PLANE & PILOT

FEBRUARY 1972
75c
47782

FIRST PILOT REPORT:
American's 4-place Traveler

MAULE STRATA-ROCKET; Real STOL

CHEROKEE Muscle - The "Big 6"

The LANCER - World's Worst Twin?

Ford-Powered FUNK

Mandatory Check Rides Are Coming

Further Adventures of Ol' Eldon

it's our hero! SNOOPY

gay and colorful hand painted 14K gold finished jewelry and trophyettes perfect gifts for you, family and friends!

Golfer

Ice Skater

Skier

Bowler

Jogger

Tennis Player

Skin Diver

Baseball Player

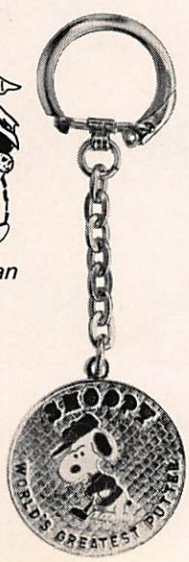
Putter

Surfer

Football Player

Fan

Hockey Player



Flying Ace

SNOOPY TROPHYETTES $3

That loveable beagle is the World's Greatest! Have him in any one of 10 characters with his title engraved on a gold colored plaque right below the WORLD'S GREATEST. Five inches over-all in these styles:

- flying ace
- tennis player
- baseball player
- hockey player
- football player
- golfer
- aviator
- skier
- bowler
- fan

LOTS OF SNOOPY JEWELRY $3

Tie Tacs . Key Chains

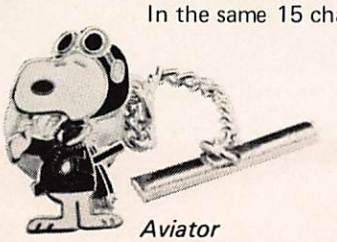
Tie Clasps . Pins

Available in 15 perfectly athletic characters:

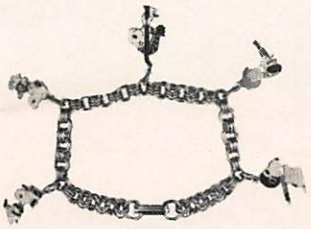
- golfer
- aviator
- skier
- bowler
- fan
- flying ace
- tennis player
- baseball player
- hockey player
- football player
- putter
- skin diver
- surfer
- ice skater
- jogger

LARGE SNOOPY CUFF LINKS $5

In the same 15 characters as the jewelry!



Aviator



2 TYPES CHARM BRACELETS

$10 each 5 charms each.

Type A
- Snoopy
- Lucy
- Charlie
- Linus
- Schroeder

Type B
- Jogger
- Putter
- Skier
- Flying Ace
- Schroeder

Sorry No substitutions.

WINDOM SUPPLY COMPANY
BOX 24484-PP, Westwood Village Station, CA 90024

Please send me the following Snoopy items:

item	character	type	quantity	price ea.	TOTAL
				Add 50c per item for postage/handling	
				TOTAL	

Sorry, foreign orders, except Canada, not accepted. **No. C.O.D.'s**

NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____

PIA Checkout

Fact and Opinion from the pen of *Gene Roeckers*

Executive Secretary, PILOTS INTERNATIONAL ASSOCIATION INC.

CARBURETORS ON ICE

'How can I tell if I've got carburetor
" the student pilot wanted to know.
'Because a big lump of it forms in
r throat at the same time it shows
in your carburetor," the instructor
wryly.

That may be more fact than fiction.
pitfalls to aviation strike terror
pilot more than ice. Surface ice
foul control surfaces, add danger-
weight, and actually change the
dynamics of your airplane. It can
it a stall speed close to cruising
d, a sink rate just slightly slower
a falling safe, and the general
it characteristics of a grand piano.

Carburetor ice may be the trickiest
ll because it can occur on a clear
with no moisture present, with
temperature above freezing. Worst
ll, you don't know you're getting
until you've got it, it forms more
dly than surface ice, and once it's
e you've got just a few seconds to
e corrective action.

The usual symptoms: Rough run-
g, followed by backfiring, followed
silence. When it's throttle valve ice,
r only indication of it may be a
p in engine rpm. Ice is actually
ing the throttle . . . right down to
d off.

mmediate corrective action: Im-
liate carburetor heat. This should
t the ice. Immediate leaner fuel
ture. Ice reduces air flow and makes
mixture too rich. Immediate change
ltitude . . . preferably down, where
probably warmer. Once the ice is
e, the engine probably will be run-
g too lean. Enrich the mixture again
turn off carburetor heat.

