



## The Official Magazine of California Wing Civil Air Patrol Spring 2006

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*The Tehachapi Triangle. The Kearsarge Pass Trap. California's Most Perilous Air Routes Claim Lives Enough for Legend. Search-and-Rescue Pilots Talk Fatal-Crash Sites—and How to Avoid Them.*

### **EAGLE EYE: Dark Passages**

*By Capt. Greg Solman  
Eagle Call Editor*

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# Dark Passages

*By Capt. Greg Solman, Eagle Call Editor*

*Photo courtesy Great Western Soaring School*

*The Tehachapi Triangle. The Kearsarge Pass Trap. California's Most Perilous Air Routes Claim Lives Enough for Legend.*

*Search-and-Rescue Pilots Talk Fatal-Crash Sites—and How to Avoid Them.*

**LOS ANGELES**—Heading home to Palm Springs through the Banning Pass before sunset in late March, Maj. Roy Hofheinz looked up from his car and—as pilots will—imagined being up there, in the air, and felt damned glad he wasn't. "Storming, windy, visibility was low—miserable," he recalls. "It was as if I'd hit a wall of weather."

Minutes later, in what would be a fateful hour for two men fly

ing overhead just then, a cerulean blast hit Hofheinz coming out of the pass at Cabazon. "The skies opened up. There were high clouds. It was desert-dry. You could see it hadn't rained all day." All the ominous weather, it seemed, had headed off air traffic at the Pass as if to take down planes.

Later that evening, Hofheinz and Capt. Frank Tullo, seasoned Civil Air Patrol mission pilots

from Palm Springs Composite Squadron 11, were on a weather-delayed alert with the rest of southern California Wing for a factory-fresh Cessna 208B that had dropped off radar and had apparently crashed. Last-known position: Banning Pass.

According to the preliminary investigation of the National Transportation Safety Board (NTSB), the Caravan departed Jacqueline Cochran Regional in Thermal and headed for Ontario. The passengers—two top-rated pilots, including a man dear to many in the Wing, Rick Voorhis, founder of Van Nuys Flight Center—filed an instrument flight rules (IFR) plan, but never activated it. They'd picked up an AIRMET (airman's meteorological information notice) at Riverside for moderate rime ice.

The pilot, Steve O'Neill, told Palm Springs Terminal Radar

*Continued . . .*

2



Approach Control that they'd fly to the Banning Pass under visual flight rules then pick up their IFR there. Southern California Terminal Radar Approach Control took the handoff, picked up the Caravan's blip at 8,500 feet, 10 miles north of Banning, then quickly told them they were heading for trouble. "Do you have the terrain in sight?" asked the controller. "Eight Whisky Echo, we're maneuvering away from the terrain right now," came the reply.

Those were the last words heard. Radar tracked the plane making a climbing right-hand turn into rising terrain. Witnesses on the scene, turning tragedy to poetry, said that minutes after the plane plummeted before their eyes, the rain became snow.

"This illustrates the problem flying in California in the winter time," says Hofheinz, an articulate Rhodes Scholar and retired Harvard professor. "Icing, rugged terrain, traps you can get stuck in, box canyons. And communications in that area has never been perfect. You have a gap around the Whitewater Canyon, so they like to send you [visual flight



