# UNITED STATES OF AMERICA

# NATIONAL TRANSPORTATION SAFETY BOARD

Investigation of:

BOEING 737-800 OVERRUN \*

JACKSONVILLE, FLORIDA \* Accident No.: DCA19FA143

\*

Interview of: BARRY BROCKMAN

Naval Air Station Jacksonville, Florida

Sunday, May 5, 2019

# APPEARANCES:

PAUL SUFFERN, Senior Meteorologist National Transportation Safety Board

BRIAN SOPER, Senior Air Traffic Control Investigator National Transportation Safety Board

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# INTERVIEW

2 (10:06 a.m.)

MR. SUFFERN: All right. We are on the record here at 10:06 a.m., May 5th, 2019.

So Barry, we're here to do the -- conduct a interview here to discuss the incidents and weather surrounding the accident of -- from the evening of May 3rd. And so, just for the record, the purpose of the investigation is to increase safety, not assign fault, blame or liability. Like we were discussing earlier, can't offer the guarantee of confidentiality, all the factual evidence that we'll gather here --

MR. BROCKMAN: Right.

2.0

MR. SUFFERN: -- will be part of the public docket and all that. And you're allowed to have one representative if you so choose, if you would like that there.

My name is Paul Suffern. I'm a meteorologist investigator with the NTSB. I'm part of the meteorology group here. And then we also have Brian Soper, air traffic control.

You want to introduce yourself for the record, Brian?

MR. SOPER: Yep. Brian Soper, air traffic investigator with

NTSB.

MR. SUFFERN: So, and he'll -- we'll be doing kind of a joint -- joint work as far as air traffic and weather.

And so the NTSB is an independent federal agency charged with determining the probable cause of transportation accidents and

