## IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLORADO Senior District Judge Richard P. Matsch

Civil Action No. 05-cv-01564-RPM (Consolidated with 05-cv-01565, 05-cv-01566, 05-cv-01568 and 05-cv-02042) BARBARA LOHMAN JOHNSON, Personal Representative of the Estate of RICHARD VERNE LOHMAN, Deceased; KRISTIN E. LOHMAN. BRETT E. LOHMAN, BRYAN R. LOHMAN, Natural Children and Heirs of **RICHARD VERNE LOHMAN, Deceased;** JERRY D. BIGGS, Personal Representative of the Estate of MICHAEL A. BAKER; NICOLE BAKER and WARREN BAKER, Natural Children and Heirs of MICHAEL A. BAKER, Deceased; JEFFREY RUDISILL, Personal Representative of the Estate of CATHERINE LUCILLE LOHMAN, Deceased; BYRON DREW RUDISILL, Natural Child and Heir of CATHERINE LUCILLE LOHMAN, Deceased, by and through his Guardian and Conservator, JEFFREY RUDISILL; and JERRY D. BIGGS, Personal Representative of the Estate of KATHLEEN G. BAKER; ALLISON TEMPLETON, Natural Child and Heir of KATHLEEN G. BAKER, Deceased, LOVEY L. MOHNSSEN and C. RICHARD RUDIBAUGH, as co-personal representatives of the estate of RICK E. MOHNSSEN a/k/a RICK EDWARD MOHNSSEN, deceased; LOVEY L. MOHNSSEN as surviving spouse and heir at law of RICK E. MOHNSSEN a/k/a RICK EDWARD MOHNSSEN, deceased; S.M., as surviving minor child and heir at law of RICK E. MOHNSSEN a/k/a RICK EDWARD MOHNSSEN, deceased, by and through her mother, guardian and next friend, LOVEY L. MOHNSSEN; and ERIC MATHIAS, as surviving adult son and heir at law of RICK E. MOHNSSEN a/k/a RICK EDWARD MOHNSSEN, deceased,

Plaintiffs,

v.

GARMIN INTERNATIONAL, INC., a foreign corporation, and UNITED STATES OF AMERICA, DEPARTMENT OF TRANSPORTATION, FEDERAL AVIATION ADMINISTRATION,

Defendants.

## ORDER ON GARMIN MOTION FOR SUMMARY JUDGMENT

On July 3, 2003, a Cessna 421C aircraft, N777 DX, crashed into a hillside near

the airport at Sitka, Alaska, killing the five persons on board. Three of them, Richard

Verne Lohman, Michael Baker and Rick Edward Mohnssen were experienced pilots and

members of Bowl Aviation, LLC, owner of the airplane. The wives of Mr. Baker and Mr. Lohman were passengers. A fire destroyed all possibly relevant physical evidence and it is not known who was the pilot in command at the time of the crash. Two Garmin Navigation System, GNS 530 systems, had been installed in the plane in January, 2003. The GNS 530 units use global positioning technology (GPS) to display moving maps and digital approach procedures on screens as navigational aids. The Cessna was also equipped with a course deviation indicator (CDI), a horizontal situation indicator (HSI), distance measuring equipment (DME), very high frequency omnidirectional range (VOR) receiver, an instrument landing system (ILS) receiver, an automatic direction finder, and an Avidyne multifunction display.

The plane had an autopilot system, S-TEC 55X, which could be operated with global position steering (GPSS), using the GNS 530 to drive the autopilot or the S-TEC 55X could take commands from other instruments with pilot input. The autopilot could be switched on and off and the pilot could override the autopilot by turning the control yoke without disconnecting the autopilot.

The scheduled flight plan of N777DX on July 3 was from Prince Rupert, British Columbia, to Anchorage, Alaska, using Instrument Flight Rules due to meteorological conditions. It had radio communication with Air Traffic Control Anchorage Center (ATC) and one of the pilots reported the need to deviate from the plan because of the danger presented by an open baggage door in the front of the aircraft. ATC advised that Sitka was the nearest airport, approximately 60 nautical miles away. That airport had only one runway (RW 11).

The FAA published an instrument approach procedure for the runway ("Sitka

GPS 11"), called a "plate" or "chart" that describes and depicts the approach to be used to make a safe landing. The plate that was acknowledged to be on board this aircraft, Defendant's Exhibit A-9, shows the approach for the Sitka Airport, identifying the names and locations of "fixes" or "waypoints," the vectors to be flown, a topographical map showing elevations of land and prescribed altitudes at different points on the glide path to the runway. The approach plate showed the feeder fix ("SALIS"), the only initial approach fix ("HESOK"), a stepdown or intermediate fix ("ILWAF"), a final approach fix ("TIPEH"), the Sitka airport runway ("WEGWI"), and a missed approach fix (BIORKA ISLAND" or "BKA").

