

San Bernardino County Sheriff's Department—Aviation Division



Southern California law enforcement unit uses mix of rotary and fixed-wing aircraft for wide range of tasks.

By Alan Staats
Contributing Writer

With the San Bernardino Mountains in the background, a Eurocopter EC120 lifts off for patrol duties from the L67 (Rialto CA) base of the San Bernardino County Sheriff's Dept Aviation Division.

Photos by Alan Staats



San Bernardino County embodies one of the most diverse geographic, cultural and economic areas in the United States. The birthplace of the Hell's Angels, San Bernardino County is also home to Mission Aviation Fellowship, a Christian relief organization based at L12 (Redlands CA) and operator of the largest noncorporate fleet of small aircraft in the world. While roughly 90% of the county's 20,000 square miles is high open desert, the remaining 10% is a mix of 11,000-ft-plus mountains, urban sprawl, suburbs, heavy industry and agriculture.

Providing aerial coverage for such an area (which is 4 times the

size of Connecticut) has never been an easy task, and since its inception in 1971, the San Bernardino County Sheriff's Department (SBCSD) Aviation Division has grown from a pair of Bell 47s to its current fleet of 13 fixed and rotary-wing aircraft, each with a specific mission and purpose in mind.

Fleet, present and future

SBCSD Aviation Division operates a diverse mix of aircraft. The fixed-wing side, based at SBD (San Bernardino CA)—the former Norton AFB—operates a Cessna 182, equipped with a GyroCam Systems DNV stabilized day/night vision camera system, a Renaissance Commander 690A and a Rockwell Sabre 40, both of which are used for VIP as well as prisoner transport. Helicopter operations, which are based at L67 (Rialto CA) employ 4 Eurocopter EC120s, 2 Bell UH1s and a single Bell 212, an MD Helicopter MD600 NOTAR and an MD500E.

The EC120s are used exclusively for patrol and surveillance work

and, while they are currently the mainstay of the fleet, all will be replaced this fiscal year with 6 new Eurocopter AS350B3 AStars. According to Aviation Division Commander Captain Toby Tyler, a 34-year veteran of the force, the EC120s simply do not have the performance needed to fulfill the mission for which they were purchased year-round.

"Down here, in the [San Bernardino] valley, they're a fair compromise for what we need," he explains, "but once the temperature gets above 90° in the summer their performance is barely adequate. For example, we cannot do 'ride-alongs' (where a passenger or passengers are taken aboard to observe the missions) during the summer because of performance issues."

"On the plus side," Tyler continues, "the [EC120] is fairly fast, quiet and maneuverable—but we need to be able to operate patrol aircraft year-round, and in locations from down here in the valley to the deserts and the mountains and the B3s will be a much better aircraft for our missions."

During *Pro Pilot's* visit to the unit Tyler and San Bernardino County Sheriff Gary Penrod, along with a small group of county administrators, traveled to American Eurocopter's GPM (Grand Prairie TX) headquarters to sign a purchase agreement for the 6 B3s. Deliveries of the first 2 aircraft will commence in April 2005, with the third coming online during the final quarter of 2005. The second batch of 3 will be delivered during the first quarter of 2006.

The 212 and UH1s are dedicated to search and rescue (SAR), transport, EMS and firefighting duties, depending on both need and season. Each of these aircraft is equipped with hoists, which are often used to facilitate rescues in the mountains and ravines that surround the area. In addition, full EMS medical kits and a litter are stored on board.

During the forest fire season, at least one of the Hueys is dedicated to the California Department of Forestry's "Prado" unit for both fire suppression and transport of convict firefighting teams.

One of the more unusual missions the Hueys are called on for is prisoner transport—specifically when the roads to and from nearby corrections facilities are washed out, as they were during our visits in Dec 2004 and early Jan 2005.



Captain Toby Tyler, commander of the San Bernardino Sheriff's Dept Aviation Division, is a 33-year veteran with the department.



(L-R) Pilot Kevin Henry, Observer Randy Gerwig, Pilot Sgt Vince Clancy, Pilot Craig McConnell, Volunteer Paramedic Chris Williams, Police Explorer Ryan Dorsett, Volunteer Flight Nurse Melanie Standon, Observer Berend "BJ" Meelker, Deputy Commander Lt Tom Hornsby and Commander Toby Tyler on the ramp at the unit's L67 (Rialto CA) headquarters.

As UH1 pilot Craig McConnell explains, "When the road to [the facility] is washed out we have to go and pick up both prisoners who are being released and the corrections officers who are coming on and going off duty. With the prisoners, it's actually a civil rights issue, as they cannot be held in custody longer than their sentence."

"So," he continues, "we pick them up in the Huey and take them across the river to the Denny's parking lot, land and drop them off."

Given that both the prison and the City of San Bernardino lie at the foot of the San Bernardino Mountains, runoff from the average of 15 inches of rain per year occasionally outstrips the capacity of the land to absorb it. However, when recent torrential storms dropped anywhere from 12 and 18 inches of water on the area in a 2-week period, the drainage systems were completely overwhelmed and the occasional trip to swap out crews at the prison became a daily exercise, in addition to the literally dozens of rescues (and, sadly, recoveries) brought about by the downpours.

