

CFIT AVOIDANCE

TABLE OF CONTENTS

Paragraph	Page
GENERAL	2-1
ABBREVIATIONS	2-1
DEFINITIONS	2-1
PROGRAM MANAGEMENT	2-2
POLICIES AND PROCEDURES – CFIT AVOIDANCE	2-3
TRAINING PROGRAM	2-7
RECORD AUDITS	2-8
PROGRAM REVIEWS	2-9
CONTINUOUS IMPROVEMENT	2-9
FEEDBACK.....	2-9
CFIT TRAINING SCENARIO – FLAT LIGHT	2-10
CFIT TRAINING SCENARIO – WHITE OUT	2-11
CFIT TRAINING SCENARIO – DETERIORATING VISIBILITY	2-12
FORMS AND DOCUMENTATION – CFIT AUDIT ROSTER	2-13
FORMS AND DOCUMENTATION – MEDALLION PROGRAM REVIEW RECORD	2-14

THIS PAGE INTENTIONALLY LEFT BLANK

CFIT AVOIDANCE

GENERAL

Grant Aviation in partnership with the Medallion Foundation has implemented Controlled Flight into Terrain (CFIT) Avoidance training. This training takes into consideration operations in flat light and white out conditions, deteriorating visibility, and the approach phase of IFR flights. The purpose of this training is to educate, instruct and monitor flight crew's performance during the above listed conditions.

This CFIT Avoidance Manual is designed to supplement the various documents and manuals referenced in the table below.

Manual Title	Commonly Referred To As:
Grant Aviation General Operations Manual	GOM
Grant Aviation General Training Manual	GTM
Grant Aviation Medallion Shield Manual	MSM
Federal Aviation Regulations	FAR
Aircraft Flight Manual	AFM
Pilot's Operating Handbook	POH
Grant Aviation Courseware Manual	CWM

ABBREVIATIONS

The following abbreviations have been included to aid the reader in understanding the Grant Aviation CFIT Avoidance Training Program.

Abbreviations	Meaning
CFIT	Controlled Flight Into Terrain
DME	Distance Measuring Equipment
EGPWS	Enhanced Ground Proximity Warning System
GPS	Global Positioning System
IFR	Instrument Flight Rules
IMC	Instrument Meteorological Conditions
VFR	Visual Flight Rules
VMC	Visual Meteorological Conditions

DEFINITIONS

The following definitions have been included to aid the reader in understanding the Grant Aviation CFIT Avoidance Training Program.

- **Controlled Flight Into Terrain** - Occurs when an airworthy aircraft under the control of the flight crew is flown unintentionally into terrain, obstacles or water, usually with no prior awareness by the crew. This type of accident can occur during most phases of flight, but CFIT is most common during the approach-and-landing phases.

- Deteriorating Flight Visibility - The reduction of forward horizontal distance due to weather phenomena, such as rain, snow, fog, clouds, blowing snow, mist, virga, dust, or any other conditions that would reduce the pilot's ability to see from the cockpit of an aircraft in flight, prominent unlighted objects that may be seen and identified by day and prominent lighted objects that may be seen and identified by night. Visibility is expressed in units of distance, reported as statute miles, or hundreds of feet.
- Extreme Barometric Variation - An increase or decrease of 250 feet or more in the altimeter setting between 2 airports within 100 miles of each other.
- Flat Light - An optical illusion, also known as "sector or partial white out." It is not as severe as "white out" but the condition causes pilots to lose their depth-of-field and contrast in vision. Flat light conditions are usually accompanied by overcast skies inhibiting any good visual clues. Such conditions can occur anywhere in the world, primarily in snow covered areas but can occur in dust, sand, mud flats, or on glassy water. Flat light can completely obscure features of the terrain, creating an inability to distinguish distances and closure rates. As a result of this reflected light, it can give pilots the illusion that you are ascending or descending when you may actually be flying level. However, with good judgment and proper training and planning, it is possible to safely operate an aircraft in flat light conditions.
- Flight Visibility - The average forward horizontal distance, from the cockpit of an aircraft in flight, at which prominent unlighted objects may be seen and identified by day and prominent lighted objects may be seen and identified by night
- Low Time Pilot - An initial new hire pilot who is employed by Grant Aviation with flight times between 500 and 1000 hours.
- White Out – As defined in meteorological terms, white out is when a person becomes engulfed in a uniformly white glow. The glow is a result of being surrounded by blowing snow, dust, sand, mud or water. There are no shadows, no horizon or clouds and all depth perception and orientation are lost. A white out situation is severe in that there aren't any visual references. Flying is not recommended in any white out situation. Flat light conditions can lead to a white out environment quite rapidly and can sneak up on you as your visual references slowly begin to disappear. White out has been the cause of several aviation accidents in snow-covered areas.

