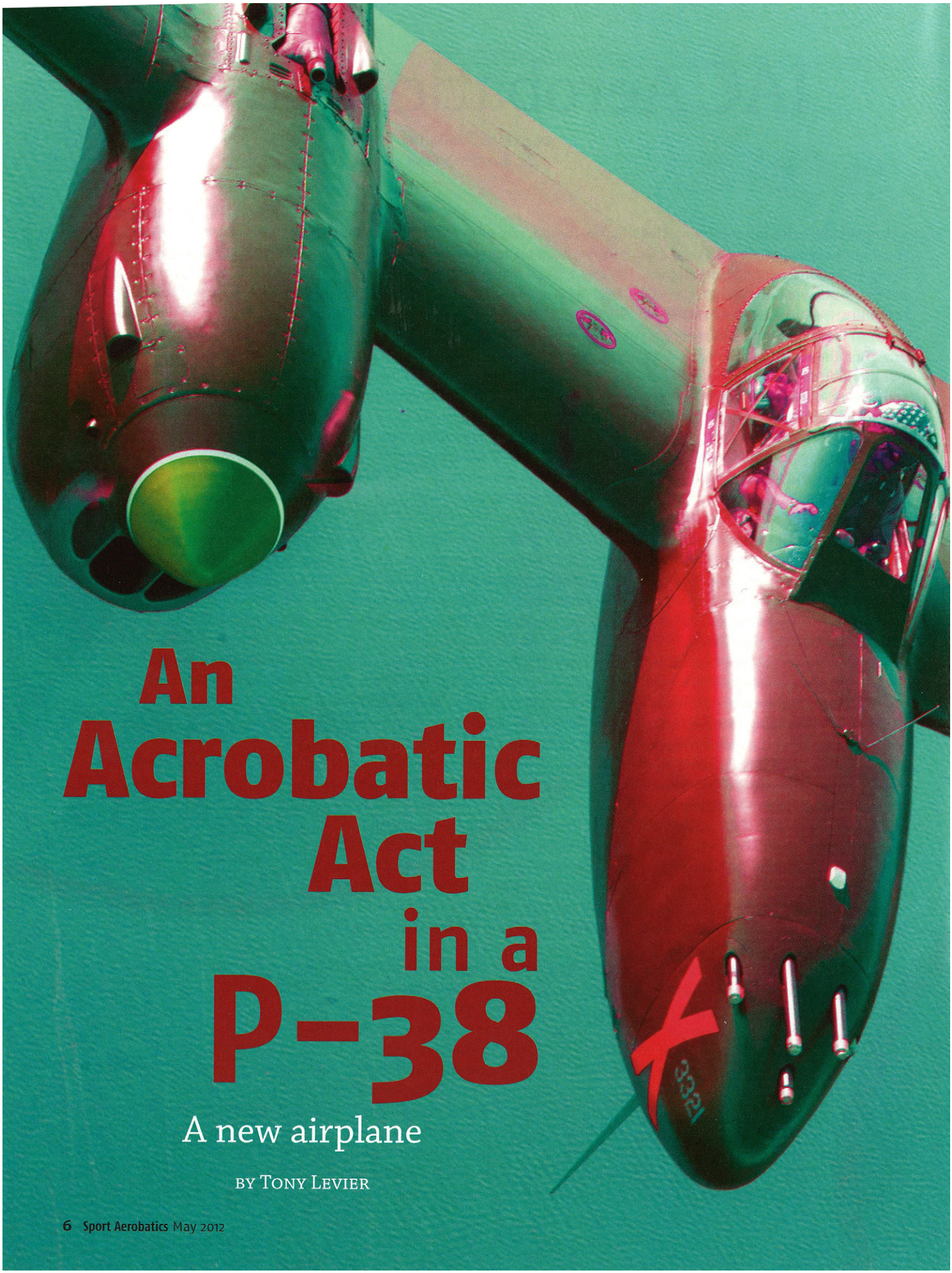


An Acrobatic Act in a P-38

A new airplane

BY TONY LEVIER

I was flying above an overcast, circling Cleveland Municipal Air Terminal waiting for the control tower to give me word that I was on and could start my act when ready. It was the 1946 National Air Races, the first to be staged since before the war in 1939. Seven long years have come and gone. I was back at Cleveland with the most graceful and powerful fighter of World War II, the beautiful P-38 Lightning that I had purchased from the government last January 21. I had dreamed of owning a P-38 but never really thought it would come to pass.

