

# Welcome to Recurrent Training!



In this presentation you will re-familiarize yourself with the important policies, procedures and regulations that apply to all Cape Air pilots.

After you have viewed the presentation, you will be asked to complete a test on the information you have learned.

If you have any questions about the information, please see your instructor.

Thank you for your time and attention.



# Federal Aviation Regulations



# 135.1 Applicability

The Part 135 regulations apply to:

- ✈ The commuter or on-demand operations of those who hold an Air Carrier Certificate or Operating Certificate under part 119 of this chapter.
- ✈ Each person employed or used by a certificate holder conducting operations under this part including the maintenance, preventative maintenance and alteration of an aircraft.
- ✈ The transportation of mail by aircraft conducted under a postal service contract awarded under 39 U.S.C. 5402c.

# 135.19 Emergency Operations

- ✈ In an emergency, the certificate holder, including the pilot in command, may deviate from the regulations in order to ensure the safety of persons or property.
- ✈ If a person deviates from the regulations to handle an emergency, he/she shall submit a report on the deviation to our FSDO office within 10 working days

# 135.85 Carriage of Persons Without Compliance with the Passenger-Carrying Provisions of this Part

The following persons may be carried aboard an aircraft without complying with the passenger-carrying requirements of this part:

- ➔ **A crewmember or other employee of the certificate holder.**
- ➔ A person necessary for the safe handling of animals on the aircraft.
- ➔ A person necessary for the safe handling of hazardous materials
- ➔ A person performing duty as a security or honor guard accompanying a shipment made by or under the authority of the U.S. Government.
- ➔ **An authorized representative of the FAA conducting an en route inspection.**
- ➔ A person, authorized by the FAA, who is performing a duty connected with a cargo operation of the certificate holder.
- ➔ A DOD commercial air carrier evaluator conducting an en route evaluation.

# 135.93 Autopilot: Minimum altitudes for use

Hyannis Air Service Flight Operations Manual restrictions apply (Chapter 5, Section 5, Para. J):  
(These restrictions are at least as restrictive as 135.93)

	Minimum En Route Altitude for using autopilot (including Climb and Descent)	Minimum altitude for use of autopilot on an ILS	Minimum altitude for use of autopilot on a non-precision approach
Cessna Autopilots	1,200 feet AGL	Decision Altitude (DA)	400 feet AGL or MDA (whichever is greater)
King Autopilots	1,000 feet AGL	Decision Altitude (DA)	MDA
S-Tec Autopilots	1,000 feet AGL	Decision Altitude (DA)	MDA

# 135.105 Exception to Second in Command Requirement: Approval for Use of Autopilot System

- ✈ Unless two pilots are required by this chapter for operations under VFR, a person may operate an aircraft without a SIC if it is equipped with an operative and approved autopilot system.
- ✈ The autopilot must be capable of operating the aircraft controls to maintain flight and maneuver it about the three axes.
- ✈ No person may serve as a PIC under IFR in a passenger-carrying operation without an SIC unless that person has at least 100 hours PIC flight time in the make and model of aircraft to be flown and has met all other applicable requirements of this part.



# 135.171 Shoulder Harness Installation at Flight Crewmember Stations

Pilots must fasten shoulder harnesses during takeoff and landing.

The shoulder harness may be unfastened if the pilot cannot perform the required duties with the shoulder harness fastened.

# 135.185 Empty Weight and Center of Gravity: Currency Requirement

No person may operate a multiengine aircraft unless the current empty weight and center of gravity are calculated from values established by actual **weighing of the aircraft within the preceding 36 calendar months.**

# 135.203 VFR: Minimum Altitudes

Except when necessary for takeoff and landing, no person may operate under VFR:

- ➔ During the day, below 500 feet above the surface or less than 500 feet horizontally from any obstacle; or
- ➔ At night in non-mountainous terrain, at an altitude less than 1,000 feet above the highest obstacle within a horizontal distance of 5 miles from the course intended to be flown; or
- ➔ At night in designated mountainous terrain, less than 2,000 feet above the highest obstacle within a horizontal distance of 5 miles from the course intended to be flown

# 135.205 VFR: Visibility Requirements

No person may operate an airplane under VFR in Class G airspace when the ceiling is less than 1,000 feet unless flight visibility is at least 2 miles.

## 135.205 VFR: Visibility Requirements (cont.)

You are conducting an ILS approach to PVC. The aircraft breaks out into VMC in Class G airspace under a 900' overcast. The reported visibility and flight visibility is 1.5 miles. Can this aircraft cancel IFR with Cape Approach while airborne?

Answer: NO. A visibility of two miles is required in Class G airspace.

# 135.209 VFR: Fuel Supply

No person may fly under VFR unless, considering wind and forecast weather conditions, the aircraft has enough fuel to fly to the first point of intended landing and, assuming normal cruising fuel consumption

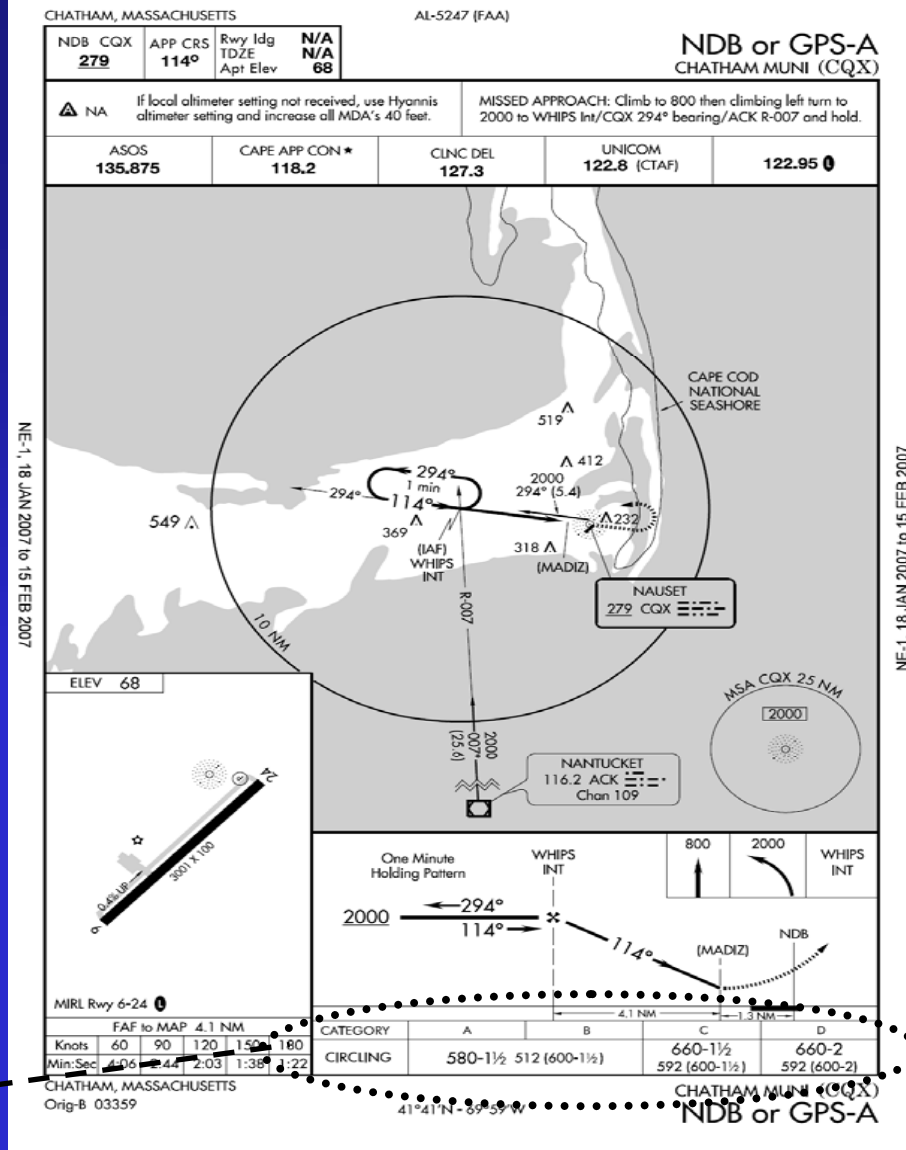
- ✈ During the day, to fly after that for at least 30 minutes; or
- ✈ At night, to fly after that for at least 45 minutes

