

LIGHT HAWK

Championing environmental protection through the unique perspective of flight.

2008: Issue 2

LightHawk works in North and Central America

VOLUNTEER PILOT SPOTLIGHT

Al Rollins (*Shapleigh, Maine*)



combines his lifelong passions for flying and the environment flying in his Cessna 175 as a LightHawk volunteer pilot. Al explains, "Each LightHawk flight

has been a unique and memorable experience as they have combined different and interesting geographic areas with interesting and knowledgeable people committed to promoting sound environmental practices. Several flights to areas where I either worked as a forester with the US Forest Service, or hiked and canoed forty years ago afforded me the opportunity to compare current conditions to those of the past."

Al is generous with his time and flights for LightHawk; his missions have taken him around Maine's Moosehead Lake and Allagash Wilderness Waterway and New Hampshire's White Mountains.

George Simchuk (*Sand Point, ID*)



found a love for flying as a child playing with model airplanes. After graduating from Washington State University with a BS in Mining

Engineering, he worked in northern Chile where he earned his private pilot's license. He subsequently completed instrument training and obtained his commercial license. In 40 years of flying he has been in many kinds of aircraft, but he prefers his Cessna 210.

Since retiring, he has flown for LightHawk, as a member of Angel Flight West, and with Flying Medical Service in Tanzania helping serve the Maasai and other tribes in and around the Serengeti Park. George has always been a strong advocate for the protection of the environment throughout his career and is now enthusiastically assisting others advocating the same objectives.

Postcards from Mesoamerica

On January 14th, volunteer pilot George Simchuk left Tucson, Arizona bound for LightHawk missions in Mesoamerica. After 49 days and 20 mission flights he returned home to tell the tale. Here are just a few excerpts from his journey.



George Simchuk/LightHawk

Conducting the first research flight over Nicaragua's Mosquito coast surveying the health of waterfowl and their wetland habitat.

January 17, 2008

Guatemala City, Guatemala

Departed with biologists from Fundacion Defensores de la Naturaleza, which manages four national parks in Guatemala, on the first of several flights LightHawk will provide for Ducks Unlimited. The data collected on these flights will be used to provide detailed reports to the governments of Guatemala, El Salvador, Nicaragua and Honduras on the waterfowl populations in various wetland areas and by extension, the health of the wetlands themselves. Performing passes over the flocks prompts them to take flight. When the birds take to the air, the biologists note their color and size and this helps distinguish one species from another.

January 21, 2008

Managua, Nicaragua

Departed for the southeast coast, popularly called the Mosquito Coast. This flight represented the first research flight to assess waterfowl populations and wetlands on Nicaragua's Atlantic coast. We spotted and noted geographic positions of numerous lagoons, rivers, and wetlands. This information will be given to the government to help them protect these ecologically important areas.

February 1, 2008

Las Dantas, Guatemala

We flew to the border with Belize to scout for manatees. Upon spotting a manatee in one of the lagoons, we would fly a tight circle around the area for the biologists to identify their quantity and size. With the multitude of turns involved, these flights were not for the weak of stomach. Our survey counted 37 manatees, which is low for this time of the year.



Manatees in Belizian coastal waters.

Daniel Gonzalez/LightHawk

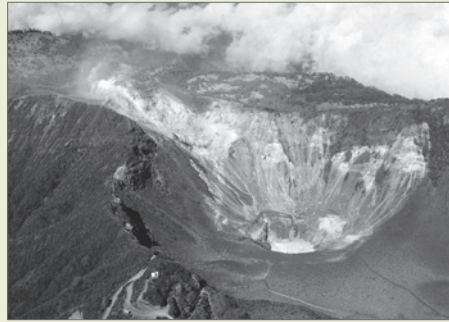
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February 8, 2008

San Jose, Costa Rica

The flight today was with a volcanologist from the Volcanological and Seismological Observatory of Costa Rica, a professional photographer and a newspaper reporter. We flew over Turrialba, one of Costa Rica's active volcanoes, to photograph the caldron and the devastated vegetation along its flanks. Many local inhabitants suffer from asthmatic conditions as a result of inhaling the volcano's sulfurous gases. Aerial photographs help monitor the volcano's advance while scientific measurements taken in the noxious smoke plume indicate the amount of sulfur dioxide escaping from the volcano. Turrialba's activity will continue to be monitored through these flights with data and projections passed on to the government of Costa Rica for possible mitigation measures.