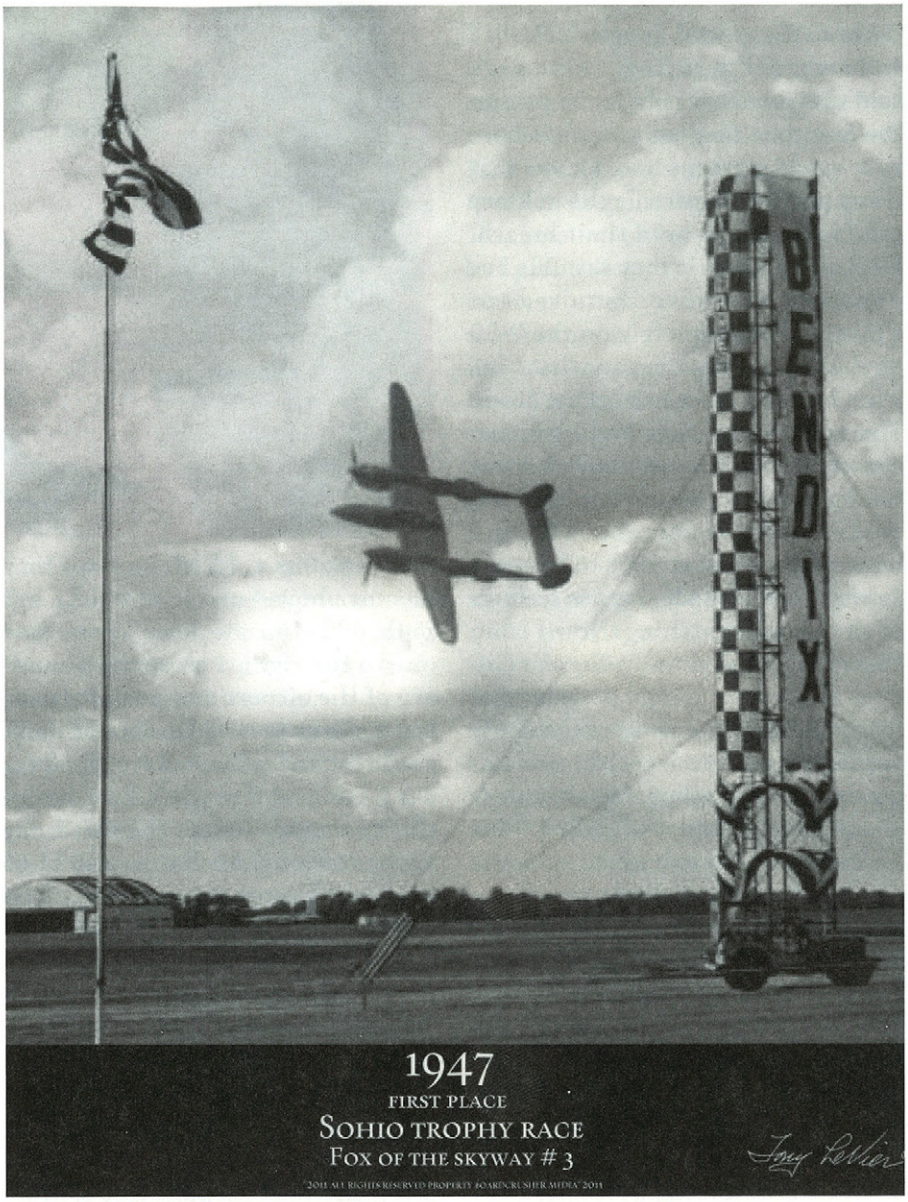
I'll never forget the day I spent out at the air force base at Kingman, Arizona, searching for the one perfect P-38 out of a choice of more than 450 lined up row after row for acres and acres—never before, anywhere, had so many airplanes been assembled together in one spot. Here at this one air base were stored 7,500 combat aircraft—some were battle weary, some practically brand new. My P-38 had but 15 hours and 25 minutes total flying time—all test and ferry hours since being at Burbank, then to Dallas, Texas, for modification, and finally back west to be stored in the great vast expanse of prairie country east of Kingman. When I came over the hill that Wednesday morning, through the mountain pass east of Kingman, I never dreamed of seeing such a sight. It might have well been a hundred years before, and instead of thousands of bright shiny airplanes, it could have been a herd of buffalo or wild horses—no, this was 1946, the war is over, and as usual the government is disposing of its enormous amount of assets. The aircraft at this base

