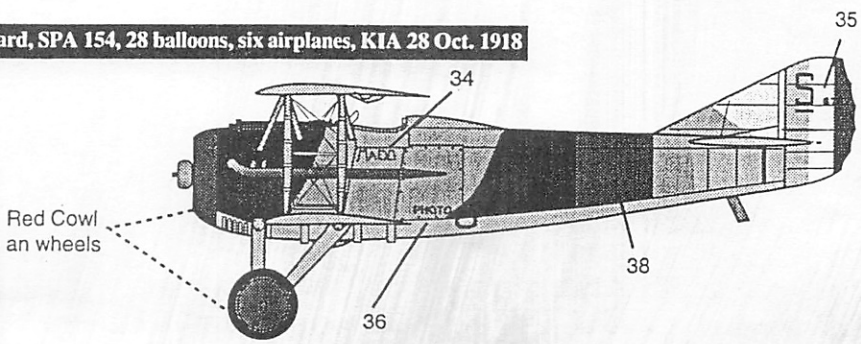
Maggiore Francesco Barraca, Italian Air Force, 34 victories, KIA 19 June, 1918

Note rounded wingtips





Lt. Michel Coiffard, SPA 154, 28 balloons, six airplanes, KIA 28 Oct. 1918



COLOR SCHEMES:

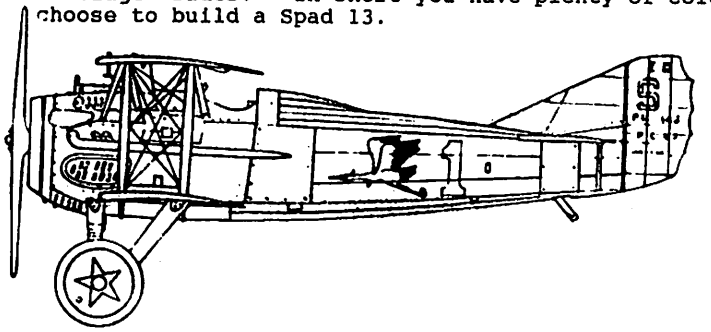
With so many Spad 13s being produced, and so widely used, it is no surprise that there are a rich variety of color schemes to choose from. Early French Spad 13s left the factories with clear doped fabric surfaces and forward fuselages painted in light yellow. These early Spad 13s appeared overall buff in color. Later French Spad 13s used a very striking camouflage scheme involving 5 colors (dark brown, dark green, medium green, tan and black) on the upper surfaces with either buff or light gray on the lower surfaces. These colors also appeared on the Spad 13s used by the USAS.

The Spad 13s used by the Royal Flying Corps sported dark brown upper surfaces, tan lower surfaces with the metal portions of the nose and wheel covers being done in light gray. Belgian Spad 13s appeared with olive drab upper surfaces and gray fuselage sides and undersurfaces.

Virtually all Spad color schemes depict wing struts as being dark varnished wood. Landing gear struts are usually painted the color of the fuselage undersides. Outside wheel covers are often painted in solid colors, but a number of Spad 13s operated by the USAS and the Aviation Militaire Belge (Belgium) used brightly colored outside wheel covers.

Post WWI Spad 13s continued for several years. Spad 13s used by the USAS in the occupation of Germany in 1919 often appeared in wild and complex color schemes. One brightly decorated Spad 13 of the 94th Aero Squadron flown by Lt. Reed Chambers appeared with the top surface of the upper wing in a bright red and white stripped scheme which was continued on the fuselage top and sides after the cockpit. The nose and tail surfaces of Reed's machine were blue covered with white stars. A rendering of this machine appears at the center of Spad Fighters In Action, Aircraft No. 93, published by Squadron/Signal Publications. Spad 13 flown by Lt. Robert W. Donaldson of the 94th Aero Squadron appears to have been painted almost entirely in black and white checked pattern.

Another striking post-war scheme is to be found on the Spad 13s of the 17th Pursuit Squadron, US Army Air Service based at Selfridge Field, Michigan. These Spad 13s had their wings, landing gear struts, and fuselage painted in overall dark olive drab. The tail surfaces were painted bright yellow. The rudders were painted with vertical red, white and blue stripes. Classic star and dot insignias appeared at both tips of the upper surface of the top wing and of the lower surface of the bottom wing and also on the outside wheel covers. Squadron numbers and stripes appeared in white on the upper surfaces of the top wing and also on the fuselage sides. In short you have plenty of color choices if you choose to build a Spad 13.



The stork is the emblem of France's Escadrille SPA.167.

STEPS TO MAKING PRINTS ON TISSUE USING A COPIER DIRECTLY

1. Take 1/2" scotch double stick tape and "frame" a piece of bond paper the size of the tissue which you wish to print. The conventional copy paper sizes are, of course, 8-1/2" x 11", 8-1/2" x 14", and 11" x 17". I have found that 60 lb. stock works well but it is readily available only in 8-1/2" x 11" size.

2. For printing larger pieces of tissue, use 40 to 60 lb. smooth drawing paper which may be cut to the dimensions (up to 11" x 17") of the tissue that you intend to print.

3. It is important that the double stick tape be absolutely flat and adhered to the edges of the piece of paper that you have selected as a carrier.

4. Take the tape-edged piece of paper and place it face down on the stretched tissue while the tissue is still attached to the stretching frame. Generally you want the grain of the tissue to run the length of the pieces being printed so be sure that you take this into consideration before sticking your tape-edged piece of carrier paper to the tissue.

5. Carefully rub the back of the carrier paper so that the double stick edges are absoltuely flat against the tissue.

6. Carefully remove the tissue (with the carrier paper attached) from the stretching frame.

7. Carefully trim the edges of the tissue so that they are flush with the edges of the carrier paper.

8. Take the paper patterns for the details you will be printing and tape them to the piece of bond paper the same size as the piece of tissue attached to the carrier paper. Again, you should arrange the pieces to be copied in such a way that they will print properly on the tissue (remember the grain should go length-wise).

9. Having completed your copy master, place it in your copier and then print a piece of plain copy paper to check the orientation of the pieces. It is important to remember that you will lose 1/2" of the border of your tissue because it is taped to your carrier stock. Be careful to arrange the pieces being copied so that they do not come any closer than 1/2" to the edge of the paper.

10. Once you are satisified that your master is printing pieces of bond paper the way you want them, you can then place your tissue on its carrier (tissue side up) in the bypass of the copier.

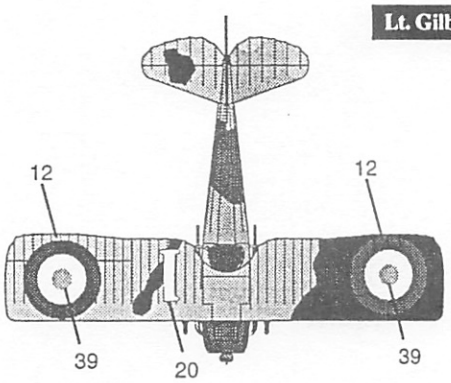
11. Push the bypass button and your tissue should pass through the copier, giving you a clear copy on the tissue.

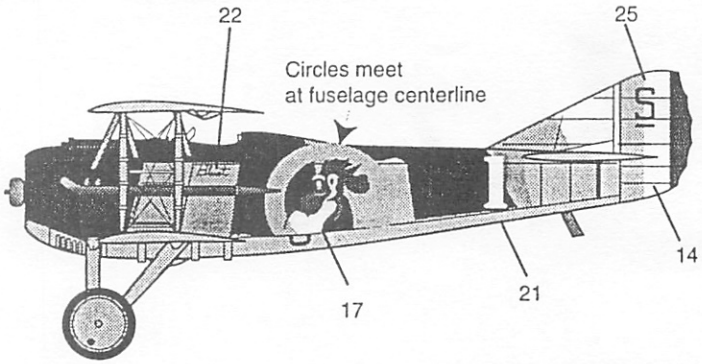




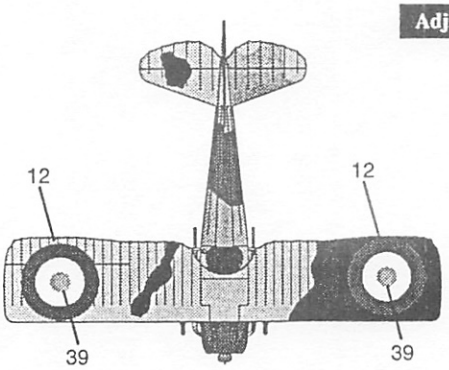


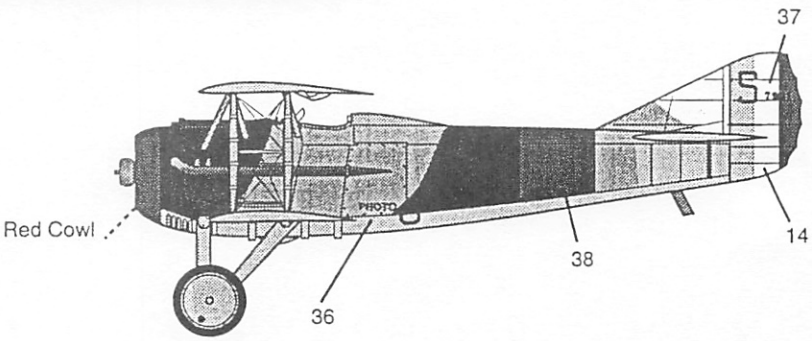
Lt. Gilbert Sardier, Commander SPA 48, 14 victories



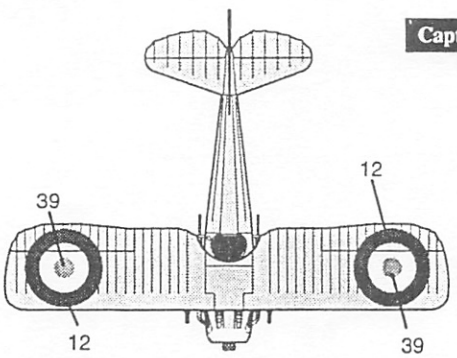


Adj. Jacques Ehrlich, SPA 154, 19 victories

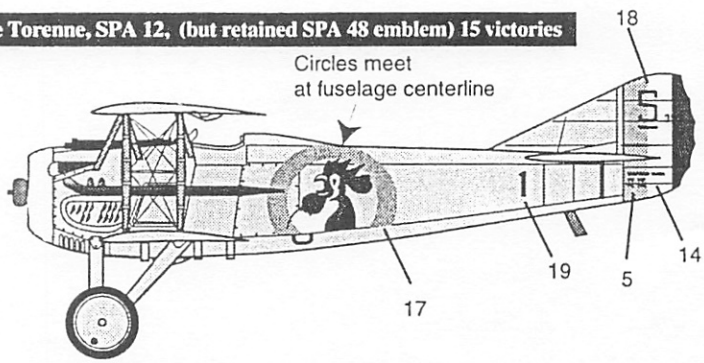




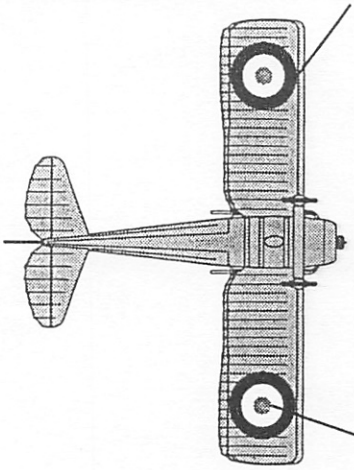
Capt. Armand de Torenne, SPA 12, (but retained SPA 48 emblem) 15 victories



Note rounded wingtips



Typical placement of underwing cockades



Chestnut Brown

Buff

Dark Green

Tan

Light Green

Light Gray

Black

For more detailed information on SPAD camouflage, please refer to the SPAD book, by Glencoe. Available at your hobby shop.