PROGRAM MANAGEMENT

The CFIT Avoidance Training Program in addition to the General Operations Manual (GOM) documents authority and responsibility for Grant Aviation's CFIT Avoidance Training Program. An organizational chart depicting the management of the CFIT Program in addition to all Grant Aviation programs can be found in the Grant Aviation General Operations Manual, Section 3, Company Organization.

AUTHORITY

Grant Aviation has designated that the position of Director of Operations has authority with regard to the Grant Aviation CFIT Avoidance training program. Grant Aviation's Director of Operations has the power to create or modify and make fundamental policy or procedure changes to the CFIT Avoidance Training Program without higher-level review or approval.

Grant Aviation's Director of Operations is authorized to administer the Grant Aviation MSM CFIT Avoidance training program, and shall meet the training requirements listed in the Medallion Foundation Audit Points as soon as practical.

RESPONSIBILITY

Grant Aviation has designated that the position of Chief Pilot has responsibility with regard to the Grant Aviation CFIT Avoidance program. Grant Aviation's Chief Pilot has the responsibility to administer the Grant Aviation CFIT Avoidance Training Program, and shall meet the training requirements listed in the Medallion Foundation Audit Points as soon as practical.

Grant Aviation's Chief Pilot is responsible for ensuring that the tasks or functions of the CFIT Avoidance Training Program are successfully accomplished including scheduling training as well as tracking and maintaining the content of all training sessions and records associated with the CFIT Avoidance Training Program.

MANAGEMENT OF CHANGE

From time to time key personnel will move on or be replaced within the organization. Because of this it is essential to have a process in place to ensure that this type of change is adequately managed. This manual clearly lays out the policies and procedures that are to be followed regarding the Grant Aviation CFIT Avoidance Training Program and should be used as a roadmap to administering the program. Additionally any person hired to replace either the Chief Pilot or Director of Operations will have had extensive experience administering the Grant Aviation CFIT Avoidance Training Program and therefore should be familiar with its content and structure. Anyone taking one of these positions will be given 2-4 weeks of general training regarding Grant Aviation's record keeping system, as well as be subject to audits to ensure that the system is being properly maintained.

POLICIES AND PROCEDURES – CFIT AVOIDANCE

This section contains Grant Aviation's CFIT Avoidance policies and procedures as they pertain to flat light conditions, white out conditions, deteriorating visibility, estimating in flight visibility, transitioning from deteriorating VMC to IMC, flying on unfamiliar routes and to unfamiliar airports or landing areas, and instrument approaches.

FLAT LIGHT

It is Grant Aviation's policy that VFR operations are permitted during flat light conditions provided that the pilot recognizes the flat light conditions, exercises sound judgment, and follows the procedure listed below.

When encountering flat light as defined in the definitions section of this manual, any pilot operating under VFR shall treat flat light conditions the same as VFR flight at night. The pilot shall increase minimum flight altitudes to either 1000 feet above the highest obstacle within a horizontal distance of 5 miles if operating over non-mountainous terrain or 2000 feet above the highest obstacle within a horizontal distance of 5 miles if operating over mountainous terrain.

Those pilots and aircraft that are capable of IFR flight have the option of obtaining an IFR clearance and continuing the flight as described under the paragraph titled "Transitioning from deteriorating VMC to IMC".

WHITE OUT

It is Grant Aviation's policy that operating in white out conditions is the same as operating in IMC conditions. Pilots operating under VFR who encounter white out conditions shall follow the procedure listed below.

When encountering white out conditions as defined in the definitions section of this manual, any pilot operating under VFR shall refer solely to their instruments and ensure they have adequate ground clearance. Once stabilized they shall execute a stabilized altitude course reversal with a standard rate turn away from obstructions and rising terrain, and divert to more favorable VFR conditions.

Those pilots and aircraft that are capable of IFR flight have the option of obtaining an IFR clearance and continuing the flight as described under the paragraph titled "Transitioning from deteriorating VMC to IMC".

