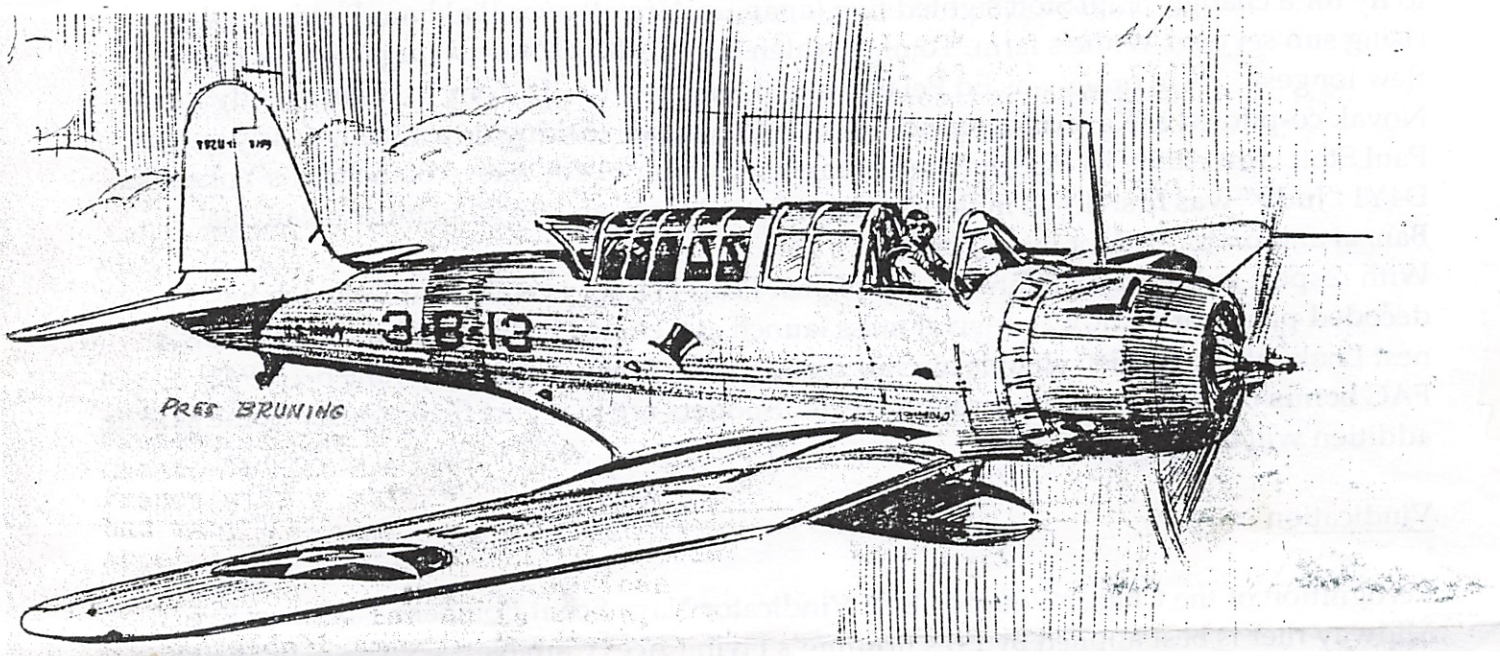
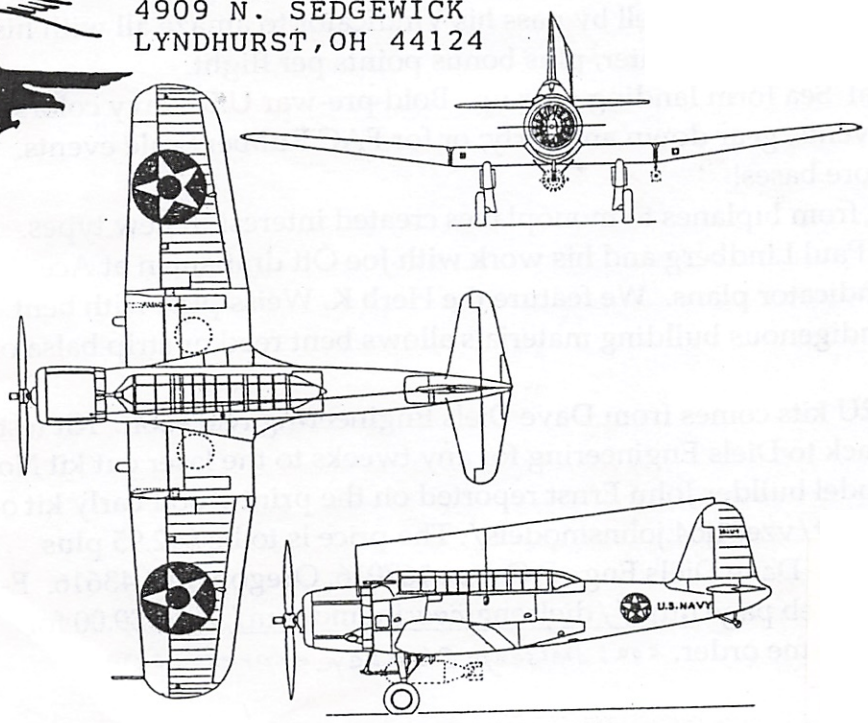
CROSSWINDS

139

CLEVELAND FREE FLIGHT SOCIETY



CROSSWINDS
RUSS BROWN
4909 N. SEDGEWICK
LYNDHURST,OH 44124



SB2U-1 VINDICATOR

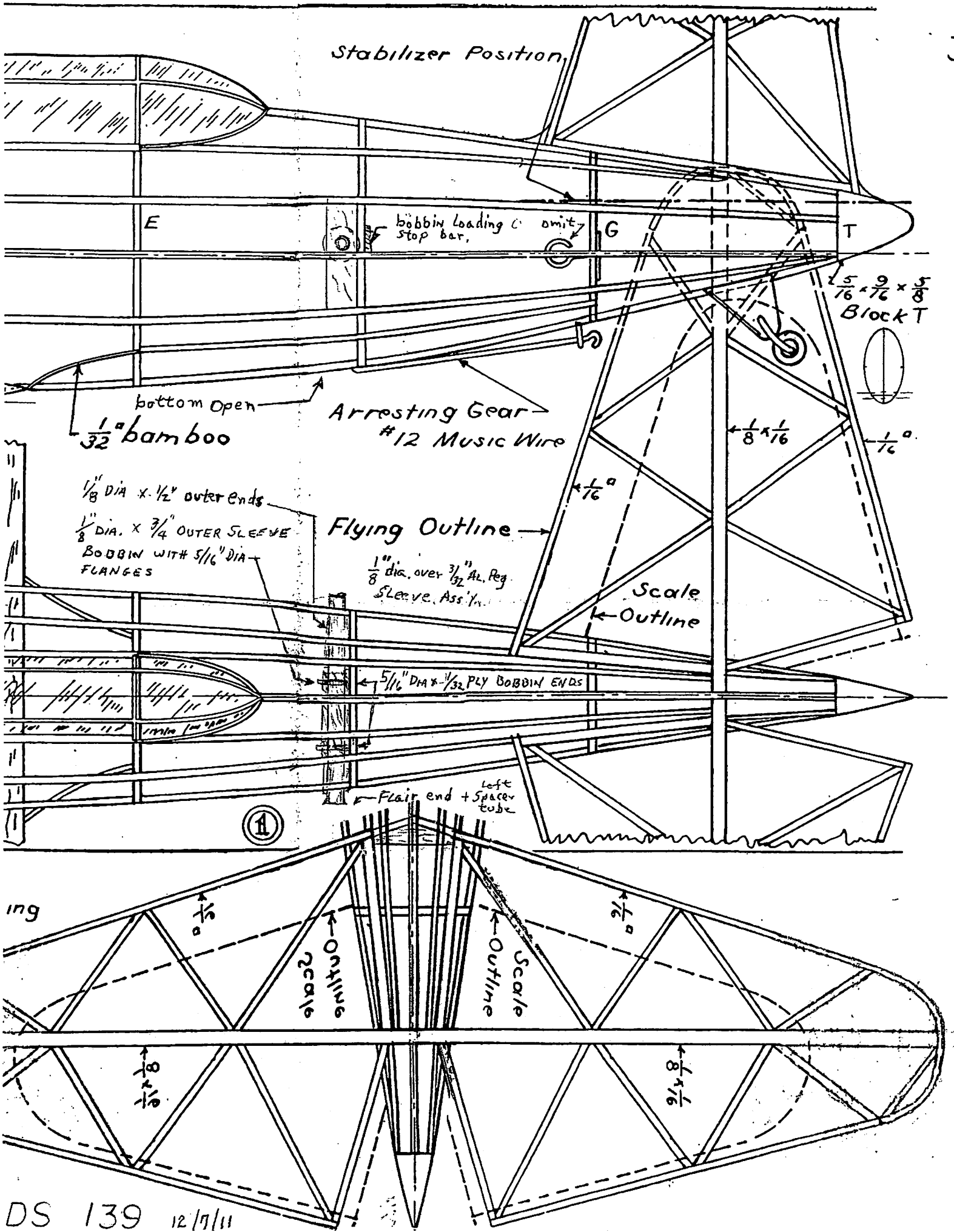
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December Pearls

Winter arrives with a cool nip in the air for fliers at the Pinkham Field Irregulars Dec. 7 annual flying season ending contest for Indigenous Japanese Military Aircraft. Hung is known to send foul weather then. Dec. 4, 2011 in a year of flighty weather was dry to fly for a change. Paul Stott sighted five Japanese Aircraft over Pinkham Field. As the rising sun set over White's farm, Tommy Nalen II in his KI 107 Low Wing Military trainer flew longest. 2nd in order was Ed Pelatowski in an Army Ki 61 "Tony". Nearly ready Ed Novak co-piloted a Kawasake Ki 95 with Bob Thompson looking down from pearly gates. Paul Stott crewed the KI-92 from the Thompson Hangar to 4th. Steve Blanchard's Yokosuka D4Y1 "Judy" was first down in the Pinkham Sea. At last, an official plate of meatballs! Banzai and on to 2012 for more J birds.
With respect to the 70 year anniversary of past Pearl Harbor events, Don DeLoach has decoded plans for a Midway revival mass launch at Geneseo FAC Nats, July 2012. Crow's nest Lookouts identified eligible aircraft and detail as flown at Midway June 6-7, 1942. FAC bonus point times compensate subjects. Spotters are to report flight times. Some skill in addition will be required.