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RIGHT LOWER WING TOP

Medium Green

Tan

Dark Green

RIGHT LOWER WING TOP

RIGHT RUDDER

Dark Brown

Tan

Black

Tan

Dark Brown

LEFT RUDDER

Escadrille SPA 3

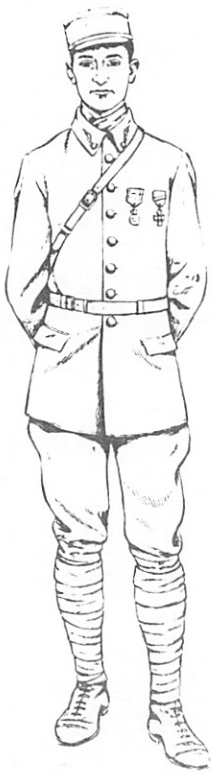
Tan

Black

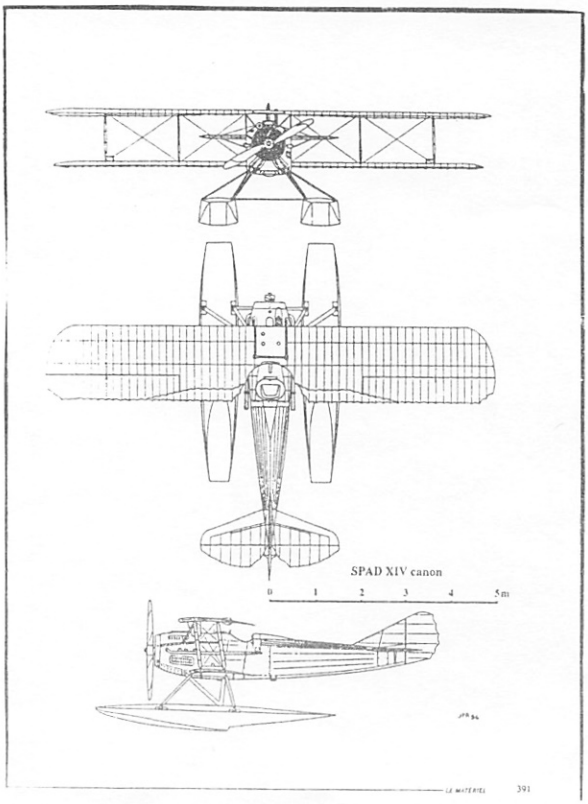
Dark Brown

Tan

STAB. TOP



Georges Guynemer
1894-Sept. 11, 1917

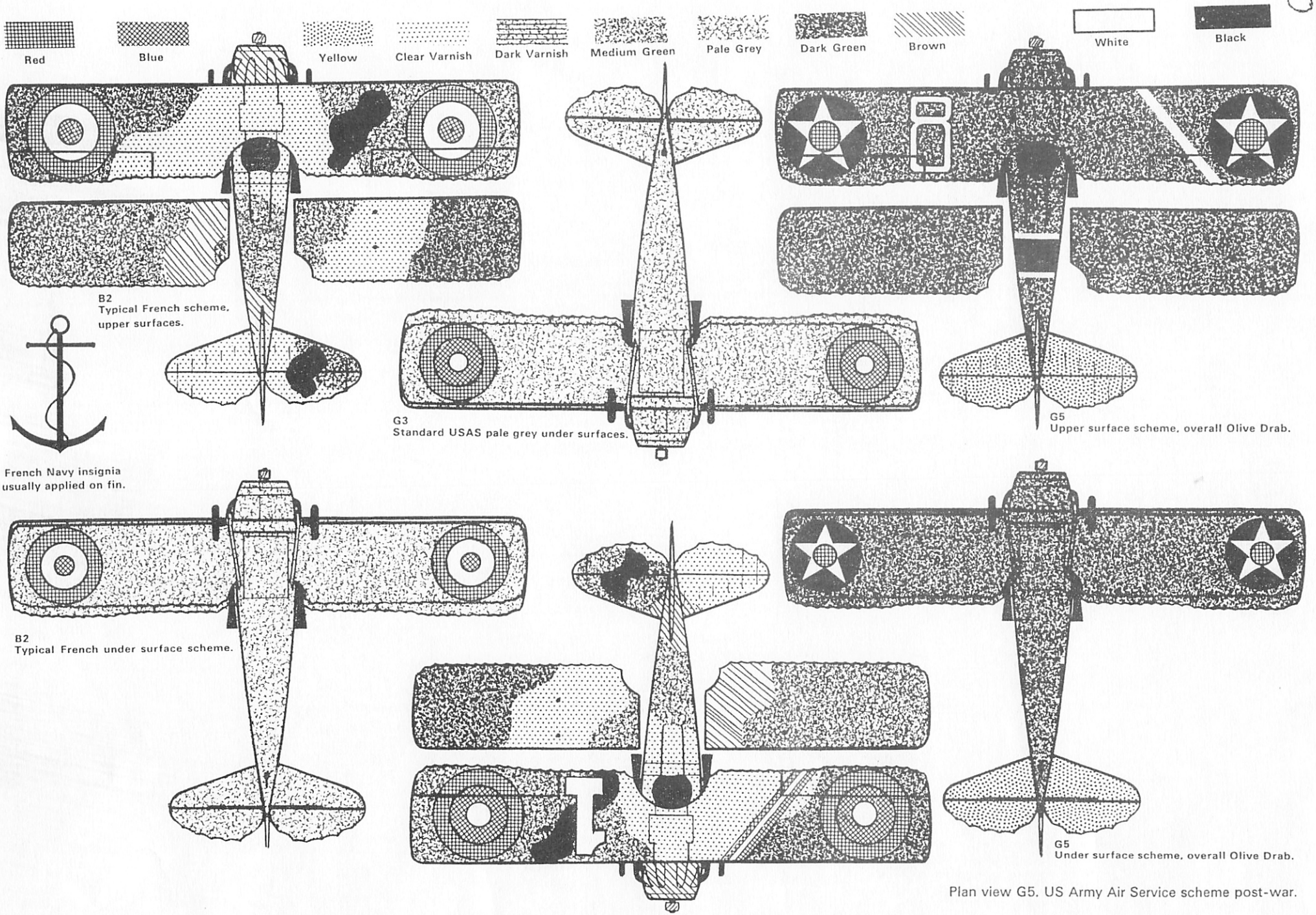


W-W-1 Aero THE JOURNAL OF THE EARLY AEROPLANE

Camouflage pattern of Kellner-built SPAD 13s.

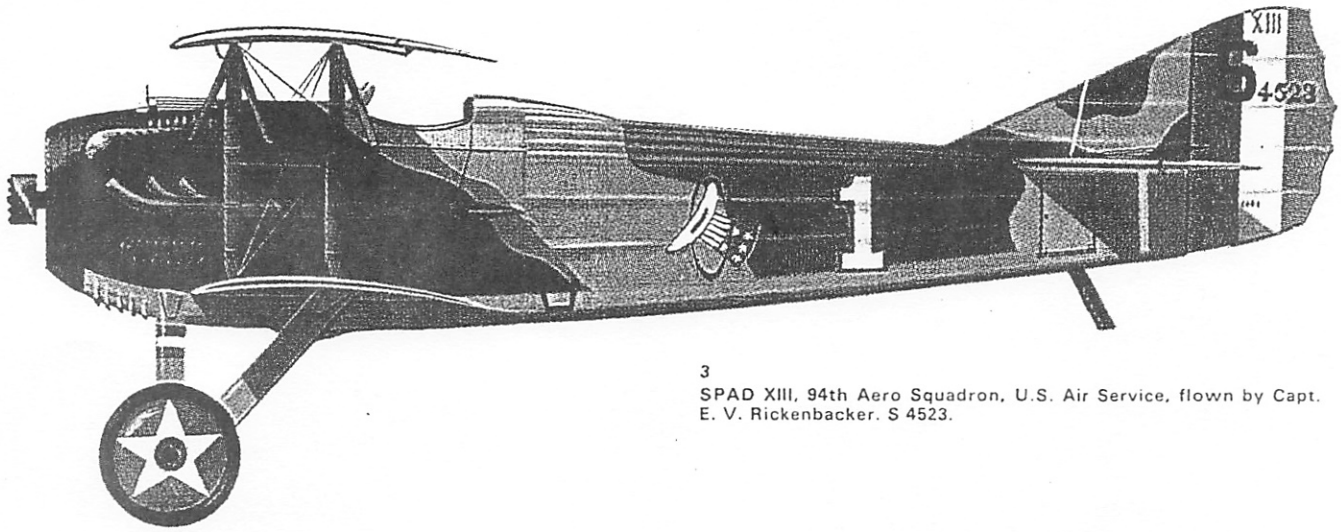
Rubber Powered P-Nut Scale

SPAD 13.C1



Plan view G5. US Army Air Service scheme post-war.

Plan view G3. As used by USAS during the war.



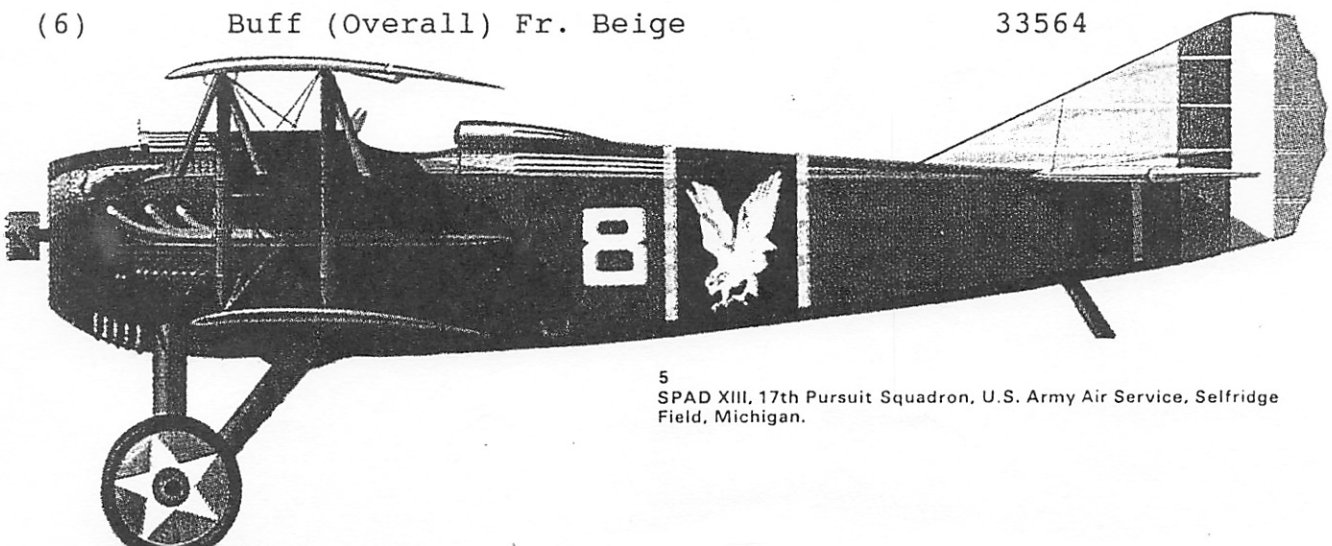
3
SPAD XIII, 94th Aero Squadron, U.S. Air Service, flown by Capt. E. V. Rickenbacker. S 4523.

