

Allen Mains - Incident Report

Wingtip damage 996LM at LRO airport

10-18-2021

During the start of taxi, to my right, there was an unmanned and parked fuel truck on the right side of the apron, less than 20 feet from the center line taxiway marking for ramp guidance.

As you can read on the attached assessment from the South Carolina Aeronautics Commission, the truck should have been a minimum of 57.5' from the centerline, to be compliant with AC 150/5300-13A (table 4.2 and 4.4).

At the time of startup evaluation, I assessed that I had enough room to egress the parking area. No safety markings/cones around the fuel truck, marshaling assistance or warnings were provided by the FBO. After I had started movement, I noticed a small single-engine aircraft to my immediate left pulling into the spot adjacent to me. As I was making my left turn the single-engine aircraft (N199TE) kept inching forward. I instinctively hesitated as I was making my sharp left hand turn and "shallowed out" my direction to avoid any type of contact with a running engine, approximately 6 feet off my left-hand wingtip, as it was apparent to me that the aircraft was not going to stop and allow me to have more movement area. The attached photo of the aircraft (tied down after the incident) shows that the aircraft overran its tie-down position, reflecting the movement I described above.



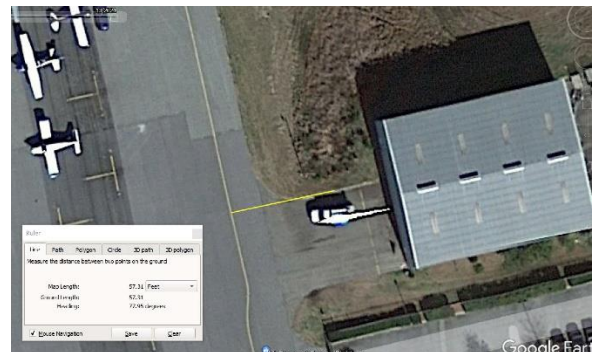
This short hesitation and probably six feet of movement caused a contact of the right wing tip of my aircraft with the fuel truck parked on the other side of the ramp to my right. My first thought was that I had ran over something on the taxiway itself. As I leaned forward and looked towards the right wing I could see a small amount of damage to the end of the wingtip, and I realized that the wingtip had made contact with the fuel truck. I immediately stopped my taxi procedure. I pulled the plane back around the corner into the original parking spot that I had pulled out of, shut down the engines and egressed the passengers. I evaluated that all passengers were safe, and that no injuries had been incurred, and they departed the airport to continue their workday.

Upon having time to investigate the damage to the aircraft I noticed that the aircraft wingtip had come into contact with the ladder handle on the fuel truck (slightly bended, see photo below). On the King Air 200, the last two-foot section of the wingtip is attached by a rivet line: that rivet line had sheared off. In the King Air 200, the third outboard aileron anchor point is also attached to the wingtip assembly: as a result of the wing tip shearing, the last attach point of the aileron was sheared, and the aileron was damaged. Although the aileron is still attached to the aircraft, it is loose from the third anchor point, causing control surface damage but still attached to the aircraft by the other two hinge points.

The South Carolina Aeronautics Commission has provided an assessment of the taxilane object-free safety areas requirements for LRO Airport. The assessment is provided on the next page and shows that the truck was roughly 20' from the center line, or roughly 37.5' inside of the required 57.5' object-free area. Furthermore, the assessment has highlighted that the light poles along the taxilane (see photo below) also encroach the 57.5' object-free area (at 42' line). The Google Earth photo also shows another fuel truck well within the object-free area. The actual fuel truck location from the incident is illustrated below, even closer to the center line (~20').



Actual fuel truck placement



SC Aeronautics Google Earth with measurement

South Carolina Aeronautics Assessment on next page.

20:12



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Sent: Tuesday, October 19, 2021 9:45 AM

To: Stephens, James

<[REDACTED]>

Subject: LRO

James,

Here's a Google Earth photo of the situation at LRO. According to FAA guidance, if an airport has designated taxiway/taxilanes on an apron, then they must meet the design guidance for taxilanes/taxiways. Based upon the pavement markings, it does appear that LRO has designated taxilanes on the apron.

