



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

May 19, 2022

Group Chair's Factual Report

SEARCH AND RECOVERY

DCA21FA174

Attachment 2 - NTSB Recovery RFQ
(6 pages)

Crookshanks Clinton

From: Crookshanks Clinton
Sent: Thursday, July 22, 2021 7:15 AM
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: TransAir B737-200 wreckage recovery RFQ

Some of you have asked for additional time for the quote. Please have your information submitted by the end of the day on Monday, July 26.

Thanks,

Clint Crookshanks
Aerospace Engineer (Structures)
National Transportation Safety Board
(303) 373-3508

From: Crookshanks Clinton <[REDACTED]>
Sent: Thursday, July 15, 2021 5:04:38 PM
To: [REDACTED]
Cc: Lone Star Retrieval <[REDACTED]>; Ward Lorenda <[REDACTED]>; Crookshanks Clinton <[REDACTED]>
Subject: RE: TransAir B737-200 wreckage recovery RFQ

I have attached the Boeing Recovery document for the 707, 727, and 737 airplanes. Our airplane is a 737-200. There is a lot of good information in here that may be of use in your planning.

Clint Crookshanks
Aerospace Engineer (Structures)
National Transportation Safety Board
(303) 373-3508

From: Crookshanks Clinton <[REDACTED]>
Sent: Thursday, July 15, 2021 11:53 AM
To: [REDACTED]
Cc: Lone Star Retrieval <[REDACTED]>; Ward Lorenda <[REDACTED]>; Crookshanks Clinton <[REDACTED]>
Subject: RE: TransAir B737-200 wreckage recovery RFQ

Based on questions from some I can provide the following.

The major items of wreckage are located here:

Aft Fuselage – 21°16'43.18"N 158°1'27.53"W – depth 335-360 ft

Nose Landing Gear – 21°16'39.07"N 158°1'31.03"W – depth 360 ft

Forward Fuselage – 21°16'39.06"N 158°1'30.68"W – depth 365 ft

Engine Cores and one Thrust Reverser – 21°16'38.49"N 158°1'21.22"W – depth 365 ft

Thrust Reverser – 21°16'37.85"N 158°1'29.58"W – depth 435 ft

The other, smaller items are scattered around these coordinates within a box about 0.25 mile square.

I have attached the load manifest for the flight for your information. There was 14,000 pounds of fuel onboard split between the two wing tanks with none in the center tank. We are unable to determine if the wing tanks were punctured during the accident, so an unknown amount remains. There was a sizeable fuel sheen on the water when the USCG responded.

The cargo cans or pallets in positions 1-3 were liberated from the forward fuselage during the accident. Some of these items were floating and recovered by the USCG. The remains of the cans in positions 2 and 3 are on the seafloor in the debris field. It appears in the ROV survey that the cans in positions 4-7 remain in the aft fuselage.

I will be on leave starting tomorrow through July 25. I will be monitoring email while away so may be a little delayed in responding.

Thanks,

Clint Crookshanks

Aerospace Engineer (Structures)

National Transportation Safety Board

(303) 373-3508

From: Crookshanks Clinton

Sent: Saturday, July 10, 2021 11:39 AM

To: [REDACTED]

Cc: Lone Star Retrieval <[REDACTED]>; Ward Lorenda <[REDACTED]>

Subject: RE: TransAir B737-200 wreckage recovery RFQ

Please respond with your quote by July 23.

Clint Crookshanks

Aerospace Engineer (Structures)

National Transportation Safety Board

(303) 373-3508

From: Crookshanks Clinton

Sent: Friday, July 9, 2021 6:19 PM

To: [REDACTED]

Cc: Turrell Morgan <[REDACTED]>; Lone Star Retrieval <[REDACTED]>; Crookshanks Clinton <[REDACTED]>; Ward Lorenda <[REDACTED]>

Subject: TransAir B737-200 wreckage recovery RFQ

Greetings,

You are all receiving this email since we have either worked together in the past or you've expressed an interest in performing wreckage recovery for the subject airplane off the south coast of Oahu. The information in this email is considered preliminary investigative information and should not be shared outside your company. Doing so will remove you from consideration.