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1
    promoting transportation safety. We're not part of the DOT, FAA,
 2
    military, anything like that. So for this particular interview
 3
    and group, we don't have any party members, but at times, you
    know, we'll have other subject matter experts in certain areas but
 4
 5
    we don't have that today.
 6
         MR. BROCKMAN:
                        Okay.
 7
                       So if you don't know the answer to something,
         MR. SUFFERN:
    just say "I don't know," that is totally a legitimate answer.
 8
 9
    Again, we're not trying to have -- get "gotcha" questions or
10
    anything like that.
11
         MR. BROCKMAN: All right.
12
         MR. SUFFERN:
                        I just want to understand your perspective.
                                                                      Ιf
13
    there is something as it relates to a particular procedure, you
14
    know, we can grab the book and things like that, but want to know
15
    how you work and things like that, because there may be things
16
    that work better in certain circumstances and stuff.
17
         MR. BROCKMAN:
                        Okay.
18
         MR. SUFFERN:
                       And again --
19
                        It's all good.
         MR. BROCKMAN:
                       -- you know, Brian and I don't live here in the
2.0
         MR. SUFFERN:
21
    Jacksonville area. I know he did earlier, but, you know, you're
22
    the expert here so we just want to learn from you.
23
         So do you have any questions before we start?
24
         MR. BROCKMAN:
                        No.
25
         MR. SUFFERN:
```

No.

# INTERVIEW OF BARRY BROCKMAN

2 BY MR. SUFFERN:

- 3  $\mathbb{Q}$ . All right. So the first kind of little part here will be a
- 4 little bit more clerical stuff and then we'll get to answering
- 5 questions. So for the record, could you please state your full
- 6 name and position here?
- 7 A. Yeah, Barry Brockman, and I am a contract weather forecaster
- 8 and observer.
- 9 Q. And can you spell your last name for the record?
- 10 A. Sure. Last name is B-R-O-C-K-M-A-N.
- 11 Q. All right.
- 12 A. First name Barry, B-A-R-R-Y.
- 13 Q. All right. And how long have you been a weather observer and
- 14 forecaster here?
- 15 A. As a contractor, since we started work here in 2008. That's
- 16 -- I've been an observer since then. Been a forecaster here since
- 17 | we actually started forecasting in 2014.
- 18 Q. All right. Do you have any experience as a weather observer
- 19 at any other facilities?
- 20 A. Yes. Prior military service in the Philippines, Guam, here
- 21 at NAS JAX as a military person. And then also at Jacksonville
- 22 | International Airport as -- also as a contractor.
- 23 Q. Do you hold a college degree?
- 24 A. Not a degree. No.
- 25 MR. SOPER: I just had one --

- 1 MR. SUFFERN: Yeah.
- 2 BY MR. SOPER:
- 3 Q. Are you a DoD employee or are you an FAA -- what's the
- 4 | contract? Who's the contract with? Are you DoD --
- 5 A. For here at NAS JAX?
- 6 Q. Yeah.
- 7 A. We're employed by a contract company who has won the bid
- 8 through the Navy.
- 9 Q. Okay.
- 10 A. So it's an employment through the Navy.
- 11 Q. Who's the --
- 12 A. Via the contract company.
- 13 Q. So who do you get paid by? Like --
- 14 A. We get paid by our contract company.
- 15  $\mathbb{Q}$ . Who is that?
- 16 A. Atmospheric Science Technology.
- 17 Q. Okay. Atmospheric Science Technology.
- 18 A. Yes.
- 19 Q. That's what I didn't know. I wasn't sure who you guys were
- 20 actually employed -- I didn't know if you were DoD employees or
- 21 DON employees. You know, I didn't know.
- 22 A. Yeah, this is strictly a contractor job here.
- 23 Q. Atmospheric -- what was it again?
- 24 A. Science Technology.
- 25 Q. Thank you.

- 1 A. AST.
- 2 MR. SOPER: Okay. Sorry.
- 3 BY MR. SUFFERN:
- 4 Q. So could you describe your work schedule leading up to the
- 5 day of the accident? Was it typical work schedule for that week?
- 6 A. It is. I alternate every 2 weeks between an evening
- 7 | shift -- well, it's kind of a swing shift -- from 2 to 10. And
- 8 then also a mid-shift, which is the 10 at night until 6 in the
- 9 morning. During the day of the incident, I was working the mid-
- 10 | shift, so I came in at relief and -- usually relieve about 30
- 11 minutes prior, so about 9:30 at night.
- 12 Q. This was on Friday, right?
- 13 A. Friday, correct.
- 14 Q. And --
- 15 A. And that whole week I was the same schedule.
- 16 Q. So you were working mids the whole --
- 17 A. Mids that whole week.
- 18 Q. -- week. Okay.
- 19 A. Yeah.
- MR. SOPER: When you say the "whole week," Monday through
- 21 Friday?
- MR. BROCKMAN: Monday through Friday.
- MR. SOPER: Okay.
- MR. BROCKMAN: Yep.
- 25 BY MR. SUFFERN:

- 1 Q. Did you have any unusual or sleep problem? I mean, I know
- 2 | working mids is a sleep problem in and of itself, but did you have
- 3 any other, any unusual --
- 4 A. No, not really. I mean, you get kind of used to it, but
- 5 | nobody likes sleeping during the day. Yeah.
- 6 Q. Okay. Was there any training being conducted during the --
- 7 when you were -- came on shift?
- 8 A. Training? No. We were just doing our turnover, which
- 9 basically consists of, you know, letting the oncoming shift know
- 10 what's going on either administratively or weather wise.
- 11 Q. Do you hold any other collateral duties here as the weather
- 12 | forecaster? Like are you --
- 13 A. No.
- 14 Q. -- the focal point for --
- 15 A. No.
- 16 Q. As far as rating the weather when you came on shift, with 1
- 17 | being an easy day and CAVU, and 5 being very complex, most
- 18 complex, what would you rate it as on a scale?
- 19 A. There was a thunderstorm going on at the time, so I would say
- 20 probably a 8/9.
- 21 O. From a 1 to 5 and --
- 22 A. Oh, 1 to 5?
- 23 Q. Yeah.
- 24 A. 4/5, yeah.
- 25 Q. Do you recall any unusual distractions other than the

- 1 accident, prior to that coming in?
- 2 A. Other than what was going on with the weather, no.
- 3 Q. Okay. Have you had a chance to review the weather conditions
- 4 | from the afternoon/evening of the accident, as far as going back
- 5 and looking at stuff?
- 6 A. I mean, I remember it. I was -- yeah, we were here. We were
- 7 | both actually here. So he decided to hang out because he didn't
