“The decisions you make as an LSO are life-and-death decisions for an aircrew: to either take the plane or wave it off is the ultimate responsibility and very weighted. But when you get a rough, stormy night and you hear, ‘Thanks, paddles, for getting me home,’ that means the world to you. There is no better feeling.” LCdr. Scott Snow, Instructor, LSO School

At the heart of naval carrier aviation is the Landing Signal Officer (LSO), with whom the safety of the pilot and aircrew rests. Even before the moment of the call, the LSO’s accountability began with preparation, practice and instruction. LSOs are taught these skills at the Navy’s Landing Signal Officer School at NAS Oceana, Va. It’s where the teachers of carrier aviation go to learn.

With three officer instructors, the LSO school has a small but experienced staff, according to Lieutenant Commander Todd M. Watkins, officer in charge (OIC). “Everybody can do everything. There is no one person who gives just one lecture or who instructs in the simulator; everyone is interchangeable and works together so we can still go fly.”

The school administers three different programs: a two-week Initial Formal Ground Training (IFGT) course, an FRS/TRACOM course for LSOs heading to duty in fleet readiness squadrons or the training command, and three-day Advanced Formal Ground Training (AFGT) for prospective air wing LSOs.

But the school is only part of the LSO training.

Lt. Joe Niedermair, a landing signal officer aboard Enterprise (CVN 65), holds off on the waveoff button as he watches a T-45 Goshawk attempt to make an arrested landing on 5 August 2000. Photo by PH3 Josh C. Millage
program; it is actually a second step along the training path of a typical LSO. Prospective LSOs are first-tour pilots who upon arriving at their squadron, volunteer and are nominated by squadron commanding officers to apprentice alongside the squadron and air wing LSOs. They are identified early enough to be given the opportunity to progress to wing qualification status before the end of their first operational tour.

After the first cruise when pilots are familiar enough with the LSO’s job to make the school a worthwhile experience, they attend the IFGT course, taking their skills to the next level. “We like students coming here to have at least waved a portion of work-ups on the platform, so that everything we show them makes sense and we can move on to fine-tuning them as LSOs,” LCdr. Watkins said.

After IFGT, newly trained LSOs return to their squadron and join its LSO team to perform air wing duty. After a squadron LSO tour, the LSO returns to the school for the FRS/TRACOM course, becoming eligible for the subsequent shore duty assignment in an FRS or a training command unit.

LSOs who continue their “paddles” career typically get air wing LSO assignments after attending AFGT. Following that sea tour, they often go to a department head position, such as OIC of the LSO school.

LCdr. Watkins realized early in his career that he
wanted to be an LSO. “I knew when I started going through the FRS that I wanted to be an LSO, because the guys who were our training LSOs in [Carrier Airborne Early Warning Squadron 110] were really good at teaching,” the OIC commented.

The teaching and training aspect of being a good LSO is something Watkins emphasizes to the students. “The most important thing I want to communicate to the new LSO is the importance of training and that the job doesn’t just happen while they’re standing on the platform. I want them to leave here being the carrier landing subject experts for their squadron, knowing how to train every pilot in their unit.”

The IFGT course gives LSOs the technical background needed to train pilots on the total carrier landing experience, from preparing them for a pitching deck call to guiding a barricade landing. A field trip to a carrier is included in the curriculum to familiarize students with everything involved, above and below the flight deck. The school teaches all aspects of the business, including the LSO equipment, standard language, philosophy and techniques, so they in turn can teach pilots how it all works. Students are also shown effective briefing techniques so they can successfully relate information to their squadron.

And training doesn’t end with briefings and debriefings; LSOs are also responsible for scheduling an adequate number of field carrier landing practices, and for performing a quality job of waving and recognizing performance trends. “If pilots are struggling, the LSO should give them extra passes and anything necessary to bring them up to speed,” Watkins stated.

Characteristics of a good LSO include motivation, excellent piloting skills and the ability to teach. Watkins said that pilots becoming LSOs must be motivated to make everyone successful at carrier landings. “If the FRS LSOs are doing their job, pilots shouldn’t just be volunteering, but competing for the job,” he emphasized. And that seems to be the case with the current students attending IFGT. When describing his interest in becoming an LSO, Lieutenant Bob Taylor of Fighter
Attack Squadron 131 said, “As soon as I got to my squadron, I knew they were looking to pick two new LSOs. Everyone wanted to do it, and we worked hard to stand out.”

