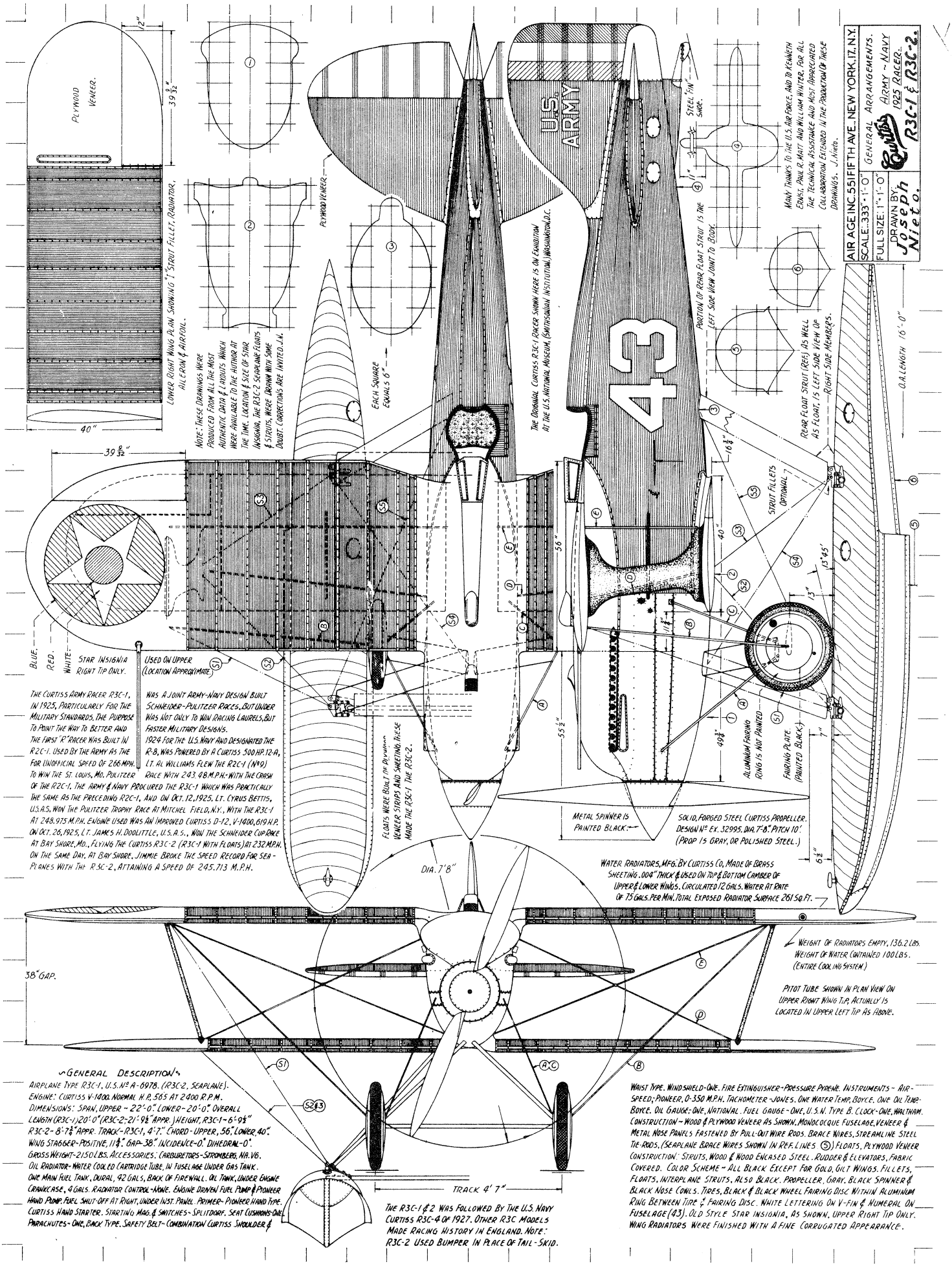
AIR AGE INC. 551 FIFTH AVE., NEW YORK, N.Y.
SCALE: .333" = 1'-0"
FULL SIZE: 1" = 1'-0"
DRAWN BY Joseph Nieto.
GENERAL ARRANGEMENTS. ARMY - NAVY 1925 RACER. R3C-1 & R3C-2.
Many thanks to the U.S. Air Force, and to Kenneth Ernst, Paul R. Matt and William Winter, for all the technical assistance and most appreciated collaboration extended in the production of these drawings. J. Nieto.
Plywood Veneer.
Lower Right Wing Plan Showing 1" Strut Fillet, Radiator, Aileron & Airfoil.
Note: These drawings were produced from all the most authentic data & inputs which were available to the author at the time. Location & size of star insignia, the R3C-2 seaplane floats & struts, were drawn with some doubt. Corrections are invited. J.N.
Each square equals 6"
The original Curtiss R3C-1 racer shown here is on exhibition at the U.S. National Museum, Smithsonian Institution, Washington, D.C.