DETERIORATING VISIBILITY

It is Grant Aviation's policy that pilots operating in deteriorating visibility under VFR can continue to do so as long as the minimum ceiling and visibility requirements for VFR flight are observed. At any point during the flight if the minimum ceiling and visibility requirements for VFR flight are no longer observed pilots shall follow the procedure listed below.

When operating under VFR, and deteriorating visibility as defined in this manual is encountered and the weather conditions are deteriorating to that of less than what is required for VFR, the pilot shall refer solely to their instruments and ensure they have adequate ground clearance. Once stabilized they shall execute a stabilized altitude course reversal with a standard rate turn away from obstructions and rising terrain, and divert to more favorable VFR conditions.

Those pilots and aircraft that are capable of IFR flight have the option of obtaining an IFR clearance and continuing the flight as described under the paragraph titled "Transitioning from deteriorating VMC to IMC".

ESTIMATING IN-FLIGHT VISIBILITY

Most Grant Aviation aircraft are equipped with Multifunction displays, Moving Map GPS units, and DME that are all able to assist the pilot in determining in-flight visibility. The following procedures will aid the pilot in estimating in-flight visibility.

- During the Day - The pilot should pick out a prominent object or visible geographical feature, such as a bend in the river, lake, shoreline, or depicted airport. They will then find this feature, or airport, on the multi-function display (MFD), or GPS, and select the appropriate range scale so as to more accurately estimate distance of object, or airport, from the aircraft by using the MFD's visual ranging depictions, thus accurately determining the flight visibility.
- At Night - In remote areas of Western Alaska the pilot should pick out a prominent lighted object such as villages, lighted towers, or activate all surrounding airport pilot radio controlled lighting to include omni directional rotating beacons, via common traffic advisory frequency (CTAF). They will then find this feature, or airport, on the multi-function display (MFD), or GPS, and select the appropriate range scale so as to more accurately estimate distance of object, or airport, from the aircraft by using the MFD's visual ranging depictions, thus accurately determining the flight visibility.
- Alternate Procedure - An alternative method of quickly estimating in-flight visibility is as follows: Pick an object as far ahead as possible. Check the time elapsed to overtake the object, one minute at 120 mph (105 kts) ground speed equals 2 miles visibility, 30 seconds at 120 mph (105 kts) ground speed equals 1 miles visibility.

TRANSITIONING FROM DETERIORATING VMC TO IMC

The following Grant Aviation aircraft are equipped for IFR flight:

- Cessna 208/208B
- Piper PA31-350
- Beechcraft B200/200

When a pilot operating under VFR observes a ceiling or visibility value that is less than that required for VFR flight, a stabilized altitude course reversal is recommended with a standard rate turn away from obstructions and rising terrain.

However, should the PIC be appropriately qualified and flying an aircraft that is capable of IFR flight, they may decide to transition from VFR flight to IFR flight. If they do in fact choose to make the transition the best course of action would be to contact an Air Traffic Control (ATC) facility and request an IFR clearance, followed by an IFR transition from present position to a protected segment of an airway, therefore assuring obstacle and terrain clearance

The following Grant Aviation aircraft are not equipped for IFR flight:

- Cessna 207

Grant Aviation Cessna 207 aircraft do not have a procedure to transition from VFR flight to IFR flight as they are used for VFR flights only, and to do so would be contrary to our Operations Specifications.

If unable to maintain VMC conditions using the CFIT avoidance procedures listed in this manual, contact the nearest Air Traffic Control (ATC) facility, advise them of your situation, and if necessary declare an emergency. Indicate the nature of the emergency, the assistance you require, and advise the number of persons on board, and amount of fuel remaining.

Should the crew exercise emergency authority, a written Grant Aviation "Occurrence Report" shall be forwarded to the Director of Operations within 48 hours

UNFAMILIAR AIRPORTS LANDING AREAS AND ROUTES

When a pilot is assigned to fly over a route or into an airport that he has not flown within 90 days, he shall accomplish the following items:

- Determine the route to be flown, and the applicable altitudes.
- Be aware of all enroute aids to navigation and communication stations.
- Study the terrain over which the flight is to be made.
- Be aware of all enroute and slightly off-route airports.
- Study all available information concerning the airport of intended landing.
- For night flights, be aware of all available lighting aids.
- Be aware of all airspace restrictions.
- For IFR flights, study all enroute approach, and landing charts.

