

TECH, TOYS THE MOST FUN YOU CAN HAVE ON

J CAN HAVE ON (& UNDER) THE WATER

TENDERS



The thrill of flying is more accessible than ever before, and with the Icon A5 light sport seaplane you can keep your amphibious toy on deck. *Cécile Gauert* takes to the skies – and finds it's all plane sailing



have no fear of flying. Jumbo planes? Relaxing. Helicopters? Fun. But the lightweight,

all-carbon two-seater ICON A5 seaplane is a different animal.

It helps that the first time I step on board, the skipper is the company's CEO. A former F-16 Air Force pilot, Stanford graduate and aerospace engineer, Kirk Hawkins knows everything about this plane. Its hull, with strakes similar in appearance to that of a planing boat, is also reassuringly familiar.

My short flight some 300 feet up above very familiar South Florida landmarks is exhilarating. As we fly over shipyards in Dania I recognize some yachts, and the park near Hollywood Beach, and I can't snap enough pictures. Following a gradual descent, we skim the light chop on the Intracoastal Waterway IS IT A PLANE? The Icon A5 is equally at home on the water as it is on a runway and come to a full stop. "You guys OK?" shouts an approaching boater from his center console. I am more than OK.

Hawkins encourages me to get out and sit on top of the seaplane. I swing my legs as the A5 bobs gently on the light surf, and bask in the sun. The center console catches up and I see its passengers looking at us. I give them the thumbs up as they pass. "You guys scared us!" >



shouts the captain. His laughter drifts over the water before getting lost among the mangroves.

The A₅ has been in the press since the 2008 launch of the prototype but remains a bit of a novelty. Test flights of a newly delivered A5 created a bit of a ruckus in New England when people thought they'd just witnessed an accident. What they saw was a plane without floats descend at a good clip towards water and disappear behind the tree line. I can't blame them for being confused.

The A5, though, should become an increasingly familiar sight. Icon has produced 27 to date at its California facility but intends to ramp up production significantly in the coming years to meet demand.

For those who dream of flying, it's easier than ever: the rules have become simpler with the implementation of a light sport aircraft license, the technology is more user friendly and the price of entry is not that high (especially if you share an aircraft). The Icon A5 costs about the same as a big superyacht tender - but how many of those can also fly?

A versatile craft such as this is proving exciting in yachting circles: yacht designer Bill Prince was so

inspired he developed a 40 meter explorer vacht concept around it; naval architect Donald Blount says the A₅ is a "natural yachting companion for a motor yacht; a flying tender much less complicated than a helicopter." With its foldable wings and low weight, the A5 stows in a space no bigger than a car parking spot and can be trailered.

The first A5 delivered to a vacht owner, it is part of the Allen Exploration fleet and is rigged with a lightweight sling system to crane it from boat deck to water (see page 68 for more on the fleet).

Icon has two flight centers, one at its headquarters in Vacaville, California, and the other in Tampa, Florida, where I go for my second A5 experience, an abbreviated introductory pilot course. My emotion meter wavers between excitement and dread. I have flown on small planes but never before piloted one, and a tragic accident involving an A₅, which happened just days before, is on my mind. But

pretty soon I am engrossed in a conversation with Warren Curry, director of the Icon Tampa flight center. An ex military guy, with lots of flying hours under his belt, he talks really fast and I have to focus, which takes care of any fretting.

Icon conceived the A5 to be accessible to a wide range of people. The instrumentation is straightforward. "Something that is interesting in this aircraft is this gauge right here," Curry says, pointing to a small screen pictured in the training manual. "It is what we call an AOA, an angle of attack. It's used a lot in military aircraft and is something that Icon has really employed very well," he says. "What that is measuring is simply the health of the wing." So far, so good.

"A lot of aircraft will use air speed as an approximation of the health of the wing," he continues. "At 60 knots, you're healthy, at 50 knots you're 'meh' and at 45 knots you're on stall. Air speed is reliable, but air speed isn't the whole story.



CONTROL ROOM The Angle of Attack (AOA) gauge is at the top of the instrument panel

LIGHT THE WAY

The Icon A5's external LED lights are energy efficient and extremely bright



What is the altitude, the weight of the aircraft, what kind of turn and angle bank, how many G forces do they put into the plane? There is a whole lot that goes into the health of the wing. This gauge takes all of it into account." He adds that, in spite of his vast flying experience, he's come to rely on this gauge and that's good enough for me.

Fuel: 91 Octane Auto (up to 10% weiaht ethanol) or 1.510lb 100LL Aviation Useful load: Max speed (Vh): 430-550lb 95 KCAS (109mph Range 60lb 427nm (45 min reserve (empty): Engine: 1 x 100hp

1,080lb

of me.

