TIGER MOTH

Cox Tee Dee .020 powered Ace pulse controlled schoolyard Tiger Moth beats inflated gas and balsa prices.

By Walt Mitchell ***Photos by Bill Bell***

When President Ford made his stirring speech asking everyone to send in their ideas on how to stem the rising tide of inflation, I responded immediately. My simple but eloquent letter read as follows:

Dear Mr. President:
Have everyone build smaller model airplanes.

Your friend,
Walter Mitchell, Jr.

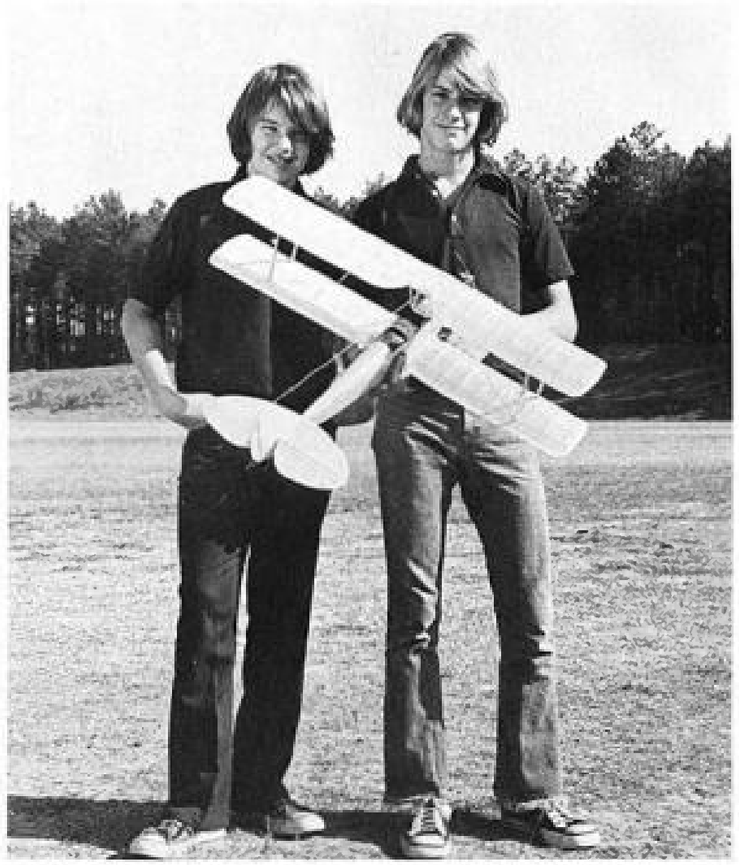
He replied by return mail, complimenting mine as a patriotic suggestion and me as a patriotic kid. He asked my age and requested a picture for publicity purposes. I sent him this keen photo, my favorite, of me in helmet and goggles affecting a pencil-thin moustache. Apparently the picture was not suitable. I have had no further communication from the President, only a peevish letter from one of his assistants requesting that I turn in my **WIN** button.

Maybe they have something **against** patriotic 45 year old kids. Whatever, my even-tempered personality allows me to shrug off what could well have carried the curdle of insult. Great men toil steadily upward while petty men bicker and sulk.

Washington's inconsistencies notwithstanding, the Schoolyard Tiger **does** do a good job of fighting inflation. Cost of glue and balsa is less than $5.00. Silk has gone sky-high, but you could easily use silk-span, Jap tissue or even MonoKote. The Moth has such lift that it could handle more weight. Gas economy? We have been flying nearly every weekend for two months and still have not used a pint of gas.

