



# LESSONS LEARNED

## Warbirds, the overhead approach, and nontowered airports

BY MARK PETERSON

On May 14, 2008, I received the phone call that all pilots dread. It was from the local Federal Aviation Administration (FAA) flight standards district office, and the message was simple and clear. Another pilot had filed a written complaint about an encounter with me in the traffic pattern, and the FAA wanted to hear my side of the story. After hanging up, my fears were running high as I reviewed the previous day's flight. I replayed the entire flight in my mind and focused on

the details of arrival and landing, looking for the events that could have caused someone to complain.

The day's flight had been a relatively simple formation training mission in preparation for a formation and safety training checkride the next day. I was the flight lead, flying a dual-cockpit P-51 Mustang; my wingman was flying a P-40 Warhawk. Pilots, acting as safety observers, rode in the back seat of both dual-controlled aircraft. After a lengthy brief, we departed the

Nampa, Idaho, airport just prior to 1:00 p.m. local time, performed some basic formation maneuvers in the area south of Caldwell, Idaho, for 55 minutes, and then started our return for the overhead approach and landing.

We began the return to Nampa's nontowered airport by flying northeast toward the south shore of Lake Lowell. At the south shore of Lake Lowell, we switched from our working frequency to 122.70, the common traffic advisory fre-



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quency (CTAF), and checked in with each other using standard formation procedures. Plane-to-plane communications on 122.70 were loud and clear. As flight lead, I also reported on CTAF, “Nampa traffic, N51ZM flight of two, over the south shore of Lake Lowell at 5,000 feet planning the overhead approach to Runway 29 at Nampa.” I also checked my traffic and collision alert device (TCAD) to assess the traffic situation in the Nampa and Caldwell areas. There were targets around the Nampa and Caldwell airports and one target to the east of our position. I began to scan visually for the traffic and plan our arrival to Nampa to sequence

in with the other aircraft.

As we passed the east shore of Lake Lowell, we turned to a heading of 110 degrees to fly parallel and about 3 miles south of the downwind leg at Nampa. I also reported in on CTAF, “Nampa traffic, N51ZM flight of two, crossing the east shore of Lake Lowell eastbound at 5,000 feet planning the overhead with a left break to left downwind on Runway 29 at Nampa.”

Approximately 3 miles east of the east shore of Lake Lowell, we began a slow left turn to a heading of 020 degrees and began a slow descent. During the turn to 020, I heard an aircraft report entering the left downwind at Nampa. In reply,

I reported immediately on CTAF, “Nampa traffic, N51ZM flight of two, 4 miles southeast of the airport inbound for the initial with a left break to left downwind for Runway 29 at Nampa.” I confirmed on my TCAD display that there was a target south of the Nampa airport. We leveled at 4,000 feet, and shortly after completing the turn to 020, we began another turn to 325 degrees to perform a 45-degree intercept to the final approach course for Runway 29 at Nampa. The 45-degree intercept was a new technique I had learned from Air Force operations for formation arrivals to simplify the maneuvering to final and to improve the probability of being



MARK PETERSON PHOTOS

seen by other aircraft.

We did not stop the turn at 325 degrees but continued the turn toward final and started a slow descent. I reported on CTAF, "N51ZM flight of two, turning 3 mile initial, 4,000 feet, straight in for the left break to downwind on Runway 29 at Nampa." During the turn, my TCAD gave me an aural warning: "Traffic, 10 o'clock, low, 2 miles." I alerted my back-seat observer to begin scanning for traffic and alerted my wingman that we had traffic at 10 o'clock. I turned my GPS display from map to TCAD mode with a 6-mile range so I could get a better display of the traffic's distance and relative position to help me acquire the aircraft visually. The TCAD display showed the aircraft just more than 2 miles away from us at the 9 o'clock position and 500 feet below us. The Avidyne TCAD will produce an aural warning for traffic at 2 miles when the traffic has closed to 2.8 miles.

After rolling wings level, I re-

duced power and continued the descent. Next, I heard the other aircraft report on left base for Runway 29 at Nampa. At this point I acquired the traffic visually just forward of my wing and below our altitude. I called the traffic "in sight" to my back-seat observer. I also reported to my wingman, "Traffic in sight, no conflict." I checked the TCAD display and noted he was inside the 2-mile ring and 200 feet below us. We did not get another aural warning from the TCAD system for the remainder of the flight. As the other aircraft moved to our 9 o'clock position, my back-seat observer called the aircraft "in sight." I looked back a few moments later as we were crossing the numbers and observed the aircraft at our altitude on the horizon at approximately our 8 o'clock position and 1 mile behind us heading northbound on base.