Rotax 912is Spor

SPIN CLASS The 100hp Botax 912 engine pushes the A5 to 109mph

SPECIFICATIONS

Wingspan: 34' 9 Aircraft width (wings folded): 7'9 Aircraft length: 23' Aircraft height: 8'1 Price as tested: \$389,000 (base \$269,000)

With that we walk out to the plane, take a spin around it and finally climb on board. This time I sit in the port side seat and take a closer look at the set-up in front

"So that's the stick, you know, up, down, pretty basic," Curry says, adding he'll take care of the trim to relieve pressure on the stick if need be. He'll also handle the flaps for landing. He shows me how to release the parking brake (easy peasy) and we're off. Typically, Curry says, he flies the plane with the Rotax engine at 4,500rpm.

Before we head to the runway, he points out the release mechanism of an emergency parachute available on this model in case of a catastrophic failure. "It brings the plane down 1,200ft a minute; you'll definitely survive it, but you will know you hit the ground." He says this with the matter-of-fact approach of a 22-year Marine, which I find very reassuring.

Earlier, Curry told me that he jokes with his students that the cockpit is a terrible classroom environment. It's true. So much happens all at once, it's hard to digest it all on the first flight and I remember little of the lessons of that introduction - and I am a very long way from flying the plane alone. But I haven't forgotten the thrill of conquering gravity. I take off into the wind, feeling a rush as the wings do their thing. When I land in the water, one eye on the dotted white line of the AOA gauge, I think I did so well. The illusion does not last. "You dipped the wing," Curry says, pointing to the drips falling off the tip.

Curry says that flying is very intuitive, and I agree, especially with this aircraft, which is so responsive you can move the stick with a couple of fingers most of the time. As we taxi and do plough turns, the plane responds a bit like a boat and it feels familiar. At idle I step out, and climb once more on top of the plane. The towers of downtown Tampa glimmer in the distance like some sort of Oz and it feels a bit like a dream. Only this is real.



With a personal fleet that includes an aircraft and a submarine, Carl Allen tells *Cécile Gauert* how, after selling his business, he found new purpose in exploring the deep and researching its pollution



is last name is Allen, his personal fleet includes a submarine and he loves finding sunken ships. His first name, though, is not Paul. This is Carl Allen of Dallas, married

to Gigi, and the driving force behind the Allen Exploration company. "I have been accused of being his nephew a few times," Carl says of that other Allen, as he comes up naturally in a conversation about shipwrecks. "He's found the Indianapolis, which was something else," he says.

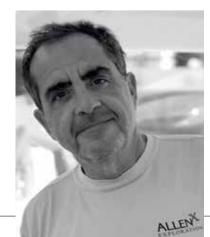
If the name of Allen Exploration is not that familiar yet, it is because Allen is only getting warmed up as an environmental warrior, studying plastic pollution and fish migration, with a secondary mission as a retriever of sunken history. He recently sold his family's Heritage Bag Company, a manufacturer of institutional

Carl Allen's 164ft

hought for and

Westport, *Gigi*, was

named after, his wife





trash bags, which he headed for many years. With that, and in spite of his many interests including raising fallow elk, Sitka deer and Russian boars in Tennessee, he needed a new purpose and acquired the tools of his future trade and lifelong avocation.

Traveling with his 164ft Westport - bought for and named Gigi after his wife on her birthday - are his 181ft Damen support vessel Axis and Viking 52 Open Express Frigate. The fleet also includes an Icon A5 aircraft and a Triton submarine, both stored on Axis's deck. The support vessel has some uncommon add-ons, including a deep fryer and a smoker grill, hinting at the 26 years the couple has spent in Texas. "I love it here. I will never leave Texas," Allen says.

I meet him in the office of Allen Exploration in a corporate building in Irving, which overlooks a vast swathe of flat Texas land. The fog is thick on this

Part of what I love about this is that vou really learn what people were like back then. They were nothing like us. They were tough. They could go for weeks without food



Carl Allen who learned to dive in winter in Wisconsin is excited to trade scuba gear for the comfort of a submarine

mid-December day but not enough to conceal the startling absence of salt water. An Emmy statuette sits at the center of the conference table in the hushed and comfortable atmosphere of a plush corporate office. Everything is

oversized, Texas style. "Being here on top of a building in Dallas, everybody thinks we're an oil and gas firm and I have to explain that, no, we are true exploration - our logo is Air, Land, Sea and Below," he says.

