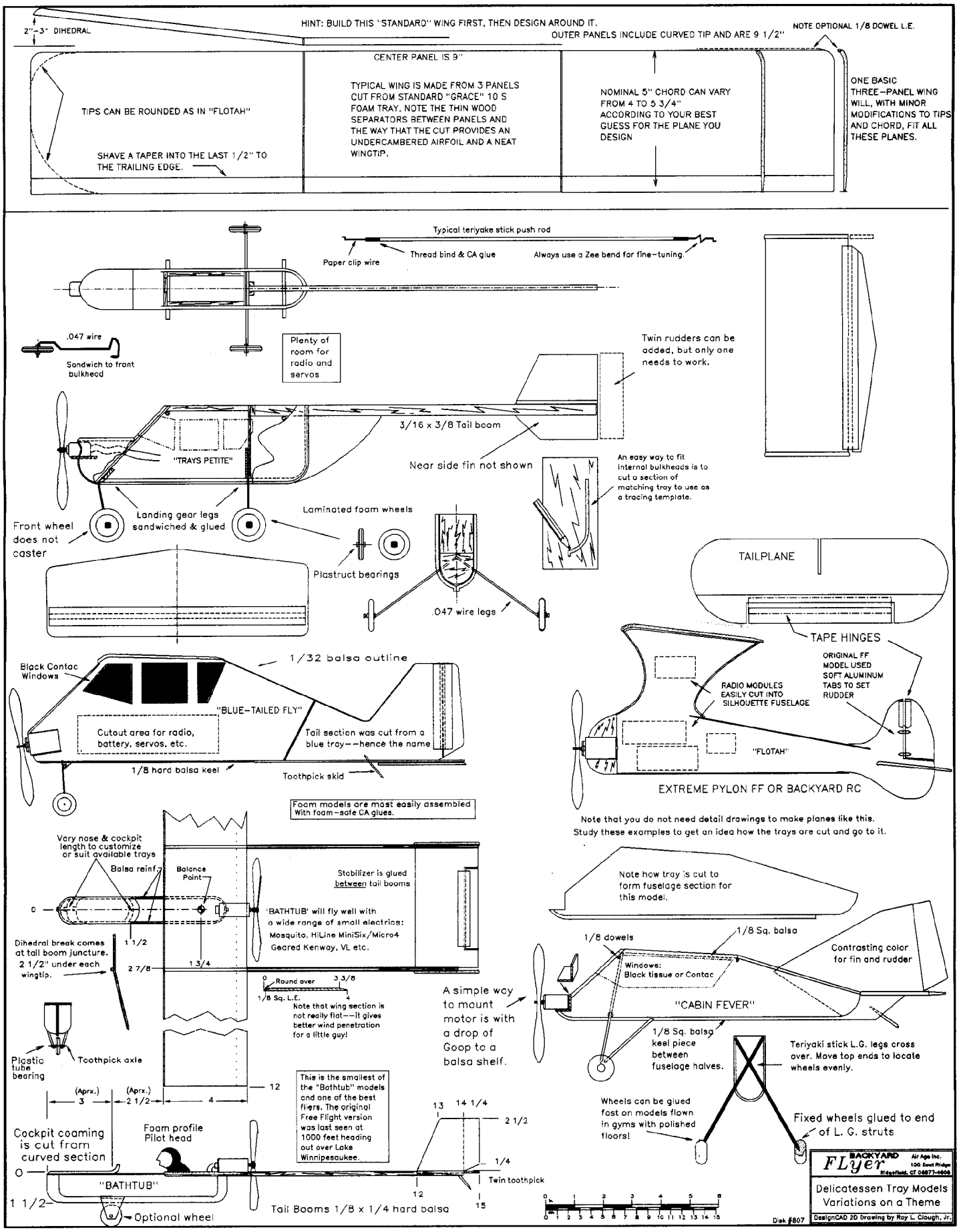
2"–3" DIHEDRAL
HINT: BUILD THIS "STANDARD" WING FIRST, THEN DESIGN AROUND IT.
