

MADISON COUNTY SHERIFF'S DEPARTMENT
CRIMINAL INVESTIGATIONS DIVISION
VOLUNTARY STATEMENT

DATE 09/16/12 TIME 1608 PLACE Moontown Airport
I, [REDACTED] DOB: [REDACTED]
and my address is [REDACTED]

I was watching the 3 aircraft performing aerobatics. They were flying in trail, one behind the other, each slightly lower than the one in front.

They performed a barrel roll, the 2nd aircraft was lower than the first, and the 3rd lower yet.

As the 3rd plane was completing the roll, he appeared to be low. It looked as if he was trying to pull up hard, with nose high relative to the direction of flight. He went behind trees. We heard the thud of the impact and then saw smoke rising beyond the trees.

Steve Bahin [REDACTED]

Josie Lipscomb [REDACTED]

I have read this statement consisting of 1 page(s), and I affirm to the truth and accuracy of the facts contained therein.

This statement was completed at 1608 P.M. on the 16 day of SEP, 2012

WITNESS: [REDACTED]

WITNESS: [REDACTED]

[REDACTED]
SIGNATURE OF PERSON GIVING VOLUNTARY STATEMENT

MADISON COUNTY SHERIFF's DEPARTMENT
CRIMINAL INVESTIGATIONS DIVISION
VOLUNTARY STATEMENT

DATE 9/16/2012 TIME 1600 PLACE MOON TOWN AIRPORT

I, RANDY WOOD DOB: [REDACTED]
and my address is [REDACTED]

DURING THE FLIGHT SHOW I SAW THREE PLANS FOLLOWING EACH OTHER IN FORMATION. AS IT LOOKED LIKE IT WAS PART OF THE SHOW AND THEY STARTED DOING BARREL ROLLS. ONE AFTER ANOTHER THE LAST PLANE DID A COUPLE OF BARREL ROLLS AND DROPPED OUT OF FORMATION. I CONTINUE TO WATCH THE OTHER AIRCRAFT AND OUT OF THE SAME SIDE I CAUGHT A GLENCE OF THE OTHER AIRCRAFT. IT LOOK LIKE IT HAD STALLED OUT AND WAS NOSE DOWN. BEFORE IT WENT OUT OF MY SIGHT IT LOOKED AS IF IT MOVED LEFT AND RIGHT. AT THIS POINT I WAS OUT OF MY SIGHT BLOCKED BY THE TREES. I HEARD HEARD THE THUMP OF THE CRASH AND LESS THAN 20 SEC. SAW THE SMOKE.

I have read this statement consisting of 1 page(s), and I affirm to the truth and accuracy of the facts contained therein.

This statement was completed at 1630 M, on the 16 day of SEP 20 12

WITNESS: _____

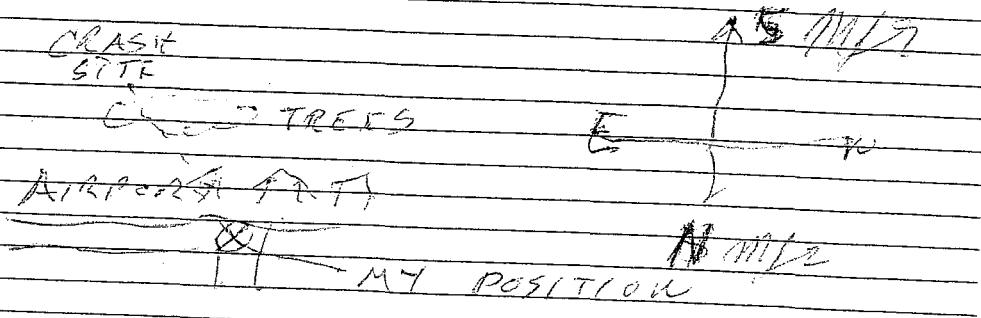
[REDACTED]
SIGNATURE OF PERSON GIVING VOLUNTARY STATEMENT

WITNESS: _____

MADISON COUNTY SHERIFF'S DEPARTMENT
 CRIMINAL INVESTIGATIONS DIVISION
 VOLUNTARY STATEMENT

DATE 16 SEP 2012 TIME 16:12 PLACE Vic MOON TOWN AIRPORT (AL)
 I, LT. COL MICHAEL S. GUTHRIE DOB [REDACTED]
 and my address is [REDACTED]