If you can't see it, smell it or taste
how can you avoid carburetor ice
the first place? The best advice is
watch the dew point in relation to
temperature you're flying in. If
y get within 7 degrees of each other
find warmer air. Carburetor ice is
st common when the free air temp-
ure is between 24°F and 50°F and
dew point temperature spread is
egrees or less. So if it's 35°F where
are flying, and the weather service
you the dew point temperature is
F . . . you are in carburetor ice
ntry.

What makes 35° air cool to 30° so
n freeze in your carburetor? When
s sucked into your carburetor, the
city increases (like water through
zzle), the pressure decreases, and
temperature drops . . . sometimes
uch as 20°. When it reaches the
point – you've got ice.

rburetor ice usually can be avoid-
y staying in warm air. But if it
show up, fast action on your part
uld keep you from logging un-
duled landings in cornfields, cow
ures, and golf courses.

A DIALOGUE ON CODE MEDICID

"Ah–choo!"
"Gesundheidt!"
"Godda bad code id by node."
"Sorry to hear it."
" 'ead's ahl stubbed ub."
"Try this: two parts lemon juice two parts honey, two parts hot water . . . and five parts brandy."
"Wow!"
"Then go to bed."
"Bud I godda go on a trib."
"Forget the trib . . . ah trip. Cold remedies can make you drowsy. Don't drive . . . you may wind up trying to explain how you accidentally left the highway and plowed through Mrs. Murphy's rose garden."
"Who said dribe? I'b godda fly."
"Don't be silly! Cold medicines, cough syrups, antihistamines and some pain relievers can make you dopey, fuzzy, totally unfit to fly. You may wind up trying to explain how you accidentally landed on the highway and forced someone else through Mrs. Murphy's rose garden."
"How aboud flyig withoud takig code medicid?"
"You kidding? Put altitude under those plugged sinuses of yours, and you will think somebody's driving nails into your head."
"Thed whad cad I do?"
"Two parts lemon juice, two parts honey, two parts hot water . . ."
". . . ad go to bed, ride?"
"Ride . . . ah, right!"

A $6 DILEMMA

You can do a lot of things with $6 these days. For $6 you can buy 60 10-cent Tutti-frutti flavored ice cream cones. You can buy two haircuts, or you can make a down payment on a dinner for two. You can see a movie with a friend or see a professional football game by yourself. Or if you like, you can buy approximately 20 plastic bags of ice cubes.

Or you can buy 1972 membership in PIA! For that $6 you get a subscription to Plane & Pilot, a free flight calculator and an entire package of membership services. They include: an avgas tax refund service, a pre-flight/in-flight weather service, a book club, a film lending library, the chance to buy the best group insurance plans for pilots on the market, a travel service, a free job placement in Plane & Pilot, plus a free PIA decal for your plane or car.

The choice is yours. The coupon on this page is for you in case you decide on PIA membership.

PIA MEMBERSHIP APPLICATION FOR NEW MEMBERS

Mail to: Gene Roeckers, Pilots International Association Inc.
P.O. Box 907, Minneapolis, MN. U.S.A. 55440

Enclosed are my dues for membership in the Pilots International Association Inc. I understand that my dues are $6.00 per calendar year. Included in this amount is a $3.50 subscription to Plane & Pilot for the calendar year coinciding with membership. *(Please pay in U.S. funds. Make check payable PIA.)* Members residing outside of the North American continent, except APO, FPO and Canada, add $1 to annual dues.

NAME

STREET AND NUMBER

CITY

STATE/PROVINCE/COUNTRY/ZIP

If you are already a subscriber to Plane & Pilot check here: ☐

IMPORTANT: Enclose your mailing label from this issue so your subscription can be continued without interruption.

Type of Pilots Certificate: ☐ Student ☐ Private ☐ Comm'l ☐ ATR Ratings:_____

FIRST PILOT REPORT:

EVOLUTION WORKS FOR AIRPLANES, TOO – THE YANKEE SPAWNS A BETTER BIRD

FOUR-PLACE AMERICAN TRAVELER

By BOB SAID

SOME PEOPLE LIKE to belong to things – Rotary, the Elks, the Jaycees, the Maple Street Bowling League. I, on the other hand, am not a joiner: I belong to only two organizations, both of which have severely limited but exclusive memberships. They are the Curt Comment and Crusty Curmudgeon Club, which convenes whenever I feel obliged to bad-mouth a newly introduced airplane, and the Gee Whiz Sweet Surprise and (Almost) Unreserved Enthusiasm Society, which meets rarely but which will now please come to order.