Vindication

Recognition of the Chance Vought SB2U Vindicator Navy Scout Bomber as an attractive Midway flier is best applied by Pres Bruning's Flying Aces Club News No.68 plan. Bright pre-war paints are lost to non-specular gull-grey tones and pale flat white undersides of 5/6 1942. Color and combat history be damned. We look for duration or multiple event use potential over craft and detail awards here. The Vindicator excells for Pencil Bomber long nose and tail arms with wide wing tips. The TBD Devastator and B5N1 Kate offer similar gear up configurations. Pres Bruning may well by pass his Vindicator to amaze all with his flight tested Mitsubishi Pete biplane float fighter, plus bonus points per flight.
Fly SB2U's in Midway or Coral Sea form landing gear up. Bold pre-war U.S. Navy colors can be flown in Golden Age events, gear down and dirty; or for FAC Rubber Scale events. Build two or three to touch more bases!
A late1930's U.S. Navy switch from biplanes to monoplanes created interest in new types. Model designers Herb Weiss, Paul Lindberg and his work with Joe Ott draftsmen at Ace Whitman Kits all drew the Vindicator plans. We feature the Herb K. Weiss plan with bent bamboo curved tips. Use of indigenous building materials allows bent reed or strip balsa of choice.
Your best bet for the latest SB2U kits comes from Dave Diels Engineering real soon. Kit test proof builders are reporting back to Diels Engineering for any tweeks to the laser cut kit No. K-25LC due out Feb, 2012. Model builder John Ernst reported on the print wood early kit on e-mail: http://mysite,verizon.net/vze81jo4.johnsmodels/. The price is to be $42.95 plus shipping in laser cut version, from Dave Diels Eng. P.O. box 167016, Oregon, OH 43616. E-mail at dielsengr@kellnet.com. Web page http://dielsengineeringinc.com/ Add $9.00 for first kit and $6.50 each extra kit, same order. coa: dielsengr@buckeyeexpress.com


Stabilizer Position
E
bobbin loading C omit stop bar.
G
T
5/16 x 9/16 x 5/8 Block T
bottom Open
1/32" bamboo
Arresting Gear #12 Music Wire
1/8 x 1/16
1/16"
1/16"
1/8" DIA x 1/2" outer ends
1/8" DIA. x 3/4" OUTER SLEEVE BOBBIN WITH 5/16" DIA FLANGES
Flying Outline
1/8" dia. over 3/32" AL. Reg Sleeve. Ass'y.
Scale Outline
5/16" DIA x 1/32 PLY BOBBIN ENDS
Flair end + Spacer tube
left
1
ing
1/16"
Scale Outline
Scale Outline
2 1/16"
1/8 x 1/16
2 1/8 x 1/16

DS 139 12/7/11

Lumber Jacks are cutting 6lb./cu.ft soft balsa to Diels orders. Timber! A shakeout cruise of the printwood SB2U kits un-rolls printed plans stuffed with bold print wood parts, strip wood, formed plastic canopy, plastic prop and fittings, straight wire, light Japanese tissue and color insignia with optional red disc star center add ons. Sorry, no red and white tail stripes for pre-Midway Coral Sea era trim. Start now to be ready to join the Midway gumbots scramble or face history lecture class No. 1942 to follow. No sleeping in class! No excuse.

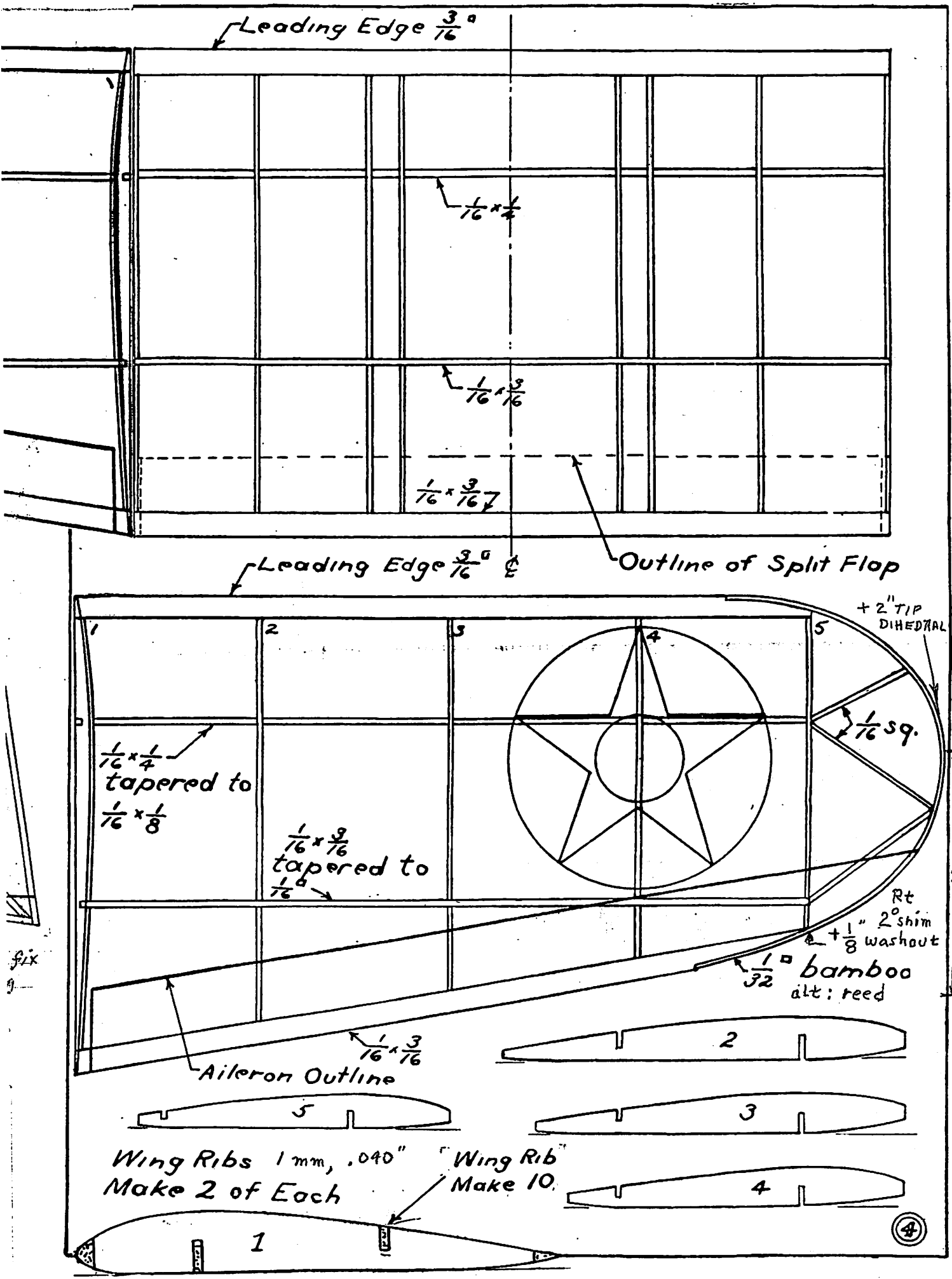
High Tide Ebbing

Reset the chronometer past Dec. 7, 1941, when war broke out in the S.W. Pacific theatre. An effective quickblitz by Japan dominated land and sea to the south toward Australia and west through Burma. The "Sleeping Giant" USA Military aroze April18, 1942 as Col. Jimmy Doolittle led a carrier Hornet B-25 air raid to Tokyo. The quick offensive Japanese plan continues south toward New Guinea to isolate Australia. May 1, and invasion force led by the small carrier Shoho sailed to capture Tulagi in the Soloman Islands, east of New Guinea. A larger IJN (Imperial Japanese navy) force with carriers Shokaku and Zuikaku from Truk sailed to assault Port Moresby in Papua, New Guinea from the East Coral Sea. May 7, the Shoho was located East of New Guinea and sunk by a Yorktown TBD. The exposed invasion force retreated to Rabaul, New Britain. The large IJN carriers found only an oil tanker and a Destroyer. A late evening launch from Shokaku lost 21 of 26 aircraft in darkness, 9 by U.S. combat air patrols and 11 by crash landing. Yorktown dive-bombers and torpedo bombers attacked and damaged Shokaku, preventing further aircraft launching with six months out-of-action for repairs. None of the U.S. torpedo planes scored direct hits, but two dive bombers had hits. The Zuikaku came out of a hiding rail squall to strike the Lexington and Yorktown. A Val dive-bomber put a bomb through 4 decks of the Yorktown, killing 66 crewmen. The Lexington was hit hard and limped away towards Pearl. Later, fire engufed the Yorktown, the crew was taken off and the burning hulk sunk by U.S. destroyer torpedoes. At last, the torpedoes worked! The first great carrier battle ended with each side losing a carrier and had damage to one each. Rush repairs to the Yorktown at Pearl allowed sailing to Midway in June. Supreme Commander Yamamoto thought it sunk. One week after the Coral Sea invasion halt, the red disc and rudder trim was removed from U.S. insignia. This riddance of red may indicate a problem with friendly fire by inept aircraft identifications by anti-aircraft gunners. More time spent on flash cards and black identification models was needed at boot camp.

IJN trap Snafu

June 3, 1942 two light carriers, Kyujo and Junyo attacked Kiska and Attu Aleutian Islands trying to bring U.S. Navy ships North.

Admiral Nagumo's four carriers and 51,000 troops sailed to smash Midway air defense and invade the island. A first wave of B5N Kates, D3A2 Vals and A6M2 Zeros fought through F2A Buffalo and F4F Windcat air cover to bomb land targets. A second attack was called for to complete destruction of air defenses. Defensive counter attacks by 6 TBF's and B-26 Torpedo bombers were shot up by Zero air cover. Recovered Japanese planes were re-armed


Leading Edge 3/16 sq
1/16 x 1/4
1/16 x 3/16
1/16 x 3/16
Outline of Split Flop
Leading Edge 3/16 sq
1
2
3
4
5
+2" TIP DIHEDRAL
1/16 x 1/4 tapered to 1/16 x 1/8
1/16 x 9/16 tapered to 1/16
1/16 sq.
2.0"
Rt 2° shim
+1/8" washout
1/32 bamboo
alt: reed
1/16 x 3/16
Aileron Outline
2
5
3
4
1
Wing Ribs 1 mm, .040"
Make 2 of Each
Wing Rib
Make 10.
4

with blast bombs for a second attack. Scout planes had not found U.S. ships until one late launched scout called in, sighting one carrier. A scramble of unloading and re-loading with armor piercing bombs followed. Then the comedy of errors built as the radio message reported not one carrier. And now a reversal unload anti-shipping bombs and back in with land bombs. Finally a clear radio message of 10 U.S. ships 240 miles North of Midway. Meanwhile U.S. Midway planes began attacking. SBD's attacked the Hiryu without hits. B-17's bombs missed and obsolete and slow SB2U's with inexperienced crews attempted to slope bomb carriers. All Vindicators were shot down without reaching ships. Zero air cover was brought down low and carrier landed for fuel and re-arming.

Murphy's law, Pacific Time Zone.

