

Chapter 6: The Press of Business

Flying a plane is no different from riding a bicycle. It's just a lot harder to put baseball cards in the spokes.

Captain Rex Kramer, in the movie 'Airplane.'

I had been anxious to get back into the cockpit after a week long vacation with Jo and Erica in Punta Cana, a beach resort community situated on the eastern shore of the Dominican Republic. The vacation itself was a welcomed break from months of rigorous flying for me and stressful business dealings for Jo. As for Erica, any unscheduled break from school was always a treat. The winter had been hard on our family, first with my fall from a ladder two weeks prior to Christmas that resulted in two broken arms and three fractured ribs, followed by Jo's rather serious bout with the flu immediately following the holidays. Erica somehow managed to escape the infirmities encountered by her parents. Nonetheless, we were all ready for this much needed vacation. But I was not looking forward going and coming on a commercial airliner.

Digressing here for a moment, I am often asked how pilots feel when traveling as airline passengers. Do you worry more because you have a better sense of what is going on? Or do you relax knowing how much safer air travel is than riding in an automobile? I guess I fall into the former category. I know, for example, that airliners do not crash very well. Unlike small, single engine airplanes that can be set down in golf courses, roadways, or even long parking lots in the event of an emergency, airlines must have an airport, or else. And it's that "or else" that causes me to worry sometimes. But even more troubling to me is not the airplane and its ability to fly, nor the airplane pilots who fly it. Instead, and I am sorry to have to say this, my worries are sitting all around me in the form of strange and unfamiliar passengers with whom I am traveling. Case in point. Several years ago, Jo, Erica, and I were flying aboard a USAIR B-737 from Orlando to Buffalo. It was a late afternoon flight, every seat was occupied, and we were seated toward the back of the airplane.

Mid route at cruise altitude, Jo gave me a nudge and said, "Bob, I smell smoke."

This was shortly after the tragic Value Jet crash near Miami where the cabin filled with black smoke caused by self-igniting oxygen generators, improperly being transported in the cargo hold. Her words immediately caught my attention. I paused, sniffed and, sure enough, I smelled

the pungent scent of something burning. I looked left, then right, then down, and up, and in front. I knew something had to be done right away, but this was not my airplane. I was just one of 150 passengers. I unstrapped myself, stood up and as I was about to march down the aisle to get a crew members attention to the ominous smell of smoke we were sensing, I found the source of the fire. Directly in the row of seats behind us was a passenger that looked like he had just left a Nazi youth rally, a "skin-head" with a sleeveless t-shirt, well developed biceps, each covered with tatoos. This young man was using a large butane lighter with a five or six inch open flame to dry the sleeve of his wet jacket. Forgetting my status as "just a passenger," I asked, no ordered, this guy to put the flame out. He gave me an almost immediate two word response that wasn't, as they say, "Merry Christmas."

I instinctively pressed the flight attendant call button above his seat. As the young lady in uniform approached me from my back, I said to her, "This guy is sitting here with an open flame, endeavoring to set us afire!" Now I don't know what secret communications weapons flight attendants have at their disposal, but almost immediately, three other flight attendants converged on the scene.

"Okay, sir, let's put the flame out right now," said one of the F.A.s. He did, and that was that.

I returned to my seat and said to Jo, "I could use a drink." This triggered yet another frustrating encounter with fellow passengers. This encounter was really sick. I could see the drink cart slowing making its way down the aisle. I was beginning to feel compassion for the two F.A.s serving drinks who had to do this for a living. Imagine, every day, sealed in an aluminum tube with larger numbers of total strangers. Statistically, I thought, she's got to be riding with one nut for every 100 normal people on board.

As the drink cart finally made it to the row ahead of me, I saw a child about nine years old literally running down the aisle from the forward part of the airplane. "Watch out," he yelled as he was trying to get by the drink cart to what I later learned was the lavatory in the back of the plane. Anybody who has ever traveled aboard a commercial airliner knows that there is no way to get around a drink cart as it moves down the aisle. Seeing no other alternative and apparently not wishing to soil nearby passengers, the kid spews forth the entire contents of his stomach, in classic projectile vomiting form, all over the drink cart!! Damn . . . I don't believe this happening. Within the space of ten minutes of this single flight from hell we had a passenger playing games with an open fire and a kid sabotaging the drink cart.

While my anger was slowly beginning to display itself, it was nothing compared to the outrage exhibited by the F.A. who took the overflow of the kids vomit right in the chest. If it were me, I would have quit my job right there on the spot. She had very pointed words for this kid and even more pointed words for the kid's mother who followed him down the aisle. "Lady, we have bags in every seat for just this sort of thing," the F.A. said. I never did get my drink.

We returned from our Dominican Republic vacation late on a Monday night. My first flight in N4720Y was scheduled for the following Thursday morning. It would be a fairly quick trip some 250 miles to Lima, Ohio. Lima is located about 50 miles north of Dayton in the western portion of the state, not too far from the Indiana border.