The original Moth was designed by Sir Geoffrey de Havilland, a proper gentleman whose name is synonymous with British aviation. Sir Geoffrey first flew his "Cirrus Moth" in 1925; "Cirrus" from the name of the engine and "Moth" because the wings could be folded back like those of a natural-born, clothes eating moth for storage or transport. A number of Moth designs evolved, among them Gypsy Moth, Puss Moth, Moth Mayor, Metal Moth, Leopard Moth, Fox Moth, Hornet Moth and, of course, our Tiger Moth. If these sound like funny names for airplanes, consider how funny Englishmen talk anyhow. A learned fellow of my acquaintance, Ludlow Porch of Snellville, Georgia, claims all that English talk is put on . . . that if you woke an Englishman suddenly in the middle of the night, he would talk just like you and me.*(Editors note: RCM neither accepts nor rejects this theory, philosphy being outside the province of this magazine. The reader should know that Mr. Porch also firmly believes there is no such place as Montana.)*

But Tiger Moth it is, and she is queen of all the Moths. This sweet handling airplane gave the British wings and trained the Spitfire and Hurricane pilots who defended Britain in her finest hour in WW II. The ubiquitous Moth became so popular in Old Blighty that people began to call all light planes "Moths." The prototype seems to have had a blue fuselage with clear doped, muslin covered wings and tail. The standard color for later models came to be silver, much as yellow became the color of the Piper Cub in this country.

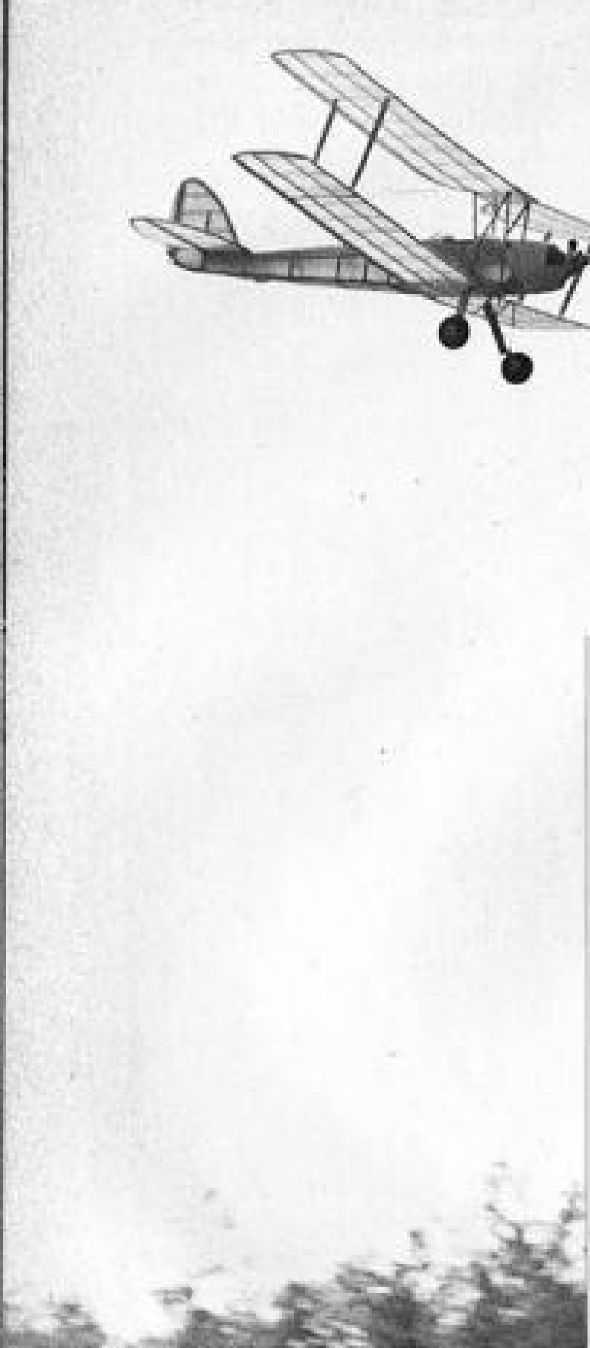


Paul Cushing, Dave Mitchell, and the Gentle Tiger of the Schoolyard.

The Schoolyard Moth is not scale but could be made so with a little attention to detail. Scale nuts should see "The Great Planes" published by Grosset & Dunlap, an excellent tome on all the old favorites with good pics of the Tiger Moth and other Moth variations. My wife gave me a copy for my 45th birthday (or bar mitzvah, as the French say), demonstrating yet again that women provide other amenities beyond preparing food and cleaning. Indeed, man does not live by model airplanes alone.

