tive feeling you had behind the controls of a Ford.

As I say, the Tin Goose sported none of the fancy, highly scientific derices our modern airliners carry. But, as an airplane, she did more commonplace and heroic hard work than any sireralt known before. Today, is heeping with her valiant teputatioe, she is doing even tougher work than she did while pioneering the nation's airlines. It seems to me (and many of my friends who used to fly Fords) that the old girl transmitted many of ther fine and rugeed qualitios to thuse who flew her. I always booked foeward to those pleasant but noisy interludes high in the sky behind a Ford's controls. She was the most sociable airplane l've ever known, Her three racketing engimes seemsed to discuss the world in general with pilots who flew her. Oh, there was plenty of noise, all right: I don't know whether I'd have loved her as much if she hadn't kept ap her ear-spliting conversation. Literally, I loved the old Tin Goose for the same reason so many people will always look back lougingly on the rattle-trap, ear-splitting Model T "tin-lizaie."

Those pillots who had never flown a Ford had sever experienced flying in its finest, most intimate form. She acted like a dignified dowager on the controls; smooth, gracelul, and as sure-footed as a Seeing-Eye dog. Her stability was something to marvel at. The man who flew her way like a king enthrosed. Though she bad few of the blind-flying instroments we have today, the Tin Goose tackled some topgh weather in her time. The method was simple; the pilot merely set her controls is newiral, trimmed her stabilizer, then let her fly herself. That's all you had to do-give her ber head and she'd take you there.

Most remarkable quality of the Tin Goose was its ability to take its tremendous loads in and oat of fields we'd never look at twike nowadays. And, in its palmy days, the Tin Goose copld get off faster than anything in the aifThe reasoen was simple. You merely placed the palm of your hand on ber three throstlex, shoved hard, then sat there amid the turmoil till her altimeter said 1,000 feet. Then you'd ease the throttles back to cruising and she'd calm her calamitons yowling to ordinary conversation voice. Alt the movements were very positive and conclasive,

Once aloft, you had little to do but sit and wait while the ship streaked (for thase days) to her Aestination. In the air, the Ford was majesty itself. Her mearness to being allive was uncanny; evta the passengers could feel

The atthee is shomn with Celenel Lisdbergh (right) whila thay were laying out what ase is TWA's reate from Nem York to Les Angeles. Mr, Cellingt is a TWA mperietendent teday.

The Tis Gesse below anried Byrd over the South Pols. The eaplaren left the thip buried in the lees, deg it up on their secoed eapedition, tearted the eagises eatily.


The Ferd below served at a "Nping truch" and was fown theurands of miles all aver the cauntry by the wathor. This was one of the serlient madels powered with J-fis.


B Many a vateran airman hat gatped at the une to which Pilat Harold Jahnoge pats hih KFord teday. Below is one beir-roiser; Jobrion aho does loops, spiay and evan ralh.



Ons eddition to the sld Min Ggese was thin type of ratractabla mail campariment.
it. If mothing else, the Tin Goose surely soanded alive. The hegday of the trimotored Ford was, of course, some time before mach thought-if any at all-had been given to sound-proofing. In the coskpit the pilot and co-pilot cupped their hands and shouted into each other's ears. In the cabin, it was only slightly better. To talk with your neighboreven across the wisle-was a mighty elfort After a five oe six hour flight, passengers were apt to walk away from the plane sounding like cheer leaders at a football game. From the passengers' standpoint, the smartest idea was to write notes.

But for all the racket, the Tin Goose was a remarkable airplane. It was as modern as the advent of its single corrugated cantilever wing could make it. With an engine tucked snugly ander each arm and another in her nose, the Tin Goost out-engined anything in existence. Originally, all its engines conld do was to xip its 12 pasezgers, two pilots, and a few hundred pounds of cargo through space at aroand $90 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. Then Ford enyincers discover that, by simply raising the two wing engines and adding N.A.C.A. cowlings, the craing speed was phenumenally increased-to $125 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. At hest, her range was 500 miles, her ceiling 22.000 ft .

