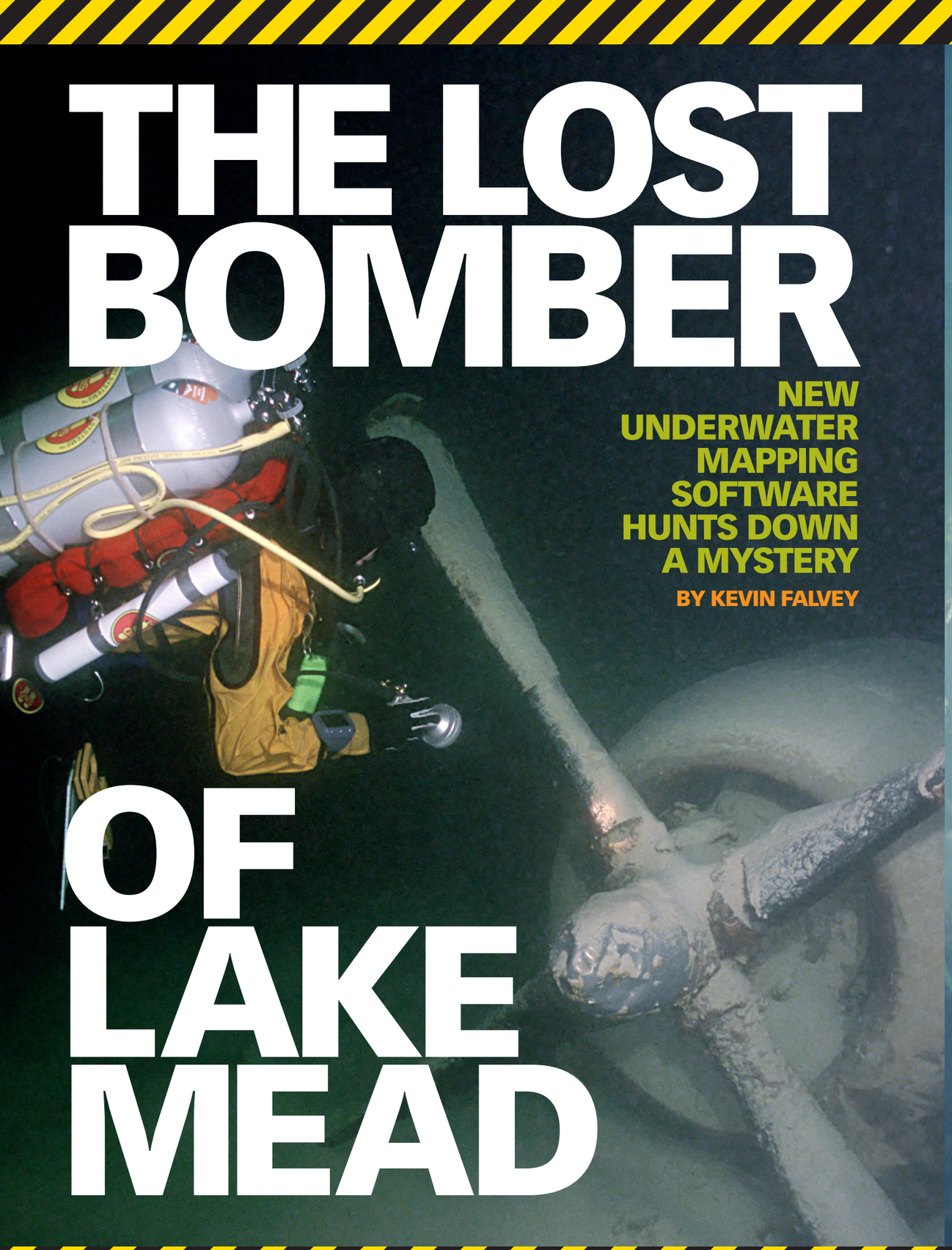