INSTRUMENT APPROACHES

When conducting instrument approach procedures it is essential for pilots to follow the same procedures each time and to not deviate or take short cuts during the operation. Section 8 of the Grant Aviation General Operations Manual pages 8-31 to 8-35 covers the arrival and approach phase of flight in detail. Some highlights of that section are as follows:

- Always have a current copy of the approach plate or chart available and out in the cockpit. Just because you are familiar with the approach doesn't mean that it can't change or ATC could give you a bad instruction.
- Always brief the approach at least 20 miles prior to the IAF.
- Always ensure that you have a current altimeter setting.
- Always cross check clearances given by ATC against the chart to ensure all altitudes issued are safe and in accordance with the charted procedure.
- Never alter the approach or go below minimums.
- When transitioning to visual use whatever visual or electronic glide path is available especially when operating at night.

RAPIDLY CHANGING BAROMETRIC PRESSURE

In the case of rapidly falling pressure, the aircraft may be closer to the ground than indicated, leading to a potential safety compromise of the aircraft making contact with the ground or an object on the ground while in controlled flight if the altimeter has not been reset. To quote an old saying: "going from a high to a low, look out below." In the case of rapidly rising pressure the aircraft is further above the ground than indicated leading to a potential unnecessary missed approach or diversion.

During flight below 18,000 feet MSL and when the barometric pressure is 31.00 inches Hg. or less, the altimeter should be set to the current reported altimeter setting of a station along the route and within 100 nm of the aircraft, or if there is no station within this area, the current reported altimeter setting of an appropriate available station. While on an instrument flight plan, air traffic controllers will furnish this information to the pilot at least once while the aircraft is in the controller's area of jurisdiction. For a departure from an airport without weather reporting, the pilot should set the altimeter to the field elevation for that airport.

ALTIMETER ERRORS DURING EXTREMELY COLD TEMPERATURES

Extremely cold weather can cause potentially dangerous altimeter errors. When flying above a reporting station on an exceptionally cold day, the aircraft will be significantly lower than what the altimeter indicates. Extreme caution should be exercised when flying in proximity to obstructions or terrain in extremely low temperatures. When operating in these conditions, especially at the minimum altitudes or when conducting an instrument approach, pilots may wish to compensate for the reduction in terrain clearance by adding a cold temperature correction from the following ICAO Cold Temperature Error Table:

Note: Pilots should maintain assigned altitudes, but may ask for a higher cruise altitude if terrain clearance might be an issue.

Height Above Airport in Feet

	200	300	400	500	600	700	800	900	1000	1500	2000	3000	4000	5000
+10 C	10	10	10	10	20	20	20	20	20	30	40	60	80	90
0 C	20	20	30	30	40	40	50	50	60	90	120	170	230	280
-10 C	20	30	40	50	60	70	80	90	100	150	200	290	390	490
-20 C	30	50	60	70	90	100	120	130	140	210	280	420	570	710
-30 C	40	60	80	100	120	140	150	170	190	280	380	570	760	950
-40 C	50	80	100	120	150	170	190	220	240	360	480	720	970	1210
-50 C	60	90	120	150	180	210	240	270	300	450	590	890	1190	1500

EXAMPLE-

Temperature -10 degrees Celsius, and the aircraft altitude is 1,000 feet above the airport elevation. The chart shows that the reported current altimeter setting may place the aircraft as much as 100 feet below the altitude indicated by the altimeter.

TRAINING PROGRAM
GENERAL

Grant Aviation conducts one classroom training session and one CFIT Avoidance training session in an ATD annually with each pilot. The classroom training session is generally conducted at initial or recurrent ground school in a classroom setting and the ATD session is conducted on an individual basis using company developed flight scenarios to test the pilots ability and judgement in various CFIT Avoidance scenarios. All pilots are required to complete both the classroom training and the ATD training prior to being assigned to revenue operations.

Several Grant Aviation Flight Instructors, Check Airmen, and the Chief Pilot, have been qualified by Medallion Foundation staff on the use of Medallion Foundation ATD's and our Chief Pilot has received authorization from the Medallion Foundation to train Grant Aviation Flight Instructors and Check Airmen on the use of Medallion owned ATD's.

