

When he reaches the rite of passage for student naval aviators—the carrier qualification—Sublieutenant Yashu Aggarwal of the Indian Navy will take guidance from the landing signal officer, who will clear him to land if he’s on the proper trajectory—or wave him off for another approach.



Flying the meatball

Training with U.S. Navy in Boeing-built T-45 Goshawk proves to be a rich experience for an Indian student carrier pilot

RON BOOKOUT PHOTO

By DOUG CANTWELL

What’s the greatest challenge you face in learning to land a very fast fighter aircraft on a very small aircraft carrier? “Flying the meatball, of course,” said Sublieutenant Yashu Aggarwal of the Indian Navy, with a smile and without hesitation.

He explained the carrier deck’s system of Fresnel lights that helps keep the pilot descending at the correct trajectory. If you’re off the mark, you won’t see the yellow light known affectionately to carrier pilots as the “meatball.” Unless you can correct matters in time, the landing signal officer will wave you off, directing you to make another pass.

A 22-year-old officer selected for the Indian Navy’s elite strike-pilot program,

Aggarwal has trained in the Boeing-built T-45 Goshawk with the U.S. Navy’s Naval Air Training Command at Naval Air Station Kingsville near Corpus Christi, Texas. He’s also logged hours in high-fidelity simulators and computer-assisted classrooms supplied by Boeing’s St. Louis-based T-45 team, which supports Kingsville and NAS Meridian, Miss., with a fully integrated curriculum.

Over the next four years, 32 Indian pilots will receive training through the U.S. Navy pipeline, with four students cycling in and out of the program every six months. At a mid-February “winging” or course-graduation ceremony, Commodore Parasuram Murugesan, Naval Attaché to the Indian Ambassador in Washington, D.C., said of Aggarwal and his colleagues: “With the strike-pilot program, we are

building a foundation for long-lasting cooperation between our two navies, and these young men will contribute immensely to the standard of naval aviation in our country for years to come.”

A FAST 2 SECONDS

Upon graduation from a naval preparatory high school in New Delhi at 17, Aggarwal entered India’s National Defence Academy, where he completed an intensive three-year program that earned him the equivalent of a four-year degree at one of the U.S. academies.

Once accepted into flight school, Aggarwal spent six months training in an HPT 32, a single-cylinder, propeller-driven trainer rated for aerobatics. “We did more stunt-type flying and pulled more G’s in the HPT than we do now,” he recalls. “But with

the T-45, you have less time to make decisions. Everything that took 10 seconds in the HPT now happens in two seconds.”

Since arriving in the United States, Aggarwal has followed the same trajectory as his fellow students serving in the U.S. Navy. He’s had to tough it out for six weeks of aviation preflight indoctrination at NAS Pensacola, Fla. There he found himself totally immersed for four weeks both in classroom learning and (quite literally) in water. While cramming for exams, he also endured hours of swim instruction and practice. Then came the “easy” part: two weeks of flight physiology and survival training.

From there, he moved to nearby NAS Whiting Field, Fla., for 18 weeks of flying propeller-driven T-34s. Upon arriving at NAS Kingsville for his first jet-propelled training in the T-45, he found himself grounded again for three months of classroom and simulator preparation.

Yet the advanced visual simulator, part of the fully integrated T-45 training system, was almost indistinguishable from the real thing. Even better, it gave him his first taste of all-digital instrumentation in the flat-panel “glass cockpit” introduced in the “C” variant of the T-45. “The glass cockpit frees up a lot more of your attention to concentrate on tactics,” Aggarwal observed, “because there’s no longer a need for you to process info in your head.”

Once cleared to climb into a real cockpit, Aggarwal found himself flying under a “blanket,” or instrument hood, for the first couple of weeks. “You have to learn to rely on the instruments,” he said, “so they start off by taking away your ability to look out the window.”

What does he enjoy most about flying the T-45C? “The velocity-vectoring function on the head-up display,” he said. “When you’re up there with few or no points of visual orientation, especially when flying in strong winds, velocity-vectoring helps you distinguish your real trajectory from the one your senses are perceiving.”

Aggarwal now faces Phase 2 of his training, which focuses on tactical combat formation, air combat maneuvering and air-to-ground weapons delivery. It will culminate with the young naval aviator’s true rite of passage: qualification aboard a U.S. Navy aircraft carrier. If he consistently demonstrates safety, shows an improving trend and scores high enough on his landings, he’ll make the grade. ■

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NATRACOM: One of the Navy’s busiest neighborhoods

A first visit to Naval Air Station Kingsville, located some 40 miles southwest of Corpus Christi, Texas, leaves you wondering: How could such a remote place be hopping with so much activity around the clock?

