



## WAYPOINT

SUCCESS STORIES FROM ABOVE

December 2008, Issue 24

LightHawk's monthly update, WayPoint, was created to share some of the good news we on staff learn about daily. These success stories illustrate the critical role we play in conservation efforts throughout North and Central America through the unique perspective of flight. We hope you enjoy WayPoint and will share with others our success stories from above.

### **Behind the Scenes: Flying for California's Marine Protected Areas**

[The mark of a good pilot is the ability to make any flight look easy. For those who do not fly, here is a look behind the scenes at what went into just one "routine" LightHawk flight.]

*It is the last day of August. South African-born volunteer pilot Brian Williams threads a Cessna 207 along the southern California coast through some of the most challenging airspace in America. He is on a mission ...*

California's beaches and waters are iconic, whether you envision long stretches of sandy beach and rolling waves, or rugged coastal bluffs and whitecaps. But what lies just off those beaches and below the surface may be in trouble. Fishermen today catch less than half of the fish they did in 1990, and the ones they do catch are 45 percent smaller.\* Concerned for their ocean resources, state legislators passed the Marine Life Protection Act in 1999, which directs the state of California to design and manage a network of Marine Protected Areas (MPAs).

*Williams' eyes scan between the folded map on his knee, the GPS moving map displays on the instrument panel and landmarks along the hazy coastline below. Without these tools to aid precise spatial awareness the three dimensional maze of restricted civilian and military airspace surrounding him would be a invisible. A wrong altitude or late turn could result in an airspace bust, conflict with other traffic and a likely career-ending run-in with the FAA.*

\* (<http://www.caloceans.org/resources/>)



Some of the vessels the surveyors counted. *Santa Monica Baykeeper/LightHawk*

LightHawk has supported the MPA process in northern and central California for the past two years with successful education and photography flights. Now, attention turns to southern California, where the MPAs will prove to be a larger challenge. The southern coast is one of the most biologically productive and heavily used coastal regions in the world. LightHawk's partners plan to gather information from the window of a small plane on the how the region's waters are used.

MPAs seek to protect ocean life and habitat by preventing resource extraction or harvesting, while allowing recreation and research. MPAs elsewhere have been successful in protecting biological diversity and allowing fish populations to recover. In Australia, New Zealand, and Florida, fishermen note that the best fishing usually occurs just outside the MPA borders.



Airspace restrictions around Los Angeles where LightHawk flew missions for the MPA process.

*In the passenger seats are members of the Santa Monica Baykeeper organization, a partner of LightHawk. Looking down, they are counting recreational and commercial fishing boats in the proposed MPAs. The information they gather on this and future flights will figure prominently in the upcoming public process.*

Long before Williams took the air, LightHawk's Pacific Program Manager, Christine Steele faced a challenge: how and when to use flights to document recreational and commercial boat traffic. Information collected during these flights will help decision-makers pinpoint the location of MPAs for the best effect on the ecology and biodiversity, while also avoiding undue economic impacts to those dependent on the fisheries.

The Santa Monica Baykeeper offered to conduct the surveys on LightHawk flights and collect and analyze the data. Working with scientists who had conducted similar surveys within the Channel Islands National Marine Sanctuary (CINMS), Steele was able to determine the most efficient way to accomplish survey flights. Eventually, a meeting with CINMS, the Baykeepers, and the California Dept. of Fish and Game led to a survey protocol designed for the very restrictive southern California airspace. The Baykeepers offered to conduct surveys by boat in the restricted areas where LightHawk could not fly.

*Williams juggles gentle maneuvering of the C207 with constant vigilance for civilian- and military helicopter and fixed-wing traffic. He steers away from the Encinitas shoreline...that flight of Coastguard choppers seems unaware of the C207!*

*From their tone it is clear that working the slow moving C207 seemingly randomly orbiting over the*

*ocean on their radar screen is not a priority for controllers. More than once a controller assumes the low and slow C207 is a helicopter. This comes close to causing an airspace transgression as Williams rounds the corner at Palos Verdes. Williams realizes the error and with little room to spare brings the C207 about to head inland abeam Torrance to use the fixed-wing LAX VFR transition instead. Williams dryly informs the team that henceforth the coast between Santa Monica and Redondo Beach would need to be surveyed by boat. It is a short stretch and the only airspace, due to LAX, that will remain off limits.*

With an aerial survey protocol in hand, LightHawk and the Baykeeper approached representatives of the commercial and recreational fishing communities. Extensive outreach paid off in advance support for the survey flights and the resulting data. LightHawk and partners are currently working to include representatives of the fishing community on survey flights, realizing that having the support of these communities is integral to the success of the surveys, and indeed, the entire MPA scientific and political process. All of this background effort by Steele began to pay off at the end of August, when volunteer pilot Brian Williams raised the nose of the Cessna 207 to begin flying a week's worth of flights to kick off a long-term commitment by LightHawk to support the MPA efforts in California. The data collected on LightHawk flights in the coming year will help place the MPAs for the greatest conservation effect, while avoiding placing undue burden on the recreational and commercial fishing groups who depend on these waters for their livelihood.

*Descending to the runway at Santa Monica airport, and mindful of the automated aircraft noise monitors below, Williams keeps the speed up and touches down long to fit in with the flow of departing and arriving business jet traffic. Exiting the runway he earns a "thank you" from the tower as a Learjet roars by. Williams pulls up to the gas pumps to let out his passengers. Armed with SD cards full of photos and with transepts tracked and data logged into their handheld GPS, the team is pleased with the days' science. Williams is also smiling. The C207 handled beautifully. This day the marine layer cooperated and the winds were calm. Perhaps tomorrow the controllers will be friendlier.*



*Santa Monica Baykeeper staff aboard LightHawk's Cessna 207, an aircraft generously donated by the Gund family in memory of Greg Gund. Santa Monica Baykeeper/LightHawk*

### **What LightHawk's partners say:**

*"This [flight survey] information will be used to inform a state led process to establish Marine Protected Areas off the coast. LightHawk is indispensable in this work. We hope the partnership we've established with this project is the beginning of long lasting relationship."*

- Tom Ford, Executive Director, Santa Monica Baykeeper

*"... LightHawk has provided us with the opportunity to survey large portions of the coast in a single day with increased number of surveys. LightHawk's assistance gives us the resolution with more meaningful spatial and temporal scales. This is not only a more efficient way to gather the information, but maintains better relationships between the fishing community and us... LightHawk as given us the opportunity to non-intrusively gather this information."*

- Stacie Fetjek, Marine Ecologist, Santa Monica Baykeeper

### **Marine Protected Area Selection Process in California:**

Potential locations for MPAs are recommended by a diverse group of local stakeholders including divers, fishermen, conservationists, and coastal residents. LightHawk survey results will inform this process. The proposals are then evaluated by a Science Advisory Team, a Blue Ribbon Task Force, and adopted by California's Fish and Game Commission, with plenty of opportunity for input from the general public along the way.



*Aerial surveys show the mix of recreational and commercial boats offshore. Kevin Mills/Santa Monica Baykeeper/LightHawk*

**As part of LightHawk's commitment to over a year of survey flights, LightHawk is actively recruiting more southern California pilots.**

**Call 307-332-3242 for more information.**

### **About LightHawk**

Founded in 1979, LightHawk is a nonprofit, volunteer pilot-based organization that flies environmental missions in collaboration with a large network of pilots and hundreds of partner organizations throughout the United States, Canada, Mexico and Central America. LightHawk flights provide a powerful and effective platform for research, ground-truthing, environmental awareness, and education.

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