George Simchuk/LightHawk

Measuring sulfur dioxide levels in the smoke plume from Costa Rica's Turrialba active volcano.

February 23, 2008

Changuinola, Panama

This was the first time the passengers - key environmental officers from the Ministry of Environment of both Panama and Costa Rica and from UNESCO (United Nations Educational, Scientific and Cultural Organization) headquarters - had flown over La Amistad International Park. The park is a World Heritage Site and bi-national peace park shared by Panama and Costa Rica. It is the largest and most diverse rain forest in Central America and one of the last refuges for such endangered species as the jaguar, ocelot, Central American tapir, resplendent quetzal, and harpy eagle. The officers surveyed threats to La Amistad including illegal logging. After the flight the passengers expressed that they had a new perspective regarding the potential impact from the planned construction of three large hydroelectric dams in the park's buffer zone, which many feel will irreversibly impact aquatic species in and outside of the park.



George Simchuk/LightHawk

Flying over Costa Rica's fast developing Pacific coastline to inform decision makers about the environmental consequences of unchecked development.

February 21, 2008

San Jose, Costa Rica

Along with three members of FECON (Costa Rican Conservation Federation) we flew along the Pacific coast of Costa Rica to observe tourist resort development. The expansion of beach developments threatens the nesting grounds for leatherback sea turtles, the largest of the world's turtles. In 1989, 1,600 leatherbacks were nesting on just one of the beaches in the Tamarindo region. However, in 2006, only 60 leatherbacks were found in the same region. Our flight surveyed the coastline, to photograph the many resorts under development. In this relatively dry country, water to support the golf courses and large hotel/condo construction must be pumped from deep wells and piped in from the distant mountains. This action has negatively impacted the wells serving the local populace for their home and agricultural needs. FECON works to advise local and federal authorities on the long-term environmental repercussions of new development and hopefully influence more thoughtful practices. LightHawk flights provide aerial surveillance of the region to present to the appropriate government authorities.

WHAT'S NEW

New Pacific Program Manager

Joins LightHawk



LightHawk is pleased to announce that Christine Steele recently became LightHawk's new Pacific Program Manager. Based in Portland, Oregon, Christine previously coordinated outreach

and advocacy efforts for the Johnson Creek Watershed Council. Trained as a wildlife biologist, Christine has studied birds in habitats as diverse as arctic tundra, Costa Rican swamp-forest, and the forests of the Pacific Northwest. She spent time rehabilitating seabirds and raptors in California, and worked with non-releasable raptors as education birds. About joining LightHawk, Christine said, "I am very excited to be working with such an interesting and passionate group of people, and look forward to learning all the different ways the gift of flight can help conservation efforts."

Fly In and Help Make History

October 3rd - 5th, Klamath Falls, Oregon

Bring your plane and bring your passion to make a difference to the LightHawk Fly-in. LightHawk-donated flights this weekend will accelerate efforts to support the Klamath Basin Restoration Agreement. According to partner Sustainable Northwest's Martin Goebel, "the size and scope of this agreement is historic. It doesn't just benefit one species, one community or one piece of land, but covers an area roughly the size of Switzerland." Help restore the Klamath's salmon run, once one of the highest in the US, and play a part in providing economic stability to ranchers, tribes, farmers and fishermen.

Join us in Klamath Falls, Oregon this fall.

