STALL & FALL: CRASH JET'S 2 ENGINES 'JUST WENT'

By BILL SANDERSON, with Times of London and Post Wire Services

January 19, 2008 -- The twin engines of the Boeing 777 that crash-landed at London's Heathrow Airport suddenly broke down two miles from the airport - sending the plane on a frightening 200-foot free fall that could have become a major catastrophe if the pilot hadn't been able to gain control.

The Boeing's cockpit lost all power as the plane was coming in to land on Thursday afternoon, Capt. Peter Burkill later told an airport worker quoted by the BBC.

"What's strange is that it's so very, very unlikely you have a dual engine failure in these types of planes," said Dan Rose, a lawyer for Kreindler & Kreindler, a New York firm that specializes in aviation law.

"Had this happened even a few seconds before, it could have been a catastrophic landing off of the airport grounds," Rose said.

Why the plane's two engines broke down after safely propelling the jet from Beijing for the previous 12 hours remains a mystery.

Investigators hope the jet's black boxes will tell the story of how and why the engines suddenly failed to respond to the crew's desperate efforts to increase the jet's power before it slammed into the grass 1,000 feet short of its runway.

It was the first serious accident at Heathrow in 30 years. It was also the first major crash involving the highly automated Boeing 777, the US aircraft maker's most modern product.

Initially, some critics wondered whether it was safe to fly 777s across oceans with just two engines. But no one has died in a 777 crash since it began commercial operation in 1995.

"This is the first time they've had a crash that even damaged the airplane," said Bill Waldock, a professor at Embry-Riddle Aeronautical University in Prescott, Ariz.

The plane began its plummet just a minute before touching down, while it was still about 600 feet in the air.

"It came in at a very high angle and just dropped like a stone - I would estimate 200 feet," airport worker Martin Green told Sky News.

"He just glided it in and lifted the nose up and managed to get it down," added another worker, who was not identified. "He lost power very close to coming in to land. He said he had no warning - it just went."
As the pilots struggled to control their craft, the British Airways jumbo cleared Heathrow's perimeter fence by 12 to 15 feet, witnesses said.

As the six tires of the jet's right landing gear smashed into the soggy airport turf, the gear broke off from the wing and pushed up through it.

After hitting the ground, the plane hurtled forward another 1,200 yards before stopping - just half its normal minimum landing distance on a smoothly paved runway with the brakes fully engaged.

"It was extremely rough," passenger Jerome Ensinck said. "But I've had rough landings before and I thought, 'This is the roughest I've had.' "

With the plane finally halted, the cabin crew went to work, opening outside doors that triggered devices that automatically inflated its safety slides.

"We were all told we should go through as quickly as possible," Ensinck said.

Another passenger said that as he was leaving the plane, he got a look at Burkill. "He looked very pale," the passenger said.

It took just 90 seconds for everyone to be evacuated from the plane. All 152 people aboard survived. Only one passenger was seriously injured; eight passengers and four crew members suffered minor injuries.

"Flying is about teamwork, and we had a fantastic team aboard," Burkill, 43, told reporters later.

British Prime Minister Gordon Brown - at Heathrow on his way to Beijing when the plane crashed - said: "It's right to pay tribute to the calmness and professionalism of the British Airways staff and the captain and what he achieved in landing the aircraft.

"The speed of the evacuation we saw at first hand, and the total professionalism and dedication of the staff," Brown said. "It's at times like these you remember you are in the hands of staff who do a remarkable job."

A computer glitch in the jet's auto-throttle system, which works somewhat like a car's cruise control, might have kept power from the engine, Rose said.

"If because of some kind of anomaly it senses the plane is going faster than it really is, it will program the engines to go slower," he explained. "That would precipitate this situation, where the plane goes too slow."

If the engines were suddenly running too slowly, Burkill and his crew might not have had enough time to manually rev them up again, Rose said.

"It takes a long time for the engines to come back up to where they can gain power," he said. "In the meantime, the plane can be too slow, and stall. If it gets too slow, it starts descending rapidly."

Among the other possibilities are fuel contamination, ice in the fuel tank, or a bird strike, experts say.

"This plane has a very sophisticated flight-data recorder," Waldock said. "Once they read it out and take a look at what all the systems are doing, they should be able to get a handle on exactly what happened."

Though the Boeing 777 is an American-built plane, British Airways flies it with Rolls-Royce engines. The 777s operated by US airlines generally run with US-made engines, Rose said.

The plane can run on just one engine. In September 2006, a 777 belonging to Malaysian Airlines lost power to its right engine just 44 miles into its flight from Brisbane, Australia. Its pilots safely flew the plane back to Brisbane.
Pilots of a United Airlines Boeing 777 headed from Heathrow to San Francisco in July 1998 lost power to an engine after takeoff and made an emergency landing on the same runway involved in Thursday's crash.