The same river which isolates the prisoners and guards turned deadly for a woman on her way home from

her work as a financial analyst for Loma Linda University. As she attempted to cross a portion of the river that had flooded the road (which, although closed earlier, had been reopened as the water level dropped) her car was hit by a wall of water, moving at an estimated 32 mph, pushing the car into the creek.

The car was spotted 2 miles downstream by SBCSD Deputy Observer Carlos Quesada, who discovered the victim's body a mile further downstream during a routine patrol the following day.

"It looks like the water was held back for a while by a bunch of debris, and when that finally let go, it sent a wall of water downstream. The victim was literally at the wrong place at the wrong time," Quesada explains.

Later, SBCSD used its Bell 212 to insert Fire Department rescue personnel to recover her body.

SBCSD also operates an MD500E and a MD600 NOTAR. While the former is regularly used as a patrol ship, the NOTAR is currently stored in the department's hangar awaiting disposal.

Senior Pilot Vince Clancy, whose career prior to coming onto the SBCSD force included stints in the



While on a routine night patrol, an EC120 crewed by Deputy Pilot George Karcher and Deputy Observer Rich Everett is called to orbit—and light up—a residence during the service of an arrest warrant by San Bernardino Police. The NightSun is often left on in flight as “the ultimate anticollision beacon.”

US Air Force as a helicopter pilot and a T38 instructor pilot, says, “The NOTAR just doesn’t suit our mission. Unlike the [MD]500, it’s a handful to fly and most of the pilots just don’t like it. You can never relax with it. That, the performance issues related mostly to the NOTAR system, and the fact that it’s a single example of a unique airframe that nobody really has the time to stay current in, mean that for the most part it sits in the hangar.”

SBCSD Aviation Division Dir of Maintenance Ray Sarr echoes these sentiments, and explains the maintenance issues arising from operating a single example of a very complex aircraft.



Deputy Observer Berend “BJ” Meelker (L) uses an engine hoist in a cost effective method of training Volunteer Paramedic Chris Williams in one of the many possible harness configurations used during emergency situations.

“We have our hands full with the day-to-day work on the EC120s and Hueys,” he said, “and, while the NOTAR is a unique idea, it just doesn’t work here.”

The “queen” of the fleet, if only in terms of size, is the Sikorsky S61R. Purchased from a government depot, where it was stored after a career with the US Coast Guard, the big Sikorsky fills a number of seasonal missions, as well as offering year-round availability for moving SWAT teams and SAR personnel. Mostly, though, it is used in the fire season to transport teams to and from the areas where they are needed.

The Turbo Commander and the Sabre function as VIP and, in the case of the jet, prisoner transport. When the need arises, prisoners on their way from San Bernardino to

federal facilities are flown, under appropriately high security, in the Sabre.

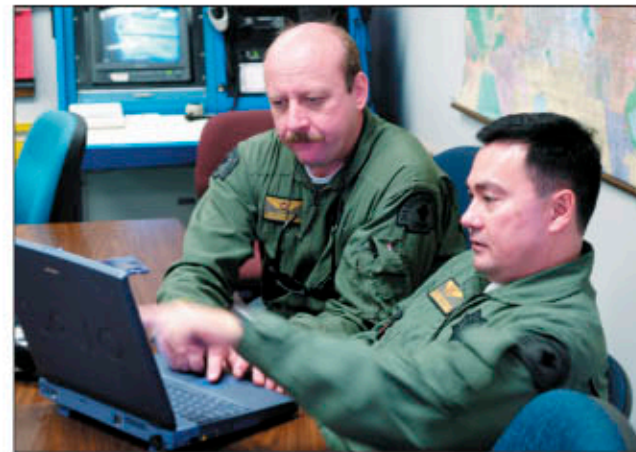
Volunteers—a necessary backbone

The SBCSD Aviation Division has always maintained efforts geared toward community outreach, and those efforts have paid off in the form of an extraordinary network of volunteers who assist in critical areas of the operation as a whole.

For example, a volunteer nurse, doctor or EMT is assigned during every shift to one or both of the rescue ships online. This represents a tremendous commitment on their part, both in time and determination to maintain their necessary skills. Some of the volunteers are based locally, but some come from



Pilot George Karcher hovers one of the San Bernardino County Sheriff’s Department UH1 in a practice area as Observer Berend “BJ” Meelker follows up the indoor lessons with real-world hoists for Observer Randy Gerwig and Volunteer Paramedic Chris Williams.



Pilots Brian Miller (L) and George Karcher discuss a computerized presentation destined to be shown as a training aid at the SBCSD training academy.



Pilot Sgt Vince Clancy accesses the San Bernardino County Sheriff’s Department network to facilitate scheduling of crews, maintenance and volunteer activities.

as far away as Los Angeles to put in unpaid 12 and 14-hour days.

When they are not on actual missions, the watchword for the rescue volunteers is training, training and more training. During our visit we observed as Deputy Observer Berend “BJ” Meelker trained, quizzed and demonstrated the various techniques needed to perform the difficult and occasionally dangerous missions the volunteers regularly face—particularly use of the hoist and litter systems.