His curiosity for what lies below was born in an one," he says, brushing the arms of his own chair. "He's got this necklace; it's a solid gold cross, and on each unlikely place, the Midwest, where he grew up. He obtained his PADI certification in a sunken quarry in point of the cross is a 40 carat emerald. That piece Wisconsin one January, bumping in the dark against alone is worth millions of dollars. I'm just fascinated. an enormous carp. "It was about 60 pounds and I was We're beginner divers and we're talking about quitting freaking out." He kept up diving in fresh and school, and going to work for Mel Fisher. occasionally frigid water until his stepfather - Charles "I said: 'Mr Fisher, with all due respect, you've looked Walgreen III, the grandson of the founder of Walgreens for this for 15 years. Have you found everything that - bought a home in Florida. He was an avid boater and is out there?' His office looked like an old pirate fisherman as well, and the family enjoyed the sea. To ship and it had sand floors. He was very softly spoken, memorialize him after he passed away in September kind of a quiet guy, and he reaches down, grabs 2016, Allen and family dropped an anchor to mark one a big pile of sand and lays it on the desk. My buddy of his favorite fishing spots. and I, we're thinking, 'what's he doing?""



"When I discovered salt water, that was the end of the lakes," Allen says. In the salty shallows around Florida he found more kinds of fish and the remains of cargoes from armadas of ships. It fired his imagination. And then he met Mel Fisher, the chicken farmer turned millionaire and self-confessed part pirate who found the 17th century Spanish galleon Nuestra Señora de Atocha and its cargo of gold and emeralds.

"A buddy of mine and I decided we were going to take a three day vacation to Key West. I was 20 years old. Maybe 21." They toured the Mel Fisher Maritime Museum and Allen was thrilled. "There is a little sign at the end of the tour that says: 'This is only 10 per cent of the collection.' I said: 'Let's go introduce ourselves." They walked into Mel Fisher's office.

Allen remembers it very clearly some 30 years later. 'He's just sitting at his desk in a chair much like this

Allen demonstrates what happened next and all of us around the table lean a bit closer to hear the story. "He pulled off a couple of kernels [grains] and he said: 'This is what I found. THAT [pointing to the rest of the sand] is what's still out there.' And that was the end for me. So I had a career, built my business up and I got to amateur treasure hunt whenever I could," he continues. On display in the Allen Exploration office are a few of his finds. Nothing quite like the treasure of the Atocha, at least not yet. "I don't really want to say any more than that."

Part of the thrill of the hunt is the thrill of the find. Allen believes there are billions of dollars' worth of sunken Spanish treasure still at large - gold coins, jewels and a life-size gold statue. "That turns me on, but I am not after that," he says. "I have already





achieved success." He believes that whatever treasures are still at large belong, in part, to the country closest to where they lie.

What Allen loves is what these objects say about the people who were alive at the time. He is not a history academic but he knows an awful lot. for instance, about what sailors had to endure during months of travel - including their diet and its consequences. He found a strange object once, a story he tells with glee and humor. A professor at

the University of Florida in St Augustine identified the object he had found - a 17th century enema kit. Ask Carl about fish paste sometime. Or King Philip IV of Spain - "kind of a strange dude."

"Part of what I love about this is that you really learn what people were like back then. They were nothing like us," he says. "They were tough. They could go for weeks without food. They survived sickness and broken bones."

Allen Exploration's primary goal is to help governments carry out research into their natural resources. Allen says his years in the family business inspired him. "I was one of the largest manufacturers of trash bags. Part of the give back for me is that I really want to study pollution. We are going to do serious studies along not only the shores of islands, because that's really where the pollution exists with a lot of bottles and plastic film, but also below the surface and we can make samples with the submarine at different depths," he says. "Bottles are ugly and they're hard to look at, but they're not really hurting the environment. The micro stuff is what we should be very concerned about. And this stuff moves too. It floats."

He also plans an expedition to the Galápagos, once the permitting of the fleet has been done. "I'm here to research; this isn't just a bunch of guys running around



on jet skis. We're going to share everything we see, everything we do. We want to work with local education facilities, universities, high schools and townships."

Allen still is an avid fisherman, which gives him credentials to document what is happening with fish populations. "As fishermen, we're the best eyes and ears. We know the migrations, we see the schools, the birds, the currents. We have fish aggregating devices [FADS] set up in a lot of places out there today, and that's another thing Axis is going to be able to do. They're set in very deep water with buoys and things such as tarps and pallets to attract fish, and they really work. The Bahamas are great because they're protected, but also they're the first thing the fish migrating from Europe run into."

On occasions during our conversation, Allen gets up to check on pressing matters. During one of these breaks I look at the Emmy on the table. When he returns, I ask about it. "I owned about 30 per cent of a company called MandtVR, and we got that for virtual reality and augmented reality. It is something I really get excited about. In the future there'll be a time when you'll be able to walk with your favorite golfer live."

There is much more to this, but we have to end the tale here. Watch out for headlines: Carl Allen, retired in name only, will be there soon enough, remaking history.