There were confusing communications with ATC concerning the initial approach fix. Apparently the pilots understood it to be TIPEH and asked for clearance to it. The plane proceeded from southeast of the airport, intersected the approach at a point near TIPEH, started a wide right turn back toward the inbound route, descended and impacted the rising terrain at approximately 1,180 ft. elevation. Shortly before impact the plane deviated from its turning radius, went wings level and moved off to its left. If the turn had been completed at a sufficient altitude, it could have proceeded on the correct flight path to make the landing or gone to the missed approach fix at Biorka Island. There was sufficient space over the water to complete the turn and intercept the approach route. The core of the dispute with Garmin is whether this failed turn was caused by the GNS 530's interaction with the autopilot.

The plaintiffs, heirs and representatives of the estates of those persons killed in the crash, seek recovery from Garmin on claims of product liability, negligence, breach of warranty and negligent misrepresentation. Garmin moved for summary judgment of

dismissal of all of these claims for failure of the plaintiffs to produce sufficient evidence to support findings of product defects and causation. There is a dispute as to the choice of law. Kansas, the state of manufacture, Alaska, the place of the crash, and Colorado, the state of residence of the decedents, are all options. The theory of liability may affect the selection. It is not necessary to make this decision because there is no demonstrated difference concerning the plaintiffs' burden to support their claims that the use of a Garmin GNS 530 system to navigate N777 DX was a contributing cause of the fatal crash.

Given the lack of available physical evidence, the proof of these claims is dependent upon the opinions offered by those with sufficient education, experience and training to draw reasonable inferences from the known facts which are not subject to any material dispute. The plaintiffs have proffered opinions from John Bloomfield, Donald Sommer and Erik Rigler. Garmin moved to exclude Mr. Bloomfield's opinions concerning the likelihood that the plane was being turned by the autopilot receiving course direction signals from one of the GNS 530's when it went off to the left from an apparently standard turn and impacted the terrain.

Garmin challenged Mr. Bloomfield's qualifications and the reasonableness of his interpretation of the known facts. Accepting his claimed expertise, the opinion is rejected because it is based on assumptions that are too speculative to submit to a jury. The only support for the inference that the autopilot was controlling the plane is the fact that the right turn was perceived as a standard rate turn, which is three degrees per second and it turned to the right because the Garmin is designed to make the lesser degree turn. The defendant points out that the autopilot drives a turn of 2.7 degrees per

second. The difference is not sufficiently significant to reject the possibility that the plane was on autopilot, just as the degree of the turn does not exclude the possibility that it was being hand flown.

The plaintiffs' expert, Donald Sommer, conducted a flight test in Colorado using a comparable aircraft and a GNS 530 to reconstruct the accident. He reported that the plane began a right turn through about 70 degrees and then veered off on a flight path similar to the accident. Mr. Sommer and plaintiffs' counsel refer to "automation surprise" or "design induced pilot error" to characterize the contention that the Garmin system is defective and unreasonably dangerous because it does not do what is claimed for it–that it will automatically sequence from the final way point to the runway. At oral argument counsel suggested that the deviation from the turning path was caused by some defect in the "logic circuits" or algorithms in the Garmin systems, but there has been no showing of any such design defect.

The GNS 530 system is designed as a supplement to an aircraft's navigational equipment. It provides a variety of information according to options selected by the pilot and displayed on "pages." There is no way to determine what was being displayed on the Garmin systems in N777 DX at any time relevant to this crash. The recorded radio communications with the ATC and the Sitka airport are too confusing to enable the drawing of any reasonable inference as to what the pilots were seeing on the screens.

At times during the progress of this litigation, experts retained by the plaintiffs have opined that the Garmin devices were defective in failing to include a terrain altitude warning but that contention was withdrawn. There were other opinions expressed as well but at oral argument the cause of the crash was said to be the failure of the system

to safely turn the aircraft from TIPEH to the runway. The plaintiffs have failed to show adequate evidentiary support for their contention. Accordingly, it is

ORDERED, that the motion for summary judgment filed by Garmin International, Inc., is granted. Judgment of dismissal with an award of statutory costs will enter. The motion to exclude expert testimony of John Bloomfield based on lack of qualification is denied and the plaintiffs' motion to strike the expert testimony of William H. Schultz is moot.

DATED: February 24th, 2009

BY THE COURT:

s/Richard P. Matsch

Richard P. Matsch, Senior District Judge