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Drones a New Sight Over State's Coastline

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Draw a line from Downtown San Diego to Mount Palomar and continue into the next county, and you will soon encounter the snowy top of Mount San Jacinto.

For a long time Mount San Jacinto has been my point of reference. In the mid-1990s, when I worked at the Idyllwild Town Crier, the 11,000-foot peak literally loomed in the window of my office. It was too big to ignore.

That piece of trivia popped into my mind recently as I was looking over an ambitious plan by two federal agencies — the National Oceanic and Atmospheric Administration and NASA — to collect scientific data about California's coastal environment.

Uncle Sam is doing this with a piece of San Diego technology — an unmanned aircraft called Altair. The aircraft is a variant of the Predator drone built by San Diego-based General Atomics Aeronautical Systems, Inc. The flights began in April and are scheduled to conclude this month.

Instead of going to war — as other Aeronautical Systems aircraft have done — this drone is going up and down the coast of the state, measuring ocean color and atmospheric composition. Instruments on board will monitor fishing boats and marine mammals. Details about the survey are available on the Internet, at http://uav.noaa.gov.

GA Aeronautical Systems proudly says that Altair is the first remotely piloted aircraft that meets aviation authority requirements for unmanned flights in the national airspace. Sophisticated electronics are one of the things that give it the capability. The aircraft has triple-redundant avionics, an automated collision-avoidance system and an air traffic control voice relay.

It made me wonder how pilots felt about unmanned flights in national airspace — that is, the airspace that they occupy too. And that took me to a couple of small airports last week.

At Gillespie Field in El Cajon, I found the office of Len Mooney. Mooney keeps a small fleet of aircraft, mostly Cessnas. His business, the California Flight Academy, has 13 employees (many of them contractors) and revenue approaching $1 million.

According to the NOAA Web site, some of the drone's lowest-elevation flying will be at 13,000 feet. That's far higher than a flight instructor will take a student in a small plane, Mooney said. Even a hop over certain California mountain ranges won't take you that high, he said.

A 13,000-foot flight is actually atypical for Altair. More typical are flights at the 41,000- to 43,000-foot levels. That is roughly four times higher than the object that loomed in my window, Mount San Jacinto.

There are exceptions to that rule. One of the six research flights calls for the drone to corkscrew down to 6,000 feet — but that move is planned over the restricted airspace of Vandenberg Air Force Base.

Looking over the data supplied by the NOAA, Mooney and his chief instructor, Shane Clawson, said the government flights look well thought-out.

"They have proficient pilots at the controls" of the Altair, Mooney added.

Indeed, the Altair has a pilot, even though he is in a room somewhere, taking in conditions with the help of electronics and controlling the aircraft via satellite.

A lot of the area the Altair will cover is far from human habitation. A couple of flights will concentrate on the area over Channel Islands National Park. A 21-hour flight will head hundreds of miles offshore to investigate an "atmospheric river" before turning around and heading for home.

Still another flight will follow the coast as far north as Humboldt County. Flights will start and end at Palmdale and will go out over the ocean around Santa Barbara.

The NOAA's detailed flight plans sparked interest among three other pilots sharing a meal recently at Casa Machado, the restaurant that occupies the second floor of the Montgomery Field terminal building in Kearny Mesa.

Between beers and bites of dinner, Fred George, Carl Lewis and Chuck McGill took turns looking at the NOAA's flight plans.

The three said they hoped unmanned aircraft could adequately attract the attention of other pilots while in flight. GA Aeronautical Systems and the NOAA have equipped their drone to notify other pilots through sophisticated electronic equipment. But electronics are only a partial solution, George said. The three agreed the drones should have something that captures other pilots' attention visually — high-intensity strobe lights, for example, or a splashy paint scheme. A white paint scheme, Lewis said, may be too discreet for national airspace.

With features such as an 86-foot wingspan, Altair can reach an altitude of 52,000 feet, according to its builder. Private pilots fly at a few thousand feet. For now, it appears Altair and the general aviation community are flying in separate worlds.

But this drone in our airspace could be a sign of things to come.

Watch this phenomenon. It might be too big to ignore.

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