As has been my practice in recent months, I invited one of my flight students to come

along on this quick turn-around flight. Pete Mancini, a 39 year old truck driver who had just recently earned his private pilot certificate, was anxious to go along as a way of building up his cross country time in preparation for his instrument rating. I had come to know Pete pretty well over the past several months, getting him ready for his private pilot check ride. He had been working on obtaining his private pilots certificate for nearly nine years! Like so many other student pilots, Pete had gone through a string of five different flight instructors, each of whom were teaching while looking for airline jobs. As an airline job came along, Pete was passed on to the next instructor in line. With each subsequent instructor came a new way of doing things, a lot of relearning, and a loss of precious momentum.

Like so many of his contemporaries, Pete was considering a career change from over-the-road truck driving to aviation. While age would have been against him some 10 or 15 years ago, today's booming aviation industry promised abundant employment opportunities for pilots right into their mid-fifties. Pete was eager to get a piece of this action and would sooner spend time flying than having dinner with his Hollywood heart throb, Melanie Griffith - leastwise, that was what he told me. Truth be known, I really don't think he was referring to dinner.

"Hey, Pete . . . do you want fly the left seat of the 210 down to Lima?"

"Sure, when do we go?"

"I'll meet you at Prior Aviation at 7:30 tomorrow morning," I replied.

My deal with Pete was pretty straight forward. I would charge him the normal rates for my flight instruction time but would waive any aircraft rental charges. This was a great deal for him and it gave me something to do to help pass the time of the flight. Weather at Buffalo at our departure time was unusually good. Clear skies and light winds. The forecast along our planned route of flight was not so promising, however. I had filed Buffalo to Lima direct, a routing that would take us right down the center of Lake Erie until reaching Sandusky, then about 70 miles inland to Lima. Our planned cruising altitude of 15,000 would give us just enough gliding distance to reach either shoreline for all but the widest part of the lake in the event of engine failure.

Pete and I launched into the clear blue skies. Looking down to the ice covered lake below, I asked Pete if he thought the ice would hold us if we had to land on it. He didn't know and I wasn't confident that it would, so we both eliminated that possibility as one of our "back doors." Back doors are something that well trained pilots are always looking to have - but landing on thin ice was not going to be one of ours today.

It was not long before the weather began to deteriorate. Abeam Dunkirk, NY we entered the clouds that were associated with slow moving cold front that stretched from Toronto in a southwesterly direction through Cleveland and southward into the Ohio Valley. I had anticipated a rough ride through the front with a boat load of ice to boot, especially out over the lake. However, a couple of things were working in our favor. First, the outside air temperature minus 22 degrees celsius, which was almost too cold for airframe icing to form. Second, the ice cap over Lake Erie minimized the atmospheric moisture needed to fuel icing conditions. All we had to deal with was the solid cloud layer from the surface to a reported altitude of 29,000 feet.

Pete's actual instrument time was less than a few hours so I kept a pretty close eye on things. This was hampered somewhat by the fact that all of the flying instruments are situated in

on the left side of the panel, where Pete was seated. This required me to look across the panel in a somewhat awkward fashion to insure we remained upright in the clouds. N4720Y, unlike airplanes that generally employ two pilots, was instrumented for one pilot operation - and that pilot sits in the left front. But Pete was doing very well. Unlike a number of low time instrument students, Pete felt right at home in the muck that encapsulated our airplane. Perhaps it was his truck driving training or even the natural ability that gifted aviators such as Chuck Yeager or Charles Lindberg bring with them into the sky, but Pete was able to maintain altitude and heading nearly as well as what our autopilot could do had I elected to throw the switch.

We motored along, not saying much to each other. Pete was totally enmeshed in flying the airplane while I handled the radio communications with Cleveland Center. Aside from a few bumps, the ride into Lima was uneventful. Cleveland Center gave us a slight routing change to the west, around the Cleveland Hopkins arrival corridor. That was the only time we changed the heading bug on our direct routing from Buffalo to Lima. Approaching Lima, Cleveland Center lowered us from 15,000 to 11,000 feet, then to 5,000 feet before handing us over to Indianapolis Center for the final approach to landing. The automatic weather reporting equipment (AWOS) at the Lima-Allen County Airport reported visibility and ceiling conditions to be three-quarters of a mile and 900 ft.

I wondered if Pete could handle this approach and landing by himself. After all, this is where all the chips lay in instrument flying. The 900 foot ceiling would not be a problem; it was the three-quarter mile visibility that would make things a bit dicey. Traveling at 120 knots means that the ground is passing by at two miles a minute, only 300 feet below. With three-quarter mile visibility, we would have less than 30 seconds after spotting the runway to get the plane on the ground. This allows for very precious little error in flying technique. It also meant that we would have to exit the clouds right on the final approach course center line. Three quarters of mile visibility does not allow much time to take corrective actions.