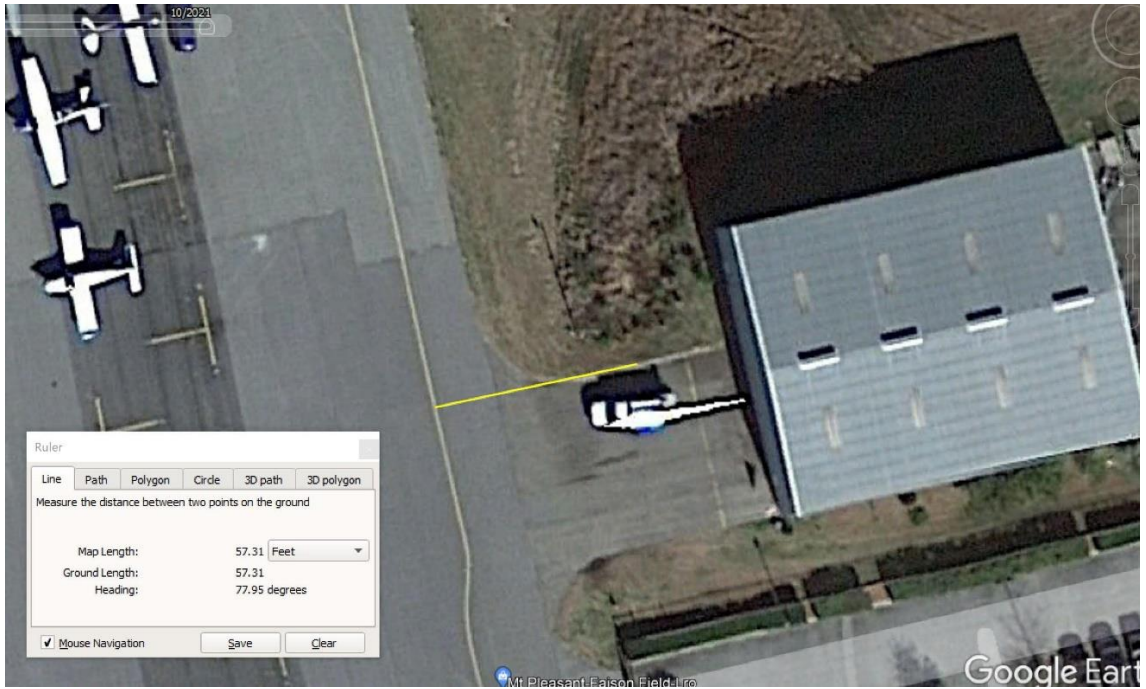
The geometry requirements for taxiways are found in [AC 150/5300-13A](#) Table 4-2. The LRO apron taxilane along the east edge of pavement appears to be Taxiway Design Group (TDG) 2 because the centerline stripe measures 17.5' from pavement edge (corresponding to a 35' wide taxiway). The safety areas associated with taxiways come from the same AC, Table 4-1 and for LRO are Airplane Design Group (ADG) II. According to the guidance, the taxilane object free area width at LRO should be 115', or 57.5' each side of centerline.

It appears that not only is the fueling truck too close to the edge of pavement, but also the light poles are too close. The light poles look like they were designed for ADG I, which is 79' wide or 39.5' each side of centerline. The light poles appear to be about 42' from taxilane centerline. Even if the taxilane was intended to be ADG I, the fuel truck was still too close to the taxilane centerline.



Gary W. Siegfried PE
Program Manager
South Carolina Aeronautics Commission
[REDACTED]
West Columbia, South Carolina 29170





Allen Mains – Ramp Incident Report

Wingtip damage 996LM at LRO airport ramp

10-18-2021

During the start of taxi, immediately in front of me, there was an unmanned and parked fuel truck on the far side of the taxiway, less than 20 feet from the center line taxiway guidance marking.



After the incident, the following information was discovered. I was not aware of this information until after the incident. On Dec. 17 2020, the South Carolina Aeronautics Commission performed a yearly Safety Inspection at LRO and clearly identified the truck position above as a safety issue, with respect to its location. SC Aeronautics provided the Safety Inspection Report with the truck location finding to the FAA Airport District Office in Atlanta, as well as to Charleston Airport executive management and personnel. As an FAA-funded airport, LRO is also routinely visited by the South Carolina FSDO 13 for inspections, pilot check rides and ramp checks. On October 19, 2021 the South Carolina Aeronautics Commission performed another assessment on the fuel truck location at the time of the incident. The SC Aeronautics Commission assessment found that the truck should have been a minimum of 57.5' from the taxiway centerline, to be compliant with the FAA AC 150/5300-13A (table 4.2 and 4.4) object-free area regulations. The truck location at the time of the incident was approximately 20' from the taxiway centerline and 40' from the front of the hangar building. Furthermore, the assessment found that all light poles along the taxiway (located 42' from the taxiway centerline) also infringe on the 57.5' object-free required by a FAA AC 150/5300-13A. Despite what we now know were identified safety hazards, LRO airport personnel requested on numerous occasions that pilots do not taxi in front of the FBO or maintenance hangar, which means that pilots would have to take the taxiway direction I followed. This direction was given to pilots to avoid having aircraft departing the apron area taxi in front the FBO building and maintenance hangar, due to multiple complaints of exhaust smell going into the FBO building and propellor wash blowing debris into the maintenance hangar (that keeps its hangar doors open). Besides the request of LRO airport personnel to avoid taxing in the FBO and hangar direction to exit the apron (which I followed), the FBO provided no additional safety markings or cones around the fuel truck, marshaling assistance or warnings. Please note

