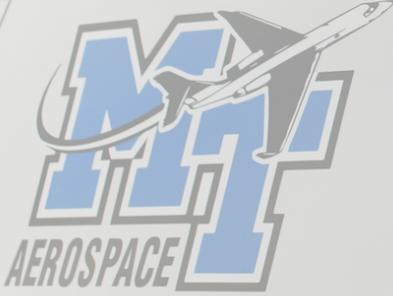


# SAFETY SUMMARY



MARCH-APRIL 2023 EDITION

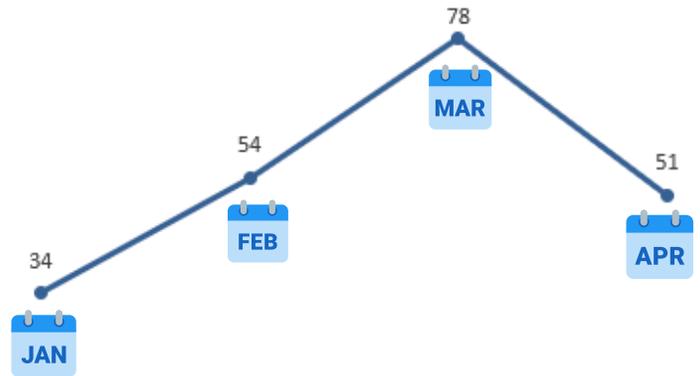
## REPORTING METRICS

Since the start of 2023, *a total of 217* reports have been submitted by students, faculty, and staff throughout the Department of Aerospace. In the spring semester, *54 reports on average* were received per month, with a *peak of 78* reports received in March. Traffic pattern conflicts and policy/procedure errors continue to be the most commonly reported occurrences. In the months of March and April, approximately *30%* of reports received were traffic pattern conflicts and *27%* were policy/procedure errors.

The majority of safety report submissions continue to come from flight operations and ground operations, although there has been a slight increase in participation from Part 147 maintenance in recent months. Please continue to submit your safety concerns! The department depends on feedback from students, faculty, and staff in order to identify hazards and develop mitigations.

You can find more information on safety reporting on page 4: Report Summaries.

