

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. MOHNSEN and  
C. RICHARD RUDIBAUGH, as co-personal representatives of the estate of  
RICK E. MOHNSEN a/k/a RICK EDWARD MOHNSEN, deceased;  
LOVEY L. MOHNSEN as surviving spouse and heir at law of  
RICK E. MOHNSEN a/k/a RICK EDWARD MOHNSEN, deceased;  
S.M., as surviving minor child and heir at law of  
RICK E. MOHNSEN a/k/a RICK EDWARD MOHNSEN, deceased,  
by and through her mother, guardian and next friend, LOVEY L. MOHNSEN; and  
ERIC MATHIAS, as surviving adult son and heir at law of  
RICK E. MOHNSEN a/k/a RICK EDWARD MOHNSEN, deceased,

Plaintiffs,

v.

UNITED STATES OF AMERICA, DEPARTMENT OF  
TRANSPORTATION, FEDERAL AVIATION ADMINISTRATION,

Defendant.

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## FINDINGS OF FACT AND CONCLUSIONS OF LAW

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Late in the afternoon of July 3, 2003, a twin-engine propeller-driven Cessna 421C aircraft, registration number N777DX flew directly into a hillside near Sitka, Alaska, killing all five occupants. In this civil action, the heirs and personal representatives of the decedents seek damages for their wrongful deaths allegedly caused by the negligence of an air traffic controller employed by the Federal Aviation Administration (FAA) under the Federal Tort Claims Act, 28 U.S.C. § 2671, *et seq.* Trial was limited to liability issues and the findings of fact required by Fed.R.Civ. P. 52(a) are presented in narrative form.

Three of the occupants, Richard Lohman, Michael Baker and Rick Mohnssen were experienced pilots and part owners of the subject aircraft. Mr. Lohman's wife, Catherine, and Mr. Baker's wife, Kathleen, were passengers on board. No information relevant to the cause of the crash was obtained from the wreckage. It cannot be determined who was the pilot in command at the time of the crash.

The flying party left Colorado Springs, Colorado, bound for Anchorage, Alaska, in the early morning of July 3. The flight plan for the trip from Prince Rupert, British Columbia, to Anchorage was for an instrument flight (IFR).

The plane was flying within Sector 8 in southeast Alaska for which the Anchorage Center provided air traffic control (ATC) services to aircraft. Allen L. Percy was the air traffic controller responsible for that sector.

The primary duty of the ATC is to maintain separation of aircraft and the primary

tool is the controller's radar screen, a 20" by 20" square, set to cover 520 nautical miles side to side and top to bottom, encompassing an area of approximately 313,000 square miles. The radar at Biorka Island receives signals from aircraft and records target data showing the position of an aircraft and its altitude. The data goes into a computer which computes tracking data to show where the aircraft is expected to be on the next radar sweep. There is a 6.7 seconds delay in processing the data that goes into the controller's scope. Accordingly if the speed of the plane is between 120 and 140 knots, there is approximately a two-tenths of a mile difference between what the controller sees and the actual position of the plane. The aircraft targets appearing on the screen are each about 4.3 miles long.

Both target data and tracking data were recorded and analyzed to reconstruct the flight path of N777DX. Radio communications between the controller at the center and pilots are recorded using Coordinated Universal Time (UTC), a worldwide 24-hour clock. UTC time is eight hours ahead of Alaska daylight time. N777DX called ATC at 0020:57 with a request. The recorded transmissions are in Joint Exhibit 9.

0020:57	N777DX	anchorage center uh golden eagle triple seven delta xray uh request.
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That request was repeated at 0021:18 and after an acknowledgment by the controller, the following interchange began:

0021:18	N777DX	anchorage center golden eagle triple seven delta xray request please
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0021:23	R8	golden eagle seven delta xray go ahead
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0021:25	N777DX	roger sir we've got a problem uh our baggage door front compartment baggage door just
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popped open on us and uh we're going to have to descend request uh suggestion where uh where the closest uh deviation point might be

0021:45 R8 golden eagle seven delta xray descent at pilots discretion to one zero thousand ten thousand sitka altimeter is two niner eight three and sitka would be the closest airport

0021:50 N777DX say again the airport

0021:54 R8 uh sitka

0021:55 N777DX seven delta x

0022:03 R8 golden eagle seven delta xray that would be uh sierra india tango on the identifier and at pilots discretion to ten thousand

