

March 3, 2020

March 1, 2020, 2:00pm – 2:24pm: Made one tow to 3000 AGL. We did maneuvers, slow flight, steep turns, moderately steep turns.

Caught some thermals and held till ready to land. Approach to landing. Uneventful landing.

March 1, 2020, 2:45pm – 2:50pm: Towed to 27 because of wind shift, released at 300 feet made a right 270 turn, then were going to make a left 90 to the runway, and at that point we were tree height or below, 50 feet or so.

Then during that turn I lost pitch control and we landed hard in the field.



Douglas K. Morris

I was the Field Operations Officer (FOO) on duty for the subject day. My applicable responsibilities generally involve the safe conduct of operations on the field. Rob Black was our assigned Tow Pilot for the day. He and I had communicated the prior day to confirm he would support operations. I reviewed applicable weather information via SkySight and WeatherUnderground and noted nothing that suggested operations would be unsafe in any way. There were no NOTAMs listed for Moontown airport (K3M5). I arrived at the airport at around 1000, and discussed the forecast for the day with Stu Venters and Dave Edgemon. (a former member of the glider club and local General Aviation pilot) Our discussion was mostly about whether there would be soarable weather. We noted that winds aloft were expected to be primarily out of the South, shifting to the Southwest as the day progressed. There was no discussion about ground winds being of any concern, although it was noted we would be having some minor crosswind at takeoff. Doug Morris arrived prior to his student, Michael Ivan. Doug arrived some time prior to 1200, probably closer to 1130. Michael arrived just after 1200, which meant he would likely be the 3rd or 4th launch of the day. Doug proceeded with pre-flying the L-23, and went into the clubhouse with Michael after his arrival. I witnessed Doug and Michael finishing the preparation of the glider as I was towing the other gliders to the Northwest staging/launching area from which we conducted takeoffs on runway 9. Rob Black conducted a checkout flight of the Pawnee towplane without a glider in tow to make certain there no issues before conducting any tows. As it turned out, Doug and Michael were the 4th tow of the day. They were also the 5th tow, followed by a 2nd tow of Ted Mavrotheris. Ted's flight was the last conducted on runway 9 as the winds had started to shift. After Ted's last takeoff, Doug and Michael landed and stopped towards the east end of the runway. I did not observe the landing direction, but it was clear that Doug wanted to takeoff for the next flight on runway 27. When I approached Doug and Michael, the plane was oriented towards the west and we rotated it to the east to tow it to the southeast corner of the runway for takeoff on runway 27. As we towed the plane, Doug and I discussed the wind direction and that it was sporadic, but predominantly coming from the west now and we needed to use runway 27. We also noted that the crosswinds would be from the plane's left side now. While we were towing the glider to the launch point, the towplane landed on runway 9, taxied to the northeast corner of the runway and shut off the engine awaiting our readiness. At this point Sam Henderson had arrived in his golf cart and had positioned himself behind the glider as being helpful, but not interfering with the operations. Rob's wife and son had also walked up to our location as the son was scheduled to be the next student pilot for the day's operations. They were sitting in Sam's golf cart from that point forward. Doug had walked over to the tow plane and had a discussion with the tow pilot, then returned to the glider and instructed Michael to prepare for the next flight. I heard him say to Michael that the crosswinds would now be from his left as part of his response to Michael's preflight checklist routine, which was verbal so the instructor hears every step as it is being conducted. After the preflight checklist was completed, I received the request for hookup from Michael, connected the tow rope and proceeded to the right wing to prepare to conduct the launch sequence. I gave the command to the towplane to take up slack, surveyed the sky for any traffic, (Sam also verbally confirmed that he had not observed any traffic and we both noted the positions of the other gliders in the air at the time) and waited for Michael's request to raise the glider's wing. (This is the last command the glider pilot gives to the FOO and precedes his command to the tow pilot to begin the tow. I surveyed the sky one more time, and upon seeing nothing, lifted the wing of the glider. The glider waggled