Grant Aviation's CFIT Avoidance Training Scenarios contain the objectives, training methods, required training hours, curriculum, and completion standards, for the satisfactory demonstration of company procedures and recognition of loss of visual cues in flat light, white out and deteriorating visibility, in addition to the demonstration of company CFIT avoidance procedures and sound judgment.

TRAINING AND TESTING

Grant Aviation conducts one CFIT avoidance classroom training session per year for each pilot. Attendance is documented on the Class Attendance Record. Also at the completion of the classroom training a written test is administered with 70% being the minimum completion standard. Instructors and students correct the tests, students are encouraged to ask questions, and all tests are corrected to 100% to ensure the students complete understanding of the subject matter presented. The Class Attendance Record and test results are then forwarded to, and retained for a specified period of time, by the Chief Pilot at the principal base of operations in Anchorage.

Grant Aviation conducts one CFIT avoidance training session per year for each pilot in an ATD. The session and pilots performance is documented on the Flight Training Record. This form is then forwarded to and retained for a specified period of time by the Chief Pilot at the principal base of operations in Anchorage.

DOCUMENTATION

Class attendance and student performance is documented on the appropriate forms. The CFIT Avoidance Training records, consisting of class attendance forms and certificates of training, remain on file under the care of the Chief Pilot at the principal base of operations in Anchorage, and are used to audit compliance with the training requirements set forth in this manual.

The following forms will be required to thoroughly document all phases of the CFIT Avoidance program.

• Flight Training Record	Page A-24 of the General Training Manual
• Class Attendance Record	Page A-11 of the General Training Manual
• Certification of Training	Page A-05 of the General Training Manual
• Blank Answer Sheet	Page A-01 of the General Training Manual
• CFIT Audit Roster	Page 2-12 of this chapter
• Medallion Program Review Record	Page 2-13 of this chapter

PILOTS WHO LACK EXPERIENCE OR NEED ADDITIONAL TRAINING

It is the flight crew's responsibility to advise the Chief Pilot if they are not flight current for any assigned operations. The Chief Pilot will ensure that an aircraft or other training facilities or aids is made available to restore flight currency or provide additional training to any pilot requesting or needing such training. This policy extends to any pilot who feels that they need additional instruction and training on Grant Aviation's CFIT avoidance program.

Additionally those pilots who fall into the category of low time will usually have restrictions placed upon them by the Check Airmen indicating restriction and specified period of time such as "no special VFR" or "no special VFR for the next 100 hours". These restrictions remain in effect for the specified period of time or until removed by a Check Airman upon completion of a new check ride, in addition to any other restrictions the Chief Pilot deems necessary.

RECORD AUDITS

All Grant Aviation pilot training records are retained at the principal base of operations, under the care and control of the Chief Pilot, and are available for review. These records are retained by Grant Aviation in accordance with the Grant Aviation Records Retention Policy. This policy has been approved by the FAA and is contained in the Grant Aviation Training Manual and General Operations Manual.

The Director of Operations or Chief Pilot will conduct audits of the CFIT Avoidance Training Records once every twelve months to ensure that all pilots have received the required CFIT training, the documentation of that training exists, and is completed correctly. This audit will be documented on the CFIT Audit Roster which can be found at the end of this chapter.

The recorded written audit results will be kept in the master copy of the Grant Aviation Medallion Shield Manual, which is kept at our principal base of operations in Anchorage. Any discrepancies discovered during the audit will be documented and corrected. Records of audits will be kept for a period of 24 months, and copies of the audit will be included in the program review..

PROGRAM REVIEWS

The Director of Operations and the Chief Pilot will conduct an annual review of the CFIT Avoidance Training program every twelve months to ensure that the information presented is educational, informative, compatible with our fleet of aircraft and area of operations, as well as compliant with the most recent Medallion Foundation Audit Points. This review will be documented on the Medallion Program Review Record, which can be found at the end of this chapter, and will include at least the following:

- Feedback forms
- Dispatch records of weather diversions
- Hazard or safety reports

The recorded written results of the program reviews will be kept in the master copy of the Grant Aviation Medallion Shield Manual, which will be kept at our principal base of operations in Anchorage. Records of all reviews will be kept for a period of 24 months.