Air strike timing went Japan's way at the Coral Sea when Lexington's air cover landed for fuel as Zuikaku Vals damaged Yorkown and created fire, later consuming the Lexington. Shokaku was hit, out of action. Murphy turned 180 degrees at Midway. Japanese carrier decks loaded up with recovering Midway attackers, re-fueling air cover, and off load bombs. SBD's found a four point diamond formation of Nagumo's carriers to the Northwest. Five SBD's hit Kaga, obliterating the flight deck and all. Akagi was hit amidships and aft, exploding bombs and starting fires.

Yorktown's SBD's blasted Soryu with 3 hits and going down in flames. Admiral Yamaguchi on Hiryu saw three smoke blooms on the southern horizon and ordered a counter strike. Eight of 18Vals got through 28 F4F air cover; three bombs hit Yorktown, blowing out five of 6 boilers. Four were re-lit. Yorktown re-covered but slowed, with a patched flight deck. Ten Kates with 6 Zeros located another carrier, again the Yorktown, and four Kates got two torpedo hits. Yorktown took on water at a 20 degree list. Yamaguchi counted two carriers down and only one U.S. carrier left. Enterprises's 23 SBD's including 10 escaping Yorktown, got to Hiryu before 16 from Hornet arrived. Four bombs lit up Hiryu with inferno and explosions. Late Hornet SBD's found only a burning hulk.

A limping Yorktown stopped a Japanese submarine torpedo to go down to Davy Jones' Locker (sea bottom) with out taking crew or most aircraft. Admiral Yamaguci went down with the Hiryu.

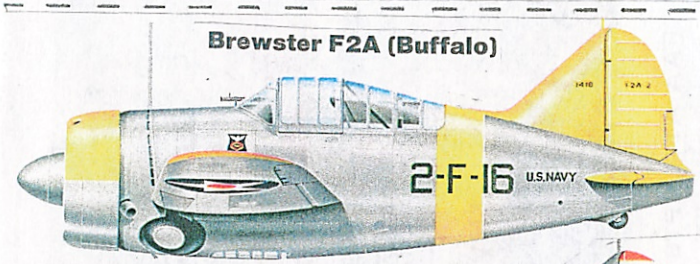
Four Japanese carriers with 275 aircraft and experienced crew were gone. It was back to the plotting board for combined fleet commander Yamamoto as the tide went past high water. One prize remained behind on the Aleutian Island of Aktan. A new A6M2 Zero escorting bombers at Dutch Harbor got hit in the fuel tank. The plane flipped over, setting down on marshland killing pilot Koga. U.S. discovery and recovery with minimum damage allowed full Zero capability testing.

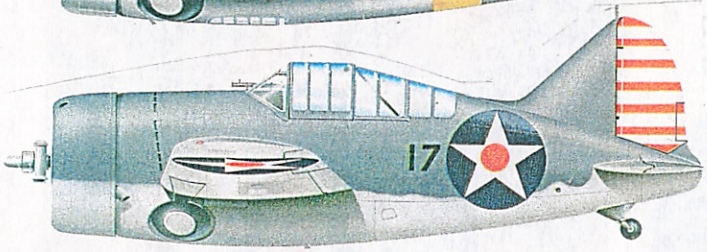
Japan fought on through Gudalcanal from August 1942 and the Eastern Soloman's in September and Santa Cruz in October 1942.

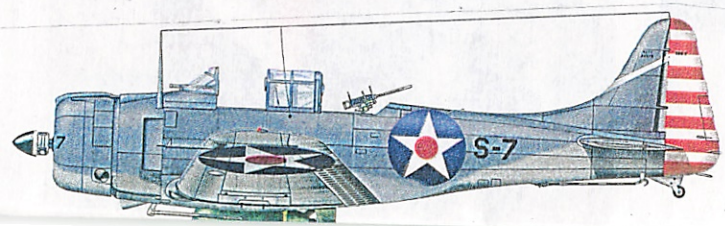
Midway Era Models in 1942 Markings

The best selection of kits for Midway models has been Diels Engineering with 9 types, but great popularity has depleted stock of several kits. The SB2U Vindicator kit SK-8, due out in early 2012 is the favorite here. A TBD-1 short kit or the Nakjima B5N1 Kate kit 35-LC can be good fliers. Still available are SBD laser cut K-34LC, TBF K-38, Aichi D3A-1 Val kit K-39 and

Brewster F2A (Buffalo)

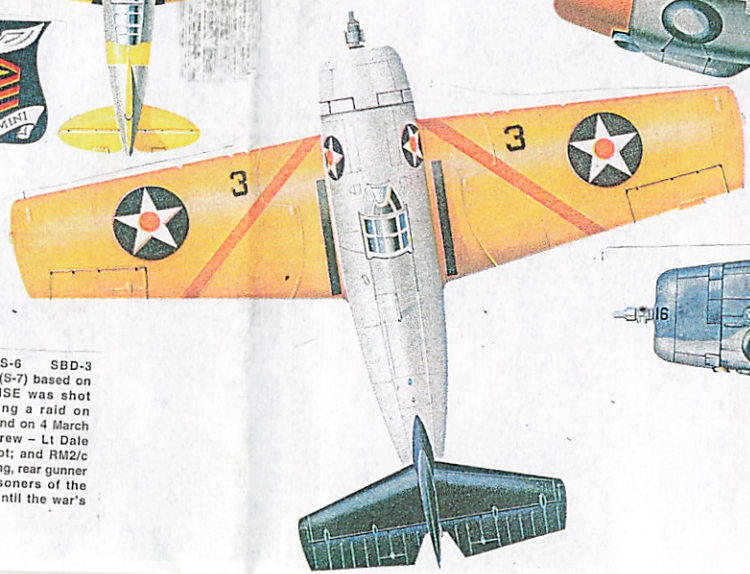


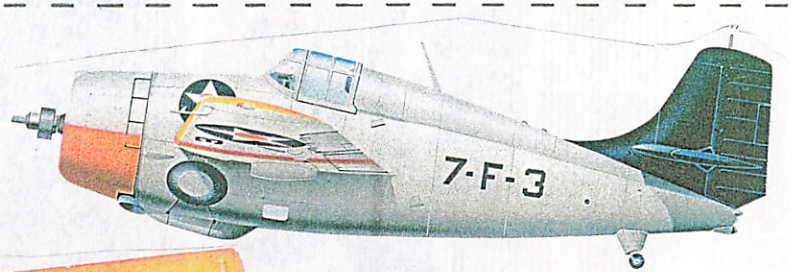




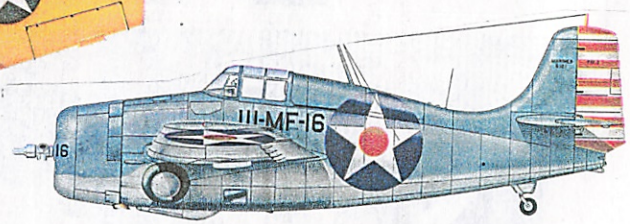
This VS-6 SBD-3 Dauntless (S-7) based on ENTERPRISE was shot down during a raid on Marcus Island on 4 March 1942. Its crew – Lt Dale Hinton, pilot; and RM2/c Jack Leaming, rear gunner – were prisoners of the Japanese until the war's end in 1945.







Grumman F4F Wildcat

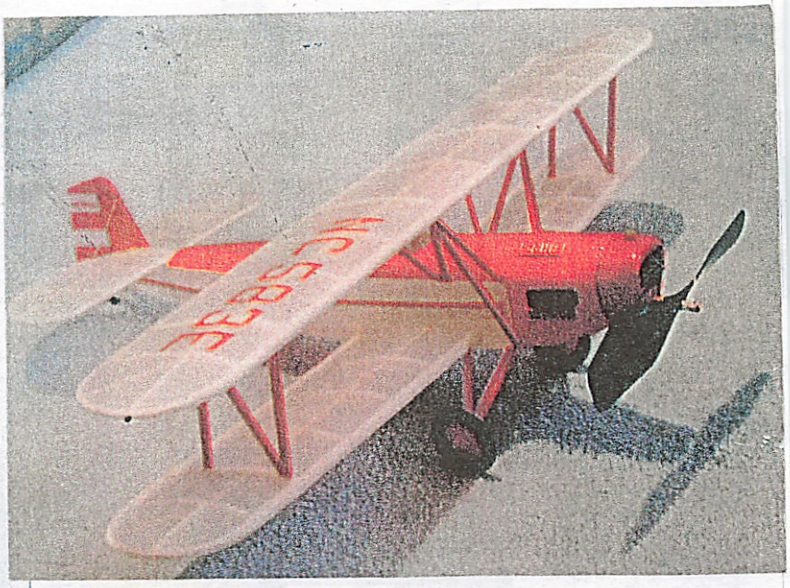


Lt Walter Meyer flew this Grumman F4F-3 Wildcat (111-MF-16, BuNo 5121) in April of 1942. He was assigned to VMF-111 at American Samoa. Oversized national insignia aided US forces in recognizing friendly aircraft early in the conflict.

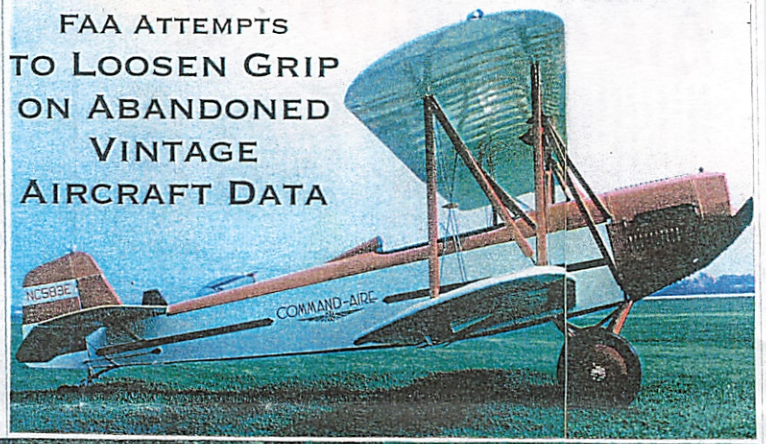
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CROSSWINDS
No. 138

Command-Aire
3C3 17¼"W.S.
by
Steve Griebling



FAA Attempts to Loosen Grip on Abandoned Vintage Aircraft Data





Tom Brown.

Unity, WI restored this 1929 Command Aire for Art Knowles, Jacksboro, TX. Powered with a OX-5, the big | biplane was designed by Albert Volmecke. It was presented with the Silver Age (1928-1932) Champion award.

EAA V.A.

10 OCTOBER 1996



The instrument panel of the Command-Aire is classic, and the instruments well-laid-out. The only modern addition is the GPS mount in the center of the panel.



One special feature of the Command-Aire is the ground- and air-adjustable tail incidence. The big lever seen in this picture allows it to be adjusted.

Over the years, the exhaust collector had oxidized to acquire a pretty impressive array of colors, as depicted here.



