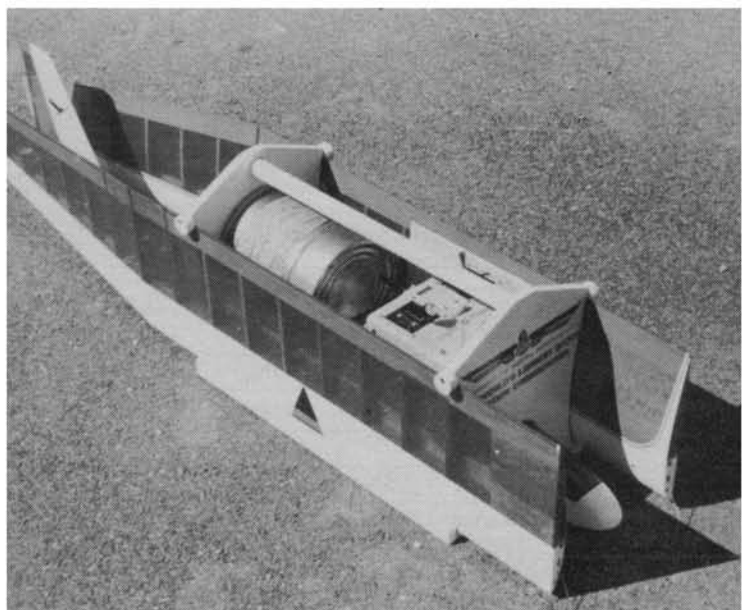


All in one hand! Two caddies fit into the trunk of a compact auto. Below: Note the compact arrangement of the fuselage and wings. If your ship does not have removable stabilizers increase the caddy height so that wing position can be raised to clear the empennage.



# rc glider caddy

A combination field box and glider carrier allows you to tote in one hand everything needed for flying—including the airplane.

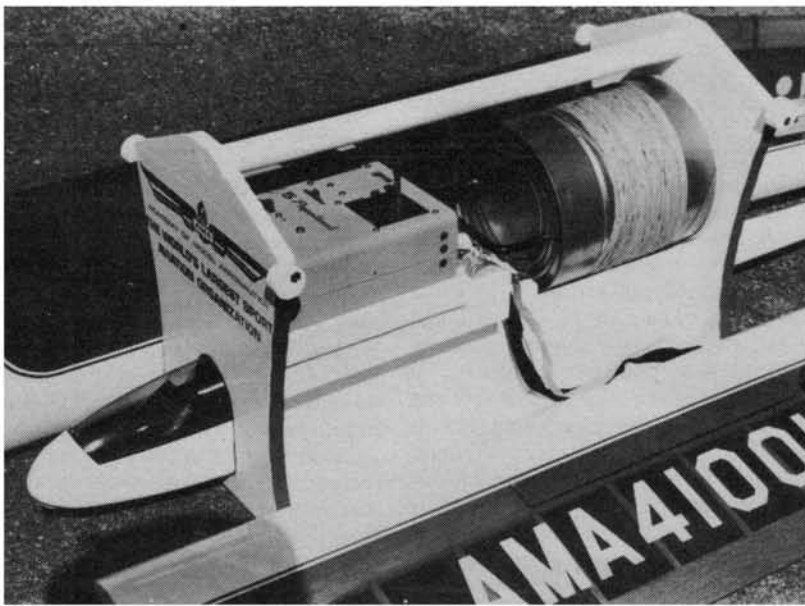
TRANSPORT OF YOUR RC glider and support equipment from house to car and then from car to flying site is a simple task if you have three pairs of hands and the dexterity of a circus juggler. Since I am not so endowed, the idea of a combination field box and glider carrier was conceived. With the RC Glider Caddy I can now carry everything needed for a flying session in one hand. Also, I found that less space is used up in the trunk of my compact car leaving room for other cargo; now, when car pooling with a flying friend, additional models can easily be accommodated without the worry of damage in transit. Besides providing convenient storage at home, the Glider Caddy helps keep the wings warp free; model aircraft flying surfaces, particularly glider wings, are susceptible to warpage if improperly stored.