AVERAGE: 54 / MONTH  
YTD: 217



**30%** Traffic Pattern Conflicts

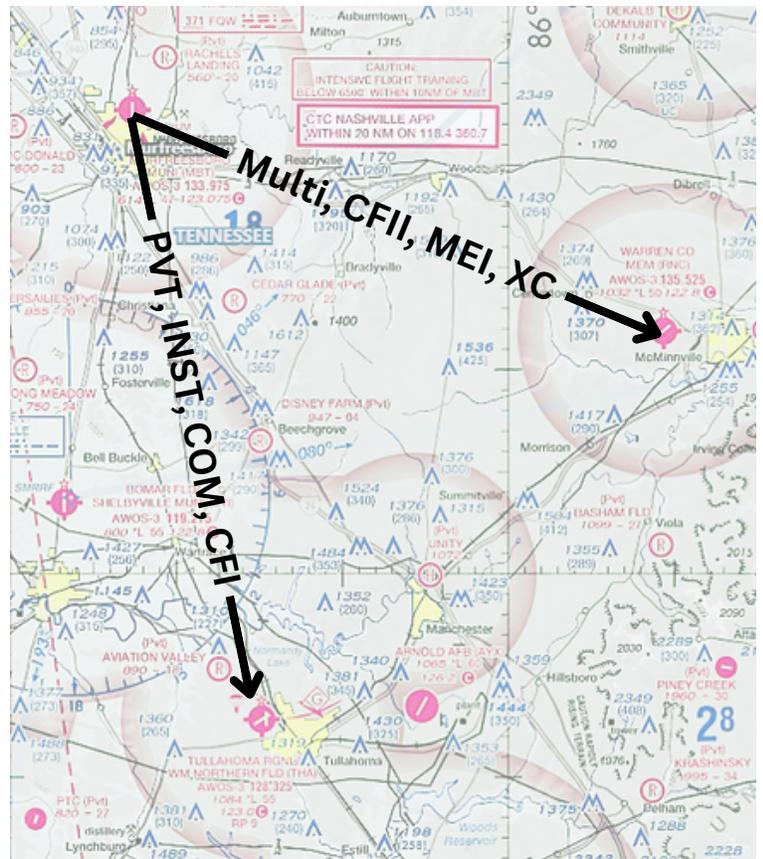
**27%** Policy/Procedure Errors

# AEROSPACE

## SAFETY CONSIDERATIONS FOR THE SUMMER RELOCATION

As mentioned at the Spring 2023 Midsemester briefing, the construction project and associated runway closure at Murfreesboro airport have presented a unique challenge for summer flight operations. Your flight school management team has been working diligently to achieve a solution that will minimally impact flight training progress. Part 141 Labs will temporarily relocate to Tullahoma, and Part 61 Labs will temporarily relocate to Warren County.

This temporary relocation raises many logistical challenges, but the Department's commitment to choosing Excellence and Safety remain at the forefront of the decision-making process. In order to proactively identify hazards and mitigate potential risks, the Department will be running a comprehensive Risk Assessment on the temporary relocation of our operations to ensure the safety and quality of the training we provide will not be compromised.



## TOWERED AIRPORT OPERATIONS

Towered airport operations present unique challenges, including communicating with ATC, managing more complex airport layouts, interpreting unique terminology, and dealing with unfamiliar airspace and traffic. General Aviation accounts for 80% of runway incursions/wrong surface events. Recently, we have seen a series of events occurring during operations conducted at towered airports (See Significant Events on page 3).

Please explore the list of resources on the next page, which may be helpful when navigating the challenges of Towered Airport Operations.

## TOWERED AIRPORT OPS RESOURCES



[FAA From the Flight Deck](#) - SMYRNA (MQY) - the FAA made a video on the specific challenges operating in and out of KMQY.

ASI Ask ATC Series - The Air Safety Institute has a series dedicated to ATC communications. Simply search "[ASI Ask ATC.](#)"

[FAA Pilot Controller Glossary](#) - This is the FAA's glossary of terminology, compiled to promote a common understanding of the terms used in ATC Communications.

Air Safety Institute "Magic Words" :  
"Stand by" – if you can't respond immediately  
"Say again?" – if you didn't catch every word or unclear  
"Unable" – if beyond your ability, safety concerns, etc.  
"Student pilot" – receive extra care and consideration

## SIGNIFICANT EVENTS

### TAIL STAND MALFUNCTION

During a Part 147 maintenance lab, a tail stand came apart with an aircraft suspended on jacks, due to the movement of the aircraft while students were climbing in and out of the aircraft. The tail stand was held in place by bolts, and there were no nuts or washers present to prevent the bolts from sliding out of place. In response to this event, nuts and washers were added to the tail stand, and personal safety while operating in and around aircraft on jacks was emphasized.

### FUEL TRUCK STRIKE

A DA40 struck a fuel truck on the ramp due to inadequate space between the fuel truck and the row of parked aircraft and the pilot's focus on the left wing clearance rather than both wings. Contributing to the event was the pilot's reluctance to slow down or come to a stop, due to an aircraft following behind and another aircraft waiting to exit the ramp. Rushing often leads to undesired consequences. If unsure about wingtip clearance, it is best to stop, get out, and look before proceeding.

