

# SF Probe Brings Questions Over Auto Speed Controls

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SOUTH SAN FRANCISCO, Calif. (AP) — Investigators are trying to understand whether [automated](#) [1]cockpit equipment Asiana flight 214's pilots said they were relying on to control the airliner's speed may have contributed to the plane's dangerously low and slow approach just before it crashed.

New details in the accident investigation that were revealed Tuesday by National Transportation Safety Board Chairman Deborah Hersman were not conclusive about the cause of Saturday's crash. But they raised potential areas of focus: Was there a mistake made in setting the automatic speed control, did it malfunction or were the pilots not fully aware of what the plane was doing?

One of the most puzzling aspects of the crash has been why the wide-body Boeing 777 jet came in far too low and slow, clipping its landing gear and then its tail on a rocky seawall just short the runway. The crash killed two of the 307 people and injured scores of others, most not seriously.

Among those injured were two flight attendants in the back of the plane who survived despite being thrown onto the runway when the plane slammed into the seawall and the tail broke off.

The autothrottle was set for 157 mph and the pilots assumed it was controlling the plane's airspeed, Hersman said. However, the autothrottle was only "armed" or ready for activation, she said.

Hersman said the pilot at the controls, identified by Korean authorities as Lee Gang-guk, was only about halfway through his training on the Boeing 777 and it was his first time landing that type of aircraft at the San Francisco airport. And the co-pilot, identified as Lee Jeong-Min, was on his first trip as a flight instructor.

Two of the four pilots were questioned Monday and the other two and air traffic controllers were interviewed Tuesday, according to the Ministry of Land, Infrastructure and Transport officials in South Korea. The ministry hadn't requested any criminal investigation because a probe is underway to determine the cause of the crash.

In the 777, turning the autothrottle on is a two-step process — first it is armed then it is engaged, Boeing pilots said.

Choi Jeong-ho, a senior official at South Korea's Ministry of Land, Infrastructure and Transport, said investigators confirmed the auto throttle was in an armed position, and an exact analysis on whether the automatic throttle system worked will be

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possible after an analysis on the plane's black box.

Hersman didn't say whether the Asiana's autothrottle was engaged.

Bob Coffman, an American Airlines captain who has flown 777s, said the only way he could think of for the Asiana plane to slow as quickly as the NTSB has described would be if the autothrottle had somehow shifted into the idle mode.

"There is no way to get from a normal airspeed and normal position at 500 feet to an abnormally slow airspeed at 300 feet unless there wasn't enough thrust either deliberately or inadvertently," he said.

Only moments before the crash did the training captain realize the autothrottle wasn't controlling the plane's speed, Hersman said.

"This is one of the two hallmarks of complexity and challenge in the industry right now," said Doug Moss, an Airbus A320 pilot for a major U.S. airline and an aviation safety consultant in Torrance, Calif. "It's automation confusion because from what Deborah Hersman said, it appears very likely the pilots were confused as to what autothrottle and pitch mode the airplane was in. It's very likely they believed the autothrottles were on when in fact they were only armed."

Their last second efforts to rev the plane back up and abort the landing failed, although numerous survivors report hearing the engines roar just before impact.

"We just seemed to be flying in way too low. Last couple seconds before it happened the engines really revved into high gear. Just waaah! Like the captain was saying 'oh no, we gotta get out of here.' And then, boom! The back end just lifted up, just really jolted everybody in their seats," said crash survivor Elliot Stone, who owns a martial arts studio in Scotts Valley.

Passenger Ben Levy noticed as the plane approached the airport the aircraft was flying very low near the water but said he dismissed concerns until he saw water from the Bay splashing at his window and he felt the engine "go full power" in an apparent attempt to lift the plane.

"That's when I realized this was totally wrong," Levy said.

Then, the plane crashed, and the passengers moved quickly to leave the plane, but in an orderly manner.

"People were not rushing out fighting for their lives," he said. "They were like, 'OK, let's be orderly here. Let's get out fast but let's not step (onto) each other.'"

While in the U.S., drug and alcohol tests are standard procedure after air accidents, this is not required for foreign pilots and Hersman said the Asiana pilots had not undergone any testing.

A final determination on the cause of the crash is months away, and Hersman

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cautioned against drawing any conclusions based on the information revealed so far:

Seven seconds before impact, someone in the cockpit asked for more speed after apparently noticing that the jet was flying far slower than its recommended landing speed. A few seconds later, the yoke began to vibrate violently, an automatic warning telling the pilot the plane is losing lift and in imminent danger of an aerodynamic stall. One and a half seconds before impact came a command to abort the landing.

There's been no indication, from verbal calls or mechanical issues, that an emergency was ever declared by pilots. Most airlines would require all four pilots to be present for the landing, the time when something is most likely to go wrong, experienced pilots said. In addition to the two pilots, a third was "monitoring" the landing from a jumpseat, while a fourth was in the rear of the cabin.

"If there are four pilots there, even if you are sitting on a jump seat, that's something you watch — the airspeed and the descent profile," said John Cox, a former US Airways pilot and former Air Line Pilots Association accident investigator.

The Air Line Pilots Association, the world's largest pilots union, criticized Hersman for fueling speculation that the crash is the result of pilot error before all the facts have been determined.

"The NTSB's release of incomplete, out-of-context information has fueled rampant speculation about the cause of the accident," the union said in a statement Tuesday. "The field phase of the investigation is barely three days old, and the pilots on the flight deck, at the controls of the aircraft, had little opportunity to provide vital information as to what exactly happened during the event before disclosing data recorded during the last moments of the flight."

Hersman said the board was following its usual pattern of trying to be transparent by releasing information as it is known.

In addition, authorities were reviewing the initial rescue efforts after fire officials acknowledged that one of their trucks might have run over one of the two Chinese teenagers killed in the crash. The students, Wang Linjia and Ye Mengyuan, were part of a larger group headed for a Christian summer camp with dozens of classmates.

Asiana President Yoon Young-doo arrived in San Francisco from South Korea on Tuesday morning, fighting his way through a pack of journalists outside customs.

He met with and apologized to injured passengers, family members and survivors. But Yoon said he can't meet with the Asiana pilots because no outside contact with them is allowed until the investigation is completed.

More than 180 people aboard the plane went to hospitals with injuries. But remarkably, more than a third didn't even require hospitalization.

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The passengers included 141 Chinese, 77 South Koreans, 64 Americans, three Canadians, three Indians, one Japanese, one Vietnamese and one person from France.

South Korea officials said 22 people remained hospitalized, including 10 Chinese, four Americans and three South Koreans.

The flight originated in Shanghai and stopped over in Seoul before making the nearly 11-hour trip to San Francisco.

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