

Aviation Safety Management Program
Department of Aviation
St. Cloud State University



SAFETY ALWAYS!

SCSU Department of Aviation

General Information

Department Mission

The Aviation Department is committed to providing the highest quality affordable aviation education for all students it serves with faculty actively involved in advancing the aviation community.

Department Vision

The Aviation Department will be a leader in offering degree programs that prepare graduates to enter into and advance in rewarding and responsible professional careers in the global and dynamic aviation industry providing lifelong positive contributions to the aviation community.

Department Values

In carrying out its mission and vision the Aviation Department values the following:

- The highest quality and dynamic aviation curriculum
- Faculty involvement in the aviation community
- A supportive environment for students, faculty, and staff that models respect for diversity
- Student involvement in aviation student organizations and the aviation community
- Active involvement with industry
- Facilities conducive to quality learning



SCSU AVIATION SAFETY MANAGEMENT PROGRAM COMMITMENT

The Department of Aviation at St. Cloud State University will strive to establish and maintain the highest level of safety for all students, faculty, flight instructors, and passengers while operating aircraft on the ground and in the air. This commitment will encompass each individual aircraft operation, regardless of the personal level of flight experience of the pilot(s) of the aircraft. Safety will be at the forefront of the SCSU Aviation program to ensure that all SCSU aviation program areas, including the professional flight training, management, operations, and maintenance management programs are governed by a strong safety culture. A proactive safety approach will be fostered and present in the aviation program at all times to minimize the possibility of accidents, incidents, and occurrences, to identify and work to eliminate latent and active hazards, and to effectively manage risk.

CORE SCSU AVIATION PROGRAM VALUES

The following core values are based upon the commitment of the safety conscience aviation professional in the SCSU Aviation Program, and are to be exhibited by faculty, professional and support staff, and students:

- Commitment to a “Safety First” organizational culture
- Professionalism and excellence
- Leadership
- Identification and addressing of at-risk behaviors
- Ethical behavior and decision-making
- Accountability and responsibility
- Respect of people, policies, property, and equipment
- A continued commitment to learning
- Foster the promotion and enjoyment of aviation

SCSU DEPARTMENT OF AVIATION COMMITMENT TO SAFETY

- Excellence in safety is a primary component of our departmental mission.
- The SCSU Department of Aviation will hold all participating individuals accountable for safety; including faculty, students, contractors, flight instructors, and others.
- The SCSU Department of Aviation will strive to maintain a continual commitment to the highest levels of safety in everything we do.



STATEMENT OF ACCOUNTABILITY

The SCSU Aviation Safety Management Program is designed by be a “no jeopardy” process by which all participants are encouraged to report incidents or hazards related to safety without fear of punishment, and this commitment will be honored.

However, it is important to note that if a person or group’s actions are in direct or willful violation of FAA, TSA, OSHA, EPA, SCSU, flight contractor, or other legal or governing agency policy/regulations, it is possible that additional action may be taken against the responsible person(s), up to and including suspension of flight privileges. This will be considered as needed on a case-by-case basis.

FACULTY AND STUDENT COMMITMENT TO SAFETY

- All SCSU Aviation faculty, staff, students, and flight contractors will be expected to accept responsibility and accountability for their actions and behaviors.
- ALL SCSU faculty, staff, and students involved in flight training for university credit must follow the SCSU Safety Management Program.
- All SCSU Aviation faculty, staff, students, and flight contractors will have the opportunity to participate in the development and improvement of safety standards, policies, and procedures.
- The SCSU Department of Aviation Safety Management Program will foster open communication about safety-related incidents, and this information will be shared with others so that they may benefit from the knowledge of the incident
- All SCSU Aviation faculty, staff, students, and flight contractors will concern themselves with the safety of others and their own safety.
- The SCSU Department of Aviation Safety Management Program will provide a mechanism for the recognition and rewarding of flight and ground safety enhancement, improvement, and performance.
- The SCSU Department of Aviation Safety Management Program will strive to foster a “safety-first” attitude in all faculty, professional and support staff, and students.



OBJECTIVES OF THE SCSU AVIATION SAFETY MANAGEMENT PROGRAM

- To ensure that each academic specialization of the SCSU Aviation Program will be unwaveringly committed to safety at all times, no exceptions.
- To ensure that all SCSU Aviation faculty, participating staff, and students will have the opportunity to be involved in the feedback process through the inception of an open safety communication system.
- To provide solid, thorough training in the use of the SCSU aviation safety program to foster the establishment and maintenance of appropriate ground and flight safety leadership skills.
- To make the SCSU aviation program as safe as possible to ensure the safety of students, staff, faculty, and contractors.