202 were logged between May 1931 and May 1942. The plane was acquired from Don Williams of Newhall, California. N997E was dropped, along with two other SC2s, from Florida to California in the early '50s. The plane was stored in Hanford and later Brawley, California, when limited restoration work began.

"The restoration became a mechanic's dream of soaking with the man who designed the airplane. Not only the pieces were in pure shape, but drawings and data were spare. A search of the Federal Records Storage Facility in Suitland, Maryland, turned up no drawings."

Bob Lock, a longtime pilot and airframe and powerplant mechanic, found the plane in Newhall, California, near his hometown, as he explained in an interview:

"In 1967, I had the chance to acquire the remains of these 1929 Command-Aire 3C2s. Just after beginning the restoration process, I glanced at an EAA *Vintage Airplane* magazine requesting correspondence with everyone associated with Command-Aire during its short production period. I received only one letter, informing me that the president of the company was still alive and living in Memphis, Tennessee. I wrote, and soon time later, I received a letter from Mr. Robert Snowden indicating that the original designer, Albert Volkmecke, was still in good health and living nearby. I wrote him and received a letter in return. This was the beginning of a relationship that made this restoration even more meaningful. Mr. Volkmecke had kept files from the original company after bankruptcy had been filed in 1931.

The frame was in remarkably good condition, but required several welded repairs to bring it back to airworthy conditions. The duster hopper had to be returned to standard. The engine mount had been modified to carry a 220-hp Continental W-670 engine. Early in the project, Bob had

one of the major players in the airplane-manufacturing arena. Only 14 are still registered, of which five are flyable and three are flown regularly.

Command-Aire NC997E—the C stands for commercial—(s/n W-136), is now the only flyable model 3C2. It was manufactured on October 11, 1929, at the Little Rock, Arkansas, factory. The aircraft was configured with a pair of 22 gallon tanks in the upper wings and a forward fuselage removable cross bracing that would allow easy conversion to a duster aircraft. Sold to the Curtiss Flying Service of Delaware, incorporated at 27 W. 57th Street in New York, it flew as NC997E until early 1931. The plane was later modified for crop dusting by the Curtiss Flying Service of Houston, Texas. Licensed as NR997E—R for restricted—it was used in an attempt to eradicate the tumbleweed boll weevil creating havoc in the cotton fields of the South. Curtiss Flying Service had at least 14 3C2s in the "duster version" in service and treated 200,000 acres of cotton in 1929 alone.

In June 1931, the Command-Aire was returned to NC status by removal of the dusting hopper and wing tanks, and installation of the seat, controls, and instruments in the front cockpit. The work was done by the Curtiss Flying Service, a Command-Aire distributor. In May 1932, the aircraft was transferred to Eagle Airplane Co., of Rocky Mount, North Carolina. Records show that this company operated NC997E for only 210 hours between 1932 and December 23, 1942. At this date, total time was 342 hours. The plane was then sold to J.B. Aitchison of Fort Pierce, Florida, who registered it in the Restricted category after converting it back to a duster configuration. On July 22, 1943, a Continental E-470 engine of 210 hp was installed to increase reliability for crop dusting.

The last license for N997E was May 6, 1952. At this date the plane had a total time of 1,825 hours, of which

POLY FIBER:
Accept No Substitutes...
But Then There Really Aren't Any

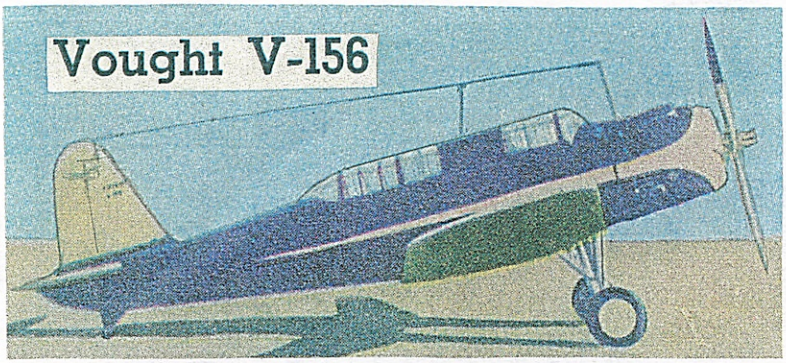


Poly Fiber, In A Colorful Claim Of Its Own
There's no one best Poly Fiber gives the finish long touch-up lasting beauty. Nothing outperforms a Poly Fiber finish. Nothing.
POLY FIBER
Poly Fiber is a Division of Consolidated Aircraft Coatings

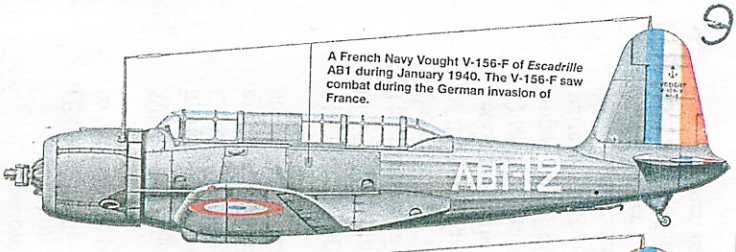
20"W.S. SB2U

Courtesy Diels Eng.

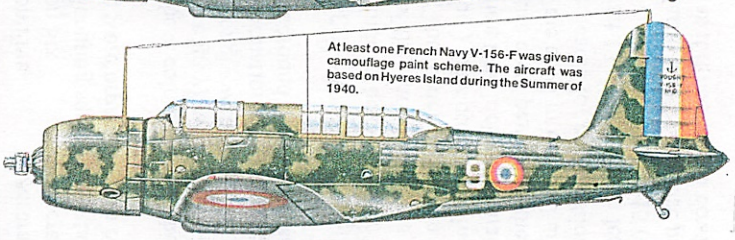
Vought V-156



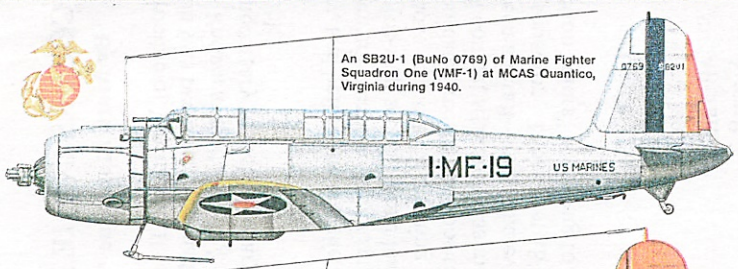
A French Navy Vought V-156-F of *Escadrille* AB1 during January 1940. The V-156-F saw combat during the German invasion of France.



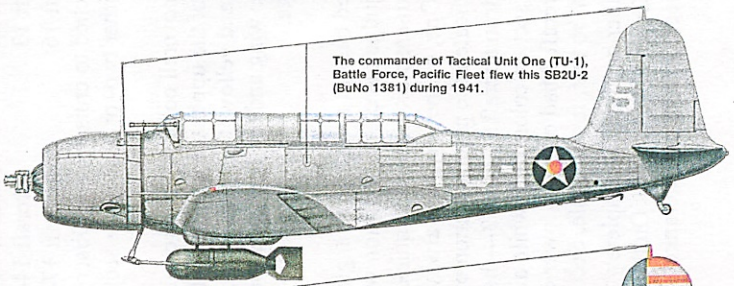
At least one French Navy V-156-F was given a camouflage paint scheme. The aircraft was based on Hyeres Island during the Summer of 1940.



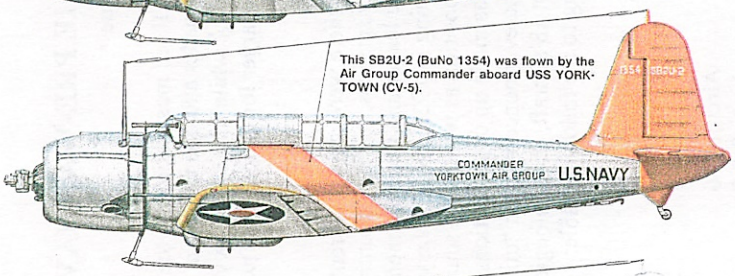
An SB2U-1 (BuNo 0769) of Marine Fighter Squadron One (VMF-1) at MCAS Quantico, Virginia during 1940.



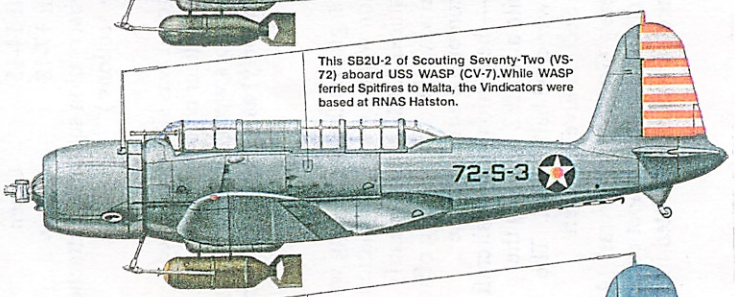
The commander of Tactical Unit One (TU-1), Battle Force, Pacific Fleet flew this SB2U-2 (BuNo 1381) during 1941.



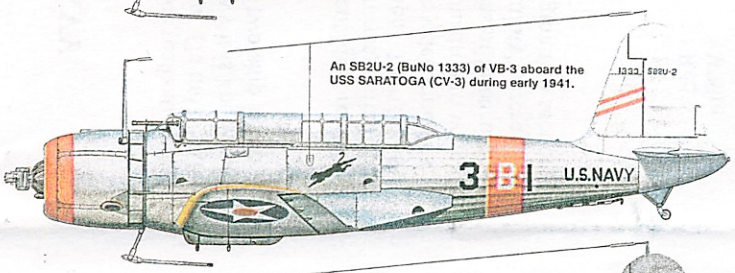
This SB2U-2 (BuNo 1354) was flown by the Air Group Commander aboard USS YORKTOWN (CV-5).



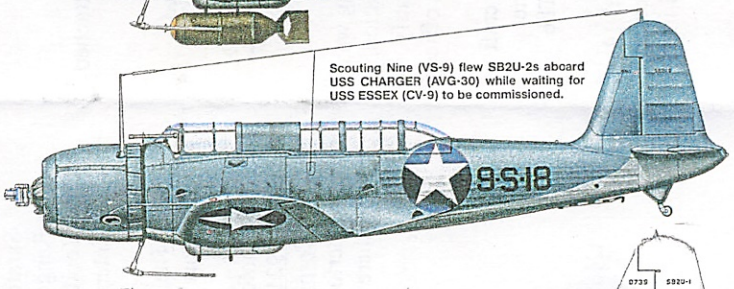
This SB2U-2 of Scouting Seventy-Two (VS-72) aboard USS WASP (CV-7).While WASP ferried Spitfires to Malta, the Vindicators were based at RNAS Hatston.