dicated. I'm almost leveled off. I had set my altitude the day before in a fast pass close to the ground and noted the error. I have set in the correction today—900 feet I forget the instruments. They have done their job—now it's up to me. Only my judgment alone can I depend on. My airplane and engines must function perfectly. No time to look around the cockpit. I pull in tight for my final pullout; the accelerometer reads 4...5...5-1/2...6g's.

My *g* suit has been partially inflated since the start of the recovery. Now it's swelled to the limit, the pressure making me strain my every muscle. It is partially painful but nice—no blackout—the blood's effort to rush from my head is impeded by the *g* suit's pressure against my lower extremities. It might not have been intended that man subject himself to so much torture, but we do it anyway

The purpose of this demonstration is to show the public what is expected of man and machine. I'm giving her hell today. Fifty feet and level. I continue to pull hard—the moist atmosphere releasing its moisture in the form of a cloud as the P-38 passes through the air. The entire plane is almost hidden from view—the tremendous and instantaneous reaction of the air flowing over the plane is like a violent storm before your very eyes.

The airspeed indicated almost reached 525—almost as fast as jets fly. My pullout is extremely abrupt and might be described by some as making a square corner. My engines are wide open, and I'm streaking upward—steeper and steeper—I look left to judge my angle of climb by the horizon. I'm vertical and my speed is over 400 mph. My climb indicator is against the peg. I'm climbing more than 35,000 feet per minute for a short distance—what a sensation and thrill as the ground drops away. The speed gradually slows down and the climax is over. I must ready myself for the next maneuver—no time to waste as I only have 20 minutes to display my routine. I ease the throttles back and start rolling the P-38 the last few thousand feet. Always try and keep doing something—never anything twice the same. That's why the P-38 is so terrific.



I approach the clouds that I just came down through. I don't intend to go through them and stop my roll away from the spectators and pull back hard on the controls to effect a half-loop and head back down. My speed is very low, and the P-38 shakes and buffets from the stall. I lower the wing flaps and the nose comes around. I head almost straight down again and turn the control wheel all the way to the left. The plane starts to roll—slowly at first because my speed is low; now faster it rolls; three turns; four turns—I must be careful not to get too dizzy. It will happen.

My speed is back up to 350, and the throttle is still back. I roll to the right, all the way with the wheel. The plane stops rolling and then reverses direction with a snap. The speed is just right for maximum rolling velocity. I'm dizzy, but rolling the opposite direction will steady my equilibrium. I stop my rolling lined up for my next pullout and maneuver. I cross in front of my spectators doing aileron rolls first left and then to the right—this uses up time and distance. Now I'm ready for the next. I pull back hard but smoothly. The nose comes up and over. I bend my head backwards to pick up the horizon and check for wind drift. Wind that's crossways to your flight path makes it extremely difficult to stay lined up and spoils the look of precision.