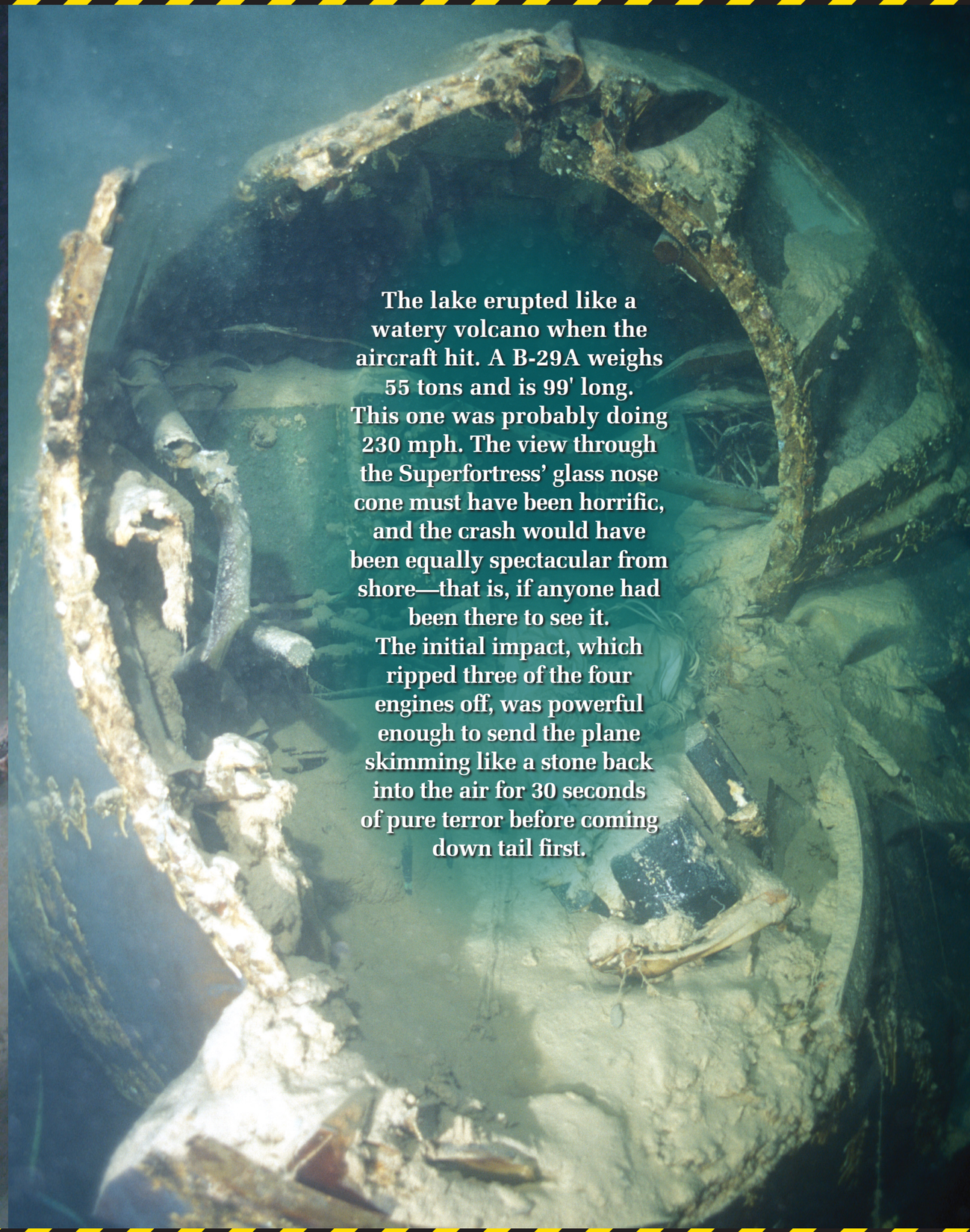
THE LOST BOMBER OF LAKE MEAD