“These are tough jobs we ask our people to do, and I’m amazed at

the time and effort they put into it,” he said. “But they’re out here every single day for nothing more than the satisfaction of doing a difficult job well.”

Currently, a total of 35 volunteers staff the Air Medics program.

Another facet of volunteerism that plays a large part in the success of the unit is a group of civilian volunteers known as the Aero Squadron. Consisting of 38 pilots and aircraft owners, they donate their time and aircraft for missions ranging from desert and forest patrol to SAR and personnel transport. In 2002, for

example (the latest year for which hard numbers are available), Aero Squadron volunteers flew a total of 646 hours on missions and more than 600 hours on “public relations” flights.

Finally, the unit also supports a Police Explorer post, which allows young men and women an opportunity to both observe and learn about day-to-day operations.

Operations—18-hour days

Pro Pilot’s visit to the SBCSD Aviation Division happened to coincide with some of the worst weather in recorded history to hit southern California. During a single 2-week period, nearly 18 inches of rain and, in the mountains, 3 feet of snow fell.

In some areas roads were simply washed away, stranding thousands of people. In particular, some smaller communities in the San Bernardino Mountains were isolated and the unit flew a number of missions simply to determine what the people who lived there needed. As the ravines are criss-crossed with what Clancy describes as “a squirrel’s nest of power and phone lines,” operations into and out of the area were strictly limited to daylight and good visibility. In one case an enterprising (and well-heeled) family from a more remote area in the mountains chartered a helicopter to come up and bring them down to civilization.

During this time most nonscheduled operations consisted of rescue calls for motor vehicle accidents



The SBCSD Cessna 182 at L69 (Rialto CA). According to Pilot Shawn Moore (inset R) and Observer Mike Brownie (inset L), the GyroCam DNV system is sharp enough to read a license plate from an altitude of 5000 ft AGL. Equipped with a laser illuminator for night IR sensing, the aircraft and its systems are used throughout the county and into neighboring Los Angeles.



Emergency and routine dispatch messages are all routed through one of 2 adjacent facilities. Valley Dispatch, shown here, handles law enforcement issues while next door Fire Dispatch handles medical and fire emergencies.



(L-R) Mechanics Chris Baboyan and Kevin Carver complete an engine change on one of the unit's EC120s. While the aircraft fulfills many of the missions it is tasked with, maintenance and performance issues have led SBCSD to purchase larger, more powerful AS350B3 AStars.

and people trapped by water or mudslides.

On the maintenance side, though, Sarr's teams performed a variety of immediate and scheduled maintenance work. For example, one EC120 was down for an engine change, while another was having a leaking fuel cell removed. Another EC120 cycled in, and then out, for a 100-hour inspection, and one of the UH1s was stripped down for an engine and main gearbox overhaul as well as other minor repairs which had been deferred until the major overhaul period.

Also during this time a number of representatives from equipment and avionics manufacturers—particularly those whose devices were being studied and considered for

installation on the new AStars—came and went.

Some reps were greeted like old friends—as Sarr puts it, “I see these guys all the time, whether I need to or not.” Concerning some of the others, he is less sanguine: “The only time I see some of them is when we’re about to buy something. Once our check clears, I’m lucky if they return my phone calls.”

Capt Tyler echoes those sentiments, explaining that, while looking at hoists to be installed on the AStars, he was adamantly in favor of specifying Goodrich hoists, in preference to those from another manufacturer.

“Both units have similar capabilities, but it’s product support that made the decision,” he explains. “Goodrich will sell, and deliver in a day or two, a replacement hoist cable for \$1000, while [the other manufacturer] will make me wait 3 months for a cable they’ll charge me \$5000 for.” SBCSD went with Goodrich.

When conditions allowed, the Aviation Division spent nearly 2 weeks flying multiple SAR missions, both in the valley and in the mountains. One mission rescued a 55 year-old hiker who had spent 2 days huddled barefoot in a cave waiting for the rain to stop and the skies to clear. The unit also flew numerous damage assessment missions to give representatives from local and state agencies (and members of the press) a first-hand look at how bad the damage was. These

flights were continuing as *Pro Pilot* went to press.

Guy McCarthy, a reporter for the San Bernardino Sun who was taken on one of the assessment flights, had high praise for the unit.

That praise apparently issues from on high within the San Bernardino County administration as well. Over the past 3 fiscal years the Division has seen its operating budget increase from \$4.7 million in FY 2002 to well over \$7 million for FY 2004—a figure that does not include the \$7.8-million purchase price of the AStars.

The bottom line, though, for the pilots, mechanics, staff and volunteers at the SBCSD Aviation Division is that they are able to do a great job with the assets they have, in a community that recognizes and needs—occasionally desperately—those abilities. That the community acceptance and participation they now enjoy will shortly be enhanced by a fleet of more capable and reliable aircraft will likely remain a high spot in the careers of all involved. ✈



SBCSD Aviation Division Dir of Maintenance Ray Sarr oversees a staff of eight.



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