### RUNWAY EXCURSION

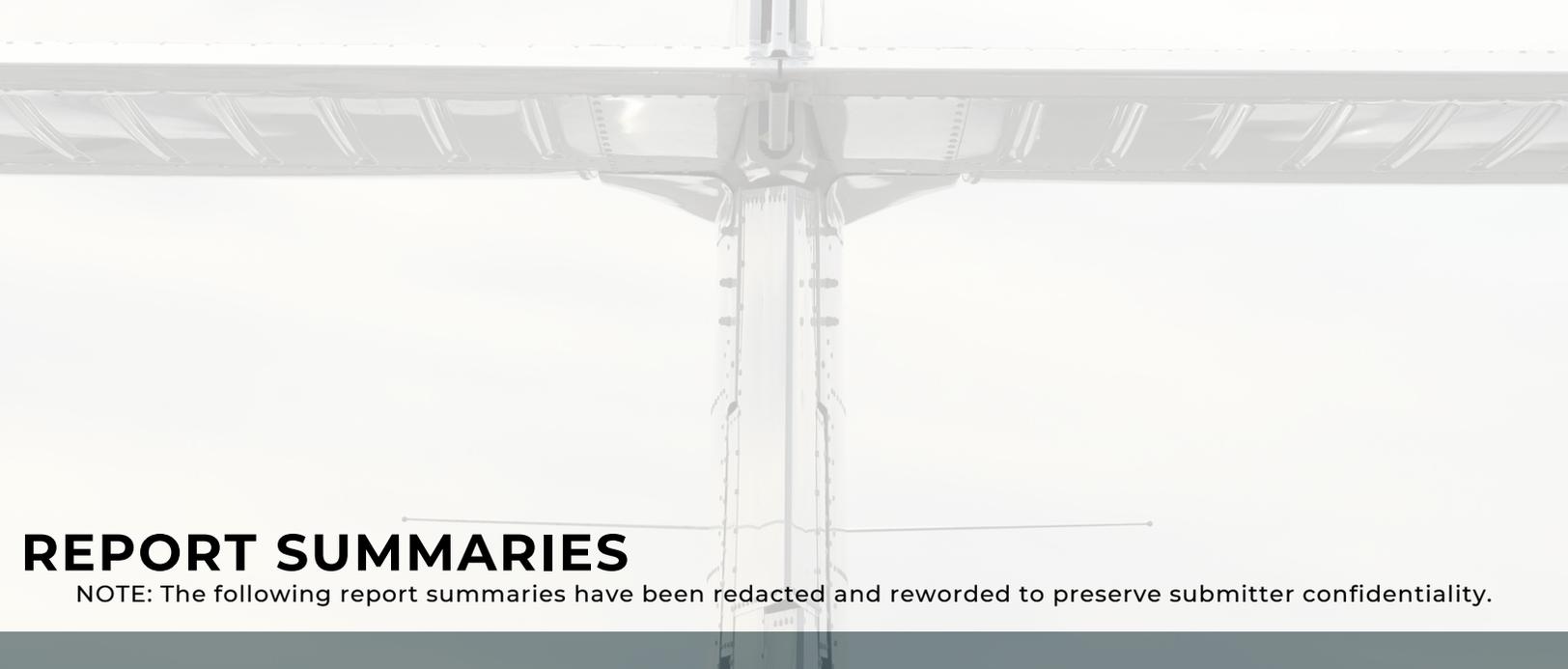
A DA40 was attempting to make a hard right turn to exit the runway and veered into the grass, striking a sign. The aircraft was minimally damaged. The pilot was focused on making the correct taxiway and indicated that it would have been best to proceed to the next taxiway.

### RUNWAY INCURSION

A DA40 taxied onto the runway at a towered airport after being instructed to "hold short." The pilot confused a hold short instruction for a line up and wait clearance.

### PARTIAL GEAR UP LANDING

A PA-44 experienced a partial gear up landing due to an inadvertent gear up selection during the landing rollout. In response to the event, the pilots emphasized being very methodical with configuration changes during any phase of flight and thinking through each action taken in the cockpit before executing it.



# REPORT SUMMARIES

NOTE: The following report summaries have been redacted and reworded to preserve submitter confidentiality.

The Department of Aerospace is committed to maintaining a **positive safety culture**, one in which error is seen as inevitable and admission of errors results in productive dialogue and learning opportunities for all. Some of the report summaries below include errors in checklist usage, policy compliance issues, and procedural deviations. Report submitters range in age and experience level from student pilots to senior management. The hazardous attitude of invulnerability may lead us to believe that we are incapable of making the same mistakes, but please fight complacency and diligently adhere to the policies and procedures designed with your safety in mind.

