

More people are screaming about better air traffic control and aircraft design than ever before, but very few are getting excited about one of the biggest problems of all—how to keep us pilots awake and alert in a droning, monotonous airplane.

All the radar, computers, and ranges in the world can't do much about a nodding, dozing man who's been staring for long at the same sky and instruments. Scientists are looking half-heartedly at the situation, but they're a long way from knowing how to keep the pilot ticking. They find it easier to deal with buttons and black boxes which behave in predictable fashion.

I wish they'd consider me. My physical exams, as all-inclusive as any, have given me the green light. Yet I admit to climbing into an airplane and feeling sleepy almost at the first kick of the prop. An airplane is a wonderful sleep environment, much superior to any well-touted "easy-rest" mattress.

The first time I became aware of what the lack of alertness could mean was in China, during World War II. Three of us were tooling along in F-51's over some uninteresting landscape. There was a two-bit war between foot-soldiers going on below, but we were after tanks or similar hardware targets.

Then wham! The *Mustang* bucked once, and a great blue blowtorch came up between my legs. Groggy with late afternoon sunshine and sitting too long in one spot, I sat there two or three seconds—it seemed longer—and watched my trousers curl up in black scorches.

Somebody was screaming in my earphones, "Sam, you're hit!"

I was replying, "Yeah, it's getting a little warm in . . ." And then I woke up! My burned self and one *Mustang* parted company evermore, and I spent the rest of the war in

prison camp giving myself a hard time for just sitting and watching those flames fry me. Fat, dumb, scorched, and certainly not awake.

Then after the war came a hop in a *Champ*. I had figured things gas-wise for a 30-minute reserve, checked weather, and headed off. No worries about anything. My watch stopped, but so what? Navigating was easy on such a pretty day. If I had only taken the time for a 90° turn to check drift, but, no, I was too comfortable in the back seat, legs draped over the front seat. Naturally the engine quit when the gas ran out 15 miles short of Birmingham.

There was a too-short corn field which I had to take across its even narrower width—the worst way—and a row of trees along this side. The "Airknocker" quit flying just as the trees brushed under, so she flopped down the remaining 50 feet with absolutely no floating, to put it mildly. The immediate and deliberate groundloop was something I'd never done before, but it worked. The only physical damage was a few dents from dried ears of corn.

The mental damage to my sense of responsibility was enough to make me wonder.

The next shake-up came during a session of crop-dusting. There was a 400-acre cotton field in the Mississippi delta region. A little china-berry tree grew in the middle. It was useful in helping to plan spacing of the dust swathes. Finally, it marked the next swathe dead center. So I flew right through it. Luckily the tree was rotten. The Stearman bounced once, stayed together, but looked and flew like an exploded chicken coop.

The incidents bothered me. Was I becoming accident-prone? I had had none in the Air Force program, had won all the available awards for

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Asleep At The Stick

*When you get the airborne urge
to slumber, the remedy can be
rude—but make it thorough!*

by SAM CHAMBLISS



Asleep At The Stick

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gunnery, and had no black marks on my automobile driving past. I looked up one of the old pilots in the neighborhood, a man who had dusted for 30 years and was still at it. He was past 60 and an obvious source of good advice. I told him about the chinaberry tree and about the 542 feet of power line the Rural Electrification Administration wanted to bill me for, after an encounter six weeks later.

My advisor was consoling, "Don't worry, young fellow. You're doing very well, especially since you're new at the game. I figure to hit something once a month, as we all will. You can't concentrate hard all the time, so you go to sleep at the stick every once in a while. Dusting is awfully monotonous work anyhow."

I caught a bus home and left the delta cotton to those "once-a-month" veterans.

A nice easy rocking-chair outfit like a Reserve transport wing sounded like a good place to build up my faith in a judgment I was beginning to question. But it wasn't judgment at all, and it wasn't me, as the old pilot had pointed out. I saw firsthand that others indeed have the same plague.

Deadheading in an AT-11 one evening, I was sitting on a partial bulkhead just aft of the front office. A major with many, many hours was on

the left, and a captain with considerable instruction experience was on the right. The sky was dark and muggy; visibility was not much more than two or three miles.

The first odd thing was the major flipping on the overhead lights. Both he and the captain began peering through the glary windshield for a certain vertical pair of red lights marking a radio installation which was useful as a piloting check.

I had already spotted two other red lights dim in the distance, but they were horizontally arranged and didn't belong to the installation in question. The other pilots apparently hadn't noticed these two lights.

Then the left wing began going down. The artificial horizon showed 30°, then 50°. The major was feeding in top rudder to keep her on heading. I checked the gyro horizon against the ball, then against what little natural horizon I could see. They all jibed. Here we were, slipping along at a 60° tilt, losing altitude, with me wedged over against one side of the doorway and wondering what the heck was coming off. And there those two sat, hunched over the wheels peering through the windshield into the darkness.

"There they are," exclaimed the major, and pointed out the two horizontal red lights. He must have thought he was in a right turn, because he cranked the wheel way over to the left. I suppose he was going to make those lights appear vertical from his view-

point, no matter what.

The gyro horizon was at the 80° mark when I managed to grab hold of the captain's wheel, to stop what was well on the way to a screaming spiral. That was something the AT-11 might have been stressed for but something I didn't want to risk, in a war-weary airplane. The major fought every inch of the way, but I had my legs braced and yanked her straight and level. The captain was trying to throw me back over the bulkhead. All I could think to say was, "Look at your instruments, Sir! Those lights aren't the tower."