The SCSU Safety Management Program is fully supported by:

- St. Cloud State University
- The SCSU College of Science and Engineering
- The SCSU Aviation Department
- Wright Aero, Inc.
- The SCSU Aero Club, Inc.



SCSU Aviation Safety Management Program Oversight

The SCSU Aviation Safety Management Program will be governed by a strong and proactive safety committee. The safety committee will have members derived of the following structure:

- > Aviation Department Safety Program Coordinator
- > Aviation Department Chair or Flight Education Director
- > A representative from each flight training contractor
- > An SCSU Aviation flight student representative
- > An SCSU Aviation Management or Operations student representative
- > The Director of the St. Cloud Regional Airport
- > Aircraft Maintenance Representative

The safety committee will hold bi-monthly meetings for the purposes of reviewing safety items, reports, accidents, incidents, and investigations, and for conducting a continual evaluation of the safety program. Updates and revisions to the safety program will be conducted as needed.

The SCSU Safety Program Coordinator will also conduct an annual safety audit of the flight training provider(s); and will also meet with other stakeholders as necessary.

The Chair of the safety committee (the SCSU Safety Program Coordinator) will also meet monthly with the Dean of the College of Science and Engineering (COSE) for the purpose of informing him/her of any pertinent information as well as the overall status of the safety program. In the event of an accident or a significant incident, the Committee Chair will notify the Dean of COSE and the Assistant Vice President for Marketing and Communications as soon as possible.



SCSU Aviation Safety Management Program

Accident and Incident Investigation

The SCSU Aviation Safety Management Program includes a specific standardized process for investigating all accidents, incidents, and near-hits. This investigation process is titled Incident Analysis, and will be utilized for investigating events under the aviation safety program.

Every safety program committee member will be required to complete Incident Analysis training. This will ensure that each investigator is following the same process so that standardization of investigation is in place. Incident Analysis training will be conducted by Michael Ferguson who was the Incident Analysis instructor in his most recent position as a safety manager in the airline industry.

In order to prevent future incidents and accidents from occurring, it is imperative that events be investigated to determine all of the causal/contributing factors that led to the occurrence. Thus, the primary goal of Incident Analysis is the prevention of accidents, incidents, injuries, damages, and near-hits through identifying all of the causal factors of an event and developing specific, effective corrective actions. Although it is conducted post-event, Incident Analysis is a proactive safety initiative that is designed to be preventative in nature. It is a “no-fault, no jeopardy process” designed to make participants comfortable in order to be forthcoming with accurate information that may help to determine what caused an event to occur. It is a process that is fact-based, not speculative.

The training objectives of Incident Analysis are as follows:

- Why we investigate and the barriers to investigations
- What causes accidents, incidents, injuries, incidents, and damage events
- How the process works and the role of those involved in the process
- How to perform the investigation
- Conducting a risk assessment and assigning a risk code to the event
- Effective interviewing techniques
- Identifying causal factors
- Development, implementation and tracking of corrective actions
- The feedback process



SCSU Aviation Safety Management Program Incident Reporting System

The SCSU Aviation Safety Management Program includes an incident reporting system that represents a proactive approach to safety. This system features the use of a Hazard/Reportable Incident Form (HRIF). The HRIF is an informational form that is used to capture the preliminary information about the issue being reported. It is very important that the HRIF be completed as soon as possible after an event (accident, incident, injury, near-hit, etc.) has occurred because it is easier to remember the details of an event while it is still fresh in the mind. This will help to ensure accuracy in reporting the details of the event.

The information in the HRIF will be utilized as a part of the investigation to try to determine what happened so that similar events can be prevented in the future. Personal information will be kept confidential and reports can also be turned in anonymously.

