

## AERONAUTICS

## Science Clubs of America To Cooperate With Navy

Cooperation in the Navy's program, designed to train Americans—civilians as well as naval personnel—to know friendly airplanes from foes, is an opportunity for the members of 967 Science Clubs of America and readers of the SCIENCE NEWS LETTER and newspapers cooperating with Science Service.

To train Navy personnel in aircraft recognition and range estimation for gunnery practice, the Navy urgently needs 500,000 aircraft models made exactly to scale. This number includes 10,000 models of each of 50 different types of fighting planes.

Civilians, too, should train themselves to know the U. S., British, German and Japanese planes and be able to distinguish friend from foe.

Exact scale models of the fighting aircraft which can be made by anyone handy with a knife and other simple tools will be extremely helpful in this training, it is believed.

Through the U. S. Office of Education, Secretary Knox is asking the students of 26,000 high schools in the United States to build these models for the Navy.

You, too, can help.

First sets of working drawings will be sent to the cooperating high schools through the Office of Education by Feb. 23.

Set of drawings, from which models are made, are being released to newspapers by Science Service for the use of their readers and Science Club members. The first is printed on this page.

The scale to which the models are made is of extreme importance, it is emphasized by Navy officers. The Navy has adopted the scale of 1 to 72, or one inch equal to six feet. This is the same standard used by the British, based on their experience in the war, and will be used also by the U. S. Army and Office of Civilian Defense.

By using the same scale for all models it is possible for spotters to gain a true sense of proportion with regard to the various aircraft they will see in the sky.

It is also possible to suspend the models overhead and gain a true idea of what the actual aircraft would look like at a proportionate altitude. A model seen a distance of 35 feet from the eyes, for example, would look exactly the same size as the real airplane seen at a 2,500-foot distance.

A cadet flyer can observe the models through the standard ring sight used on aerial gun mounts and learn range as well as identification.

Qualified inspectors will review every model that is intended for the Navy. The little planes must be perfect in every detail.

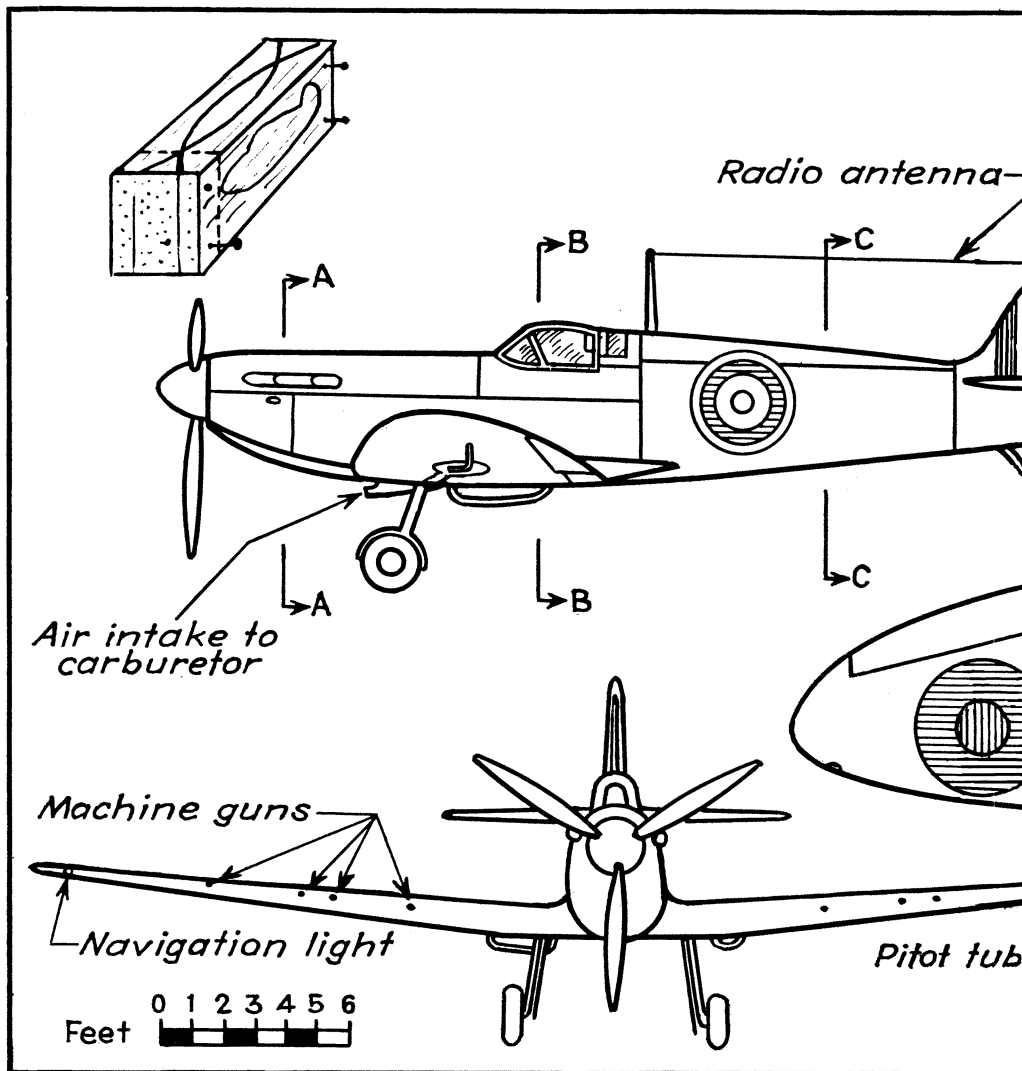
Approved models will be sent to aviation units, ashore and afloat, through special committees set up locally.

