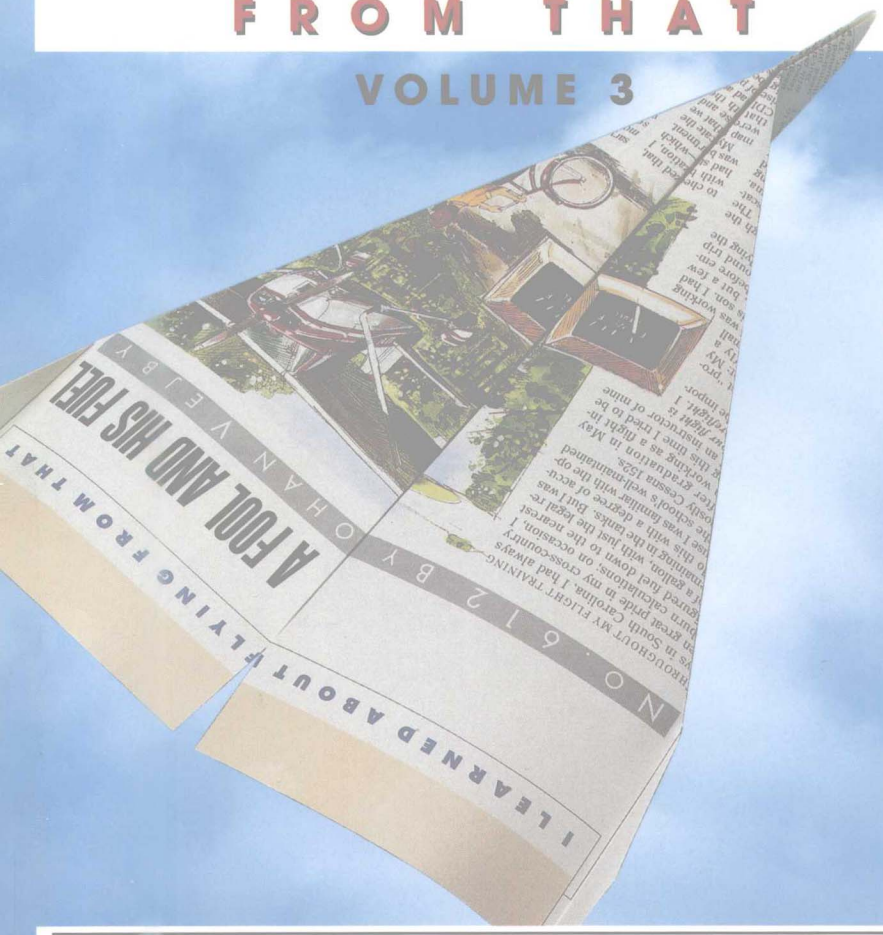
I LEARNED ABOUT FLYING FROM THAT

VOLUME 3



FROM THE EDITORS OF FLYING® MAGAZINE

I Learned About Flying From That

Volume 3

Editors of Flying Magazine

TAB Books
Division of McGraw-Hill
New York San Francisco Washington, D.C. Auckland Bogotá
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pbk 14 15 16 17 18 19 20 FGR/FGR 0 9 8 7 6
hc 1 2 3 4 5 6 7 8 9 FGR/FGR 9 0 9 8 7 6 5 4 3 2 1 0

Library of Congress Cataloging-in-Publication Data

I learned about flying from that, volume 3 / by editors of Flying magazine.
p. cm.
Third compilation (1988-1992) of Flying magazine's "I learned about flying from that" column. Previous volumes published under the titles: I learned about flying from that and More I learned about flying from that.
Includes index.
ISBN 0-8306-4281-1 ISBN 0-8306-4280-3 (pbk.)
1. Airplanes—Piloting—Miscellanea. 2. Air pilots—Biography.
I. Flying (Chicago, Ill.)
TL710.I14 1993
629.132'52—dc20 93-71
CIP

Acquisitions Editor: Jeff Worsinger
Managing Editor: Susan Wahlman
Production team: Katherine G. Brown, Director
Linda King, Proofreading
Design team: Jaclyn J. Boone, Designer
Brian Allison, Associate Designer
Cover design: Theresa Twigg TAB3
Cover photo: Brent Blair, Harrisburg, Pa. 4311

Preface

In the May 1939 issue of *Flying*, the first "I Learned About Flying From That" feature appeared. Garland Lincoln was flying a Ford Trimotor from Fairbanks into the interior of Alaska to carry fuel to other pilots searching for a missing Russian airplane. When Lincoln returned to Fairbanks, he was stuck on top of a dense fog layer with no radio and nothing but protruding mountain peaks for landmarks. After exhausting all his fuel, Lincoln managed a survivable crash landing on gooey tundra and pronounced that he learned flying into bad weather is not worth the risk, no matter how urgent the need to complete a mission.