Now I'm headed down again as though I'm going to try to complete a simple loop the loop—closer and

are controlled by the War Assets Administration, and it is in charge of selling them.

I drive down Highway 66 along row upon row of warplanes—all makes and breeds, mile on end. I turn into the entrance to the base; there is very little formality with the war over. The guard has been relaxed, and I am admitted with little delay. Mr. Perry of the W.A.A. has expected me, called him Monday by telephone to get the particulars. He had a long list of P-38s with the lowest number of hours. But I could help myself to any airplane in the lot. For the next six hours I was like a kid in a toy store just before Christmas. Sammy Mason, an old friend of mine, had driven with me to help out and to drive my car home. We both went over each aircraft looking for certain telltale features that would indicate a good clean airplane. Finally after about four hours of this, we had the list paired down to about a dozen P-38s. Now, which one shall I pick? Why don't I just say 'that one' and get it over with? No! We came this far and spent half a day. I'll probably never have another chance like this to pick out a $150,000 airplane for $1,250.

I have worked out a plan of elimination; I'll follow that. I check off seven more from the list—four to go. Sammy is now just following me around, not saying anything. Guess he thinks I'm crazy. They all look alike. Why don't I just say eenie, meenie, miny, moe and get it over with—four, scratch two, two to go. The aircraft serial numbers are 44-53078 and 021. They are two rows apart; I walk back and forth for at least 30 minutes. I scrutinize every crook and cranny that is exposed; I don't miss a thing. Finally I say to Sammy, my choice is 078. Let's get back to the office and tell Mr. Perry so they can get it towed out to the flight line. About an hour later with my P-38 serviced, fuel tanks filled, a check flight for good measure, bill of sale in my pocket, I'm on my way home to Burbank the happiest person in the world, flying an airplane I have helped develop—to breathe and live—to do great things. Men have become heroes flying P-38s—Maj. "Bong," McGuire and others. Bong was ace of aces flying P-38s; 40 victories to his credit. Here I am, flying my very own. I study the sound of the engines; they feel smooth with little more than a steady hum.

I decide to hedgehop awhile. I drop the nose—the speed picks up from 250 to 270-280-290-300-310. I'm about 400 feet from the ground. I ease back on the control wheel and retrim my elevators. Now I'm 100 feet, 50...25 feet above the desert floor. I adjust my throttles to give me maximum cruise power—the airspeed indicator steadies at about 315 mph. Now I must keep my eyes straight ahead—only a fleeting glance at my instruments. There's a small rise ahead—I pull back on the wheel. I skim the top of a knoll and ease down the other side. There's a large cactus ahead. I lift my right wing—it's effortless; like a dream. It's like driving down the highway in your car—the traffic is heavy and you say to yourself, oh if one could only pull back on the wheel and zoom up over the tops of all these other cars—higher and higher, above the telephone poles—you let yourself dream for awhile and you enjoy the fantastic flight of make believe. I'm not dreaming. I'm actually living the thrill of reality. I'm doing all the things I dreamed of when I was a young boy.

The mountain range ahead approaches. I increase my power and climb up the mountain without slackening the speed, over the top at 300—the mining town of Oatman, Arizona, lies ahead just over the top. Farther on, the Colorado River and then Needles, California. I tire of hedgehopping—requires too much attention to be fun for long. Over the Midwestern states and part of Texas, you can fly for hours without so much as a tree.

"Seven six four from Cleveland tower, over."