SPAD 13 C.1 COLORS:

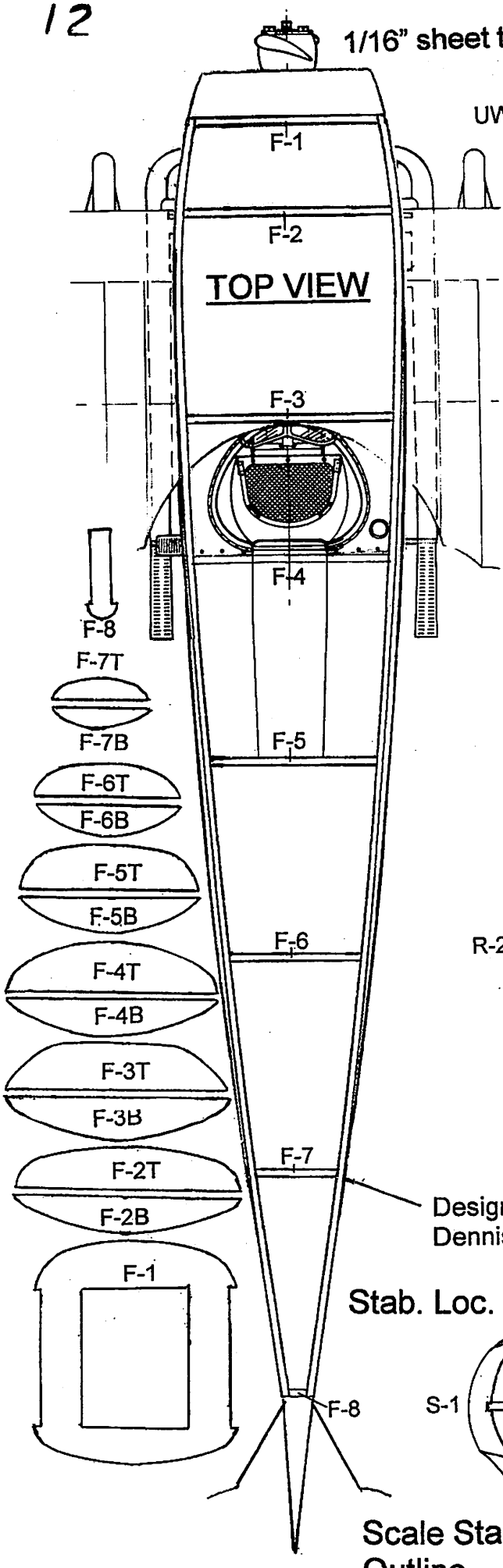
A realistic color scheme may be obtained by using Polly Scale water based colors. Suggestions are as follows:

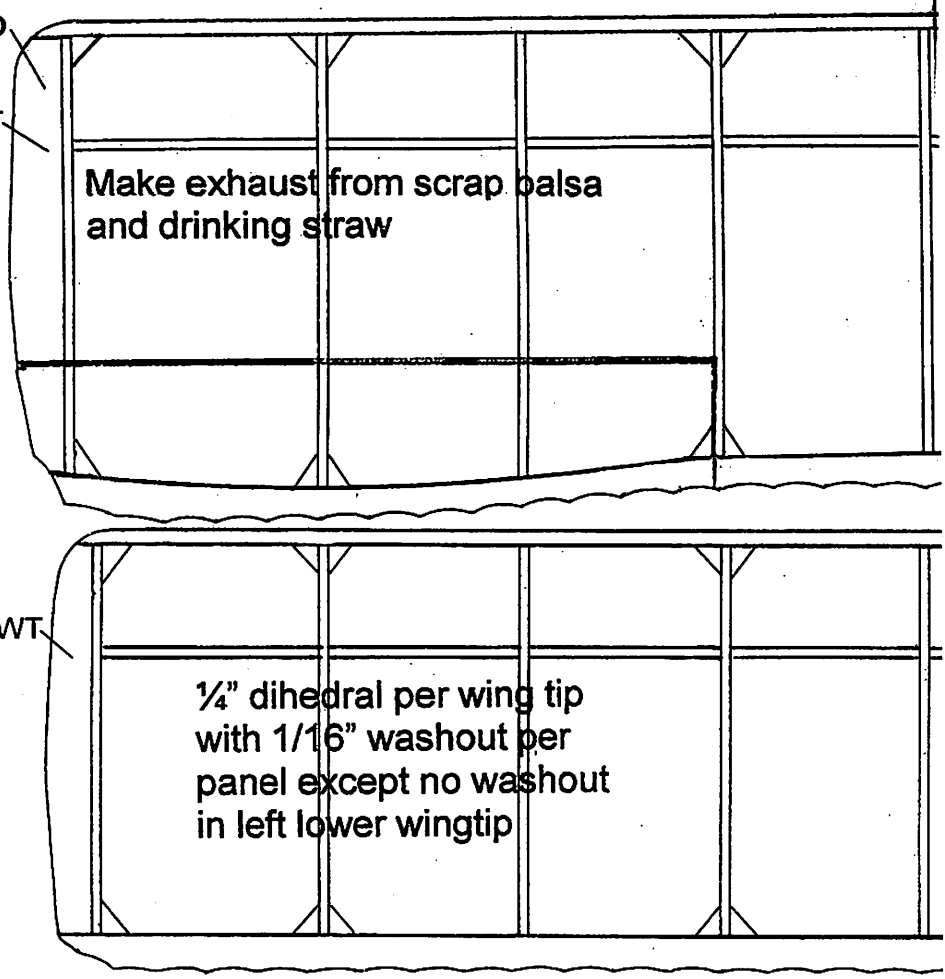
	Underside Colors:	Polly Scale Name	Polly Scale Number
(1)	Tan	U.S. Desert Storm Sand	505364
(2)	Light Gray	U.S. Gull Gray Lt.	505380
(3)	Buff (Overall)	French Beige	33564

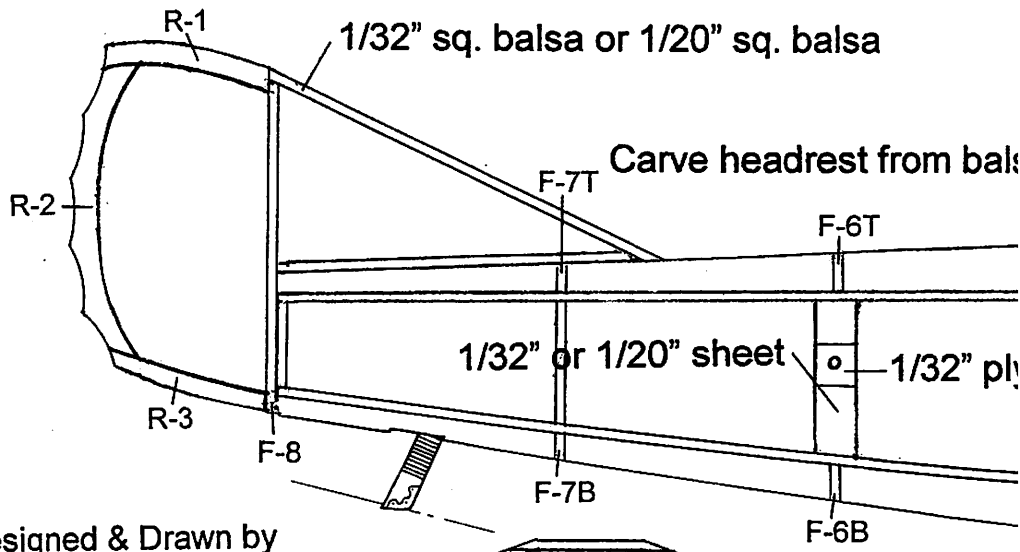
	Upper Surface Colors:	Polly Scale Name	Polly Scale Number
(1)	Tan	U.S. Desert Storm Sand	50534
(2)	Dark Green	Fr. Fok Dark Green	34096
(3)	Medium Green	Fr. Khaki	505238
(4)	Dark Brown	Nato Tri Brown	505352
(5)	Black	Night Black	505214
(6)	Buff (Overall)	Fr. Beige	33564