# 135.217 IFR: Takeoff Limitations

No pilot may depart under IFR from an airport where *weather conditions are at or above takeoff minimums but are below authorized IFR landing minimums* unless there is an alternate airport within 1 hour's flying time (at normal cruising speed, in still air) of the airport of departure

➔ If the visibility were being reported as 1 mile @ CQX, could we legally depart? How?

Answer: YES, provided we listed a takeoff alternate.



	4.1 NM		1.3 NM	
CATEGORY	A		D	
CIRCLING	580-1½ 512 (600-1½)		660-1½ 592 (600-1½)	
			660-2 592 (600-2)	



# 135.223 IFR: Alternate Airport Requirements

No pilot may fly in IFR conditions unless the aircraft carries enough fuel (considering weather reports or forecasts or any combination of them) to:

- ✈ Complete the flight to the first airport of intended landing;
- ✈ Fly from that airport to the alternate airport; and
- ✈ Fly after that for 45 minutes at normal cruising speed

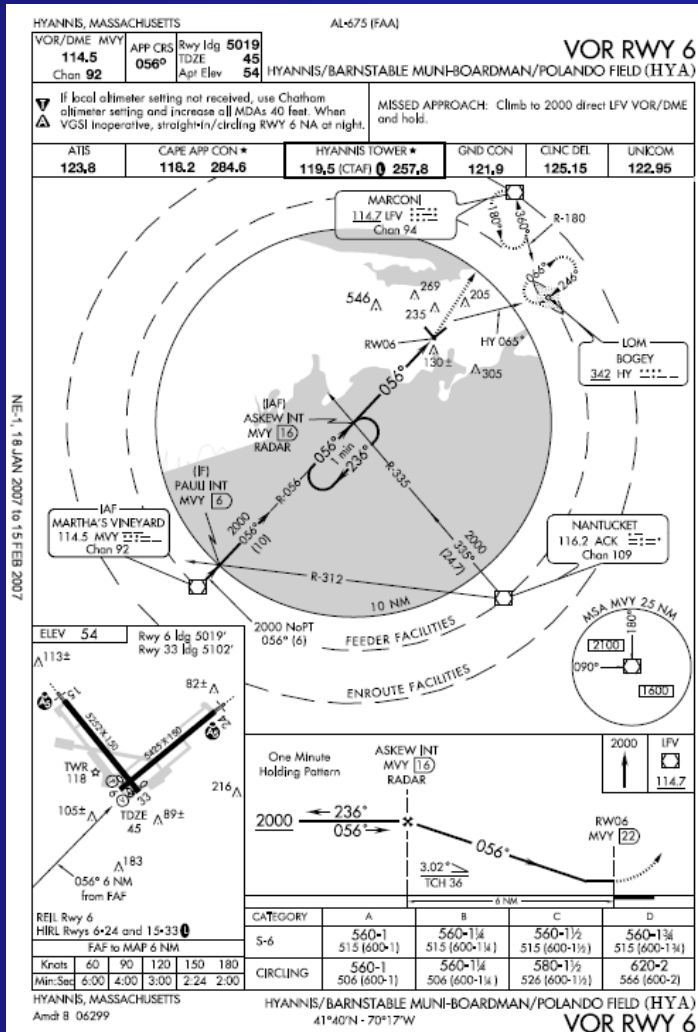
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# 135.223 IFR: Alternate Airport Requirements (cont.)

An alternate airport is not required if there is a standard instrument approach procedure for the first airport of intended landing and, for at least one hour before and after the estimated time of arrival, the appropriate weather reports or forecasts, or any combination of them, indicate that:

- ✈ The ceiling will be at least 1,500 feet above the *lowest circling approach MDA*; or
- ✈ If a circling instrument approach is not authorized for the airport, the ceiling will be at least 1,500 feet above the lowest published minimum or 2,000 feet above the airport elevation, whichever is higher; and
- ✈ Visibility for that airport is forecast to be at least three miles, or two miles more than the lowest applicable visibility minimums, whichever is the greater, for the instrument approach procedure to be used at the destination airport.