As shown in the photographs and sketches, the caddy will hold the following: 1) Components of one RC glider; 2) Hi-start container; 3) RC transmitter; 4) Tools, stop watch, spare parts, hi-start stake, etc.; 5) Adhesives—these are kept in a separate compartment to prevent “gunking” up items kept in the storage box.

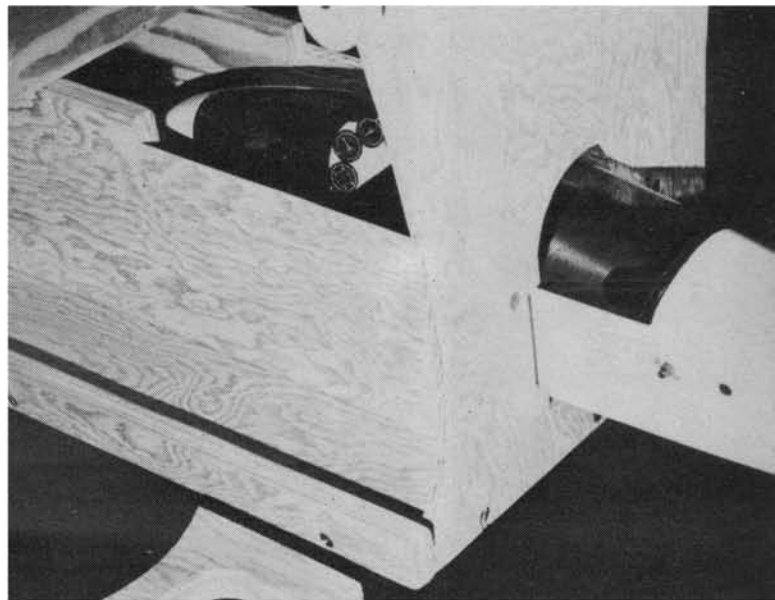
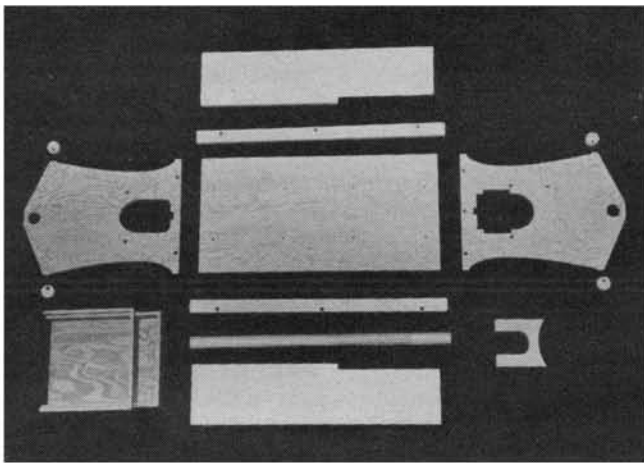
Additional space is available between the wings and fuselage compartment. I use this space to store the removable stabilizers and alignment rods from my glider. Storage compartments could be built in this location depending on personal preferences and individual requirements.