FOR THE BIRDS

Flying for Ducks Unlimited in Central America

This year, LightHawk flew several missions for Ducks Unlimited in Central America to gather data on migratory and local waterfowl species. By extension, this annual count gives researchers a fairly accurate assessment of the health of wetlands. This year we discovered Guatemala's counts were low due to aggressive agricultural development, which draws water from the wetlands. Yet Nicaragua and El Salvador's wetlands seem to be in good health as thousands of ducks were found amongst their wetland habitat. These findings and appropriate suggestions will be shared with the respective governments, expanding their awareness of the health of the wetlands and waterfowl.

GET INVOLVED!

PILOTS: Join our volunteer pilot corps; the minimum requirement is 1000+ hours as pilot-in-command.

DONORS: A gift of \$35 or more makes you a member of LightHawk!

MATCHING GIFT PROGRAMS: Double your gift; does your employer offer a matching gift program?

HONOR SOMEONE: Consider giving a gift to LightHawk in honor of an avid pilot or conservationist among your friends or family.

Thank You We wish to thank the many donors who contributed to LightHawk between February 15, 2008 and April 30, 2008 including:

Foundations e Beagle Charitable Foundation, Butler Conservation Foundation, Critical Ecosystems Partnership Fund, Earth Images Foundation, Island Foundation, e Oak Foundation and Resources Legacy Fund Foundation.

Patrons (\$10,000 and greater)
Anonymous Donor

Contributors (\$1,000 - \$9,999)
Gabrielle and Kenneth Adelman, F. J. Colby, Joy Covey, Lee Gerstein, Graham Harrison, Northern Wings, Inc., John and Merry Schroeder

Protectors (\$500 - \$999)
Santa Fe Garden Club

In honor of:
Bill Nicolai

Volunteer Pilots
Our heartfelt thanks to the many volunteer pilots who donated their time, expertise and use of their aircraft to fly for LightHawk during this period.

STAFF DIRECTORY: Rudy Engholm, Executive Director • Sama Blackwell, Director of Programs • Keri Foster, Program Associate • Bev Gabe, Development Assistant • Lee Pagni, Interim Latin America Program Manager • Emilie Ryan, Chief Financial Officer • Christine Steele, Pacific Region Program Manager • Kelley Tucker, Eastern Region Program Manager.

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Our thanks to Continental Airlines for providing free travel vouchers for our Latin America program.

Finding a Home for the Ghosts of the Forest

Imagine walking through a forest thick with the scent of spruce and fir. You stop to take in your surroundings and listen; a twig snaps a short distance away, you turn and see an animal about twice the size of a normal housecat with a dense silvery-brown coat, ruffed face and tufted ears. You may be surprised to find yourself standing face-to-face with a ghost of the forest.

Until recently, it was unknown if the ghosts of the forest, as Canada lynx are sometimes called, still persisted in western Wyoming's Greater Yellowstone Ecosystem (GYE). It is now recognized that a very small and somewhat isolated population of Canada lynx resides there and represents the southernmost group found in the U.S. Unfortunately, this group could easily vanish without proper management and protection.

Early this April, LightHawk volunteer pilots Steven Garman and Bob Peterson took to the skies with Endeavor Wildlife Research Foundation (EWR), a group that has been tracking Lynx in the area for more than four years. The pilot flew EWR biologist over the GYE to identify and survey habitat suitable for the Canada lynx. The U.S. Fish and Wildlife Service (USFWS) has proposed that critical habitat for lynx in the GYE be designated in order to help ensure this highly adapted animal's survival. Following extensive research and the aerial surveys with LightHawk, EWR will present their findings to the USFWS to help them protect the best lynx habitat in the region.



A ghost of the forest, Canada lynx.

"Our flight with Steven Garman was exactly what the doctor ordered!" said Nate Berg, co-director and biologist for EWR. "While on the flight, we took several photos with accompanying waypoints. We will use those photos and physical locations in detailed



Surveying prime Lynx habitat over the Wyoming Range.

comments that we are currently preparing and will be providing the USFWS on the reasons why they should designate critical habitat in the Greater Yellowstone area. We will also use this flight data to appropriately guide the USFWS as they make decisions as to where to delineate critical habitat boundaries."