- 8 want to go to his car, you know, because it was a lot of lightning
- 9 in the area. But yeah, we were in the thick of it.
- 10 MR. SUFFERN: So that's all the kind of all the clerical
- 11 stuff I had, Brian, unless you have anything else?
- 12 BY MR. SOPER:
- 13 Q. Do you guys, do you guys -- when you took over the
- 14 mid-watch, do you guys do a relief briefing that's formalized in
- 15 | any way? Do you use utilize a checklist, or is it recorded or do
- 16 you fill out a form or --
- 17 A. Not generally, no.
- 18 Q. Or is there a pass-down log? It's just a discussion?
- 19 A. It's -- well, we have a log but it's, you know, I've assumed
- 20 the watch, I've been relieved by type thing, and then -- there's
- 21 no --
- 22 Q. There's no documentation itself.
- 23 A. There's no documentation of what was talked --
- 24 Q. It's just a verbal.
- 25 A. -- about during the pass-down, no.

- 1 Q. Okay.
- 2 A. Hey, this is what I've got for you. This is what's going on
- 3 | with the equipment; this is what's going on with -- like, you got
- 4 to do this administrative stuff, training, whatever, before you
- 5 get off shift, that type of thing. But no, nothing's actually --
- 6 Q. And because you're a contract and you belong to a company
- 7 essentially and you're contracted by the Navy to provide this
- 8 service, did you have any obligation to report back to company on
- 9 this incident at all?
- 10 A. Yes.
- 11 Q. Was there some sort of formalized --
- 12 A. We had to notify our program manager, our project manager,
- 13 Mr. Ron Plourde, and he's in charge of the whole contract with the
- 14 Navy.
- 15 Q. Okay.
- 16 A. So not just for here, but for all the air stations.
- 17 Q. Was that just a verbal report or was it a -- something you
- 18 | had to fill out and provide?
- 19 A. The only thing that I actually had to -- I have a checklist
- 20 of what to do for an aircraft mishap, you know, hey, make sure you
- 21 do this, do this --
- 22 Q. Yeah.
- 23 A. -- do this, type of thing. And you know, that's just -- part
- 24 of our SOP says that we will contact our supervisor here --
- 25 O. Yeah.

- 1 A. -- which I did, and then the program manager, which is Ron
- 2 | Plourde. There's nothing in writing that we have to --
- 3 Q. Got you.
- 4 A. -- other than the logbook, hey, you know, contacted such and
- 5 such.
- 6 Q. Yeah. Okay. And -- all right.
- 7 A. But we couldn't get through to him.
- 8 Q. Okay.
- 9 A. So we left a message. Unfortunately, we had the wrong number
- 10 for him. He found out and -- what happened, called in here and
- 11 says, hey -- I wasn't here but the guy that was here last night
- 12 had told me that we actually have the wrong number for him.
- 13 Q. Oh.
- 14 A. So obviously that was a lesson learned. Made sure that
- 15 | that's updated. But I'm assuming that the guy last night gave all
- 16 the information they needed.
- 17 Q. Okay.
- 18 A. And yes, we did notify our bosses up in Norfolk, too. That's
- 19 also a requirement. So big Navy, since they're the ones that are
- 20 in charge of everything, they needed to know what was going on.
- 21 BY MR. SUFFERN:
- 22 Q. Did you guys do a special when it happened?
- 23 A. Yes.
- 24 Q. Okay.
- 25 A. We did the special, and then we also archived all the -- you

- 1 said you already got a hold of that, but we archived the hour
- 2 prior to the hour after the incident.
- 3 Q. Well, if you could, could you describe, you know, when you
- 4 came on shift, about what time that was, and kind of what you
- 5 remember from the event?
- 6 A. It was about 25 minutes after the hour or so. Exact time is
- 7 in the logbook. There was a thunderstorm going on. It was
- 8 raining pretty decent; I would say moderate to heavy -- heavy rain
- 9 when I came in. Thunderstorm going on, of course. And, you know,
- 10 typical watch turnover type of thing. You know, obviously keep an
- 11 eye on the weather, the weather's coming in. It was really --
- 12 | that was the -- the thunderstorm was really over us. Everybody
- 13 else that, you know, Cecil Field and JAX, they didn't have any
- 14 weather going on. And of course, so I told him okay, I got it,
- 15 I'll monitor that and keep an eye on it. And he hung around for a
- 16 while, until 15 minutes later or so we heard the plane coming in
- 17 and we know the rest of the story.
- 18 Q. Well, could you describe --
- 19 A. Yeah, I can elaborate. Sure. Well, we have a good field of
- 20 vision here, so we actually saw the plane coming in and touching
- 21 down somewhere in this general area here.
- 22 O. So for the recorder --
- 23 A. So we -- you know, we thought it was kind of a late
- 24 touchdown, but that's just an opinion. You know --
- 25 Q. If you had to point what you thought out there on the

- 1 | airfield right now, give me a landmark that you say that general
- 2 area is?
- 3 A. Right about where our ASOS is, and maybe just a little bit --
- 4 which is --
- 5 Q. Okay. So --
- 6 A. Right over here. To the right of that shack --
- 7 Q. To the right of this Sun Country's wing and --
- 8 A. Oh, yeah.
- 9 Q. -- or to the right of the ASOS even. Looking at it from
- 10 here.
- 11 A. Yeah.
- 12 Q. Looking at it from this point of view. Okay.
- 13 A. And then once he touched down, we -- and there's been a lot
- 14 of speculation on the news, that's why we just get tired of
- 15 listening to it and turn it off.
- 16 Q. I get it. Yeah.
- 17 A. Yeah, it -- was -- did this guy actually touch down? He did
- 18 touch down. I can tell you that for a fact because we heard the
- 19 thrusters, the reverse thrusters and, you know, applying the
- 20 | brakes and, you know, the water shooting up off the runway. And
- 21 of course it was a wet runway and it was raining pretty good.
- 22 And then he was -- right about here, he was screaming. And
- 23 I'm like, this guy better start really -- if he's got his brakes
- 24 on, he's not going to make it. And he got down to that point, and
- 25 I'm like this guy's going to -- he's going to go in the water. He

- wasn't slowing down. And right about that time the crash phone rang.
- 3 He was actually -- it was hard to see the very end of the
- 4 runway because it was -- one, it was dark, and two, it was
- 5 | raining. So my vision was -- the obstruction of the end of the
- 6 | runway wasn't totally clear. But soon as he got down to right
- 7 | around that vicinity, I heard the crash phone go off.
- 8 Q. Okay.
- 9 A. And he hadn't gone in the water yet when the crash phone went
- 10 off, but I could hear the tower say "He's going in the water.
- 11 Crash. Crash. Crash. So --
- 12 Q. Okay.
- 13 A. Or "He's in the water." And those are all recorded, so you
- 14 guys got those. So -- yeah.
- 15 MR. SOPER: Um-hum. Yeah, we're getting those, so -- that's
- 16 good. Thank you.
- 17 MR. BROCKMAN: Yeah.
- 18 BY MR. SUFFERN:
- 19 Q. How do you guys become aware of changing weather conditions
- 20 here on the airfield? What do you -- what tools do you guys have
- 21 to do that?
- 22 A. Radar. Satellite. That's our -- for as far as like
- 23 thunderstorm activity, we'll monitor the radar, you know, pretty
- 24 closely.
- 25 Q. You mean radar, you mean in JAX there --

- 1 A. JAX's radar, yeah. We'll monitor the -- you know, JAX's
- 2 NEXRAD.
- 3 Q. Do you use like a weather service site? Do you use Weather
- 4 Tab? Do you use --
- 5 A. We use Weather Tab.
- 6 Q. Okay.
- 7 A. Yeah. And then we also -- we have a paid lightning site
- 8 through Weather Tab, so we get -- instead of getting a lightning
- 9 that's, you know, 5, 10 minutes old, it's up to the minute.
- 10 Q. Does air traffic control ever call down to you guys and ask
- 11 for any kind of -- hey, you know, the weather's changed or
- 12 whatever, but it doesn't look like the ASOS is updated or
- 13 something like that?
- 14 A. Yeah, they do occasionally. You know, they'll say, hey, I
- 15 think the visibility's such and such. I'll say, okay, great,
- 16 we'll go take a look at it, you know. And that happened,
- 17 | actually, after I came on watch. Right about the same time they
- 18 | had called down -- I didn't answer the phone; Jake did. But just
- 19 through the verbal that Jake had, he had mentioned that they
- 20 | thought the visibility was much lower than what he was recording,
- 21 which was 5 miles at that time. And it's not a requirement to
- 22 | take a special unless it's under 3 miles.
- So, you know, we went outside as a courtesy, you know,
- 24 because they had called down and thought it was lower, we went
- 25 outside, took a look, and you know, determined, okay, it's 3

- 1 | miles. Yeah, definitely lower than 5, but not lower than 3.
- 2 Prevailing visibility, yeah.
- 3 BY MR. SOPER:
- 4 Q. So you didn't actually do a special based on that? You
- 5 just --
- 6 A. No. Yeah, it's not a requirement.
- 7 Q. Right.
- 8 A. If it -- if we determined it to be lower than 3, then we
- 9 would have taken a special, yeah. And at the time of the
- 10 incident, also, it was -- visibility was still 3 miles prevailing.
- 11 Yeah.
- 12 Q. Out of curiosity, do they put -- do they have access to --
- 13 because you guys are here, they don't do any augment to the ASOS
- 14 themselves, right? So when it comes to tower visibility, so did
- 15 | they say --
- 16 A. Yeah.
- 17 Q. -- did they give you a value? Did they say it looks a lot
- 18 lower or did they say, well, we're showing tower visibility at 2½
- 19 miles? Or -- did they do anything like that, or did they --
- 20 A. That, you'd have to --
- 21 Q. Okay.
- 22 A. -- get that from Jake --
- 23 Q. No problem.
- 24 A. -- because he answered the phone, so I'm not sure --
- 25 Q. Yeah, that's fine.

- 1 A. -- if they did. Yeah.
- 2 Q. That's fine.
- 3 A. But to answer your question, if they did give a value, then
- 4 | if we wanted to clarify, do you want us to put that in as your
- 5 | tower visibility, we can put that in here. Because they don't
- 6 have --
- 7 Q. That is --
- 8 A. -- they don't have the capability anymore.
- 9 Q. That is something you guys do though? That --
- 10 A. To my knowledge, they don't have the capability to put that
- 11 in themselves.
- 12 Q. Yeah.
- 13 A. Like, JAX International can do that.
- 14 Q. Right.
- 15 A. But tower visibility, yeah.
- 16 Q. Okay.
- 17 A. But if they do call down, normally I won't take a tower
- 18 observation unless they -- a tower visibility if it's below 3.
- 19 Let's say if I say it's 3 and they say it's a mile and a half or 2
- 20 | miles, I'm not going to take a special unless -- or put it in
- 21 there and it would take a special on its own.
- 22 Q. Um-hum.
- 23 A. Unless they say, this is what we see. And I'll ask -- I will
- 24 clarify that usually, and say, hey, do you want me to put that in
- 25 as a tower visibility?

- 1 Q. Yeah.
- 2 A. Instead of, are you just -- are you just saying because you
- 3 | can't see the end of 17, and you're calling it --
- 4 Q. Right.
- 5 A. -- you're calling it a mile just because you can't see the
- 6 end of the road there?
- 7 Q. Yeah.
- 8 A. Because we could have 7 miles down here.
- 9 Q. Right.
- 10 A. And a lot of times they'll do that, and that's sector
- 11 | visibility. I'm not going to take a special for sector
- 12 visibility.
- 13 O. Yeah.
- 14 A. You know, I'll put that in on the "Remarks" section.
- 15 Q. Do you guys administer their tower visibility testing --
- 16 A. No.
- 17 Q. -- and qualification or anything? Do you have --
- 18 A. No.
- 19 Q. -- any input on it at all?
- 20 A. No.
- 21 Q. They do that all on their own?
- 22 A. When we're active duty we used to.
- 23 Q. I know.
- 24 A. But now that we're contractors we do not do that.
- 25 Q. Okay.

- 1 A. Yeah. The supervisor up there, tower sup or whoever, will
- 2 | take care of that. And, you know, you can talk to them.
- 3 Q. How do you feel their tower visibility has been? Be honest.
- 4 Seriously.
- 5 A. I'm assuming that they have the same landmarks that we do,
- 6 because I believe that when we first took it over they actually
- 7 | came down to get our books, and either made copies of it or what
- 8 | have you. So I don't think that they have -- this is just my
- 9 personal opinion. I don't think that they look at the big picture
- 10 as far as visibility and understand prevailing visibility versus
- 11 | sector visibility.
- 12 Q. Um-hum.
- 13 A. And that's fine. They're air traffic controllers; they're
- 14 | not weather people.
- 15 Q. Right.
- 16 A. You know, if they want the real visibility, they can call us
- 17 | and say, hey, we're looking at a mile; what do you guys see?
- 18 Q. Right.
- 19 A. Whatever. And they'll do that every once in a while. But --
- 20 Q. Okay.
- 21 A. -- as far as my opinion on their visibility with it, they do
- 22 | the best they can. Let's just say that. You know, I don't want
- 23 to, I don't want to knock them.
- 24 Q. Well, and I'm not looking for that. But I am looking for --
- 25 A. Okay.

- 1 Q. -- you know, we identify these type of things that are out
- 2 there or that may be deficient. Here you have a situation where I
- 3 | feel like -- let's just take that for example. I think that
- 4 | there's value in having the meteorologist conduct the tower
- 5 visibility or be involved in the tower visibility program
- 6 because --
- 7 A. Yeah.
- 8 Q. -- they can clearly explain the difference between sector
- 9 visibility, tower visibility, varying visibility.
- 10 A. Yeah.
- 11 Q. All these type of things, so that they can understand what
- 12 | they're looking at. And how to properly utilize their tower viz
- 13 charts. Some of them don't know that, like really understanding
- 14 how to utilize the tower visibility chart daytime, nighttime, how
- 15 to really best give you a good value so that it's, one, valuable
- 16 to you if they're calling it down.
- 17 Right now, I'm gathering that the value when they call down
- 18 | is probably not a great value. Like, if they -- if they're just
- 19 reporting something that's really off, you might be like, okay,
- 20 we'll go take a look, you know, let's really get the real deal.
- 21 A. Yeah. And which we did.
- 22 O. And --
- 23 A. Yeah.
- 24 Q. But it would be -- you know, I mean, it's nice if you know
- 25 | that they're well trained and the stuff that they call with is

- 1 | very credible information to begin with, then it kind of changes
- 2 | your attention level.
- 3 A. Yeah.
- 4 Q. So I guess I'm just, you know, asking because I feel like,
- 5 you know, gosh, why wouldn't the Navy still utilize you guys or
- 6 ask you if you were willing to be a part of that program?
- 7 A. And I think, as far as the -- we would if the contract --
- 8 Q. Yeah.
- 9 A. -- said, yeah, go ahead and do that.
- 10 Q. Yeah.
- 11 A. If our contract folks said, yeah, that's not a problem, go
- 12 | ahead and --
- 13 Q. Right.
- 14 A. You know.
- 15 Q. Okay.
- 16 BY MR. SUFFERN:
- 17 Q. As far as the ASOS equipment and stuff --
- 18 A. Um-hum.
- 19 Q. -- do you feel that it's reliable? Is it at a good location?
- 20 A. It's funny you say that. They're getting ready to actually
- 21 move the ASOS. It's in the process now, and I think it's going to
- 22 either be moved this month or next month. The ground electronics
- 23 | folks could clarify that specifically.
- But as far as reliability goes, yeah, I mean, that's why
- 25 | we're here; we're here to augment it. So it's not perfect.

- 1 Visibility, definitely, we need to be there to augment the
- 2 visibility. But like I say, it -- all it sees -- it tries to see
- 3 the big picture as a 360, but if we got a shower coming in right
- 4 here, it might say it's a mile visibility. But yeah, it might be
- 5 mile right there where the ASOS is, but it's not a mile all the
- 6 way around.
- 7 Q. Right.
- 8 A. So, ceilometer I think is great. I think ceilometer's
- 9 pretty good visibility. Certain sensors need our attention, yeah.
- 10 Q. How about the wind as far as where it's located? Is there
- 11 | obstruction or anything like that --
- 12 A. No. I think the wind is fine, yeah. We like to bounce it
- 13 off of the manual, too.
- 14 Q. Okay.
- 15 A. Because the manual's like right out there in the open and I
- 16 can, you know, look at the gauges up there on the wall. So we
- 17 | like to bounce the ASOS and that. Kind of --
- 18 Q. Bouncing it off of what?
- 19 A. The manual that's up on the wall.
- 20 O. Yeah. And where is that?
- 21 A. And then the recording that's on the ASOS.
- 22 Q. Where is that -- what is that source? Where is that coming
- 23 from?
- 24 A. There's a weathervane. It's the --
- Q. How far away is that from the ASOS?

- 1 A. The U -- it's called the UMQ5. It's the --
- 2 Q. How far away is that from the ASOS site?
- 3 A. The ASOS is over there -- if you see the building with the
- 4 red and white little tower --
- 5 Q. Yeah.
- 6 A. Okay. If you go to the right, maybe 200 yards or so, might
- 7 | be a little bit more, there's a yellow thing on the grass down
- 8 there.
- 9 Q. Yeah. Just beyond resting --
- 10 A. Okay. It's just beyond --
- 11 Q. -- air marker? Like looking straight beyond the resting air
- 12 marker?
- 13 A. Yeah. Yep.
- 14 Q. Yeah, okay. That's it?
- 15 A. I can't -- I don't even know what that is. Just to the right
- 16 of that there's a mass of something brown.
- 17 Q. Yeah, I know what you're talking about.
- 18 A. Yeah, yeah, right there, you see the little point pole --
- 19 Q. Yeah. Okay, I'm with you. I'm totally with you. All right.
- 20 A. We keep telling them don't get rid of that. Don't get rid of
- 21 that, yeah.
- 22 BY MR. SOPER:
- 23 Q. Does the tower have that same -- do they have the same wind
- 24 | indicator in there? What is their wind indicator --
- 25 A. I believe so.

- 1 Q. Is their wind indicators that they have in the tower -- I
- 2 | didn't -- I don't remember looking at theirs.
- 3 A. It's coming from the ASOS.
- 4 Q. Was it digital? Theirs is coming from the ASOS; correct?
- 5 A. Yes. Yes.
- 6 Q. Okay.
- 7 A. But they may have one of those --
- 8 Q. But they may still have one of the --
- 9 A. -- up there.
- 10 Q. -- old digital --
- 11 A. Yeah.
- 12 Q. -- or old analog --
- 13 A. It's been a long time since I've been up at the tower, so I'm
- 14 | not --
- 15 Q. Okay. No, that's something I can look at. I didn't pay
- 16 attention to it yesterday. That's good information.
- 17 A. Yeah.
- 18 BY MR. SUFFERN:
- 19 Q. So when you're putting the hourly ob in or a SPECI, if
- 20 | they're different, do you take the average of the two? Or do
- 21 you --
- 22 A. No.
- 23 Q. Okay.
- 24 A. No. That's strictly a backup.
- 25 Q. Okay.

- 1 A. Just as a personal thing, I like to take a look at that, too.
- 2 Q. Okay.
- 3 A. But that's our backup system. The official winds are the
- 4 ASOS, so I won't change those winds unless we feel like they're
- 5 | completely out to lunch. And 99.99 percent of the time they're,
- 6 you know, they're pretty good.
- 7 Q. That's what you said, that's why you're here.
- 8 A. Yeah.
- 9 Q. Have you ever had a case where the winds have been out to
- 10 lunch and you've had to do that?
- 11 A. No. No. Unless they go missing for some reason. If they do
- 12 | go missing and it's observation time, then I'll have to go ahead
- 13 and use that backup up on the wall.
- 14 Q. And just for the record, the maintenance is done by the Navy
- 15 for the ASOS?
- 16 A. It is.
- 17 Q. Okay.
- 18 A. Yeah. GEMD is the name of the department that does that.
- 19 Ground Electronics Maintenance Division.
- 20 Q. Thank you. Unlike Brian, I don't know all the Navy acronyms.
- MR. SOPER: I do. I know that one.
- 22 BY MR. SUFFERN:
- 23 Q. So earlier you mentioned that you're both a weather observer
- 24 and a weather forecaster, and I'm familiar, for the most part with
- 25 | weather observing. Could you tell me what the weather forecasting

- 1 position kind of requires you to do?
- 2 A. We're primarily aviation forecasters. Of course, we're here
- 3 to support the aircraft here, so we supply the weather briefings.
- 4 In the Navy, they refer to them as DD175-1s, is the name of the
- 5 form.
- 6 Q. Okay.
- 7 A. And all it is, it's a flight weather briefing form with the
- 8 | weather for the aircraft going from Point A to Point B, Point C
- 9 and then back again, or wherever they're going, as long as they're
- 10 originating from here.
- 11 Q. Okay.
- 12 A. We will not do briefings if somebody calls in and say, hey,
- 13 | we're over here in Missouri, can you provide me a brief? But as a
- 14 | courtesy, we'll put it into our system and it's done by someone
- 15 else, our folks up in Norfolk that we work for. But yeah, only
- 16 for briefings that are originated from here. We also provide
- 17 | terminal aerodrome forecasts.
- 18 Q. Okay.
- 19 A. It's just for the field here.
- 20 Q. So you guys write the TAF?
- 21 A. We write the TAF for here.
- 22 Q. Okay.
- 23 A. We do all watches and warnings for the base here. And let's
- 24 see.
- 25 BY MR. SOPER:

- 1 Q Do you guys provide -- do these contracted pilots ever come
- 2 in here for weather briefings?
- 3 A. No.
- 4 Q. Or -- at all? They do their own --
- 5 A. I've never seen one here.
- 6 Q. Okay.
- 7 A. Not recently anyway. I think one time, years ago. I think
- 8 | it was even before we forecasted; I think we were just observing
- 9 at the time, they came in to want to take a look at the chart --
- 10 | the radar picture and the satellite. And --
- 11 Q. Got you.
- 12 A. -- that was about it. Yeah.
- 13 Q. These watches and warnings that you say you do for the base,
- 14 do you -- are those disseminated outside of this installation at
- 15 | all? Do they go to JAX TRACON? Do they go to the center --
- 16 A. No. No, it's --
- 17 Q. -- for any aircraft being monitored? That's strictly for
- 18 watch and warnings to --
- 19 A. It's strictly for this base here and --
- 20  $\mathbb{Q}$ . -- to advise the base and the base --
- 21 A. Exactly. Yeah.
- 22 Q. Got you.
- 23 A. Yeah. We do not provide any forecasting for other entities
- 24 | outside of this base. Yeah. They're probably not even aware that
- 25 they exist for air. It's not like when the National Weather

- 1 | Service issues their stuff, you know.
- 2 BY MR. SUFFERN:
- 3 Q. Yeah. So on the evening of the accident, was there a watch
- 4 or warning out?
- 5 A. There was. And let me just kind of clarify the hours that we
- 6 actually forecast --
- 7 Q. Okay.
- 8 A. -- because we were not forecasting at that time.
- 9 Q. Okay.
- 10 A. Our hours of forecasting go from 4 o'clock in the morning
- 11 until 8 o'clock at night. So the Navy had determined that, you
- 12 know, for our contract 80 hours of forecasting for a week. So
- 13 it's a Monday through Friday, starting at 4 o'clock in the morning
- 14 Monday until -- every night ending at 2000, 8 o'clock.
- 15 And then back to the other question you -- I'm sorry.
- 16 Q. Yeah. So was there a watch or a warning --
- 17 A. There was.
- 18 O. -- out at that time?
- 19 A. Yes. There was a watch and a warning. Both.
- 20 BY MR. SOPER:
- 21 Q. Do you have --
- 22 A. A watch is -- I'm sorry.
- 23 Q. Do you have written documentation of that somewhere?
- 24 A. We do.
- 25 Q. Do you guys --

- 1 A. Yeah.
- 2 Q. Could we --
- 3 A. We actually -- we printed those off.
- 4 Q. Okay. Great. Yeah, if we could get copies of those.
- 5 MR. SOPER: If you don't have them already.
- 6 MR. SUFFERN: I don't have them, yeah. So that would be
- 7 great. Yeah.
- 8 MR. BROCKMAN: Yeah. The people that issued that were
- 9 Norfolk, our folks in Norfolk. They take over the forecasting
- 10 responsibilities at 2000.
- 11 MR. SUFFERN: Okay.
- MR. BROCKMAN: And then we take it back -- if it's during the
- 13 week, we take it back at 4:00 in the morning.
- 14 BY MR. SOPER:
- 15 Q. So the watches and warnings you're talking about that were
- 16 out that night, they were --
- 17 A. Were issued by Norfolk.
- 18 Q. They were?
- 19 A. Yes.
- 20 Q. Okay. So they were issued by Norfolk after 2000?
- 21 A. Yeah. And they'll keep -- they keep an eye on the radar, and
- 22 | if -- you know, they're busy up there, so we're here as observers
- 23 and if we see something coming in, we'll call Norfolk and say,
- 24 hey, you got a cell coming in, you might want to put us into a
- 25 warning or a watch, you know, if there's something a little

- 1 further out.
- 2 BY MR. SUFFERN:
- 3 Q. So I mean, just having no knowledge of that, and no
- 4 documentation, do you know just the criteria for a watch and
- 5 | warning for the --
- 6 A. Yeah. Our warnings are if there's a thunderstorm that's
- 7 either an hour away, 10 miles, or imminent. And then for a watch
- 8 | it's within 25 miles.
- 9 Q. Okay.
- 10 A. If we have storms within 25 miles or are expected within the
- 11 | next 6 hours.
- 12 Q. Now are those related to -- like, I was looking at the METAR.
- 13 Is that related to T1 and T2, if you see that on the METAR?
- 14 A. T1 and T2, that's funny because the East Coast is the only
- 15 ones that put the T1 and T2 on there.
- 16 Q. Okay.
- 17 A. And those are specifically for the aircraft carriers.
- 18 Q. Okay.
- 19 A. If we've got aircraft carriers working off the coast here.
- 20 But those terms aren't used anymore.
- 21 Q. Okay.
- 22 A. Those are old terms because the --
- 23 MR. SOPER: What terms?
- MR. BROCKMAN: T1 and T2.
- MR. SOPER: Oh, oh okay.

- 1 MR. BROCKMAN: Yeah. T1 is condition of readiness 1,
- 2 | thunderstorm condition of readiness 1 and thunderstorm condition
- 3 of readiness 2. They did away with those terms because it got
