Flights & Fancy: When Bad Things Happen to Good Drones

Air & Space Magazine

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As a technical advisor for the Allison Engine Company, I was assigned in 1955 to the Naval Air Missile Test Center at Point Mugu, California, where the Navy tested air-to-air-missiles. Because the missiles had to have something to shoot at, Point Mugu had a fleet of F6Fs and other airplanes that had been converted into drone targets.

The F6F drones flew in one of two modes. In NOLO mode, No Live Operator was aboard. Two piloted T-28s flew alongside: the first to control the drone in flight and the second, which had been specially modified for the job, prepared to shoot it down if it went out of control.

In Fox Bounce mode, the drone's flight was also controlled by an accompanying T-28. However, the drone had an actual pilot on board. He was there only to take over if the drone went out of control. When things were going correctly, he was forbidden to touch the drone's controls. I had a Navy engine specialist trainee recently arrived from Germany working with me who marveled at the safety pilot's self-control. "Chust tink," Bruno often said, "he must zit und der cockpit mit der hands gerfolden."

At the time, my primary duty was to oversee the McDonnell F3H-2 Demon's afterburning turbojet engine as that fighter-interceptor was introduced into service. We had a pad in the middle of the airfield where F3Hs were run up. These troubleshooting sessions went on for so long that a privy had been erected nearby. One day we had been on the run-up pad with a Demon for several hours. We were about ready to drive back when Bruno indicated that he wished to visit the facilities. I pulled off the taxiway and waited for him.

The wooden shed where Bruno headed was less than 200 feet from the active runway. While he was occupied, I noticed an F6F Hellcat NOLO lining up to land on the runway closest to us. I watched the drone swerve as the operator tried to keep it on track. He started to flare the craft for landing, but the airplane wasn't going to make it. It mushed to the left and, still about 10 feet off the ground, headed directly toward Bruno's temporary residence.

Bruno emerged, facing me and smiling contentedly. Behind him, the F6F was bearing down on him and the shed, but in the noisy Mugu environment he could not hear the drone's engine. I gave him frantic arm and hand signals, and when he finally looked behind him, he started running like a supercharged gazelle. He just managed to clear the F6F's path before the drone went through the privy, its big propeller munching up the boards.

For weeks afterward, whenever he was outdoors, Bruno watched the sky. He looked like a chicken watching for chicken hawks.

One afternoon Bruno and I were strolling down the flightline when we saw a NOLO take off from the runway near the former privy site. It climbed to about 200 feet in a semi-stall, the

engine putting out little more than 75 percent power. The left wing dipped and the aircraft wallowed in a slow turn.

We were standing beside a series of hangar walls—nothing but concrete up to 60 feet and nowhere to run, with the airplane headed directly at us.

Bruno began running. This led him right into a concrete wall. He fell to the ground, got up, and proceeded to do exactly the same thing. And then exactly the same thing again: He ran a little way from the wall, looked up at the drone, turned, and this time went about three feet up the wall before falling. In his next attempt he got about six feet up.

The NOLO fluttered directly overhead, so close I could hear the wind whistling through its undercarriage. Then it crashed into a parking lot behind the hangars, about 200 feet from us.

Bruno's climbs left black heel marks on the concrete wall. We later implanted brass markers shaped like little heels into the concrete to commemorate the remarkable feat. Bruno was often asked to repeat his achievement, but he always demurely declined.