Although the sketch and photographs show the configuration I used for my

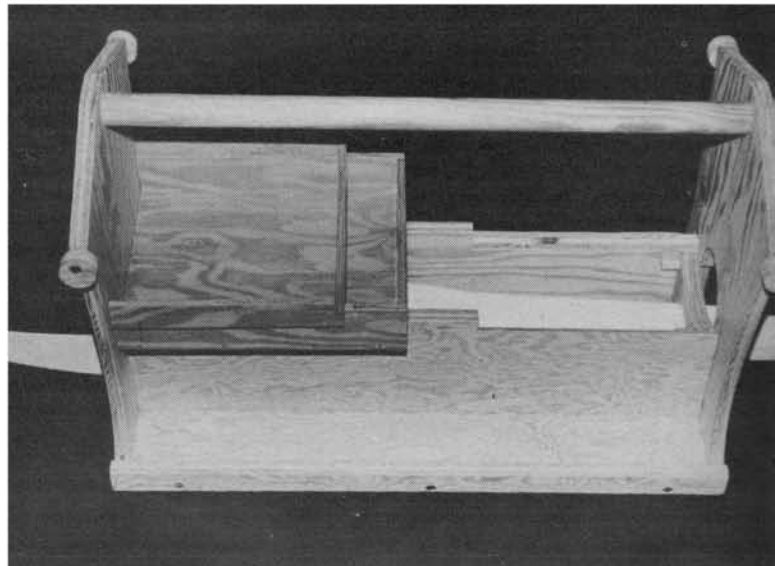
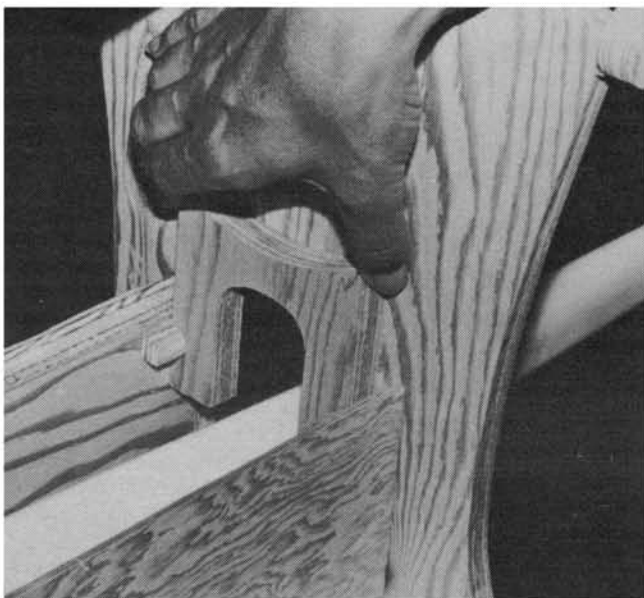
Roger Carignan



Left: Tools, transmitter, hi-start, are put in place before wing. Note felt lining on edges to protect glider surfaces. Below, L: All the parts cut out—all 1/2-in. plywood except storage box, transmitter holder which are 1/4-in. stock. Below: Rear cut-out allows fuse to pass through.



Below: Retainer slides in place to keep fuselage in position during transit. A loose fit at this stage will prevent binding when finish and felt lining are applied. Below, R: Side view shows the transmitter holder, storage box, and hi-start positions. The retainer top may require some shaping to clear the hi-start container. All pix by the author.



Aquila, the caddy dimensions for other glider types may be determined by the calculations outlined in steps A through K on the plan sketch.

Except for the storage box and transmitter holder, I used  $\frac{1}{2}$ " exterior plywood for all parts; this resulted in a finished weight of six pounds six ounces. If you wish to save about a pound and a half,  $\frac{3}{8}$ " plywood may be substituted but may result in a less rigid structure and may be more difficult to assemble. I recommend using  $\frac{1}{2}$ " plywood and accepting the extra weight; my caddy, loaded and ready to go, weighs  $16\frac{1}{4}$  pounds.

**Construction Hints:** Calculate dimensions A through K on the plan; these are determined from measurements of your glider components, transmitter, and hi-start

container. The fuselage height measurement should include the tow hook. If your glider has a non-removable horizontal stabilizer, dimension "C" may have to be increased and the wing position raised to clear the stabilizer. With tapered wings, the proper clearance may be obtained by locating the wing position so that the narrow wing tips extend over the stabilizer. If you are not sure of the arrangement, a sideview layout drawing showing component locations can restore your confidence before cutting wood. I have found that this is most easily done by working directly on the kit plans of the glider.