I WAS CONDUCTING CROWD CONTROL OPERATION WITH THE AL CAP REDSTONE COMPOSITE SQUADRON ON SUNDAY PM (16 SEP) AT APPROXIMATELY 1510 HRS (?) I HAD BEEN WATCHING THE YAK AIRCRAFT DUE A SEQUENCE OF ROLL MANEUVERS OVER THE FIELD. ALT EST 3000+ (?) FEET. I RESUMED SCANNING TAXIING AIRCRAFT. I GLANCED BACK TOWARDS THE NORTH SOUTH EAST FROM MY POSITION NEAR THE MAIN CENTER-WEST TAXIWAY IN FRONT OF THE CAP TENT. I SAW 2 OF THE REMAINING 3 YAKS AT A LOWER ALTITUDE CLIMBING IN FORMATION. THE LAST AIRCRAFT WAS FURTHER BEHIND DESCENDING IN A NEAR-LEVEL, SLIGHTLY NOSE HIGH ATTITUDE. THE VERTICAL DESCENT APPEARED UNUSUALLY HIGH. THE AIRCRAFT WAS LOW AND DISAPPEARED BEHIND THE TREES IN THE SAME ATTITUDE. I THOUGHT IT MIGHT HAVE BEEN GOING TO PULL A LOW ALTITUDE MANEUVER AND COME UP FROM BEHIND THE RISE TO THE SOUTH-EAST. THEN I SAW THE BLACK SMOKE RISE UP FROM THE CRASH. I IMMEDIATELY INFORMED LT. COL. JOHN HALL AND WE TOOK HIS CAR TO THE FBO, BUT DIVERTED WHEN WE SAW THE CROWD HEADED FOR THE CRASH SITE. CAP GROUND TEAM MEMBERS WERE CALLED FROM THE AIRPORT TO HELP SECURE THE CRASH SITE UNTIL LAW ENFORCEMENT AND THE FIRE DEPARTMENT ARRIVED. WE THEN RETIRED FROM THE SITE.



I have read this statement consisting of _____ page(s), and I affirm to the truth and accuracy of the facts contained therein.

This statement was completed at 16:30 PM, on the 16 day of SEP 2012

WITNESS: _____
 WITNESS: _____

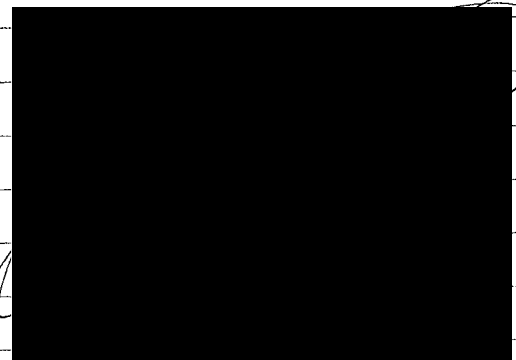
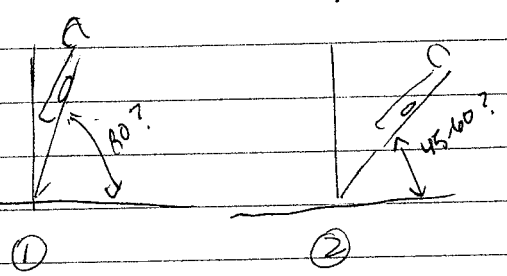
[REDACTED SIGNATURE]
 SIGNATURE OF PERSON GIVING VOLUNTARY STATEMENT