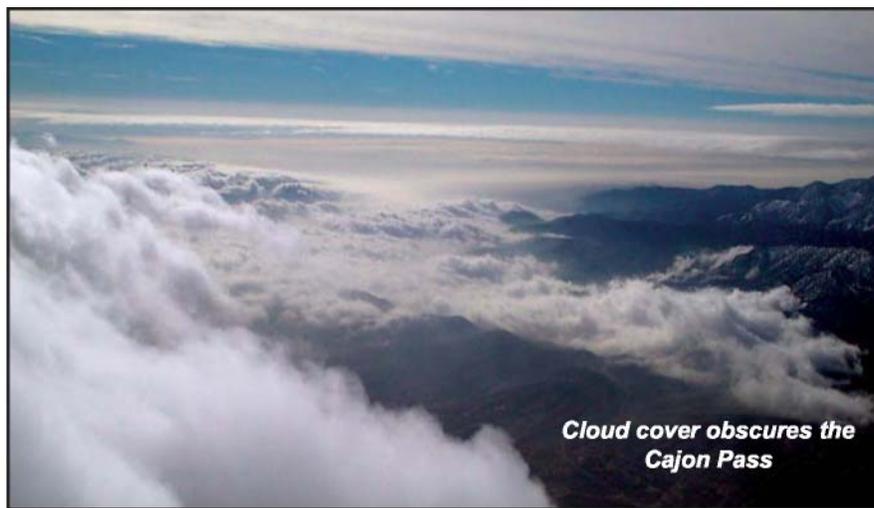
*San Geronio at the Banning Pass*

rules] VFR until you get the handoff...Banning is notorious for sucking in airplanes. There must be 20 or 30 crashes on the sides of those mountains."

"There's high terrain on both sides and heavy winds, ferocious

winds, and bad weather," echoes Tullo, who survived having his F-105 shot down over Hanoi and has no plans of buying it over Banning. "Palm Springs could be absolutely perfect, but all the

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*Cloud cover obscures the Cajon Pass*



*The forbidding Kearsarge Pass*



### Dark Passages

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weather moving west to east backs up in the pass, kind of like a funnel between San Geronio and San Jacinto mountains, and you see this curtain.”

Two weeks later, Hofheinz and Tullo retraced the path of the fatal flight. “There was no terrain in front of them. Did they enter a stall spin?” Hofheinz speculates. “They might have had catastrophic engine failure. Or had they gotten so disoriented by the weather, they yanked the yoke around in a sharp turn and induced an accelerated spin? We may never know.”

Morbid curiosity had nothing to do with their flight reenactment. Serious mission pilots both, Hofheinz and Tullo had flown many a search-and-rescue in that area, and flying with Maj. Bruce Marble last October, earned a Distress Find for spotting a Lancair crashed six miles north of Warner Springs east-southeast of Mount Palomar, a spoke off the Julian VOR, a notorious radial.

“A San Diego-area newspaper reported a few years ago that Julian VOR, the main route from San Diego County to anywhere east, is one of the most dangerous areas in nation,” says Capt. Bob Keilholtz, California Wing Director of Emergency Services,

who’s run countless missing-aircraft missions as an Incident Commander. “Statistically, there are a significant amount of accidents from planes icing up going over the Sierras.”



But when they depart San Diego, home of some of the world’s best weather, everything seems fine, Keilholtz figures, attributing the accidents as much to psychology as topography. “Around San Diego, even suspecting bad weather, people will fly,” Keilholtz says. “All the extreme weather up north tells pilots to just stay put. Here they’ll start out with visibility for ten miles and

end up in trouble.”

“The higher mountains are in the central and northern parts of the state,” reckons Maj. Jim Porter, California Wing Vice Commander and experienced mission pilot. “Pilots up north get socked in. They know they can’t get 12,000 feet to cross the mountains at 10,000. Down south you can slide over 6,000 foot mountains at 8,000.”

And that’s the deadly temptation, pilots say. Lt. Col. Ron Butts, a “Vietnam Black World” jet-jock who now flies low and slow as the Deputy Director of Operations for California Wing, says Banning and Gorman Pass “tend to attract airplanes like a magnet.” He, too, subscribes to the risk-taking mindset theory.

“I think I can make it.” That’s the opening line of the disaster,” says Butts with weary solemnity, just a few days after the crash that killed Voorhis and O’Neill. “I don’t understand pilots. They fly in low visibility and pick their way through the clouds—VFR pilots flying in IFR conditions: That’s the report on 90 percent of accidents.”

And on two recent ones, says Maj. Chuck Frank, Wing Director of Counterdrug Operations and a SAR mission pilot who flies out

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Satellite image of the Banning Pass

## Dark Passages

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of San Jose Senior Squadron 80. “The pilots in each case were trying to get somewhere by skud-running,” trying to find openings in dense cloud cover to avoid IFR conditions, Frank figures. “They made poor judgment calls.”

