

**ACTIVITY:** Scuba diving

**CASE:** GSAF 2008.02.24

**DATE:** Sunday February 24, 2008

**LOCATION:** The incident took place in the Atlantic Ocean, about five miles north of Great Isaac Cay at a dive site known as "The End of the Map" in the northern Bahama Islands.

**NAME:** Markus Groh

**DESCRIPTION:** He was a 49-year-old male, a lawyer from Vienna, Austria. He was wearing a hooded wetsuit.

**BOAT:** The 70-foot liveaboard dive boat, *M/V Shear Water* is owned by Jim Abernethy who has been in the diving business in Palm Beach County as a charter boat operator and scuba instructor since 1981.

### BACKGROUND

**WEATHER:** At 10h00, Freeport Airport recorded mostly cloudy skies and visibility of 6.2 miles [10 km]. The air temperature was 78.8°F [26°C], dew point 71.6°F [22°C], humidity 78%, sea level pressure 30.15 in [1020.9 hPa] and wind direction was West at 611.5 mph [18.5 km/h]. By 11h00 conditions remained identical, with the exception of air temperature and humidity; air temperature was 80.6°F [27°C], and humidity was 74%.

**MOON PHASE:** Waning Gibbous, 76% of the Moon was illuminated. Last Quarter, February 28, 2008.

**SEA CONDITIONS:** Underwater visibility was initially good. As the sharks fed they stirred up the sand, reducing visibility.

**ENVIRONMENT:** Great Isaac Cay (26° 02' N, 79° 06' W) is a small island located about 20 miles [32 km] north of the Bimini Islands and is accessible only by boat. The most prominent feature of the island is its lighthouse, which was built in 1859 and stands about 151 feet [46 meters] tall. It has been inactive since about 2000.

**DISTANCE FROM BOAT:** The incident took place directly below the boat.

**DEPTH OF WATER:** 70 feet

**TIME:** 10h00

**NARRATIVE:** The accident occurred during a shark dive; the area was baited with chum to attract the sharks. A report submitted to GSAF states: "Five bull sharks and three divers were on the bottom and the dive guide from the *Shear Water* was about five feet above Markus. The food for the sharks was lowered but the rope was too long. As result, a bull [shark] pushed the bait towards the divers and, in trying to get at the bait, the shark bit Mr. Groh. A member of the crew assisted the injured diver to the surface."

**INJURY:** Fatal. The diver's leg was bitten. A report said although no tissue was removed by



*M/V Shear Water*



Markus Groh

the shark, his femoral artery was severed and his calf was bitten.

**FIRST AID / TREATMENT:** The *Shear Water* crew contacted the US Coast Guard immediately. The crew initiated professional-level first aid and slowed or stopped blood loss. They did not remove the diver's wetsuit and CPR was administered to the diver. Oxygen was on board and it was also administered to the injured diver

When the US Coast received the Mayday from *Shear Water*, they immediately launched a HH-65 Dolphin rescue helicopter. The rescue crew hoisted the diver off the boat and flew him to Jackson Memorial Hospital's Ryder Trauma Center in Miami, a Level 1 trauma center.

The diver died the next day (Monday, February 25, 2008) at Jackson Memorial Hospital. On Wednesday February 27, 2008, NBC6 news reported the diver bled to death; if true, the cause of death was probably exsanguination resulting in hypovolemic shock. The autopsy report is not yet available.

**SPECIES:** According to divers who were in the water with Mr. Groh, the incident involved a bull shark six to eight feet in length.

**SOURCES:** <http://www.nbc6.net/news/15425251/detail.html>; Miami Herald, Sun Sentinel; TC Palm.