The editors noted that "it is the belief and hope that this series of articles might save the life of some not-too-seasoned pilot. Each author will be a bona fide licensed pilot." In the 50 years since, more than 600 pilots have written of their near-misses in "I Learned About Flying From That," running up a warning flag for any who follow. Many of the mistakes were just plain stupid. Other circumstances that nearly caused disaster could never have been foreseen. No matter the cause of the problem, pilots reading "I Learned About Flying From That" are alerted to one more potential trap.

"I Learned About Flying From That" is the most widely read regular feature in *Flying* magazine. Grizzled vets and student pilots—and all levels between—learn from the experience of others. And pilots are very willing to tell others about their close calls sending in 40 to 50 harrowing stories per month for consideration by *Flying*'s editors.

We've collected some more of the best "I Learned About Flying From That" stories in this third book of the same name. All stories are true, all are written by the pilot involved in the incident, and we continue to hope, as did *Flying*'s editors more than 50 years ago, that pilots will learn from the mistakes of others.

J. Mac McClellan
Editor-In-Chief, *Flying*

Introduction

We all learn from mistakes—our own and those of others. Pilots, particularly, prefer the mistakes to be someone else's. Much of learning to fly is a matter of learning through errors, and initially, our flight instructors ride along to be sure that when we make our mistakes they don't progress to the point that they become critical and develop into accidents.

On a first dual cross-country, the instructor typically lets us get off course, overfly our destination, and incorrectly tune the VOR. We're allowed to make mistakes we can learn from and build good habits upon. We graduate to solo flight when our instructors are comfortable that we've already made the critical mistakes when they've been with us and have only smaller, non-life-threatening errors still to learn from.

Flying magazine's monthly column, "I Learned About Flying From That," lets us all learn from the mistakes made by other pilots. The accounts are submitted by all kinds of pilots—instructors, students, airline, and military—each of them still learning, but willing to share their often-embarrassing experiences so others can learn without having to make the same errors.

This collection of ILAFFT columns that appeared during the seven years beginning in March 1986 once again shows that, although the mistakes people make are unique and individual, they often have elements in common. These are accounts of people who erred and, through luck or skill—and often both—were allowed to come back to fly again, and ideally, never make the same mistake again. Some are funny, some frightening, some amusing. Read them and weep, smile, shudder, or cringe, but they're presented here for you to learn more about flying from them. Remember, it's much easier on you and your airplane if the mistakes you learn from are someone else's.

Tom Benenson
Senior Editor, *Flying*

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Learning to Show Proper Respect

Well before man lifted himself off the surface of the earth, thunderstorms already demanded and were granted a great deal of respect. From our first lessons, we're all taught to steer clear and give storms a wide berth. When a thunderstorm really gets going, it can wield more force than most aircraft can fly against. Nevertheless, planes and thunderstorms do end up sharing the same airspace. And it occurs much more frequently than is healthy for either the planes or their pilots.

Weather has always played an important role in accident scenarios, and it's thunderstorms that most often get to take the dramatic villains' parts. They can be very convincing as the bad guys. The following accounts detail experiences of pilots who have confronted thunderstorms—sometimes intentionally (and foolishly) and sometimes inadvertently.

No one wins a bout with a boomer—a pilot can occasionally run away and get to fly another day. All of the chroniclers confessed to learning never to fool with Mother Nature.

Radar Can Lie

by Dave Southworth

My first officer greeted me with a pleasant smile outside the Metroliner II. The day was starting out like any other summer day: the weather report at our destination airport called for clear skies, 85°, light winds and a chance of cumulus buildups in the late afternoon. In no time we had the airplane ready to go with eight excited passengers strapped in behind us. The

turbines screamed to life, and we departed the ramp on time, leaving behind only the lingering smell of jet-A.

Leveling off at 20,000 feet we settled back and prepared ourselves for the first leg of our eight-leg day. No problem, I thought. Smooth, blue sky; what a life!

As I flew along, I saw cloud towers starting to build on the horizon. I mentioned that it might get bumpy later on. With a passing smile my partner nodded his head, switched on the radar and carefully adjusted the antenna.