SEPTEMBER 17, 2012

BRANDI TERKEURST

I WAS STANDING BEHIND THE LEFT WING OF MY CESSNA 140 SAYING BYE TO A FRIEND THAT WAS ABOUT TO LEAVE THE FLY-IN. HE HAD JUST TAKEN A RIDE IN MY HUSBAND'S PIPER J-5, TAKEN A PICTURE WITH HIMSELF & RICK STROUD WITH THE J-5, & WALKED OVER TO CHAT WITH ME. WE TALKED FOR A MINUTE OR TWO - I WAS FACING SOUTHEAST - WHEN I HEARD THE YAKS FLYBY. AS I LOOKED AT MY FRIEND I NOTICED THE FIRST TWO YAKS FLY PAST IN MY PERIPHERAL. THEN I NOTICED THE 3RD AIRCRAFT. BECAUSE OF THE AIRCRAFT'S POSITION I IMMEDIATELY STOPPED MY CONVERSATION, DUCKED MY HEAD UNDER THE 140 WING TO MAINTAIN EYE CONTACT ON THE PLANE, AND LOUDLY SAID, "JESUS!", AS I WALKED OUT TO GET A BETTER VIEW. I WAS STARRING AT THE BELLY OF THE AIRPLANE THAT WAS NOSEDOWN (1). THE OTHER TWO YAKS WERE STILL IN THE BACKGROUND. I WATCHED THE YAK COMING DOWN FAST AND LOW. I KNEW HE WAS IN A POSITION HE COULD ^{NOT} COME OUT OF CONSIDERING HOW LOW HE WAS. JUST BEFORE HE DISSAPPEARED BEHIND THE TREES, HE STARTED TO NOSE UP (2) IT APPEARED TO BE CONTROLLED. THE OTHER TWO YAKS WERE STILL FLYING NOSE TO TAIL IN A FOLLOW THE LEADER'S SORTS. AT MY BEST ESTIMATE, BASED ON MY EXPERIENCES AT THIS AIRPORT, THE LEADING TWO YAKS APPEARED TO BE AROUND 1000' MSL.

INITIAL ANGLE ABOUT 80° NOSE UP TO 60° BEFORE DISSAPPEARING



Peter K. Van Staagen

27 September 2012

Mr. Dave Hargett
Federal Aviation Administration

Mr. Hargett,

As per our telephone conversation today I am sending you a Statement of Facts of the flight leading up to the crash of N2007X on 9/16/2012.

At approximately 1430 we convened to brief a standard formation proficiency flight with four aircraft. I elected to be the lead aircraft and BJ Kennamore asked to be in the #4 position. George Myers chose to fly the #3 position, and Gordy Seuell chose to fly as #2. With four planes there would then be two elements and #3 would be the leader of the second element. All pilots in this flight are Qualified Lead pilots, all have extensive experience and all fly together regularly.

The flight was briefed by me. We agreed to start planes at 1500. After warm up we were to taxi to the departure end of runway 9 and perform our engine run ups and depart single ship for a standard left turn rejoin. Once rejoined, we would maneuver in strong right fingertip formation. After that the formation was to be changed to a diamond formation, a close trail formation, and back to a fingertip right formation which would end with an element break and rejoin. At this point in the flight, #4 asked to leave the flight so that he could return home. The remaining planes would then configure into the extended trail formation and do some extended trail maneuvering, followed by a standard left rejoin to the strong right fingertip formation, which would configure into a right echelon formation to set up for landing approach and a standard overhead break into downwind for landing on runway 9. It was agreed to stay on the CTAF frequency of 122.70 so we could listen for traffic and that all maneuvering would be above 1700' MSL (Mean Sea Level) with the exception of the extended trail formation which would be conducted above 2200' MSL. Because we had been flying together and are all local pilots familiar with the surrounding area we did not discuss the weather forecast or alternate airports.

After the brief was over we prepared our planes for flight. We got into our planes and engine start up was a few minutes after the 1500 start time. The takeoff, rejoin, fingertip, diamond, close trail and element break and rejoin were performed proficiently by all pilots and as briefed. At the end of the element rejoin the flight leveled out on a heading of 315 degrees 3 miles NNW of the airport. Aircraft #4 left the flight and we said our goodbyes over the radio. I noted that we were at 1700' MSL. I turned the formation south, configured the flight into close trail and pushed up the power so we could climb. At a point about a mile northwest of the airport, #2 asked on the radio if I was going to put the flight in extended trail formation. I checked the altitude and we were at 2100 MSL. I started a climbing turn to the left and reconfigured the flight into extended trail. After we climbed to 2700' MSL, north of the airport I checked for other traffic in the area, noted none and began our extended trail maneuvers. These maneuvers consisted of ascending turns, descending turns, high bank turns, wingovers and rolls to the right and left. These maneuvers were made north and east of the airport between 2400 MSL and 3000 MSL. After a few maneuvers I looked back while in a climbing left turn and saw both #2 and #3 in good position. A few maneuvers later I looked back and saw the shadows of our aircraft, still in good position. We flew through a few more maneuvers I climbed 30 degrees nose high and made a roll to the left finishing up the roll with a climbing right turn. I rolled wings level heading west back toward the airport when at my 11 o' clock position the bright flash of

