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Shuttle gets skyway patrol

By SANDRA FREDERICK

KENNEDY SPACE CENTER -- If the space shuttle Discovery lifts off at 9:35 tonight, it will not be alone in the airspace. An undisclosed number of F-16 fighter jets will be crisscrossing nearby skies watching for any threat to the orbiter.

Members of the North American Aerospace Defense Command, commonly called NORAD, in conjunction with Homeland Security, will be patrolling airspace from Orlando to Daytona Beach and south to Melbourne as the shuttle heads toward space.

During the 12-day mission, shuttle crew members will deliver and install a second round of trusses to expand the international space station as well as leave one astronaut behind. That person will replace Thomas Reiter, who spent the last six months aboard the floating outpost, will come home.

Stepped-up security missions began Dec. 1. In a training exercise Tuesday, a fuel tanker aircraft met up with several jets for mid-air refueling in the sky above Orlando. The jets continued on for low flyovers at Daytona Beach International Airport.

It was part of an exercise to familiarize the pilots with the topography and airspace north, south, east and west of Cape Canaveral.

"NORAD protects a variety of national assets across the nation on any given day," 1st Air Force Cmdr. Maj. Gen. Hank Morrow said. "In this case, we're increasing our sorties in the Cape Canaveral area during the space shuttle launch window. It's part of our continuing mission to protect America's airways with our fighter air patrols."

Morrow said the increased military aircraft in the area are not in response to any specific threat, but instead are "prudent measures" to protect the shuttle and the public.

At launch time, cameras attached to a WB-57 aircraft also will be trained on the shuttle to detect falling debris. NASA joined forces with Southern Research and NASA's Marshall Space Flight Center to design a WAVE system to capture detailed nighttime images of the shuttle on its way toward orbit. .

Daylight launches allow for clear photography of the external fuel tank for falling debris, said Tim Taylor, engineer of the project, but darkness limits viewing of any airborne debris. So the high resolution imagery captured by the WAVE system -- being used for the first time -- will verify recent shuttle modifications and safeguards built into the external tank design to reduce debris -- such as foam -- from hitting the orbiter during launch.

"Since we are up at 50,000 feet, we hope there is enough light from the solid rocket boosters to illuminate the external tank and space shuttle to allow us to better image it as it goes past us," Taylor said.

The WB-57 will fly some 20 miles away from the path of Discovery and will track it for about six minutes, from liftoff to main engine cutoff. The photos, along with other information collected, will be scrutinized to help NASA officials determine whether the orbiter was damaged during launch.

As the countdown clocks ticks away minutes toward main engine ignition, the 45th Weather Squadron out of Patrick Air Force base will monitor weather conditions.