# What weather would allow “no alternate required” @ HYA if the VOR 6 approach were in use?



CATEGORY	A	B	C	D
S-6	560-1 515 (600-1)	560-1¼ 515 (600-1¼)	560-1½ 515 (600-1½)	560-1¾ 515 (600-1¾)
CIRCLING	560-1 506 (600-1)	560-1¼ 506 (600-1¼)	580-1½ 526 (600-1½)	620-2 566 (600-2)

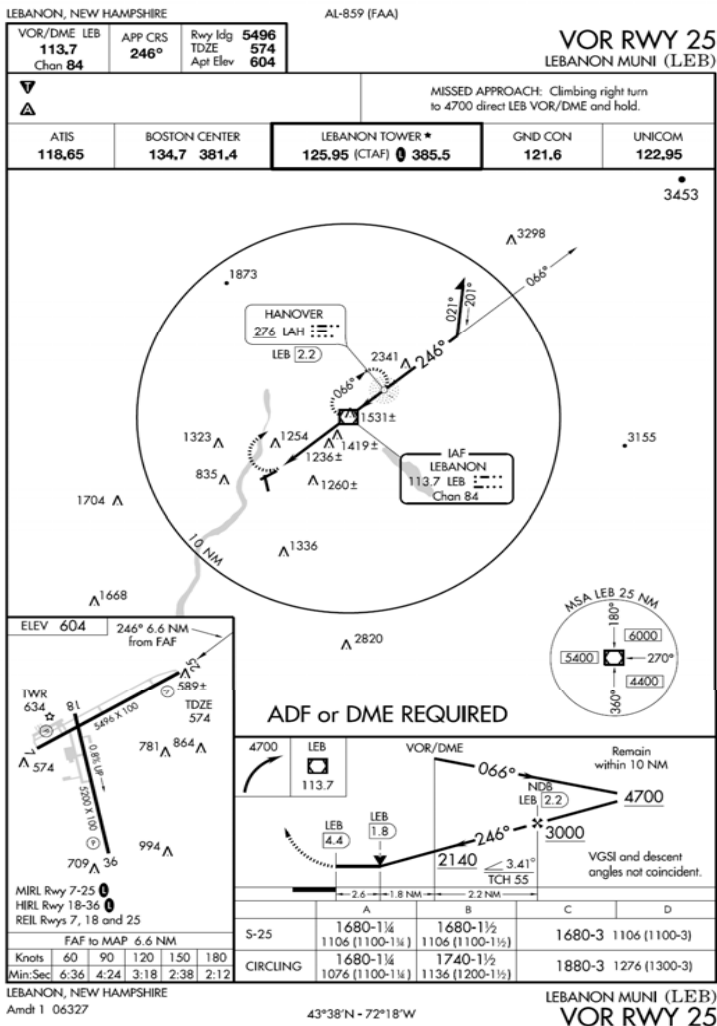
Answer: 2100 feet ceiling and 3 ½ miles visibility

1500' + 506' AGL (the lowest Category B circling MDA (HAA) @ HYA) = 2006, rounded to 2100'.

1 ¼ + 2 = 3 ¼, rounded to 3 ½ miles



# What weather would allow “no alternate required” @ LEB if the VOR 25 approach were in use?



	A	B	C	D
S-25	1680-1¼ 1106 (1100-1¼)	1680-1½ 1106 (1100-1½)	1680-3	1106 (1100-3)
CIRCLING	1680-1¼ 1076 (1100-1¼)	1740-1½ 1136 (1200-1½)	1880-3	1276 (1300-3)

Answer = 3 ½ miles visibility and 2700' ceiling

1 ½ + 2 = 3 ½ miles

1500' + 1136' (1136' AGL represents the lowest Category B circling MDA (HAA) @ LEB.) = 2636', rounded to 2700'



# 135.227 Icing Conditions: Operating Limitations

No pilot may take off an aircraft that has frost, ice, or snow adhering to any propeller, windshield, wing, stabilizing or control surface, to a powerplant installation, or to an airspeed, altimeter, rate of climb, or flight attitude instrument system

No pilot may take off an airplane any time conditions are such that frost, ice, or snow may reasonably be expected to adhere to the airplane unless the pilot has completed all applicable training and unless one of the following requirements is met:

A pretakeoff contamination check must be completed within 5 minutes prior to beginning takeoff. A pretakeoff contamination check is a check to make sure the wings and control surfaces are free of frost, ice, or snow.

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## 135.227 Icing Conditions: Operating Limitations (cont.)

Except for an airplane that has ice protection provisions that meet specific requirements (certain 9K aircraft do), no pilot may fly under IFR into known or forecast light or moderate icing conditions unless they receive a PIREP indicating that there is no icing reported greater than trace intensity.

No 9k pilot may fly an aircraft into known or forecast severe icing conditions.

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# 135.229 Airport Requirements

We may not use any airport unless it is adequate for the proposed operation, considering such items as size, surface, obstructions, and lighting.

A pilot cannot take off from or land at an airport at night carrying passengers unless:

- The pilot has determined the wind direction from an illuminated wind direction indicator or local ground communications or, in the case of takeoff, that pilot's personal observations; and
- The limits of the area to be used for landing or takeoff are clearly shown by boundary or runway marker lights

Note: a pilot CAN carry freight and/or a Cape Air employee in this situation



# 135.263 Flight Time Limitations and Rest Requirements

A pilot is not considered to have exceeded flight time limitations if the flights to which he is assigned normally terminate within the limitations but, due to circumstances beyond the control of the certificate holder or flight crewmember (such as adverse weather conditions), are not at the time of departure expected to reach their destination within the planned flight time. \*

\* See FOM Chapter 4, Section 7, Subparagraph A(3)



# 135.265 Flight Time Limitations and Rest Requirements: Scheduled Operations

A pilot may not be scheduled, nor may he/she accept an assignment, for flight time in scheduled operations or in other commercial flying if that crewmember's total flight time in all commercial flying will exceed the following:

- ✈ 1,200 hours in any calendar year.
- ✈ 120 hours in any calendar month.
- ✈ 34 hours in any 7 consecutive days.
- ✈ 8 hours during any 24 consecutive hours for a flight crew consisting of one pilot.

\* See FOM Chapter 4, Section 7, Subparagraphs A(1) and A(2)

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# 135.265 Flight time Limitations and Rest Requirements: Scheduled operations (cont.)

A pilot may not be scheduled, nor may he/she accept an assignment, for flight time during the 24 consecutive hours preceding the scheduled completion of any flight segment without a scheduled rest period during that 24 hours of at least the following:

- ➔ 9 consecutive hours of rest for less than 8 hours of scheduled flight time.
- ➔ 10 consecutive hours of rest for 8 or more but less than 9 hours of scheduled flight time

A pilot may be scheduled for less than the rest required above or may reduce a scheduled rest under the following conditions:

- ➔ A rest may be scheduled for or reduced to a minimum of 8 hours if the flight crewmember is given a rest period of at least 10 hours that must begin no later than 24 hours after the commencement of the reduced rest period.
- ➔ A rest may be scheduled for or reduced to a minimum of 8 hours if the flight crewmember is given a rest period of at least 11 hours that must begin no later than 24 hours after the commencement of the reduced rest period.

Each pilot engaged in scheduled air transportation shall be relieved from all further duty for at least 24 consecutive hours during any 7 consecutive days.

\* See FOM Chapter 4, Section 7, Paragraph B



# 135.297 Pilot in Command: Instrument Proficiency Check Requirements

A person may not serve as PIC of an aircraft under IFR unless the pilot has passed an instrument proficiency check since the beginning of the 6<sup>th</sup> calendar month before that service.

