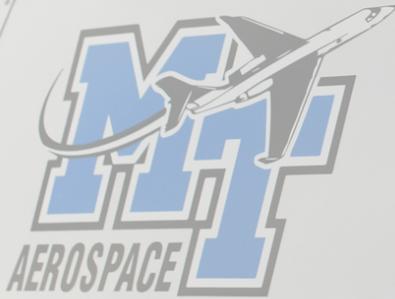


SAFETY SUMMARY

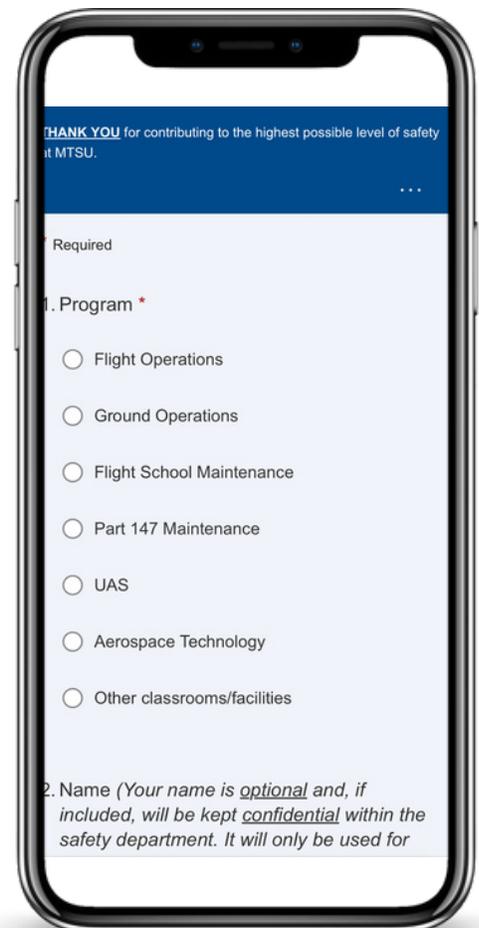


JANUARY-FEBRUARY 2023 EDITION

SAFETY REPORTING

Safety reporting continues to be an integral part of the safety program at MTSU. The Department uses safety reports to identify hazards and proactively mitigate risks. You can find the safety reporting link on the Department of Aerospace website, on the Flight Schedule Pro dashboard, or you can scan the QR codes located throughout the Department.

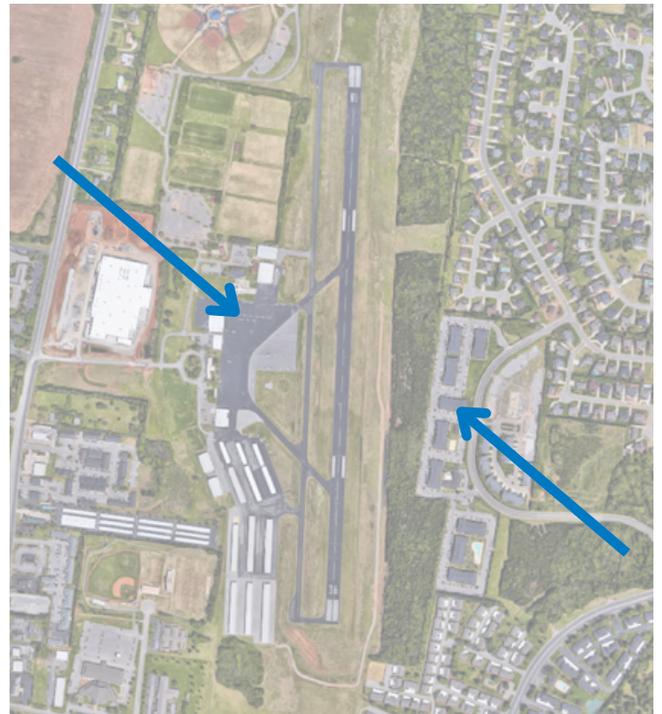
There are many complex areas of operation throughout the Department where risk exposures may occur. These areas include flight operations, ground operations, flight school maintenance, Part 147 maintenance, UAS, aerospace technology, and other classrooms and facilities. Keep in mind that YOU are responsible for reporting hazards in any of these operational areas. In doing so, you contribute to the highest possible level of safety at MTSU!



AEROSPACE

REPORTING METRICS

Since the start of the Spring 2023 semester, approximately 90 safety reports have been submitted. All of the reports submitted were related to flight operations and ground operations. **Traffic pattern conflicts** continue to be the most frequently reported occurrences. Of the traffic pattern conflicts reported, **11 occurred on the 45 degree entry** to the downwind, 6 involved an aircraft on the takeoff or landing roll, 2 occurred on the crosswind leg, 2 occurred on the departure leg, 2 occurred on base, and 1 occurred on final. Be sure to maintain **situational awareness** in the traffic pattern, especially when joining the pattern on the 45 and when taking a runway for departure.



