

Yurok Tribe to acquire \$5 million aircraft

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The Yurok Tribe recently received a \$5 million grant from the U.S. Department of Commerce to procure an aircraft equipped with one of the most powerful and high-resolution environmental mapping and aerial imaging technologies of the 21st century.

Condor Aviation, a new partnership between the Yurok Tribe's award-winning Fisheries Department, and the Yurok Tribe Construction Corporation, will soon acquire a large platform fixed-wing aircraft, which will support high-resolution aerial imaging and Light Detection and Ranging (LiDAR) equipment.

The custom aircraft will be constructed at a later date. The technologically advanced equipment is capable of creating extremely accurate three-dimensional maps of the earth's surface, while concurrently accumulating an infinitely broad range of information regarding terrestrial and aquatic environments.

Condor Aviation will use the precision tools to collect myriad data, which will help drive the design of large-scale river and habitat restoration projects, inform long-term natural resources management decisions and

illuminate the impact of climate change on forests in Yurok Country. Condor Aviation will also offer contract mapping services to federal, state, and local partners across the Klamath Basin and Northern California.

“More than anything, this is a game changer for the environment in Northern California,” said Frankie Myers, the President of the Yurok Tribe Construction Corporation. In the last 150 years, mining and lumber industries have severely degraded the landscapes that once sustained nearly 100 Yurok villages and an incredible diversity of fish, plant and animal species.”

Condor Aviation will significantly increase the Yurok Tribe’s capacity to heal its rivers, forests and prairies, Myers said. “On behalf of the Yurok Tribe, I would like to sincerely thank the Economic Development Administration for investing in our community and the revitalization of our natural resources.”

Congressman Jared Huffman agreed: “This investment is good for the reservation, good for jobs, and good for California.” Governor Gavin Newsom said that the \$5 million grant will fund new technology and equipment to support the Yurok Tribe’s resource management efforts and bolster economic resilience.

These cutting-edge LiDAR and aerial imaging tools will significantly accelerate and elevate the Tribe’s effort to restore and protect the Klamath River as well as the forests, streams and prairies surrounding it.

With an ever-expanding staff of approximately 80 biologists, technical experts, heavy equipment operators and technicians, the Yurok Fisheries Department and Yurok Tribe Construction Corporation plan, design and implement large-scale fish and wildlife habitat restoration projects in Klamath and Sacramento River basins — the two largest watersheds in California.

Condor Aviation was established to increase the Tribe’s ability to revive damaged ecosystems and put Yurok people to work in well-paying jobs. In addition to supporting the Tribe’s ecological revitalization projects, Condor Aviation’s LiDAR and mapping program will perform contract services, including data collection and analysis, for government agencies, nonprofits and private business.

Condor Aviation will offer highest-quality LiDAR and mapping services to organizations throughout Northern California, said Yurok Tribe Construction Corporation President Myers. It will also create new economic development and employment opportunities for Yurok citizens interested pursuing technology-based and/or aviation-related career paths.”

“The Yurok Fisheries Department and Yurok Tribe Construction Corporation conduct some of the most innovative restoration work in California. With the launch of Condor Aviation, the sky is the limit in terms of the amount of good we can do for the planet,” Myers added.

What is LiDAR?

Light Detection and Ranging (LiDAR) systems commonly include a laser scanner, Global Positioning System (GPS), and an Inertial Navigation System (INS).

LiDAR is a technology used to create high-resolution models of ground elevation. In general, LiDAR uses a pulsed laser to measure distances to earth. The pulses are reflected or scattered back and the travel time is

used to calculate the distance between the laser scanner and the ground.

LiDAR data is initially collected as a “point cloud” of individual points reflected from everything on the earth’s surface, including structures and vegetation. LiDAR can be used to produce 3-dimensional reproductions of landscapes, including river and lake beds and the sea floor.

The tool can measure forest canopy composition and height as well as classify vegetation, ladder fuels and much more.