A pilot may not use any type of precision instrument approach under IFR unless he/she has satisfactorily demonstrated that type of approach since the beginning of the 6<sup>th</sup> calendar month before that use.

A pilot may not use any type of non-precision instrument approach under IFR unless he/she has satisfactorily demonstrated that type of approach since the beginning of the 6<sup>th</sup> calendar month before that use.

## 135.301 Crewmember: Tests and Checks, Grace Provisions, Training to Accepted Standards

If a pilot completes a test or flight check in the calendar month *before* or *after* the calendar month in which it is required, that crewmember is considered to have completed the test or check *in* the calendar month in which it is required.

# General Operating Manual



# GOM

## General Operating Manual

The GOM is used to guide management, flight, ground and maintenance personnel of the company in the conduct of its operations of aircraft in compliance with FAR Part 135 and the Operations Specifications.

Within this manual are specific instructions, information and facts necessary for all personnel to carry out their duties and responsibilities with the utmost safety and continuity.

# GOM: Introductory Sections

The first several sections of the GOM contain important information related to the manual itself. These sections are as follows:

## Title Page:

- Identifies the manual number and the date of the latest revision (bottom right corner of page)

## Record of Revisions:

- Lists the revisions numbers and their effective dates.
- The last date listed should match the date on the title page.

## List of Bulletins:

- Identifies the current bulletins in the manual and the directions for filing them
- The current bulletins are filed behind this page

## List of Effective Pages:

- Lists each page in the manual and the effective date for the information on that page
- Pages changed in the current revision are identified by a “change bar” to the left of the listing

# System Safety

## Background

In 1996, the FAA began the ATOS (Air Transportation Oversight System) program.

The ATOS program is built upon the philosophy that an Air Carrier can and should monitor itself using a complete closed-cycle system.

The system performs its own checks and balances and ensures that all elements of the operation are continually examined, tested and improved upon.

This manual implements the principle ATOS attributes into the Company system.



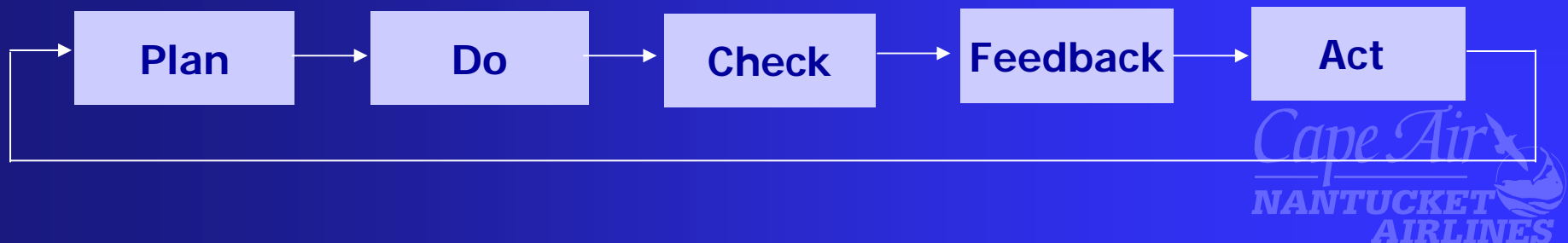
# Feedback System

In daily operations, management **plans** and then enacts a particular practice/procedure.

Then employees **do** the practice/procedure and **check** its effectiveness and usefulness.

Employees then give management **feedback** on how the practice/procedure can be improved. This is a form of “process management”

Management examines the feedback and can **act** on it. This leads to another **plan** and a continuation of the cycle.



# Feedback System

## System Objective

The objective of the *Feedback System* is to encourage employees to voluntarily report safety information that may be critical to identifying potential precursors to incidents and accidents.

## Feedback Form

Employees use a specific *Feedback Form* to provide this essential information.

The *Feedback Form* may be reproduced from this manual. It is also available on the company website <http://www.flycapeair.org>.



The completed Feedback Form should be forwarded to SOC.

<b>Hyannis Air Service Inc. - FeedBack Reporting System</b> <small>Report is available online at - <a href="http://www.flycapeair.org">http://www.flycapeair.org</a></small>	
Date: _____	Employee Name: _____
Base: _____	Employee Number: _____
Manual Related	Name of Manual(s) Involved: _____
	Revision Related:      YES <input type="checkbox"/> NO <input type="checkbox"/>
	If YES - Please Explain: _____
	_____
	_____
	_____
Report Specific Event	Date of Event: _____      Location: _____
	Description of Event: _____
	_____
	_____
	_____
	_____
Suggestion for Improvement	Explanation: _____
	_____
	_____
	_____
	_____
	_____
	_____
	_____
	_____
	_____

Forward completed form to SOC in Hyannis via fax to 508-790-1753 or 508-778-6233 or co-mat.

# Employee Safety Report (ESR)

The Employee Safety Report (ESR) form is the basic method for employees to communicate their safety-related concerns to management. The ESR form is intended to be utilized as a “Safe from Reprisal” form of Communication.

## \*\*\*CONFIDENTIALITY\*\*\*

The ESR system is non-punitive in nature and will not be used to place blame on an individual. Reports will be disseminated only in the interest of safety.

Unless required by law, the Company will not disclose the name of the person submitting a report or about whom the report involves.

The report may be released if the person concerned authorizes the release of the information.



The completed ESR should be forwarded to SOC.

EMPLOYEE SAFETY REPORT (ESR)				Date Report Filled Out
For reporting accidents, incidents, deficiencies, observations, suggestions, etc., related to safety.				
Submit to: System Operations Control (SOC)				
VIA: <b>COMAIL</b> to System Operations Control – HYA		• <b>FAX</b> (508) 778-6233		
<b>US MAIL</b> System Operations Control, Cape Air, 660 Barnstable Rd, Hyannis, MA 02601				
Leave any box that does not apply blank	Date Occurred	Approx. Time	Location (Fr./To; Altitude; etc.)	Weather (general; specific; VFR/IFR; etc.)
Describe Occurrence or Suggestion: (please continue on back if additional space is necessary)				
<div></div>				
<small>(please continue on back if additional space is necessary)</small>				
<small>The following information is optional. It is used to request further information from you and to inform you of the results of this report. All efforts will be made to preserve confidentiality. <b>UNLESS YOU REQUEST OTHERWISE</b>, other persons involved or concerned may be informed of some or all of the content of this report. To request that other such persons <b>NOT</b> be so informed, check here: <input type="checkbox"/> ← <b>CHECK THIS BOX for Maximum Possible Confidentiality.</b></small>				
These boxes are optional	Name (Optional)	Job Title/Position	Station, Base, Dept., etc.	Phone or Other Contact

Hyannis Air Service, Inc. EMPLOYEE SAFETY REPORT (ESR) 03/2004

The ESR can also be accessed and submitted electronically by clicking on “9K Safety” on the [www.flycapeair.org](http://www.flycapeair.org) website.