5
SPAD XIII, 17th Pursuit Squadron, U.S. Army Air Service, Selfridge Field, Michigan.

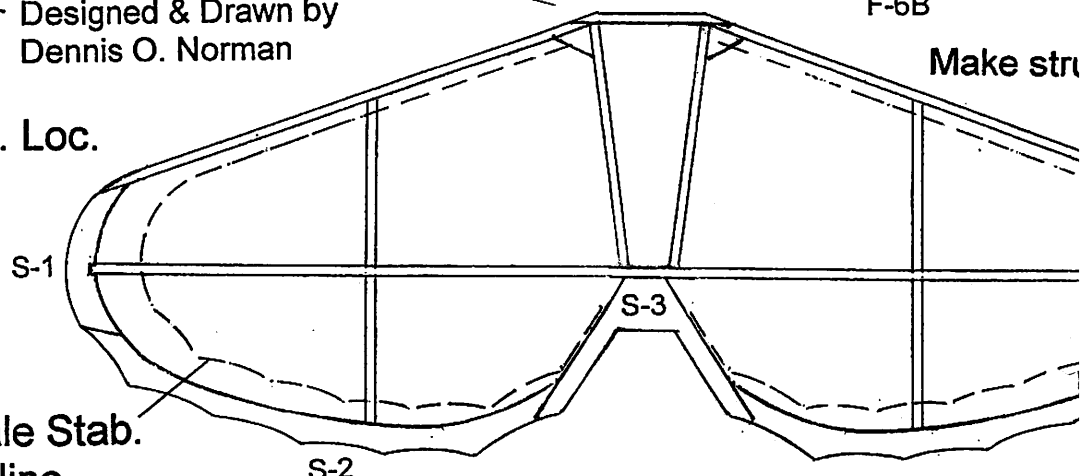




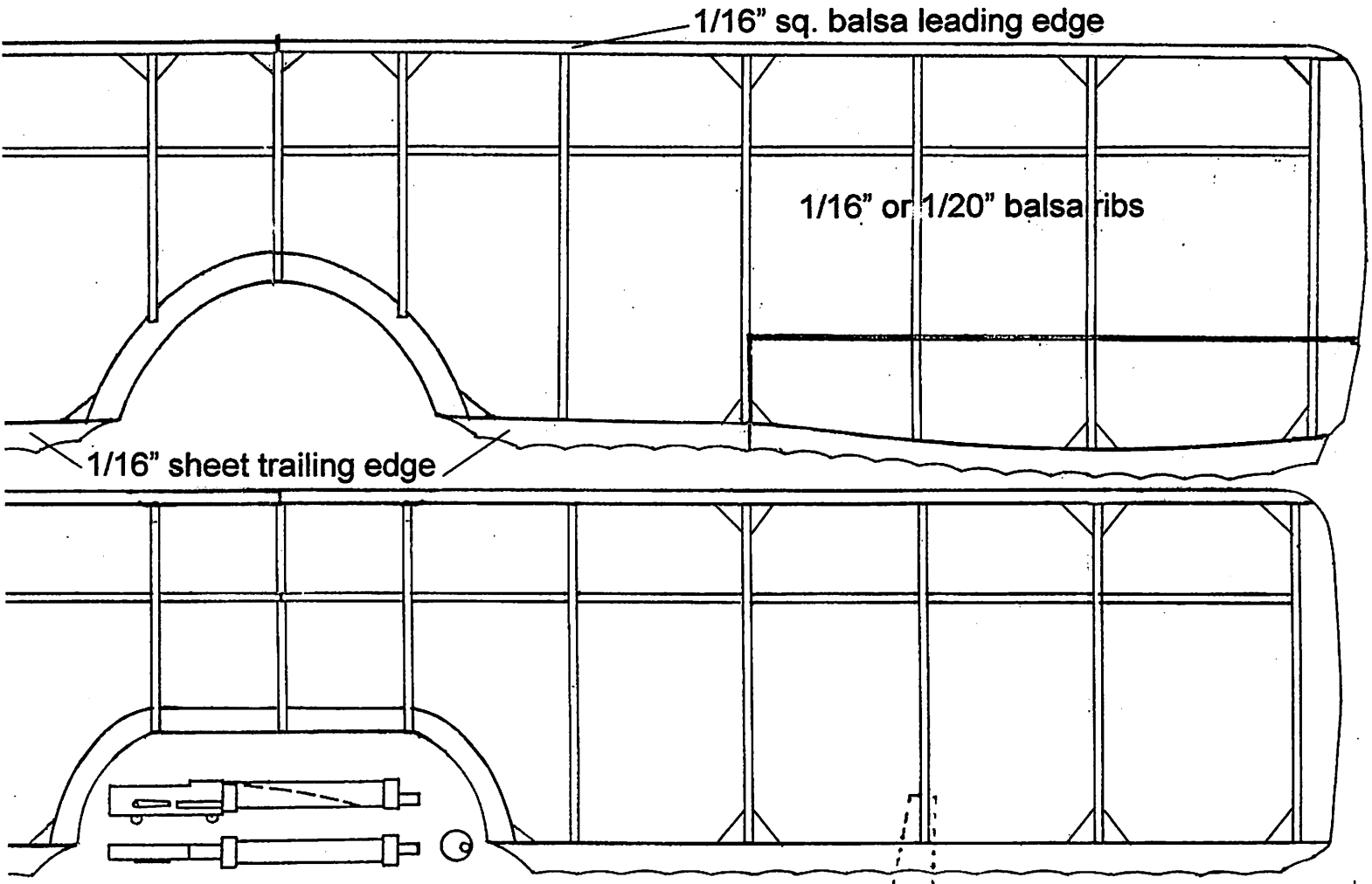


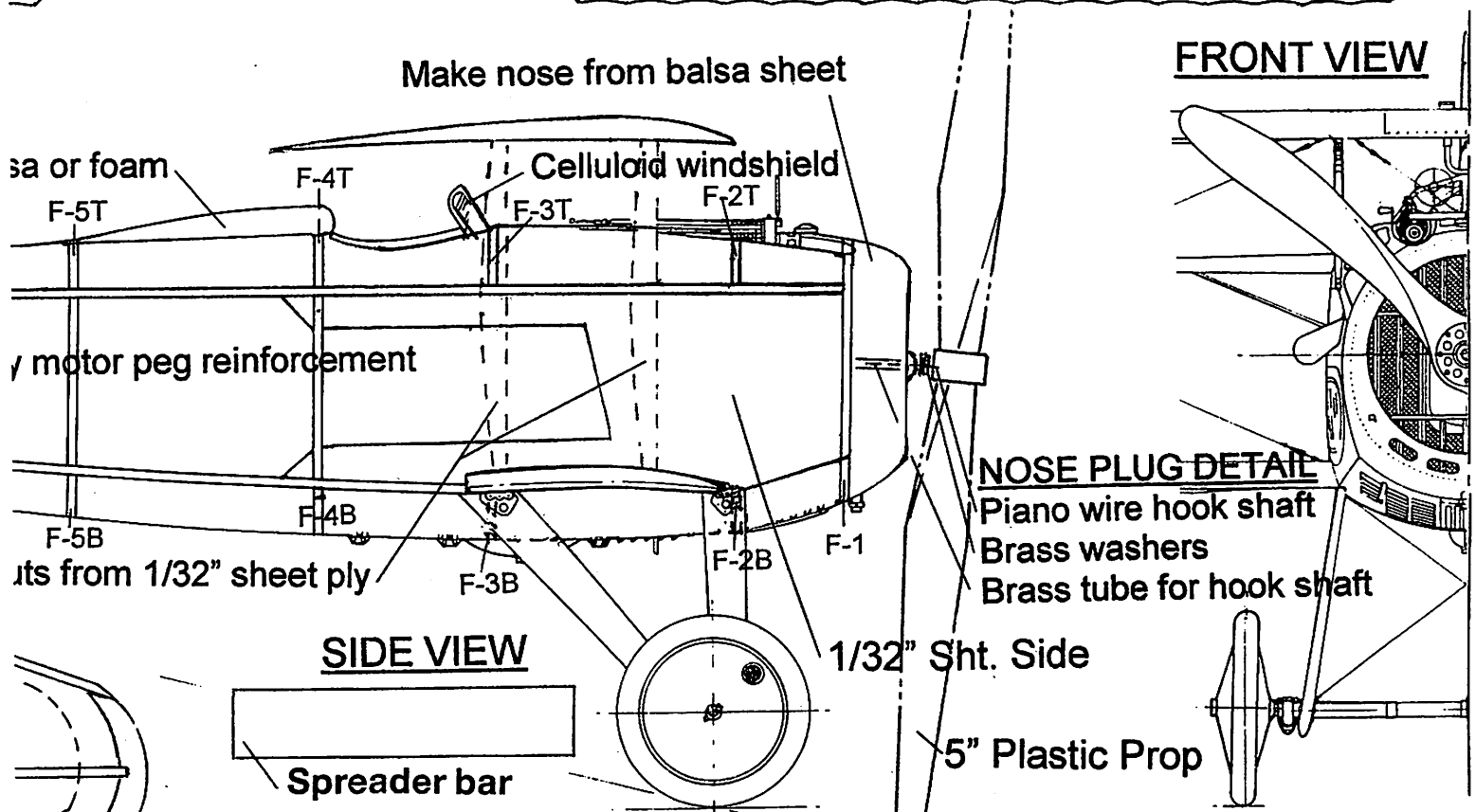
Designed & Drawn by
Dennis O. Norman

Stab. Loc.



Scale Stab.
Outline





NOSE PLUG DETAIL
Piano wire hook shaft
Brass washers
Brass tube for hook shaft

SIDE VIEW

Spreader bar

1/32" Sht. Side

5" Plastic Prop

Turn wheel from balsa sheet
or foam using a Dremel tool

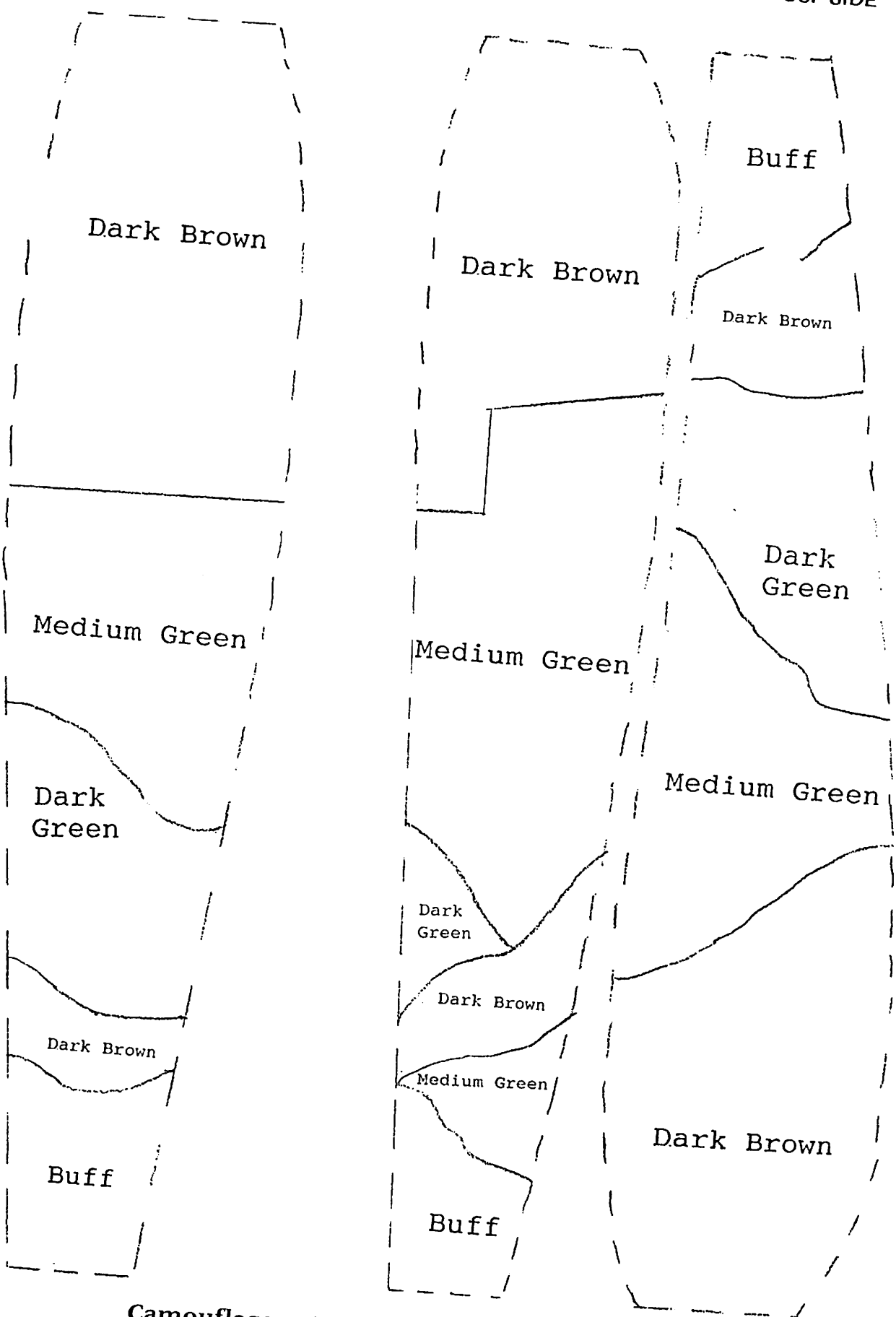


Rubber Powered P-Nut Scale

SPAD 13.C1

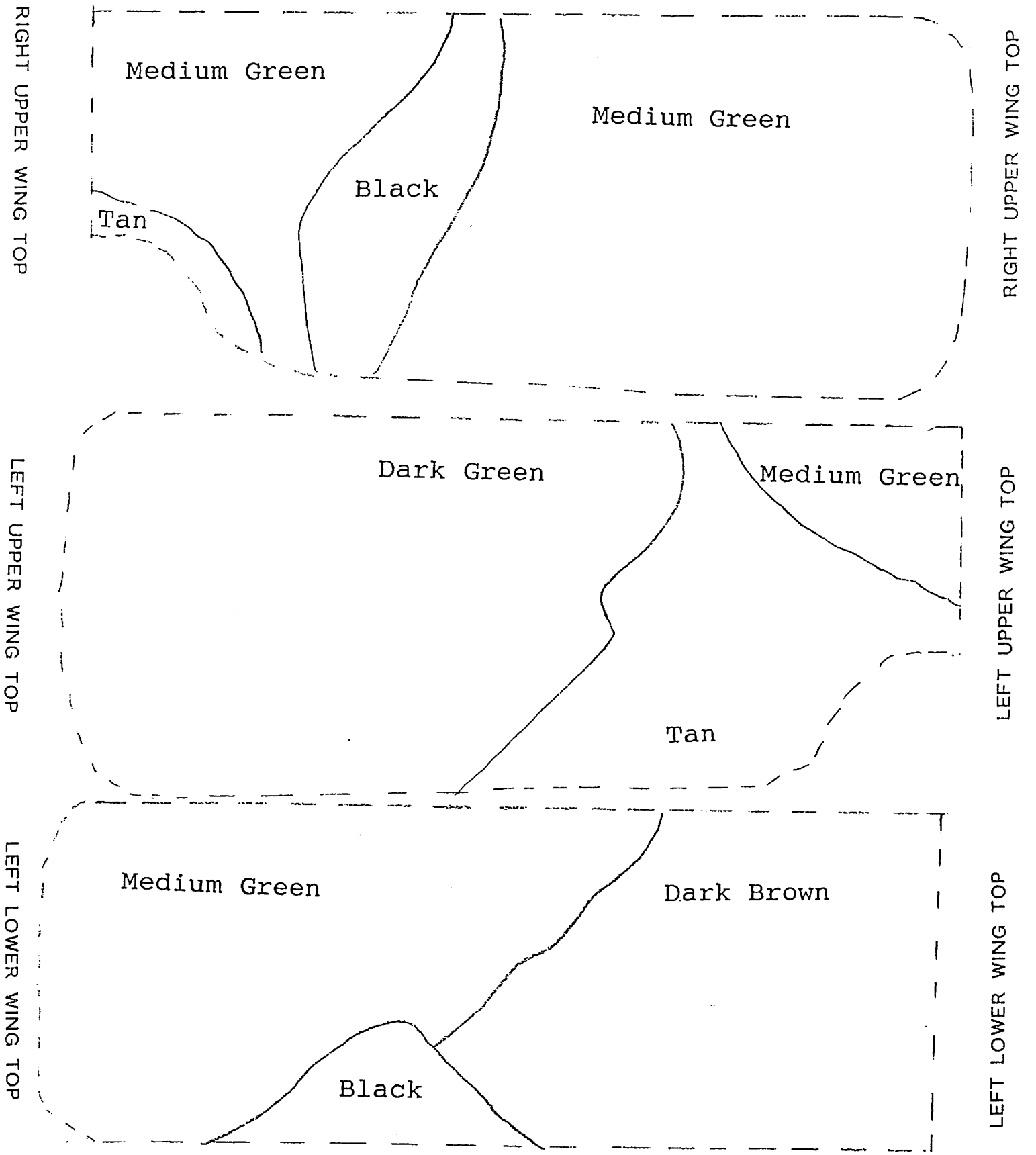
Cleveland Free Flight Society
December 2, 2000

4



Camouflage pattern of Kellner-built SPAD 13s.