The Hazard/Reportable Incident Form is available in the Aviation Department office, Wright Aero dispatch, and on the Aviation Department website. The web address and link to the aviation department page containing the HRIF is as follows:

www.stcloudstate.edu/aviation/studentInfo.asp

INCIDENT REPORTING PROCESS

Pilots, passengers, flight instructors, support personnel, or anyone who was involved in an event or was witness to an event are expected to report any incidents that are or could be detrimental to safety as soon as possible after the occurrence. The basic incident reporting process is as follows:

For Flight or Aircraft-Related Events:

- Contact Wright Aero dispatch or a flight instructor as soon as possible and report the event.
- Call the SCSU Aviation Department right away at 320.308.3086. The office manager will then contact Michael Ferguson (Safety Program Coordinator) or Steve Anderson (Flight Education Director).
- Complete an HRIF right away. Turn in a **copy** to Wright Aero dispatch (if pertaining to a Wright Aero aircraft or employee). Turn in the **original** copy of the HRIF to Michael Ferguson as soon as possible.
- Email Michael Ferguson and Steve Anderson to inform them of the event as soon as possible.



For Non-Flight Related Events:

- Call the SCSU Aviation Department right away at 320.308.3086. The office manager will then contact Michael Ferguson or Steve Anderson.
- Complete an HRIF right away. Turn in the original copy of the HRIF to Michael Ferguson as soon as possible.
- Email Michael Ferguson and Steve Anderson to inform them of the event/issue as soon as possible.

Incidents will be investigated as soon as practical by members of the safety committee that have completed Incident Analysis training. The results of these investigations reported regularly to all concerned stakeholders in a specific event and recorded in a master incident database in order to identify possible trends.

REPORTING GUIDELINES: WHAT TO REPORT

Although it is not practical to provide an exhaustive list of specific events that should be reported, here are the general guidelines to follow. Definitions have been provided below to assist you in knowing what to report. The reported event needs to be related to SCSU Aviation activities or functions.

Accident: An unexpected or undesired event that causes injury or damage

Incident: An occurrence or event that may cause or is likely to cause a injury or damage

Near-Hit: An undesired event that does not cause injury or damage, but could have resulted in injury to a person or damage to an aircraft or property

Report and complete a HRIF for the following:

- Any aircraft related event (on the ground or in-flight)
- Any accident, incident, or near-hit
- Any possible hazard that has been identified on the ground or in-flight. This includes ground facilities, airport environment, ground support equipment, aircraft, or other specific hazards that may be present in the environment (subjective, but important)
- Any critical or unsafe behaviors demonstrated by students, faculty, flight instructors or contractors, passengers, professional or support staff, etc.
- Any aircraft or property damage
- Any injury that occurs while involved in SCSU Aviation functions (class, flight instruction, activities, etc.)
- Any other issue, event, or incident that may pose a hazard but is not present in this list



THE IMPORTANCE OF REPORTING AND PARTICIPATION

It is extremely important that all issues and events be reported and an HRIF completed right away, no matter how small they may seem. Often, major events have their root cause in seemingly minor issues which have gone unreported and uninvestigated. We cannot make corrections if we are not informed or aware about specific issues or potential issues that have been noticed. Your full participation in reporting all issues is extremely important in creating a strong safety program and a strong safety culture in the SCSU Aviation program.

SAFETY FIRST - ALWAYS!



SCSU Aviation Safety Management Program

Faculty, Staff, and Student Safety Program

Commitment Form

I, _____, have read and agree to abide by all of the requirements, provisions, and policies of the St. Cloud State University Aviation Safety Management Program. I understand that any deviation that I make from the Aviation Safety Management Program, if necessary, may result in an investigation and possible subsequent action taken against me in accordance with SCSU codes of conduct. In addition, I understand that as long as I am involved in flight training for university credit I must follow the SCSU Safety Management Program regardless as whether I have signed this document or not.

Signed: _____

Date: _____



SCSU Aviation Safety Management Program

Flight Program Rules

PHONE NUMBERS

Dispatch - 320-252-5858
ARFF - 320-650-3575
STC Tower - 320-650-3288

OVERALL RULES

- All flight operations shall be conducted in accordance with the current FARs, the rules prescribed in this document, contractor operating policies, and limitations imposed by insurance policy parameters, whichever is most restrictive in each case.
- All flight operations must be conducted using dispatch services.
- All rules concerning alcohol, drug use, etc. outlined in the SCSU Student Code of Conduct apply to students conducting flight training for university credit. No alcohol shall be consumed within 12 hours of any flight.
- The aircraft owner's handbook or manual shall be used to determine proper aircraft operating procedures and operating limitations. Each pilot shall have the appropriate manual with him/her in flight. Checklist usage is required for all phases of flight.
- All pilots, except current Certified Flight Instructors (CFI), must complete an annual flight review with an approved flight instructor. All instrument rated pilots, except current instrument rated CFIs, shall complete an annual instrument flight check with an approved Flight Instructor in order to conduct IFR flight operations. Each pilot must complete at least 3 takeoffs and landings within the preceding 90 days to be current, if not he/she must be checked out and signed off by an approved CFI.
- All dual instruction must be conducted by Flight Instructors approved by St. Cloud State University.
- Immediately report any suspicious activity observed at the airport to the nearest person of authority.
- Cell phone use on the ramp should be minimized. Safely exit the ramp before using your cell phone.