Though I spend all of my waking hours in the shop and take my meals there, my wife generally does not give me any grief over what could be considered excessive modeling. But unless treated firmly, wives can be very dangerous to modelers, not from any desire on the part of women to destroy our hobby, but from a Darwinian instinct for survival. Who can blame them, eh? Who? You come home with a new kit in a box the size of a small coffin. "What is **that?**" your wife screams, startled by the introduction of a large, alien object into the domestic tranquility.

Careful now. Your answer may determine the success or failure of your next project. Don't try to lie or be evasive. Don't let your eyes dart about from side to side. Face the challenge squarely and say "This is a model airplane. I am going to build it. If, per chance, you don't like it, I this and that on your such and such." **Warning:** this is a hard line, and you should be prepared to back it up. She may say "Clyde" (if that be your name) "go ahead and this and that on



TIGER MOTH
Designed By: Walt Mitchell

TYPE AIRCRAFT
Sport or Stand-Off Scale
WINGSPAN
35 Inches (Both Wings)
WING CHORD
5⅝ Inches
TOTAL WING AREA
372 Square Inches
WING LOCATION
Bi-Plane
AIRFOIL
Flat Bottom
WING PLANFORM
Constant Chord
DIHEDRAL, EACH TIP
1⅞ Inches (Both Wings)
O.A. FUSELAGE LENGTH
26¼ Inches
RADIO COMPARTMENT AREA
(L) 4¾" X (W) 1¾" X (H) 1½"
STABILIZER SPAN
12⅝ Inches
STABILIZER CHORD (incl. elev.)
4½ Inches (Average)
STABILIZER AREA
56½ Square Inches
STAB AIRFOIL SECTION
Flat
STABILIZER LOCATION
Top Of Fuselage
VERTICAL FIN HEIGHT
4 Inches
VERTICAL FIN WIDTH (incl. rudder)
4 Inches (Average)
REC. ENGINE SIZE
.020 Cubic Inch
FUEL TANK SIZE
1 Ounce
LANDING GEAR
Conventional
REC. NO. OF CHANNELS
Single (Pulse)
CONTROL FUNCTIONS
Rudder Only