It's the control tower operator calling me. I answer back, and they tell me to be ready to start in 30 seconds. I acknowledge and start checking my position. I have been circling above the overcast using my radio range receiver to locate myself above the field. The radio station is located just off the west side of the airport. My opening act is a compressibility dive, the first time in aviation history that it is to be demonstrated to the public. Today an overcast is hampering this part of the act, but I have it figured out and am working with the control tower. I intercept the west leg of the Cleveland radio range less than 15 seconds from hitting the code of silence. I've got to work fast—I cross the beam in a steep left bank and hold it—back to the beam. I turn hard right to the approximate bearing toward the station. God, I hope this works out! I've never tried this before. There are more than 100,000 people down there—thousands who are aviators—many of them critical. I must do my best. I fly into the cone of silence, and at the same time I roll over on my back and pull back on the control wheel.

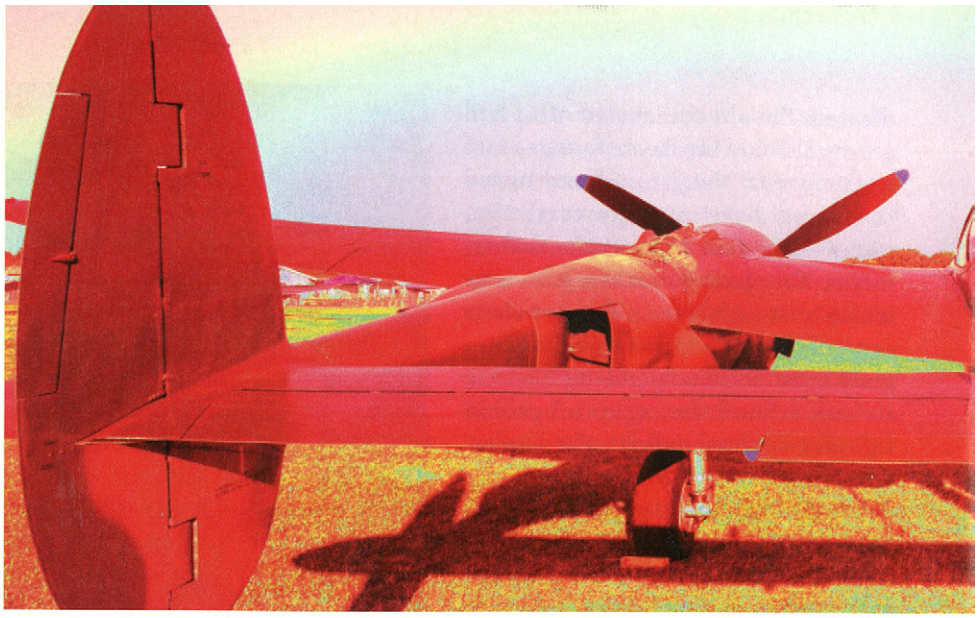
I call the tower, giving them my position, and on my way down put my props in full low pitch—which will wake the dead from the noise. One hundred thousand pairs of eyes look upward toward the west—I'm diving straight down—into the overcast at 11,000 feet. My speed is over 350 mph and going up fast. The altimeter is unwinding: 10,000...9,000...8,000. I break into the clear—lost momentarily—I spot the NACA hangars to my right. With both hands on the control wheel, I turn left and do a half aileron roll going straight down. There's the air race hangars and grandstand on my right as I stop my roll—couldn't have guessed better had there been no clouds. I ease back on the control wheel to start the recovery from my dive; my plane starts to buck and lurch; dive flaps out; this steadies the P-38, and the nose comes up slightly. I check my speed—450 indicated. Wow, no wonder it's bucking! I advertised a compressibility dive and that's what they're getting. Dive flaps in, the altimeter is spinning: 5,000...4,000...3,000...2,500. The airspeed is almost 500. I'm shooting for around 525 indicated at the bottom of my dive. I ease the throttles forward. The airspeed creeps up: 515...520 in-