"Okay, Pete, I've got it," I said after spotting the runway end identifier lights through the light snow showers over the airport. I could see that the runway was snow covered. With no control tower serving this small rural airport, we couldn't obtain a braking report - so I assumed the worse, e.g., braking nil. I configured the airplane for a short field landing. This meant reducing the final approach speed from 90 knots to 70 knots in a steeper than normal descent, full flaps, and touch down just above stall speed. This would reduce the amount of actual runway needed to stop the airplane's ground roll. Actually, the runway braking proved not to be too bad. The covering snow allowed for some skidding when applying the brakes, but it really wasn't a problem.

Pete taxied us into the small terminal area. He and I secured the airplane then headed for the warm lounge area inside where I met my waiting client.

The return trip to Buffalo was routine in every way. With Pete again at the controls, we cruised up to 16,000 feet. The quickly moving cold front we passed through on the way down had moved eastward out of our route of flight. Aside for penetrating several hundred feet of cloud layers, we were in the clear all the way back to Buffalo. It was here that Pete really began to concentrate on honing his precision flying skills. This means holding altitude within 50 feet of his target mark and remaining within five degrees of his assigned heading.

I marveled at his concentration as I thought back to my own instrument flight training with a young flight instructor named Ken Beyea. Ken now flies as a captain with Exec Jet, a time-share corporate charter operation. Ken was all but 26 years old when he was trying to teach me, nearly 25 years his senior, precision flying techniques. He had an annoying habit of slapping my right thigh each time I deviated more than 5 degrees of course or strayed more than 50 feet from my assigned altitude. This is why I seldom wore shorts when receiving instruction from Ken. I felt like doing the same thing to Pete. There must be some truth to the statement that one teaches the way they were taught!

This recollection of Ken Beyea's thigh slapping event caused me to think about the tragic death of JFK, Jr. He had crashed while piloting his plane in conditions nearly identical to what Pete and I were flying in. Except, JFK, Jr. apparently was not holding heading and altitude very effectively. If you let either of these flying parameters get away from you in IMC conditions, the result can be disaster. I wondered if any flight instructor had ever slapped JFK, Jr's thigh during his IFR training? Think about it.

As was so often the case, the weather on approach into Buffalo had gone south. The ATIS was calling for a one-half mile visibility and sky obscured. The one thing about flying a lot, I mean really flying a lot, particularly in the northeast, is that low weather approaches really become second nature. You come to expect them rather than dread them, as many part-time pilots do. About the only thing that seems to give me pause anymore is a report of freezing rain, moderate or greater icing, or embedded thunderstorms along the descent route. Any of these meteorological conditions can cause a quick and tragic end to an otherwise uneventful flight. Actually, of the three, freezing rain is the most hazardous because it is largely undetectable. Thunderstorms, on the other hand, can be circumnavigated thanks to N4720Y's onboard weather radar and stormscope equipment. Freezing rain can envelop any aircraft in less than a minute, rendering it too heavy or aerodynamically too awkward to continue flying.

Buffalo Approach Control lowered us to 4,000 feet and vectored us to the final approach course for the ILS 23 approach. We were still in the clouds and Pete was still at the controls. I could see that he was beginning to tire from the four hours of mostly instrument flying he had been doing that day. The strange paradox of IFR flying was quickly revealing itself. That is, the most difficult portion of the trip comes at the end instead of at the beginning when we are most refreshed. ATC gave us the last 30 degree intercept vector to the final approach course. I looked at Pete as he appeared somewhat confused with the rotating and swinging instrument indications. I caught him trying to spot the ground through his left side window.

"Stay on the instruments, Pete. Don't lose your instrument scan."

I knew that Pete was behind the airplane, a term that euphemistically means, I'm not sure what I am doing. He had flown through the localizer and was well below the glideslope.

"Pete, you're giving up too much altitude. Add power NOW. Climb back up to 2,300 feet, we're not yet established on the final approach course." The localizer and glideslope needles were dancing like dueling swords.

"Stay on the instruments, Pete. I'll call the airport in sight."

We were now less than 50 feet above DH (Decision Height). This placed us barely 250 feet above the ground. The windows were still opaque. Exercising the instructor's prerogative, I

said I'll take it from here, Pete. He gladly transferred the flying tasks to me. Then, like magic, the runway approach lighting system suddenly appeared like manna from heaven. The sequencing "rabbit" was calling us home to the warmth and comfort of the runway below.

I had been scheduled to depart first thing the next morning to for Grand Rapids, Michigan. Pete was supposed to travel with me again, but an unfortunate mix up in our signals prevented that from occurring. Thus, I departed solo on this 295 mile trek along the Canadian shore of Lake Erie, over the northern portions of Detroit and into southwestern Michigan to Grand Rapids, the home of former President Gerald Ford.