from the photo above that, additionally, a minivan was also parked in the object-free area at the time of the incident.

At the time of startup evaluation, I assessed that I had enough room to egress the parking area and turn to my left onto the taxiway. As discussed, turning right onto the taxiway wasn't an option due to the request from the LRO airport personnel. After I had started movement, I noticed a small unmarshalled single-engine aircraft to my immediate left pulling into the spot adjacent to me. As I was making my left turn, the single-engine aircraft (N199TE) kept inching forward. I believed that the aircraft was going to hit my left-hand wing tip with its propeller. To avoid a collision, I instinctively hesitated as I was making my sharp left hand turn and "shallowed out" my direction to avoid any type of contact with a running engine, approximately 6 feet off my left-hand wingtip, as it was apparent to me that the aircraft was not going to stop and allow me to have more movement area. The attached photo of the aircraft (tied down after the incident) shows that the aircraft overran its tie-down position, reflecting the movement I described above.



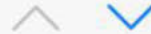
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As discussed above, the South Carolina Aeronautics Commission has provided an assessment of the taxiway object-free safety areas requirements for LRO Airport, as well as a Dec. 17, 2020 Safety Inspection Report for LRO identifying a safety finding with the fuel truck location. A summary of these is enclosed below.

20:12



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Sent: Tuesday, October 19, 2021 9:45 AM
To: Stephens, James
<[REDACTED]>
Subject: LRO

James,
Here's a Google Earth photo of the situation at LRO. According to FAA guidance, if an airport has designated taxiway/taxilanes on an apron, then they must meet the design guidance for taxilanes/taxiways. Based upon the pavement markings, it does appear that LRO has designated taxilanes on the apron.

The geometry requirements for taxiways are found in [AC 150/5300-13A](#) Table 4-2. The LRO apron taxilane along the east edge of pavement appears to be Taxiway Design Group (TDG) 2 because the centerline stripe measures 17.5' from pavement edge (corresponding to a 35' wide taxiway). The safety areas associated with taxiways come from the same AC, Table 4-1 and for LRO are Airplane Design Group (ADG) II. According to the guidance, the taxilane object free area width at LRO should be 115', or 57.5' each side of centerline.

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Gary W. Siegfried PE
Program Manager
South Carolina Aeronautics Commission
[REDACTED]
West Columbia, South Carolina 29170
[REDACTED]



From: Baker, Matt

Sent: Thursday, December 17, 2020 11:51 AM

To: [REDACTED]

Cc: Siegfried, Gary <[REDACTED]> Van Prooyen, Chaim H (FAA) <[REDACTED]>; Nathan Yokoyama, PE <[REDACTED]>; Jonathan Sheppard, PE, PMP <[REDACTED]>

Subject: LRO Safety Inspection

Dear Paul Campbell,

Please find attached your current Safety Inspection for the Mt. Pleasant Regional Airport. This data is reported to the FAA and will be included in the Airport's 5010 Master Record. This data may also be used to determine future Airport Improvement Program Grant Assurance Compliance, if applicable. Should these issues not be resolved the FAA and the South Carolina Aeronautics Commission may withhold funds for future Airport Improvement Projects.

The locations and any photos of these issues are on the interactive map. The link to this map is below. Once these issues have been resolved you can send me an email to [REDACTED] (include photographs if appropriate) documenting which issues have been resolved. Once SCAC has received documentation that the safety issues have been corrected we will remove them from the map and your report. Should you have any questions please feel free to contact me.

[REDACTED]

Also: Please find a link to the recent UAS survey conducted by SCAC to identify obstructions in the LRO approach.