Steel "fin" shoe.
Portion of rear float strut is the left side view joint to body.
Rear float strut (ref.) as well as float, is left side view of right side members.
Strut fillets (optional)
O.A. length 16'-0"
Blue. Red. White. Star insignia right tip only.
Used on upper (location approximate)
The Curtiss Army Racer R3C-1, in 1925, particularly for the Military Standards. The purpose to point the way to better and the first "R" racer was built in R2C-1. Used by the Army as the for unofficial speed of 266 M.P.H. To win the St. Louis, Mo. Pulitzer of the R2C-1. The Army & Navy procured the R3C-1 which was practically the same as the preceding R2C-1, and on Oct. 12, 1925, Lt. Cyrus Bettis, U.S.A.S. Won the Pulitzer Trophy Race at Mitchel Field, N.Y., with the R3C-1 at 248.975 M.P.H. Engine used was an improved Curtiss D-12, V-1400, 619 H.P. On Oct. 26, 1925, Lt. James H. Doolittle, U.S.A.S., won the Schneider Cup Race at Bay Shore, Md., flying the Curtiss R3C-2 (R3C-1 with floats) at 232 M.P.H. On the same day, at Bay Shore, Jimmie Broke the speed record for sea-planes with the R3C-2, attaining a speed of 245.713 M.P.H.
Was a joint Army-Navy design built Schneider-Pulitzer Races, but under was not only to win racing laurels, but faster military designs.
1924 for the U.S. Navy and designated the R-8, was powered by a Curtiss 500 HP. 12-A, Lt. Al Williams flew the R2C-1 (NR9) race with 243.48 M.P.H. With the crash
Floats were built the plywood veneer strips and sheeting. These made the R3C-1 the R3C-2.
Aluminum fairing ring is not painted
Fairing plate. (Painted black.)
Metal spinner is painted black.
Solid, forged steel Curtiss propeller. Design No. Ex. 32995. Dia. 7'-8". Pitch 10'. (Prop is gray, or polished steel.)
Water radiators, mfg. by Curtiss Co. Made of brass sheeting .004" thick & used on top & bottom camber of upper & lower wings. Circulated 12 gals. water at rate of 75 gals. per min. Total exposed radiator surface 261 sq. ft.
Dia. 7'8"
38" gap.
Weight of radiators empty, 136.2 lbs. Weight of water contained 100 lbs. (Entire cooling system)
Pitot tube shown in plan view on upper right wing tip, actually is located in upper left tip as above.
Track 4' 7"
General Description:
Airplane Type R3C-1, U.S. No. A-6978. (R3C-2, seaplane). Engine: Curtiss V-1400. Normal H.P. 565 at 2400 R.P.M. Dimensions: Span, upper - 22'-0". Lower - 20'-0". Overall length (R3C-1) 20'-0" (R3C-2 - 21'-9½" appr.) Height, R3C-1 - 6'-9½" R3C-2 - 8'-7½" appr. Track - R3C-1, 4'-7". Chord - upper, 56". Lower, 40". Wing stagger - positive, 11¾". Gap - 38". Incidence - 0°. Dihedral - 0°. Gross weight - 2150 lbs. Accessories: Carburetors - Stromberg, NA. V6. Oil radiator - water cooled cartridge tube, in fuselage under gas tank. One main fuel tank, dural, 92 gals, back of firewall. Oil tank, under engine crankcase, 4 gals. Radiator control - none. Engine driven fuel pump & pioneer hand pump. Fuel shut-off at right, under inst. panel. Primer - pioneer hand type. Curtiss hand starter. Starting mag. & switches - splitdorf. Seat cushions - one. Parachutes - one, back type. Safety belt - combination Curtiss shoulder &
Waist type. Windshield - one. Fire extinguisher - pressure pyrene. Instruments - air-speed; - pioneer, 0-350 M.P.H. Tachometer - Jones. One water temp. Boyce. One oil temp. - Boyce. Oil gauge: one, National. Fuel gauge - one, U.S.N. Type B. Clock - one, Waltham. Construction - wood & plywood veneer as shown. Monocoque fuselage, veneer & metal nose panels fastened by pull-out wire rods. Brace wires, streamline steel tie-rods. (Seaplane brace wires shown in ref. lines (5)) Floats, plywood veneer construction: Struts, wood & wood encased steel. Rudder & elevators, fabric covered. Color scheme - all black except for gold, gilt wings. Fillets, floats, interplane struts, also black. Propeller, gray. Black spinner & black nose cowls. Tires, black & black wheel fairing disc within aluminum ring between tire & fairing disc. White lettering on V-fin & numeral on fuselage (43). Old style star insignia, as shown, upper right tip only. Wing radiators were finished with a fine corrugated appearance.
The R3C-1 & 2 was followed by the U.S. Navy Curtiss R3C-4 of 1927. Other R3C models made racing history in England. Note: R3C-2 used bumper in place of tail-skid.