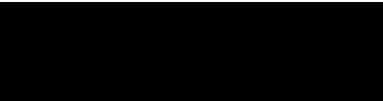
Peter K. Van Staagen



27 September 2012

the impact caught my eye. I called Knock-it-off on the radio, pulled the throttle back and #2 flew out beside me to the left and then in front of me. I followed 1000' behind #2. I concentrated on flying the airplane and staying under control of myself and the plane. We flew west for a few moments and then #2 turned around and went back to the crash site. I made a radio call for someone to call 911. I followed #2 into the downwind leg for landing, put my gear down and made a traffic advisory radio call. Both aircraft landed and were shut down without issue.

Signed



Peter K. Van Staagen

Date 27 September 2012

Statement of Moon Town Airport Accident – written on September 28th, 2012

By: Kyle R. Cook – [REDACTED]

On September 14 and 15, 2012, I attended the Moon Town Airport's Annual Fly-in Weekend event. During the weekend there were flight demonstrations performed by Yak 52 aircraft and similar aircraft in formation flights. These formations were straight line formations, not "V" formations.

During each event while in the straight line formations the lead aircraft would perform an aerial maneuver and the following aircraft would perform the same maneuver independently one at a time. While in flight formation, each aircraft's altitude was slightly lower than the aircraft they were following.

During the events, I estimate the flight altitude to be 1200-1500 feet or higher.

On Sunday, September 15th, the fly -in events were similar to those conducted on Saturday.

As I was preparing to leave the airport, at approximately 3:15 PM, the Yak 52's were performing their aerial maneuvers similar to Saturday's events. I was walking east, parallel to the runway. I was south of the runway, and north of the aircraft hangars and lean-to hangars.

The flight formation was west of the airport, heading south, once they were south of the airport, they turned eastward. Once they were parallel to the runway, they started a barrel role maneuver. I did not catch sight of the aircraft since my view was blocked by the lean-to hangars. As I continued to walk, I looked through the hangars and saw one aircraft that was very low in altitude; it was in forward flight, but descending quickly. I lost sight of the aircraft because of the terrain and hangars. I then heard a loud thud, and saw the black smoke. I don't believe anyone could see the impact from the airport, due to the hill the aircraft crashed on.

I write this statement to the best of my recollection of the events.

[REDACTED]

Kyle R. Cook

9/28/2012

Alan Cockrell

October 1, 2012

Mr. Dave Hargett

FAA

Birmingham, AL 35242

Mr Hargett:

Following is the written statement you asked me to make during our phone conversation of today, September 26, 2012. These are the facts as well as I remember.

On September 16, 2012 I was playing fetch with my dog in a grassy area alongside a hangar at Moontown Airport. This was the second day of the 2-day "Old Fashion Grass Field Fly-in," put on annually by EAA Chapter 190. I did not fly that day.

I was aware that three aircraft were flying formation in the area. I had observed them conduct a pre-flight briefing nearby where I was standing with some friends. I have known all of the pilots in the formation for many years.

I was not paying attention to the flight but heard the engines. The aircraft came into my field of vision, which was south, and I looked up. They were southeast of the airport in an extended trail formation. The distance between the number three aircraft and number two was about three times greater than the distance between numbers one and two. Their altitude appeared safe, adequate and legal. The first two aircraft disappeared from my field of view headed east.

Number three began a roll. I can't remember which direction. The roll resulted in an extremely nose low attitude. I wasn't alarmed because I estimated that the pilot had enough altitude to recover. He initiated his pull-out toward the west. At about 45 degrees nose low, with the nose coming up, the recovery was looking good. Suddenly the aircraft rapidly transitioned to an east-bound direction. I don't remember which direction the turn was made. The aircraft continued to descend at about a 45 degree angle until it disappeared behind tall trees.