the rudder – indicating to the tow plane and the FOO to begin the tow. The tow plane responded with a tail waggle. I gave a confirmation arm rotation to the tow pilot to begin the tow and the launch began. The takeoff roll was very nominal, the glider became airborne without any unusual lateral or vertical excursions and the two planes proceeded down the runway gaining speed and altitude. I continued watching the two planes until they appeared to be clear of the end of the runway. As everything appeared nominal, I discontinued watching, and started to discuss the location of the other two gliders with Sam and the Black's. I noted the takeoff time as 14:05 on the FOO logsheet. The tow plane then landed on runway 27, proceeded towards the west end of the runway and parked off the south side, which was not normal for continuing operations using 27. Stu Venters also landed after the tow plane on 27 and came to rest at the south side of the runway near the west end. I observed some people approach and stand at the far west end of the runway, but could not tell what they were doing. Shortly after the last tow began, (maybe 10 – 15 minutes) emergency vehicles started approaching the airport, with the first one stopping and asking me and Sam where the downed glider was. We said we didn't know why they were there as we hadn't heard of any problems. We responded to the EMS people that we had 3 gliders in the air, and one had just recently taken off. We instructed them to proceed onto the airport property and go to the west end where our clubhouse and the two planes had just landed as they might have other information. I then drove the golf cart towards the west end of the runway to help with moving Stu's plane. As I got far enough down the runway, I could see what appeared to be an airplane in the cotton field west and north of the airport property. I could not see it before this point due to the tree line blocking my view. As I got to Stu, he reported that the L-23 had gone down, and we agreed that enough EMS people were already on scene that our best way to help was to get his plane out of the traffic flow so the vehicles could pass more easily. As we towed Stu's plane off the runway and out of the way I saw that Ted had also landed on 27. He came to a stop at about mid-field. He reported to me that he had encountered significant sinking air on "short final" and he had been worried he might not make it to the runway.

My first observation of the plane and pilots came after getting the other gliders and equipment out of the way of the EMS vehicle/people. I walked out to the plane and passed Doug being driven away in the bed of a pickup truck. This was done as the EMS vehicles were getting stuck in the muddy field and the pickup truck was capable of navigating the mud. Doug was talking and appeared very coherent. Michael had been removed from the plane and was being driven to the west where a helicopter was being directed to land. I never saw Michael other than from at least a 75 yard distance as he was loaded onto the helicopter.

After the EMS people left, I began attempting to reach the FAA/FSDO in Birmingham. First call (disconnected number) was at 15:37, followed by a successful call to the FSDO offices at 15:43, which directed me to call the FAA Operations Center as the FSDO offices were not open. The Operations center and I spoke for ~14 minutes, after which Kyle Cook of the FSDO called and we arranged that he would have an investigator call me the next day to arrange their inspection of the plane. He instructed that we should do everything reasonable to preserve the plane and the scene, so we secured some yellow caution tape around the plane and notable marks on the ground to help any subsequent investigations.

4-May-2020

N296BA witness report from another pilot in the air.

Recollection of my flight:

I was flying my Glider (N10Sz) from Moontown that afternoon. The day was not forecast to have much lift, but I wanted to fly in view of KHSV radar to check out a new GPS receiver providing ADSB 1090-out. We launched to the East, and then turned upwind (South) to the Castle, then ran West in front of the east-west ridges South of the airport. Got off at 4000 near the house thermal. Tow was uneventful, except for what felt like a rotor system when we flew West in front of the east-west ridge South of the airport. The rotor system caused me to work to stay behind the tow, but was a sign that there was energy available from the wind coming over the hills.

Worked my way over to Monte Sano, and found a thermal near Burritt Museum. Climbed and flew South to the river and back in view of the radar. Arrived back at Monte Sano about a hour later but didn't find lift. Worked over to the house thermal and was climbing South West of Moontown at about 4000 feet. I was mostly focused on centering the broken thermal and looking to the North in anticipation of heading there next.

As I turned towards the airport, I saw what seemed to be a glider touching down in the field West of the airport. Didn't see the approach, but it appeared to be heading North (maybe a little West of North) at about 40 degrees decent angle. Wings appeared level upon touchdown and there was no ground roll. Didn't look to be moving all that fast. I felt like I was seeing it from the left, aft quadrant of the landing glider.

My first thought was that Ted had a steep, but ok, landout into a muddy field, but after thinking during the next circle, I decided to head over and look closer. I called on 122.7 that a glider landed NW of the field. Once I got close enough to see it was the Blanik with tail damage, I put the gear out, made more radio calls to alert the folks on the ground, landed, and rolled out near the West end of the field. Cleared the runway and helped as best I could.

I don't recall noticing any specific air movement once I left that last thermal, but I was mostly focused on the site and descended quickly and so might not have noticed. I did fly over the site from upwind. There is an analysis of the winds aloft from the log below.

Winds aloft from the IGC file:

I flew the descent in a fairly consistent configuration of gear out, landing flaps, and full spoilers until near final. There were speed and attitude

variations to manouver to fly a fixed ground reference spiral just South of the West end of the field and then crosswind, then one additional circle on the turn to down wind. This provided some sampling of the air above and upwind of the West end of the runway. For perspective, this all happened in the last 3 minutes where I dropped 3000 feet to full stop.

