

I Learned About Flying From That! - No. 3



By CLYDE PANGBORN

If any pilot has run the gamut of hair-raising experiences, he is Clyde Pangborn. He has settled down to the serious task of flight engineering, was recently married in London.

Clyde Edward Pangborn, barnstormer, test pilot, designer, stunt flyer and airline pilot, now is associated with Sir Cunliffe-Owen, plane manufacturer, at Southampton, England, where he has been for the past two years a consulting pilot-engineer. Born near the Washington state line 43 years ago, he learned to fly during the World War, served as instructor at Texas fields. The war over he went into commercial aviation, flying the first airplane into the Yosemite and making motion pictures. He barnstormed from 1919 until 1930 and, as partner of Ivan R. Gates of the Gates Flying Circus, flew from 2,500 fields and carried more than 100,000 passengers. In 1931, he spanned the globe with Hugh Herndon, Jr., flying non-stop from Japan to Wenatchee, Washington. He was third, with Roscoe Turner, in the London-Melbourne race.

FEW people know what goes on in a cockpit in those few seconds before a fatal crash. Part of the story may be told by the way the airplane acts in the air as a fatal maneuver starts—by the way it acts on the way down—and the way it strikes the ground. After it is all over, a body of inquiry meets and decides what probably happened. A theory is advanced based on certain facts which have

been brought out at one of the hearings.

However, there never yet has been an inquiry which has revealed what has been going on in the brain of a man from the time he has gotten into trouble to the end. One can only guess how many pilots, caught in a circumstance or a series of circumstances which are new to them, have lost their power of reaching an intelligent decision. There is, in the brief instant between the beginning and the end of disaster, a need for quick thinking. But, more than this, there is the need of a cool head.

I have been flying for 21 years and estimates of the time I have been in the air run to 15,000 hours. I have faced a great many emergencies. I have been caught in a fog cold enough to ice up my wings flying 50 feet above a railroad track in Colorado. I have had a girl suspended by an unopened exhibition or sack type parachute beneath the undercarriage of my plane—and I have had the stick come out of its socket while flying upside down at 100 feet in a JN4D. In the first case I landed on the tracks with some damage. In the second the girl was saved by pulling her back into the ship and in the third I managed to get the stick back into its socket and right my

The author (left) is shown with Roscoe Turner during the London-Australia race.

diving ship before shearing off my head. All of these situations would have ended in tragedy save for one thing—I had an experience at the outset of my career which burned into my brain the need for being calm and reasoning things out in the face of what, at the time, seemed sure death.

I was a surveyor in Washington and Idaho when I enlisted in the Army. I had my ground training at Stanford University and in Texas, and wound up for my flight training at Lonoke, Arkansas. I drew for an instructor a man who shall be nameless. We hauled out a Jenny and my instruction began. It was always sketchy. The main reason for this was that my teacher knew very little more about flying an airplane than I did—and I knew nothing.

We stumbled along through gentle turns, take-offs, landings and so-on, until I was about ready to solo.

"What about spins?" I asked him. "Shall we do a few?"

He looked at me as if I'd slipped a cog. "Why—I haven't done 'em myself," he said. "You get into one, and you may not get out."

"What do you do to get out?" I asked.

"You shove your stick forward and you kick opposite rudder—they tell me," he said.

So we went on with my course, flying figure-eights and 720's and making more landings until he told me I could solo. I got away with the solo and drew a ship to start building up time. One day

I took off, went to 2,500 feet and decided that what I needed was some nice, tight eights. I picked a couple of check points and started into them. I was shallow at first, gradually steepening the bank until my wings were well-nigh vertical. The spin came on before I knew it. I just fell out of a tight bank. The next thing I knew, the ship was standing on its nose and the ground was going around and around.

My first reaction was one of utter amazement. The ship was doing something that I didn't understand. I let go of the stick and grabbed the cowl. I looked downward, saw the ground coming up and chilled horror came over me. At that moment, I was ready to die—and letting myself die. Then, out of my panic, came three simple words:

"It's a spin."

A cold power of control came over me. To this day I can't explain it except to say that the fact I was on my way to death receded entirely from my mind and with it went the panic. I took the stick again. The ground was still whirling wildly and was much closer.

Then and there, I stuck my head down inside the cockpit. I began talking to myself.

"What was it ——— told me about spins?" I asked.

"You push the stick forward."

I shoved the stick forward.

"And what else?"

"You apply opposite rudder."

I did that.

The spin stopped and I was diving. I pulled the stick back and leveled off—not more than 200 feet above the ground. I looked down. Mechanics and pilots on the field were looking up at me. A crash ambulance was streaking across the field. Down below they'd figured me for a write-off!

I flew around some more. I went back up and did a few eights and then came in and landed. I was bawled out for scaring the boys on the ground. Nobody but myself ever knew that I had been staging a bout with death with my head inside the cockpit, figuring what to do with my hands and my feet. From that time on I went into spins again and again, kicking myself out and never again was I afraid.