Rubber Powered P-Nut Scale
SPAD 13 C1



Camouflage pattern of Kellner-built SPAD 13s.

Rubber Powered P-Nut Scale

SPAD 13.C1

REFERENCES:

A. DRAWING REFERENCES:

(1) "SPAD 13.C1" drawn by Doug Carrick in Windsock Datafile 32, "SPAD 13.C1," by J.M. Bruce (1992) Albatros Production, Ltd. 10 Long View, Berkhamsted, Herts HP4 1BY, UK.

(2) "SPAD Fighters In Action" by John F. Connors, (1989) Aircraft No. 93, Squadron/Signal Publications, Inc. 1115 Crowley Drive, Carrollton, TX 75011-5010

(3) "Peanut SPAD XIII" by John Walker, "Model Builder Magazine," Vol. 6, No. 51 (March, 1976) pp. 46-49, 1105 Spurgeon, Box 4336, Santa Ana, CA 92702

(4) "SPAD S-XIII C.1" by William A. Wylam, (undated), "The Best of Wylam," pp. 25-27, "Model Airplane News" published by Air Age, Inc., 837 Post Road, Darian, CT 06820

B. HISTORY, MARKINGS, ETC.:

(1) "SPAD 13.C1" by J.M. Bruce, Windsock Datafile 32, (1992) Albatros Productions, Ltd., 10 Longview, Berkhamsted, Herts, HP4 1BY, UK

(2) "SPAD Fighters in Action" by John F. Conners, (1989) Aircraft No. 93, Squadron/Signal Publications, Inc., 1115 Crowley Dr., Carrollton, TX 75011-5010

(3) "SPAD Scouts SVII-SXIII" by J. M. Bruce, Illustrated by Michael P. Roffe and Richard Ward (1969), Arco Publishing Co., Inc., 219 Park Ave., South, N.Y., NY 10003

(4) "Fighters 1914-19" by Kenneth Munson (1968) (pp. 47; 125-126) The MacMillan Co., 866 Third Ave., N.Y. NY 10002

(5) Color Profiles of World War I Combat Planes (1974), pp. 81-88, by Giorgio Apostolo and Giorgio Begnozzi, Crescent Books, New York, a division of Crown Publishers, Inc., 419 Park Avenue South, N.Y. NY 10016

(6) Knights of the Air by Ezra Boen (1980), Time-Life Books, 541 North Fairbanks Court, Chicago, IL 60611

(7) The Complete Book of Fighters (1994) by William Green and Gordon Swanborough, p. 543, Smithmark Publishers, Inc., 16 East 32nd St., N.Y., NY 10016

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B. HISTORY, MARKINGS, ETC.: (Cont.)

(8) Ace of Aces, by Capt. Rene Fonck (1967) translated by Martin H. Sabin and Stanley M. Ulanoff (160 pp.), Ace Books, Inc. 1120 Avenue of the Americas, N.Y., NY 10036

(9) French Aircraft of the First World War (1997) by Dr. James J. Davilla and Arthur M. Soltan (pp. 501-510 and 596-597) Flying Machines Press, 35 Chelsea St., Stratford, CT 06497

(10) Fighter Aircraft of the 1914-1918 War (1960) pp. 106-107, by W.M. Lamberton and G.F. Cheesman, Harleyford Publications Ltd., Letchworth, Herts, England

(11) The World's Great Fighter Aircraft (1981) pp. 46-47, by William Green and Gordon Swanborough, Salamander Books Ltd., Salamander House, 27 Old Gloucester St., London WC1N 3AF, United Kingdom

(12) "SPAD XIII C.1." by C.F. Andrews, Profile Publications No. 17 Profile Publications Ltd., P.O. Box 26, 1a North St., Leatherhead, Surrey, England

(13) "CHAMPLIN FIGHTER AIRCRAFT MUSEUM DISPLAY GUIDE" (p. 4), Falcon Field, 4636 Fighter Aces Dr., Mesa, AZ 85215

(14) "Escadrille Spa 154" 'The Dragon Killers'" by Jon Guttman, Over the Front, Vol. 2, No. 1, pp. 80-86 (1987)

(15) "Escadrille Spa 103" by Jon Guttman, Over the Front, Vol. 4, No. 1, pp. 81-89 (1989)

(16) "Baracca: The Italian Stallion" by John Guttman, (Nov., 1995), Aviation History.

C. MODEL KITS FOR THREE DIMENSIONAL DETAILS, ETC.:

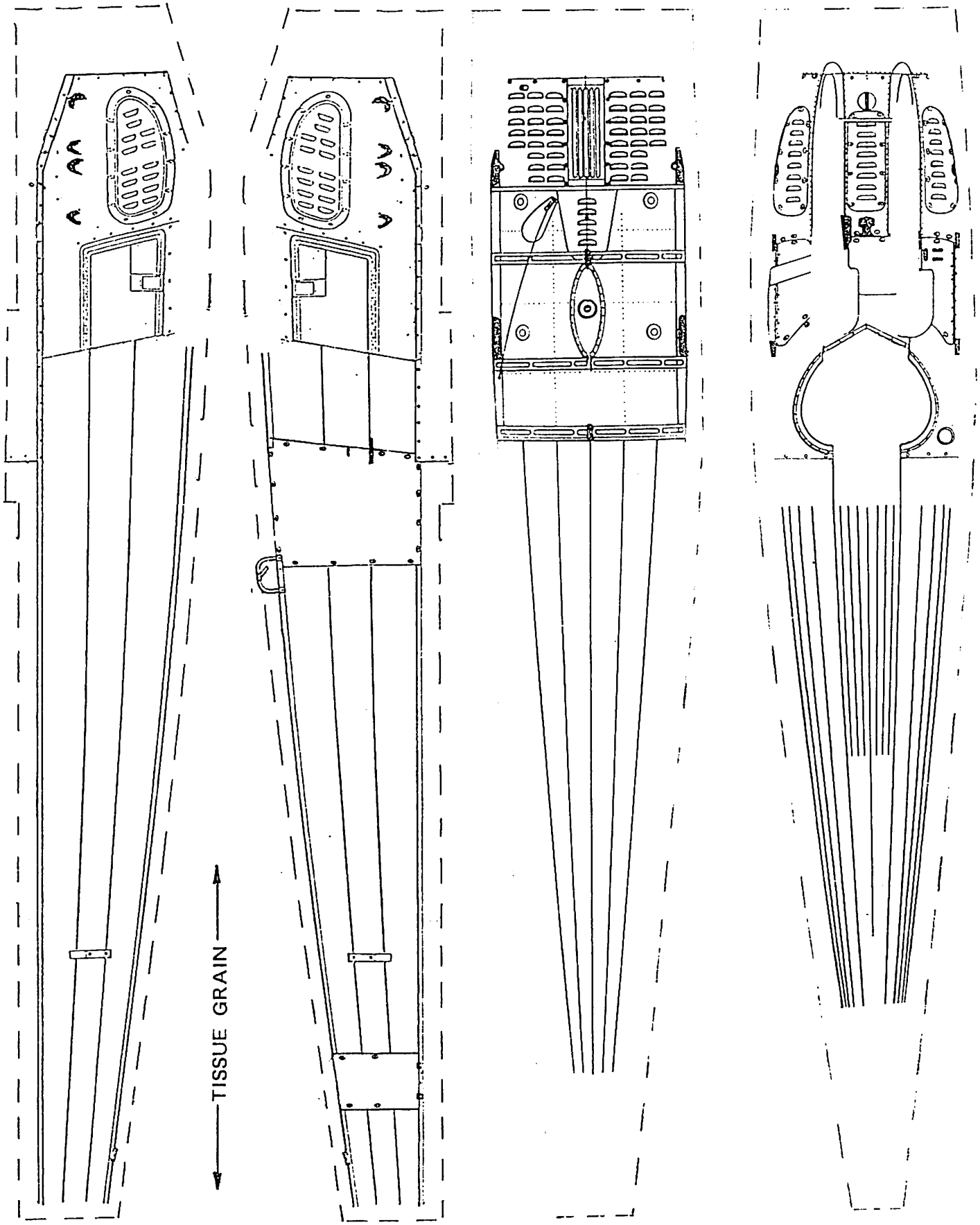
(1) "SPAD XIII C.1" by Glencoe Models Inc., Box 846, Northboro, MA 01532 (1999). Superb 1:48 (1/4" = 1 foot) plastic kit with Scale Master decals for seven French aces and one Italian ace. These decals may be enlarged using a color copier and printed on either white bond paper or 8-1/2" x 11" white label stock.

(2) "Frank Luke's Spad" by Revell, Inc., Venica, CA (1965). Excellent 1:28 plastic scale kit with an 11-11/16" span upper wing. Good for nearly peanut-size scale reference.

(3) "Spad XIIIc" by Revell, Inc., supra. (1963). 1:72 (1" = 6') plastic kit. It is too small for details, but good for general configuration.

(4) "Speedee-Bilt Spad" by Monogram Models, Inc., Morton Grove, IL (1950). 13-1/2" span (upper wing) wood and plastic model. This is a collector's item but it was useful for ideas on designing our somewhat simplified flying model.