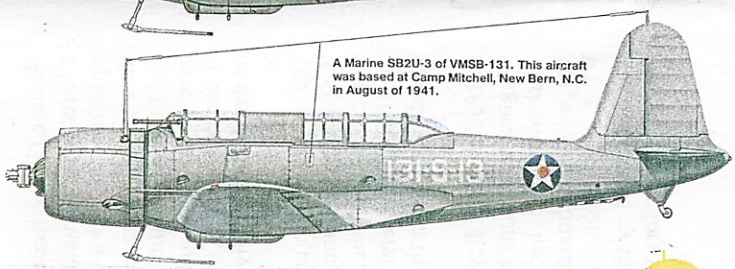
An SB2U-2 (BuNo 1333) of VB-3 aboard the USS SARATOGA (CV-3) during early 1941.

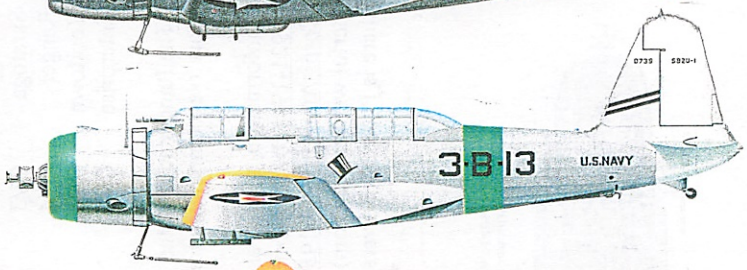


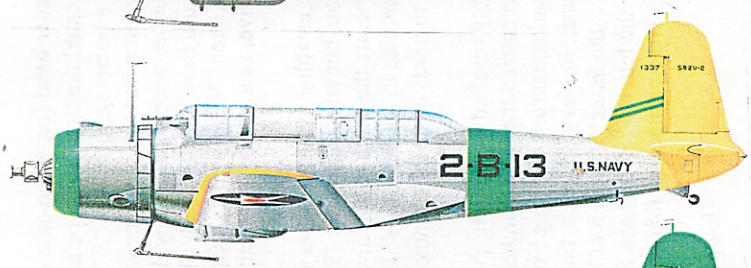
Scouting Nine (VS-9) flew SB2U-2s aboard USS CHARGER (AVG-30) while waiting for USS ESSEX (CV-9) to be commissioned.

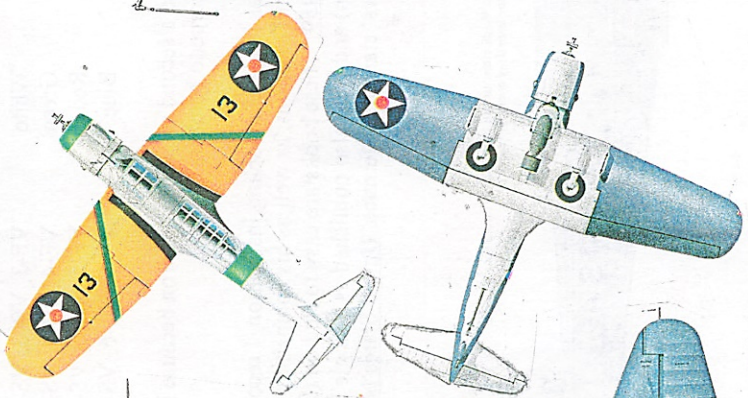


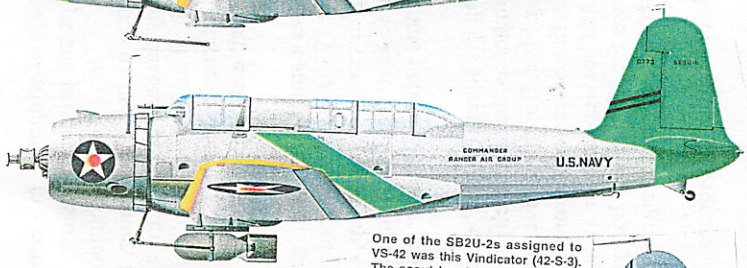
A Marine SB2U-3 of VMSB-131. This aircraft was based at Camp Mitchell, New Bern, N.C. in August of 1941.



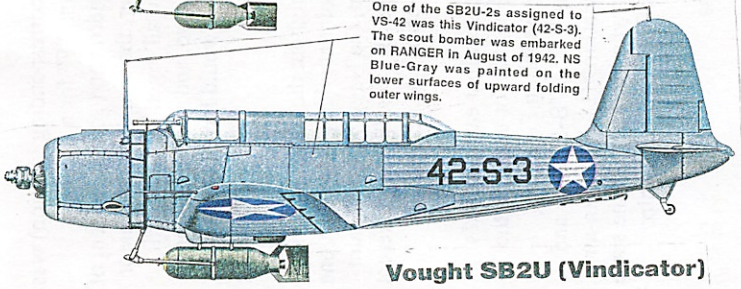


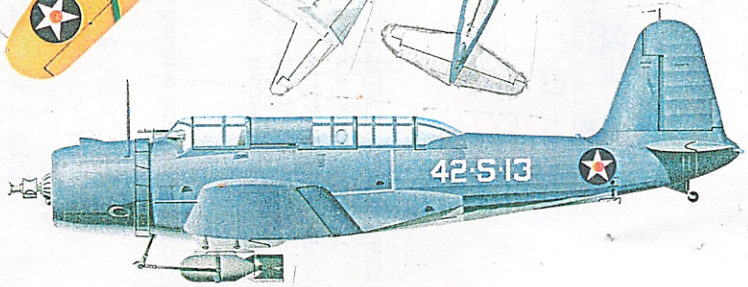






One of the SB2U-2s assigned to VS-42 was this Vindicator (42-S-3). The scout bomber was embarked on RANGER in August of 1942. NS Blue-Gray was painted on the lower surfaces of upward folding outer wings.





Vought SB2U (Vindicator)

SECTION COLORS IN THE PRE-WAR NAVY

By Mark Montague

Bitter experience in the crucible of World War II led most nations to the realization that the basic combat formation was two aircraft, a leader and one wingman. (In the USAF, this two-ship formation is known as an "element," while in the US Navy it is known as a "section.") When it was necessary to assemble larger formations, this two-ship section was the basic building block.

It was not always this way, and before the war there were many different ideas regarding how to make use of the new air weapon. Many services, in many countries, initially placed their faith in the three-ship section—one leader and two wingmen. The United States Navy was one of those services. Beginning in 1925, the US Navy decorated its tactical aircraft so as to indicate precisely the position as well as the squadron to which each aircraft belonged. A combat squadron was made up of six sections of three aircraft each—for a total of eighteen aircraft—plus whatever noncombatant "utility" aircraft might be attached to that squadron. Those first 18 aircraft, each belonging to a section, wore the appropriate "section colors" according to the following table:

Section	Leader	Wingmen	Color
Section One	Aircraft 1	Aircraft 2-3	Red
Section Two	Aircraft 4	Aircraft 5-6	White
Section Three	Aircraft 7	Aircraft 8-9	Blue
Section Four	Aircraft 10	Aircraft 11-12	Black
Section Five	Aircraft 13	Aircraft 14-15	Green
Section Six	Aircraft 16	Aircraft 17-18	Yellow

(Exception: Scouting squadrons attached to cruisers, and Observation squadrons attached to battleships, were organized into either two- or four-plane sections.)

Where were these colors worn? The overall color of the aircraft was silver (exposed metal parts were gray), with the top of the upper wing and stabilizer chrome yellow. Contrasting strongly with this silver and yellow, the section colors were applied to the engine cowl, formation "V" on upper wing and (on lead ships only) as a 20-inch "leader stripe" or band around the aft fuselage.

The purpose of the "V" (which angled back at a 45-degree angle) on the upper wing was to provide a guide to help wingmen judge the correct position when flying in formation. The purpose of the leader band was to enable wingmen to quickly and reliably identify their leader. (The leader of Section One, by the way, was always the commanding officer of the squadron.) The cowl color indicated the precise station of the aircraft in the section: Section One included squadron aircraft 1, 2 and 3—the section leader (aircraft 1) had the entire cowl painted in the section color, Red, while aircraft 2 had only the upper half of the cowl in Red and aircraft 3 had only the lower cowl half in Red. The pattern was repeated for each section, so that, for example, Section Five's aircraft included aircraft 13, with a Green leader band and a completely Green cowl; aircraft 14 (Green upper cowl) and aircraft 15 (Green lower cowl.) On those aircraft without cowls, such as the Martin BM-2, the nose piece or front of the crankcase would be painted in the same manner as if it had been a cowl.

Centered in the leader band (or, in the case of wingmen, in a corresponding location) was a letter which indicated the squadron type and primary mission: "F" for a fighter squadron, "B" for a bombing squadron, "T" for a torpedo squadron and so on. In front of the squadron designator was the squadron number; this number, the squadron designator and the aircraft number were separated by dashes. So, to put it all together, an aircraft lettered 2-F-13 would have been the 13th aircraft in Fighting Two, and would have had a Green cowl and a Green "V" as well as a Green leader band—it would have been the leader of Section Five, as a glance at the table above will show.

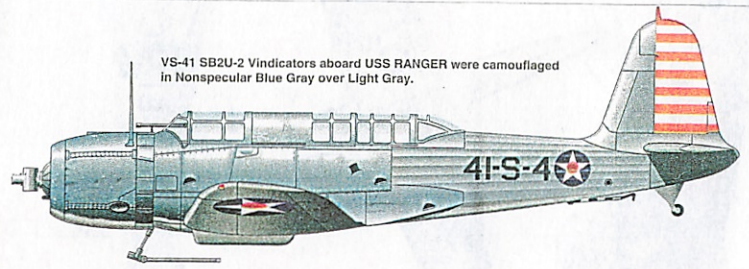
The naval aviation establishment was a very small entity throughout the 1920s and into the early Depression, but later during the 1930s grew to the point at which more than one squadron would operate the same model aircraft. At this point, the Navy began to paint the entire tail assemblies in solid colors so as to readily distinguish aircraft from different squadrons. When this was done the chrome yellow stabilizer paint was deleted.

In 1937 a new policy resulted in juggling the squadron numbers so that each carrier's assigned squadrons carried the same number as the ship itself, so that for example the Yorktown, CV5, had squadrons Fighting Five, Bombing Five, Scouting Five and Torpedo Five aboard. In Navy parlance, these were squadrons VF-5, VB-5, VS-5 and VT-5, respectively: the letter "V" denoted heavier-than-air aviation. (Lighter-than-air was designated by the letter "Z"—perhaps for "Zeppelin," but who knows?) At the same time, the tail colors were changed so that each color now signified a particular ship:

Ship		Color	Squadrons
Lexington	CV2	Yellow	VF-2, VB-2, VS-2, VT-2
Saratoga	CV3	White	VF-3, VB-3, VS-3, VT-3
Ranger	CV4	Green	VF-4, VB-4, VS-41, VS-42*
Yorktown	CV5	Red	VF-5, VB-5, VS-5, VT-5
Enterprise	CV6	Blue	VF-6, VB-6, VS-6, VT-6

*The Ranger substituted a second scouting squadron because her deck was too short to accommodate torpedo bombers.