With all these more modern arrangements, though, the first Tin Geese were comporatively primitive. Their pilots never had difficulty in finding out how much gas was left in the tamks. The method was simple: the aeronazt climbed up through the top of the cockpit, unscrewed the caps of the tanks and thrust a long stick into the cavern. 1 i.ike a doctor sticking a thermometer in a patient's mouth. There was no mistaking the information gathered in this manner. Usually, there was one or two of these sounding sticks secreted somewhere in the cockpit. Refueling a Ford was sure to take the high-hattedness out of the

> The Fand was the beclibese of all the major airlinat of the nation Shawn at right, frem lop lo bollem, bre Fords of United and Amarican Airlises and TWA.
most dignified pilot because he had to zubend, whether he wanted to or net.

But, with all her practicality, the Tim Goose hisd an utter disercpard for troe streamlining. Her big, blunt engines just yanked her through the atmosphere, with almost complete unconcern in relatioe to the physical law of head resistasce.

The day an airline invested in a trimotored Ford was a glorious one. The buyer lnew he was getting an sirplave with which be coald fly any and everything from boges to lammocks. That was one thing about the Tin Goose; she was never snooty. She did her work and did it well. Today the few remaining Tio Geese are moch in demand in the remote comuers of the world for such fols as hauling mining mathinery over mosntains deep in Central Amerita. The Tin Goose is in demand for this work, principally because the is one of the few old-timers that still are eapable of such heavy-duty, modern-day hard work.

Yet, the Tin Goose has had her share of "white collar" work, too, In her day, the Foed was the American aviation scene. Tin Getse flew every major
airline in the land. Eren Heary Ford himacli msed a few to operate an airline Between Chitagd and Detroit. A Tin Gouse weat to the Soush Pole. The Amty. Navy, and Marines used them as transports for years. They did everything but fly the Atlantic-and the only reasoe a Tin Goose didn't was because there was too mach woek at bome foe bee to do In 1931, for instance. Tin Geese flew $10,4 \leqslant 7,167$ miles.

Thinking back, I guess the only thing about the Ford that gave us capse for unpleasantness was the difficulty involved in starting ber exgites in cold weather. Lordy, we used to twist and uind those imertia starter cranks mentil ue literally were bloe in the face. At times we even had to drain her congraled oil and beat it over a bonfire. 1 don't suppose you coeld blame the Tin Goose for that; she was just born before the days of electric starters. But once we got all three emginex ranning, she was again more vibeantly alive.

We didn't have to worry about retractable landing geark. We didn't have to bother with "inches of manifold pressure" and whatnot-simply becanse

there was no smeh thing. The engies weren't supercharged. No Tin Goose ever saw a coutrollable pitch or ton-stant-speed propeller. In other words, whatever took place was strictly an agreement between the pilot and the airplane, Shed snarl and whise until the pilot worked the three throtiles to the point where the engines were syn-chronized-more or less. This, of course. only added to the clatter and bedlam of the Ford in general. Today we have sclentific syncliroscopes.

We got to love that noise. In fact. 1 think I'd have felt there was soonething radically wrong if her familiar racket hadn't been there. There was something conforting about the constant rattling and rippling of her corrugated skin, the clatier of the engines and the other contemporary noises like the slapping of the control cables (they were hung on the outside!) on the fuselage.