We were coming up on the first of two uncontrolled airports that were 80 miles apart, and our destination was the second one. Between IFR arrivals, departures and VFR advisories, center was busy that afternoon. The one man working the frequency had his hands full.

"Descend pilot's discretion to one four thousand." That was for us.

"Descent check," I said. Pulling the power back I started the Metro's smooth 200-knot descent out of 20,000 for 14,000 feet.

Level at 14,000, we could see we were above the bases of a few isolated buildups in the area. We could also see a kind of dense haze layer. Part of it was weather building, part of it smoke from a nearby forest fire.

"Check the radar," I said.

There was no weather return on the screen, but the radar would paint the ground, and it seemed to be working properly. We couldn't see around the haze, and I knew that trying to circle it would be an all-day project.

"Ask center if they show any weather ahead and ask for 12,000. Maybe we can go under this." I had a feeling that it might get bumpy in there, and I didn't want to upset the passengers.

Our altitude request was instantly denied because of conflicting traffic. No weather was noted on center radar.

"Let's tell the folks to tighten up their seat belts. Also mention to center that we want 12,000 as soon as possible." I tightened my belt, turned on the continuous ignition, windshield heat, pitot heat, intake and prop heat, just as the book says to do when you're flying in clouds. We entered the clouds about 200 feet above the bases. For the first few minutes it was smooth.

Then it started, fight turbulence, and the cockpit darkened. I had to turn on the instrument panel lights. A chill ran down my back; this was not good. The turbulence became more intense. I glanced at the radar: nothing but a clean screen.

I still didn't like it. It *felt* bad. From the look in my partner's eyes, I could tell our feelings were the same.

"Let's get a 180 out of here," I said. The first officer's finger was already on the button, and he asked for a 180-degree turn. Due to frequency congestion, his request became static gibberish. "Try again if you can," I said, as I pulled the power back to 194 knots, which was rough-air maneuvering speed.

The airplane rocked violently, nearly jerking the controls from my hands. The nose went up, and we entered a 2,000-fpm climb. I pulled the power back to flight idle, pushed the nose down and tried to maintain our assigned altitude. It was no use; with no power on, the airspeed still shot up to 240 knots, just below redline. The airplane kept climbing at 2,000 fpm.

Then came the hail. When it hit the airplane my heart stopped. It was no average hail. Estimates later showed some stones to be more than three inches in diameter. The airplane was all over the sky, 60- to 90-degree banks each way. The hail hit our stall avoidance system, destroying the angle-of-attack vane on the right wing. The stall horns went off, and the needle on the dash indicator slammed into the red.

"SAS clutch!" I had to yell into the intercom to be heard over the deafening noise. The first officer reached instantly for the switch, shutting off the system. At the same time I fumbled for the computer circuit breaker.

Visions of the windshield giving way streaked through my mind. Flying glass and depressurization. Dear God, I hope they hold. The airplane yawed sharply left. I glanced down to see the instruments on the left engine heading for zero. We had a flameout.

"We lost the left one." My words sounded as if they'd come from someone else. I shot a quick look at my partner. I could see the terror in his eyes. I wondered if he could see it in mine.

Thank God for systems that work. The auto continuous ignition refired the engine at 90-percent rpm, as advertised. We once again had two engines. The airplane was coming apart, and I had no idea how long this weather was going to hold. Should I turn around or should I go on? I knew that all the books say, "Go on, it won't last," but at this rate the airplane wasn't going to last either. I started a left 180.

Sometimes moments can seem like hours. The entire storm lasted about two minutes. As I turned to the left, sunlight broke

through our right windshield. I turned back to the right and came out into clear blue sky.

"Cleared for the visual approach," center barked in our headsets. "Roger," was the weak reply from my partner. The landing was normal. Aircraft damage was substantial: numerous dents in the leading edges of the wings, the fuselage, around the nose area, and the horizontal and vertical stabilizers. Several dents on the wings were three to four inches in diameter and two to three inches deep, popping rivets and separating the skin. Both wingtips were shredded. The rotating beacon, along with the entire top of the vertical stabilizer, was missing, presumed dead. There was virtually nothing left of the radome on the nose but pulverized fiberglass.