Ouch, I knew the forecasted headwinds would make the trip a long one. This became readily apparent as my ground speed in the climb out from Buffalo was a mere 66 knots! At this rate, trucks on Canadian Highway 402 paralleling my route of flight would make better time than me. I climbed to my requested altitude of 10,000 feet. Leveling off, the groundspeed increased to 106 knots. This was still too slow. I had to make a choice. I could remain here or fly higher and enjoy the improved true airspeed that comes from flying in the thinner air above, or I could request and descend down to 8,000 or even 6,000 feet where I would find less intense headwinds, but would incur the added drag from the denser air at the lower altitudes.

"Toronto Center, Centurian 4720Y . . . is 8,000 feet available, I'm getting hammered by winds at 10?," I asked.

"Affirmative, 29Y, descend and maintain 8,000, London altimeter is 30.12."

This proved to be no help whatsoever, so I simply sat back and accepted the painfully slow ground speed to Grand Rapids. The only saving grace to this portion of the trip was the brilliant sunshine and unlimited visibility I was experiencing. This was one of those unusual mornings where you could see 300 miles in all directions. Lake Erie was on my left, Lake Huron on my right, the City of Detroit was at my 10 o'clock, and Buffalo was to my rear. It really doesn't get any better than this, I thought to myself. I inserted Anton Dvorak's "New World Symphony" in the CD player, closed my eyes for a moment, and contemplated the good fortune of we airman who can experience like nobody else the very best that God has to offer.

The remainder of the trip was routine in all respects. I landed at the Grand Rapids Airport, met with my client over lunch, then returned for the quick flight home. And I mean quick. Nature is almost always fair. What she takes, she can also give. For me, it would be the jetstream providing a 75 knot push back to Buffalo. As I climbed up to Flight Level 190 (19,000), I watched the ground speed readout increase to 150 knots while still in the climb. Leveling at 19,000 feet, my trustee flying machine was now clocking an amazing 257 knots across the ground. According to record keeping feature of my GPS, this broke my previous ground speed record of 237 knots. I was humming.

This required a bit more advance planning than I had been accustomed to flying at slower speeds. The computer showed that I was only 23 minutes from Buffalo while still 93 miles out. With a maximum comfortable descent rate of 1,000 feet per minute, it would require 16 minutes to reach the 3,000 feet needed to begin the approach into Buffalo. I also realized that the ground speed would increase by at least another 30 knots in the descent, thereby giving me even less time to get to pattern altitude.

Just as I was about to contact Toronto Center, I received my descent clearance.

"Centurian 4720Y, descend and maintain niner thousand, London altimeter, 30.23."

Whoa . . . my ground speed was now approaching 280 knots in the descent. This was well over 300 miles per hour. I suddenly began to feel like a jet jockey.

My calculations worked out perfectly as I descended smoothly to 2,300 feet, the final vectoring altitude into Buffalo. The landing was smooth and I was glad to be home.

After a couple of days of rest, I was back in the air again.

What began as a routine week of wintertime flying ended in a climax fit for a made-for-TV docu-drama. My schedule this week called for two grants development feasibility studies, one in Connecticut and the other on Long Island, and one day-long stint of fund-raising consultation in DuBois, PA. This is the kind of week I enjoyed because it would keep me out of the office for three of the five days. Besides, I enjoy conducting the feasibility studies and I particularly enjoy doing fund-raising counsel.

I put out the word among my growing list of flight students that two of these trips would be ideal experience builders for those who would like to come along, fly the left seat, receive flight instruction and log the time. First to get back to me was my friend, Pete Mancini. Pete is currently my only instrument student. He had secured his private pilot's certificate back in January and was anxious to build-cross country time needed for his eventual completion of the instrument rating. I like Pete and was glad that he signed up for both of these trips, the first of which would be uneventful while the second would be one neither of us would soon forget.

I met Pete at the Buffalo Airport, Prior Aviation, on Tuesday morning at 6:45am. The airplane had been pulled from the hangar and serviced by Prior ground crews and was ready for our boarding. The weather was a typical Buffalo February day with a windchill temperature of minus 10 degrees, light snow showers, and a 2,000 foot overcast ceiling. Our destination was the Waterbury - Oxford Airport in south central Connecticut. There was nothing unusual in the forecast other than a powerful upper level flow that would push us along at a breathtaking ground speed of nearly 230 knots. This would reduce the normal two hour and fifteen minute trip to about one hour and twenty minutes. We would be traversing a north to south cold front that was guaranteed to produce IMC conditions along the entire route of flight.

Pete was in good spirits this particular morning. I don't know whether it was due to his anticipation of hard IFR flying for several hours or the fact that we would be moving through the busiest airspace in the free world. Perhaps it was a little of both. Having flown this route by myself no less than two dozen times in the past year, I was happy to have the company.

I had filed the flight plan and picked up our weather briefing by cell phone on the way from home to the airport. Thus, all we had to do was get in the airplane, pick up our ATC and ground taxi clearance. Pete would be doing all the flying as I kept an eye on things from the right seat. As suspected, we encountered IMC conditions within moments after liftoff. As usual, I reminded Pete to stay on the gauges rather than looking out the window at the rapidly disappearing ground.