# EIA Reporting Form

Whenever an event, incident or accident that requires a written report occurs, the Event/Incident/Accident (EIA) Reporting Form will be used to make that report.

**This report must be completed and forwarded to SOC within 24 hours.**

Event - Incident - Accident Reporting Form					
<b>DATE / TIME (Both Local)</b>			<b>FORM FILED BY</b>		
Date		Time	Station	Last Name / First Name	
Occurrence				Employee #	
Altitude -		Airspeed -		Date / /	
Location -					
<b>FLIGHT CREW</b>			<b>MTX / STA / GRD PERSONNEL</b>		
Last Name / First Name		Employee #	Position	Last Name / First Name	Employee #
Captain					
First Officer					
Flight Attendant					
Flight Number		Aircraft Type	MEL ITEMS (If Relevant)		
Departure		N#			
Destination					
<b>PHASES OF OPERATION INVOLVED (check all appropriate)</b>					
Maintenance	<input type="checkbox"/>	Pre Board	<input type="checkbox"/>	Cruise	<input type="checkbox"/>
Fueling	<input type="checkbox"/>	Boarding	<input type="checkbox"/>	Descent	<input type="checkbox"/>
Towing	<input type="checkbox"/>	Taxi-Out	<input type="checkbox"/>	Approach	<input type="checkbox"/>
Run-up	<input type="checkbox"/>	Takeoff	<input type="checkbox"/>	Landing	<input type="checkbox"/>
Jacking	<input type="checkbox"/>	Climb	<input type="checkbox"/>	Taxi-In	<input type="checkbox"/>
Parking	<input type="checkbox"/>	Post Flight	<input type="checkbox"/>	Other	<input type="checkbox"/>
				If Other - Explain _____	
<b>GENERAL CLASSIFICATION OF OCCURRENCE TYPE (check all appropriate)</b>					
<b>Flight Related</b>					
Flight Release	<input type="checkbox"/>	Turbulence	<input type="checkbox"/>	Eng Fire	<input type="checkbox"/>
ATC Clearance	<input type="checkbox"/>	Eng Failure	<input type="checkbox"/>	Hyd Fail	<input type="checkbox"/>
Flight Plan	<input type="checkbox"/>	Inflt Shtdwn	<input type="checkbox"/>	Elect Fail	<input type="checkbox"/>
Fuel Burn	<input type="checkbox"/>	Flt Ctl Fail	<input type="checkbox"/>	Fire/Smoke	<input type="checkbox"/>
Other	<input type="checkbox"/>	Explain Other:			
<b>Ground / Maintenance Related</b>					
Fuel Spill	<input type="checkbox"/>	Ground Equip	<input type="checkbox"/>	Panel/Cowl	<input type="checkbox"/>
FOD	<input type="checkbox"/>	Tail Tip	<input type="checkbox"/>	Improp Serv	<input type="checkbox"/>
Other	<input type="checkbox"/>	Explain Other:			
<b>Cabin Related</b>					
Disrupt Pax	<input type="checkbox"/>	Emerg Equip	<input type="checkbox"/>	Station Sup	<input type="checkbox"/>
Sick Pax	<input type="checkbox"/>	Emerg Evac	<input type="checkbox"/>		<input type="checkbox"/>
Other	<input type="checkbox"/>	Explain Other:			
<b>Persons Onboard (enter number by category)</b>					
Total	<input type="text"/>	Adults	<input type="text"/>	Children	<input type="text"/>
Personnel Injuries	<input type="text"/>	Lap Child	<input type="text"/>	ACMs	<input type="text"/>
Pax	<input type="text"/>	FD Crew	<input type="text"/>	Other	<input type="text"/>
Cabin Crew	<input type="text"/>	MTX Crew	<input type="text"/>	Grd Crew	<input type="text"/>
<b>DESCRIPTION OF OCCURRENCE</b>					

Figure 1 - 4  
EIA Reporting Form - Front

DESCRIPTION OF OCCURRENCE - continued					
Date:	/	/	Employee Signature:		
<b>MANAGEMENT USE BELOW THIS LINE   7</b>					
OCCURRENCE CLASSIFICATION -	EVENT	<input type="checkbox"/>	INCIDENT	<input type="checkbox"/>	ACCIDENT <input type="checkbox"/>
Drug Test Required - Y/N		<input type="checkbox"/>	Date	<input type="checkbox"/>	Authorized By <input type="checkbox"/>
NTSB Reportable - Y/N		<input type="checkbox"/>	Date	<input type="checkbox"/>	Reported By <input type="checkbox"/>
FAA Reportable - Y/N		<input type="checkbox"/>	Date	<input type="checkbox"/>	Reported By <input type="checkbox"/>
<b>NOTES AND COMMENTS</b>					

Figure 1 - 5  
EIA Reporting Form - Back

# Reportable EIA Events

All company-related flight safety accidents / incidents will be submitted on an Event / Incident / Accident form, which must be completed in full. An EIA will be submitted for, but is not limited to, the following events which occur during flight operations:

False fire warning  
Aircraft departing paved surface  
Adverse aircraft handling characteristics  
Flight control system failure  
Altitude deviation  
Less than 30 minutes of fuel remaining  
ATC incident  
Fuel system failure or leakage  
Bird strike  
Hijacking

Bomb threats  
Hydraulic failure  
Brake system failure  
Hard or overweight landing  
Cabin pressure loss  
Landing gear/gear door malfunction  
Total loss of communications  
Significant navigational error  
Crewmember incapacitation  
Near mid-air collision  
Aircraft damage  
Rejected takeoff

# Reportable EIA Events (cont.)

Property damage in excess of \$25,000	Unruly or intoxicated passenger
Runway incursion	Electrical failure inflight
Dangerous goods incident	TCAS RA or GPWS warning
Smoke or fumes in cockpit or cabin	Declared emergency
Death or serious injury to a passenger or crewmember	Tail strike
Suspected sabotage or terrorist activity	Any engine failure or shutdown
Deviation from Dispatch Release	Wind shear recovery maneuver
Severe air turbulence or wake turbulence encounter	Aircraft evacuation
Any diversion or air turn back	Any operational event that adversely affects a flight or results in reduced margins of safety
	Aircraft or engine fire

If in doubt as to whether or not an event meets the reporting criteria, complete an Event/Incident/Accident form.