What did I learn? I learned that the radar in most cases is a valuable tool, but it can't be solely relied upon. The radar equipment was checked upon our return home and given a clean bill of health. Why it didn't show the storm remains a mystery. Still, the pilots are the most important equipment in an airplane. I should have followed my instincts and turned around when we were in contact with center for a lower altitude. We could have avoided the whole incident. As well as learning not to trust some of the airplane's equipment, I learned to trust other systems with our very lives. If I hadn't turned on all of our anti-ice systems as well as the auto continuous ignition system, the result of the storm would have been very different, possibly even tragic.

Finally, I learned to have a great deal more respect for Mother Nature. The centers of those large cotton-like clouds floating peacefully in the sky house more energy than anything man has yet built.

All of the passengers made a trip around the airplane before going into the terminal. "Were you scared?" one older gentleman asked pleasantly. I just smiled at him.

The Metroliner pilots knew that thunderstorms should be avoided, but their radar didn't provide any clues that a real granddaddy was out there waiting for them.

In the next incident, a checkout in a Cessna Turbo 210 was given a new twist when thunderstorms sprinted ahead of their forecast pace and arrived on the scene earlier than expected.

Twister

by Ray Klaus

The day started out like any other summer day in August: sunshine, scattered clouds, hot humid, hazy air with light winds and a chance of thunderstorms in the late afternoon. Around midmorning, I received a telephone call from a customer based with the FBO for whom I worked at the Chicago-Aurora Airport. The pilot owned a Bellanca Viking, but wanted a checkout in our six-seat Cessna Turbo 210 to take some business associates to Louisville, Kentucky, the next day.

We arranged to get together after lunch. A check of the weather revealed level five radar returns popping up northwest of Rockford, Illinois, about 90 miles away. There was a lot of energy in the sky that day, and the forecast called for thunderstorms moving our way.

It was about two p.m. when we finished reviewing the performance charts, aircraft systems and operations of the 210 and took off. In flight, we did the usual airwork and aircraft familiarization associated with a complex aircraft checkout and returned to the airport for takeoffs and landings.

The sky was darkening to the north with the approaching storms, but they appeared far enough away not to pose any immediate threat. To give us a bit of margin and an escape route, if needed, I requested a left-hand pattern for Runway 27 instead of the standard right-hand pattern.

On downwind, the tower broadcast "Winds calm." We did a stop-and-go on the 6,500-foot runway: smooth as silk. Next time around, same thing. "One more time and we'll be finished," I said. Little did I know that we might really be finished.

The third time on downwind, the tower was still reporting winds calm. As we turned base, the winds perked up to 15, gusting to 20 knots. Still nothing to get alarmed about, but the sky was getting darker. Turning final, I commented to the pilot I was checking out that I thought the rain would hit before we got to the ramp and that we'd probably have to wait to be rescued by someone with an umbrella to keep from drowning in the deluge.

Halfway down final approach, the sky turned black—a black I had never seen before. No reflected light. Nothing. It was akin to flying into a pool of India ink. The runway lights popped on immediately. I commented to the tower, "Nice display of lights." "We like 'em too, Ray," they responded. There was still

no hint of the lurking danger, the air was relatively smooth and we couldn't see what was to befall us in the darkness.

In the flare for touchdown the 210 was suddenly grasped in the jaws of a monster and pitched, rolled and yawed beyond belief. The situation was, to say the least, critical. My singular thought was of survival—"Keep the airplane flying right side up and get out of here!" I grabbed the controls with "I've got it," tightened my grip to keep them from being wrenched out of my grasp, and called for the other pilot to add max power and raise the flaps to approach position. We were climbing at a fantastic rate with the gear coming up.

The airplane was being badly battered about as we rode the updraft—"shaking like a pair of dice in the hands of the devil," as the old saying goes. I thought the Cessna would break apart. So I called for power reduction, slowed to maneuvering speed, lowered approach flaps and gear. Within a blink of an eye, we were being bashed back to earth. I called for max power again, with approach flaps and gear up. Nothing arrested our descent. The granules of sand in the concrete runway zoomed to huge dimension before our eyes.

Impact appeared imminent. However, just before being atomized into oblivion, we seemed to cushion in ground effect and began climbing out. Since the first encounter, we had not made much forward progress—just up and down like riding an elevator operated by a madman.

At midfield, with no more than a couple of hundred feet between us and the ground, I cautiously edged away from the storm, turning downwind toward the open sky. It was the only good place to go.

Suddenly, the airplane rolled near-inverted. I could see the numbers for Runway 18 in the top of the windscreen. I pressed the yoke forward to keep from split-essing into the ground while using aileron and rudder to roll the airplane right-side-up.