The first pieces to be cut out are the base, ends, and fuselage compartment sides since these form the main structure of the unit. Check end pieces for squareness to ensure that the wings will not be

stored in a warped condition. The wing air-foil shape cut-outs and dimensions of the front fuselage opening can be determined from the kit glider plans. If glider plans are not available, make cardboard templates and trim until the required fit is obtained. Remove  $\frac{1}{32}$ " extra on all surfaces which contact the glider to allow for felt which will be added later.

Temporarily assemble the main structure pieces using 1" long number six flat-head wood screws; predrill to prevent splitting and countersink for the heads. At this stage, check the general fit of the components; the rear opening should allow the fuselage to be slipped through and into the front opening. The yoke-type rear fuselage retainer (item 4 in the plan sketch) slides between the fuselage compartment sides at the rear opening; this piece is guided by four  $\frac{1}{2}$ " plywood cubes glued in place.

For the handle, I used a discarded broomstick but a 1" diameter dowel or metal tubing would serve as well. Cut holes for a snug fit of the handle through both pieces.

With the base, sides, handle, and fuselage compartment sides temporarily assembled, check the hi-start container positioning. The fuselage compartment sides may have to be cut down to allow the hi-start container to clear the handle; make sure there is a minimum of  $\frac{1}{8}$ " clearance between the hi-start container and the fuselage.

Cut out four 1"-diameter plywood wing retainers; drill and countersink these about  $\frac{1}{4}$ " off center so they can be swiveled up to clear the wing trailing edge. The wing leading edge is retained by a length of 1"-wide plywood attached to the base.

The main components may now be assembled and glued; before the glue dries, make sure the end pieces align properly so as not to warp the wing.

Cut out the transmitter holder and storage box parts from  $\frac{1}{4}$ " plywood; predrill for brads at the joints and assemble with glue. Attachment of this unit in position over the fuselage compartment completes assembly of the caddy.

The unit may be finished to satisfy your personal preference. As a minimum, all surfaces should be sealed and given one coat of finish for moisture resistance. My caddy was given one coat of latex sealer and two coats of gloss latex paint with light sanding between coats. When the finish has thoroughly dried, apply felt to all surfaces which contact the fuselage and wings. I used double sided tape to adhere felt cloth to the edges. Some department stores sell felt tape with an adhesive backing to provide non-scratch surfaces for table objects; this material, if obtainable, will simplify application of felt to the required surfaces.

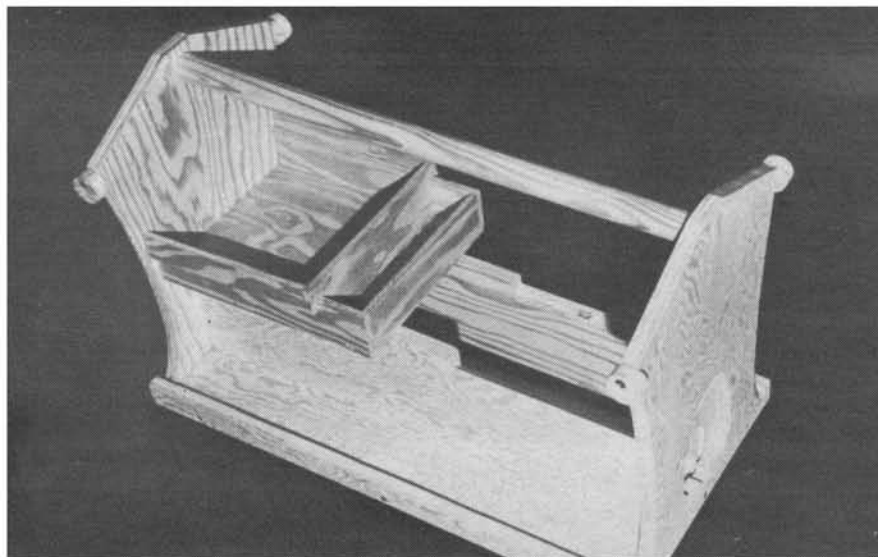
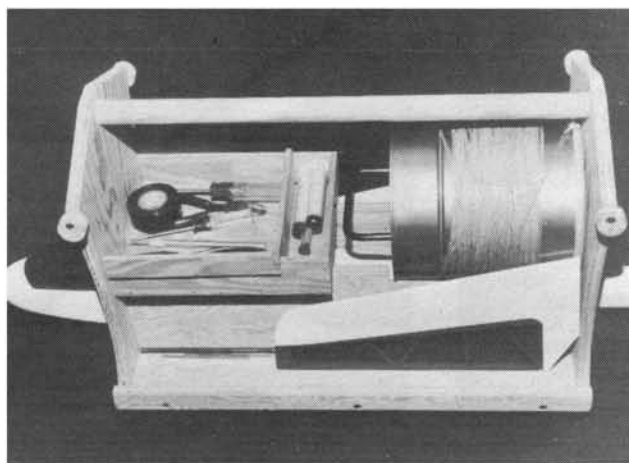
Rubber feet added to the bottom will protect against abrasive surfaces. Decals, AMA number, etc. may be added according to personal preference for the finishing touch.



