

# Goshawks with SASS

By Cdr. Chris Buhlmann

When an aircraft enters service in Naval Aviation, Naval Air Systems Command (NAVAIR) test organizations gear up to do what they do best. Air Test and Evaluation Squadron (VX) 23 under the Naval Air Warfare Center Aircraft Division at NAS Patuxent River, Md., has finalized flight testing on the Stability Augmented Steering System (SASS) developed for the T-45 Goshawk advanced jet trainer. This modification improves the ground handling of the T-45

during takeoffs and landings under crosswind conditions. The improvement should remove the current crosswind restriction for student solo operation of the Goshawk, which has impacted training time for new aviators.

SASS provides active yaw rate feedback to the nose wheel steering system. The SASS computer automatically sends inputs into the nose wheel, in many instances before a pilot even senses the initial oversteer of the airframe.

"In many ways, the T-45 without SASS feels like you're landing a tail dragger," said Lieutenant Allen Blocker, VX-23 lead test pilot for the T-45 ground

handling project. "The airframe is slightly unstable directionally on the ground. In a strong crosswind landing rollout, this can lead to an oversteer that can be exacerbated by pilot-induced oscillations. As a result of input from the fleet, this issue became the number one concern to address on the T-45. When SASS is fully deployed in the Goshawk, a significant impediment in operational training flow and a major safety-of-flight concern will be remedied." ✈

A former active duty S-3 Viking naval flight officer, Cdr. Buhlmann is an aviation engineering duty officer in the Naval Reserve.



Students earning their wings in the T-45 Goshawk, like these of Training Squadron 22, will benefit from the new steering system. Photo by Lt. Edward F. Ward III.