0022:10 N777DX roger down to ah ten thousand sierra india tango thank you and vectors would be ah requested

0022:22 R8 golden eagle seven delta xray turn ah ten degrees right will be vector for sitka and sitka would be in your ah before you make that turn about two oclock and six zero miles

0022:44 N777DX that's ah ten degrees right seven delta x

0022:59 R8 and golden eagle seven delta xray uh are you declaring an emergency at this time

0023:05 N777DX negative ah seven delta x ah we're ah worrying about the baggage coming out catching into the prop but we're ah it's wide open and the door is on the right side of the airplane we're descending uh now to uh seven and could you give us a heading on that

0023:24 R8 golden eagle seven delta xray it's ah ten thousand on the descent and fly heading uh of fly heading of ah three zero zero

0023:38 N777DX say again the heading seven delta xray

0023:42 R8 golden eagle seven delta xray heading three zero zero three hundred degrees

0023:44 N777DX three zero zero we got it seven delta x  
0024

About two minutes later the following exchange occurred:

0026:17 R8 golden eagle seven delta xray do you have the ah an approach plate for sitka

0026:23 N777DX that's affirm seven delta x

0026:28 R8 golden eagle seven delta xray cleared direct to biorka island v o r that's bravo kilo alpha and expect the l d a d m e runway one one approach

0026:38 N777DX (Unintelligible) bravo kilo alpha cleared bravo kilo alpha v o r seven delta x and ah say approach to expect

0026:47 R8 expect ah l d a d m e runway one one approach

0026:50 N777DX l d a d m e one one approach

The next exchange begins at 0030:27:

0030:27 N777DX and anchorage approach ah golden eagle triple seven delta xray we're descending now through eleven thousand eight hundred we're ah i m c we understand ah we've got sitka now was that biorka cleared to biorka initial approach fix

0030:40 R8 golden eagle seven delta xray that is correct cleared direct direct biorka island for ah the initial approach descend and maintain eight thousand

0030:49 N777DX roger down to eight thousand ah cleared biorka ah initial approach fix seven delta x

0030:57	R8	golden eagle seven delta xray do you have the ah current weather at sitka the latest I have is two three five three
0031:05	N777DX	negative sir if you could give us the weather it would help us a lot
0031:10	R8	sitka weather two three five three wind two zero zero at one zero visibility one zero ceiling is two thousand six hundred overcast temperature one two dew point one one altimeter two niner eight three
0031:22	N777DX	roger thank you that two niner eight three on the altimeter

Another aircraft, commander seven uniform pappa (N7UP) was headed to a landing at Sitka and the following exchange with the controller was heard by the pilots on N777DX:

0034:24	R8	commander seven uniform pappa which approach were you ah planning at sitka
0034:31	N7UP	the g p s runway eleven sir uniform pappa
0034:36	R8	roger and understand you want that from over ah you want the salis transition
0034:40	N7UP	that's affirmative
0034:42	R8	roger you can expect that and ah commander seven uniform pappa you are radar contact now north of biorka island northwest of biorka island seventy one miles
0034:53	N7UP	copy that uniform pap
0034:56	R8	commander seven uniform pappa cleared direct salis
0034:58	N7UP	direct salis uniform pap

At 0035:03, a pilot in N777DX began the next exchange:

0035:03	N777DX	and anchorage approach seven delta x ah request
0035:09	R8	commander seven er ah golden eagle seven delta xray go ahead
0035:13	N777DX	roger sir request ah g p s approach there ah at sitka
0035:23	R8	golden eagle seven delta xray you can expect the g p s runway one one approach
0035:26	N777DX	g p s one one approach thanks seven delta x
0035:27	R8	and golden eagle seven ah delta xray you can expect that for now maintain eight thousand
0035:33	N777DX	we're ah level at eight thousand seven delta x
0035:51	R8	golden eagle seven delta xray ah would you like to go direct ah to an initial approach fix for the g p s
0036:02	N777DX	that's affirm ah absolutely seven delta x that would help us out
0036:05	R8	yea which one would you like
0036:13	N777DX	yea direct tipeh
0036:15	R8	golden eagle seven delta xray can you say that one more time
0036:19	N777DX	direct tipeh t i p e h
0036:34	R8	golden eagle seven delta xray ah understand direct t i p e h that's correct
0036:36	N777DX	that's affirm seven delta x
0036:44	R8	golden eagle seven delta xray cleared direct ah tango india papa echo hotel maintain eight

thousand

0036:51 N777DX roger seven delta x and we'll need lower when able

At 0038:45, Mr. Pearcy contacted the Sitka Flight Service Station (FSS) with this message.