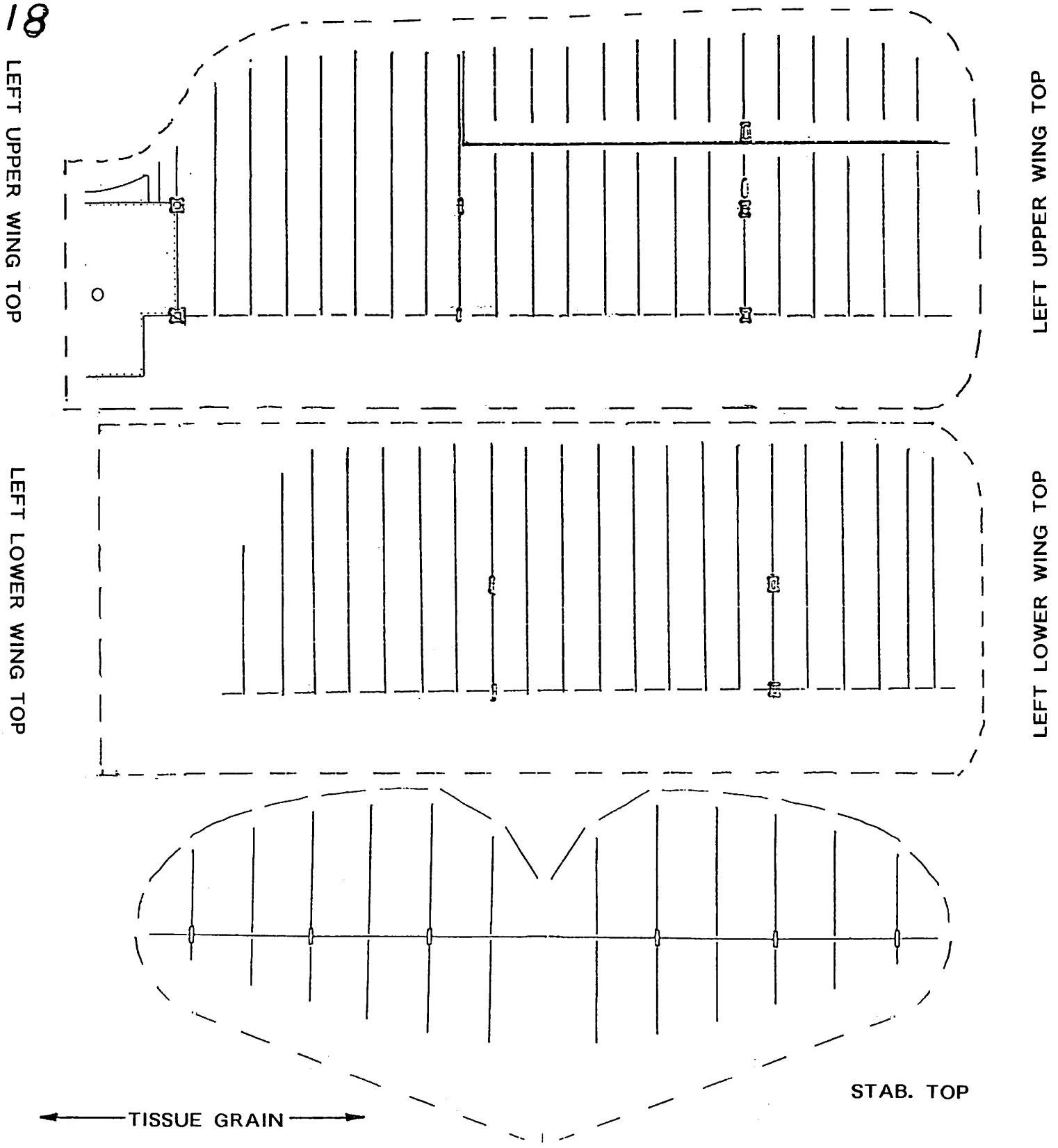
RIGHT FUS. SIDE LEFT FUS. SIDE UNDERSIDE FUS. TOPSIDE FUS.