fixed position ready to unfeather the props if I need my engines for any reason. I haven't yet, but I must not take any chances. I wiggle my ailerons and check my special hydraulic system. It's okay and now I'm ready to go. One more check for position—just right—I roll upside down and pull back on the control wheel. The nose comes down through the horizon until I'm in a vertical dive. I flash through a wisp of cloud, and I'm in the clear. I roll the plane about until I'm facing the field. It seems as though I'm a little too close in. That's bad as it can ruin the whole act. Must be the wind effect and clouds. I roll the plane back again and pull out away from the airport. I do another half-roll, and now things look much better. This is going to be my best one. My altitude is 5,000 feet, and I start pulling out of my dive. Just enough to have a start—not too much or the act is spoiled. My speed is 400 mph. Just right, the best speed is around 450 to 475 mph. I'm headed for a spot that is three-fourths to one mile from the airport. Now I pull back—down lower and lower. Easy does it...want no more than 100 feet at the bottom of my pullout. Things are working out just right today

There's a rumor going around that LeVier must be nuts to think he can run the 300-mile Thompson Trophy race after the beating his plane has taken—some even say he should be stopped. I'm down to 1,100 feet...800, 6, 5, 4, 3, 2, 1. I level off at tree height and pass over the old red brick school building east of the airport. Will use it as a landmark in tomorrow's race. I ease the nose up a little and roll the P-38 upside down as I push forward on the control wheel to keep from flying into the ground. It's unnatural to fly upside down, and if you do, your inverted senses will fool you. Pilots have flown into the ground because they failed to push forward hard enough on the controls. I cross the edge of the airport upside down and am just about ready for my grand finale. Now! I roll hard right and upside down again—now left—looking quickly to the right for a position check. I'm passing the end of the grandstands. I push forward and zoom up inverted. I roll right side up and pull back hard so I'm now vertical.

Airspeed is 250—just right. I pull harder, straining my muscles to throw my head back. There's no *g* suit help on this one because the engines are dead and there's no air pressure. The nose comes through the horizon, and I reach down to the left side of my seat to place the landing gear lever in the down position. I hold the airplane inverted for a few moments and roll into an upright position. I'm back up to 3,000 feet and my gear is down, headed east. I pass over the red school building, break hard left, and put my wing flaps down. I call the tower out of habit and ask for landing instructions. They give me a clear go ahead. I must keep the right speed—about 120-130 for good control. I do a sideslip to the left and begin a turn. I'm about 180 degrees and headed away from the spectators. At six tons, the P-38's wing loading at this very moment is 40 pounds per square foot. That's not much for a fighter airplane, but plenty for maneuvering around inside of a field. I pass over the northeast corner of the airport and whip into a steep slipping turn to the left. Now I'm headed west, a bit high. I straighten out and head for a bridge over the Rocky River. I'm directly opposite the spectators and bank hard left and pull as tight as I dare. I check my speed—12. Now headed east, I start a slipping turn to the right. I cross the diagonal runway and continue slipping to the right, passing in front of the hangars.

I pass the United Airlines hangar, and everyone there is out in front. I can see every head is pointed my way—I get a big charge out of doing this—especially this part. It's so clean and quick that only two minutes ago, I was at 12,000 feet. I cross the large taxi ramp in front of the air terminal. Now I'm down to just a few feet, and the P-38 feels light as a Cub. I miss the drag of unfeathered propellers. Gotta fishtail. I rudder the nose left—now right—left again—right again. My speed is down to 80 mph, and I'm still in the air. God what an airplane! I do one more easy slip to the left, straighten out, and touch down at 75 miles per hour. I have already pumped my wheel brakes and they're ready. I press hard on the foot pedals—my speed drops off—I'm headed right for the grandstands, and now it's safe to turn. I press the left pedal and rudder at the same time and point the airplane directly at the announcer's stand. I straddle the white chalk line that is used as the start and finish line for the races. Easing up on the brakes, I coast down a slight grade onto the ramp. Doing two curtsies, I brake to a stop, open my canopy, stand, and wave to the crowd. They have been waving since I first noticed them on my final roll. I feel proud—proud of my beautiful red P-38! IAC