0038:45 R8 I've got a couple of inbounds for you the first one will be ah commander ah seven uniform papa a c sixty eight sitka at let me check this real quick ah zero zero ah zero one zero zero for the g p s one one approach and the next one will be golden eagle seven seven seven delta xray a cessna four twenty one sitka at zero zero make that zero one zero five for the g p s runway one one and ah seven delta xray has a cargo door open he says it is no emergency at this time so

With two aircraft approaching Sitka, the controller determined to give priority to N777DX and the following transmissions occurred with both aircraft.

0040:06 R8 commander seven uniform pappa i'm going to make you number two into sitka you're going to go behind a golden eagle they have a cargo door open you guys are both just about tied um where would you like to hold at

0040:18 N7UP oh we don't really want to hold we'll hold at hesok if we have to we'll slow down out here

0040:25 R8 commander seven uniform pappa yeah slow down as much as practical and if you can climb and maintain eight thousand

0040:32 N7UP okay we're slowing to minimums and climbing to eight thousand

0040:37 R8 commander seven uniform pappa thank you

0040:39 R8 golden eagle seven delta xray descend and maintain uh seven thousand you're ah number



one for sitka

0040:46 N777DX roger thank you for that and we're out of uh  
eight for seven thousand seven delta x

At 0040:53 the N7UP aircraft reported that it was in visual flight rules conditions.

A couple minutes later there was the following exchange between the commander  
aircraft and the controller.

0043:06 R8 commander seven uniform pappa you're  
cleared to ah commander seven uniform pappa  
is cleared ah i believe it's hesok to hold as  
published maintain eight thousand expect  
further clearance at ah zero zero five five

0043:23 N7UP cleared to hesok to hold as published expect  
further clearance at zero zero five five

The weather was the subject of an exchange between Sitka Flight Service and  
Mr. Percy as follows:

0043:55 R8 seven seven delta xray will be first

0043:58 SIT okay and a pilot report for you

0044:00 R8 yes

0044:01 SIT evergreen reported ah he broke out at four  
hundred feet and a mile and a half out and  
conditions are deteriorating

0044:08 R8 okay thanks l p

That report was the subject of a transmission from Mr. Percy to the two incoming  
aircraft at Sitka as follows:

0044:25 R8 commander seven uniform papa and uh golden  
eagle seven delta xray pilot uh the ah d c nine  
ahead of you reported that they uh broke out at  
four hundred feet and a mile and a half out and  
conditions are deteriorating

0044:44 N7UP roger that uniform papa

There was no response recorded from N777DX. The next instruction to the subject aircraft is the following:

0046:31 R8 golden eagle uh seven delta xray maintain uh seven thousand until established on a published portion of the approach cleared g p s one one approach to the sitka airport

There was no recorded response. At 0050:09, Mr. Percy directed the subject aircraft to change to advisory frequency which was acknowledged by N777DX at 0050:14:

0050:09 R8 golden eagle seven delta xray you can change to advisory frequency

0050:14 N777DX seven delta xray will do

At that time the radar record shows that the aircraft was flying in a northwesterly direction towards TIPEH and was southwest of the Sitka airport. The change was to the Flight Service Station at Sitka, which does not have radar. There was no further radio communication with Mr. Percy. The radio transmissions between the aircraft and Sitka Flight Service are in Joint Exhibit 10. The first contact is at 0050:33 as follows:

0050:33 N777DX sitka traffic uh golden eagle triple seven delta x ray uh we're descending through four thousand we'll be executing the g p s approach uh from tipeh inbound uh runway one one sitka any traffic please announce

0050:47 IF2 november seven seven seven delta x ray sitka radio roger sitka airport advisory wind uh one seven zero at six favored runway one one sitka altimeter two niner eight four traffic d c niner touched down about uh ten minutes ago said he broke out at uh four hundred feet at a mile and a half and uh conditions have been deteriorating a little bit since then

0051:07	N777DX	understand seven delta x
0051:10	IF2	seven delta x ray uh light'll be on high
0051:14	N777DX	thank you seven delta x
0051:40	IF2	seven delta x ray radio
0051:41	N777DX	seven delta x go ahead
0051:43	IF2	seven delta x ray information only midfield down the runway uh on the left side there is a backhoe about seventy five feet off the runway
0051:50	N777DX	roger thanks for the info

Radar shows that at the time of this exchange, the aircraft was flying towards TIPEH.