"There's nothing outside the airplane that is going to keep us upright," I said to Pete. He quickly returned is gaze to the instrument panel. Pete is a good instrument student and will someday make a good airline pilot I thought as I watched him make fine trim adjustments as we climbed up through the muck.

We leveled off at 9,000 feet for our quick flight to Connecticut. Buffalo handed us off to Rochester Approach as we transitioned their airspace. Normally, Cleveland Center would have taken the handoff from Buffalo, but since we would be remaining under 10,000 feet, Rochester Approach would be taking our flight before handing us off to New York Center. The ride was smooth but the outside visibility was nil. We were in solid instrument meteorological conditions. Our planned route would keep us about 75 miles north of the New York metropolitan area so as to remain clear New York's Kennedy, La Guardia, and Newark early morning international arrivals

Passing over Newburgh, NY, just west of the Hudson River, I recalled a similar IFR flight several years back when I was traveling with a young lady staff member from my office. She was new to the firm and was taking her first flight with me to visit a client. Like today, the weather was not good. In fact, I wasn't sure if we had sufficient cloud clearance and visibility to land. I recalled that flight vividly.

Nancy appeared somewhat apprehensive as we began our descent into Newburgh's Stewart Airport.

"Relax, Nancy, everything is fine," I said in a genuine attempt to help her relax.

"I'm okay," she said. "I'm just not feeling well."

I turned my attention to preparing for the instrument landing. The ATIS was calling for minimum weather conditions. The ceiling was 200 feet with a one-half mile visibility with deteriorating conditions. I was following jet traffic going into Stewart and was eager to hear if he made it in or if he would be diverted to his alternate. Good news! He made the landing at Stewart, thus promising that we, too, could get in. But, as I said, the weather conditions were worsening.

As we were vectored to the final approach course for the ILS 10 approach, I glanced over at Nancy sitting in the right seat.

"You okay, kid," I asked?

I could tell that she wanted out and soon. I felt sorry for her knowing how air sickness and anxiety can work together to make the entire trip quite unpleasant. But there was nothing I could do to make her feel better.

"Hang on, we'll be on the ground in a couple minutes," I said.

The marker beacon light flashed on the instrument panel signaling our arrival over the final approach fix to the airport. We were now only five miles from the runway. This is the point where 100 percent of the pilot's attention is devoted to flying the airplane. Descending into the blind at 120 knots to 200 feet above the ground entirely on instruments is not for the faint of heart or people with a limited attention span. Less than minutes away from the point where I would have to see the runway lights to commit for landing, Nancy pulled sharply on my right arm.

"I'm going to be sick, Bob. Can you do something," she pleaded.

As much as I wanted to come to Nancy's aid, my attention was focused on flying the airplane.

"Use this," I said, as I handed her the opened chart I had been navigating with. She grabbed it, lowered her face into it and promptly vomited. The unpleasant smell quickly permeated the small cabin we were sharing as we quickly approached the DH (decision height)

where I had to have some portion of the runway environment in sight to land. I called out the altitudes.

"Three hundred feet to go; two hundred to go; one hundred to go; damn!" Nothing in sight.

"Stewart tower, two zero yankee is on the missed."

"Roger, 20Yankee, climb to 2,500, when able turn left to zero three zero degrees, contact New York Approach on 132.45."

I pushed the mixture and prop control fully forward, raised the gear, advanced the throttle to take off power, raised one notch of flaps, and began a steep climb in accordance with the published missed approach instructions. Nancy moaned.

"What are you doing, " she asked weakly?

"Sorry, Nancy, we couldn't get in. We've got two choices. We can either try it again, or we can fly two hours back to Buffalo."

"Just get me down," was her eager reply.

At this point I wasn't really quite sure about Nancy's condition. Being sick is one thing. Suffering a panic attack could be quite another. In a tight cockpit, with no other crew member to keep an agitated passenger in check, particularly when in IMC, could become a problem.

"New York Approach,, 4720Y is going to come around and try it again."

"Roger, 4720Y, turn left, heading 270 degrees, vectors for final, runway one zero."

Nancy was not doing well. She was pale but appeared calm. I knew she felt bad about her situation, riding with her boss on a new job and all. I wanted desperately to make her feel better.

"Nancy, hang on. I think we'll make it this time, " I said with substantial doubt in my mind. The prospects to keeping her up another two hours back to Buffalo was not a viable option.

Every instrument pilot is admonished from his first instrument flying lesson, even beyond the point of certain self-destruction, never to descend below decision height without having the runway environment and/or the approach lighting system in sight. The process of descending to decision height is something like lowering one's finger into a pot of boiling water. If the water is hot (or if you don't see the runway), pull it out now!