closer to the ground. It even looks bad from where I'm sitting. I have been told this maneuver chills the person the first time they see it. I can believe it. It would scare me, too. I know that many people—especially the military pilots—begin to hold their breath. He'll never make it they say. But I've done this maneuver hundreds of times. I rely completely on the P-38 to react at the exact instant that I call upon her. She has never let me down. The only times I have had a scare or close call were my own fault. I'm not taking those chances today, just a repeat of what I've done many times. I have reached what appears to be a dangerously low altitude. I sense feelings of the people watching. Now I whip the wheel left; all the way. The plane almost snaps to an upright position, and I stop the roll. The wings roll slightly past level and then level like a soldier giving a snappy salute. My altitude is about 200 feet and descending. Now I ease back—just enough to skim the ground. This is easy if you have done it before; you get used to it over the years. It's a combination of depth perception, perspective, and closing rate all in one. I trained my students years before in the art of flying low; what to look for and how to avoid the hazards ever lurking close to the ground.

I clear the ground by perhaps 10 or 15 feet. I'm always higher than it looks from the cockpit—partly because of the refraction from the slanting windshield and partly from the blur of the ground being close. I ease back and repeat the maneuver to show the skeptics that I meant it the first time. This maneuver is called a Cuban-eight à la LeVier. I push the throttles wide open and zoom upward at a 45-degree climb and start rolling right, then left until I've reached enough altitude. I start another dive—this time I have my right engine stopped; the propeller feathered and standing still. I'm west of the field doing a wing-over to enter my dive. Back across the field, the airspeed is at 300—just right—I roll the plane inverted. I'm upside down looking up through my canopy at the ground. I glance to the left at the spectators as I flash by. Hope they like my show—now a complete roll to the left—upside down again. Now one to the right. I cross the boundary of the airport and push forward and zoom up inverted to about a thousand feet and roll out. I feel good today—felt real fine when I awakened this morning. It was the third day of the National Air Races, and I had been putting my act on twice a day. The first day, people didn't believe it. The second day; yes, it was true. He really does do all those maneuvers. Then he shuts one engine off and does them over again. But brother that ain't nothing! Stick around for the last part. I had a friend tell me that Roscoe Turner, my longtime racing friend, had insisted on keeping a group from leaving early to go into town just to see my "grand finale."

I believe I enjoyed it as much as the people on the ground watching. I had lain awake nights planning how to do it successfully and safely. I had it worked out to perfection—that is—Levier style. I never considered myself a precision aerobatic pilot like Sammy Mason, Bevo Howard, Mike Murphy, Tex Rankin, and many others. But I had a style that everyone liked, mainly because you never knew just what came next.

Today my first act had been postponed because of a fuel leak. Glenn Fulkerson and my crew worked feverishly to make the necessary repairs. Ben Franklin, the general manager of the National Air Races, said I could do both acts all in one and that he wouldn't penalize me for it.

With my engines at full power, I climbed up to 12,000 feet in a near 45-degree angle. For the grand finale, it was extremely important to have the exact position from the performing area in front of the spectators with about 12,000 feet to start from. I was about four miles east of the airport. I contacted the control tower to notify the announcing stand of my position as the overcast had broken up to some extent, and I had hopes of being able to dive through a hole in the clouds. I rolled left a little, now right—all lined up—two miles to go. I bring my engines back to idle, slowing the P-38 down to give me time to line things up. There's a hole in the overcast, and I can now see the grandstands and half of the airport. I have checked my cockpit and everything is in order; fuel okay with the fuel boost pumps off. I'm just about ready. I put both carburetor mixture controls in the off position, flip the feathering switches for both propellers, and turn on my electric hydraulic system. That is the secret to the grand finale. The propellers come to a stop, and there is earthly silence except for the faint howl of the wind across my cockpit canopy.

With the engines stopped, I place the mixture controls back to the auto-rich position and the feathering switches to normal. Now I place my manual propeller switches to