For more information, as well as loads of modeling inspiration, I recommend U.S. Navy Aircraft 1921-1941, by William T. Larkins, as well as his companion volume, U.S. Marine Corps Aircraft 1914-1959. These books are easy to find on the used market (try the wonderful website, abe.com) and were also published as a single book. Also, of course, there is Peter M. Bowers' standard reference, United States Navy Aircraft since 1911.



VS-41 SB2U-2 Vindicators aboard USS RANGER were camouflaged in Nonspecular Blue Gray over Light Gray.

Brewster F2A-3 kit K-30 with laser cut 1/8" parts sheet of 6 lb./cu. ft. stock. F4F kit K-11 is sold out. Try for a short kit sk-11. Also sold out is Zero Kit -18 with A6M5 short span wings on the A6M2 fuselage courtesy Bob Peck's clip in the ½" per foot "Model Builder" WW II plans book.

Easy Built Models, 334-358-5184, www easybuiltmodels.com has EB 05 Zero A6M? and EB 09 Wildcat kits at 20" wingspan and older FF-65 Wildcat at 25" wingspan and FF-69 TBF's at 28" w.s. Try Dumas Products 520-623-3742 for kit#207 F4F Wildcat, 17-1/2" w.s #315 Val, 30" w.s. or #320 Brewster F2A-3, 30" w.s. Kit 212 A6M3 Zero 17-1/2" w.s. is a clip wing. #323 is a 30" B-16 Marauder! Pres Bruning has won with a B-26 twin engine ff!

A6M3 Zero aircraft plans need corrective wing extension to convert 36.1 ft w.s. A5M3 or A6M5 short wings to A6M2 or Rufe A6M2N float Zeros at 39.4 ft. wingspan.

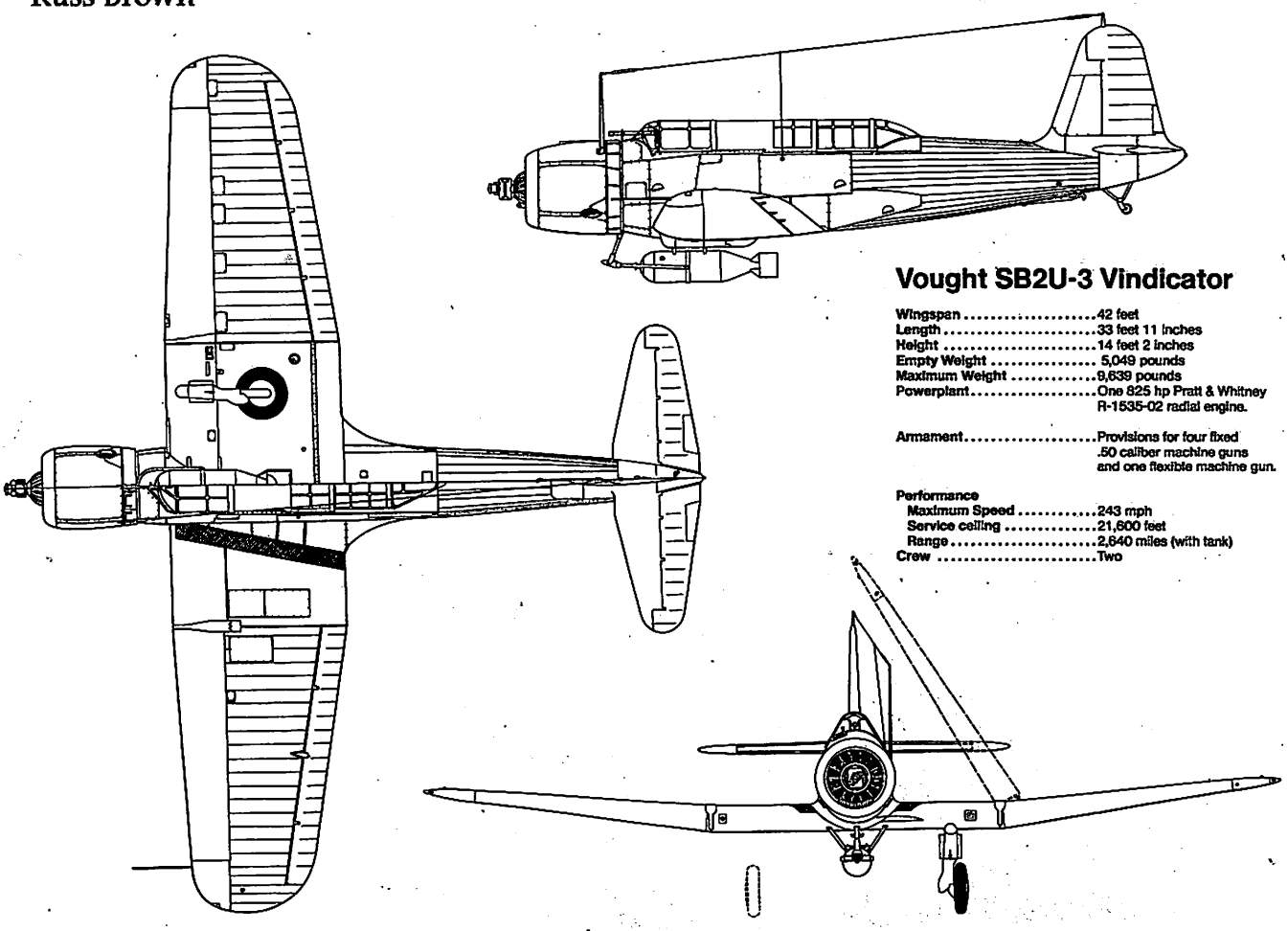
For Midway Aircraft Plans only scratch building, Al Hunt plans list has lots of popular models at Box 726, Dunbar,WV 25064 ph 304-759-2222 or e-bay, search model airplanes plans. Al can supply the Earl Stahl F4F Wildcat plan #ES-17 with 19" w.s. and Comet #L1 at 20" w.s.. The Joe Ott #502 is a 30" w.s. SBD or the Ace Whitman PN-141 SBD-1 at 13" w.s. More Ace Whitman plans are #2212, TBD, #2208 PBY!, #2893 F4F-3, #2967 F2A-1, #3896 SBD-1, #5378 TBD-1 at 36" w.s. and the #5372 SB2U-1 at 36" w.s.

"Crosswinds" No. 66 went wet with A6M2N Zero plan and ½" per ft. Rufe floats.

Float bonus points are to be added to each flight time.

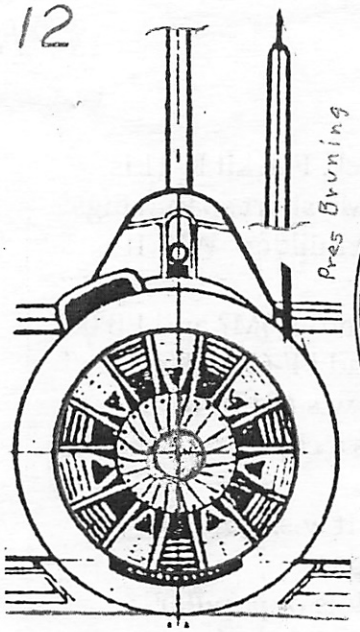
Ref. AIR WAR PACIFIC by Christe Campbell. Crescent Books N.Y. Random House.