[REDACTED]



Matthew Baker, GISP
GIS/UAS Programs Manager
South Carolina Aeronautics Commission
[REDACTED]
West Columbia, South Carolina 29170

[REDACTED]

12:18



Done LRO Safety Inspection R...



12/17/2020

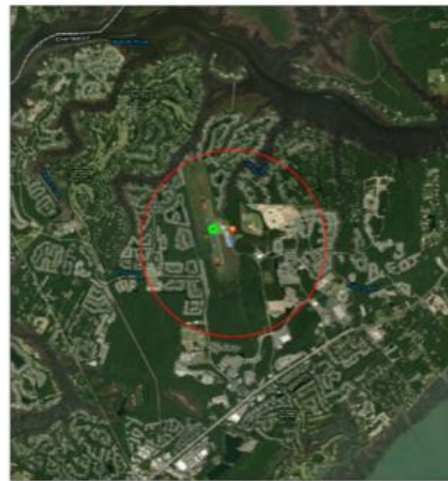


Safety Inspection Report

Area of Interest (AOI) Information

Area : 87,513,003.27 ft²

Dec 17 2020 11:44:14 Eastern Standard Time



1/2

12/17/2020

Summary

Name	Count	Area(ft ²)	Length(ft)
Obstruction	0	N/A	N/A
Inspection Issues	4	N/A	N/A

Inspection Issues

#	Condition	Remark	ResolvedStatus	CreationDate	Area
1	Obscured/Dirty/Faded	Marking on taxi lane is dirty and faded.	Un-Resolved	12/11/2020, 11:30 AM	0
2	Obscured/Dirty/Faded	Marking is faded on taxi lane	Un-Resolved	12/11/2020, 11:30 AM	0
3	Obscured/Dirty/Faded	Taxi lane marking is faded	Un-Resolved	12/11/2020, 11:30 AM	0
4	Hazardous Material Storage	Fuel truck should be parked at least 50' from building or any other structure.	Un-Resolved	12/11/2020, 11:30 AM	0

#	SubArea	Airfield	Count
1	Taxiway	Mt. Pleasant	1
2	Taxiway	Mt. Pleasant	1
3	Taxiway	Mt. Pleasant	1
4	Overall Airfield	Mt. Pleasant	1

Dear Manager,

Recently this office conducted its annual safety inspection of the airport. Listed above are the results of that inspection. The attached sketch if applicable shows the location of approach penetrations. If these penetrations are on airport property, we suggest they be removed as soon as possible to provide the appropriate approach slope and to eliminate any safety issues. If they are not on airport property, all effort should be made to obtain the right to have these items removed either through obtaining engineering assessments or by compensation. If the county has a zoning policy in place, then all effort must be made to enforce the ordinance. Although the SCAC makes every effort to identify approach obstacles not based on FAA Part 77 surface criteria, which can be found in CFR Title 14, there may still be approach violations based on this criteria as well as another surface criteria known as TERPS. The TERPS criteria is used by the FAA Flight Safety Procedures Office to determine published approach minimums and is sometimes more restrictive than FAA Part 77. We recommend you hire a licensed professional land surveyor or aerial mapping company to verify that the approaches are clear to FAA standards.

Sincerely,
South Carolina Aeronautics
Airport Safety Compliance Inspector



Todd Gunther

From: Meredith Kidd, M.A.S, CM <[REDACTED]>
Sent: Sunday, November 14, 2021 7:01 PM
To: Reneé Melvin, C.M., ACE
Subject: FW: [EXTERNAL EMAIL] - LRO incident

Good evening,

Please see below email [REDACTED] from the FBI relating to the LRO accident where the King Air wing struck the fuel truck.

Thank you,

Meredith Kidd



Meredith Kidd, M.A.S, CM
AIRPORT OPERATIONS SPECIALIST

Charleston County Aviation Authority

[REDACTED]
North Charleston, SC 29418-6911



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From: [REDACTED] <[REDACTED]>
Sent: Friday, November 12, 2021 12:26 PM
To: Meredith Kidd, M.A.S, CM <[REDACTED]>
Subject: [EXTERNAL EMAIL] - LRO incident

Meredith.

Please find our statement below.

Thanks!