But as the years went by, the Tin Goose began to "go Hollywoed." Somebody decided to lestall those newfangled "pants" on the landing gear. Then they prettied wip her face with
sleek cowlinges afound the outboard engines. Then someooe went to work on her insides-and before they got through L. saw anti-splash flower vaies on the cabin walls, fancy seats (replacing wicker chairs) for the passengers; in fact, all sorts of fancy gadgets that smacked mightily of the era of "Bay the latest hootnamy for your Model T. ${ }^{H}$ Ote typewriter mamafacturer turned his Ford into a "flying showroom." So did a canned-foods company-
Then, too, Ford enginetrs added sigger engines-Wasp-which made the old Tin Goose यip through the air with eren mose disregard for time or spact 1 soess she got a little too snooty in her later days. In the pre-elegant era we used to taxi up to any old gas pump and shove the first available sozzzle into her tanks. If we happened to lasd in a convenient stabble patch (which we did, with no compunctions, when we felt tifee it) Dere was always a farmer or gas station somewhere near who would sell us a barrel or two of gasoline. Getting the gas into her tanks under those sircumstances was a picaic. Usmally, we'd siphon it into five-gallon



Teughest iob en a Ford wes tharting her anginat by hand in cold veather,
cans, carry them up through the cabin to the cockpit, lift them up through the hateh to the wieg, then carciully and taboriously pore the gas into the tanks. In all cases, a chamois was a vital neces. sity. It would go inside the funnel to ktep out the ever-presest stray bits of dirt and water.

But this nature-in-the-raw procedure faded with the advent of the ultra-conservative operitions of the scheduled airlines. If the Tin Goose hadn't been the lady she was, she surely woald have been apoiled by her later-life treatBent. .

As I recall it, the tri-motored Fords were pretty complete when they came off the production line. There were a few thingamabobs that were added from time to time-like the splash-proof flower vases. Then, a few changes were made in the basic design of the ship. For instance, the first Tin Geese were built with J4 engines. That was in 1925 whes Major R. W. "Shorty" Schroeder Sid the flight testing. These first ships had open cockpits; the drag they caused was not considered important. Later, if was decided they tooked hind of naked that way. So the cockpit was glassed in. Soon the $\mathbf{J 5}$ replaced the J4's. Then, when Waspt were iestalled, it was my privilege to put the old gal through her test flights. Them came J6's. Them someone devised a retractable laggage compartment which went finto the underside of the wing, one on each side.

Few spare parts were available-noe were they eeeded. A complete set of tools came with each ship, which just about assured a Tin Goose of a long and rugged life. About the only thing we might have askod for in those days would have been a set of anti-rattiers of anti-vibrators. The Ford could develop more vibration noises and rattles than anyone could ever stop. But that mever worried us; she got along (Costiences on pare 85)

## Litip-ksown Ferds were the finst model

(top), e trim sisgle-engined breighter and the eaperimental bomber (battam) which erashed doring Air Ceppr teits.
large body of water is Albemarle Sousd and the duck camp is Jack Dempsey's, on Mattamuskeet Lake). Though 1 didn't hoow it, I was in North Carolina. The gas is running dangerously low. I calt my gunner on the interphooe.
*Recognise any of thin country?"
"No, sir", he repties.
I Ay over a small island (later proved to be famous Haanoke island) and "Busz" a small fishing village, but can see no names in view on the buildings. And then-out of a thin have-the blue occan and sandy coastline ahead. Well, here 1 km . North or sonth? 1 curse myself for being so careless shout a map. I decide to fly morth on the one premise that 1 have never sern country like this nopth of Langley before. The slowly declining gas gange reminds me somebow of an hour-glass counting ont the minutes until I shall have a foreed lusding. The sandy beach tooks better than any of this form-up country to put it slown, 1 think. Or hour sbout the water?
I continue northward. Is that a hote! in the distance? It is-as 1 draw closer I recognize the familiar details of Virginla Beach and now I know that every: thing is all right. I $3 m$ located, and heal for Langley. But is it all right? Is my gasoline sufficient? I have been flying on reserve for some time now. I nurse it along slowly. A feeling of relief passes over me is. I tome acrose Hampton Roads it a good height and I know that if my gas gives oat I can now glisle to the field it is not neerssary. I lower my landing gear.