CONTINUOUS IMPROVEMENT

Grant Aviation's CFIT Avoidance training program does not discriminate based on previous experience, or lack thereof, but is designed to point out weaknesses or bad habits, not necessarily due to lack of experience, or low time. All Grant Aviation pilots are expected to meet the completion standard as stated, but restrictions are sometimes placed upon them such as "cargo only", "no night flight", "no special VFR", etc., and limiting such things as runway length, cross wind component, maximum gross takeoff weight, etc., if deemed necessary by the Check Airman in consultation with the Chief Pilot.

The stated goal of the Grant Aviation CFIT Avoidance training program is a demonstration of the student's comprehension of the subjects and mastery of required skills. The training program is therefore based on the level of competency and understanding demonstrated by testing and checking, followed by any necessary practice to gain the experience required to meet standards in areas of weakness.

FEEDBACK

Grant Aviation's CFIT Avoidance training is documented and tracked by the Chief Pilot, based on the written documentation supplied by the pilot flight instructors and check airmen on the various forms mentioned in the documentation section of this chapter. In addition, verbal feedback is often provided to the Chief Pilot indicating student's performance or lack thereof.

CFIT TRAINING SCENARIO – FLAT LIGHT

PCATD SIMULATOR

1. View the "Flying in Flat Light and White Out Conditions" CD
2. Route plan: Inbound to Anchorage from the west.
3. Practice in the recognition of loss of visual cues necessary to identify the onset of flat light conditions.
4. Practice Grant Aviation flat light CFIT avoidance procedures.
5. Practice in the recognition of non-stabilized approach.
6. Practice of Grant Aviation procedures when responding to aural warnings from an Altitude Warning System
7. Instructor / student critique and replay of flight, followed by review. Questions?

PCATD set up for demonstrating flat light conditions: Using X-PLANE

1. Load the "Flat Light – Grant Aviation" situation and/or set up the simulator as follows:

Aircraft Position	18 mile final for 7R at Anchorage over ELIAS 3,000 MSL, heading 070, appropriate cruise speed	
Mid cloud layer	"Lo Stratus"	Tops - As desired Bases - 5,000 MSL
Lowest cloud layer	"Lo Stratus or Cumulus Ovc"	Tops - 1,800 MSL Bases - 200 MSL
Visibility	20 SM	
Rate of Change	Stagnant	

2. The lowest cloud layer simulates featureless snow covered terrain, "the ground". Note that the weather is good VFR.
3. As you fly this route, try to determine your height above the "ground". Begin a descent and continue trying to determine your height above the ground. You will not be able to see the "ground" until you "crash".
4. Replace the aircraft at the original starting position and begin the flight again. Practice your company procedure for operating over an area of flat light. You will notice that you need to use your instruments to maintain heading and altitude, even though you are in VFR conditions.

CFIT TRAINING SCENARIO – WHITE OUT

PCATD SIMULATOR

1. View the "Flying in Flat Light and White Out Conditions" CD
2. Recognition and loss of visual cues and procedures for inadvertent VFR flight into instrument conditions.
3. Practice in the recognition of loss of visual cues necessary to identify the onset of white out conditions.
4. Practice in executing Grant Aviation white out CFIT avoidance procedures when white out conditions are encountered.
5. Practice of Grant Aviation approach briefings.
6. Practice of company call outs during approaches.
7. Practice of Grant Aviation procedures for stabilized approaches.
8. Practice in the recognition of non-stabilized approach.
9. Practice of Grant Aviation procedures when transitioning from instruments to visual cues during instrument approaches.
10. Practice in executing a go around/missed approach during non-stabilized approaches
11. Practice in executing a go around/missed approach after loss of visual cues after transitioning from instruments.
12. Practice in recognizing and responding to the loss of altitude awareness during approaches.
13. Practice of Grant Aviation procedures when responding to aural warnings from an Altitude Warning System
14. Instructor / student critique and replay of flight, followed by review. Questions?

PCATD set up for demonstrating white out conditions: Using X-PLANE

1. Load the "White Out – Grant Aviation" situation and/or set up the simulator as follows:

Aircraft position	19 DME southeast of the HOM VOR on the 135 radial 5,000MSL on a heading of 300	
Mid cloud layer	"Cu Broken"	Tops - As Desired Bases - 11,500 MSL
Lower cloud layer	"Lo Stratus or Cumulus Ovc."	Tops - 2,500 MSL Bases - 800 MSL
Visibility	4 SM	
Rate of change	Stagnant	