**Left:** The wing retainers are simple plywood discs held in place with a flat-head screw through an off-center hole. A half turn on each retainer releases the wing.

**Below:** Adhesives are kept in a separate compartment to protect tools in case of leakage. Removable stabilizers are stored between wings and hi-start container.

**Bottom:** The assembled caddy ready for finishing. After gluing together, check for alignment before glue has dried. This is important to ensure that the wings have warp-free storage. Rubber feet attached to the bottom will protect against abrasive surfaces.

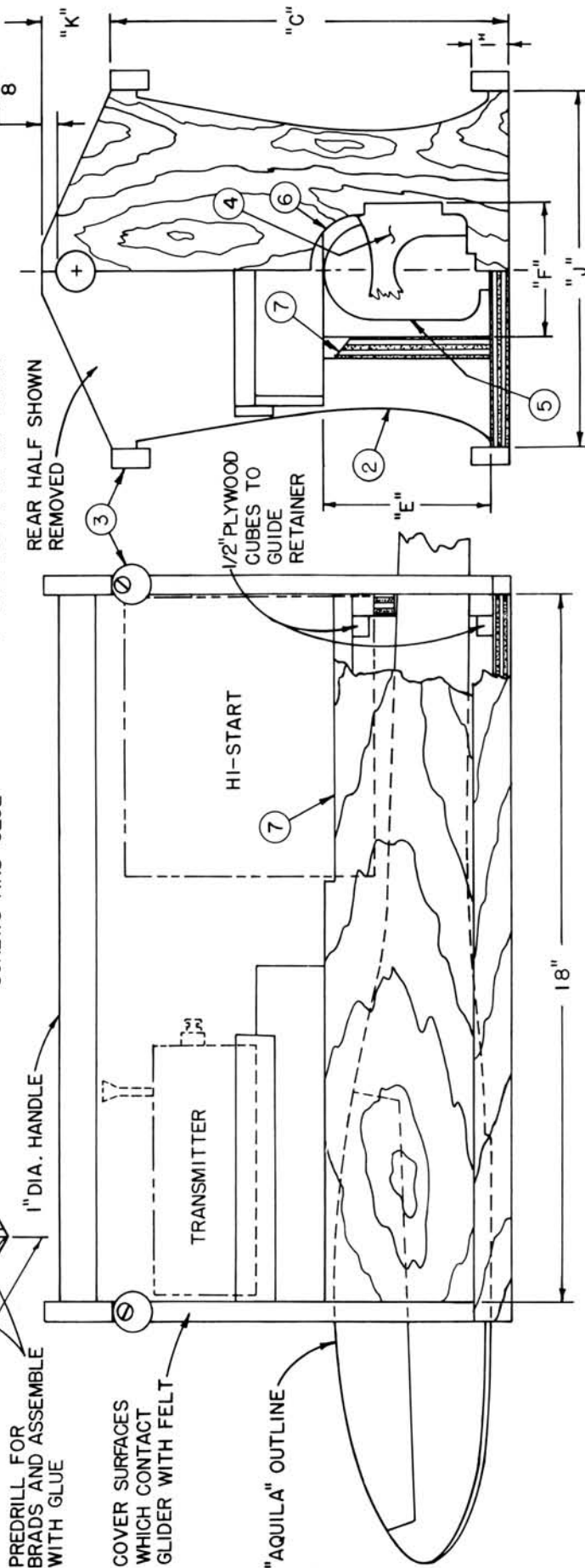
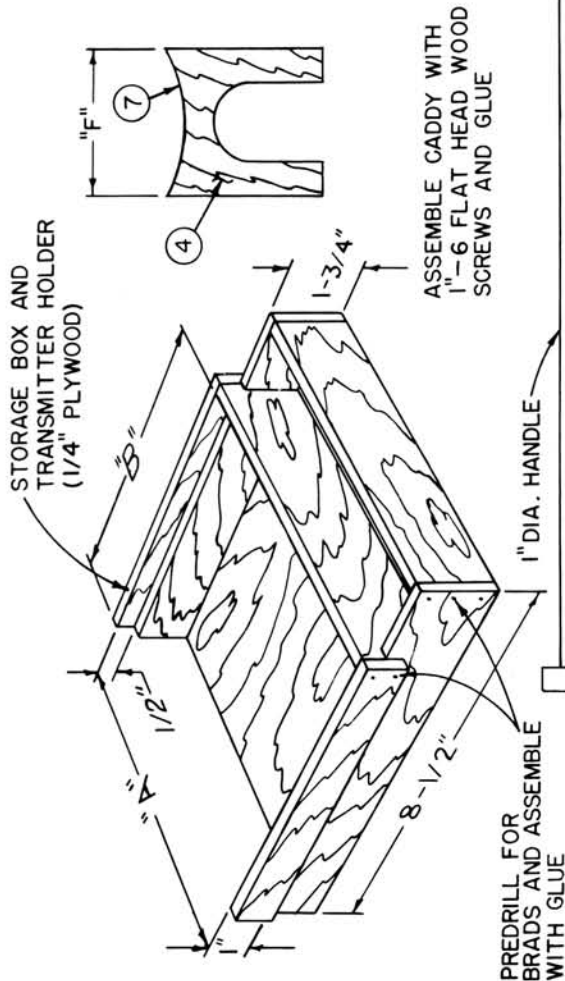


**DIMENSIONS:**

- A=TRANSMITTER WIDTH + 1/8"
- B=TRANSMITTER HEIGHT + 1/8"
- C=MAXIMUM WING CHORD + 1-1/8"
- D= WING THICKNESS
- E= MAXIMUM FUSELAGE HEIGHT + 1/8"
- F= MAXIMUM FUSELAGE WIDTH + 1/8"
- G= HEIGHT OF FUSELAGE AT HI-START LOCATION
- H= HEIGHT OF HI-START CONTAINER
- J= A + 2xD + 1/2"
- K= G + H - C + 3"

**NOTES:**

- 1- ALL PARTS EXCEPT STORAGE BOX ARE 1/2" PLYWOOD
- 2- SHAPE TO FIT WING AIRFOIL
- 3- 1" DIAMETER, 1/2" PLYWOOD WING RETAINERS
- 4- REAR FUSELAGE RETAINER (REMOVABLE)
- 5- FRONT OPENING TO FIT THE FUSELAGE
- 6- REAR OPENING TO CLEAR FUSELAGE
- 7- CUT OUT FOR HI-START



**R/C GLIDER CADDY** BY ROGER CARIGNAN