Boeing T-45 Goshawks, the only aircraft in the world designed specifically to conduct carrier-based flight training, roar by overhead in two- and four-ship formations almost continuously. It’s not surprising to learn that Kingsville’s two T-45 squadrons, the Redhawks of VT-21 and the Golden Eagles of VT-22, together with sister squadrons VT-7 and VT-9 at NAS Meridian in Mississippi, logged more than 5,100 flight-hours in January.

In the 15 years since it began service with the Naval Air Training Command (NATRACOM), the T-45 has racked up 740,000 hours and seen more than 3,000 U.S. Navy and Marine Corps pilots receive their wings of gold. Hundreds of their brothers and sisters in arms—from France, Italy, Spain, Kuwait, Thailand, Brazil and India, among others—have passed through the pipeline with them.

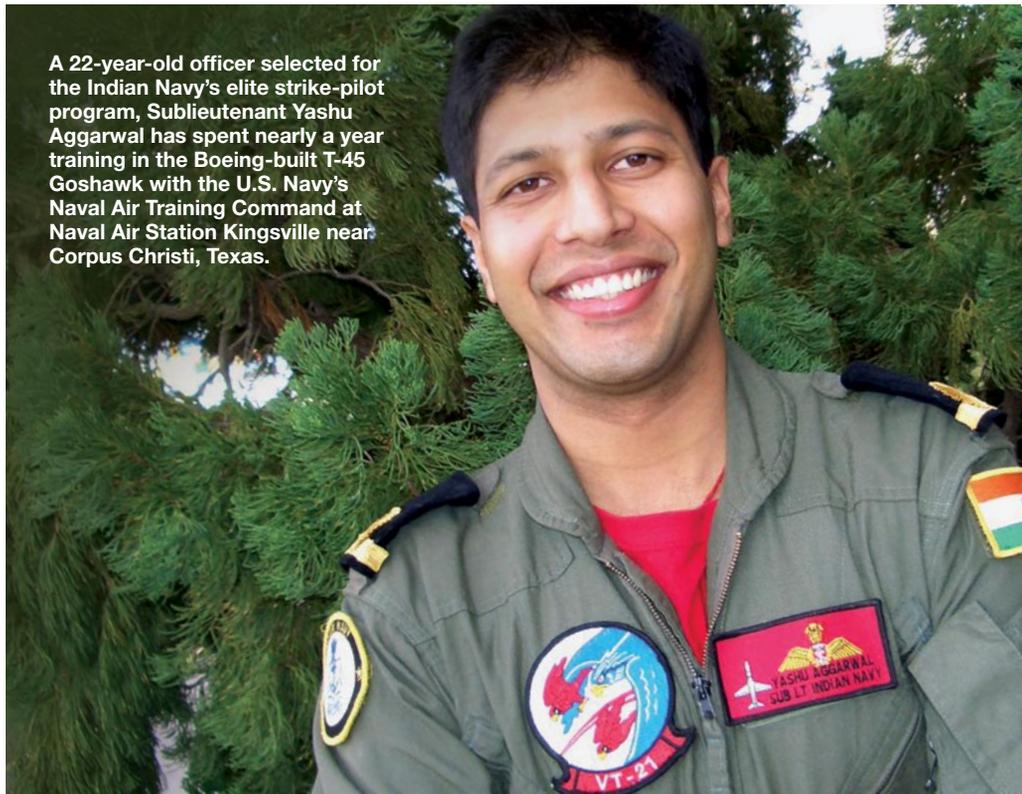
The Boeing team supplies Kingsville and Meridian with more than just aircraft. The integrated training system includes operational and instrument simulators, computer-assisted classrooms and fleet support—even an automated approach to flight scheduling and student record-keeping.

Full-up integration of these assets allows the Navy to reduce flight time and overall length of training. Students at Kingsville and Meridian acquire basic aviation skills in electronic classrooms with state-of-the-art projection systems. They learn difficult 3-D maneuvering concepts using sophisticated computer animations. They practice flying in high-fidelity visual simulators that train them on instrument and formation flight, weapons delivery and carrier approaches, all in a variety of weather and day/night scenarios.

The NATRACOM squadrons maintain what’s probably the Navy’s busiest schedule—and arguably its most critical mission. But with support from Boeing’s T-45 team, they continue to find new ways to enrich the curriculum and make precious funds work a little harder.

—Doug Cantwell

DICK NELSON PHOTO



A 22-year-old officer selected for the Indian Navy’s elite strike-pilot program, Sublieutenant Yashu Aggarwal has spent nearly a year training in the Boeing-built T-45 Goshawk with the U.S. Navy’s Naval Air Training Command at Naval Air Station Kingsville near Corpus Christi, Texas.