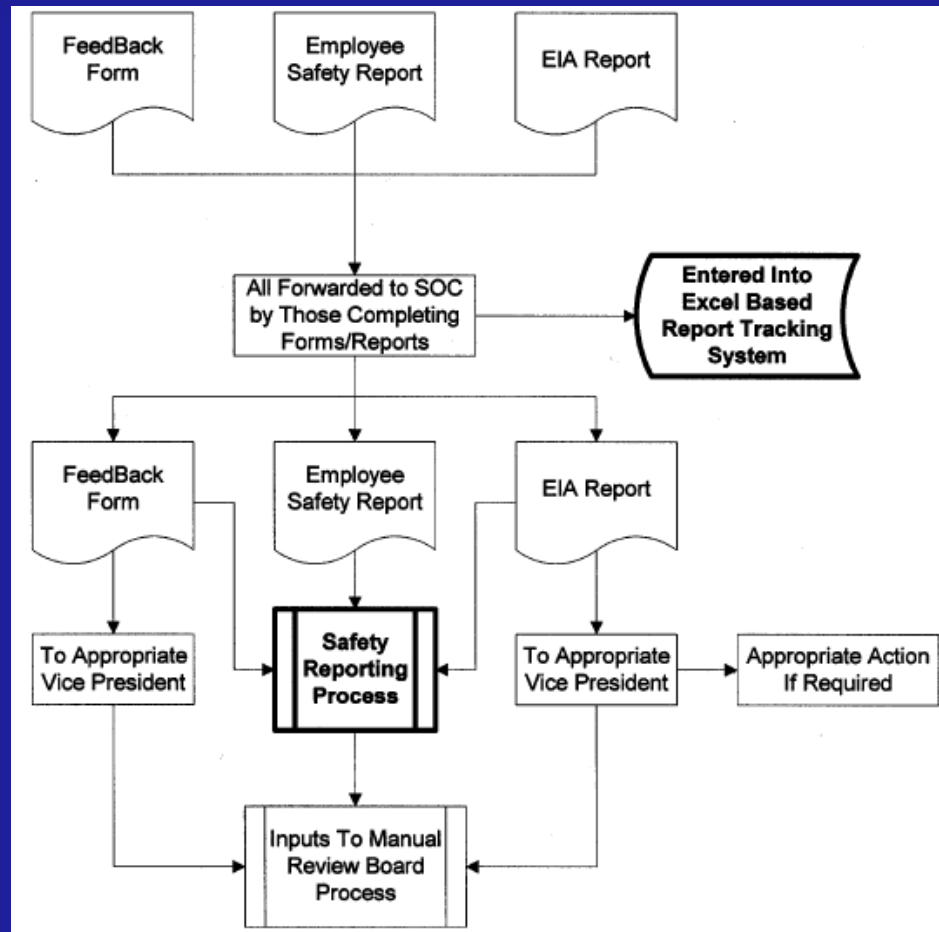
**Note: Returning to the gate to pick up a late passenger or pick up baggage does not require an EIA.**





# Safety Reporting

The Employee Safety Reporting system documents the cause of an event and identifies corrective action(s) to ensure the event does not recur.



Employee Safety Reporting Data Flow Diagram

# Chapter 2: Company Policies

All operations of company flight, ground and maintenance departments shall be conducted in accordance with Federal Aviation Regulations, State laws and regulations, and the company policies and procedures outlined in this manual.

The following slides highlight some of the important pilot information from the GOM.

Please refer directly to the GOM for details on each topic.



# Pilots

- Pilots are responsible for notifying company of any changes in their flying status.
- Pilots should not accept flights when their physical or mental conditions would be a detriment to the safety of the operation. Use the I'M SAFE checklist.
- All medical certificates are to be obtained and a copy submitted to the company no later than the **21<sup>st</sup> day of the due month**.
- Pilots are responsible for ensuring the aircraft is properly equipped for the flights. **This includes the overall cleanliness of the aircraft.**

## Radio Checks and Electronic Usage

- A full comm/nav check should be performed prior to each departure in both VFR and IFR conditions.
- Ground autopilot checks shall be performed no less than twice a day by each crew, once prior to the first flight and one more time later in the day.

## Aircraft Doors

- No pilot may leave the gate area for the purpose of flight without physically ensuring that all doors are properly closed and latched.

## Operational Control

- Operational Control** will be exercised by the President, Chief Operating Officer, Managing Director of Operations, System Chief Pilot, Fleet Manager – 402, Assistant Chief Pilot and Operations Managers.
- Operational Control to initiate flights** shall be exercised by the Chief Operating Officer, Managing Director of Operations, System Chief Pilot, Fleet Manager – 402 and Assistant Chief Pilot.
- Operational Control to conduct or terminate flights** shall be exercised by the Chief Operating Officer, Managing Director of Operations, System Chief Pilot, Fleet Manager – 402, Assistant Chief Pilot and **Pilots-in-Command**.

## Chapter 3: General Information

Chapter 3 of the GOM provides general information about the company. It describes the specific duties and responsibilities of members of the leadership team. It also provides a copy of the company's organizational flow chart.

### Pilot Duties and Responsibilities

The PIC is responsible for the safe and efficient conduct of the flight. As part of that responsibility, the PIC must ensure the airplane is airworthy and equipped for the flight.

# Pilot Duties (Continued)

As part of ensuring the aircraft is mechanically and structurally sound, the PIC must also maintain the overall cleanliness and neatness of the aircraft. This includes cleaning the aircraft and windows, as well as getting rid of trash and ensuring the seatback pockets contain the correct materials.

The following picture illustrates a properly outfitted seatback pocket:



# Chapter 4: Operations Specifications

Chapter 4 of the GOM gives a brief explanation of the Company Operations Specifications (Ops Specs) and the procedures for amending them. The full version of the Ops Specs is found in Appendix A of the GOM.

# Chapter 5: Weight & Balance

## Aircraft

Prior to placing an aircraft in service, the Director of Maintenance will insure that the aircraft has a current/valid weight and balance.

## Establishing Actual Weight of Multi-Engine Aircraft

No company multi-engine aircraft may be utilized unless current empty weight and center of gravity has been established by the actual weighing of the aircraft within the preceding thirty-six (36) calendar months

## Pets (Cats and Dogs)

Pets may be carried onboard in the passenger compartment under certain conditions. There is no limit to the number of pets that may be carried, provided they are from the same family and the weight and balance allows for it.





# Calculating Weight and Balance

When performing weight and balance equations, the pilot should use passenger actual weights plus 10 pounds.