By FAA definition, Frank says, it is all “mountainous terrain” in the high Sierras. And hazards can include the sort of stultifying, disorienting darkness Florida pilots report flying over the Everglades. Frank recalls a crash on a mountain near Stonyford when a plane was flying from Chico to Ukiah “during moonless night flight operations,” as the NTSB report put it. A Piper Aerostar 601P pilot was descending from 6,700 feet and requested flight following and a vector to the airport. Air Route Traffic Control Center recommended a heading. “He thought he had a GPS direct situation,” Frank surmises. “He programmed the direction and sat back, fat dumb and happy.” No low-altitude alert was issued, even though the maximum elevation in the area is 7,400 feet. The pilot was flying in VFR conditions, yet completely blind. He crashed at 6,700 feet, missing the clearing of the crest by 50.

Butts, Keilholtz, and Lt. Col. Steve Asche, California Wing Director of Operations, separately recite a chilling litany of California crash sites. Banning Pass on route to Phoenix. The splatter surrounding Big Bear. Far south, Keilholtz sketches a Pauma Valley Triangle: Escondido to the south and Pauma Valley to the east, with the vertex stretching up 6,126 feet to the peak of Mount

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## OK, We Know Where They Crash. Now Where Do We Put Our Planes?

However predictable, the prevalence of crashes in sparsely populated and remote areas of the state poses a challenge to search-and-rescue efforts there, says Maj. Jim Porter, California Wing’s Deputy Commander, especially with respect to the deployment of CAP resources. “I think we’re in pretty good shape by situating the aircraft both around the pilot base and somewhat geographically,” he says, “to make sure we have aircrafts and crews in reasonable striking distance to different parts of the state.”

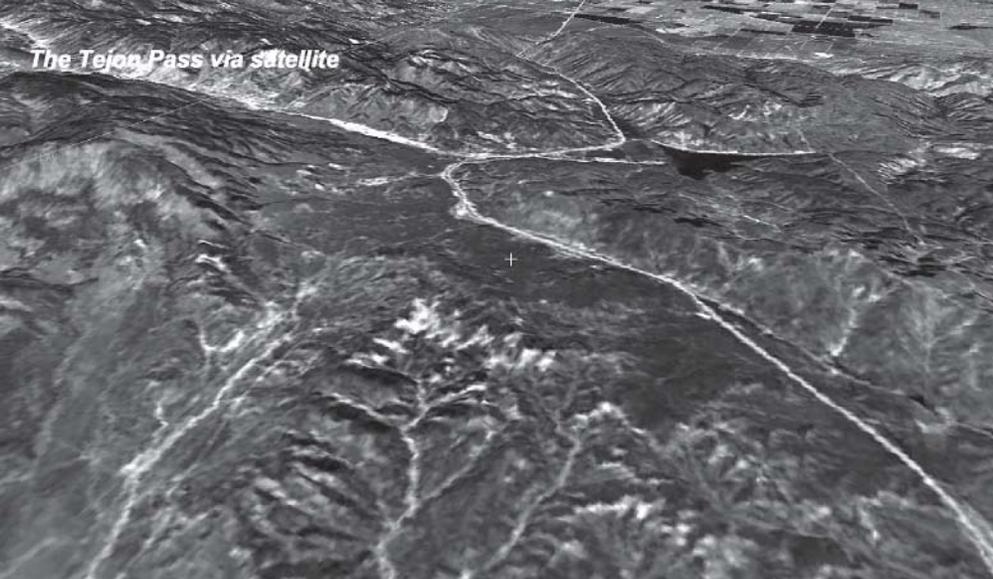
Porter acknowledges that even though pilot concentration drives deployment, the Wing benefits from lucky coincidence. “The greater concentration of both mission pilots and mission activity is in southern California,” he says. “For obvious reasons (more pilots means more accidents) they mirror each other.”

Still aircraft deployment can only be cheated so much to align with historical precedence of fatal crashes, Porter says. “You need a unit at an airport that is capable of having an airplane, and pilots to fly it. That leaves holes.”

These days, one hole bottoms out at Bishop. “There is no Civil Air Patrol in Bishop anymore, so the center part of the Owens Valley is without coverage,” Porter says. CAP is also “pretty thin” far north, along the Oregon border to Lassen, but so is air traffic. The vast but by no means un-traveled territory north of Central Valley Group 6, south of NorCal Group 5, and west of Central Coast Group 4, remains worrisome. And Palm Springs Composite Squadron 11, as the single unit handling the eastern part of San Bernardino, Riverside and Imperial counties, “leaves that whole part of the state uncovered,” Porter admits. “There are incidents in those areas. We don’t have the personnel to support units there.” “All we can do,” Porter concludes, “is launch from a distance.”