At 0058:34, Sitka tried to contact the aircraft without success. It had flown into terrain at about 0053.

The radar track of the aircraft shows that after the last communications it proceeded past TIPEH and made a wide right turn while continuing a descent along a path that was parallel with the 107 degree approach course but 1.6 miles east of it until the plane crashed into the hillside at approximately 1,100 feet elevation at approximately 0053 hours. The pilots were never able to see the terrain below them during their maneuver into what they apparently believed to be the proper course for landing on the Sitka runway.

The pilots on this plane were confused. The GPS 11 approach plate (Joint Exhibit 1) provides all of the relevant information necessary to make an instrument landing at Sitka. The pilots had this chart in paper form on board and it was available to the controller, Mr. Percy, on the computer screen at his work station. It shows that the initial approach fix is at HESOK where the aircraft should be at 3,500 feet and follow the

course of 107 degrees with descending altitude to TIPEH where the plane should be at 1,500 feet and proceed into the airport runway 11. It also shows that a holding pattern is available at HESOK and it shows that the missed approach is a right turn up to 5,000 feet and directly to Biorka Island southeast of the airport. The chart also shows the minimum safe altitude for the air space around the airport is 6,400 feet. The approach plate includes terrain features with elevations around the airport area. The approach course is primarily across water.

The pilots on this aircraft had no previous experience landing at the Sitka airport. The aircraft had a full array of navigational aids, including two Garmin 530 systems. A GPS system is based on signals received from satellites in space and is in contrast to the LDA DME system which is a ground-based navigational aid providing guidance for a directional approach to the runway with a digital readout of distance to the airport in tenths of miles.

This was an aircraft in distress and it was in an emergency condition although the pilots did not acknowledge it to Mr. Pearcy. The baggage door is a clamshell type in the nose of the aircraft on the right side. It is not clear whether the first report that it had popped open refers to a wide open door but it is clear that when the pilots expressed their concern about baggage coming out and hitting the propeller on the right engine, the door was wide open. The pilots' request for deviation was based on the need to put the airplane on the ground at the earliest possible time. The airport at Sitka has a single runway. Approximately 80% or more of the landings there are made with the LDA DME approach. The approach chart for LDA DME is Joint Exhibit 3. It shows an arc leading into an approach course similar to the GPS 11 following a direction of 107 degrees.

The primary cause of this crash is the confusion that resulted from the change from the expected LDA DME approach, discussed at 0026:50 to the GPS 11 approach at the pilots request at 0035:13. It is probable that the request resulted from the pilots' hearing the communications with N7UP and the ATC a minute earlier. An LDA DME approach is not often used in the lower 48 states and the GPS 11 approach is unusual at SITKA. The N77DX pilots probably felt more comfortable using the Garmin navigation systems. Mr Percy was not familiar with the GPS 11 approach plate. He did not recognize the name TIPEH, as shown by his request to the pilots to repeat it and the controller incorrectly identified TIPEH as the initial approach fix rather than the final approach fix, even though a few minutes later he instructed N7UP to hold at HESOK, the correct initial approach fix. Mr Percy added to the confusion by implying that there was more than one initial approach fix.

The error in the identification of TIPEH as the initial approach fix was significant. The approach plate designates the altitude for passing by TIPEH at 1,500 feet and it is only 4 miles from the runway whereas the designated altitude for HESOK, 10.7 miles out, is 3,500 feet.

Mr. Percy testified that when he cleared this plane to TIPEH, he expected that the pilot would turn left, fly out to HESOK, make a 180 degree turn there and come back into the approach course. That explanation is not credible. It would require the aircraft to remain in the air longer and fly toward the 7UP airplane which he had holding at HESOK which would be inconsistent with the primary duty of the controller to separate aircraft.