BASIC MATERIALS USED IN CONSTRUCTION

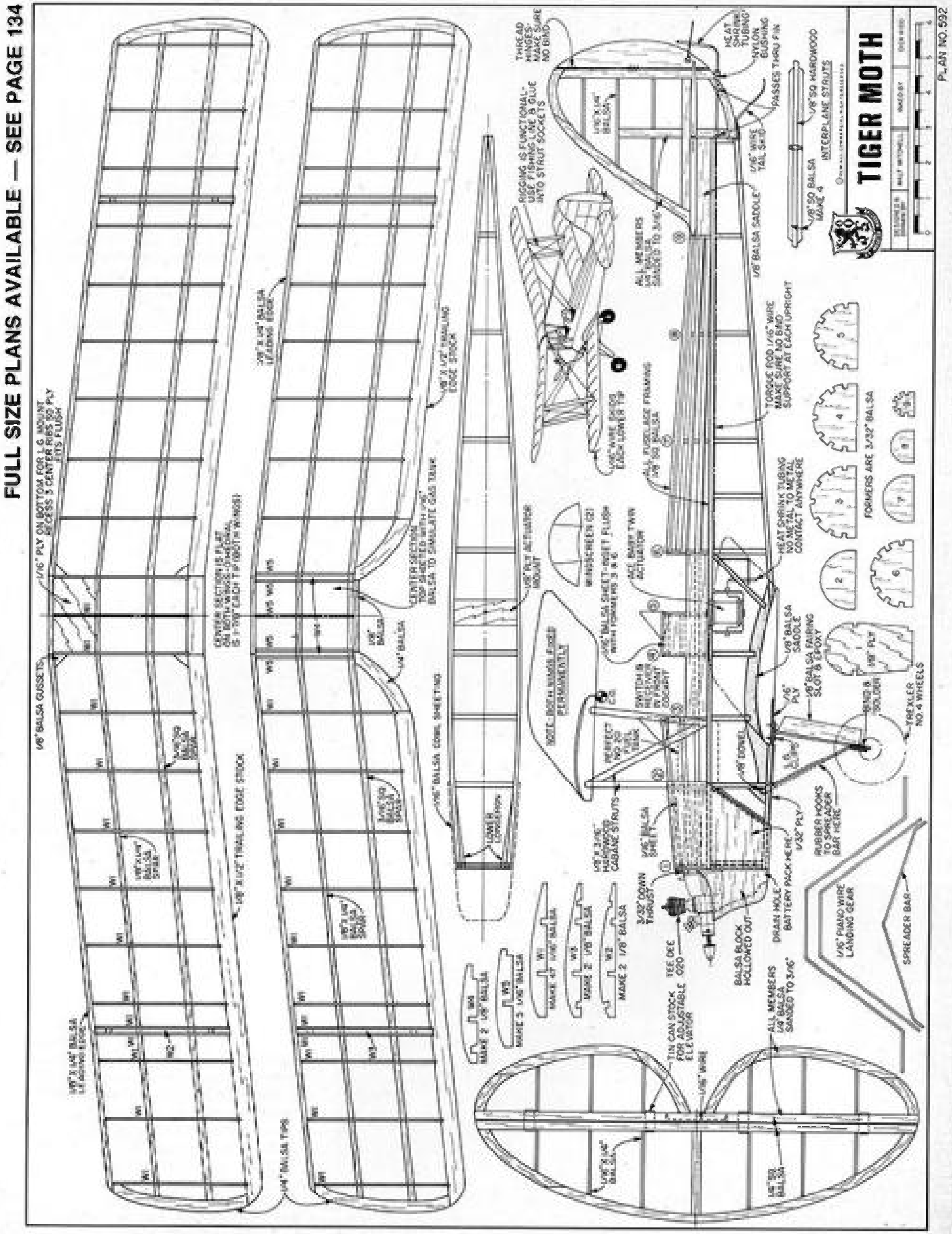
Fuselage	Balsa and Ply
Wing	Balsa
Empennage	Balsa
Weight Ready-To-Fly	12 Ounces
Wing Loading	4.6 Oz./Sq. Ft.

my such and such, **if you dare.**" She may also offer to hit you in the mouth with a wagon spoke, a truly classical case of confrontation, for those of you who have studied transactional analysis — but I digress. Don Dewey made me promise to stick pretty much to technical details in this story, my past articles for RCM having wandered somewhat. So, back to the technology:

My drawings are from the Tern Aero design, scaled up with modifications for Ace R/C equipment. Covered with silk and carrying about eight coats of clear dope, the airplane weighs in at 3/4 pound all up. The plans should be self-explanatory. Note that the flying wires, which are fishing line, are functional and glued into the interplane and cabane strut sockets. Both wings are glued on permanently, avoiding the usual bird-cage hassle of a biplane. Access to the R/C gear is through the cockpits. The prototype carries a reserve Perfect #20 gas tank as well as the tank attached to the Tee Dee. The larger tank will serve you best, once you have the Moth trimmed out to your satisfaction.

Trimming is **most important.** Hinged with light tin strips, the elevator is adjustable — but not in flight. You will be tempted to push forward or pull back on the Ace transmitter stick, but forget it. This airplane has to fly of its own accord. You can't force it through the air as you are accustomed to doing with the big bombs. You should R.O.G. on your test flight with a very small amount of down elevator. It will track with only slight rudder correction, and should run about 50 feet before breaking ground. If you have cranked in too much down, it won't get off the ground; but this is decidedly preferable to excess up,

FULL SIZE PLANS AVAILABLE — SEE PAGE 134



Note landing gear suspension system. Wing rigging is functional.