SURFACE DETAIL SHEET NO. 1

Rubber Powered P-Nut Scale

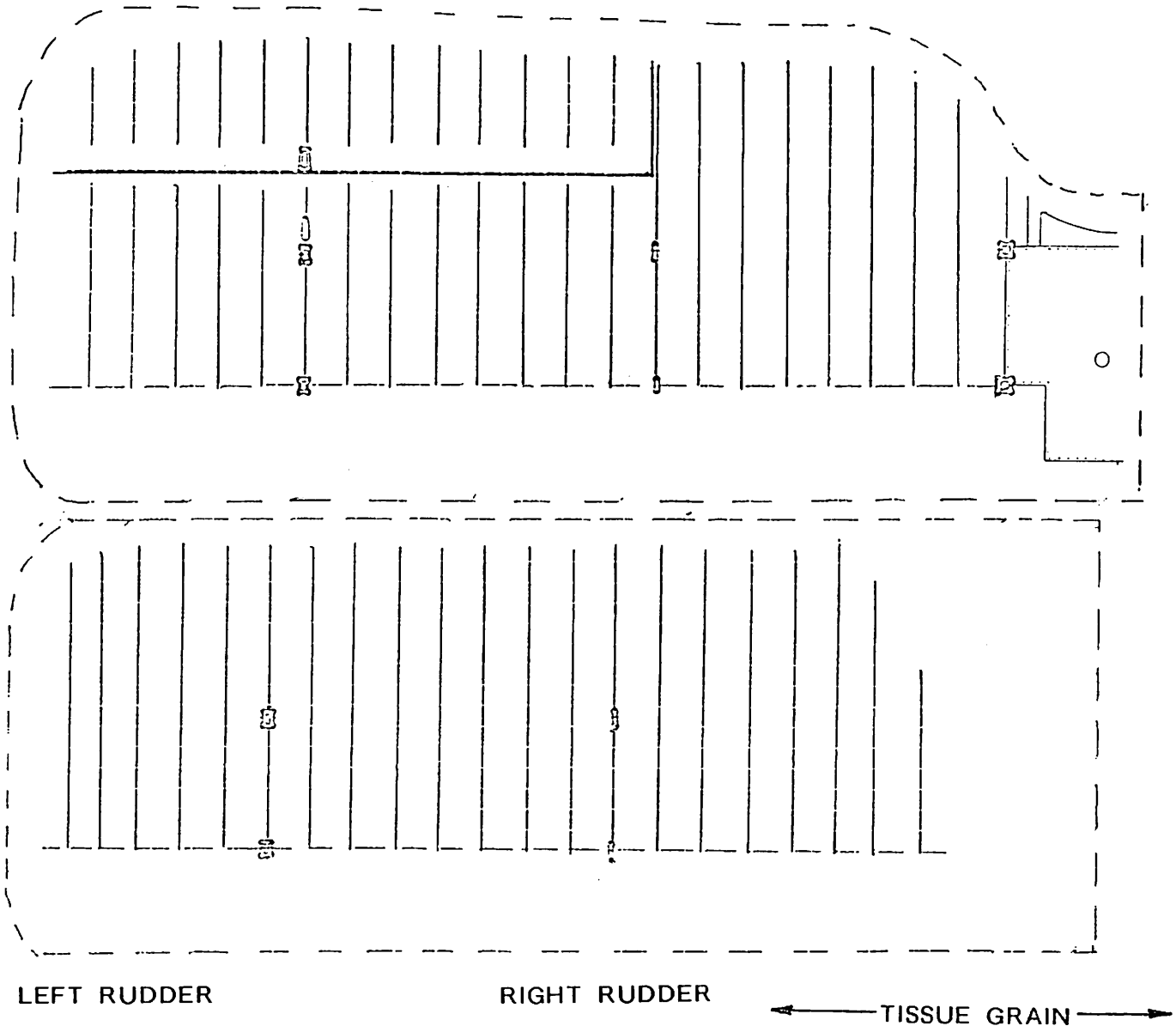
SPAD 13.C1

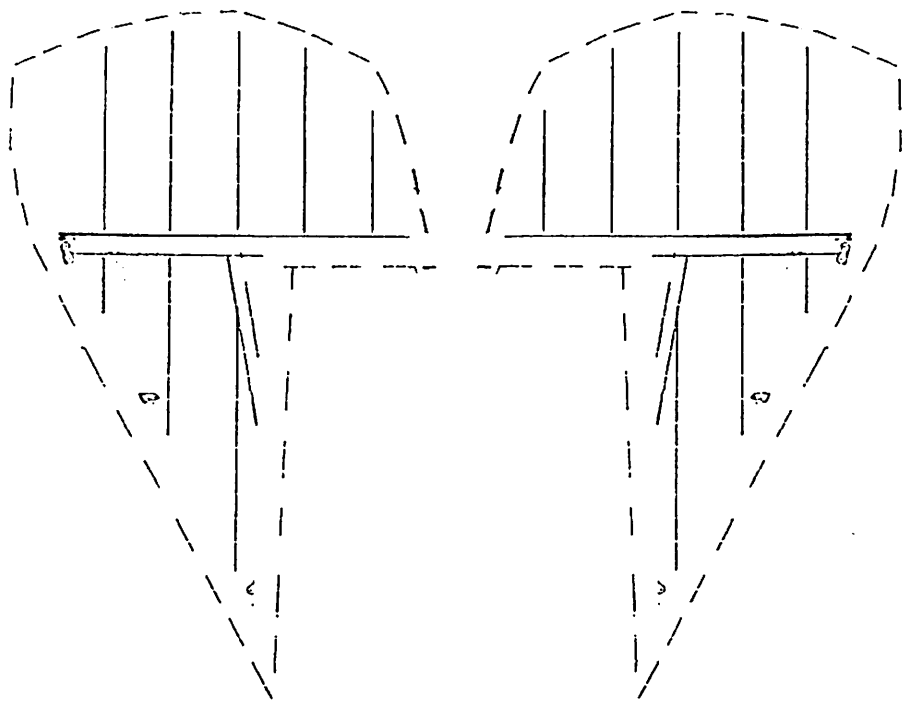


Rubber Powered P-Nut Scale

SPAD 13.C1

SURFACE DETAIL SHEET NO. 2

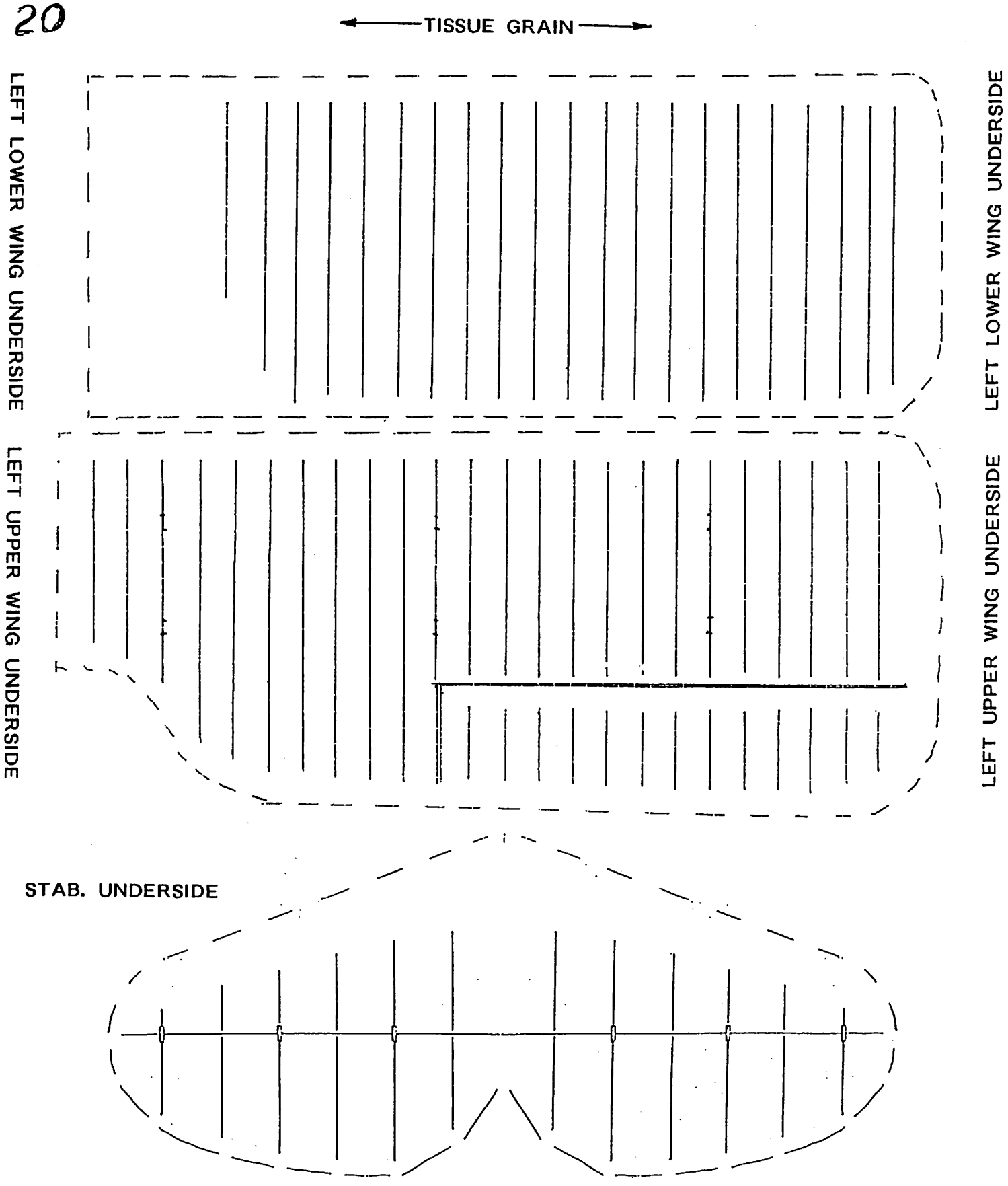




Rubber Powered P-Nut Scale

SPAD 13.C1

SURFACE DETAIL SHEET NO. 3



Rubber Powered P-Nut Scale

SPAD 13.C1

SURFACE DETAIL SHEET NO. 4

TISSUE GRAIN

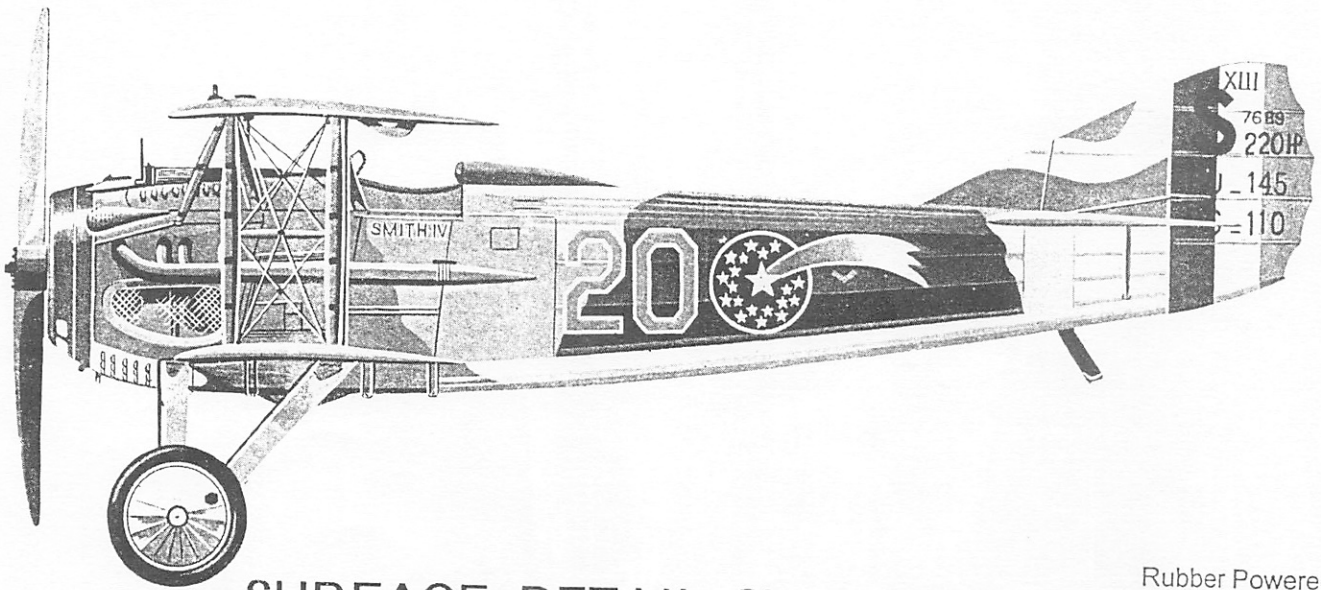
2/

RIGHT LOWER WING UNDERSIDE

RIGHT UPPER WING UNDERSIDE

RIGHT UPPER WING UNDERSIDE

RIGHT LOWER WING UNDERSIDE

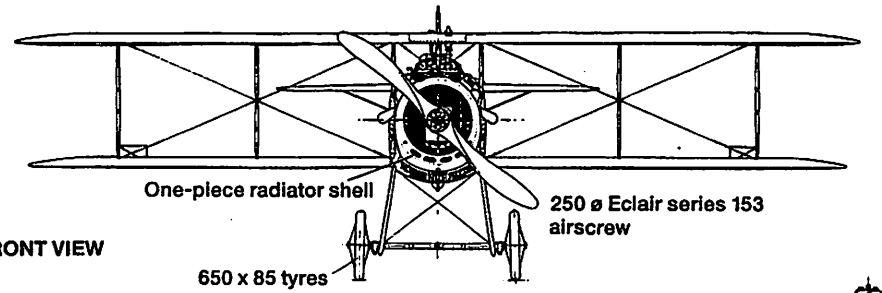


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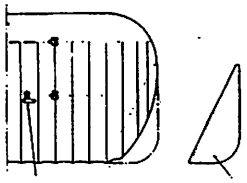
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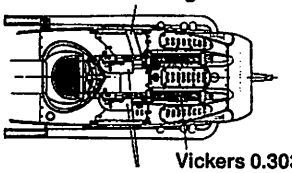
SPAD 13.C1

Cleveland Free Flight Society

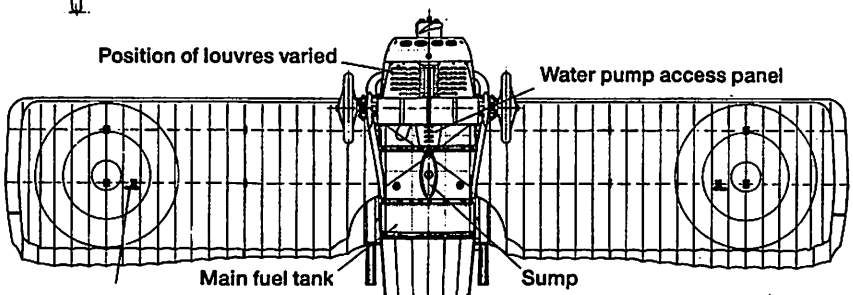


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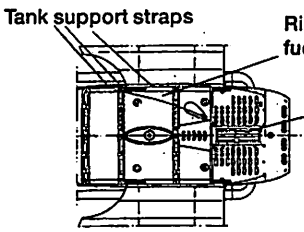




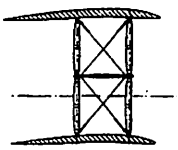
Upper fuselage detail



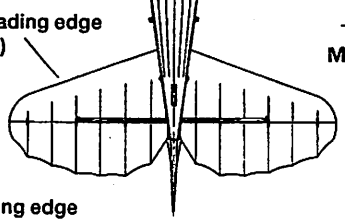
UNDERSIDE VIEW

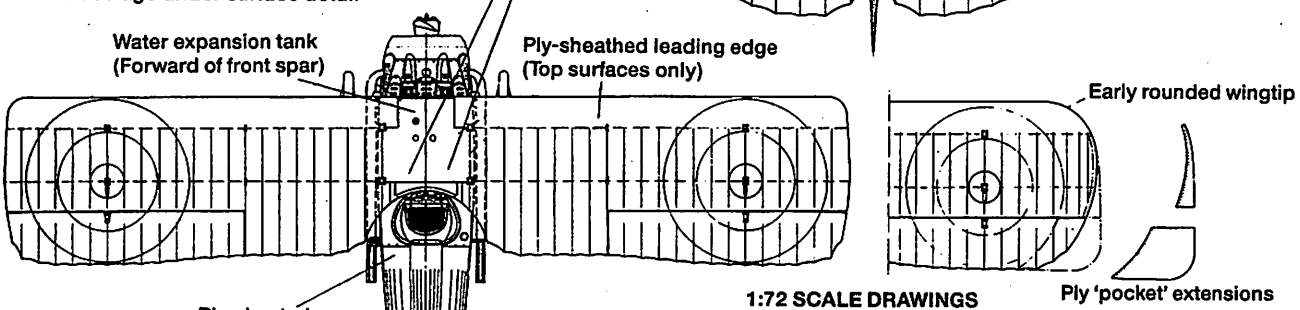


Fuselage under surface detail



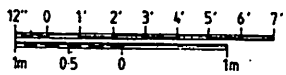
Mid wing strut detail



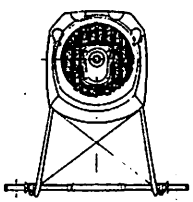


Ply 'pocket' extensions

1:72 SCALE DRAWINGS

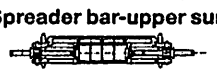


Two-piece cowl



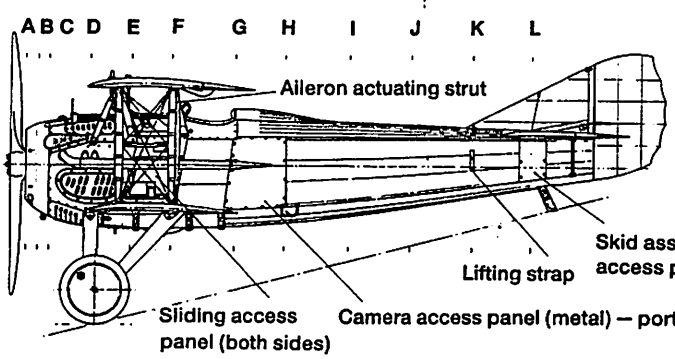
PLAN VIEW

Spreader bar-upper surface

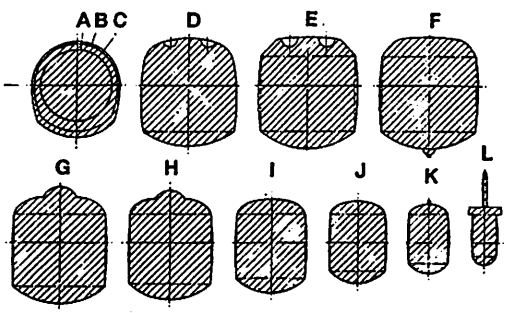


STARBOARD SIDE VIEW

PORT SIDE VIEW



FUSELAGE SECTIONS



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CFFS INDOOR CONTEST ACTION IS SUNDAY MARCH 25,2001 AT KENT STATE FIELD HOUSE SUMMIT ROAD, NEAR DIX STADIUM 8:00 A.M. TO 4:30 P.M. MIKE ZAND 216-524-3480.

CFFS CONTEST EVENTS AT LORAIN COUNTY COMMUNITY COLLEGE ABBE RD. RT 301S.

1. FAC PEANUT SCALE, FULL PTS.
2. HI-WING CABIN PEANUT EXP.
3. HI-WING CABIN PEANUT PRODUCTION
4. DIME & HI-FLIER RUB. SCALE
5. COMET & GOLDEN AGE RUBBER SCALE
6. FAC RUBBER SCALE
7. FAC JUMBO RUBBER SCALE
8. PIONEER THRU 1914 RUBBER SCALE
9. NO. CAL PROFILE SCALE
10. FAC CO2 & ELECT. POWER SCALE
11. O.T. REPLICA CO2 & ELECT. PREC.*
12. EMBRYO ENDURANCE (J)(S)(O)
13. JR. FUSELAGE RUBBER (J)
14. JR. STICK RUBBER (J)
15. H.L. GLIDER (J)(S)(O) * POT $1
16. HAND CAT. GLIDER 6" STICK *
17. FAC O.T. RUB. 36" OR 150 SQ." MAX.*
18. FAC O.T. STICK 36" MAX. * $1 POT.
19. FAC 2 BIT O.T. 25" MAX.* $1 POT.
20. JIMMIE ALLEN * $1 POT PRIZE.
21. WW I PEANUT BIPE MASS L. AT 11:00
22. WW I FAC BIPE DOGFIGHT AT 11:30
23. WW II NO. CAL ONE MASS L. AT 12:00
24. FUNK & WACO ONE MASS L. AT 12:30
25. BENDIX PRE WW II RACE ML AT 1:00
26. GREVE INLINE RACERS M.L. AT 1:30
27. THOMPSON TROPHY RADIALS AT 2:00
28. MODERN MILITARY MASS L. AT 2:30
29 GOODYEAR & F1 PEANUT 1ML AT 3:00
30. WW II PEANUT COMBAT M.L. AT 3:30
31. WW II FAC COMBAT MASS L. AT 4:00

BRING COMET & GOLDEN AGE, DIME SCALE, AND OLD TIMER PLANS FOR VERIFICATIONS. MR. MULLIGAN AND PAGE RACER MAY FLY IN THOMPSON AND GREVE RACE MASS LAUNCHES. * $1 POT PRIZE ENTRY PER EVENT. ALL MAY PICK A PLAN PRIZE.