He studied them all right, and said, "What the hell's wrong?"

"We were in a vertical bank to the left. Just about tumbled the gyros."

He stuttered around. "Lieutenant, are you in command of this aircraft?"

"Nossir."

"Well, keep your damned hands off the controls."

"Yessir. But please, why were we wound up to 260 in this bucket, and why have we lost 1,500 feet in the last minute, and why are we headed 90° to left of our course?"

"Shut up, Lieutenant."

"Yessir."

He squinted through the windshield, then finally reached up to turn the overhead lights off. "Who the hell turned that on?"

The major and the captain were both conscientious men. I had flown with both of them enough to know that, while

they weren't the best of precision flyers, they were careful and better than average. Yet there they both had been, gone to sleep in parts of their minds and shifting that old earth 90° from its normal position.

Sleep, sleep, airborne sleep. Over the years with more incidents happening to me and reported by others, I finally learned to accept man's fallibility, my own included. Some of the incidents killed, most didn't. But all of them could have. How to combat sleep? The monotony of flight?

I've tried many ways. Tried drinking buckets of coffee before takeoff. Doesn't mean a thing, as I discovered one bright day after leaving Knoxville in an AT-6 with a hitchhiking enlisted Navy man in the rear. Coffee notwithstanding, I woke up to a violent rocking of the wings. We were over Atlanta, our destination. The EM had seen me dozing and had brought the Six on over the mountains himself. It turned out he had more backseat TBM time than I had total time, and knew what he was doing as far as CAVU straight-and-level flying was concerned.

Had he not been with me, and had I dozed off, I certainly would have snapped to alertness when the high-pitched whine started in. Certainly. Everybody else says they do, too. Almost everybody, that is. We don't know what happened to the rest.

One way of staying awake is making your seat uncomfortable. A coke bottle under the cushion will keep you shifting. I've tried this, don't like it at all, and therefore think it's a great idea.

A good companion is an 18-month-old child who has been rudely awakened. Don't feed him. Put him in the plane with you and you'll stay awake. This solution has certain practical drawbacks.

Use of the radio for sheer listening entertainment is good and bad. Above all, do not tune in your favorite programs. If you prefer classical music, turn the dial to rock 'n roll and boost the gain to maximum allowed by speaker cones and headphones.

Use the communications radio as often as possible. Two-way conversations are always safer than mumbling in one's dreams.

If you are the kind that feels morning coffee is essential to continued survival, don't drink any. Your grumpiness should keep you alert at least half a day.

Never fly in a straight line to your destination. Stop at every airport within 15 miles of the course.

More should be said for inflight calisthenics. Keeping the old head swiveling to watch traffic is fine exercise but boring; add others to it. Single-seat aircraft owners should not be discouraged in their constitutional. A series of remarkable gymnastics originated by a king-sized Chinese pilot in the tight cockpit of a P-51 was once witnessed by the writer. The exercises were beautifully done, yet the *Mustang* never stirred an inch out of formation.

Trimming for hands-off flight is very bad form. Modern airplanes are de-



A Piper Tri-Pacer goes to Volkswagen distributor Tague Hansen. With him is his daughter, Linda, who sits on top a Karmann Ghia-bodied Volkswagen

Tri-Pacer Helps Sell Cars

"Volkswagen" blue and white is the color of a new Piper *Tri-Pacer* 160 recently delivered to Tague "Lindy" Hansen of Bedford, Mass. And for good reason. Hansen is president of Hansen-MacPhee Engineering Company, Inc.—the Volkswagen distributor for New England.

As kingpin in a 30-dealer network which spreads from Bangor, Me., to Providence, R. I., Hansen-MacPhee

needs fast transportation to expedite dealer communications. Although the dapper little Volkswagen is good for many things, Hansen thought a *Tri-Pacer* could take better command in the speed department.

Hansen took delivery of the plane from East Coast Aviation Corporation at Bedford Airport. It is an Auto Flite model equipped with full instruments, radio and AutoControl. **END**

signed to fly too easily, too comfortably, anyhow. Shift tabs for nose-down, right-turn flight and maintain until muscles twitch as a preliminary to cramps. Then change the tabs in the opposite direction.

In connection with using whine or noise changes as an alarm clock, it should be mentioned that a constant-speed prop is not worth much. Take it off and install an old-fashioned fixed-pitch type. This will cost a little speed, but the noticeable change in fixed-pitch r.p.m. is much quicker as the aircraft shifts altitude.

Try to fly via crowded airways and airports. This keeps both you and the airline pilots alert avoiding those close shaves we read so much about.

Finally, and the best remedy of them all, is to take your wife along—if you've been married at least five years. She should preferably not know much about flying, should not even like it. A girl friend won't do the trick because your attention will be taken from the duty of flying almost as surely as if you had gone to sleep. But a wife, one who asks at the worst possible times (when you're feeling delightfully relaxed in the sun), "Hon, are you sure we're not lost?" is worth her weight in stall-warning gadgets.

Someday, this business of pilot sleep-proneness will be given adequate scientific attention. One scientist I know has already discovered that a normal

person in any long-drawn monotonous situation can begin seeing things that actually aren't there to be seen. The Air Force is much interested in this kind of study, for its space program implications. One wonders if six hours of nonstop flying is enough to explain, via hallucinations, the large number of flying saucers reported by airline pilots.

In the meantime, we must develop home-grown self-tormenters. On our success hinge more lives, we bet, than we know about. One thing is for sure, we can avoid our own versions of the tragic Grand Canyon Sleep. **END**

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