## Distribution of Weight and Balance Forms

- The Pilot-in-Command shall retain a copy aboard the aircraft until it reaches its final destination.
- A copy shall be retained by the origin station until the end of the day when it is then forward to the office of the Director of Operations and retained as a permanent record for 30 days.
- The computer Weight and Balance program retains the forms for at least 30 days.
- If the internet connection should be lost, an additional copy of the form must be generated and sent to the office of the Director of Operations.
- The computer Weight and Balance program will print two (2) copies when manual seating is required.

# Chapter 8: Mechanical Irregularity Reporting Procedures

The Pilot-in-Command is responsible for recording any mechanical irregularities in the log.

Maintenance Operations Control will be notified of any mechanical irregularities at the completion of each flight.

# Chapter 9: MEL Procedures

## Definition

- MEL stands for **Minimum Equipment List**
- It is an official list of equipment that may be inoperative under certain conditions or circumstances without affecting the aircraft's airworthiness for revenue service

## Repair Categories

MEL items are categorized by how soon they must be fixed. The following give the “fix by” timeframes for each category:

- Category A: Per MEL requirements
- Category B: 3 Days
- **Category C: 10 Days (Most Common)**
- Category D: 120 Days

# Important MEL Symbols and Definitions

## “\*” Symbol

- A “\*” in column 4 indicates the listed item, if inoperative, must be placarded to inform and remind the crewmember and maintenance personnel of the equipment

## “(M)” symbol

- An “(M)” symbol indicates a requirement for a specific maintenance procedure which must be accomplished prior to operation with the listed item inoperative.
- Normally these procedures are accomplished by maintenance personnel; however, other personnel may be qualified and authorized to perform certain functions.
- *Procedures requiring specialized knowledge or skill, or requiring the use of tools or test equipment should be accomplished by maintenance personnel*

## “(o)” Symbol

- An “(o)” symbol indicates a requirement for a specific operations procedure which must be accomplished in planning for and/or operating with the listed item inoperative.
- Normally these procedures are accomplished the flight crew; however, other personnel may be qualified and authorized to perform certain functions.

## MEL Guidelines for (O) & (M) Operations

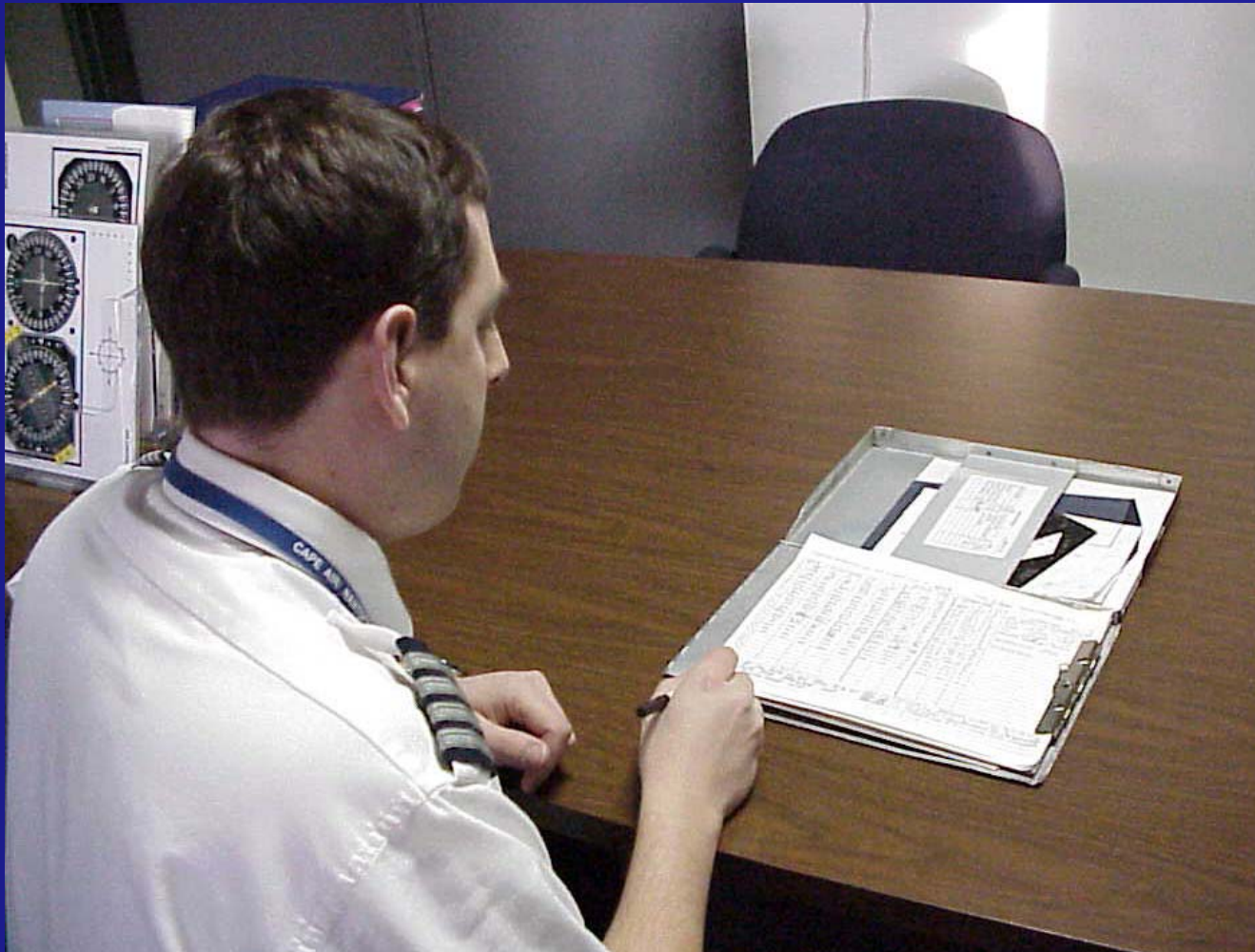
- In the MEL there are specific guidelines for (O) & (M) Operations.
- These guidelines give the specific operations/maintenance procedure which must be accomplished in planning for and/or operating with the listed item inoperative.

# MEL Scenario

You are in Boston and discover that the aircraft Parking Brake is inoperative.

***\*\*What do you do?\*\****

# Write Up the Discrepancy





# Call Maintenance Operations Control (MOC)





# MOC

- Maintenance operations control (MOC) will determine whether or not the discrepancy is an MEL item.
- If the discrepancy is deferrable Maintenance will issue a control # and the fix by date.