PREFLIGHT

- No pilot will initiate a flight if they feel unfit due to illness, medical condition, fatigue, or stress.
- No pilot shall fly an aircraft that has been reported damaged or unsafe until airworthiness has been confirmed by a certified Aviation Maintenance Technician.
- Pilots shall report immediately all aircraft malfunctions and damage to the contractor's dispatch service. Damage or malfunctions that present imminent danger to persons and/or equipment discovered when the contractor's dispatch service is closed will be handled in the following manner:
 - Remove keys and secure the aircraft
 - Clearly note the discrepancy
 - Report the discrepancy to Dispatch or Maintenance as soon possible
- All flight operations require:
 - Weight and balance computation
 - Take and landing distance computations
 - Weather briefing
 - including current NOTAMS and flight restrictions prior to departure
- FAA flight plans are required for on all cross country flight:
 - Pilots with private certification or higher:
 - Night - farther than 25 nautical miles from departure airport
 - Day – farther than 50 nautical miles departure airport
 - Student pilots:
 - on all cross-country flights father than 25 nautical miles
- Fuel reserve - no flight can be initiated with less than:
 - 45 minute reserve – day
 - 1 hour reserve – night
- In addition to the FAR requirements, all night flight operations must have:
 - all gyro's operable
 - an operable radio
 - operating anti-collision lights
 - operating position lights
 - operating panel lights
 - a working flashlight on board.



GROUND OPERATIONS

- The rotating beacon must be on at all times.
- Pilots must establish that the area is clear before engine start.
- All aircraft shall be taxied at safe speeds. No faster than a brisk walk when near other aircraft and/or on airport ramp areas. Avoid “riding” the brakes, use power to adjust speed whenever possible.
- A sterile flight deck shall be maintained:
 - during all ground operations
 - within the airport area
 - within 5nm of IAFs of intended use during IFR operations

FLIGHT OPERATIONS

- The pilot in command must occupy the left front seat unless he/she has completed a right seat checkout by an approved CFI.
- All landings shall be made at licensed public airports shown in the Sectional Charts or Airport Facility directory, unless a genuine emergency exists, or prior permission is received.
- No aircraft may be flown lower than 2500 MSL over the St. Cloud Metro Area (includes Sauk Rapids, Sartell, Waite Park, and St. Joseph).
- No formation flight operations shall be conducted.
- Touch-and-go and stop-and-go operations:
 - Non-instructional flights:
 - Only allowed in single-engine aircraft.
 - Allowed only on runways 4,000’ or longer in non-complex aircraft and 5,000’ or longer for complex aircraft.
 - Runway remaining must be greater than 150% of the takeoff distance required to clear a 50’ obstacle from the point where the takeoff will be initiated (airplane is configured for takeoff and power re-applied).
 - Instructional Flights:
 - Single-Engine - Runway remaining must be greater than 150% of the takeoff distance required to clear a 50’ obstacle from the point where the takeoff will be initiated (airplane is configured for takeoff and power re-applied).
 - Multi-Engine - Runway remaining must be greater than 125% of the accelerate-stop distance from the point where the takeoff will be initiated (airplane is configured for takeoff and power re-applied).



POSTFLIGHT

- Pilots shall be responsible to hangar and/or secure aircraft after completion of each flight in accordance with the guidelines set forth by the appropriate aircraft contractor.
- A post-flight walk around is required after every flight. All discrepancies must be reported to dispatch.