On October 18, 2021 at approximately 4:17 PM, at the Mount Pleasant Regional-Fiason Field Airport in Mount Pleasant, South Carolina, Special Agents with the Federal Bureau of Investigation [FBI] [REDACTED] were taxiing a Bureau aircraft and stopped approximately 30 yards short of a predominantly white with black trim Beechcraft King Air 200. Several passengers were observed entering the King Air. The King Air was parked in the vicinity of the parking space that Special Agent [REDACTED] intended to park the Bureau aircraft. As the King Air passenger door closed, Special Agent [REDACTED] taxied the Bureau aircraft and parked it directly on the intended the yellow parking "T", the main wheel directly on the line of the "T". As Special Agent [REDACTED] finalized the shut down procedure, both Special Agent [REDACTED] observed the King Air taxiing very quickly away from its parking space. So quickly in fact, that the left wing of the King Air came within approximately 3 feet of the stationary prop of the Bureau aircraft.

Both Special Agent [REDACTED] remarked that the aircraft was taxiing "very fast". Special Agents [REDACTED] continued to observe the King Air as it taxied. After it passed the Bureau aircraft, Special Agent [REDACTED] and [REDACTED] observed the right wing of the King Air significantly damaged. An approximate 2 foot section of the wing was observed on the ground next to a fuel truck. Agent [REDACTED] immediately started powering up the Bureau aircraft to attempt radio communications with the King Air to warn them not to takeoff because a portion of the right wing was on the ground and the remaining wing was significantly damaged. As Agent [REDACTED] was continuing to power up the Bureau aircraft, Special Agent [REDACTED] observed the King Air continue to taxi and return to its original parking space. The passengers soon disembarked.

The Bureau aircraft was not struck by the King Air nor damaged in any way. Approximately an hour later, Special Agents [REDACTED] observed what appeared to be an investigation team walking around the damaged King Air, taking notes and photographs. Special Agent [REDACTED] introduced themselves to an individual who was later determined to be Charleston County Aviation Authority Airport Operations Specialist Meredith Kidd. Special Agents [REDACTED] offered to provide a short written statement about their observations of the incident to Specialist Meredith Kidd. This writing encompasses that statement.

-
On Nov 9, 2021 3:24 PM, "Meredith Kidd, M.A.S, CM" <[REDACTED]> wrote:
Good afternoon,

I received your message. Thank you!

Meredith Kidd



Meredith Kidd, M.A.S, CM
AIRPORT OPERATIONS SPECIALIST

Charleston County Aviation Authority

[REDACTED]
North Charleston, SC 29418-6911



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message in error, please notify the sender immediately either by phone ([REDACTED]) or reply to this e-mail and delete all copies of this message.

KLRO Incident

Christopher Jackson <cjackson@iflychs.com>

Thu 10/28/2021 13:32

To: Renee Melvin, C.M., ACE <[REDACTED]>

Renee',

When an aircraft arrives at KLRO, before the aircraft enters the ramp area, we have called to the arriving aircraft via radio to ask the pilot of his intentions. If the arriving aircraft is a jet or a jet prop and is arriving to pick up or drop off passengers and this is a short visit, we will instruct the pilot to park on the middle taxiway line. However, if the aircraft (jet, or jet prop) is staying for longer, let's say for an hour or overnight to several days, we'll direct the pilot to the north end of the ramp, and we will chock the aircraft accordingly. This is standard for each arriving aircraft of that size. We discourage all aircraft of any size from parking in front of the FBO terminal due to safety concerns for owners and passengers walking to parked aircraft on the ramp. This is also a safety concern due to vehicle traffic entering and exiting the ramp area through the security gate near the FBO terminal. Occasionally, we will have customers park their personal vehicle on the ramp in front of the FBO while they come in to use the facilities or pay for fuel. This is not new and again we discourage pilots from parking in front of the FBO terminal for aircraft and customers safety. Regarding Lowcountry Aviation, LLC., the pilot involved in the King Air verses Avgas truck incident at KLRO, he has been to KLRO many times picking up and dropping off passengers for over a year now. We have spoken to him over the radio and in person about the ramp congestion and the reasons mentioned above as to why we insist he park his aircraft in the middle on the taxiway line. In the last two to three months, he has pulled through the tiedown spots we reserve for smaller reciprocating aircraft taking up two tiedown spots with the King Air to get around parking in the middle. The ramp congestion, with aircraft, vehicle and foot traffic is not unusual for KLRO and the Pilot for Lowcountry Aviation, LLC. has experienced these firsthand many times before during his many visits to KLRO.

Regards,
C. Eric Jackson
LRO Line Tech



MOUNT PLEASANT
REGIONAL AIRPORT

Christopher Jackson
LINE SERVICE TECHNICIAN

Charleston County Aviation Authority
Mount Pleasant, SC 29466



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