The people on the ground said the entire scenario was a scary sight. They could clearly see the storm approaching with twin vortices sucking up top-soil and vegetation from the farmland upwind of the airport. All available manpower was mustered to hangar and secure airplanes. Pilots in a Citation, holding short for our arrival, observed our wild flight with disbelief. As the airplane rolled nearly inverted, it seemed destined to crash into a large storage hangar complex filled with bizjets. As we were blown away from the scene, the airplane pitched, yawed and rolled unlike anything they had ever seen. As a mat-

ter of fact, when we were rolled inverted and I was just managing to get it right-side-up over the airport, the tower tersely reported, "Winds exceeding 60 knots, window glass cracked. We're evacuating the tower. Good luck, Ray!"

We headed for the blue sky, fighting turbulence at maneuvering speed, and landed 50 miles away at Ottawa, Illinois. A call was made to flight service with the query, "What hit Aurora Airport?" "Some heavy-duty thunderstorms were reported passing through, but the area will be clear in about 30 minutes," they reported. That was all it was?

At Ottawa, a careful visual inspection of the aircraft revealed no physical damage—not a rivet out of place; no dents or cracks. This conclusion was later confirmed by shop inspection. The Cessna T210 proved to be a sturdy bird. It no doubt helped us survive the experience.

The other pilot's calm, immediate response to my calls for power, flaps and gear adjustments made up the balance in our survival. I had my hands full with the flight controls. It was definitely a two-person job.

Upon landing back at Aurora Airport and taxiing to the ramp, I noticed a Cessna Skymaster over on its back, torn from its chained tie-down. Metal hangar siding was twisted and peeled back from hangars adjoining the ramp. Farther downfield, abeam the spot of our initial encounter, gave witness to the full destructive fury of the storm. Two rows of T-hangars had been completely raised from their foundations and thrown several hundred yards downwind. A beautiful Cessna 310R was smashed upside down. The tie-down rings attached to the chains on a Piper Seneca were pulled right out of the wings as the aircraft had been lifted, spun around and smashed back on the ramp into a crumpled mess. In all, some 32 aircraft were destroyed that day at Aurora Airport plus extensive property damage.

Meteorologists had issued a severe thunderstorm watch for the region that afternoon, but had not foreseen a tornado. Instead of dissipating as expected as it moved to the southeast, the storm grew stronger. Then at its core, amid powerful counterclockwise winds and updrafts pushing 60,000 feet above the earth, the tornado was born.

This one had widened rapidly, spawning a cluster of smaller twisters. Inside the Hydra-headed monster, winds built to an estimated 275 to 300 mph. By the time the tornado crossed downline communities, it was so powerful that it stripped bark from trees and gouged earth from the fields.

North of Rockford, Illinois, where it started, meteorologists estimated the storm's forward speed was 30 to 35 mph. By the time it passed the Aurora Airport, the storm was moving up to 60 mph.

It was not a textbook twister. It did not follow the patterns, did not have the looks and did not until the last few minutes, act like what it was—one of the most devastating storms in northern Illinois history.

What did I learn from this experience? First of all, storms can move much faster than normally anticipated. I thought we had two to three hours' time before it hit. Instead, it overran the airport in a little over an hour.

Tornadoes do not necessarily move only from the southwest to the northeast. This one came from the northwest to the southeast.

Finally, I learned to have a great deal more respect for Mother Nature. The trick in dealing with any kind of severe weather is to keep as much distance between it and you as possible.

The pilots in the 210 survived their encounter with one of nature's deadliest forces, because, after initially underestimating the speed of the storm, they made all the correct decisions and worked together as a crew. And they were lucky.

The Corsair pilot who confessed to the next encounter had three opportunities to make the wise and prudent choice. But he didn't. He continued with his approach almost until it was too late to break it off. He, too, was lucky. The approach could have broken him off.

A-7 Coarse Air

by Boehmer Jon Gorr

I was flying a single-seat A-7D Corsair II tactical fighter on a two-ship training flight from Greater Pittsburgh International Airport. I was the flight leader and my wingman was a pilot for a major airline but new to the A-7D. The weather forecast for that summer afternoon included the possibility of severe thunderstorms. Although we had a color weather radar display at the base, the supervisor of flying for the day was not updating it, and I failed to ask for an update. Without getting the latest available weather information, I walked out the door to the airplane.