Crossing the final approach fix for the second time, I began calling out the remaining altitudes at 300 foot intervals. Approaching the critical 200 foot decision height, I knew that if I could catch even a glance of the flashing sequence strobes at the approach end of the runway I could legally descend another 100 feet. Looking over at Nancy, I felt a strong urge to bust the minimums, even by just 20 or 30 feet or so. Every pilot does this, right? Wrong! Well maybe, wrong.

Reaching 200 feet above the ground, I looked up quickly from my fixation on the altimeter.

"YES! I've got the lights," I said aloud. We could continue the descent down to 100 feet in search of the runway. Strangely, I wished I could have secured Nancy's hands on her lap as we raced along the descent path at this critically low altitude. All she would have to do is impulsively push forward on the co-pilot's yoke immediately in front of her and we would both be dead.

"One hundred and fifty; one twenty five; ONE HUNDRED FEET! There it was, the most beautiful 11,000 foot long patch of concrete I had seen in a long time. I quickly retarded the power, raised the nose slightly, and descended onto the welcoming runway below. We taxied over to the terminal, opened the cockpit windows for some much needed fresh air. I gave Nancy a nudge.

"You okay," I asked?

All she could say was, "I'm so sorry, Bob. I really didn't want to do that."

"Relax, you'll be fine. Let's go in and get some coffee."

That was that. Nancy proved to be an excellent grantwriter, but she only lasted about one year with us before moving on to another employer. I secretly blamed the loss of this valuable staff member on that regretful flight a year earlier into Stewart.

It was back to the real world as my attention was captured by Boston Center giving us a shortcut from the published STAR (Standard Terminal Arrival Route) into the New York Metro airspace.

"Air traffic into New York must be light today," I said to Pete. "We can proceed direct to the Pawling VOR instead a continuing east to the ATHOS intersection."

This was good in that it cut about 15 minutes off of our flight time into the Waterbury-Oxford Airport in Connecticut. Along with the rerouting came a clearance to descend down to 6,000 feet. This, too, was good in that it lowered us out of the clouds and into clear sky below. Before long, the Waterbury-Oxford Airport appeared in view at our eleven o'clock. I cancelled our IFR clearance and instructed Pete to fly directly to the airport for a downwind entry to runway three six. Pete took the airplane in and taxied us to the FBO (Fixed Based Operator) where I had a rented car waiting to take me into the local school district to conduct the first of the two feasibility studies I had scheduled for this week.

Thanks to the brisk tailwinds, we arrived in Waterbury about one hour earlier than planned.

"Pete, do you want to catch a quick breakfast before I go on to my meeting," I asked.

"Sure, Bob . . . if it won't make you late for your meeting," he responded.

We took the rented car several miles off of the airport to a quaint little restaurant where we each downed the breakfast "blue plate special," two eggs up, bacon, and toast. Having successfully completed my annual flight physical just several weeks back, I had been taking some liberties with my daily food choices. We each downed the cholesterol-laden breakfasts in grand style.

I returned Pete back to the airport, then proceeded on to my meeting in town. Everything from that point forward back to Buffalo later that afternoon was entirely uneventful.

I left early the next meeting on my solo flight down to DuBois, Pennsylvania, to spend the day with the DuBois Regional Medical Center. This would be a quick 45 minute flight due south of Buffalo into Central Pennsylvania. I have a standing monthly day long monthly meeting at DRMC with their Development Director, Diane Blasdell. Diane is a talented fund-raising professional with an eager personality, thus I always look forward to these monthly meetings.

This day ended like every other visit with an invitation to Diane for a flight around the city.

"Ah, no, I think I'll pass today, maybe next time," was Diane's stock answer. I thanked her for the day, and promptly mounted my steed for the quick flight back to Buffalo. It was a clear day in DuBois but I elected to file an IFR plan anticipating that weather would likely be worse in Buffalo. As is standard practice when VFR conditions exist at the departure airport, I took off expecting to pick up the IFR clearance when airborne. The take off and climb out were standard stuff. I turned a north heading and dialed in the Cleveland Center frequency.

"Cleveland Center, N4720Y off DuBois, 4,000, climbing 8,000, IFR Buffalo. I'd like to pick up my clearance." I waited for a reply. After a couple minutes or so, I repeated my call to Cleveland. Again, no reply. I double checked the frequency, then called them on the number two radio. Hmmmmm . . . still no reply.

The weather was still VFR but I could see the imposing cloud layers over hanging Bradford, PA, about 50 miles to the north. Unless I could reach Cleveland Center, I'd have to remain in VFR conditions, and that would not be possible in another couple of minutes or so.

I had two choices. I could try to reach a Flight Service Station on one of several possible frequencies, or I could dial in 121.5, the discreet frequency used worldwide for emergencies only. This was certainly no emergency, but like 911, it is often taken advantage of by pilots in situations like mine. I didn't want to tie up this frequency, but I did need to get a hold of Cleveland Center or turn back to DuBois. So I dialed in 121.5 and made my call.