OUTER PANELS INCLUDE CURVED TIP AND ARE 9 1/2"
NOTE OPTIONAL 1/8 DOWEL L.E.
CENTER PANEL IS 9"
TIPS CAN BE ROUNDED AS IN "FLOTAH"
SHAVE A TAPER INTO THE LAST 1/2" TO THE TRAILING EDGE.
TYPICAL WING IS MADE FROM 3 PANELS CUT FROM STANDARD "GRACE" 10 S FOAM TRAY. NOTE THE THIN WOOD SEPARATORS BETWEEN PANELS AND THE WAY THAT THE CUT PROVIDES AN UNDERCAMBERED AIRFOIL AND A NEAT WINGTIP.
NOMINAL 5" CHORD CAN VARY FROM 4 TO 5 3/4" ACCORDING TO YOUR BEST GUESS FOR THE PLANE YOU DESIGN
ONE BASIC THREE–PANEL WING WILL, WITH MINOR MODIFICATIONS TO TIPS AND CHORD, FIT ALL THESE PLANES.
Typical teriyake stick push rod
Paper clip wire
Thread bind & CA glue
Always use a Zee bend for fine–tuning.
.047 wire
Sandwich to front bulkhead
Plenty of room for radio and servos
Twin rudders can be added, but only one needs to work.
3/16 x 3/8 Tail boom
"TRAYS PETITE"
Near side fin not shown
An easy way to fit internal bulkheads is to cut a section of matching tray to use as a tracing template.
Front wheel does not caster
Landing gear legs sandwiched & glued
Laminated foam wheels
Plastruct bearings
.047 wire legs
TAILPLANE
TAPE HINGES
ORIGINAL FF MODEL USED SOFT ALUMINUM TABS TO SET RUDDER
RADIO MODULES EASILY CUT INTO SILHOUETTE FUSELAGE
"FLOTAH"
EXTREME PYLON FF OR BACKYARD RC
Black Contac Windows
1/32 balsa outline
"BLUE–TAILED FLY"
Cutout area for radio, battery, servos, etc.
Tail section was cut from a blue tray––hence the name
1/8 hard balsa keel
Toothpick skid
Foam models are most easily assembled With foam–safe CA glues.
Note that you do not need detail drawings to make planes like this.
Study these examples to get an idea how the trays are cut and go to it.
Vary nose & cockpit length to customize or suit available trays
Balsa reinf.
Balance Point
Stabilizer is glued between tail booms
'BATHTUB' will fly well with a wide range of small electrics: Mosquito, HiLine MiniSix/Micro4 Geared Kenway, VL etc.
Dihedral break comes at tail boom juncture. 2 1/2" under each wingtip.
Round over
1/8 Sq. L.E.
Note that wing section is not really flat––it gives better wind penetration for a little guy!
Plastic tube bearing
Toothpick axle
Note how tray is cut to form fuselage section for this model.
1/8 dowels
1/8 Sq. balsa
Windows: Black tissue or Contac
Contrasting color for fin and rudder
A simple way to mount motor is with a drop of Goop to a balsa shelf.
"CABIN FEVER"
1/8 Sq. balsa keel piece between fuselage halves.
Teriyaki stick L.G. legs cross over. Move top ends to locate wheels evenly.
Wheels can be glued fast on models flown in gyms with polished floors!
Fixed wheels glued to end of L. G. struts
This is the smallest of the "Bathtub" models and one of the best fliers. The original Free Flight version was last seen at 1000 feet heading out over Lake Winnipesaukee.
Cockpit coaming is cut from curved section
Foam profile Pilot head
"BATHTUB"
Optional wheel
Tail Booms 1/8 x 1/4 hard balsa
Twin toothpick
BACKYARD FLyer
Air Age Inc. 100 East Ridge Ridgefield, CT 06877-4606
Delicatessen Tray Models
Variations on a Theme
Disk #807
DesignCAD 2D Drawing by Ray L. Clough, Jr.