

Report: medical issues likely caused fatal plane crash

Plane plunged into the river in March 2016

By ANDY MATARRESE
The Columbian

Medical problems may have contributed to the loss of control in a March 2016 small plane crash into the Columbia River that killed two Vancouver, Washington, residents, according to investigators at the National Transportation Safety Board.

John McKibbin, the pilot, likely lost control during a low-altitude maneuver to spread a passenger's husband's ashes. Investigators determined that the most probable cause of the crash was McKibbin's medical issues, which included an insufficiently treated sleep disorder, severe heart disease, depression and possible lingering concussion damage.

McKibbin, 69, and his passenger, Irene Mustain, 63, were killed when McKibbin's World War II-era plane crashed into the river near Astoria on March 23, 2016.

The two took off from Pearson Airfield in McKibbin's plane, a 1941 North American AT-6A military trainer, with the intent to spread Mustain's husband's ashes over the river. Their plane went down around 4 p.m.

According to the final report on the crash, the maneuver to spread the ashes required the pilot to slow down and make a banking turn. The move allows a passenger to open the canopy and hold out and open a bag carrying the ashes, so they can disperse in the wind.

Witnesses described seeing the plane flying low and slow



The wreckage of a small plane crash in the Columbia River near Astoria in 2016.

National Transportation Safety Board

over the river, then rolling left before diving into the water, according to investigators.

An examination of the wreckage found the rear sliding canopy door was most likely open at the time of the crash. Also, investigators did not find the ash dispersal bag, leading them to think the crash likely occurred during the ash-spreading process.

Based on his most recent logs, according to the NTSB, McKibbin had more than 1,200 hours of total flight time, and one previous incident in 2004 where his plane stalled on takeoff in windy conditions.

No one found anything in the plane's airframe or engine that would have created a

problem, the NTSB said. Crash investigators did find several maintenance discrepancies, namely that the plane was 10 months overdue for an annual inspection and McKibbin was several months late on a flight review, but none of those discrepancies would have resulted in what witnesses saw, investigators said.

McKibbin's autopsy found that he had severe, and apparently undiagnosed, coronary artery disease, leaving him susceptible to heart attack or stroke.

A look at his medical records found that he was also using a sleep aid, one which can lead to increased risk of arrhythmias in patients people with cardiac disease.

The review of his medical records also found that he had been treating fatigue caused by sleep apnea with a continuous positive airway pressure, or CPAP, machine, but data from the machine showed he did not use it with the frequency and duration required by the Federal Aviation Administration.

Due to a sports injury, McKibbin also experienced post-concussion symptoms in 2014 and 2015 significant enough that he stopped flying, driving or working for several months, investigators found.

Those symptoms were thought to be resolved, but investigators noted that he hadn't undergone any formal medical evaluation.

He also dealt with a depression disorder from at least 1999. The records show a remission in symptoms, and a cessation of medication, between 2002 and 2004. However, he told a personal physician in 2014 that he had continued to use the antidepressant sertraline, sold as Zoloft, and had been buying it from India out of concern for FAA regulations.

The drug is not generally considered sedating, according to the investigators. Antidepressant drug use is usually disqualifying for pilots' medical certification purposes, but the FAA authorizes pilots on some antidepressants, including sertraline, to fly on a case-by-case basis.

He did not report the use of the sleep aid or antidepressant to his FAA medical examiner, investigators said.

"The pilot had a number of medical conditions which could have contributed to him becoming inattentive, distracted, or debilitated during flight," the investigators wrote in their report. "He could have had a stroke or sudden cardiac event leading to a loss of control. Further, the negative cognitive effects from chronic fatigue resulting from his inadequately treated sleep disorders, chronic depression, and neurocognitive deficits from postconcussive syndrome would have increased the likelihood of the pilot failing to effectively manage airplane control while either setting up for, or during performance of the ash dispersal maneuvers."

The flight was on what would have been Mustain's late husband's 69th birthday. Terry Mustain was an Air Force pilot and Vietnam veteran, and the flight was chartered to spread his ashes along the Pacific coast near a beach house the couple owned in Ocean Shores, Washington. If the weather looked bad, they were to try spreading the ashes over the river instead.

McKibbin was a private pilot and prominent Clark County resident. He taught at Columbia River High School and spent two terms as a state representative for the 49th Legislative District before going on to become a Clark County commissioner. He left elected office in 1990 to work in real estate and development, and also served in numerous volunteer and leadership capacities for local organizations, including the Greater Vancouver Chamber of Commerce, Leadership Clark County and Identity Clark County.



National Oceanic and Atmospheric Administration
Whales in Puget Sound.

Researchers ID whales by genetic bread crumbs left behind

By JES BURNS
Oregon Public
Broadcasting

Researchers at Oregon State University have worked out a way to detect and identify whales long after they move on — just by sampling the water.

When whales swim they leave behind a plume of genetic material in the environment: skin, poop and bodily fluids. If you know what to look for, you can use that DNA to figure out what kind of whale went by.

Scott Baker is associate director of the Marine Mammal Institute at Oregon State University's Hatfield Marine Science Center. His research team tested this idea on orcas in the Salish Sea, collecting and testing water samples in their wake.

"We were quite surprised to find that even up to two hours afterwards — and that was the limit of our samplings, we were still able to detect that the whales had passed through that body of water," Baker said.

The research was published Friday in the journal *Frontiers*. Environmental DNA isn't new technology. It has been used widely in freshwater systems to detect endangered and invasive species and to keep tabs on fish populations. But efforts to use this technology in the ocean are much newer.