We arrived at our target altitude of 3,100 feet (563 feet above ground level) at midfield for the break into left downwind. I reported on CTAF,

"Nampa traffic, N51ZM over the airport midfield, left break to left downwind Runway 29 Nampa." I noted my airspeed at 190 knots indicated airspeed and began a climbing left turn to left downwind, deployed three notches of flaps, and scanned crosswind and downwind for traffic. Seconds later, my wingman reported on CTAF, "Nampa traffic, P-40 in the left break to left downwind Runway 29."

Abeam the touchdown markers for left downwind on Runway 29, I reported on CTAF, "Nampa traffic, Mustang 1ZM, left downwind Runway 29 Nampa, full stop." I lowered the landing gear and deployed flaps to full. I had not heard any further reports from the other aircraft and carefully scanned the pattern and runway because I was concerned about a possible conflict as we turned base. I did not acquire the aircraft visually, and there were no radio calls from the other aircraft. I turned base and reported on CTAF. The P-40 reported on downwind. I turned final and reported



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on CTAF. The P-40 reported on base and then final.

I landed long and rolled to the end of the runway per our preflight briefing. After clearing at the end of the runway, I stopped and reported on CTAF, "Nampa traffic, 1ZM clear of Runway 29." After my wingman cleared Runway 29 he reported clear on CTAF, and we taxied together to the hangar and shut down.

Later, during my meeting with the FAA, I learned that the other pilot had been startled when our two-ship formation passed in front of him on our initial approach to the break. In his written report, he stated he had been on a left base and had heard one radio call when our flight was 5 miles south of the field, but had not heard any subsequent reports. He went on to state

that we passed in front and below his aircraft while he was at approximately 500 feet above ground level on left base. According to the statement, we then descended for a very low, high-speed pass down the runway and pulled up into the left downwind.

I was sorry to hear that my flight on May 13 had startled another pilot in the traffic pattern at Nampa and prompted him to file a complaint with the FAA. I always strive to be a good steward of aviation among pilots and the nonflying public to protect the wonderful opportunities we have to enjoy flying and, in particular, flying warbirds. During my meeting with FAA officials, I asked them to pass along my apologies to the other pilot for any stress or concern I caused him

or his passengers.

In conclusion, I believe there was an unexpected situation for the other pilot when our flight of two aircraft passed in front of him from right to left on the final approach course at a relatively high rate of speed. Based upon my visual observations, the display of traffic on my TCAD, and the aural warnings of the TCAD system, I don't believe there was a dangerous situation at any point as we passed. If there had been a conflict, I would have broken off the approach to the right and entered the upwind for Runway 29.

I learned some important lessons from this situation. First, with regard to my own operating procedures, I need to consider establishing two-way communications



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and coordination with other pilots in the pattern when there is a potential conflict of any kind. During this encounter, I had assumed that the other aircraft was receiving my calls and understood where we were. Unfortunately, Nampa shares its CTAF frequency with the Caldwell airport that lies just 6.1 nautical miles away. As a result,

I have always tried to keep radio traffic to a minimum to reduce congestion. If I had confirmed with the pilot of the other aircraft that he understood where we were and what our plans were, we could have avoided this encounter. I also should have advised him that we had him visually and were going to pass in front of him from his

right to left. In addition, I should have confirmed that he had a visual on us.

Second, I learned that many general-aviation pilots are unaware of the overhead approach and its associated flight paths, reporting points, and interaction with the conventional rectangular pattern. Although it is shown in the *Aeronautical Information Manual* (figure 5-4-27 on page 755), many pilots are unaware or do not understand its use. As a result, I need to be more descriptive when making position reports when using the overhead approach and confirm that other pilots in the pattern understand my intentions.

Flying a warbird in a safe and respectful manner has always been a top priority for me. Early in my warbird career, I was told by a very respected friend, "Fly it like you are flying the Washington Monument. The Mustang is a national treasure, and you really don't own it. You are just taking care of it for the next generation." I will continue to honor this responsibility and work harder to protect the reputation of all warbirds and their pilots. ✈