The pilots contributed to the confusion. The chart clearly shows that the flight

path should be initiated from HESOK flying over TIPEH into the approach gate of the airport runway. The government contends that the controller had no duty to give extra attention to this aircraft after the pilots gave a negative answer when asked whether they were declaring an emergency at 0022:59. The Federal Aviation Administration Order 7110.65N defines the duties of Air Traffic Control. It is often referred to as the manual, (Joint Exhibit K). Chapter 10 governs emergencies. At 10-1-1, it reads as follows:

#### 10-1-1. EMERGENCY DETERMINATIONS

- a. An emergency can be either a *Distress* or an *Urgency* condition as defined in the "Pilot/Controller Glossary."
- b. A pilot who encounters a *Distress* condition should declare an emergency by beginning the initial communication with the word "Mayday," preferably repeated three times. For an *Urgency* condition, the word "Pan-Pan" should be used in the same manner.
- c. If the words "Mayday" or Pan-Pan" are not used and you are in doubt that a situation constitutes an emergency or potential emergency, handle it as though it were an emergency.
- d. Because of the infinite variety of possible emergency situations, specific procedures cannot be prescribed. However, when you believe an emergency exists or is imminent, select and pursue a course of action which appears to be most appropriate under the circumstances and which most nearly conforms to the instructions in the manual.

The pilots were at fault in failing to declare an emergency. The testimony of experienced pilot witnesses is consistent that pilots are reluctant to declare an emergency primarily because the controller must then ask for information as required by section 10-2-1. Although no emergency was declared, the pilots clearly indicated that this aircraft was in distress when they expressed their worry about baggage coming out and hitting the propeller. The Pilot / Controller Glossary defines "Distress" as :

DISTRESS - A condition of being threatened by serious and/or imminent danger and of requiring immediate assistance.

The immediate assistance requested by the pilots in N77DX was to get on the ground as soon as possible. The controller should have helped by staying in communication.

The plaintiffs contend that the controller should have provided vectors to guide the plane to the approach gate for a safe landing. The controller's duty was to provide any assistance requested. There was no such request made. The request for vectors at 0022:10 was for the location of the airport and Mr. Pearcy did provide them a routing that took the plane very near the airport. There was no request for vectors to an approach course. The controller could not have provided vectors if requested without changing the scope of the radar screen. The fixes from the processed data provided to him were too indefinite as to the location of the plane and a change of the scope would have required the assistance of other personnel to monitor the other aircraft within Sector 8.

The negligence proven in this case is the failure of the controller to recognize that N777DX was an aircraft in distress and to give it enough attention to be certain that the pilots understood how to make an instrument landing at Sitka. When Mr. Pearcy asked if they had an approach plate at 0026:17, it was in reference to an LDA DME approach. He did not ask the same question after the change to the GPS 11 approach. A reasonably careful controller would have reviewed the GPS 11 plate, recognized the error in the missed identification of TIPEH and given correcting instructions. The controller should not have transferred N777DX over to the FSS at Sitka until he was certain that the plane was on an established approach course. It never was.

Mr. Percy saw that the plane was flying away from the airport and that it was descending. If he did think that it was going to go outbound to HESOK to turn around, he should have corrected the descent and told the pilots to change course. It was negligent to assume that the pilots were navigating correctly.

The pilots had adequate opportunity to recognize their error and take corrective action. In addition to the Garmin device, which included a course deviation indicator showing that they were parallel to but well off course, they had other navigational aides, including a Horizontal Situation Indicator which would show the deviation from the proper flight path.

The right turn was apparently being flown by the autopilot. If the pilots had read their instruments correctly, they could have flown the plane manually and made a tighter right turn, avoiding the terrain or they could have flown a left turn out over the water.

Given that both pilots and the controller were at fault in causing this crash, the question of apportionment must be addressed under Alaska's law of comparative fault. The controller's errors in directing the plane began the chain of events but the pilots had the last opportunity to avoid impact with the terrain. Accordingly, 60% of the cause is attributed to the pilots and 40% to the government's controller.

SO ORDERED.

DATED: November 13<sup>th</sup>, 2009

BY THE COURT:

s/Richard P. Matsch

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Richard P. Matsch, Senior District Judge