"Application of eDNA to the marine environment is now trying to catch up," he said.

Scientists have major questions about how the

genetic material will move and how quickly it will degrade and disperse.

This discovery about the persistence of the DNA in seawater opens the possibility of detecting and studying other marine species, including those that are among the most elusive on the planet.

'Application of eDNA to the marine environment is now trying to catch up.'

Scott Baker

associate director of the Marine Mammal Institute at Hatfield Marine Science Center

Baker says a DNA library exists for the nearly 90 known species of whales, dolphins and porpoises. It was developed to monitor the whale meat market in Asia — and make sure the varieties being sold were as advertised.

With this bank of genetic information in hand, Baker says doing these kinds of tests in open-ocean environments is the next step for refining the technology.

"Species like whales, whale sharks, sea turtles ... these megafauna are actually pretty good candidates," Baker said. "That being said, the ocean is a big place and the ocean is thin soup."

Oregon pyrosome population growing again

Creatures thrive in warmer ocean waters

By STEVE BENHAM
KATU

They're back. A lot of them. And they're reproducing.

The invasion of the pyrosomes, gelatinous, translucent tube-like creatures ranging in size from less than an inch to a foot or more, continues in force off the coast of Oregon for a second year, baffling scientists.

The creatures, made up of individual zooids — small, multicellular organisms — normally reside in warmer waters, like the tropics, and usually don't travel farther north than the waters off Southern California.

But last spring, scientists pulled pyrosomes out of the Pacific Ocean off the coasts of Oregon and Washington state by the tens of thousands. The pyrosomes also wreaked havoc with the nets of commercial anglers, and they washed ashore by the millions, littering beaches.

Scientists just finished two research cruises aboard a National Oceanic and Atmospheric Administration fisheries survey vessel, Bell M. Shimada. Oregon State University research assistant Jennifer Fisher was aboard a cruise in early March. She said in the seven or eight years she's been sampling the seas off Oregon and California, she's maybe seen the creatures twice. But the last two years have been different.

"We saw a range of sizes, which to me indicates they are reproducing," she said about last month's sampling runs. "To me that indicates whatever conditions they need, they're doing well and they're surviving, clearly, and they're flourishing."

NOAA research fisheries biologist Laurie Weitkamp,



Laurie Weitkamp/NOAA Fisheries

Pyrosomes that marine scientists pulled out of the Pacific Ocean off the coasts of Oregon and Washington state sit in a tray.

who went on a separate Shimada cruise about a week later, said researchers were pulling enough pyrosomes out of the sea to fill up buckets 5 gallons each.

Whatever caused these "pyrosome blooms" has so far stumped researchers, but "something happened," said Weitkamp. "We're all kind of scratching our heads trying to figure out what it was that happened."

Even though scientists haven't confirmed it, they suspect that warmer water brought the creatures here.

Ric Brodeur, also a NOAA research fisheries biologist based in Oregon, raised two possibilities.

"(They) may have arrived during the unusual warm blob we had in 2015 or came north with the large El Niño in 2016 and seem to be sticking around even though the conditions appear to be close to normal," he said.

Brodeur, as well as several other scientists, wrote a paper this winter on the pyrosome invasion that was published by the North Pacific Marine Science Organization.

In it the scientists said the pyrosome bloom of 2016-17 was expected to last into this year but noted that future climate change may also deter-

mine the presence of pyrosomes in the Northwest.

"Projected climate change in the coming decades may lead to anomalous events such as the pyrosome bloom becoming more common in the future, requiring continuing monitoring to assess its impacts," they wrote.

Besides being a nuisance to commercial anglers, scientists are concerned about the impact the pyrosomes will have on the oceanic food web.

"They are so numerous and can consume a lot of plankton, so we are concerned about them competing with things like krill and copepods that are the normal base of the food web," said Brodeur.

Tiny crustaceans like copepods, which are also high consumers of phytoplankton, can make good meals for forage fish, which are then eaten by fish like salmon. The copepods that live off the coast of Oregon are good sources of fat in the food web.

But scientists have found that pyrosomes are likely not, which suggests that they won't be a nutritious source of food for any fish that eat them.

For example, scientists are finding that fish like rockfish are making meals out of pyrosomes instead of feasting on their normal diet of krill and shrimp.

"They're thinking they're eating hamburgers and instead, they're eating celery — even worse than celery," Weitkamp said.

While she doesn't think the rockfish will die from eating the pyrosomes, Weitkamp said their growth will slow down. That may mean in the long run, less bounty for commercial anglers.

There is no shortage of questions about the pyrosomes' impact on the ocean ecosystem.

"We really don't understand what their role is in the food web in this area," said Hilarie Sorensen, a graduate student at the University of Oregon who's also studying the pyrosomes. "In such high numbers, could they potentially make a dent in the phytoplankton populations?"

Astoria Warrenton Crab, Seafood & Wine Festival



Presenting Sponsor **Fred Meyer**

Celebrate the delicious bounty of the Oregon Coast!

April 27, 28 & 29

AstoriaCrabFest.com

HOURS & ADMISSION
Friday: 4-9pm • \$15/Adult
Saturday: 10-8pm • \$15/Adult
Sunday: 11-4pm • \$10/Adult
Visit website for Senior, Youth & Military pricing.

LOCATION
Clatsop County
Fairgrounds
Limited parking.
Shuttles from lodging or park & ride locations.

VOLUNTEER: Join our team & earn free admission. Sign up online.

WANTED

Alder and Maple Saw Logs & Standing Timber

Northwest Hardwoods • Longview, WA

Contact: John Anderson • 360-269-2500