### AirVenture Museum Poster



# 360° Overhead Approach:

## What kind of traffic pattern is this?

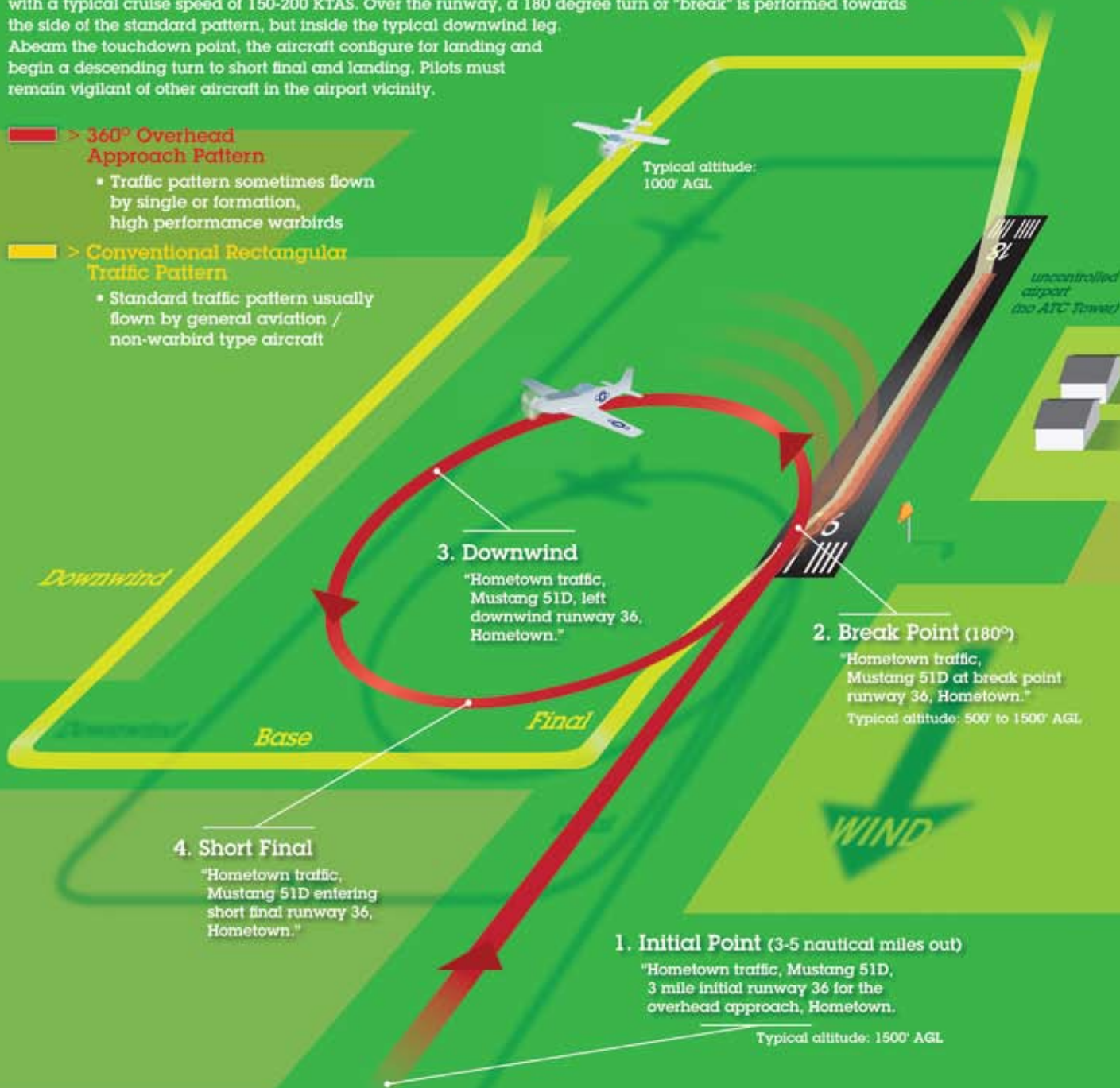
Being familiar with the 360° Overhead Approach can be very helpful to general aviation in the busy pattern of a uncontrolled airport. The 360° Overhead is a safe, quick, and efficient method of landing a single warbird aircraft or multiple aircraft flying in formation. The aircraft or formation enters the overhead approach at the Initial Point, 3 to 5 miles from the runway at 1,500 feet AGL with a typical cruise speed of 150-200 KTAS. Over the runway, a 180 degree turn or "break" is performed towards the side of the standard pattern, but inside the typical downwind leg. Abeam the touchdown point, the aircraft configure for landing and begin a descending turn to short final and landing. Pilots must remain vigilant of other aircraft in the airport vicinity.

### > 360° Overhead Approach Pattern

- Traffic pattern sometimes flown by single or formation, high performance warbirds

### > Conventional Rectangular Traffic Pattern

- Standard traffic pattern usually flown by general aviation / non-warbird type aircraft



### Definition of Terms:

**Initial:** upwind leg to break point (pitchout).

**Break point (pitchout):** where formation breaks (over the runway) creating separation to land.

**Short final:** typically less than 1/2 mile.



For more information  
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