For current and prospective LSOs, there is a huge time commitment. While performing LSO duties they still must find time to maintain their own flight hours. “You might fly one night, but the next two nights you’re going to be spending time on the platform when everyone else is home,” said student Captain Scott Schoeman of Marine Fighter Attack Squadron 312.

LSOs need to be energetic and ready to make great investments in time spent at the platform, LCdr. Watkins added. “You get good by watching hundreds and hundreds of passes, working on your eye, seeing what high and low looks like and how deviations can cause problems at the ship. You see it happen over and over so when you’re a seasoned LSO, you’re able to make a call or wave the airplane off so that safety is not compromised.”

According to instructor LCdr. Scott Snow, one of the most difficult things you do as a Naval Aviator is land on a carrier, so an LSO needs to be a solid average to slightly above average pilot. He said, “One thing you cannot do as an LSO is have a string of bad landings. I’ve seen LSOs forced to give up their paddles due to piloting skills that were not up to par. If you’re not the best behind the boat, how can you teach others to be better?”

On the other hand, LSOs may not have been the best fliers at first. In fact, pilots who have worked hard to achieve excellent skills may make some of the best teachers. In LCdr. Watkins’ opinion, a good LSO may be someone who had bad tendencies initially, but became a good pilot through training with LSOs.

With so much responsibility and additional commitment, one might ask why a pilot would want to become an LSO. One student said it’s the responsibility that he enjoys. “Teaching classes and briefing and debriefing pilots who range from a peer to an admiral is a great opportunity, and not something too many people get to do as a young person,” Capt. Schoeman remarked.

Even though it cuts into personal flight time, there are advantages to becoming an LSO. Lt. Taylor added, “You become a vital person in the squadron and it’s a good opportunity to get to know the pilots of the entire air wing, while getting familiar with all of the aircraft. Plus, there is the possibility to cross train in other aircraft.”

Both students agreed that working as an LSO has helped improve their piloting skills. Capt. Schoeman said, “Seeing everyone else fly doesn’t make you king of the hill, but it makes you more aware of some of the very common mistakes that can be made.”

Everything taught at the LSO school is meant to serve one purpose, prevention of mishaps, and grading is an important part of that. LSOs record how well a pilot approaches and lands the plane aboard the aircraft carrier. Every landing is analyzed, graded and debriefed to each pilot. Lt. Taylor said, “Grading is part of an LSO’s responsibility, and the LSO school gives us more confidence and background so that if there is a conflict, we have the facts and data to back us up.”

The IFGT course also teaches new LSOs the people skills needed to effectively debrief pilots. LCdr. Snow explained that grading can be difficult. “Pilots want to do the best they can, and if someone tells them they aren’t good enough they’re going to refute that to the nth degree. We want to give constructive criticism so the pilot will want to perform better.” LSOs don’t want an adversarial relationship with any pilot. They have good days and bad days like everybody. What is important is
to bring every pilot up to a level of excellence.

The IFGT course includes an extensive safety seminar that examines mishaps dating back to the 1970s. Students and instructors analyze what may have caused an accident—a lack of training, a bad call, no call, or poor pilot performance that was not reported by the LSO. When students leave the school they know how important the job is, and why things are done the way they are. “Because if you don’t, people can die,” LCdr. Watkins emphasized.

A recently added history seminar helps show the importance of the LSO profession as it traces its development and changes since the late 1960s. The LSO school also helps develop new ideas and technology to guide the LSO program forward.

The school strives to produce the best teachers to maintain a high quality of safety in the fleet. As OIC of the LSO school, LCdr. Watkins has the opportunity to help develop every LSO who is going to be in the fleet for the next six years. “I’m influencing what is happening on LSO platforms, and I’m excited about that because waving has been the greatest job I’ve had in the Navy. I’m pretty proud of it.”

LCdr. Snow concluded, “I’ve really enjoyed being an LSO and I can’t imagine a better job on the carrier. You’re in the heart of it. As an instructor, you get to impart your philosophy on how business should be done, and I hopefully am making the Navy a better place. I’m giving back to the community by taking it in the direction we think it should go.”

“Waving has been the greatest job I’ve had in the Navy, I’m pretty proud of it.”

LCdr. Todd M. Watkins, Officer in Charge, LSO School

Naval Aviation News May–June 2001