STUDENT PILOT RULES

- All solo flights require instructor permission within one hour of the planned flight.
- Student pilots shall be briefed and the aircraft flight log shall be signed by the supervising CFI prior to each solo flight. No overnight student cross-country flights are allowed.
- Student Pilots must have received dual within 20 days of any solo flight.
- Solo flights must stay in designated practice areas unless otherwise approved.
- For the student, all landings will be to a full stop until 10 hours solo.
- The first three solo flights require dual prior to solo.
- Student pilots will file and activate flight plans for all solo x-country flights.
- All students must have two hours of simulated instrument instruction before solo x-country.
- Weather minimums
 - Wind 15 knots or less
 - Gust spread 10 knots or less
 - Crosswind component less than 10 knots
 - Traffic pattern
 - 7sm visibility and 2000 foot ceilings
 - Practice area
 - 10sm visibility 2500 foot ceilings
 - X-country flights
 - 3000 foot ceilings and 10sm visibility
- No student pilot solo night flights are permitted.
- Simulated forced landings by student pilots may be practiced only with an approved Flight Instructor who is conducting dual instruction.
- Flight Instructors can impose stricter weather minimums and other restrictions as they see fit.



WEATHER MINIMUMS

	Non-Instrument Rated and Current	Instrument Rated and Current	Dual Instruction
VFR Day - Traffic Pattern	1500' and 3 miles	1500' and 3 miles	1400' and 3 miles
VFR Day - Local Area (within 25nm)	2000' and 5 miles	1800' and 4 miles	1500' and 3 miles
VFR Night - Traffic Pattern	1800' and 4 miles	1800' and 3 miles	1500' and 3 miles
VFR Night - Local Area (within 25nm)	2500' and 7 miles	2000' and 5 miles	1800' and 4 miles
VFR Day - Cross- Country	2000' and 6 miles	2000' and 4 miles	1500' and 4 miles
VFR Night - Cross- Country	3000' and 8 miles	2500' and 5 miles	2000' and 5 miles
IFR Day	NA	Reports and forecasts that indicate approach minimums at departure, enroute, and destination ETA, but not less than 700' and 1 mile	Reports and forecasts that indicate approach minimums at departure, enroute, and destination ETA, but not less than 500' and 1 mile
IFR Night	NA	Reports and forecasts that indicate approach minimums at departure, enroute, and destination ETA, but not less than 1000' and 2 miles	Reports and forecasts that indicate approach minimums at departure, enroute, and destination ETA, but not less than 800' and 1 miles

The weather minimums in the above table are absolute minimums allowed for SCSU flight operations, all pilots need to set their own personal weather minimums based on their experience level.



- Outside air temperature
 - No aircraft may be flown when the outside air temperature is less than minus twenty one (-21) degrees Celsius.
 - No student solo flights, stalls, simulated engine failures, or touch and go landings are allowed when the temperature is less than minus fifteen (-15) degrees Celsius.
 - No aircraft shall be flown when the wind chill falls below -34⁰ Celsius (-30⁰ Fahrenheit).
 - No engine shutdowns in Multi-Engine aircraft when O.A.T. is under -5 degrees Celsius.
 - No simulated engine failures in multi-engine aircraft when O.A.T. is under -15 degrees Celsius.
 - Aircraft occupants must be suitably dressed for potential emergency situations (i.e. if the pilot and passengers cannot comfortably walk from the end of runway 31 at STC back to the terminal they are not dressed suitably).

Wind (knt)	Temperature (°F)														
	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30
5	36	30	25	19	14	8	3	-2	-8	-13	-19	-24	-30	-35	-40
10	26	20	13	-7	1	-6	-12	-18	-25	-31	-37	-44	-50	-56	-63
15	20	13	6	-1	-7	-14	-21	-28	-35	-42	-49	-56	-63	-70	-77
20	16	9	2	-6	-13	-20	-28	-35	-42	-50	-57	-64	-72	-79	-86
25	13	6	-2	-9	-17	-25	-32	-40	-47	-55	-63	-70	-78	-85	-93
30	11	4	-4	-12	-20	-28	-35	-43	-51	-59	-66	-74	-82	-90	-98
35	10	2	-6	-14	-22	-30	-37	-45	-53	-61	-69	-77	-85	-93	-101
40	9	1	-7	-15	-23	-31	-39	-47	-55	-63	-71	-79	-87	-95	-103

PROHIBITED OPERATIONS

- Simulated engine failures
 - On non-dual flights
 - Below 500' AGL
- Complete engine shutdowns
 - In SE aircraft
 - ME aircraft at night
- Unusual attitudes – solo
- Vmc Demo – night
- Formation flying
- Spins – (allowed on dual flights only)
- Emergency descents – solo
- Hand starting
- Enplaning or deplaning with engine running
- Flying wearing sandals or flip flops

SAFETY FIRST - ALWAYS!