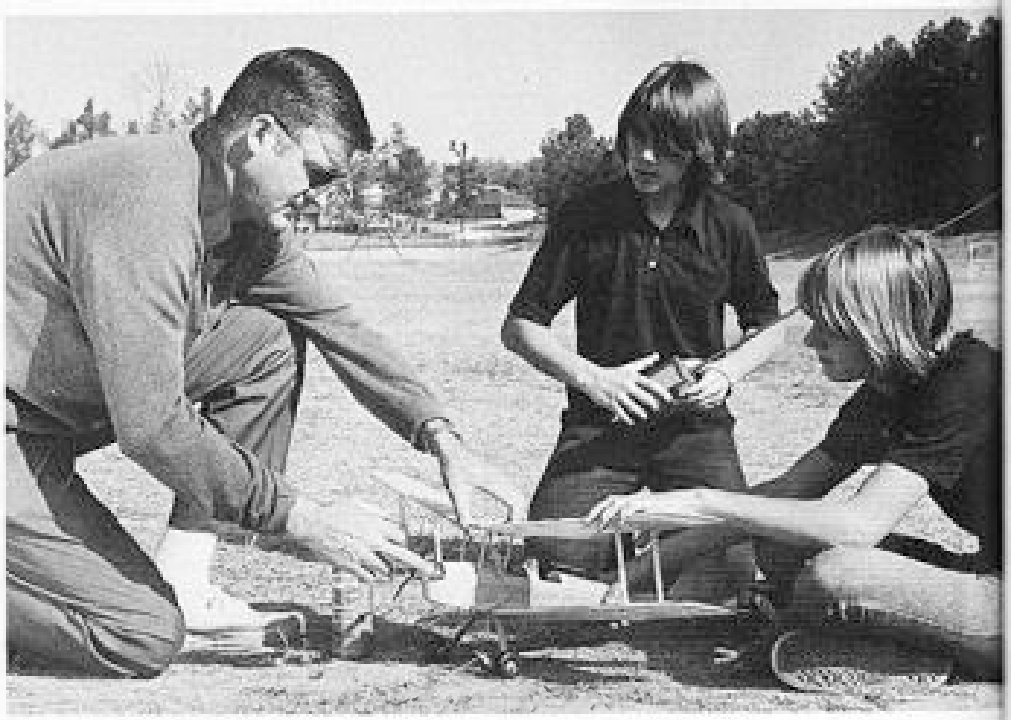
folks to do business with. Please note, however, that this is **not** a commercial. Although I am frequently called "Ace" by admirers at the flying field, it is because of my daring and resourceful flying ability, not because of any relationship with Ace R/C. To smooth Phil Kraft's feathers, be it known that there has been some discussion about putting two of the small Kraft servo's in the Schoolyard Tiger, with an .049 up front.

In closing, I ask your indulgence as I briefly relax my sternly imposed and self-effacing modesty to tell you that this is a real great little airship. It will R.O.G. better than you can with 5 channels, its climb rate is realistically slow, its glide ratio is long, slow, and flat and it touches down and rolls out like you wouldn't believe. You really can fly it at the schoolyard, and it will certainly draw a crowd, most of whom can't believe the little bird is being mysteriously influenced by radio waves.

You should build it, save a buck and have a ball. If it embarrasses you to go to an official R/C field with a little bitty single channel toy airplane, disguise kits are available from R/C Modeler Magazine at a reasonable price. These are quite effective and consist of a derby hat, clip-on beard and rubber cigar. □

which will result in a series of stalls and consequent loss of control. If you do get into the air with too much up, take the top off of each stall with right or left rudder, driving the Moth into the wind in a series of "S" curves and get down as soon as possible. Adjustment is trial and error. Always make your error on the side of too much down elevator.

The Ace radio gear is simple, dependable, light (2½ oz.) and worth every penny you spend on it. An overnight charge will provide you with all the flying time you want. I'm not sure how much air time you can put on a single charge, but my kids have had it running continuously on the bench for an hour and a half. Maybe Ace could comment on this. If you need service, Ace will fix it and get it back to you with a turnaround time of about 10 days. Good



Intrepid author cranks .020 without chicken stick. Kids look on in awe.

Tiger Moth weighs in at 12 ounces, all up. Silk, with clear dope.

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TIGER MOTH

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