During this time, SeeYou shows the IGC's horizontal wind at 4000 MSL was from 206 at 16 knots. It tapers to 1200 MSL where it was 223 at 7. Then constant down to the ground.

The vertical component shows up as the vario reading. On the last three circles, these varied from about -500 to -2300 FPM. I would guess the plane's sink rate with spoilers out to account for roughly 1000FPM of the vario reading. That would leave between +500 and -1300 for the airmass and pilot.

Additionally, it appears to me there was a pattern to this variation with more sink on the North and South sides of the circles. This seems consistent with me unintentionally centering a narrow line of near 1000 FPM sink aligned with the wind over the West end of the runway. These circles were at 2-3000MSL, so it's hard to say how this would have affected the winds near the ground.

I find it amazing that I didn't notice this in the air. I no doubt caused some variation in my focus to get down quick, but it is likely that there was significant, localized sink in the airmass at 2000 feet near the end of the runway. I saw no signs of this on the ground in terms of horizontal gust.

If these vertical wind components are correct and they extended to the ground, then they may be a factor in the accident. I'd like to see a second opinion on the IGC file to confirm what I think I see and help sort out the difference between pilot, plane, and airmass.

The igc flight log file is at
<https://www.onlinecontest.org/olc-3.0/gliding/flightinfo.html?dsId=7697492>

(Also should be in the ADSB logging system)

Notable events from the N10SZ flight recorder:

18:31:10 launch
20:07:04 turned to north and probably at this point saw the impact from N34 44.344 W86 28.879 at 4300 MSL.
20:07:53 closer to site at 3900 MSL. Gear out to land.
20:09:26 descending at 3266 vario -2313
20:09:40 descending at 2813 vario -1131
20:09:46 descending at 2651 vario -2066
20:09:55 over the site coordinates
20:10:11 descending at 2163 vario -492
20:10:21 descending at 2006 vario -1722

20:12:14 landed

20:17 pull off runway and head to scene.

The Scene:

When I got there, Doug was out of the glider leaning on the left wing. Michael was in the front seat with EMT's. We got Doug away from the wing and onto a pickup with Mandy. The EMT's waited for a backboard and lifted Michael out of the cockpit and onto the backboard. They moved him to the SW with a pickup, then MedFlight came in and took him East.

After things were quiet, I looked over the site and took pictures to try to understand what happened. The glider was pointed more West than I remembered from the air. Glider sitting at N34 44.899 W86 28.098. Impact formed a flat spot of damage under nose. Matching mark in dirt about 3 feet to the NE from there. Mud marks on outer section leading edge of damaged right wing. Probably matching a dirt mark for the wing running North-South and North of nose impact mark. (Jerry managed to look it over before sunset and rain. He may have a better understanding of the sequence?)

Not sure how to reconcile what I thought I saw from the air with the site. I caught sight of it just before the nose touched and motion stopped. Don't remember noticing anything major with the right wing or tail from the air until I got overhead. Having seen the site and thought about what I saw from a distance, perhaps I just saw the final movement.

Walter Stuart Venters

Statement on N296BA accident at Moontown Airport (3M5) on March 1, 2020

My name is Robert Black and I was the tow pilot on the accident flight of N296BA at Moontown Airport (3M5) on Sunday March 1, 2020. We had been doing typical glider operations since around noon that day using Runway 09. Surface winds were light and generally out of the South/South East. There had been occasion light turbulence both in the pattern as well as at altitude (2700 to 4700 msl) but nothing unusual. The accident flight was the 7th tow of the day and was the first using Runway 27. The winds were still light, but had shifted out of the South/South West which precipitated the runway change. This was the third flight of the L-23 with Doug Morris as the instructor and Michael as the student. Prior to hook-up for the flight I walked over to the glider where Mr. Morris briefed me that this would be a simulated rope break and that it would be Michael's first. He did not say at what altitude he intended to disconnect. Takeoff was around 2:00 p.m. and proceeded normally. There was light turbulence just off the end of the runway but as before was nothing unusual. We climbed normally at 80 mph indicated airspeed until they disconnected at around 950 ft msl (field elevation is 655 ft msl). Since I knew it was a simulated rope break, I continued climbing straight ahead for another ½ mile or so before making a right cross-wind turn. Upon making the turn, I observed the glider down in the field approximately 200 yards west of the runway threshold and approximately 100-200 yards north of the centerline. I did not witness the glider in flight after the disconnect and therefore did not see the impact. As I turned downwind, I saw several people running and driving out to the crash site. I landed normally and taxied to the run-up area at the west end of Runway 27 and shut down. The first Sheriff/EMS personnel were arriving just as I got out of the aircraft.

Robert Black

Certificate # [REDACTED]

[REDACTED] (cell)

[REDACTED]