NEW UNDERWATER MAPPING SOFTWARE HUNTS DOWN A MYSTERY

BY KEVIN FALVEY





The lake erupted like a watery volcano when the aircraft hit. A B-29A weighs 55 tons and is 99' long. This one was probably doing 230 mph. The view through the Superfortress' glass nose cone must have been horrific, and the crash would have been equally spectacular from shore—that is, if anyone had been there to see it. The initial impact, which ripped three of the four engines off, was powerful enough to send the plane skimming like a stone back into the air for 30 seconds of pure terror before coming down tail first.

We need not speculate on the crew's resolve in getting out of the aircraft and manning the life raft, nor their relief as they escaped before the tail marked with 45-21847 sank 300 feet to the lakebed. The Air Force report of the July 21, 1948, incident attributes pilot error as the cause. Captain R.M. Madison misjudged his altitude, crashed, and then heroically got his crew out of the sinking hulk. The report only briefly mentions the bomber's top-secret mission and the classified gadget, called a "sun tracker," it was carrying.

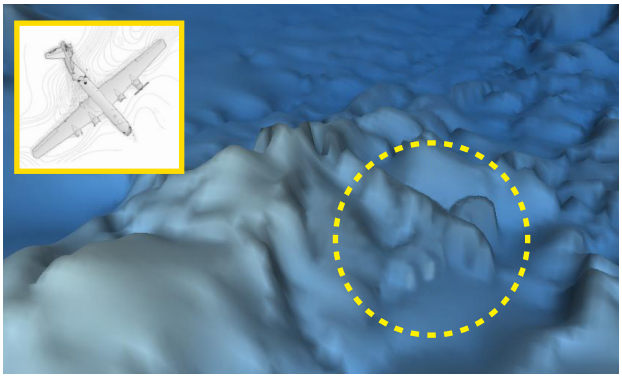
Decades passed and the plane was forgotten, its final resting place never recorded. The only thing left was a legend that somewhere on the bottom of Lake Mead was a giant bomber, probably intact, with who-knows-what still lurking onboard.

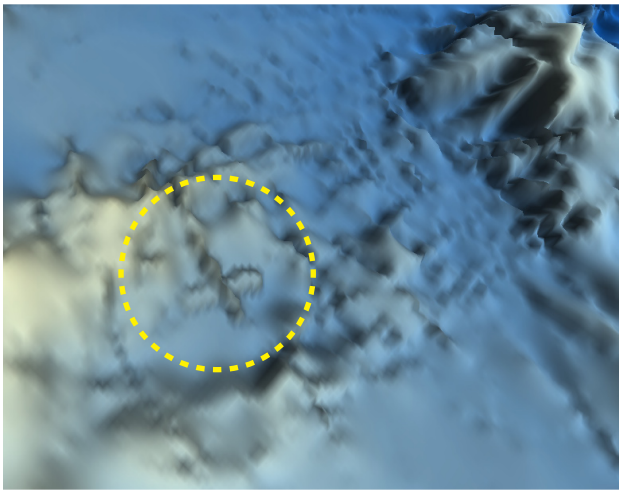
The legend never died. In fact, time fueled it with a bonfire of misinformation. Why was there no flight plan? What about its odd mission of repeatedly climbing to 30,000 feet and then dropping as low as possible over the lake's surface? And what about this mysterious "sun tracker"? It was rumored to be part of the early experiments into heat-seeking guidance systems that would eventually be used in missiles such as the Sidewinder, information critical to a frightened nation at the beginning of the Cold War. And how come a war-seasoned crew was unable to give an accurate location? They were in a raft for six hours and, according to the report, the lake was "like a mirror"—which means no wind. Plus, the lake has no currents. So, how far could they have drifted? Forged in this furnace of speculation, the "crash" became the "fabled crash," glowing with an aura akin to that of Big Foot, Area 51, and the Bermuda Triangle—a mystery begging to be solved.

And solved it was, on August 9, 2002, by Gregg Mikolasek, owner of the salvage firm In Depth Consulting

THAT'S IT!

Middle: The obvious cross in the middle of our Maptech i3 screen had to be the B-29A. Top: Zoomed in, and refined by more passes with the sonar, the shape of the engine pods become visible. Bottom: The bomber in person.





PHOTOS BRETT SEYMOUR, NATIONAL PARK SERVICE

of Fort Lauderdale, Florida. Mikolasek scanned the lake with an expensive imaging technique using side-scan sonar beamed out from a "fish" towed deep behind his boat. All that was known for sure was that the bomber had gone down in the Overton Arm, a 72-square-mile section of Lake Mead. Mikolasek performed an amazing piece of underwater sleuthing. The only thing missing when he told the world what he had found was the airplane's position. Mikolasek obviously knew it, but he refused to share the information as part of an agreement with the National Park Service, which oversees the lake. The Service, through its Submerged Resources Center, has designated the bomber an historic site that is being cataloged and documented.

We respect this national treasure. But we also like a challenge. So we set out to find the downed aircraft as a way of testing a new 3D bathymetric mapping program. After all, if we could locate the missing Superfortress with almost no information, then certainly this new software could help you navigate a snaky channel, locate fishing wrecks, or simply operate your boat with greater precision.