2. Begin towards the hills that provide a good ground reference. Notice that everything in front of the aircraft is white except for the hills.
3. Continue the flight until you have lost sight of the hills. As you approach the hill, notice that there aren't any additional ground reference points beyond the hill.
4. You will notice that you are now looking at a uniformly white or gray glow and you have no horizon, clouds, or depth perception. The only way to fly now that you have flown past your last point of reference is to use your instruments.
5. Practice your company procedures for **recognition of the onset and avoidance** of white out conditions. Your procedures should include at a minimum, never flying past your last visible ground reference point.
6. After executing the white out CFIT avoidance procedure, transition to instruments and proceed to the HOM VOR at the appropriate minimum IFR altitude.
7. Execute the LOC/DME BC 21 via the HOM transition. Plan on circling for runway 03.
8. After the transition from IMC to visual for the circling maneuver, the instructor can start lowering the visibility and/or ceiling so the student loses sight of the runway environment.
9. Recognize the loss of visual cues and execute the published missed approach procedure.

CFIT TRAINING SCENARIO – DETERIORATING VISIBILITY

PCATD SIMULATOR

1. Route Plan: Cold Bay (PACD to King Cove (PAVC) via Lenard Harbor.
2. Practice in recognizing that deteriorating weather conditions may exist on your route of flight.
3. Practice setting a personal visibility minimum prior to departure and for the decision to execute a 180 degree turn to avoid flight from VFR to IMC.
4. Practice in estimating in flight visibility.
5. Proactive in executing Grant Aviation deteriorating visibility CFIT avoidance procedures when deteriorating visibility conditions are encountered.
6. Practice of Grant Aviation procedures when responding to aural warnings from an Altitude Warning System
7. Instructor / student critique and replay of flight, followed by review. Questions?

PCATD set up for simulating deteriorating weather conditions: Using X-Plane

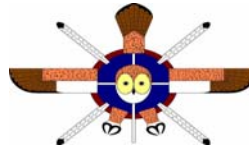
1. Load the "Deteriorating Visibility – Grant Aviation" situation and/or set up the simulator as follows:

Aircraft Position	Runway 14 departure at Cold Bay, PACD	
Lowest cloud layer	"Cu Overcast"	Tops - As Desired Bases - 2,300 MSL
Visibility	3.5 SM	
Rate of change	Rapidly Deteriorating	
*note – The instructor can periodically move the turbulence, storm and/or precipitation sliders back to “none” as necessary to prevent unwanted simulator aircraft performance.		

2. Depart Cold bay and head towards Lenard Harbor and the pass to King Cove.
3. Begin estimating in flight visibility.
4. When the in flight visibility diminishes to your personal limit, execute a course reversal and exit the pass.
5. Was your course reversal unsuccessful? If so, was it because you didn't maintain altitude during the turn? Was it because you turned the wrong direction and hit the side of the pass? Was your personal visibility minimum too low?
6. Once you have determined why the first attempted course reversal was unsuccessful, set up the computer to try the scenario again. Incorporate the changes you made in your initial procedure and fly the route again. Was the second attempt successful? If not, why? Was it just barely successful? If so, what should you change to increase your safety margin?

DOCUMENTATION AND FORMS – CFIT AUDIT ROSTER

GRANT AVIATION
CFIT AUDIT ROSTER



DATE: _____

	NAME	Certificate of Training	Flight Training Record	Next CFIT ATD Due
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				

AUDIT CONDUCTED BY: _____ DATE: _____

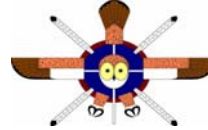
SIGNATURE: _____

AUDIT REVIEWED BY: _____ DATE: _____

SIGNATURE: _____

DOCUMENTATION AND FORMS – MEDALLION PROGRAM REVIEW RECORD

MEDALLION PROGRAM REVIEW RECORD



Program Being Reviewed _____ Date _____

Records Audited Within the Last 12 Months? Y N Initials _____

Policy Reviewed Within the Last 12 Months? Y N Initials _____

CARRY OVER ITEMS FROM THE PREVIOUS YEAR

ITEMS IDENTIFIED IN THE PRE-AUDIT WITH A MEDALLION PROGRAM MANAGER

ITEMS IDENTIFIED IN GRANT AVIATION'S INTERNAL REVIEW

RECOMMENDED PROGRAM CHANGES

Audited By _____ Initials _____ Date _____

Reviewed By _____ Initials _____ Date _____

Next Review Due _____