

THESE ARE FLETTNER FLAPS WHICH ARE SET ACCORDING TO LOADS CARRIED, EASING THE STRAIN ON THE CONTROLS

CUT BLACK STRIPES FROM PLAN AND STICK TO WING TO REPRESENT INSPECTION HATCHES.
A RAZOR BLADE, BROKEN TO A POINT, AS SHOWN HERE IS VERY USEFUL, ESPECIALLY IN CUTTING OUT CABIN WINDOWS.

ENTIRE MODEL IS PAINTED ALUMINUM.

APPLY CEMENT AROUND NACELLES SO AS TO FILL IN CREVICES UP TO DASH LINES. (SEE NACELLES DETAIL NEAR LEFT BORDER OF PLAN)

WINDOWS AND HATCHES ARE SCRIBED IN WITH A SOFT PENCIL, OR DRAWN ON WITH BLACK INK AFTER THE MODEL IS PAINTED.

INSPECTION HATCHES ARE REPRESENTED BY BLACK STRIPES WHICH ARE CUT FROM PLAN AND GLUED IN POSITION SHOWN.

PUSH A PIN INTO CENTER OF EACH NACELLE. NOW CLIP OFF FOUR PINS, ABOUT 3/16" LONG AND INSERT INTO CENTER OF PROPELLERS, THEN PUSH INTO PIN HOLES.

PROPELLERS ARE CUT FROM PRINTED ALUMINUM PAPER. TWIST BLADES SO THERE IS AN EQUAL AMOUNT OF PITCH IN EACH BLADE.

SECTION EE IS A TYPICAL SPONSON SECTION AT LOCATION SHOWN IN TOP VIEW.
CUT STEP IN BOTTOM OF THE SPONSON BEFORE SHAPING. NOTICE IN TOP VIEW THAT IT GRADUALLY DECREASES TOWARD TIP.

AILERONS, FLAPS, AND ALL OTHER MARKINGS ARE PLACED ON MODEL AFTER IT HAS BEEN PAINTED.

DIHEDRAL ANGLE IS SHAPED INTO THE WING BEFORE THE AIRFOIL SECTION IS CUT.

WINDOWS ARE CUT OUT BY MEANS OF A RAZOR BLADE BROKEN AS SHOWN IN SKETCH.
WING LIGHT ON OPPOSITE TIP IS RED

THE SKETCH ABOVE SHOWS HOW HULL LAMINATIONS ARE JOINED TOGETHER.

ASSEMBLY DIRECTIONS
The China Clipper is PAN AMERICAN AIRWAYS' largest transport airplane, designed by the Glenn L. Martin Co. for the Pan American Airways. It is capable of carrying 50 passengers having a wingspan of 120 feet and an overall length of 89 feet 8 inches. This is the first mail plane to span the Pacific ocean. At the left is shown the interior arrangement of the ship.
Before beginning construction of the model, read these directions over carefully and acquaint yourself with the construction procedure. This kit employs a new construction, featuring a laminated fuselage which is easier to shape and giving a hollow cabin interior.
HULL (Fuselage)
Cut parts 1, 2, 3, 4, 5, and 6 from the printed balsa sheet. These are the six laminations comprising the hull. Notice that laminations 2, 3, 4, and 5 are composed of two portions which are glued together. Cut these pieces very carefully using a sharp jackknife or razor blade. It may be necessary to make two or three strokes before cutting through the wood. Push a pin in end of tube of cement and it is ready for use. Cement the laminations together aligning each piece over dash lines on preceding one. Allow to dry thoroughly before going further. Figure one (See illustration directly below these directions) shows how your hull appears before shaping.
Now begin to carve hull to shape. Using a sharp jackknife, cut the corners of laminations off until hull assumes shape shown in Fig. 2 below. Proceed cautiously now, cutting slowly. Finish off hull using sandpaper. Test hull with templates C and D. Figure 3 shows finished hull. Now lay hull aside and follow next step.
TAIL ASSEMBLY (EMPELLAGE)
Cut the rudder and elevator from the printed balsa wood and pierce dots with a needle or pin. This will permanently locate brace wire locations. Sandpaper to a streamlined shape. See top and side views showing rudder and elevator sections. Glue rudder and elevator together aligning them in notches of each other. Now cement unit to hull. Brace wires are passed through their locations using a needle. Side view shows where they pass through hull.
WING
Cut the wing and sponsons out next. Don't try to cut through wood right away, but instead use successive strokes. Cut out openings along leading edge of wing. These are to receive the nacelles. Shape wing carefully as shown by sketch on plan. Sponsons are shaped in same manner as wing. Cement sponsons to fuselage. Glue the four nacelles to wing. Rub some scrap balsa on sandpaper and mix the balsa dust with cement. Pack this in around nacelles to obtain a smooth job. Now cement wing to hull. Cut the wing struts from printed balsa sheet. Guide your razor blade with a metal edged rule to obtain perfectly straight struts. Sand the struts to a streamline section and cement in place.
DOPING THE MODEL
The term doping is generally employed instead of "painting" as the material used is known as "dope." Shake up the small bottle of aluminum dope. Coat the entire model with it using an ordinary water color brush. When dry add all details such as door openings, cabin windows, etc. Cut the license letters from plan and glue them to wing.
Cut the propellers out with the point of the razor blade. Attach them to nacelles as directed on plan. Attach aerial and brace wires. Use fine silk thread for all brace wires.
The pedestal is made up of three pieces which are glued together as shown on plan at lower left hand corner. Dope it aluminum and glue model to it.