Science News Letter, February 14, 1942



## AERONAUTICS

# Build These Aircraft



By JOSEPH H. KRAUS

Science Clubs of America Editor

The entire field of model aircraft building is being stimulated to greater activity by the fact that the U. S. Navy is anxious to have model makers direct their attention to the building of true-scale models of fighting aircraft.

The Navy has decided that such scale models should be standardized along lines already established by our English compatriots; viz., all models should be built on a scale of one foot equal to 72 feet (1-72).

In an interview I recently had with a member of the Special Devices Section of the Navy, it was recommended that scale models of the following planes be built first: the British—Supermarine "Spitfire" II, fighter; the German—Messerschmitt Me. 109E

fighter; the U. S. Army—Curtiss P40 "Tomahawk" fighter and the U. S. Navy—Grumman "Wildcat" F4F fighter. Accurately made models can be used for recognition purposes and will be invaluable to aircraft spotters.

The first models I built from these drawings are shown on the front cover of this week's SCIENCE NEWS LETTER, held by Lewis Schaub, junior aviator.

Recognition of certain finer details, gained through the building of accurate models, guarantees rapidity of identifying the plane in question for the builder.

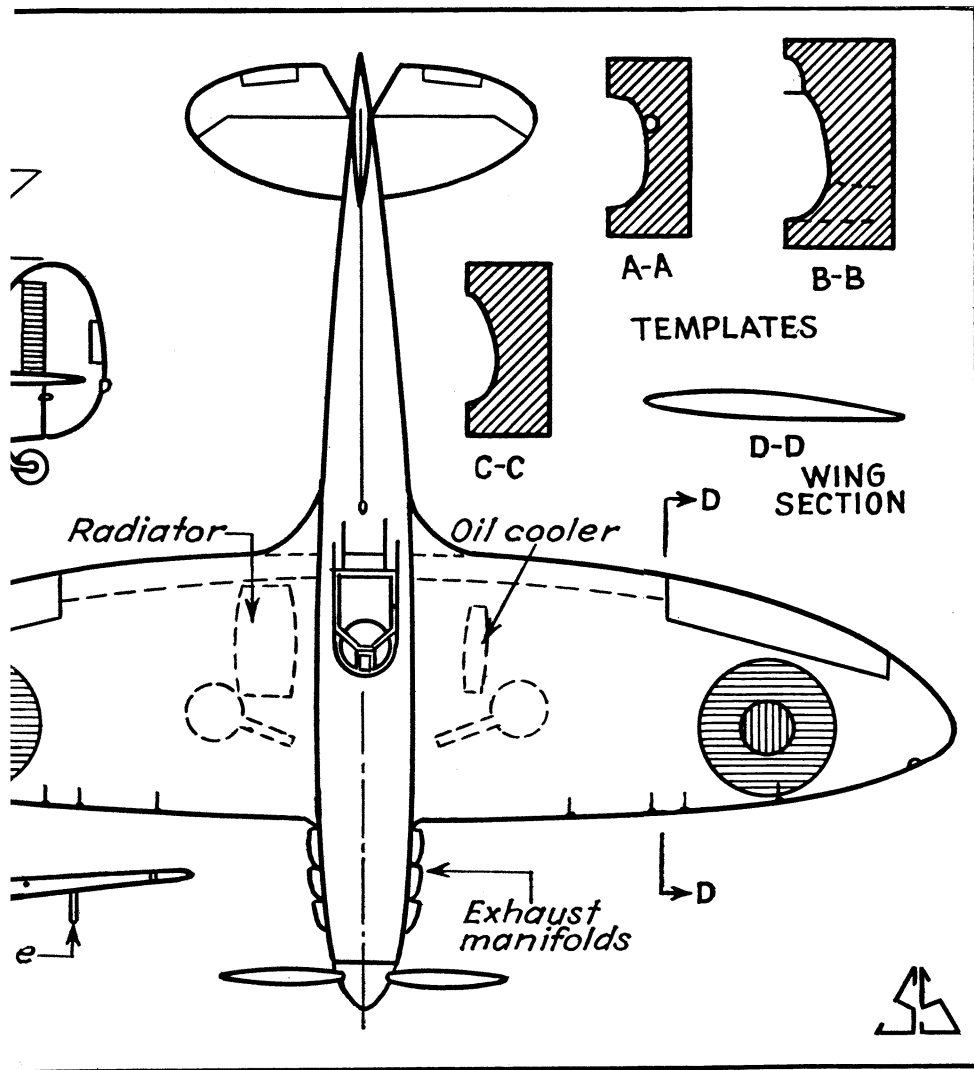
The plans given on this page are for the Supermarine "Spitfire" II. These plans are to exact scale. Your model, when completed, should be exactly the size of the drawings.