ULL. 2 froen 5016 . $\mathrm{My}_{y}$ ubeds are doun" 1 call its
-5016 from U12.O.K."
"Langley Control from 5016",

- 5016 from Langley Control. Go ahead".
-Request landing instractions for one PBZ"
"Lasd on funway No. 3. Wind southwest $20{ }^{\circ}$.
"Recrived O.K. 5016 off".
Langley Control off,
1 change propeller pitch, open my exmopy, roll down my flaps, come in and land. I taxi up to the line and tell my crew chlef what happened. He nods a few times, isspects my oxygen equipment and finds that the aperture through which the oxypen flows in too large and therefore I had used it up too fass, although the gange registered it correctly.

I look around. There isn't a single ship on the line, and it yet larks an bour matil lunck.
"Where are all the planes, Sergeant", 1 ask:
"The entire group of 18 ships is out searching for yon, Lientenant", I winced.
My \&unner climbs out of the back sea! and I tell him what had happenedexpecting hien to blanch.
"That was tough lock, sir. We might have wotten os a bomber or two for hunch" He smiles. "Witt the Liewtemast take me with him to Washington this Friday?

Thinking of his confidence in me and
all the tronble of the searchers, I all at once feel very small and insignificant. I go into the hangar, change my unifoem and wait. One by one my fellow pilots returs and wisecrack aloot it. I really take a riding. My crew chiel comes in. My map is in his hand.
Ont the floar under your seat, sif. Wind tunst have blown it".
I thank him. Never again will I try to comlas the laws of mature and ty without axyges into thin air.
My fithtt commander, the last to return from the search, walks in, with his 'ellate hung from his shoulder. I tell lize what happeas
He listens, smiles quizzically, and scratches an ear.
"Yes", he sayk "Sometimes when the 'men' get lost we send the 'boys' out to find them."

## ENE

## Farewell, Tin Goose! <br> (Contiensd frum fave 23)

Gamonsly despite little things like that, Why, I remember one Tin Guose that had been flying all around the econiry with two one-dollar bills in one gas task, unbeknownst to its crew: As a matter of fact, the ship had flown so well that they were all for leaving the money there.
I also recall the controversy some atrosautical "authorities" had lad over the ability of a Tin Goose to clienb over the Rockies in Californix. They'd tiever hall a Forl out there and Maddax Airlines (part of the airline that now is TWA) wanted to buy romse-provided the ship was capable of clearing the momtains safely. So Larry Fritz, a good friend who mow is with TWA, answered that question by flying two Tin Geese from the lactory, over the mountains, to Maddus.

American aviation owes Heary Ford, Waillam B. Mayo (ehiel engimeer of the Ford Motor Company), and William B. Stout (the Tin Gcose's designer) a great deal. Mr. Foed footed the bill for each Tin Goose-they were turned out at a rate of four a week-althongh he lost money on erery one. And, while the tri-motored Ford was flying the sirlines in its heyday, Mr. Ford also developed a grottp of mes-both pilats and operations men-utho soday still play an important role in the commercial aviation scetc. They all got invaluable training on the rlattering Tin Goose Offland, I think of Hi Little, "Shorty" Schroeder, Larry Fritz, Pat Gallup. Eddie Hamilton, Ear! Flect, Fosser Tuenpkins, Perry Hutton, Steve Welshthe list could go on asd oas..
But out of sight is mot out of mind. Every time I-or any of the other oldtimers who knew the Tin Goase well -vee one of he lumbering. Fords, the whole picture of aviation 13 years ago comses back. She was and is a thoroughhred, bet her days are almost up, 1 suppose if's titne we wipe oar eyes and say goodbye.

Farewell, my lovely Tin Goose!


AND YOU CAN EVEN PAY AS YOU BUILD:



Knoched Doun Kits or Foctory-Builtf

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 TV: Pliver
kevalt,
Stherit a sad.
EITY.
STATK.
RUSH ME WITH 10e TO:

