

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

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Investigation of: *

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CESSNA 152 II, N24515 *

FORT RICE, NORTH DAKOTA * Accident No.: CEN18FA277

JULY 17, 2018 *

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Interview of: TOM ARBACH

Owner, Arbach Enterprises

Via Telephone

Friday,
July 20, 2018

APPEARANCES:

MICHAEL J. HODGES, Investigator in Charge
National Transportation Safety Board

DUSTY JOSTAD, Operations Inspector
Federal Aviation Administration
Flight Standards District Office, Fargo, North Dakota

TROY HELGESON, Air Safety Investigator
Lycoming Engines

HENRY SODERLUND, Air Safety Investigator
Textron Aviation

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I N T E R V I E W

(2:10 p.m.)

MR. HODGES: Okay, we are recording now. Okay. We are doing the CEN18FA277 interviews in Mandan, North Dakota at Mandan Municipal Airport. Today is Friday, July 20th, 2018. The time is 1410 Central Daylight Time.

I'm Mike Hodges with the NTSB, investigator in charge.

MR. JOSTAD: Dusty Jostad with the FAA Fargo FSDO.

MR. HELGESON: Troy Helgeson with Lycoming Engines.

MR. SODERLUND: And Henry Soderlund with Textron Aviation.

MR. HODGES: And then, Tom, can you introduce yourself, please?

MR. ARBACH: Tom Arbach.

MR. HODGES: Okay. And then does anybody have any objections to recording this interview?

MR. JOSTAD: No.

MR. HELGESON: No.

MR. SODERLUND: Nope.

MR. HODGES: And, Tom?

MR. ARBACH: No.

MR. HODGES: Okay. All right. And today we're going to be interviewing Tom Arbach. And, Tom, just so I have your position correct, you're the owner of Arbach Enterprises; is that correct?

MR. ARBACH: Correct.

MR. HODGES: Okay. Thank you. And you're based down in

1 Watertown, South Dakota?

2 MR. ARBACH: Watertown, South Dakota, yeah.

3 MR. HODGES: Okay. Cool, cool. Thank you.

4 INTERVIEW OF TOM ARBACH

5 BY MR. HODGES:

6 Q. All right, Tom, so just -- how long have you been the owner
7 of Arbach Enterprises?

8 A. I believe I formed the corporation in 2002.

9 Q. 2002. Okay. And what did you do prior to that?

10 A. What did I do prior to that?

11 Q. Yes, sir.

12 A. I have been in aerial photography since '92, I believe, but I
13 formed my own corporation in 2002 and set that up.

14 Q. Okay, okay. And then can you just give me a brief
15 explanation of your aviation background just with certificates and
16 approximate hours please?

17 A. I've got commercial -- I used to have a CFI but that expired
18 -- with an instrument rating. I probably have 21,000 or -- 20,500
19 hours. Probably 19,500 of that is doing aerial photography work.

20 Q. Okay, okay. And then you're just strictly based out of
21 Watertown, correct?

22 A. Well, our business, I'm part owner of a business called
23 Morningstar Photography, and it's the aerial photography company
24 that we market our pictures through and take our pictures through
25 or with.

1 Q. Okay. Okay.

2 A. So the Arbach Enterprise part of the business is me
3 individually owning the airplanes and then leasing them to
4 Morningstar Air, which is the corporation that Daniel was leasing
5 the airplane from and contracting with to take pictures.

6 Q. Okay, okay. Can you just give me a description of like your
7 day-to-day duties with your position as the owner, please?

8 A. Well, I own 47 percent of Morningstar Photography, I don't
9 know what exact percentage of Morningstar Air, and then we've got
10 Morningstar Ground. But I guess just assisting in office, sales
11 and lining up pilots and coordinate pilots. But it's kind of a
12 team effort here at the office to make the whole system function.
13 We have 20-some salesmen. This year we've got seven pilots,
14 contract pilots, and that includes myself. And then I
15 individually under Arbach Enterprises have five airplanes. The
16 other two guys that fly for us have their own planes. And then we
17 have two office staff and there's four owners or -- well, there's
18 four different people that have percentage ownership of the
19 company, of Morningstar.

20 Q. Okay. And then do you work part-time at any other places or
21 is it your strict employment just with Arbach and Morningstar?

22 A. Correct. Yep.

23 Q. Okay. And then you mentioned about the airplane. What type
24 of airplanes do you guys fly there?

25 A. Well, I personally have an American Champion Scout, American

1 Champion Citabria, a Bellanca Citabria, and a Cessna 172, and then
2 the 152 that Daniel was flying.

3 Q. Okay. And then how does the structure work with, you know,
4 all these different airplanes and these pilots coming in, do they
5 all -- based out of Watertown, how does it work with them you
6 doing these flights in different states across the country?

7 A. Don't hold me to this, but I think we do business in 17, 18
8 states. So we may have -- like just this year's example, I've got
9 a pilot based out of Wisconsin, I've got a pilot based out of
10 Denver, I've got a pilot based out of Montana, and Daniel was
11 pretty much I'm going to call him based out of Watertown. And
12 then myself based out of Watertown, one guy out of Sioux Falls and
13 another guy out of Watertown. So we travel to 17, 18 states.

14 The way it's structured is we look -- we got a wall map and
15 then we do everything on a county-by-county basis. So I'm just
16 going to make this up. There's 50 counties in North Dakota. We
17 keep records of when we shot pictures and sold pictures in them
18 counties and how the sales were. And then every spring we go
19 through the records and determine which counties we're going to
20 shoot next. And, basically, ask which pilot or assign a pilot a
21 certain area and then send them the maps. I believe Daniel had 15
22 counties. I'm just -- and that's -- I'm not a hundred percent
23 sure on that, but he probably had 15 different county maps in his
24 possession and it's up to him to determine through his training
25 what farm sites to shoot and the order he wants to shoot them and,

1 you know, how -- the harder they work, the more money they make.
2 We pay on them on a per photo basis. So that's why as an
3 independent contractor, to basically entice them to go to work.
4 If they're sitting at the hotel or sitting at the airport and
5 they're not flying, they're not making any money.

6 Q. Okay, okay. And --

7 A. There are salesmen on a commission basis. So, they're
8 independent contractors as well and they're paid on a commission
9 of sales.

10 Q. Okay, okay.

11 A. So the way the system works is we'll send the maps to -- and
12 I'm just going to use Daniel as an example. We'll send the maps
13 to Daniel. He'll receive the maps. He'll figure out how he wants
14 to do it, what airports he wants to base out of, and then every 3,
15 4 days, assuming he's flying, he'll -- you know, weather's good,
16 he'll send in his flash drive with the pictures and the maps to
17 the office. The office gals will receive them and develop the
18 photographs, make copies of the individual maps, and then they put
19 them in the individual packets. And we shoot them in groups of
20 25, so once he gets 25 pictures or 24 pictures, he'll end that,
21 create another folder, and then -- that's about what a salesman
22 can work a day is 25 pictures. And then we warehouse them, we
23 take enough pictures in the summer months to keep our salesmen
24 busy year round.

25 Q. Okay.

1 A. And then if we have -- like I think we got four or five
2 salesmen working up in North Dakota right now. So we -- say,
3 we've got 20 packs came in today and then they'll figure out who's
4 going to get the packs and what hotel we have to send them to or
5 maybe we are going to send them to their home. And then they go
6 out with our frames and the pictures and knock on doors, cold call
7 and try to sell the product to the farmers.

8 Q. Okay. With your structure, between you and the pilots, is
9 there anybody in between that? Is there like an operations
10 manager or chief pilot or anything like that or they just --

11 A. No.

12 Q. -- report directly to you then?

13 A. Well, they really -- yeah. Then they call the office and if
14 I'm out flying, which I do a tremendous amount of flying in the
15 summertime too -- if I'm gone, they'll say, hey, I've got 2 days'
16 worth of work left or I've got 3 days' worth of work or I'm going
17 to be going back home for a week, send me my next maps to this
18 location. And they kind of coordinate that with the office, or if
19 I'm in the office, I'll help take care of that too.

20 Q. Okay. And then this is all under Part 91 then, correct?

21 A. Correct.

22 Q. Is it done under any sort of like letter of authorization or
23 letter of deviation or anything of that nature?

24 A. No.

25 Q. Okay, okay. And then how do the pilots like receive

1 training? Like if you hired a new pilot and he's not real
2 familiar with the aerial photography mission, how does he get
3 trained on that task?

4 A. Well, they come into Watertown. They send resumes and then
5 they come into Watertown and I take them up for an introduction
6 flight and show them how the business operates, and give them a
7 tour of the office and take them up for basically an introductory
8 flight. And then if it's something they're interested in, they
9 will go home and come back in -- I'm just going to say in
10 March/April. And then they'll spend 3, 4 days here actually
11 training. I'll fly with them for a day and then they'll go out on
12 their own for a little bit. Then I'll jump back in the airplane
13 with them. It's typically a 3- or 4-day training process.
14 Obviously that depends on the weather and how quick each
15 individual picks it up.

16 Q. Yeah. And then do they typically fly with handheld cameras
17 or do they use like, you know, the SCC with the camera on the
18 airframe? Or how is -- what kind of setup --

19 A. It's all handheld camera.

20 Q. Okay. Okay.

21 A. We've got the camera set on autofocus so they have to crop --
22 zoom in, zoom out, basically crop the photograph and push the
23 button. The camera is super-fast. In like a fraction of a second
24 it captures the picture.

25 Q. Okay. And then can you just kind of walk me through like a,

1 just like a typical aerial photography flight? Like if there's a
2 farm or something like that, can you kind of walk me through the
3 process of like how you'd get set up and kind of what you do
4 within the cockpit, if you don't mind?

5 A. Well, typically when you fly up to a farm you determine the
6 angle that you think that it's best. And once again, that's up to
7 each individual pilot to determine what angle they feel is the
8 best, you know, most eye pleasing, I guess, for the customer. And
9 then they have to basically maneuver the airplane to come in at a
10 45-degree because you're shooting ahead of the strut to the left
11 of the prop and below the wing. So you've got to determine the
12 angle and basically come in at about a 45-degree angle to get the
13 airplane so the strut or the prop isn't in the way to shoot the
14 picture.

15 Q. Okay. Are there like typical airspeeds and altitudes that
16 are commonly used?

17 A. Well, when I train guys I strongly recommend that they don't
18 fly under 2500 RPMs just for the simple fact, you know, if any
19 turbulence or, you know -- and I'm not saying the slower you go,
20 but the -- you know, if you fly around at 21-, 2200 RPMs, any
21 little turbulence you get or I guess you have more time to --
22 because you're taking pictures, you're running the map, and you're
23 flying the airplane, so it's a very busy atmosphere and you don't
24 want to -- you know, you just don't want the extra G forces, you
25 don't want the extra bumps and speed, you know. I personally fly

1 around 22-, 2100 RPMs, just slow it down just a little bit.

2 Q. Okay.

3 A. But each pilot -- I mean, each pilot does it their own way.

4 I mean, that's just as simple as I can say it.

5 Q. Okay. Do you guys -- is everything you guys do single pilot
6 crews or do you guys also have like a safety pilot and a
7 photographer or it's all just strictly one person?

8 A. Well, it's up to each individual. I've had several guys that
9 have hired on their own safety pilot. I've had other guys that
10 have put somebody in, just a friend to ride with them, just
11 because they didn't want to spend the 2, 3 weeks or whatever time
12 on the road on their own. But I would say 80 percent of the guys
13 that do this are doing it on their own.

14 Q. Okay, okay. And it sounds like you have been doing aerial
15 photography for a long time, you have got a lot of experience
16 doing it. Are there any, to your knowledge, like any sort of
17 guides or, you know, advisory circular or is there anything out
18 there that kind of captures like best safety practices for this
19 type of mission that you know of?

20 A. No. No.

21 Q. Okay, okay. And just real quick for clarification then for
22 the specific accident. You owned the airplane, Arbach
23 Enterprises, but the operator would be considered the individual
24 pilot then; is that correct?

25 A. Yes.

1 Q. Okay, okay. All right. So just kind of shifting gears
2 talking about the accident pilot, can you describe your
3 relationship with him since he started working for you guys,
4 please?

5 A. I met him last spring. He sent a resume from Hawaii. That's
6 where him and his wife, Brenda, and their three kids were living.
7 And I called him because I liked -- and I wish I -- I really
8 regret this. I threw his resume away. Once I get them hired, I
9 don't have any reason really to keep his resume, so I don't have
10 his flight time. That's why I'm hoping you guys can get it out of
11 the logbooks. But he came over for an interview and introductory
12 flight, and he actually -- he said, since I'm coming from Hawaii I
13 want to spend 4 or 5 days here training. So when he came over he
14 stayed and he trained for -- I think it was 3 or 4 days, and then
15 he flew back to Hawaii.

16 And then when he came back to start the job last spring, he
17 just basically -- we went up for 1 day and then he went out and
18 started working. So he flew for us last year sometime in late
19 May/early June all the way till October. And then at that point
20 he had moved his family to Pennsylvania and he went to
21 Pennsylvania for the winter and worked for FedEx, I believe for
22 FedEx Ground but it could have been FedEx Express, and then came
23 back this spring to fly for us. And his intentions were to fly
24 for us for three seasons.

25 Q. Okay.

1 A. Really a great guy. I mean, just a happy go lucky, good
2 pilot. I never had any -- he took really good care of the
3 airplane. He had a lot of pride in the airplane. Kept it washed.
4 Kept it clean. He was just a good guy.

5 Q. Do you remember what he did, I guess previous flight
6 experience before he came to you? Do you recall at all where he
7 was flying for?

8 A. I don't know exactly where he got all his flight training, if
9 it was in -- I don't think it was in Hawaii because he said it was
10 pretty expensive over there. It just seems to me he came to the
11 United States somewhere and that's where he got his ratings. But
12 don't quote me on that.

13 Q. Okay, okay. Just a couple questions about his background.
14 This is just kind of standard procedure to ask. But did he have
15 any medical issues, to your knowledge?

16 A. No, not to my knowledge.

17 Q. Okay. Did he have any substance abuse issues with drugs or
18 alcohol?

19 A. Not to my knowledge.

20 Q. Okay. Do you know if he used tobacco or caffeine?

21 A. I did not see him ever smoke or use like chewing tobacco, and
22 I never saw him drink and I never saw him, you know, like -- he
23 never -- I never saw him drink a pop. So as far as caffeine, I
24 would say no, but I didn't spend that much time around him.

25 Q. Sure.

1 A. You know, most of his time with us was on (indiscernible),
2 you know, he'd be up taking pictures.

3 Q. Do you know if he had any sleeping issues at all, to your
4 knowledge?

5 A. I do not. I don't know.

6 Q. Okay, okay. And then I know you say you never had any issues
7 with him, but did he ever have any previous violations or
8 incidents or accidents, to your knowledge, in aviation?

9 A. Not to my knowledge.

10 Q. Okay, okay. I just want to ask about like, you know, if you
11 guys were to hire like a new pilot there at the company, what kind
12 of stuff you look for with like hours and certificates?

13 A. Well, I look -- definitely want them to have a commercial
14 and, quite honestly, a lot of it -- this is just based on me. I'm
15 looking for, like a guy in Denver, I had all my guys hired this
16 year and I had a resume come in from a guy that was from Montana.
17 And I called him and said, hey, what's your story? You know, he
18 had a great resume, tons of tailwheel time, and I put him in one
19 of my Citabrias. And then I hired a kid from Michigan because he
20 could take care of Wisconsin.

21 To me it's all about location. I typically get 40 to 50
22 resumes when I run the ads, and it's just been -- because there's
23 a pilot shortage, there's been overwhelming response to the ads
24 the last couple of years. So, you know, obviously experience and
25 then I want to find somebody that is in a good location. So let's

1 just say I hire somebody from Hawaii like Daniel. He said I'm
2 going to move my family to Pennsylvania and I want to work 3 weeks
3 at a time. I said, well, I love that schedule. You know, you
4 might have a guy that lives in Watertown and leaves for 3 days and
5 he's homesick and he comes back to Watertown. So, you know, just
6 talk about their work ethic is really what it's all about.

7 Q. Yeah. Yeah. Yeah. How would you just describe, I guess,
8 the overall safety culture with the company in doing aerial
9 photography operations?

10 A. Well, I've been involved in it since '92, and I personally
11 flipped a Scout over on its back one time and landed on a gravel
12 road in the wintertime, couldn't judge the snow from the distance.
13 But other than like a few hail claims, my own fault, I've never
14 had any other issues with any other pilots.

15 Q. Okay.

16 A. You know, and when I train these guys I always tell them
17 there's no picture worth dying for. So it's up to them if we get
18 into an area where there's -- you know, they feel it's a
19 controlled airport or if there's a lot of wind turbines going up
20 or whatever, if they don't feel safe flying in that area or near a
21 controlled airspace or whatever, it's -- they're pilot in command
22 and they're in charge of that. They're pretty much they out there
23 on their own. You know, they're determining every morning if
24 they're going to go to work or not.

25 Q. Okay. And just like you said before, you know, you've got a

1 lot of experience in this community doing this job. Just overall
2 question for the community, what are some of the top hazards would
3 you say the aerial photography community faces when out flying?

4 A. I don't know if -- you know, maybe if there was -- if you're
5 going to ask me personally, I would say maybe like birds, you
6 know, like geese or chicken hawks or turkey vultures, you know,
7 because they're so small, that would probably be what I would say
8 would be the biggest hazard.

9 Q. Okay, okay. You guys have any restrictions or requirements
10 like with working hours, like with fatigue, like they can only
11 work X amount of hours a day or is there anything set in place
12 like that?

13 A. No. That's the beauty in this job. We only shoot pictures
14 when the sun is up so high and then when the sun goes down. You
15 know, so our normal shooting hours like this time of the year from
16 8:30 to 4, 3:30, somewhere in there. Once again, that depends on
17 the pilot, you know, how much -- what their work ethic is. But if
18 they fly 7 hours a day, that's typical.

19 Maybe, you know, if they're sitting -- like Daniel was
20 sitting in Mandan and he said he wanted to go over to Minot
21 because the clouds are moving into Bismarck, and he might get up
22 early and fly over there, he might fly 8 or 9 hours a day. But
23 Daniel didn't push too hard. I think he only probably averaged 6,
24 7 hours a day. And when you look at his logbook, you guys can
25 probably be able to tell that. But that's why we pay these guys

1 on a per photo basis, because if they're not going to go to work,
2 they're not going to get paid.

3 Q. Okay.

4 A. That's kind of how the system works. But no, as far as
5 mandating that they only fly 4 hours or work 5 days, that's
6 totally up to them.

7 Q. Okay. Do any of the guys use like a formal flight risk
8 assessment tool before every flight? Is that a common thing to do
9 at all?

10 A. Could you repeat that?

11 Q. Do you know if any of the guys ever use like a formal flight
12 risk assessment tool before every flight?

13 A. No. I don't know if they do or not.

14 Q. Okay, okay. And just with the overall operation, I know you
15 said it's Part 91, have you ever interacted with the FAA? Have
16 they ever done any like oversight or surveillance on the
17 operations to your knowledge?

18 A. No.

19 Q. No? Okay.

20 A. No.

21 Q. Okay. All righty. Are there any -- you know, just with the
22 overall industry of aerial photography, are there any safety
23 improvements you'd like to see implemented for the community,
24 anything you can think of?

25 A. Well, the thing -- I installed ADSB in three of my airplanes

1 this year, and I absolutely love that because when I'm up flying
2 taking pictures I can see -- you know, I've got a crop duster.
3 I've seen tons of helicopters, other airplanes, you know, coming,
4 going, and I just love that feature on that 660. That's I think
5 is as good as it gets, is my opinion.

6 Q. Yeah. Okay. Just real quick about the organization. So I
7 know you own the airplane, the pilot is operating the airplane as
8 a private individual, and then you're also in contract with -- is
9 it Morningstar Photography? Is that the correct term?

10 A. So I own the airplane. I lease it to Morningstar Air, and
11 then Morningstar Air leases it to Daniel on a per -- we take out
12 -- we pay him so much per photo, and then that comes out -- we
13 take part of that compensation out to pay for his fuel and his
14 hotel and his food, and then he retains -- I think he was getting
15 like a buck fifty or a buck seventy-five a picture.

16 Q. Okay, okay. All righty. Just for my last question: Was
17 there anything that I missed during the interview that you'd like
18 to bring up that you feel is important?

19 A. No.

20 Q. Okay. All right.

21 MR. HODGES: So we'll go around the table now.

22 Dusty, do you have any questions?

23 MR. JOSTAD: No.

24 MR. HODGES: Okay. Troy, do you have any questions?

25 MR. HELGESON: No, I'm good.

1 MR. HODGES: Henry, any questions?

2 MR. SODERLUND: No.

3 MR. HODGES: Okay. All right. Then we'll go ahead and stop
4 recording at this time.

5 (Whereupon, 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: CESSNA 152 II, N24515
 FORT RICE, NORTH DAKOTA
 JULY 17, 2018
 Interview of Tom Arbach

ACCIDENT NO.: CEN18FA277

PLACE: Mandan, North Dakota

DATE: July 20, 2018

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.


Letha J. Wheeler
Transcriber