

TunaDrone To Revolutionize Free School Fishing

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In recent years, pressure from different organizations to reduce the number of FADs within the tuna industry has been on the rise. However, the reality is that technological developments such as sonar buoys have helped FADs become highly efficient, which in turn has increased the amount of catches.

However, new technologies are starting to come to light in order to make free school fishing more efficient without compromising sustainability.

During the Americas Tuna Conference in Panama, Gabriel Gómez, General Manager of Marine Instruments, presented the new improvements with the Spanish company's TunaDrone, which will be a cost-effective tool for purse seiners to increase the overall number of free school operations.

Gómez told *Atuna* that although the current prototype – which has taken over four years to develop – is in an advanced stage, the company will need at least one more year of research before launching the product. During this period, further tests will be conducted on the device in different meteorological situations. "In the ocean, not all days are the same, so we want to generate more insight for the commercial product," he said.

Additionally, Marine Instruments is currently working on the Artificial Intelligent (AI) software of the drone. "We want the software to be capable of detecting marine events and send an alarm to our clients. For that we need more data and more hours of video and observation," said Gómez.

"We are in a phase in which we are conducting tests in different seiners in order to teach the drone how to fish."

He explained that the goal is that the drone will become 100 percent autonomous, and it will notify vessels when it spots a school of tuna or something of interest. However,

currently, it requires at least one person reading the monitors from camera transmissions.

THE DRONE

According to the General Manager, TunaDrone will weigh four kilos and will be able to fly autonomously up to 10 hours due to its solar panels. Additionally, the aerial device is easily set up and requires very little maintenance. It is also silent and has an operational range of up to 29 kilometers. Once installed, the drone is launched with a catapult and when it returns, it lands on a net that autonomously catches the device.



In addition to the solar panel, the drone has a battery that generates around 200 watts of energy, which will allow it to fly for one and a half to two hours without the sun. Plus, it is equipped with a full HD camera.

He also gave a more in-depth explanation of the material used to build the drone. The wings are made of a very light but dense foam, which has been perforated in order to make it even lighter. A carbon layer covers the top and bottom of the plane. Plus, the final product will also have some silicone, which will help protect the device if it falls in the ocean so that it can be retrieved from the surface without problems.

TECHNOLOGY AND TUNA FISHING

During one of the debates that took part at the Americas Tuna Conference, a member of the Mexican tuna industry raised the concern that technological advances are making tuna fishing increasingly efficient and that our oceans might not be able to support this.

Atuna asked Gómez about his position on the topic. “This is a recurrent debate in this sector. And sometimes it amazes me; it is like a form of nostalgia to fish like 40 years ago,” he said.

“I believe that if we want seafood to continue to be a financial accessible resource for consumers, fishing needs to be as efficient as possible,” he added. Gómez also said that the increase in fishing efforts calls for more control and transparent tools that allow

RFMOs and countries to manage them in a way that will ensure the sustainability of the resource.

He said that technological advancements can help make fishing productive while keeping the management as transparent as possible.

COMMENTS (1)