The subject of today's gathering is a new aircraft. It is not, does not fly like and should not be referred to as a "stretched" version of an older design. Unfortunately, that is how it got its start, but so much happened to the American Aviation model AA-5 Traveler along the way to certification that calling it a stretched two-place Trainer would be exceedingly inaccurate.

The Traveler is the newest four-place airplane on the general aviation scene, and unless I read the airplane and the market very badly, it is going to make a whale of a dent in somebody's four-place sales. Because make no mistake: this airplane is not going to have the problems the Yankee had in making friends. It is quiet, comfortable, fast and attractive, and in terms of sheer handling pleasure in flight I judge it clearly superior to its two major competitors. It climbs surprisingly well, glides excellently and has to be manhandled brutally before it will misbehave. It is far more stable than either of AA's two-seat models, but retains their remarkable control response and agility. Pilots who liked the "mini-fighter" personality of the Yankee will find that the Traveler's rudder and aileron response are just as quick, and its range of pitch response is greater, but it can be trimmed hands-off much more easily.

In short, a formidable new contender is in the lists, and a few of the older gladiators had better shake a leg. If American Aviation's marketing organization is up to the job, the company now has a product with a far better chance against its competition than the Yankee had.

The foregoing, of course, is opinion – something that I am widely known to have an almost inexhaustible supply of. But it is tolerably informed opinion, and I will tell you how the forming was done.

I went to Cleveland, Ohio, where a factory at one corner of the Cuyahoga County Airport is currently churning out large numbers of Travelers, and I spent two days flying the bejayzus out of the first production airplane. All sorts of things were done with zero two Lima, including a couple that shouldn't have been. It was flown heavy and light, high and low, properly and improperly (on purpose – the way so many dim-bulbs fly without realizing it). It was first invited,


N5802L


N5802L

then encouraged, and finally absolutely dared to bite, and all I got out of it was a little nibble. But before offering a detailed account of the Traveler's handling, a review of its design is in order.

It is, of course, an outgrowth of the ill-fated BD-1 design, the good parts of which were the idea of using panels of aluminum honeycomb as primary structure, and the first extensive use in general aviation of metal-to-metal bonding in lieu of bolts and rivets. After Jim Bede's departure from the project, a young Yale graduate named Russel W. Meyer Jr. was named president of AA, and he brought in a new team which took those two concepts and the basic shape of the BD-1 and went to work. After major changes the airplane was certified as the AA-1 Yankee, and it made a less-than-spectacular sales record.

One of the reasons for this was that it had a miserable airfoil for low-speed work, such as landing. Meyer's minions recognized this, and did to the Yankee's wing about what Cessna's engineers did to the original Cardinal when that aircraft suffered a similar rebuff from the buyers: they recontoured the upper forward portion of the airfoil to provide a more rounded leading edge, slightly reducing the speed of the stall and sharply reducing its abruptness. This was an admirable improvement, and together with a better ventilation system and other minor refinements it prompted the company to give the airplane a new name – the Trainer. Not, you will note, the Yankee Trainer, but the American Aviation Trainer. At present it is the only two-seater in production: AA will build you a Yankee if you want one badly enough to special-order and pay for it, but their assembly-line two-seater is the Trainer.

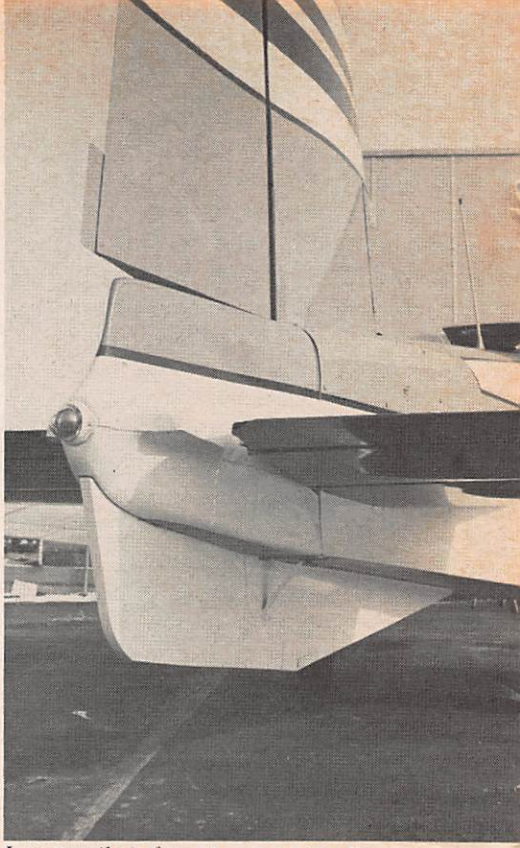
Two-seaters, however, do not a healthy balance sheet make. Meyer and marketing vice president Roy Garrison knew that the company had to have a four-seater of wide appeal, and had to have it fast. The 180-hp Patriot is flying in prototype, but certifying a totally new machine is a long and costly process, and the Patriot would have been butting heads with too many competitors. So the decision was made to add a couple of seats to the Trainer. The result is that close to two thirds of the new Traveler's parts are either common to both airplanes, or so similar to make that the same tools, raw materials and employee skills can be used for little or no extra cost.