USE CEMENT SPARINGLY IN ASSEMBLING THE LAMINATIONS.

SPONSONS ARE FLOATS SITUATED ALONG THE BOTTOM OF THE HULL, GIVING THE PLANE LATERAL STABILITY IN TAKING OFF AND LANDING.

LINE SHOWS SPONSON STEP

THE TWO PIECES OF WING ARE JOINED HERE

WING IS CONSTRUCTED IN THE THREE STAGES SHOWN ABOVE.

CUT LICENSE LETTERS FROM PLAN AND GLUE IN THIS POSITION

CUT HULL TEMPLATES FROM PLAN, STICK TO THIN CARDBOARD AND USE TO DETERMINE EXACT SHAPE OF HULL AT POINTS INDICATED.

NACELLES ARE FORCED DOWN INTO THE NACELLE OPENINGS CUT IN WINGS. THEN APPLY FILLET COMPOUND LIBERALLY AROUND SEAM TO CREATE A FILLET. (SEE WING INSTRUCTIONS)

AERIAL (BLACK THREAD)

RUDDER AND ELEVATOR BRACE WIRES. (BLACK THREAD)

PIN HEADS ARE USED FOR WING LIGHTS

GREEN LIGHT

STRUTS ARE CUT FROM PRINTED 3/32" Balsa SHEET

HEAD OF PIN USED FOR TAIL LIGHT

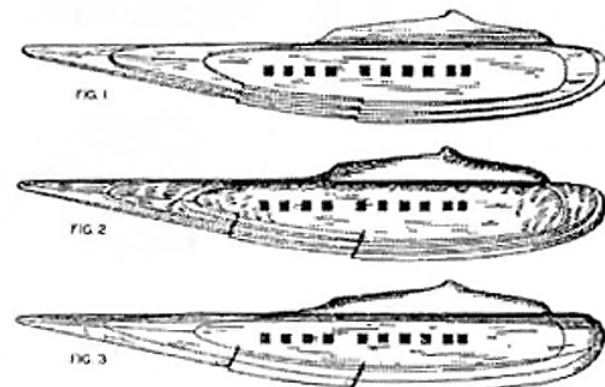
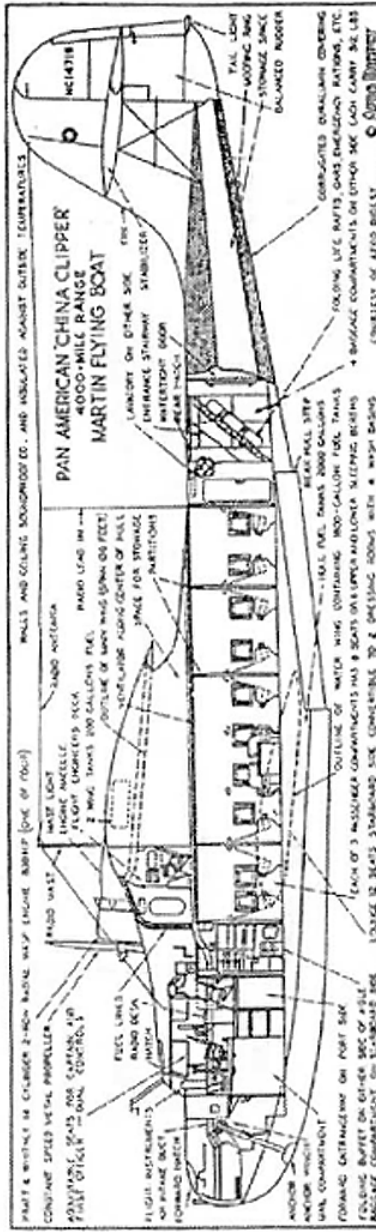
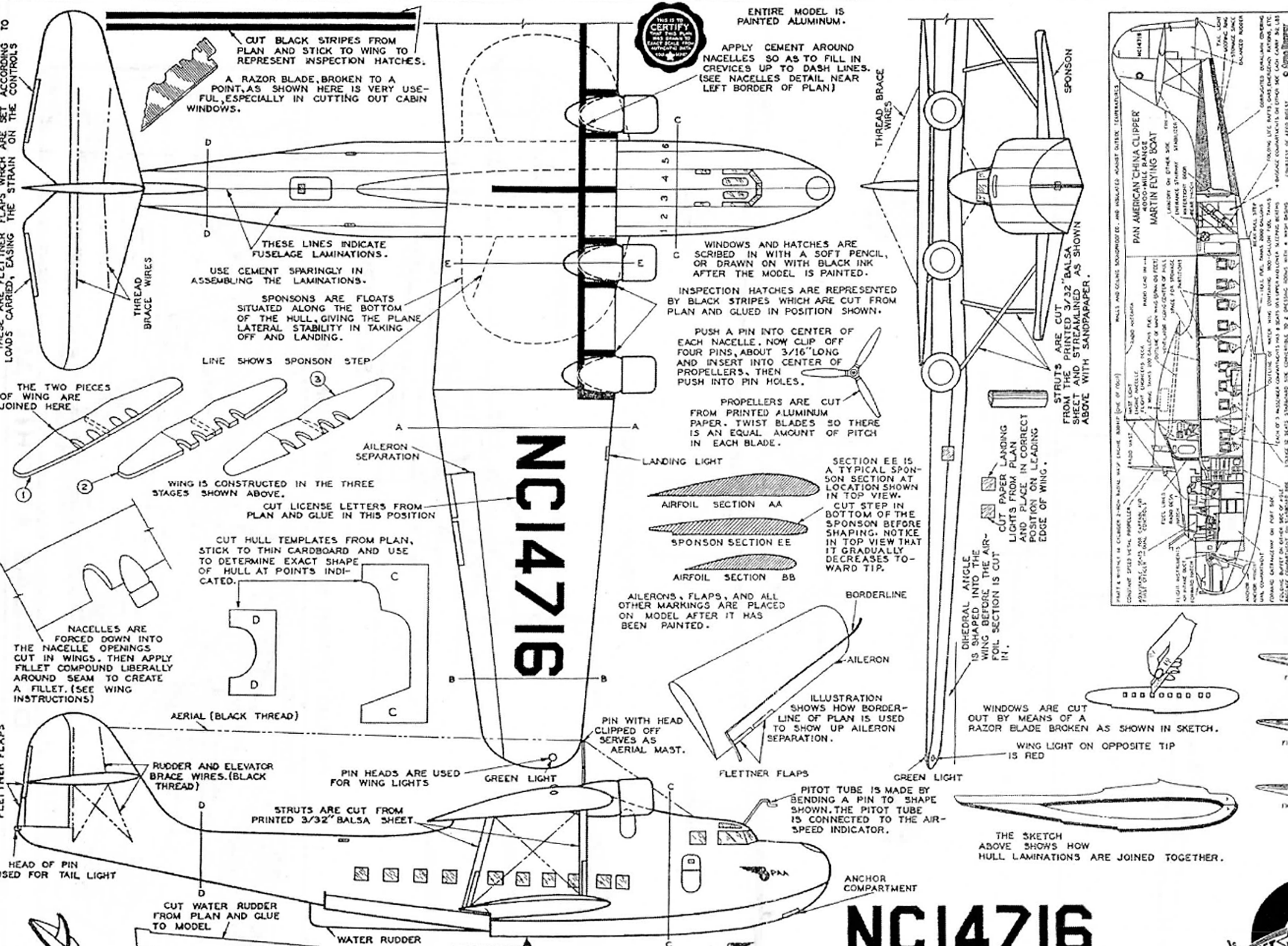
CUT WATER RUDDER FROM PLAN AND GLUE TO MODEL

WATER RUDDER

APPROXIMATE CENTER OF GRAVITY

PAN AMERICAN AIRWAYS INSIGNIA ARE CUT FROM PLAN AND GLUED TO HULL SIDE AS SHOWN.

CUT LICENSE LETTERS FROM PLAN AND STICK TO BOTTOM OF LEFT WING, READING FROM THE FRONT.



NC14716

CHINA CLIPPER

WINGSPAN - 12" | LENGTH - 8-3/8"

KIT NO. A-169 | SERIES - ONE STAR

DRAWN BY *R. Klein* | LETTERED BY *Edwin Smith*