Of course, it was lucky that I was at 2,500 when I started spinning. If I'd been at a thousand, they'd still be digging me out. But the lesson which I learned—and the lesson which has taken me through 15,000 hours of flying—is to keep a grip on yourself. Unless your ship is falling apart and you haven't a parachute, there's always a way out if you stop to give the matter some thought. As I said in the beginning we can only guess what goes on inside a cockpit before a fatal accident and trying to figure what the pilot had in his mind is even tougher. But, even being charitable, we can point to numberless cases where pilots apparently have lost their heads.

As I've pointed out, time after time in later years I've been in jams. And, always, my mind has turned back to that

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Bossy Goes Air-Minded



EVERYONE at Floyd

Bennett airport, near New York City, got a surprise and a laugh the other day. Members of the Navy aviation squadron had an especially good time, not to mention the merits of nice, warm milk. The cow apparently got the wanderlust, what with having to watch airplanes come and go day after day from her adjoining pasture. So one day she let her better judgment go hang and ambled through the pasture fence out onto the busy airport's concrete apron. There was great consternation among circling pilots until a band of Navy enlisted men caught up



with Bossy. She apparently was very flattered by all the attention for she hobnobbed with the boys and even set up the drinks. It was a fairly sad moment when Bossy's owner arrived.

Darned Clever . . .

YOU'VE seen that old saying about the Chinese. There must be something to it, all right, for they fooled the cocky Japs for quite some time with "squadrons" of fake airplanes like that

pictured below. Jap aerial observers spotted what they thought a powerful Chinese air base and dispatched bombers. Not far from the fake air base, though, was a real one.



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I Learned About . . .
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first almost fatal moment when I started to go to pieces and to give myself up to the undertaker. I've faced what I've had to face and I've always managed.

In my case, there wasn't time for any particular schooling in remaining calm. But schooling is possible. One way to get it is to invent situations which might face you as you fly along and figure out exactly what you'd do in a cold, calm manner. Imagine yourself having a motor failure on a dark night. Watch your altimeter, release your flares, adjust your safety belt and ride it down. Or watch your motor fall off. Your tail goes heavy. You pull it level by pulling your stick into your stomach as you start flying backwards. The tail stalls and drops and you come down that way. In my barnstorming days I knew a devil-may-care fellow with a calm head who lost his motor at 1,500 feet over a thickly populated town. He rode the ship down on its tail into a vacant lot between two buildings and walked away from the crash with his passenger. He told me later that he had reasoned out the performance of his ship in the first second, that he never lost control—and that he spotted it into the lot. I'd flown with him for years, flew with him for more years after that, and believe he was telling the truth.

"I'd figured it out one time in my mind and I just kept my head," he told me.

"Figuring them out" is a ghoulish pastime, but it helps meet emergencies. It helped this pilot. However, most important of all, he didn't give way to momentary panic or he'd have washed himself out, just as I would have. I've often wondered what happened to certain pilots I knew who got into trouble and didn't get out. I'm inclined to think they lost their calmness just when they needed it most. It is normal and must be guarded against.

Drill yourself, impress upon your subconscious mind that you will keep possession of every faculty when you need them most. If you do, my first experience taught me, the chances are overwhelmingly in your favor. Lose your head and they're all against you.

END

Almost Beat Wrights
(Continued from page 48)

clamor for action. Cannon was goaded frequently for his failure to make the contraction work. Eventually funds gave out, additional backers were wary of further risks, so finally, in desperation, Cannon realized the venture had to be abandoned. The strange machine was lowered from its foundry loft position with a hoist and placed on a waiting flat car. With its departure Pittsburghers drew a sigh, a sigh mingled with relief and sadness and then the town settled down to the business of harvesting its yam crop.

END

Meet Mr. Wilson
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The next step came soon after he flunked his second air mechanic's exam. (He was too sure this time of lubrication systems and brakes and instruments; they were featured in the exam.) Somebody told him he was disgraced as Specialist 5th Class. A bit worried, he found the rumor to be true, but found he had also been promoted to Private First Class. Well, ain't that something! Two years and a "P.F.C." A long way from the top, but still climbing right along with the rest of them.

Another day, another list. He was third on the Technical School eligibility list and—the squadron got three vacancies, one for his course. Tom was discharged "for the convenience of the Government" and re-enlisted for three years. Too many men, with short service left had taken the course and then not re-

Monthly Pay and Allowances

PAY

Master Sergeant	\$126
First or Technical Sergeant	84
Staff Sergeant	72
Sergeant	54
Corporal	42
Private First Class	*30
Private	*21

*Plus from \$3 to \$30 if they hold a specialist's rating.

EXTRAS

Board, uniforms, medical attention:
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enlisted, leaving the Air Corps a loser, some factory or airline the gainer. The Squadron Commander called them in before the three of them left in an Army transport plane for the school in Illinois. Hoped they'd be a credit to the squadron and that they'd return to find more and bigger ships in the hangars. And more ratings. Good luck, etc.

For the first couple of months, Tom, enrolled in the Airplane Mechanics' Course, marvelled at the unscientific method of working to which he had become accustomed. Trouble shooting on engines for one. Here it was a science. No hit or miss. The instructors were civilians and non-coms; he watched them even more closely than he had watched Scotty; who wasn't near as perfect in his technique, Tom soon realized.

Nine months later, graduation certificate pasted inside the lid of his trunk locker, he was back in the old squadron. New men coming from the squadron to the school while he was there had pre-

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