The cabin area of the fuselage is made of one bottom and two side slabs of half-inch-thick aluminum honeycomb panel, with smaller pieces for the firewall and aft bulkhead. Aluminum angles are placed inside and outside each joint, with a liberal coating of epoxy adhesive, and the whole lightweight metal "boat" is oven-cured until the bonds are stronger than the metal they join. The adhesive is so strong that four little dabs of it support the engine: the 150-hp Lycoming O-320-E2G is bolted to two engine mounts at the top and two at the bottom, but the mounts themselves are merely glued (bonded) to the honeycomb panels of the cabin box.

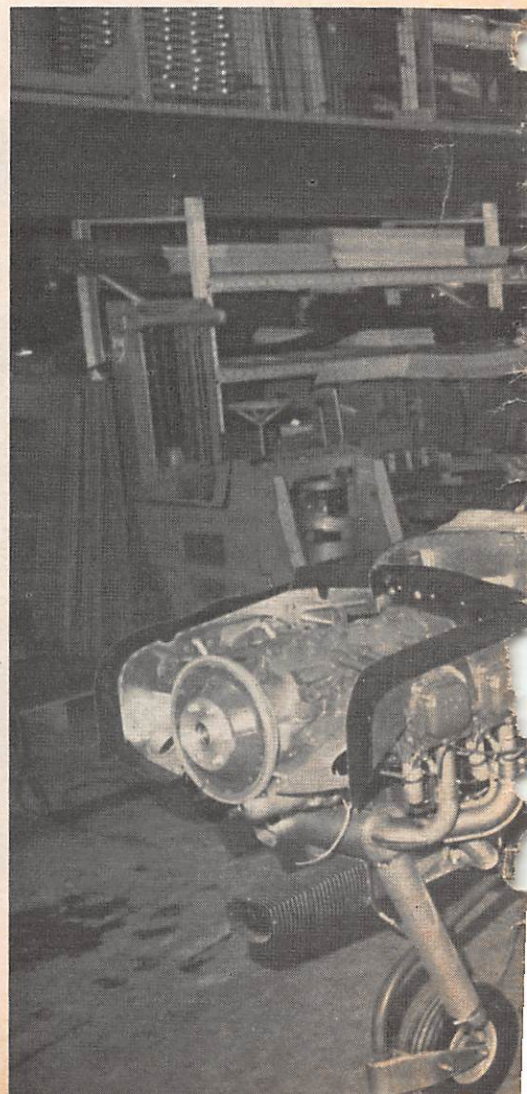
The tail cone structure of aluminum angle longerons and sheet skin is bolted to the rear of the honeycomb-panel cabin box and presto! you have a fuselage.

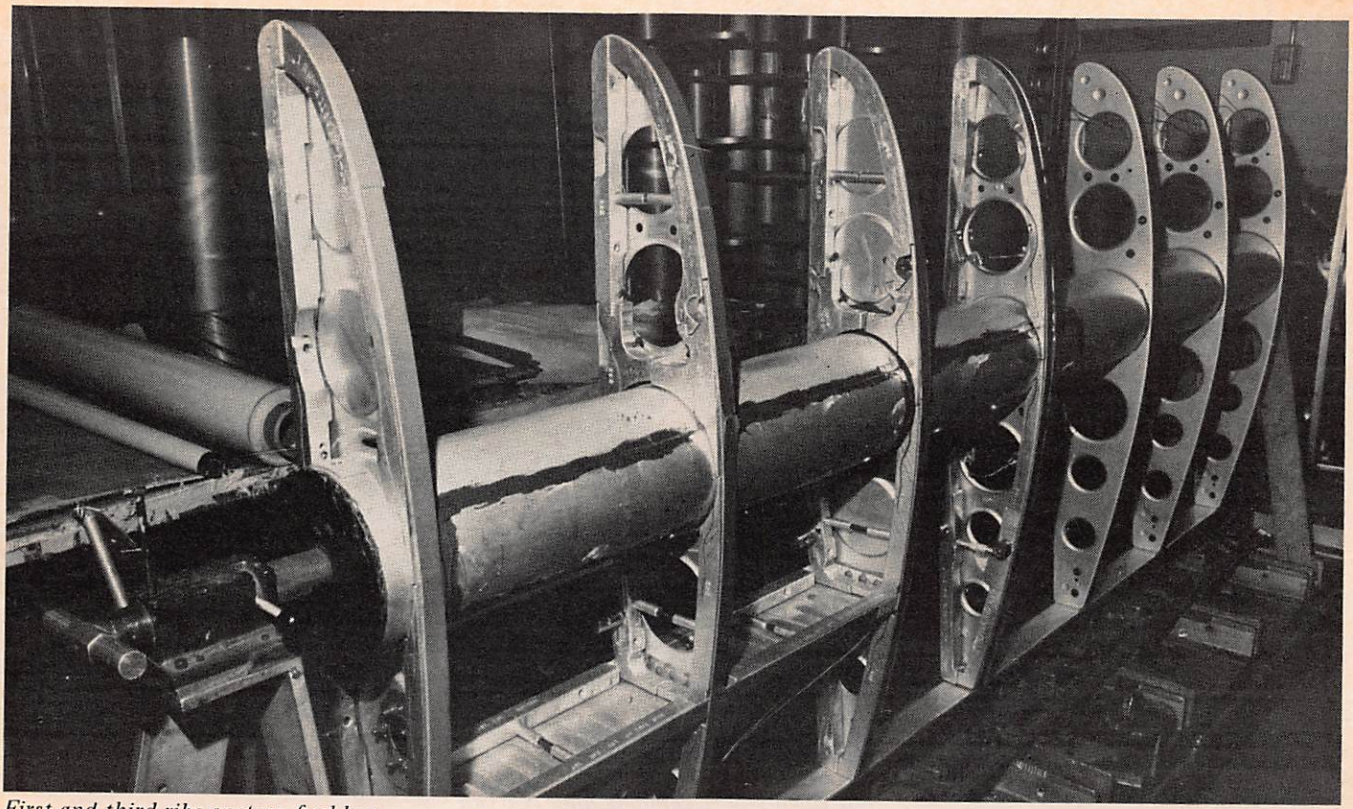
Both the Trainer and Traveler use a tubular aluminum wing spar center section, slightly bent for dihedral. But whereas the Trainer employs only one outer tube section on each side, the Traveler uses two, and unlike both the Yankee and Trainer, it does not carry its fuel supply inside the tubular spar. A two-rib bay at the inboard end of each center wing panel is sealed by bonding to form a wet-wing fuel cell, and each side holds 19 gallons of which half a gallon is unusable. The Traveler's spars are of the same diameter as the Trainer's, but have greater wall thickness and are further strengthened by bonding laminations of aluminum strap along the top and bottom as stiffeners. The skin is bonded in three sheets, with joints to permit spar flexing under loads without wrinkling the skin. The Traveler uses the same basic airfoil as the Trainer, but the wing is four inches wider in chord and the aspect ratio is 7.2 compared to 5.95 for the two-seaters. In that figure lies a great deal of the reason why the Traveler is so much more airplane.

The laminated reinforced plastic main landing gear legs, made of Scotchply, are attached directly to the outboard ends of the main spar center section, and the non-steerable castering nose wheel is mounted on a tubular spring steel leg. I subjected that gear to considerable punishment and



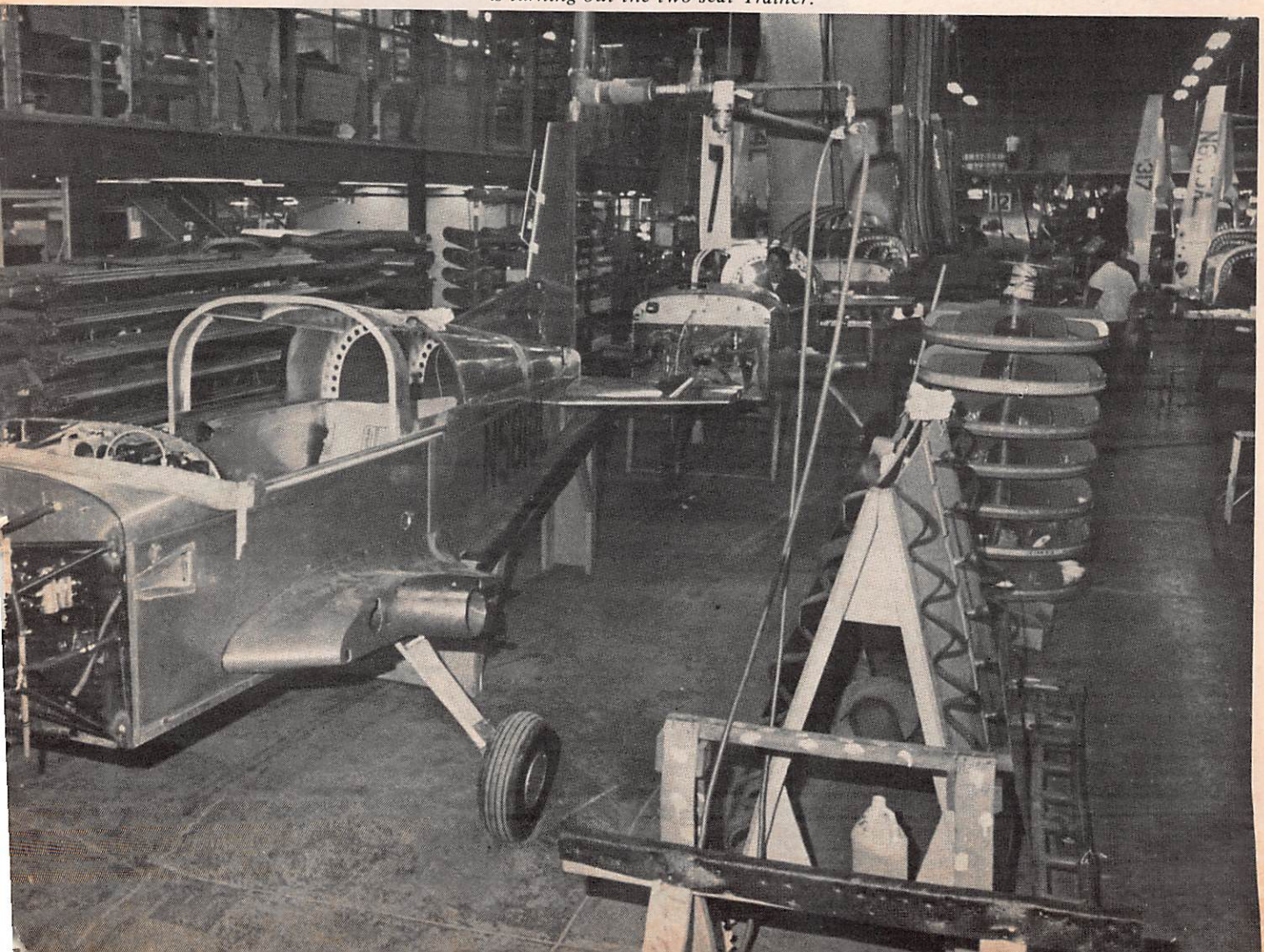
Larger tail surfaces improve handling, and ventral fin was added to help in spin recoveries when loaded to aft CG.





First and third ribs enclose fuel bay. Wing skin, bonded to ribs, is the tank surface aft to panel behind tube spar.

Travelers move down assembly line in Cleveland. A similar line at right is turning out the two-seat Trainer.



am of the opinion that it will handle most any kind of landing with ease, except a landing with one inoperative brake. Ergo, reach up with your toes on final and make sure the brakes feel approximately even. If they don't, plan to use the good one with caution.

Sliding canopies are a delight to fly under, sometimes. The times they are not is when they are all clear plastic and the sun is bright, or when it is hot and ventilation is poor. But the Traveler has a tinted canopy top which nicely tamed a bright sun when I flew it, and although it was winter and I can't testify to the ability of the ventilation system, I can say it let in plenty of goose pimples when I opened it. And the heater is very, very effective – so much so that we had to almost close it in outside temperatures well below freezing.

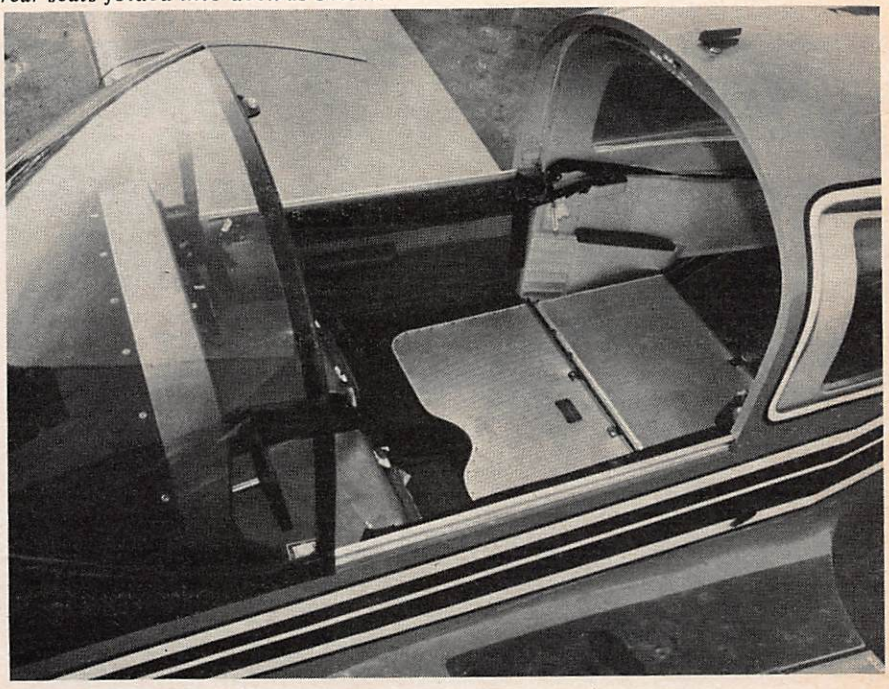
Boarding the Traveler is no real problem. Production airplanes will have optional steps not installed on zero two Lima, but it isn't too long a step from ground to wing, even though the assist handles on the upper fuselage are covered up by the canopy when it is rolled open for boarding. Stepping over the fuselage side won't bother anybody but a prude, who probably isn't worth looking at anyway. You lift the front seats up with your toe, step on the spar and settle in. For rear seat passengers the front seat backs tilt forward and there is a convenient ledge to place your foot on – lots of room, and no reason for complaint.

Those rear seats are something else. They fold down pretty much the way a station wagon's do, and the backs of the front seats fold all the way forward. The front two can then be slid ahead in their tracks partway under the panel to make room for a couple of air matresses and sleeping bags. Voila! A flying camper's dream! Even with the front seats in flying position there is a whopping big baggage or cargo area, with six tie-down rings. Since seat belts and shoulder harness for all four seats are standard, the rear ones can be used for tie-downs. There is nothing else like this on the market – this year.

The instrument panel is very nearly a duplicate of that in the Trainer, with one very nice exception. At the front end of the center console there is a very simple, clear fuel selector panel with a pointer handle aiming directly at a gauge for the left or right tanks. An 'off' position also is provided. With that handle pointing right at a gauge needle there is no doubt about which tank is feeding, or how much fuel it contains. And since the other gauge reads its tank contents whether the selector is pointing at it or not, nobody should ever have any question about his fuel status.

Otherwise the cabin interior is pretty much the same as in the Trainer, save for an improved cowling latch at the top center which can be operated either from inside or outside, and which key-locks. The handy center console running aft from the panel between the front seats still

Traveler offers luxury travel for four, but when you're camping only two can roll out sleeping bags and snooze with rear seats folded into deck as below.



Outstanding visibility is one feature of the Traveler, which has a tinted "see-through" canopy to cut glare.

Traveler retains basic panel layout of Yankee/Trainer, but adds the fuel gauge and selector below power controls.

mounts the trim wheel and electric flap handle, and that handle will still snap too far if you release it abruptly. Thus if you thumb in flaps on the approach and slip your thumb off the paddle with a snap, the spring-loaded handle will pop through neutral and raise the flaps for you without your knowing it. Once warned, twice wise.

Now then, how it flies. It flies so much better than the previous American Aviation airplanes that you will have to experience it to believe it. The Traveler is different in kind, not in degree.

It is still easy to ground-handle, and has an extremely tight turning radius. Acceleration on takeoff is nothing to write home about, either pro or con. The manual and factory check pilots say raise the nose wheel at about 55: the airplane rocks back on the mains much like the Yankee and Trainer, and runs along for a while before liftoff (rather a long while, I might add – ground roll at the 2,200 pound gross at sea level is 880 feet). It takes a pretty firm tug to raise the nose unless you have weight in the rear, but don't try to compensate for this by using too much nose-up trim or you'll get quite a pitchup. Just pull, because as you accelerate and lift off the pressure moderates.

With two souls aboard, the Traveler delivered a surprising 1,400 fpm climb to pattern altitude, and with four adults, full fuel and a useful load within 100 pounds of the limit, we repeatedly got 900 to 1,000 fpm at 80 mph. In a steady climb to altitude, using the 91 mph best rate of climb speed, we still showed 600 fpm passing through 4,500 feet, and 500 fpm passing 6,000. Admittedly, it was well below freezing out there, but still, that's good going.

Level at 6,500 msl, 75% power produced an indicated airspeed of 130 mph, and correcting for a one mph system error reported by the check pilot, I wrote 131 CAS in my notebook and looked for the outside air temperature gauge. Would you believe it hadn't been installed yet? One is standard on the Traveler, but remember that this was the first airplane, and had one or two little things left to be done to it. Since it was just a degree or two above freezing on the ground, I guestimated an arbitrary 25 degrees F.

Stalls were next. I tried, honest I did. Straight ahead, turning, with flaps and without. At one point, with 60 mph on the dial, we were gaining 200 fpm in a turn at 5,700 msl, and the Traveler is supposed to stall at 62 with the wings level. At the 122 mph maneuvering speed steep turns with hard back pressure were tried – nothing. Finally, determined that with three smug factory people in this airplane I was bloody well going to stall it one way or another, I dropped full flaps, applied full power, honked it up in a severe climb and chopped the power. Nothing much happened for a moment, but finally the Traveler said aw, to hell with it. We slithered hither and yon, pivoted around the flaps from nearly straight up to what seemed like a little more than straight down, and stalled. I took the opportunity, as we dropped, to waggle the elevator to and fro looking for signs of a secondary stall, but the bird obediantly eased out of the dive before we had 120 mph, and that was that.

Now those of you who know the Yankee, and the Traveler as well, will realize that the terms I have used above do not apply to these airplanes. You do not stomp on rudder, slop aileron, horse elevators or force in full cross-control at 65 mph indicated in these airplanes and continue an uneventful flight. The Traveler will shrung off such misdeeds, which suggests that it is a relatively forgiving machine.

While we had altitude, with four aboard, I tried hard slips right and left and found that at 85 mph, give or take a few, we could get 1,100 fpm of sink. But despite the fact that the rudder is very sensitive in normal flight, it runs out quickly in a slip. This makes it hard, even with full flap, to really bleed off height on final – another point on which the Traveler differs from the two-seaters, both of which sink like blue blazes when you pull off the power. The Traveler glides far better than either of them – from 6,000 feet above terrain it will glide a shade more than 10 miles. In the pattern, it does very nicely at 75, and it is a whole lot easier to land smoothly than either of the two-seaters.

Visibility is excellent in all directions except through the wing, and it is no trick at all, with those crisp ailerons, to get that out of the way for a look. The noise level is another surprise – definitely not objectionable. The airplane is almost self-stabilizing in pitch: if you lead it up to the edge of a stall and nudge it in, it will sit there and rock very gently into and out of the stalled condition, giving you plenty of warning through tail buffet and a horn. Some folks might object to the ventral fin under the tail, added during aft-CG spin tests to improve recovery, but it doesn't look all that bad, and it helps stabilize the airplane very solidly in cruise. Other folks might argue that a low wing won't keep rain off of you when you're boarding, but if you are getting ready to go flying in that kind of weather, good luck to you.

All in all, except for its short-field performance, the Traveler is a delightful airplane, good for a book-figure cruise of 140 mph, and capable of more climb than the manual claims. You can get the bare AA-5 for $13,595 or the standard Traveler for $15,850, the latter including a gyro panel, lights, a Narco Escort 110 nav/com and a variety of other items for which you pay extra in most other aircraft. But not even by paying extra can you get a four-seater with the handling zest and responsiveness of the Traveler. As they say on the tube commercials, it's a whole new ball game compared to the AA two-seaters. And when the demonstrators get spread out across the country and the word gets around about the Traveler, my guess is that the four-place fixed-gear market may turn into a somewhat different ball game, too, because the airplane was designed to meet what the competition had to offer, and it does. In addition, it has pizzazz.

The Gee Whiz Sweet Surprise and (Almost) Unreserved Enthusiasm Society is now adjourned. □

American AA-5 Traveler
Specifications and Performance

Wing Span, ft.	31'6"
Length, ft.	22
Height, ft.	8
Gross Weight, lbs.	2,200
Empty Weight, lbs.	1,200
Engine	Lyc. O-320-E2G
Horsepower	150 @ 2700
Wing Load, lbs/sq. ft	15.7
Power Load, lbs/hp	14.7
Top Speed, mph	150
Cruise Speed, 75%	140
Rate of Climb, fpm	660
Service Ceiling, ft.	12,650
Range, max. st. mi.	650
Takeoff Roll, ft.	880
Takeoff Over 50 ft.	1,600
Landing Roll, ft.	380
Landing Over 50 ft.	1,100
Stall Speed, landing	58
Base Price	$15,850