I waited for it to reappear but only saw a smoke column rise.

I own half interest in this aircraft and the pilot was my owner-partner.

Let me know if I can be of further assistance.

Alan Cockrell

Alan Cockrell



6 November 2012

Mr. Jose Obregon
NTSB



Doral, FL 33166

RE:

NTSB Identification: **ERA12FA565**

Accident occurred Sunday, September 16, 2012 in Brownsboro, AL

Aircraft: YAKOVLEV YAK 52, registration: N2207X

Injuries: 2 Fatal.

Mr. Obregon:

I have read the preliminary report on this accident. I wish to point out a critical error and submit additional information that would correct it.

I was an eye witness to this accident. My name and phone numbers were given by the airport manager to the FAA investigator of this accident, as well as a note that I was probably the most qualified witness. Not only do I have over 200 hours in the accident aircraft, I am a CFI with 40 years and 25,000 hours in general aviation, military and air carrier aircraft. I have extensive aerobatic experience and have taught aerobatics.

A couple of weeks after the accident Mr. Dave Hargett of the Birmingham FSDO called me and requested a written statement. I sent that to him. He said he would forward it to the NTSB, but I think by that time the preliminary had been written.

The preliminary report is inconsistent with what I wrote and saw. The particular statements that I find in error are:

When the third airplane performed the barrel row [sic], as the airplane reached the wings level attitude, the nose of the airplane was in a high pitch angle. The airplane began to descend in that nose high attitude.

The source(s) that generated the above statement is/are wrong. The aircraft did not complete the barrel roll. The aircraft did not come out of the barrel roll in a high pitch angle. The aircraft did not descend in a nose high attitude.

I watched the entire accident sequence from the start of the barrel roll until it descended below the tree line. Here is what I saw:

The aircraft's nose dropped to an extremely low attitude as it came through the inverted arc of the roll. At that point the roll stopped, but the aircraft's nose was close to vertically down. It started an immediate pull-out. As the aircraft's pitch attitude decreased to about 45 degrees nose low and was progressing upward, it developed rapid oscillations about the roll and pitch axis. Within a few seconds

the aircraft's heading rapidly changed 180 degrees, from west to east. (I don't remember which direction the turn was made.) The aircraft continued its descent to the east, descending at a negative 30-45 degree pitch and descent angle until it disappeared behind the trees. The oscillations continued during the descent after the course reversal.

Those are the facts. Here's my assessment: The aircraft "dished out" of the barrel roll. (If you are not familiar with aerobatic language, a "dish out" is a slang term for allowing the nose to get too low during the second 180 degrees of roll in a barrel roll. Dishing out is a common error and is avoided by using a higher roll rate and top rudder during the inverted portion of the roll.) The dish-out led to an extremely nose low attitude and a pull-out was immediately initiated. It appeared to me that there was enough altitude to complete the pullout.

During the pull-out, at about 45 degrees nose-low, the aircraft entered an accelerated stall. This would normally happen when the pilot applies too much back pressure too rapidly and it can happen at any airspeed and any attitude. I have both demonstrated accelerated stalls in the Yak-52 and encountered them inadvertently at altitudes which allowed for adequate recovery. The Yak-52 recovers from an accelerated stall immediately if back pressure is released. The accelerated stall that I witnessed resulted in a partial spin which apparently was arrested by the pilot after 1/2 turn. The instability (the pitch and roll oscillations) continued the remainder of the visible descent, leading me to believe that the angle of attack was ever decreased enough to completely break the stall.

It is important to change the statement that the aircraft descended "nose high." In fact the Yak-52 and every other light general aviation aircraft I know of does not descend in a nose high pitch attitude.

One other note. The local newspaper and TV on-line sites published a photo of the aircraft descending vertically and claimed the shot was made just prior to impact. If you saw this, be aware it is a fraud. The aircraft in that photo had a different paint job.

Please reflect my observations in the final report. Feel free to call, write or e-mail me for further discussion. Thank you.

[Redacted signature]

Alan Cockrell
Lt. Col., USAF (Ret.)

[Redacted contact information]