The full-sized craft is a single seater fighter built by Vickers-Armstrong,

# Recognition Models



Science Observer Edition  
Sent to All Science Clubs



Ltd., Southampton, England. It is powered with one Rolls-Royce, 1,030 h. p. engine, which gives it a speed of 387 m. p. h.

Everyone familiar with building model airplanes will find little difficulty in this construction. (It will take about four days—spare time.) Trace the top and side views of the body on paper and paste these on the top and side of a block of wood  $5\frac{1}{2}$  inches long,  $1\frac{1}{4}$  inches high and  $\frac{3}{4}$  inch wide. Balsa should not be used. White pine stands up better, and these models will not need to fly. Make sure you line up the nose and tail. With a fret-, coping-, or jig-saw cut out the outline of the body—the top view first. Nail the block together at the edges and cut through again for the side elevation.

With a sharp knife trim roughly to shape, using templates frequently. Cut

templates out of a visiting card. Wings and tail are cut to size. All final shaping should be done with "0" and "00" sandpaper. Cut up into the fuselage to fit the wing, keeping it in one piece, tip to tip. Glue parts to the body with "airplane model" cement.

You may paint upper surfaces in brown and green, camouflage style. Paint under surface of wings and body, silver or light blue. Paint cockades above wings, blue with red center; on body, red, white, blue and yellow, with red at the center; on tail, red, white and blue stripes with red toward front.

Since painting of planes in war varies so much, however, it is unlikely the Navy will require this coloring. They may ask that all models be black.

*Science News Letter, February 14, 1942*

In order to allow members of science clubs to begin work immediately on the airplane models needed by the Navy, this Science Observer edition of the SCIENCE NEWS LETTER sent to all science clubs affiliated with Science Clubs of America, contains the first model plans.

Sponsors of science clubs who want the plans of the three models additional to the one shown on this page may receive them as a part of their special war-time Science Clubs of America service by writing a postal card to Science Clubs of America, 1719 N St., N. W., Washington, D. C., asking for airplane model plans.

Any group not so affiliated is invited to join. The affiliation fee is nominal and the requirements are simple. This invitation is extended especially to science teachers of high schools who wish to organize science clubs at this opportune time when there is a real job to be done.

Special mailings will bring to all science clubs details of the SCA war service program, listing many projects that official governmental agencies have suggested to aid in the war emergency.

## NEWS OF CLUBS

AUSTIN, Texas—The Young, Thorp, Schultz Botanical Society at Austin High School stresses individual investigations and building one-person projects, which are exhibited each spring in a Science Fair held under the auspices of the Austin Junior Academy of Science. The club sponsored by Addison Lee, teacher of biological sciences, also is a member of Texas Junior Academy of Science and takes part in its meetings in the spring and fall. All clubs affiliated in the Austin Academy contribute to a \$25.00 scholarship award to a graduating member for some outstanding scientific work.

JACKSONVILLE, Fla.—Members of the Science Club at the Robert E. Lee High School made a telescope which they expected to exhibit at the Florida Junior Academy of Science meeting. However, the telescope proved to be too large for easy transportation so the members had to modify their plans at the last minute, exhibiting instead an interesting display of leaves. The club arranges for every other meeting to be a trip through some industrial plant, factory, packing house, or into the fields for the collection of specimens. The sponsor is Leroy MacGowan, head of biology department.



## SCIENCE CLUBS OF AMERICA

Sponsored by Science Service

SCA, under Science Service sponsorship, continues the pioneering activities of the American Institute of City of New York over the past 15 years and the Student Science Clubs of America which was merged with that movement. The American Institute continues to foster the regional activities of the junior clubs of the New York City area as a science center.

To effect close cooperation between the American Institute and Science Service, an advisory committee on SCA is being formed.

The principal SCA staff consists of Joseph H. Kraus, SCA editor, and Margaret E. Patterson, SCA membership secretary, based at New York in offices at 310 Fifth Avenue, also occupied by the American Institute.

Clubs are invited to become affiliated with SCA for a nominal \$2 for 20 members or less. You can become an associate of SCA for 25 cents. Address: Science Clubs of America, 1719 N St., N.W., Washington, D. C.