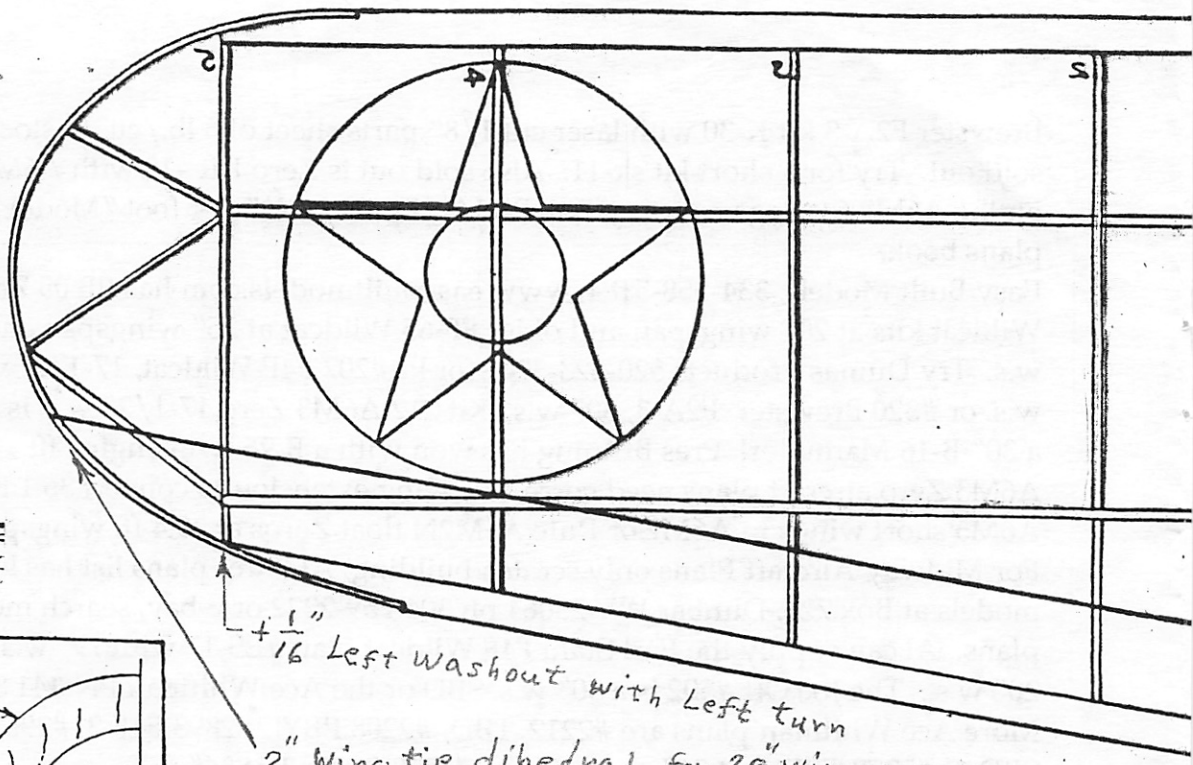
Russ Brown

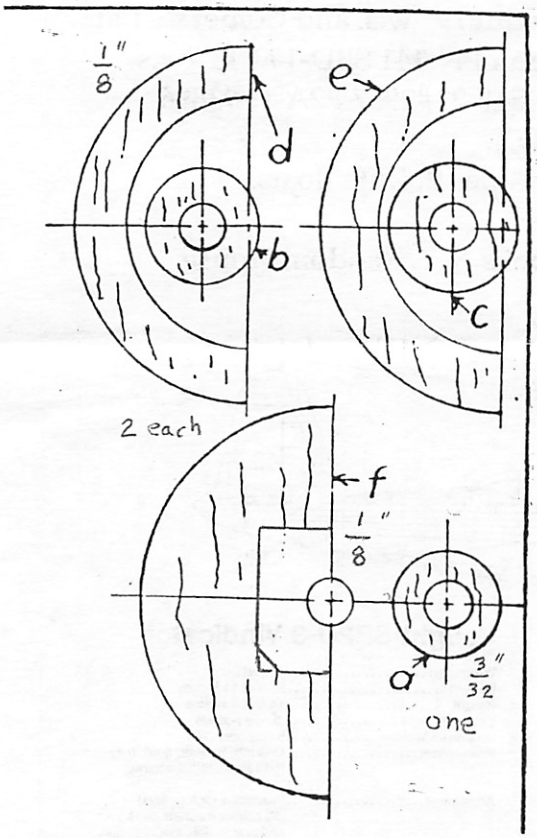


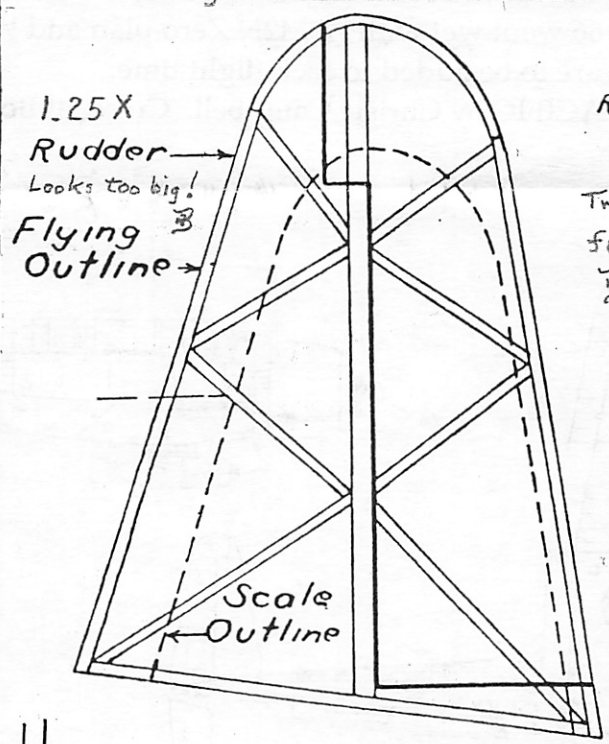
Vought SB2U-3 Vindicator

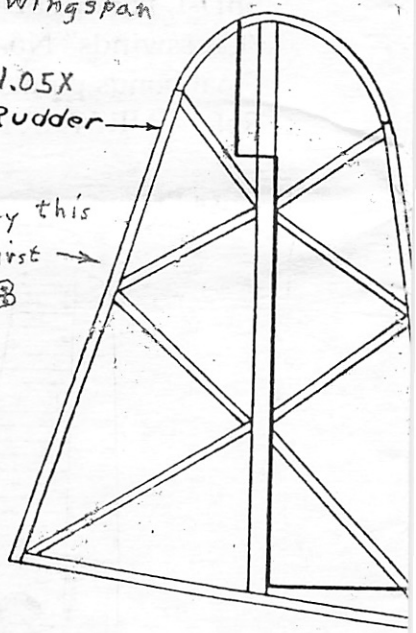
Wingspan	42 feet
Length	33 feet 11 inches
Height	14 feet 2 inches
Empty Weight	5,049 pounds
Maximum Weight	9,639 pounds
Powerplant	One 825 hp Pratt & Whitney R-1535-02 radial engine.
Armament	Provisions for four fixed .50 caliber machine guns and one flexible machine gun.
Performance	
Maximum Speed	243 mph
Service ceiling	21,600 feet
Range	2,640 miles (with tank)
Crew	Two



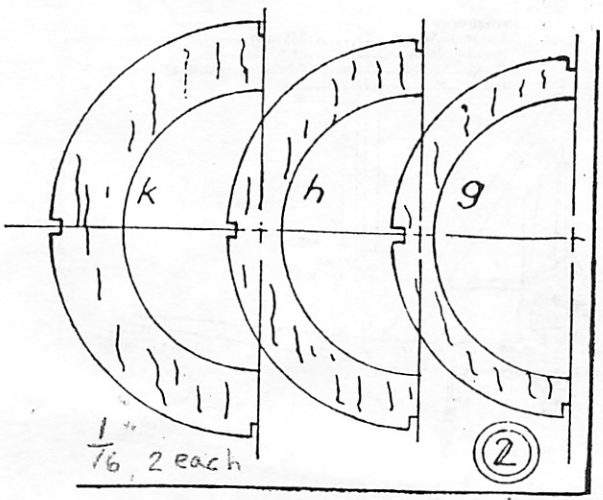


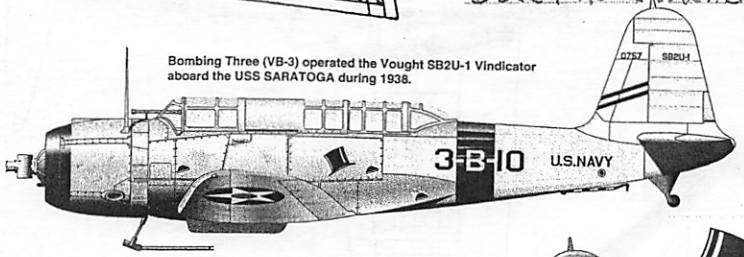




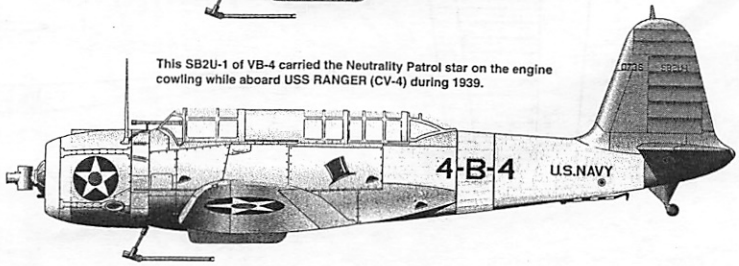


Enlarge Rudder to Dutch Roll Wanderin

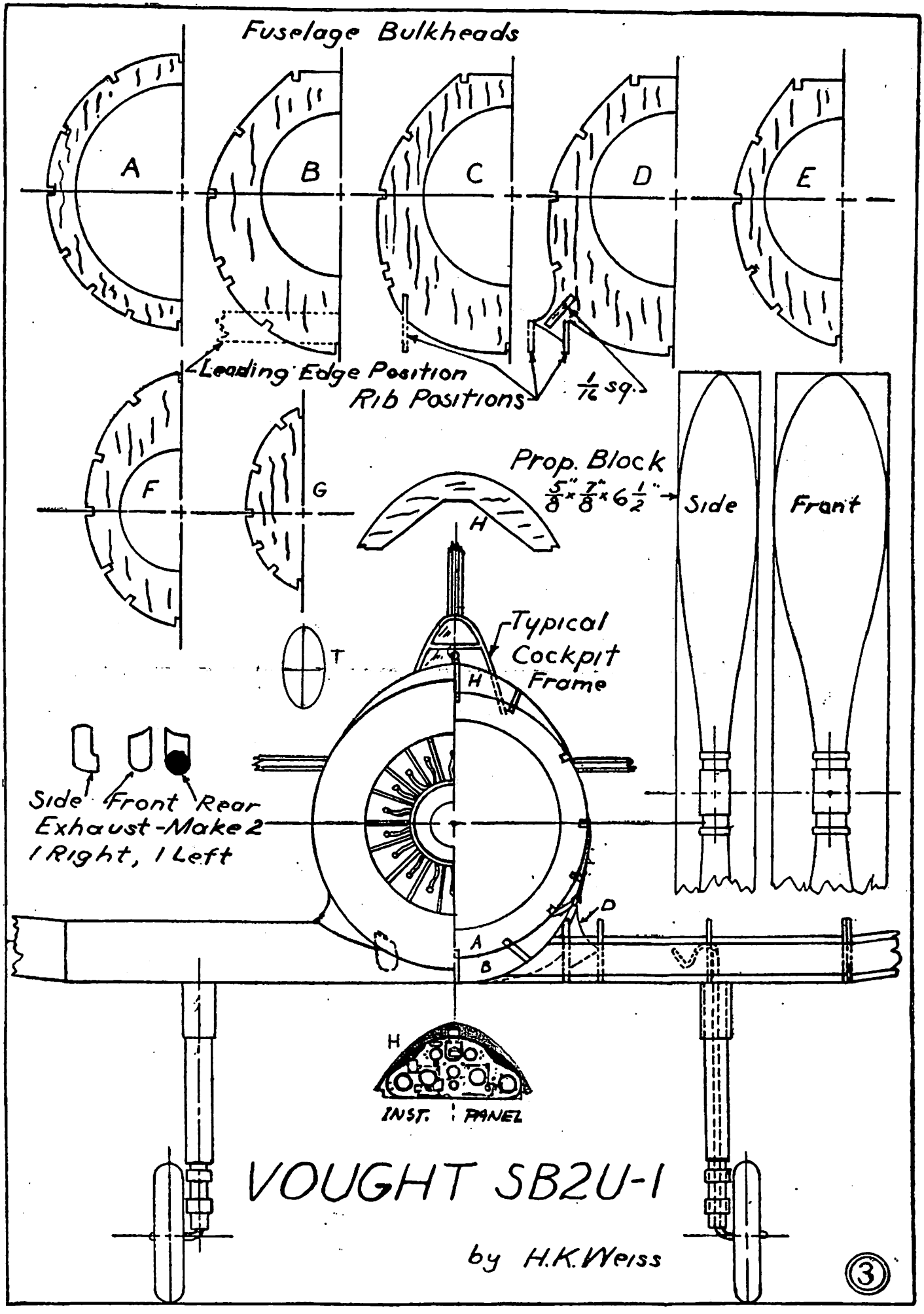




Bombing Three (VB-3) operated the Vought SB2U-1 Vindicator aboard the USS SARATOGA during 1938.