Richard Ball with Lone Star Retrieval is copied on this email since he has been selected by the insurance company to oversee the wreckage recovery operations. Please direct all questions and responses to me and Richard. We are looking for a complete quote to recover the wreckage to a barge and transport it to the Kalealoa Barbers Point port at the west end of Oahu where it will be offloaded and transferred to a local storage facility. Lone Star will handle the land transportation aspects. The insurance company will decide who will be awarded the contract.

The airplane ditched into the ocean about 2 miles off the south coast of Oahu near Ewa Beach and broke into two major pieces with some smaller pieces. The engines separated during the accident sequence. We have spent the last several days mapping the debris field and have locations of the major pieces. The water depth ranges from 350 to 450 feet and the bottom appears to be hard rock with a shallow layer of sand. The intent at this point is to recover the major pieces in order to retrieve the flight recorders and to examine the engines. The amount of wreckage to be recovered may change based on state of Hawaii requirements. The debris field measures about 0.2 miles by 0.2 miles.

The aft fuselage section is the largest piece of wreckage and is mostly intact from the leading edge of the wing aft to the tailcone. The wings are mostly intact and attached along with the horizontal and vertical stabilizers. There is some damage to the lower fuselage structure, but it is impossible to tell the extent as it rests. The cargo containers are still in the aft fuselage. It is unknown if the cargo locks are still engaged. Your plan should ensure that this section is lifted in one piece without compromising the lower aft fuselage and separating the flight recorders or spilling the cargo. Alternatives to this can be considered if there is a good plan.

The forward fuselage is mostly intact from the nose to the leading edge of the wings. There is damage to the lower structure, but it is impossible to tell the extent as it rests. We did locate the nose landing gear and part of the keel beam away from the forward fuselage piece. There are no cargo containers in the forward fuselage. There are some cargo containers and cargo in the debris field.

The engines separated from the wings and the core sections are lying next to each other near the forward fuselage section. The inlets and thrust reversers separated from the engines and have been identified in the debris field. We will want to recover all of the engine pieces.

Various other smaller items of airplane wreckage and cargo are located in the debris field. These do not have much evidentiary value but may need to be recovered. Please include in your proposal a method to recover the smaller debris if it is required. There may be fuel in the wing tanks. The first responders did note a fuel sheen immediately after the accident. We cannot get a good look at the lower surface of the wings or center tank to know if they are breached. We will work with the state to prepare for containing any spilled fuel during the recovery.

The state will need to review any salvage plans before the work can commence. We are told that any plan shall address the impact to endangered monk seals and sea turtles both at the federal and state levels. Any vessels that are brought in from out of state will need to be inspected and/or cleaned prior to entering Hawaiian waters.

I have included some screen shots from the ROV videos that we have to give you an idea what we are dealing with. We can share these videos with any company that is serious about submitting a quote.

Please include the timing of any operation in your quote. Currently the prevailing swell is from the south that makes for difficult sea conditions at the site. I'm told that the prevailing swell switches to the north for the fall and winter.

Please let me know if you have any questions.

Clint Crookshanks

Aerospace Engineer (Structures)
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(303) 373-3508

From: [Crookshanks Clinton](#)
To: [REDACTED]
Cc: [Turrell Morgan](#); [Lone Star Retrieval](#); [Crookshanks Clinton](#); [Ward Lorenda](#)
Subject: TransAir B737-200 wreckage recovery RFQ
Date: Friday, July 9, 2021 6:19:23 PM
Attachments: [Aft Fuselage.png](#)
[Empennage.png](#)
[Engines.png](#)
[Forward Fuselage.png](#)
[Inlet Case.png](#)
[Reverser.png](#)
[737-200 3-view.pdf](#)

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