

NTSB Identification: LAX98TA202

Accident occurred Wednesday, June 17, 1998 in LAGUNA BEACH, CA

Probable Cause Approval Date: 02/15/2001

Aircraft: McDonnell Douglas 600N, registration: **N185SD**, Injuries: 1 Uninjured.

NTSB investigators may not have traveled in support of this investigation and used data provided by various sources to prepare this public aircraft accident report.

The purpose of the flight was to test a portable water source, called the pumpkin, to determine if it was an acceptable means of providing water for bambi bucket operations. The pumpkin is a rubberized circular bag, which stands approximately 3 feet high and is approximately 7-8 feet in diameter. The pilot reported that he noted that the rotor downwash was blowing the top portion of the pumpkin (the portion above the water line) wide open. As the pilot raised the collective to depart, the rotor wash blew the top part of the pumpkin closed, which overlapped and snagged the rear portion of the left skid. The helicopter tilted back and the tail section struck the asphalt. The helicopter spun 180 degrees to the right just as the pilot was about to jettison the bucket. The helicopter impacted the ground on its rear left side. The pilot reported that he had not experienced any abnormal malfunction with the aircraft controls prior to the accident. He further stated that he was not in communication with any of the ground crewmembers at the time of the accident.

The National Transportation Safety Board determines the **probable cause** of this accident as follows: The inadvertent entanglement of an external load, which interfered with the pilot's ability to control the aircraft.

Full narrative available: **NTSB Identification: LAX98TA202**

On June 17, 1998, at 1240 hours Pacific daylight time, a McDonnell Douglas 600N, N185SD, experienced a hard landing while practicing water loading maneuvers at the Crystal Cove State Park near Laguna Beach, California. The aircraft sustained substantial damage and the airline transport rated pilot, the sole occupant, was not injured. The helicopter was being operated as a public-use aircraft by the Orange County Sheriff Department. Visual meteorological conditions prevailed and no flight plan was filed.

The pilot reported that the purpose of the flight was to test a portable water source, called the "pumpkin," to determine if it could serve as an acceptable means of providing water for bambi bucket operations. The training was conducted in the parking lot area of Crystal Cove State Park. The pumpkin is an orange colored, rubberized circular bag, which stands approximately 3 feet high and is approximately 7-8 feet in diameter. The pilot reported that the pilots were given a briefing on the approach and departure routes, frequencies to be used, and drop-site locations.

The pilot made an approach to the pumpkin from the north, hovered overhead, and lowered the bambi bucket into it. He reported that as he was waiting for the bucket to fill with water, he noted that the rotor downwash was blowing the top portion of the pumpkin (the portion above the water line) open. He also noted that the bambi bucket was only about 75 percent full and would not fill all the way. The pilot decided to take the water he had and depart. As he raised the collective to initiate the ascent, the aircraft rotated backward about the pitch axis, with the tail down and the nose rising. The pilot reported that the rotor wash had blown the top part of the pumpkin closed, which overlapped and snagged the rear heel of the left skid. The helicopter continued backward until the tail section struck the asphalt. The helicopter broke loose and ascended to approximately 20 feet agl. The aircraft began pitching and rotating to the left and the pilot made a right cyclic control input to level the helicopter. As the pilot was about to jettison the bucket, the aircraft spun approximately 180 degrees to the right and the helicopter impacted the ground on its rear left side.

The damage consisted of a collapsed left skid, abrasions to the end of the tail boom, damage to the tail boom attachment point, and damage to the main rotor blade ends. The pilot reported that he had not experienced any abnormal malfunction with the aircraft controls prior to the accident. He further stated that he was not in communication with any of the ground crewmembers at the time of the accident.

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