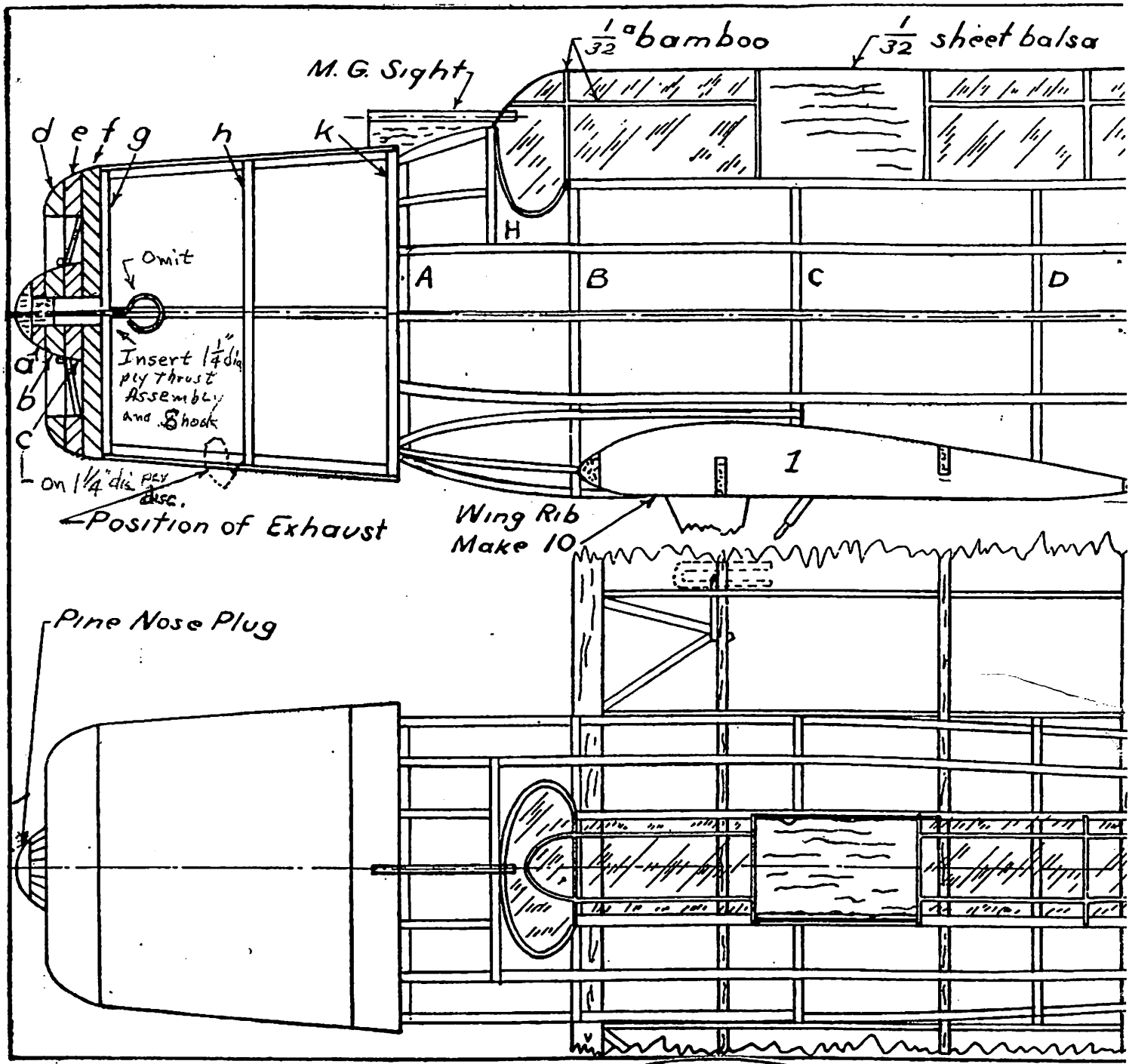


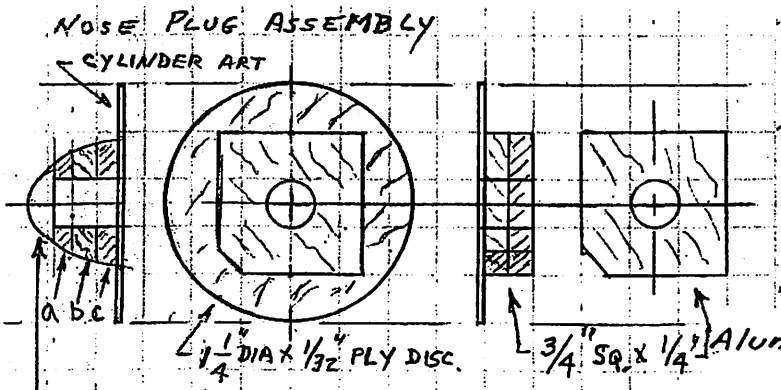
This SB2U-1 of VB-4 carried the Neutrality Patrol star on the engine cowling while aboard USS RANGER (CV-4) during 1939.

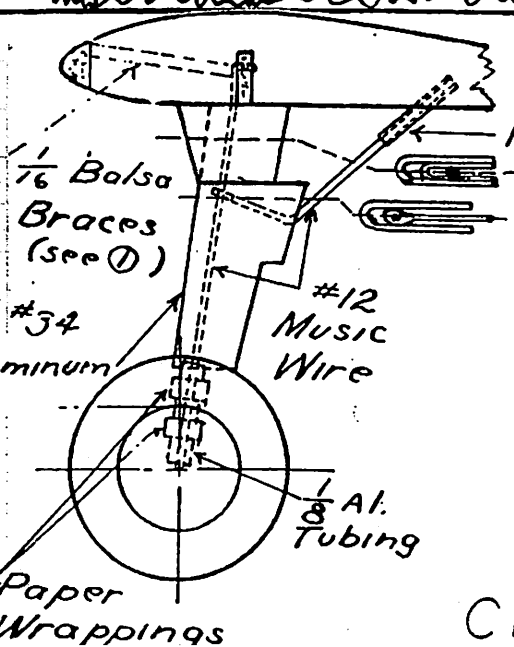


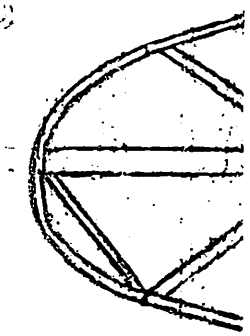
VOUGHT SB2U-1

by H.K. Weiss


1/32 bamboo
1/32 sheet balsa
M.G. Sight
d e f g h k
H
A B C D
Omit
Insert 1/4 dia ply thrust Assembly and S hook
a
b
c
On 1 1/4 dia ply disc.
Position of Exhaust
1
Wing Rib Make 10
Pine Nose Plug


NOSE PLUG ASSEMBLY
CYLINDER ART
a b c
1/4" DIA x 1/32" PLY DISC.
3/4" SQ. x 1/4"
Drill a-b-c stack for 2° Rt, 4° down thrust.
or slant f for 2° Rt, 4° Down.
Drill to fit thrust button.
Thrust Button Shorty's Basement PA 006
740-225-8671 3/64" dia S hook wire.


Paper Wrapp
1/16 Balsa Braces (see 1)
#34
#12 Music Wire
Aluminum
1/8 Al. Tubing
Paper Wrappings



CROSSWIN

Please Note:

The Fieldhouse will be open from 5:00 p.m. until 6:pm for AMA Record Trials.

** If there are enough flyers to pay for the extra time then the Trails can continue to 10:pm.

1. All events are JSO combined.
2. Steering of Models: as per A.M.A. rulebook.
3. Entry Fees: - *Open* - $30.00 - *Junior* $3.00
4. VERY IMPORTANT - You must provide your own table and chair.
6. No Indoor RC flying permitted during the contest.
7. All flyers must have a valid AMA license.
8. AMA events: see rule book for infomation
9. All FAC events will will use currant FAC Rules.
10. ALL GLIDER EVENTS end at 11:am.

AWARDS Presentation will be held at 4:30

Prizes will be awarded for 1st place in each event that there are 3 flyers with official flights. There also will be certificates. There must be 3 official flyers in an event to win a prize, earn a FAC Kanone or receive a certificate.

Contest Directors

Michael Zand
5803 E Ash Rd
Independence, OH 44131
216-524-3480
imzand@hotmail.com

Larry MZik
117 Syacamore Dr
Painsville, OH, 44077
440-357-7361
larymzik@att.net

Here's something to think about while we're in our winter building season. Dave Pishnery is making a trophy for the 2012 season for the Half Size Wakefield event. The trophy will be for the most points scored by an individual from either the CFFS or NOFFA Clubs. Points will be awarded down to 4th place as follows:

1st 5 points
2nd 3 points
3rd 2 points
4th 1 point

The final CFFS Contest at LCCC will decide the winner.

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THE CLEVELAND FREE FLIGHT SOCIETY

A.M.A. sanctioned Indoor Contest & Record Trials **

Sunday, April 15, 2012 Kent State University Fieldhouse

SCHEDULE of EVENTS (AMA)

8:00 a.m. -- Building opens (test flying)

8:45 to 11. 1. *Hand Launch Glider*

2. *Standard Class Catapult Glider.*

3. *Unlimited Catapult Glider*

8:45 to 4:15

4. *EZB* - Scoring is the best of five officials.

5. *F1L (1.2 gram*

6. *Limited Penny Plane*

7. *Mini-Stick* - best flight of 5 officials.

8. A-6" **NFFS Model of the Year**

14. F1D

F.A.C. EVENTS

9:00 a.m. to 4:15 p.m.

9. *FAC Peanut Scale Full POINTS*

10. *High Wing Cabin Peanut*

11. *Golden Age Scale* - **3 flight total**

12. *Dime Scale* - 2012 rules

13. *No-Cal Profile Scale* **-3 flight total**

13. *Phantom Flash* - Best 3 flights of six.

ROG, 120 second max. Tiebreaker mass launch.
PROP- Diameter: As per kit or plan.
Onepiece molded Plastic only.
Prop may be scraped, shaved or painted.

OVER

Half Price! New Member* Offer
Two-year memberships $58 now $29
*new members (U.S.), or members who've lapsed for 12 months or more. International dues: $37.50; Youth dues (18 and under): $9. Expires 1/1/13.

National Free Flight Society
Preserving, enhancing and promoting the art, sport and science of Free Flight Model Aviation in all its forms.

Membership includes access to the NFFS Plans Catalog of over 800 plans, scholarship and volunteer opportunities, rulebooks, committee support, and 6 issues/year of Free Flight Digest, the world's most respected journal of its type. Each 40+ page bimonthly issue includes in-depth content on building and flying all types of Free Flight models: indoor and outdoor rubber, electric, glow, glider, duration, scale, Old Timer and more!

☐ Yes! I love Free Flight and I've not been a NFFS member during the past twelve months. Please sign me up at this special 2-year price of $29 (International: $37.50; Youth: $9).

Name_____ D.O.B.__/__/____
Address_____ AMA#_____
City_____ State_____ Zip_____
Country_____ Email_____
Card#__ __-____-____-____ Visa/M.C. Exp. Date__/__/____

Make checks payable in U.S. dollars to NFFS and mail to: NFFS Membership Office, 118 Gentry Circle, Lafayette, LA 70508. Email: <carl.bekay@yahoo.com>.

Secure Online payments at <www.freeflight.org>