A CAP flight sights its ground team



**EAGLE EYE**

Divide—is the stuff of pilot pioneer legend. “Above Independence, it is the lowest pass and the most direct route over the Sierras,” explains Keilholtz. “But it’s a false pass.” Or, rather, it presents the illusion of a clear opening that’s a literal dead end near a suspiciously small pass that is in fact the way through. The right pass looks wrong; the wrong pass looks right. The confusion is often tragic.

Think you’re out of the woods when flying around cities? Tough terrain meets tight traffic in areas surrounding San Francisco and Los Angeles international airports, for example. And the problem of Class Bravo negotiation relates as much to the air traffic itself as pilots’ attempts to avoid it. “Class B airspace tends to concentrate general aviation traffic at the [altitude] limits and edges,” explains Capt. John Joyce, a pilot with Clover Field Composite Squadron 51, Santa Monica, who flew for United Airlines for more than 35 years. “That’s a mid-air collision hazard.” The caution particularly applies to pilots practicing radial intercepts and hold out of Seal Beach and Paradise, he warns.

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**Dark Passages**

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Palomar. Moving north, the Tejon Pass and Gorman Pass, from the L.A. basin to the chronically foggy Grapevine and on to the central Valley. The Cajon Pass, often mistaken by pilots for a route farther west into Palmdale and Agua Dulce, slaps pilots with unexpected winds. Fresno to the Owens Valley over Kings Canyon. Asche warns of a Tehachapi Triangle from Frazier Park and the Gorman Pass in the southwest, Lake Isabella to the north, and southwest to Mojave, with lonely Highway 58 cutting through.

“Back in the ’60s and ’70s I performed three to four searches a year out of Bakersfield alone,” says Asche, a 30-year veteran pilot. “I have documented around 80 crashes in this area alone, and I’m only counting those that are documented.” (And if a Stealth F-117A Nighthawk was to have crashed there on maneuvers—and he’s not saying one did, mind you—there’s a limited public paper trail, and typically no CAP search.)

Deadly wind shears and storms have been the culprit, Asche figures, some 80 percent of the time. “The triangle is known for

extreme turbulence and strong up and down drafts. Even in clear weather you can hit a downdraft and can’t pull out. The plane just drops.” Pilots increase power and pitch to no avail. They run out of airspeed, then altitude, end up stalling, and spiral to earth. “Some of these pilots have a false sense that a downdraft is temporary,” Asche theorizes. “They don’t want to climb to 7,000 or 8,000 feet, so they have no altitude to work with. It can happen in seconds.” He would know—it happened to him: The draft smacked the aircraft from 7,500 to 2,000 feet in a matter of seconds.

The Kearsarge Pass—just north of the juncture of the Inyo, Tulare and Fresno county lines, northeast of the Great Western



## *Dark Passages*

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Joyce vividly recalls the 1986 mid-air collision between an Aeromexico DC-9 on arrival approach at LAX and a Piper PA-28 that had departed Torrance on a VFR flight to Big Bear. The NTSB reports that the DC-9 pilot had been instructed to descend from 7,000 to 6,000 feet.

The grim-reaping, fictional Final Destiny demon took over from here, at least as the investigators and Joyce explain it. The

Piper pilot wasn't communicating with the tower. LAX didn't have an automatic conflict-alert system. The Piper's analog-beacon response from the transponder wasn't configured for display. "An atmospheric inversion," according to the NTSB report, prevented the "primary target" from being displayed to the airtraffic controllers. "He intercepted the tiniest corner of what was then called a TCA [Terminal Control Area]," Joyce recalls. "The pilot was from Oregon. He may not

have had the correct chart. He may have misinterpreted what freeway he was over."

In the end, at the moment of his demise, the pilot may have been looking down.

*Our sincerest gratitude to Dale Masters and Great Western Soaring School in Llano, Sam Seneviratne and Sequoia Development, and 1st Lt. Shane Terpstra for the photography used in this article*