REPORT SUMMARIES

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

PROXIMITY REPORTS

- A PA-44 crew was departing 18 at MBT and turned left crosswind. An inbound DA40 on the 45 to join the downwind did not see the PA-44, so the crew broke off the crosswind and departed to the east to rejoin the pattern on the 45. The DA40 crew did not appear to be paying attention to traffic or listening to radio calls.
- DA40 crew was approximately 5 miles to the southwest of SYI and inbound for a fuel stop since the MBT fuel farm was empty. The crew elected to join the pattern on a left base for 36 due to fuel concerns. The crew did not make a radio call due to lack of situational awareness. During the base to final turn, the instructor noticed traffic departing 18. The instructor took flight controls and made a left 90 degree turn. The departing traffic then proceeded to make a left crosswind at around 300 AGL. Separation distance was approximately 1.5 miles horizontally. The crew made a left 90 degree turn to 270 to navigate to the 45 degree entry for 36.
- A DA40 was doing S Turns about 6 miles away from MBT near the 45 for 18 (the active runway).
- An MTSU DA40 inbound on a solo XC was turning base for Rwy 18 and heard a radio call about another aircraft setting up for a power-off 180. The student elected to break off the base leg and turned to the north to reenter the 45. Upon turning from north to east after breaking off, the student encountered another aircraft on a converging course and turned to the right. The student made another call while maneuvering for a 3 mile 45. A jet also made a call to enter a wide downwind for Rwy 18. The student continued inbound, then elected to go around, and the jet landed while the DA40 was performing the go around. The DA40 continued in the pattern and landed.

TAIL STRIKES

- A DA40 crew reported a hard landing that may have been a tail strike caused by high flare.
- A DA40 crew was performing a short field landing and the student was the pilot flying. The student got slow on final (around 63 knots) and the instructor prompted the student to increase airspeed. The student added power, which slowed the descent rate, but the airspeed remained at 63 knots. During the roundout for the short field landing, the student reduced power to idle, and the aircraft began to settle short of the desired touchdown point. The student pitched up to try to make the point but did not add power, resulting in the tail striking the ground shortly before the main gear.

POLICY/PROCEDURAL ERRORS

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. The following report summaries 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.

- *An MTSU DA40 was maneuvering for a 45 entry for Rwy 36 while 18 was in use, although they announced that they were on the 45 entry for 18. Another crew alerted them that they were entering the pattern for the wrong runway. The aircraft then broke off the downwind and reentered a 45 for Rwy 18.*
- *A DA40 crew shooting an instrument approach into KMBT loaded MBT CTAF into COM 1 with 123.3 in COM 2. After making multiple calls (6 mile final, 4 mile final, breaking off and maneuvering for 45 rwy 36), the instructor realized they had been transmitting on 123.3 instead of MBT CTAF.*
- *An instructor omitted flap retraction on cruise checklist, resulting in flap overspeed by 5 knots.*
- *Ice buildup inside the stall horn port was unrecognized during preflight. During the flight, the stall horn never went off while practicing stalls. The instructor performed a full power-off stall to see if the horn would sound, and it did not. Post flight inspection revealed ice buildup on the inside of the stall horn port.*
- *A student reported a DA40 fuel cap coming off during cruise flight, because the student accidentally left it unscrewed during the preflight.*
- *A DA40 crew was on an instrument approach in IMC at night. While descending in IMC, the crew found that the landing light and strobes were causing a "disorienting effect when passing through the holes," so they elected to turn both off. They continued on the approach and broke out 100ft above minimums but forgot to turn the landing light back on for the landing, resulting in a hard landing. The instructor identified that the aircraft was off centerline and took the flight controls, reestablished centerline, and executed a go-around. The instructor clicked the go-around button on the throttle to activate the missed approach, but the button did not work and the instructor became flustered because the GPS was not sequencing. The instructor continued flying runway heading and entered IMC around 400ft AGL. The instructor was then able to press the suspend button and flew the rest of the published missed approach as normal. Also contributing to the event was the presence of fine oil particles on the windshield due to a small leak in the prop hub that was previously identified and determined to be acceptable.*

Department Corrective Actions: Checklist Usage is a required feedback item during Lesson Feedback Sessions conducted under the new Quality Management System.

RAMP SAFETY

Although flight operations are often an area of focus, ramp and ground operations often involve significant hazards. In January and February several ramp hazards were reported, including:

- A large hole in the ramp
- A reel of grounding cable that fell off a fuel truck
- A headset bag that was left behind after preflight and blown into the ramp by prop wash
- Multiple aircraft taxiing at high speeds
- A maintenance runup being performed at night without external lighting

Remain alert to the hazards that you may encounter during ground and ramp operations, and be sure to report your concerns as soon as possible.



UPDATES

- A new revision of the [Emergency Response Plan](#) will be released by the end of March!
- Earn WINGS Credit for a chance to win a Chick-Fil-A gift card!
 - Register for a free account on faasafety.gov.
 - Submit confirmation of registration for one entry into the drawing.
 - Submit safety course completion certificates for additional entries into the drawing. Examples include:
 - *1800WXBRIEF The Best Of The Future Of Flight Service*
 - *Commercial Drone Pilot: CFR Part 107 Explained*
 - *Adapting Threat and Error Management to General Aviation*
 - Submissions must be sent to meredith.boardman@mtsu.edu.
 - Winners will be notified at the end of the Spring 2023 semester.
- **Irregular Operation Reports (IROP)** are mandatory reports used to gather data about specific events, such as tail strikes, wildlife strikes, runway excursions, etc. The link to fill out an IROP and the list of reportable events can be found on the Flight Schedule Pro dashboard!