Cleveland Center heard my call and responded. I told them that I was unable to reach them on their published frequency and gave them my location. They acknowledged my problem by saying they were using a new frequency which they gave to me. I switched to the new frequency, and again requested the IFR clearance.

It worked. I was cleared direct to Buffalo, and this day like all others was coming to an uneventful end.

I spent the next day, Thursday, in my office completing the necessary follow-up reports that are associated with each feasibility study. As I've said before, spending a day in my office is not my most favorite thing in the world to do, but it was a necessary part of my work. This particular day was broken up quite pleasantly with a long awaited lunch with my good friend and fellow aviation enthusiast, Mark Weissman, M.D. Mark loves flying as much as I do but is kept on the ground by his large and very successful obstetrics and gynecology practice in Buffalo. He and I received our instrument training at the same time and from the same flight instructor, Ken Beyea. At that time, Mark owned one of the prettiest Piper Archers in the country. A new wife, a new house, and a growing medical practice soon made aircraft ownership a burden that no longer could sustain itself economically, so he reluctantly sold his airplane. What a pity, I thought, but I understood his dilemma.

The next morning came all too early. I was scheduled to fly down to Farmingdale, Long Island for another feasibility study. Still anxious to build cross-country hours, Pete Mancini was eager to join me on what we both thought would be routine trip back across most of the same route he and I followed earlier this week. The only difference was that Karen, a lady friend of Pete's, would be travelling down with us. As I learned later in the day, this would be Karen's second time in an airplane. Her first flight occurred just a week earlier with Pete in a tiny Cessna 152.

The same strong westerly winds that we encountered earlier in the week gave us a good push towards our destination. Pete was at the controls while Karen sat in the far rear seat with a blanket on her lap and several magazines to keep her occupied for this one and one half hour trip to Long Island. The weather along the route was solid IMC, thus there was nothing to see out the windows. As we rounded the northern airspace above New York City and began to turn on a southerly heading, ATC lowered us to 4,000 for the last leg of our trip over the Long Island Sound that separated the main land from Long Island. An Atlantic offshore flow of warmer air over the colder Long Island surface created low IMC conditions. The Farmingdale ATIS was calling for one mile visibility and a 900 foot ceiling, but you couldn't prove it by me. I had been into Farmingdale many times before and each time the arrival weather was substantially worse than advertised. New York Approach vectored us onto the final approach course for Runway one four at Republic Airport, the former Army Air Field that now serves Central Long Island.

I figured this would be a good time to demonstrate to Pete what was called a "coupled" approach to landing. This is where the autopilot would be given the task of intercepting both the localizer and the glideslope without any manual inputs from either pilot. The localizer is an electronic radio beam that is directed outward from the end of the active runway that provides lateral, left and right guidance to incoming airplanes as they descend down through the clouds without any visual reference to the ground. The glideslope is a similar radio beam coming from the same direction that provides vertical guidance. Used together, the localizer and glideslope enables pilots or, in our case this date, the autopilot, to navigate down an ever-narrowing electronic cylinder of airspace to a point 200 feet above the ground directly over the center of the runway.

Pete was visibility impressed as "George," the generic name given to autopilots, guided us effortlessly and precisely through the fog and haze automatically to the runway below. Spotting the airport at right at Decision Height, I switch off the autopilot and took the controls for the final 200 feet to the runway. This worked out a whole lot better than the first time I had flown into Republic in my friend Steve Kaplan's Cessna 210. At that time, I had less than 20 hours total time flying a high performance single engine aircraft. I had also had relatively few instrument flying hours. I had found myself well behind the airplane as we were descending to Decision Height. I was high and fast on the approach. The weather then, like today, was right at minimums, except this time I didn't spot the runway until I was directly over it. Not anxious to fly a missed approach into the busy New York airspace above, I made a determined effort to get this airplane down on the ground. I chopped the power to idle, lowered the nose, and literally flew it down to the pavement below. Not certain, due to the limited visibility, how much runway was left in front of me, I pressed hard on the brakes. I could tell I was skidding as the tires hydroplaned along the wet runway surface.

Fortunately, there was just enough runway to prevent an embarrassing ride into the runway overrun and quite possibly into the soft wet grass ahead. What I did notice immediately, however, as I taxied over to the FBO, was an evenly spaced "thump," "thump," "thump" as the tires rolled over the taxiway. I discovered that my hard braking had literally rubbed much of the rubber off of one portion of each tire.

We taxied to the FBO where, again, I had a rented car waiting to take me to my

appointment about 14 miles west of the airport. I arranged to have a crew car available to take Pete and Karen to a nearby shopping mall and restaurant while I completed my business obligations. We all agreed to meet back at the airport around 2:00PM for our return departure back to Buffalo.