SUNDAY MAY 27 CFFS AT LCCC 10AM-5PM I-90 EXIT 148 TO ABBE RD. CHECK HOAG RD. OR UPWIND. CD RUSS BROWN 216-382-4821.

SUNDAY JUNE 10 CFFS AT LCCC 10AM-5PM CD JIM HYKA 216-481-6525.

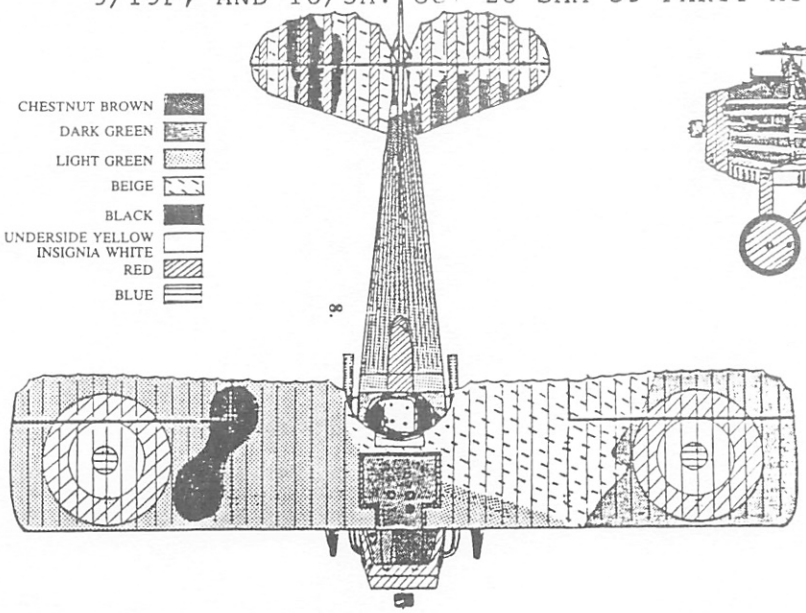
SUNDAY JULY 29 CFFS AT LCCC 10AM-5PM CD GORDON ROBERTS 216-749-4817

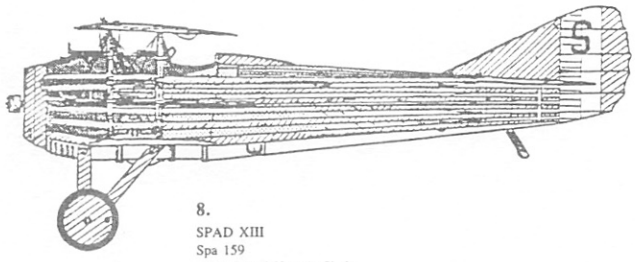
SUNDAY AUG 12 CFFS AT LCCC 10AM-5PM CD PETER ZBASNIK 216-476-4824

SUNDAY SEPT 9 CFFS AT LCCC 10AM-5PM CD RUSS BROWN & LUNDY GOESLING

SUNDAY OCT 7 CFFS AT LCCC 10AM-5PM CD GORDON ROBERTS

SAM 39 OLD TIMER FF & R/C FLY 1ST WED. OF MONTH AT SHELBY AIRPORT, RT. 96, AND 3RD OR 5TH WED AT SCHROEDERS' FARM AT RT. 61, 3 MI SOUTH OF RT. 224. 4/25F, 5/2A, 5/16F, 5/30F, TUES 7/3A, 7/18F, 8/1A, 8/15F, 8/29F,9/5A, 9/19F, AND 10/3A. OCT 28 SAM 39 PARTY AT STU WARNER'S HOME.





8.
SPAD XIII
Spa 159
Capt. Henri Hay de Slade
one, but he cracked it up...he also got behind a German bomber, let fly, and the plane disappeared."

8. As mentioned above, *Lt.* de Slade distinguished his SPAD XIII with a unique pattern of red markings: the cowling, vertical stabilizer, headrest, wheels and undercarriage were overpainted along with six stripes down the fuselage and on the tailplane.

Spa 159's losing streak began to turn on 11 August, when veteran replacement *Sgt.* Priollaud from *Spa 65* downed an enemy plane for his second and the escadrille's first confirmed victory. Three days later, Slade scored his twelfth victory SE of Morsain, and on 22 August he scored again. On 23 August, *1/Lts.* Irving and Monroe left *Spa 159* to join the 103rd Aero Squadron, USAS, in which unit each would be credited with an enemy plane by the time of the Armistice.

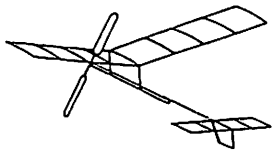
THE CLEVELAND FREE FLIGHT SOCIETY

A.M.A. sanctioned Indoor Contest No. 01-0126

SUNDAY, March 25, 2001 Kent State University 8:00 a.m. to 4:30 p.m.

Flying Site - KSU Field House, Summit Road (near Dix Stadium)

SCHEDULE of EVENTS



8:00 a.m. -- Building opens

8:15-9:15 a.m. -- *Standard Class Catapult Glider.* AMA Rules

8:30 a.m. to 4:00 p.m.

1. *EZB* - - Scoring is the longest of five officials (30 seconds). Two attempts equals one official.
2. *Limited Penny Plane*
3. *Mini-Stick* - - Best flight of 5 officials. 20 second minimum. 2 attempts/Flight.

9:00 a.m. to 3:00 p.m.

4. *Seven Gram Bostonian* A.M.A. rules.

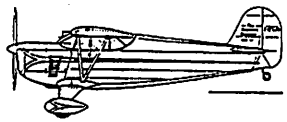
9:30 a.m to 4:00 p.m.

5. *Jetco R.O.G.* - Club Rules - prop must be 5½"max. May be cut down and have pitch altered.

10:00 a.m. to 4:00 p.m.

F.A.C. EVENTS

6. *W.W.II Peanut Combat* - Flown at 12:01 p.m.
7. *Hi-Wing Peanut* (Experimental ex. Lacey, Fike etc.)
8. *Hi-Wing Peanut* (Production types).
9. *Peanut Scale* (all others except pioneer models).
10. *W.W.I Peanut Biplane Combat* - 4:05 p.m.
11. *Golden Age Scale*
12. *Dime Scale*
13. *W.W.II No-Cal Combat.* Flown at 4:25 p.m. Minimum weight - 6.2 grams without motor.
14. *No-Cal Profile Scale* (total of three flights) Minimum weight - 6.2 grams without motor.
15. *Pioneer Scale* - Bonus points will be added to the flight points . This event for all models (regardless of size) of aircraft produced before 1914.



9. SPAD XIII #2, a Blériot-built model, had the usual blue cowling but with the vertical stabilizer painted red as per Slade's machine, suggesting perhaps his executive officer. This might have been *S/Lt.* Louis Risacher, a distinguished pilot from the famed *Spa 3* "Les Cigognes" with two confirmed victories to his credit. Risacher had this to say of his unwelcome transfer in an interview in November 1981:

"Everything had to be done. I was the only officer with Slade. Slade was a very nice companion. The rest were young pilots who know nothing about the job. I had to teach them everything. Everything. I did so. I heard of Fairchild, know him (personally)."

On 31 August, Risacher engaged enemy single-seaters—his favorite prey—over the Forest of St. Gobain, and shot down two of them. On 2 September, Slade shot down an enemy plane West of Terny-Sorny. He had been promoted ot *Capitaine* by 24 September, when he downed another opponent North of Suippes. The next day *Sgt.* Priollaud scored his third victory over Ornes.

Slade started October off with a double victory on the first, one of his victims falling NE of Sommepy and the other over Aure. Two days later, *Cpl.* Fourrier Desouches went missing, the first loss since Slade had taken command.

For Your Information

1. All events are JSO combined. Events with three or more Junior participants will receive separate awards.
2. Steering of Models: as per A.M.A. rulebook.
3. Entry Fees: - *Open* - $20.00 - *Junior* $2.00 (includes AMA Lic.)
4. VERY IMPORTANT - You must provide your own table and chair.
5. KSU Fieldhouse is a non-smoking facillity. Also, please wear athletic type shoes. Ample free parking outside the fieldhouse.

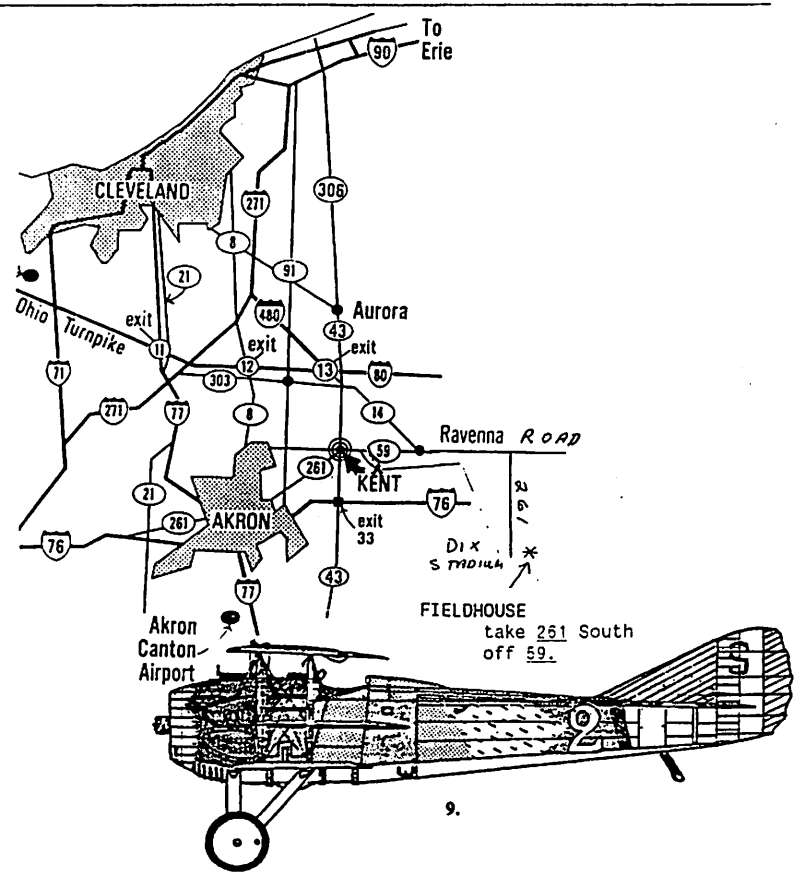
A Science Olympiad event will be scheduled if this activity does not conflict with regional or state S.O. competitions. S.O. flyers are encouraged to fly in any of the events at this contest.

AWARDS 1st through 3rd - All events except mass-launch.
W.W.I & II Peanut and No-Cal Combat
1st place award only.
2nd place - minimum of 7 entries in the event.
2nd and 3rd place - minimum of 10 entries in the event.

CONTEST DIRECTORS

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