Allen has a deep

lies below the

water's surface

curiosity about what

I'm here to research: this isn't just a bunch of auvs running around on jet skis. We're going to share everything we see

QUICKFIRE



Speed or style? Speed

Chef or chauffeur? Chauffeur

Favorite watch? I have about 40. My wife gives me a watch every year for Christmas

Favorite beach? Shroud Cay, Bahamas

Favorite car? Aston Martin/Tesla

First thing you pack? Shoes

Your idea of luxury? Private aviation

First boating memory? Chartering a center console with my stepfather in Stuart, Florida. And going out and catching Spanish mackerel right offshore there. I was 12



Tooled up

Whether you're seeking sunken treasure or insights into ocean pollution, it helps not to restrict yourself to the water's surface. *Carl Allen* talks us through his fleet of yachts and the tools that take him to both the murky depths and the skies above





ICON A5

The seaplane is one of the first tools Allen looked for. "My family is a family of aviators. We have a Citation X+. We've got a Cirrus SR22, and we have an Icon. I wanted to build the Icon so that we could house it on *Axis*, which makes it a small aircraft carrier." The lightweight plane has foldable wings (see more about the A5 on page 37). It's been rejigged with lifting gear for the support vessel's crane. "I wanted to use it not only as a pleasure craft, but also as part of our scouting team when it comes to fishing. It's great to go looking for schooling tunas, marlin basking on top of the water, schools of dolphin, or weed lines, but also for treasure hunting.

"You can get so low to the water that you can see anomalies, stuff that shouldn't be there. You hit it on a waypoint on the GPS and then come back and investigate it."

Allen prefers to leave the flying to professional pilots. "It's not a jet ski with wings. It's not a flying car. It's an airplane and needs to be treated as such." Allen's 181ft support vessel carries the Icon A5 and Triton sub on its deck

The Icon A5's

the water

"Seawings" make it very stable on

THE 181FT DAMEN YACHT SUPPORT

Allen spotted the Damen support vessel, ex New Frontiers, at the Fort Lauderdale International Boat Show in 2016. "Just touring it, I knew I had to do the deal." Renamed Axis, the yacht support platform was fitted with a garage to house a Triton sub, an Icon A5 airplane, a complete dive shop soon to include a decompression chamber - plus top-notch crew quarters and guest cabins. Fitted with top-of-the-range electronics, it has a paperless bridge and dynamic positioning. "The DP is not the quietest, but it is amazing."

The support vessel holds 60,000 gallons of fuel, so it can supply the whole fleet, and its watermaker produces 20,000 gallons of fresh water daily. "We can actually supply islands with water. We get a lot of sail boaters that come up to us [for water], and I always oblige."





TRITON 3300/3 MKII SUBMARINE

Allen loves that it is American made and will allow him to ditch the scuba gear. "We just took delivery of it. I'm super excited about it. It goes down to 3,300ft with three people. It fits perfectly in the garage on *Axis*, and it's the first Triton of this size built with lithium ion

phosphate batteries." The advantages are that they don't generate hydrogen, they charge more quickly and require less maintenance.

"About 90 per cent of the Caribbean has not been seen with human eyes below 150ft, and I plan on changing that but I'm a 3,000ft-and-above guy. I believe that's where everything is.

"People tell me once I try it, I will never scuba dive again. With scuba, there's so much equipment. This thing, you just jump in there. And because it's pressurized, you don't have to worry about decompression."

The Triton 3300/3 MKII submarine can stay under water for up to 96 hours

Gigi (ex Harmony)

was designed by

delivered in 2010

Donald Starkey and



VIKING 52 OPEN EXPRESS

Gigi has a nifty 30ft SeaVee center console, with triple Mercury Verados, that is rigged for fishing, a custom RIB for diving and sub operations, and Axis carries flat boats. But Carl, an avid fisherman, likes the Viking 52 Open Express. Based on the Viking 52 Convertible hull, it's American made, sturdy and fast, and keeps the captain close to the action on its 142 square foot cockpit. "That's where I really do my fishing," Allen says. It's called Frigate. "Frigate birds go looking for blue marlin and that's what we do." It's available for charter separately or with the fleet.

"My stepdad was always into convertible fishing boats, and when I got my wife on the water, it was one of these things where I could have my fish and eat it too."

164FT WESTPORT GIGI

"I love the big white boats, and the Westport is just a tremendous white boat. It was built in the US. It's got six rooms, it's glamorous, the cuisine, the service, you get all that with *Gigi* and it only draws 8.5ft, which enables me to get into some really neat places in the Bahamas, like Staniel Cay and Harbour Island. You're not going to the Bahamas with anything bigger than *Gigi*," Allen says. *Gigi* was built in 2010 with an interior designed by Glade Johnson.