The Canada lynx is a secretive and solitary animal that requires a specific mix of forest and available prey to survive. Habitats within the GYE that can support the lynx are rare, but EWR biologist have become adept at identifying what these habitat types look like. From the air, biologists are able to survey significantly more areas in a day than on foot, or snowshoe, as is more likely the case.

"This aircraft (LightHawk's Cessna 185) allowed us to evaluate the quality of lynx habitat in 3-4 mountain ranges, giving us a unique perspective – rarely possessed by other biologists in this same region – that was tremendously valuable in understanding the distribution of lynx habitat in the southern Greater Yellowstone,"

– Kerry Murphy, wildlife biologist

By combining a deep understanding of the Canada lynx with a birds-eye perspective showing habitat on a large scale where connectivity and wildlife corridors are apparent, EWR and LightHawk are helping designate critical habitat to ensure the ghosts of the forest will not fade away from the wild places of western Wyoming.



Candy Feller/Smithsonian Institute/LightHawk

As the climate warms, it is predicted mangroves will migrate northward and encroach into salt marshes. Scientists are investigating how this shift in species will affect the structure and function of coastal ecosystems by studying areas within Merritt Island National Wildlife Refuge in the Indian River Lagoon, Florida.

Volunteer pilot Alan Kinback's first LightHawk flights aided a team of Smithsonian scientists' efforts to monitor and conserve the rare red mangrove ecosystems of the south Atlantic, Florida coast. The Smithsonian Marine Station (SMS) is one of LightHawk's new conservation partners in our quickly expanding south Florida, Gulf and Caribbean sub-region.

The Indian River Lagoon (IRL) boasts the most ecologically diverse estuary in North America as it is situated where subtropical and temperate climatic zones converge. SMS scientists are trying to gauge the effects of human disturbance, nutrient loading, recent hurricanes, and climate change on the mangrove ecosystems. Besides being essential to the diversity of south FL, these ecosystems are critical to the protection and stability of coastal lands. Past studies have concluded that a combination of nutrient loading resulting from human activities, increased temperatures, and rising sea levels will force mangrove systems slowly northward.

The SMS team on the flight – including two scientists from the University of Dresden, Germany – photographed key points along the lagoon including four long-term focus areas. According to lead scientist Ilka 'Candy' Feller, "during the LightHawk flights, we acquired more than 3000 high resolution images of these coastal wetlands... We learned that disturbances, which were caused by two hurricanes that made landfall along the IRL in September 2004, were still clearly visible. Although the forests are recovering, we could see recurring patterns in the effects of the storms. We were able to use these images to ground truth our study sites. We also learned that we could clearly distinguish among species and vegetation types. These images along with a series of historical photographs from 1943 to 2005 allow us to see the changes that have taken place in the IRL."

A Big Thank You

Throughout its history, LightHawk has engaged extraordinary individuals; one of these is Rick Durden. Many know Rick through his byline on AvWeb and writings in most major general aviation publications. While at LightHawk, Rick served as volunteer pilot, mentor, board chairman, executive director, aviation troubleshooter, storyteller and friend. With his twin passions for the environment and for aviation, Rick's contribution has been invaluable.



LightHawk

Rick recently retired from LightHawk's board to devote himself to serving the volunteer pilot community on the Air Care Alliance board. In that role, he will tackle issues that transcend individual organizations and he'll still fly as a LightHawk volunteer pilot.

On a personal note, Rick once mentored me flying into a tiny runway in Belize – barely wider than the wingspan of a Cessna 185 and mostly surrounded by water. My first attempt was a go-around. Rick offered to take the controls and not only did he put it onto the runway smooth as glass; he made it look and feel easy. That is true class. Thank you, Rick. For everything!

– Rudy Engholm, Executive Director



Fly-In and Annual Convention 2008:
Oct. 3-5 in Klamath Falls, Oregon. Save the date!

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