- DA40 crew departed with visible snow flurries at the time of departure as well as a temporary line in the TAF calling for light snow.
- DA40 crew diverted to SYI due to moderate precip and reduced visibility at MBT. 4 other DA40 crews did the same.
- While pushing back a DA40 into the parking space, the wingtip scraped the aircraft parked adjacent.
- A PA-44 crew was performing a full stop short field landing. On landing roll, the student aggressively applied the brakes, causing the brakes to momentarily lock up, and the tire popped. The crew taxied the aircraft off the runway.
- A student was seen walking on the ramp at night in front of an aircraft that was about to start. The student inside the starting aircraft yelled "clear prop," and was about to start the engine when the student walked in front of the aircraft from one side to the other, approximately 3-4 feet in front of the prop. The student was seemingly unaware of the fact that the aircraft was about to start.
- A DA40 was not properly tied down and the aircraft turned sideways due to the wind. A maintenance student and professor noticed as they were walking across the ramp and tied the aircraft down.
- A DA40 was taxiing to the runway, and a fuel truck driving across the ramp came to an abrupt stop. The driver appeared to be on his phone taking a call.
- A DA40 registration was invalid due to the "Assignment of Special Registration Numbers" certificate not present in conjunction with the old registration certificate.
- A ground operations worker got a call from an instructor, who was on a flight with a student at the time. The instructor wanted to book a flight for the next day and remove two flights from the schedule. The call lasted approximately 5-10 minutes.

- An instructor noticed their student was coughing during preflight inspection and asked him if he felt okay. He said he was fine and that he took some Zyrtec for his allergies that morning. The instructor referenced the FAA's medications list and noticed that Zyrtec has a 48hr observation period following the last dose, since it is a "sedating antihistamine." The crew elected to cancel the flight and conduct a ground lesson instead. The flight was supposed to be the student's first solo.
- A crew forgot to close their VFR flight plan and flight service called MTSU to determine the status of the flight. Ground operations contacted the crew via radio and the crew closed the flight plan with flight service via radio.
- On a stage check flight, the student was performing a power off 180 and started too far from the runway laterally. Upon realizing this, the student turned sharply to point the nose of the aircraft towards the runway and started losing altitude faster than anticipated. The aircraft crossed nearly 100 ft above trees and obstacles on the left side of the runway and the student did not initiate a go around until over the runway.
- A PA-44 crew was performing a full engine-out at altitude. The student ran the restart procedure around 4,000 feet. The instructor noticed that the CHT for the newly restarted engine had not changed much and thought it was a gauge issue, until he added power on the newly started engine and realized there was no power change. The altitude at this point was approximately 2,500-2,200 feet. The instructor searched for the problem and realized that the mags were off for the newly started engine. The instructor turned the mags on and climbed to 3,000.

### **POLICY/PROCEDURE ERRORS**

Checklist error	7
Discrepancy not filled out or incorrect	4
SP&P deviation	4
Flap overspeed	2
Landing at unapproved airport	1
Intersection departure policy deviation	1
Low altitude recovery from simulated emergency	1
Approach corridor policy deviation	1
Departure in visible moisture below 5 degrees celsius	1
Opposite direction instrument approach	1

## **UPDATES**

The Department's new **Emergency Response Plan** was released March 10th!

A total of **\$100 in Chick Fil A gift cards** were awarded to students who participated in the WINGS Credit drawing!



The Department has purchased a new safety management software, OmniSMS, that will serve as a tool for managing safety inputs and tracking and trending data. Stay tuned for more updates!

The first Safety Council volleyball game was held on Friday April 28th! If you're interested in joining the student or instructor safety council, please find the interest form on the aerospace Instagram or email [meredith.boardman@mtsu.edu](mailto:meredith.boardman@mtsu.edu).