- 4 confusing. They said the only conditions of readiness we want to
- 5 assign are for tropical cyclones. So those went away and we went
- 6 to the watches and warning terminology to try and get on the same
- 7 page with National Weather Service. Yeah.
- But yes, T1 is a warning and T2 is a watch, so just to kind
- 9 of clarify that.
- 10 BY MR. SUFFERN:
- 11 Q. I mean, as far as the thunderstorm activity around here,
- 12 we're in Florida.
- 13 A. Yeah.
- 14 Q. All that. Was there anything unusual about the thunderstorm,
- 15 you know, this time of year, time of day?
- 16 A. No.
- 17 Q. Just a --
- 18 A. I mean, it was definitely an unstable environment, so they
- 19 were expected. Things had calmed down for a while, but they had
- 20 | been, you know, going on all day off and on. And then this one
- 21 | had popped up before I came in and it lasted till probably about
- 22 | an hour after the incident. Nothing really unusual about it,
- 23 though.
- MR. SUFFERN: All right, Brian, that's all the questions I
- 25 have. Do you have any additional questions?

- 1 BY MR. SOPER:
- 2 Q. So these watches and warnings, can you give me an example of
- 3 | what like may have been there? I mean, we're going to get the,
- 4 | we're going to get the textual version of what was actually there,
- 5 but give me an example of what you're talking about in that watch
- 6 or warning that would have been out that night?
- 7 A. Like what it --
- 8 Q. Like what was it for? Was it, you know, we're putting out a
- 9 watch that there's -- they were putting out a warning that there's
- 10 lightning within X miles of the field, or was it a warning about
- 11 thunderstorm convective activity? What is the warning? What is
- 12 | the --
- 13 A. The warning is issued -- well, in this case, it was for that
- 14 | specific thunderstorm, that cell --
- 15 Q. Okay.
- 16 A. -- that was moving basically from west to east.
- 17 Q. Okay.
- 18 A. And it was heading in our direction.
- 19 Q. Okay.
- 20 A. And so the warning was issued to cover the location. I mean,
- 21 | it doesn't really specify other than -- and you can see that in
- 22 | the writing, that -- you know, of course with thunderstorms
- 23 there's going to be lightning and heavy rain showers.
- 24 Q. Right.
- 25 A. But it doesn't -- it mentions where the thunderstorms are

- 1 | coming from, where they're going to, so west to east, and the time
- 2 frame that the warning is good for.
- 3 Q. Okay.
- 4 A. From 2100 to 2200, I believe, was the time frame for this
- 5 particular warning. And then it got extended from 2200 to 2300
- 6 because it was still ongoing.
- 7 Q. Got you. I guess I'm trying to put together in my head the
- 8 relationship of these watches and warnings and national products
- 9 like SIGMETs and that, you know, that might have been out at the
- 10 time. So as I understand, there was at least a convective SIGMET
- 11 out at the time?
- 12 A. There was. Yep. There was a convective SIGMET. Now we
- don't have to issue a warning if there's a SIGMET.
- 14 Q. I understand. I understand.
- 15 A. Yeah.
- 16 Q. Okay. But in this case, there was one.
- 17 A. Yes.
- 18 0. So what would be the --
- 19 A. It was a non-severe convective SIGMET.
- 20 Q. Okay.
- 21 A. Okay? So, in other words, the hail didn't meet the criteria
- 22 for severe --
- 23 Q. Okay.
- 24 A. -- so it was, in layman's terms, garden variety
- 25 thunderstorms, but SIGMET was being issued because there was still

- 1 | convective activity, and quite a bit of it still going on within
- 2 that box.
- 3 Q. So what would be the reason for putting out a warning when
- 4 | there's an existing SIGMET for the same thunderstorm activity?
- 5 A. That's just one of our responsibilities, to make sure that
- 6 the base has a warning or watch issued by this facility here.
- 7 Q. Okay. So then I guess my question -- I'm just trying to --
- 8 A. Because not everybody -- not everybody sees those convective
- 9 SIGMETs.
- 10 Q. Understand.
- 11 A. The squadrons do, sure. They'll monitor that because they're
- 12 aviators.
- 13 O. Yeah.
- 14 A. But the golf course, obviously time frame that it was
- 15 happening --
- 16 Q. No, I get what you're saying. I --
- 17 A. -- but during the daytime, yeah, certain entities aren't
- 18 going to see those.
- 19 Q. Right. They don't have anything to do with convective
- 20 SIGMETs, yeah.
- 21 A. You know, that need to know if there's thunderstorms.
- 22 Q. Yeah, yeah, yeah. Because -- I understand. Those other
- 23 places have other things they need to do to prepare for --
- 24 A. Right.
- 25 Q. -- maybe a thunderstorm being at the field with lightning and

- 1 that, and all that kind of stuff. So I guess my question is, do
- 2 those warnings contain further defined data or is it essentially a
- 3 | copy of the SIGMET just put into a warning --
- 4 A. No, it's --
- 5 Q. -- or watch here. So --
- 6 A. It's what we, as forecasters or Norfolk, put into that --
- 7 Q. So it can be different from that SIGMET? I mean, it may be
- 8 covering that same area, but it may have -- because you're down
- 9 here working this exact area, you may have more detailed
- 10 information with regards to the --
- 11 A. It'll be -- it could be slightly different, but it's not
- 12 going to way off.
- 13 Q. Right.
- 14 A. I mean, you know, the direction of movement's going to be
- 15 pretty much the same.
- 16 Q. Yeah.
- 17 A. If they're saying it's south/southwest moving
- 18 | north/northeast, and we may say it's west moving east or southwest
- 19 moving northeast, they're going to be pretty close.
- 20 O. Um-hum.
- 21 A. But do we look at that when we issue warnings? I might
- 22 | glance at it, but it's my forecast here so I'm going to put out
- 23 based on that particular cell. They're putting it out for an
- 24 entire box.
- 25 O. Yeah.

- 1 A. I put it out for specific cells, and I say --
- 2 Q. Right.
- 3 A. -- okay, well, we've got thunderstorms moving from southwest
- 4 to northeast, because I can see how they're moving based on my
- 5 | radar, and -- so it could be slightly different.
- 6 Q. I mean, let me just let you -- I mean, I don't want you to
- 7 feel like I'm trying to run you down some trick question here.
- 8 A. No, that's fine.
- 9 Q. Here is my point. You know, when I -- when I'm looking at
- 10 | this outside-in, I think to myself, you know, one of the things