We took off back to Buffalo as planned. Forecasted conditions along our route of flight remained unchanged from our flight down due to a stationary front bisected New York State. Leaving the New York metropolitan area is always an adventure that involves at least six or seven different ATC sectors. Each sector requires a frequency change and a different controller. As always, the ATC plan was to keep us below JFK arrivals and above LaGuardia arrivals. Altitude differences are what keeps airplanes from running into each other.

About 40 miles west of the Hudson River, the New York Departure controller handed us off to Wilkes Barre Approach who, eventually worked out a direct routing for us back to Buffalo. On top of the clouds and in sunshine at 10,000 feet and away from the busy New York airspace enabled both Pete and I to sit back and relax for the one and a half hours remaining in our trip.

The first hour of this trip was wonderful. It was the last one half hour that kept us on our toes. Just north of Elmira, Rochester Approach lowered us to 4,000 feet, which put us in the underlying cloud layer. They passed along recent pireps (pilot reports) of light mixed icing in these clouds. This came as little surprise to me or any other pilot flying throughout the northeast in the wintertime. Ice comes with the territory.

Icing is reported in four levels of intensity. Trace ice and light ice are of minimal consequence to the pilot because there is generally plenty of time to find a non-icing altitude. Generally speaking, aircraft certified for flight in known icing conditions can remain in trace to light icing indefinitely. Moderate icing intensity, on the other hand, is a far more serious matter. This intensity requires a rapid altitude change to prevent a dangerous accumulation of ice, even for aircraft certified for known icing conditions such as mine. It makes little difference whether it is a single engine piston aircraft like N4720Y or a wide body four engine jet airliner. Ice is ice and it has the capacity to change the aerodynamic characteristics of the airplane as well as add excessive weight.

Severe icing intensity is just plain bad. In fact, it is equivalent to flying into the eye of a thunderstorm. It is like sitting in a stopped car with two people heaving snow shovels full of freezing slush on your windshield. This icing level is so intense that pilots can hear the hammering sound of instantly accumulating ice on the windshield and airframe. The only out for aircraft flying in severe icing conditions is an immediate departure to an ice free environment. Failing this, either the dramatically altered aerodynamics of the airframe or the shear weight of the ice, or both, will likely render the airplane incapable of continued flight within a matter of minutes.

As we descended into the clouds at 4,000 feet, ice was, indeed, beginning to accumulate on our airframe. Cycling the neoprene deicing boots on the leading edge of the wings, stabilizer, and vertical tail quickly shed the one half inch thick ice that built up in less than a minute or two. I reported these icing conditions to Rochester Approach as light to moderate icing. As long as the boots were effective in shedding the icing, I was content to remain in the clouds for the remaining 30 minutes into Buffalo. I flipped on the electrically heated propeller boots and the "hot" windshield plate. Things were still well under control.

Rochester switched us over to Buffalo Approach. We checked in and reported light to moderate ice. They offered us a climb back up to clear air at 6,000. With Buffalo now less than 20 minutes away and our deicing equipment working well, I declined the offer. By now, we were in steady moderate icing conditions requiring a recycle of the boots every four minutes or so. A climb back up to 6,000 was not really going to do us much good in the short time remaining simply because we would eventually have to descend back down through the icy clouds.

After what began to seem like a very long time, we were cleared down to 2,500 feet and were given vectors to the final approach course for runway 23. By now, the windshield was encased in a solid inch of ice . . . all except for a small portion under the heated plate directly in front of the Pete's left seat position. It quickly became obvious to me that, from my right seat position, this opening in the windscreen was going to be no use to me.

"Pete, you are going to have to land this airplane alone because I have no forward view from my seat."

I was confident in Pete's handling of the T-210 in take off, climb, cruise, and descending flight. Landing was another thing altogether. Unlike fixed gear aircraft, the T-210's retractable nose gear is intolerant of any form of rough landing. Like most other retracts, this airplane must be landed on the main gear, allowing the nose gear to gently settle to the ground during the landing roll. I reminded Pete of this important fact. I also reminded Pete that I would like to use the airplane again!

Pete would have his hands full. We had a good bit of ice build up on the unprotected portions of the airframe which meant that this would have to be a no flaps landing. The ceiling and visibility were right down to near minimums at 200 feet and one mile visibility, and the winds were blowing directly across the runway at 17 knots. This would be a handful for any pilot. My eyes were glued to the localizer and glideslope needles, the airspeed indicator and the altimeter, with occasional glances out my right side window. Pete was sitting erect with a look of intense concentration. This was the most realistic instrument training scenario I had ever seen. He had the everything under control. Speed was right, localizer and glideslope needles were rock solid in the middle of the donut, descent rate was 450 feet per minute. I could see the lights of the New York Thruway beginning to appear and the glow of the approach lighting system under the right wing. All he had to do was flare properly and we find ourselves safely on the runway. This he did at precisely the right time causing us to drop gently on the main gear and roll out to the exiting taxiway.

"Nice job, Pete," I said, wondering which of us was happier to be safely on the ground!