The Right Stuff

Our quest for the bomber demanded high-resolution sonar capable of recording soundings and gathering them into a 3D bathymetric image showing the contours of the bottom. That way we could virtually paint a picture of the plane to confirm its position. The system had to interface with a GPS so we could pinpoint the aircraft's location, and from that create a custom chart of the area.

We chose BathyCreator, new software coming out this summer from NSI Inc. (410/266-9494, www.nsiworldwide.com). This is the same company that developed Maptech's Contour Professional, a program that scans the bottom and collects data that's sent to the company to produce an image of the underwater area. In this new version, the imaging is done in real-time. You get a 3D picture right on the screen as you're doing it, and it costs only $499.

To run this program, you need a Pentium PC computer running Windows 98, ME, 2000, or XP. It has to have 64MB of RAM, 1GB of available hard-drive space, a 16-bit 800-by-600 display, and a CD-ROM drive.

We could have used our own laptop, but Maptech offered us its i3 ($12,500; 888/839-5551, www.maptech.com), which is water-resistant, has touchscreen technology—easier to use than a mouse-driven computer—and a 12" sunlight-viewable screen. To this, we plugged in a GPS and depthsounder with an NMEA 0183 output and data connection cables. For the precision maneuvering needed to make contour charts, we added Offshore Navigator chartplotting software.

Armed with the right gear, we rented a 50' houseboat and set off to plumb the depths for a lost bomber.

Bombs Away

The 50-footer is a good choice, as the surface of Lake Mead looks more like a pile of glass shards than the mirror reported by the bomber's crew. Steep five-footers march relentlessly down the Overton Arm, causing our flat-bottomed floating condo to pitch violently. The motion is so bad that our temporarily mounted transducer keeps coming clear of the water. In the name of science, Mark Pringle, the inventor of this charting program, strips to his skivvies, dives overboard, and jury rigs the transducer to a mop handle to hold it deeper in the water. His MacGuyverism works and we're back on the hunt.

Our search is aided by soundings collected by the National Ocean Service during a 1950s survey. Before arriving at the lake, we ran the numbers through a proprietary program to create rough contour charts. Then we spent hours pouring over the charts, looking for lumps that resembled an airplane. Three likely spots were chosen, and with hope in our hearts, we set our houseboat's course for the first.

When we arrive, I idle down to take a look around and try to think like a detective. We have some photographs from the In Depth Consulting Web site with us. Among them is one of Mikolasek, celebrating his find on a boat anchored over the bomber. It's a headshot, with little background detail. But there's just enough. Plain as day, there's the same distinctive bluff that we're looking at through the windshield of the houseboat. This has to be the place.

Bottom Watchers

Getting down to business, we crisscross the target area in a neat, tight pattern, much like that of a baseball grounds crew mowing the infield. The super-fast i3 is invaluable. The instantaneous direction and speed updates let us run parallel courses within a few feet of each other without overlapping. This is crucial, because it allows BathyCreator to "see" the bottom from a variety of angles. The more passes you make, the more detail is pumped through the software, resulting in a better picture.

It's tedious work for the helmsman. Making hairpin turns around your own wake at 5 mph, and adjusting for the effects of wind—especially aboard this slab-sided houseboat—requires concentration. You don't want to run down the same line twice, yet you need to come as close as possible. After we've laid a tight weave north and south, we start again heading east and west. Then, diagonally. Back and forth, back and forth, and around again.

Slowly, hour by agonizing hour, we can see progress on the screen. At first it's just a lump. Since the site is an old riverbed, it's hard to distinguish an airplane from the rolls of what was once the river's banks. Doubt creeps in. Maybe this isn't the spot. More time passes. Then what could be a wing starts to materialize—could those little protrusions be what's left of the engines? I pull out a spec sheet for a B-29A to find its wingspan. Then we use the distance between waypoints ("A-to-B") function to measure the span. It's 140 feet. Bingo! Suddenly, our senses focus, like wolves smelling blood, and go into hyperdrive. More passes, now! Giving the program more information makes a clearer image.

Slowly the B-29A takes shape onscreen, looking as though a sheet had been draped over it. This was definitely it. We'd found the lost bomber of Lake Mead.

As with any successful bit of navigation or position finding, we used all available information and equipped ourselves with the best technology. Just as you should, whether you're trying to find a fishing wreck or accurately chart the winding creek leading to your mooring.

BathyCreator worked as advertised, and the program was surprisingly simple to use for the results it gave. Without it, we couldn't have solved our mystery. Now, if only it could help us find Bigfoot... ⚓