- 11 | that we have found throughout the NAS, really, and air traffic
- 12 control and weather is that how often we have weather information
- 13 that is available somewhere in that -- in the midst of things
- 14 | that --
- 15 A. Right.
- 16 Q. -- doesn't necessarily make its way out to people that it
- 17 | might have been valuable to. And I'm just -- I'm trying to
- 18 ascertain here, so there was a SIGMET out for this area, covering
- 19 this area, a convective SIGMET, maybe not a severe convective
- 20 | SIGMET, but that was done earlier and for a broad spectrum of time
- 21 and a broad area of geographical area, right?
- 22 A. Um-hum.
- 23 Q. And I often have to ask myself, is there any value to that
- 24 | information because now you're putting out a watch or a warning
- 25 | based on stuff you're observing or forecasting here, right now --

- 1 A. Right.
- 2 Q. -- based on what you can see that may be updated, may be more
- 3 detailed or essentially more accurate at the time, because what
- 4 | that SIGMET might have said, it's kind of broad in spectrum, where
- 5 you might say, you know, in a warning -- I'm assuming you might
- 6 say that, you know, this cell is whatever, 10 miles --
- 7 A. Yeah.
- 8 Q. -- outside the airfield, you know, moving at this speed,
- 9 expect lightning within 3 miles at this time type stuff for
- 10 refueling advice or --
- 11 A. We don't get that specific, you know, expect lightning at
- 12 this time.
- 13 Q. Well, I don't mean expect --
- 14 A. Yeah. Yeah.
- 15 Q. Don't let me say weather stuff. I apologize.
- 16 A. Yeah.
- 17 Q. I'm just saying like it could have that kind of information.
- 18 The reason I say all this is that I'm curious if there's any value
- 19 to this information being availed to let's say JAX TRACON, who's
- 20 | working the aircraft that are coming here to arrive, right?
- 21 A. Yeah.
- 22 Q. And they know there's a SIGMET because they got that maybe
- 23 from their -- in this case, let's say, their dispatch tells them
- 24 there's a SIGMET in effect.
- 25 A. Right. I see what you're saying. Would other --

- 1 Q. But now --
- 2 A. -- other personnel --
- 3 Q. But now, yeah, that was the SIGMET --
- 4 A. That could be advantageous to them to know that there's a
- 5 watch or warning here at the base.
- 6 Q. That's a SIGMET saying you may encounter this in that area.
- 7 A. Right.
- 8 Q. Now all of a sudden, they get a warning from JAX that says,
- 9 | it's here; we have winds of whatever, lightning on the field
- 10 or whatever --
- 11 A. Right.
- 12 Q. I mean, just -- I'm just saying, you know.
- 13 A. Like National Weather Service, they don't issue watches and
- 14 warnings for regular garden variety thunderstorms.
- 15 Q. Understand.
- 16 A. They only do it for severe. So they may or may not -- they
- 17 may take that to heart, say, okay, hey, JAX has got -- NAS JAX has
- 18 | got a thunderstorm warning going on, okay, great. They may say,
- 19 well, it's not severe, okay, never mind. I don't know. I don't
- 20 know what they would do, but --
- 21 Q. I get it.
- 22 A. -- would it be advantageous? It wouldn't hurt, maybe.
- 23 Q. And I understand for you this is developed more for the base
- 24 infrastructure here, for other, you know, tenants on the base to
- 25 be able to make their appropriate preparations.

- 1 A. Right.
- 2 Q. For the fueling guys to know when to stop and start, when
- 3 they can start and stop fueling, for, you know, the air -- the
- 4 golf course, like you said, to either, you know, stow stuff --
- 5 A. Right. Exactly.
- 6 Q. -- you know, those kind of things, understand when to operate
- 7 or not. So I get it. I'm just, you know --
- 8 A. There might be a lot more to an outside entity other --
- 9 Q. It's not necessarily, it's not made to --
- 10 A. -- getting access to --
- 11 Q. It's not made to update an aviator, it's made to --
- 12 A. Right.
- 13 Q. -- let the base know what's happening and, you know --
- 14 A. Yeah.
- 15 Q. I get it. I get it.
- 16 A. But if we were to let other folks, you know, have access to
- 17 our warnings and watches, it -- that's out of my pay grade.
- 18 Q. No, I get it.
- 19 A. You know.
- 20 Q. I get it. Yeah. And it's a much bigger thing anyway than
- 21 that obviously, you know, so --
- 22 A. Yeah.
- 23 Q. Okay.
- 24 A. But these are straight-up point warnings for this point here.
- 25 Yeah.

- 1 Q. Um-hum. Okay.
- 2 MR. SUFFERN: Is that all you have, Brian?
- 3 MR. SOPER: Um-hum. I think so.
- 4 BY MR. SUFFERN:
- 5 Q. Is there anything that we may have missed asking or any other
- 6 | questions or things like that or that you'd like to --
- 7 A. Well, Jake can clarify on a couple things that I wasn't sure
- 8 about. I know during pass-down he mentioned that he did talk to
- 9 the tower about the warning specifically. Typically, we don't
- 10 call the tower when there's a warning issued because they get
- 11 notified by Base Ops --
- 12 Q. Okay.
- 13 A. -- down the hall.
- 14 Q. Okay.
- 15 A. That's just kind of the way things work; you know, that other
- 16 people notify other people. But I can't think of anything else.
- 17 Unless you guys have something?
- 18 MR. SUFFERN: Okay. Yeah, I don't have anything else right
- 19 now.
- 20 MR. BROCKMAN: Did you -- I archived some radar data. I
- 21 | don't know if you were able to get some archive data?
- MR. SUFFERN: Yeah.
- MR. BROCKMAN: Radar?
- 24 MR. SUFFERN: Yeah. We haven't gotten that yet.
- MR. BROCKMAN: Okay. I know there's a site you can go to,

1	but I actually archived the Weather Tab.
2	MR. SUFFERN: Okay.
3	MR. BROCKMAN: So if you wanted to
4	MR. SUFFERN: Yeah, that would be great to
5	MR. BROCKMAN: Okay.
6	MR. SUFFERN: just take all the information.
7	MR. BROCKMAN: I can email it to you, if that would be
8	MR. SUFFERN: Do you have anything else, Brian?
9	MR. SOPER: No.
10	MR. SUFFERN: All right. We're off the record at 10:50.
11	(Whereupon, at 10:50 a.m., the interview was concluded.)
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### CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF: BOEING 737-800 OVERRUN

JACKSONVILLE, FLORIDA

MAY 3, 2019

Interview of Barry Brockman

ACCIDENT NO.: DCA19FA143

PLACE: Jacksonville, Florida

DATE: May 5, 2019

was held according to the record, and that this is the original, complete, true and accurate transcript which has been transcribed to the best of my skill and ability.