# Fill in the “Corrective Action” Column



In our scenario, the following would be the correct entry:

Deferred per MEL 32-1-1 Evan Cushing T1234 Control # 5678

# Write the Deferral in the Deferred Items List



DATE INOP	DESCRIPTION & RELEASE OF MEL	FIX-BY DATE	CONTROL #	RELEASED BY
1/23/06	Parking Brake Inop	2/2/06	5678	EC

If there's an Asterisk \*

The Item must be Placarded





# Comply with all “O” and “M” Procedures



# Chapter 11: Refueling Procedures

The following common sense procedures should be followed when refueling aircraft:

- No aircraft will be fueled or defueled inside hangars or while the engines are operating.
- Aircraft electrical switches which control units in the wing or tank areas not necessary to the fueling operation should not be operated during fueling. **If a switch is turned on and then refueling begins, leave the switch on until after the refueling process is completed** (except in an emergency).
- Fueling may be performed with passengers aboard provided that a crewmember is aboard or standing at the door with the door open.
- When refueling at an airport other than one authorized for scheduled operations, any fuel drained from the fuel tanks will be considered contaminated and will not be returned to the tanks.

# Chapter 12: Flight Locating

All FAR 135 flights will be operating under either VFR or IFR flight plans.

As long as the pilot monitors the company frequency through the flight and informs flight operations of the ETA, “On Line” operations may be conducted without filing a VFR Flight plan.

# Chapter 20: Cold Weather Operations

## Operations in Heavy Rain

Operations in or near areas of heavy rain associated with convective activity within close proximity of the ground are strictly forbidden.

## Operations from Contaminated Runways

Take-offs will not be attempted with more than ½ inch slush or standing water or more than 3 inches of loose-packed snow on the runway surface.

## Ground Icing Conditions

During ground icing conditions, you are required to perform a pre-takeoff contamination check for frost, ice and snow on the aircraft within 5 minutes prior to takeoff.



# Operations Specifications



# Air Ambulance Operations

An Air Ambulance Operation is defined as the air transportation of a person with a health condition that requires medical personnel as determined by a health care provider.

Hyannis Air Service, Inc. is not authorized to conduct operations as an Air Ambulance

# ATC Communications

When practical, all flights will maintain communications with ATC. This means that you must get flight following *every time*, unless it is not feasible (ATC won't answer you until you get to Great Point, etc.).

We ARE authorized to operate IFR outside of controlled airspace.

# Land and Hold Short Operations (LAHSO)

We are authorized to conduct Land and Hold Short Operations (LAHSO) as long as the following requirements are met:

The LAHSO distance is not less than 3500 feet.

The runway is dry.

The tailwind component on the runway is *less than* 3 knots.

There has been no report of wind shear in the last 20 minutes, or there are no wind shear advisories in effect, as stated in the ATIS.

Night LAHSO can be conducted only where approved LAHSO lighting exists

Examples:

4L to hold short of 33R in BOS

22L to hold short of 27 in BOS

6 to hold short of 15/33 in ACK



# LAHSO Requirements (cont.)

The runway you are landing on *must* be served by either a glideslope or a VASI/PAPI.

If the runway you are landing on is served by a glideslope only (such as 15 or 24 in HYA), the weather minimums for LAHSO are 1500' ceiling and 5 miles visibility.

If the runway you are landing on is served by a VASI/PAPI, the weather minimums are lowered to basic VFR: 1000' and 3 sm.

# Approach Information

The approach speed for the Cessna 402C is 87 knots, putting our aircraft in approach Category A.

*However, since our approach speed is 120 KIAS, we utilize Category B minimums.*

The lowest visibility ILS approach for which we have authorization is ½ SM or RVR 1,800'.

We are authorized to utilize both ASR and NDB approaches.

# Circling Approaches

We are approved for circling approaches.

In order to accept a clearance for an instrument approach with the proviso “plan to circle,” the weather conditions must meet at least IFR landing minimums for circling maneuvers.

We cannot use a circling MDA of less than 450' HAA or a visibility of less than 1 statute mile for a circling approach.

Circling at a speed higher than 120 knots puts you in category C, so be sure to brief the appropriate part of the IAP chart.

We cannot use a minimum visibility of less than 1½ statute miles for a Category C circling approach.

# Visibility/RVR

TDZ (Touchdown Zone) RVR reports, when available, are controlling for all approaches to and landings on that runway. That means the TDZ RVR overrides the reported visibility.

The mid RVR and rollout RVR (if available) provide *advisory* information. The mid RVR *only* (**not** rollout) can substitute for the TDZ RVR *only if the TDZ RVR is not available*.

We cannot use **visibilities** of less than  $\frac{1}{2}$  mile, no matter what the equivalent RVR would be. If the visibility is less than  $\frac{1}{2}$  mile, you need an RVR report indicating the appropriate minimum. It is *never* OK to land or take off with a visibility of  $\frac{1}{4}$  mile (or even  $\frac{3}{8}$  mile) and no RVR report.



# Takeoff Minimums

The primary rule for determining takeoff minimums is as follows:

If *standard* takeoff minimums apply to our departure runway, then we may depart as long as we have straight in landing minimums for a *suitable* runway at the departure airport

This allows us to depart with less than the standard 1 SM visibility required for an aircraft having two or fewer engines.

We are allowed to reduce the required IFR takeoff minimums to as low as RVR 1800'.



# What are the Takeoff Minimums for Runway 14 in EWB?

First check to see if we have standard Takeoff Minimums

NEW BEDFORD, MA

NEW BEDFORD REGIONAL

TAKE-OFF MINIMUMS: Rwy 14, 300-1 or std. with a min. climb of 280' per NM to 300. Rwy 32, 300-1 or std. with a min. climb of 270' per NM to 300.

We do have standard Takeoff Minimums, provided we can meet the climb gradient.

# Takeoff Minimums (continued)

Our Ops Specs allow us to depart as long as we have straight in landing minimums for a *suitable* runway at the departure airport.

It is important to note that **suitable** is the key word in the above paragraph. Wind, runway contamination, and NOTAMs can all be factors in determining runway suitability.

Watch out for inoperative components of IAPs that raise landing minimums.

# What if the landing minimums are greater than 1SM?

We may depart with the standard 1 SM visibility required under part 91.

However, we cannot depart under IFR from an airport where weather conditions are at or above takeoff minimums but are below authorized IFR landing Minimums unless there is an alternate airport within 1 hour's flying time of the departure airport.

Example: On a charter flight from CQX to LGA under IFR, you can depart with 1 SM visibility, provided you list a takeoff alternate. Ceiling is not a limiting factor.

# Alternate Airport Minimums

This section deals with *what the forecast weather must be at your selected alternate airport at your ETA at the alternate.*

This replaces the “600-2 for precision, 800-2 for non-precision” rule under Part 91.

Airports that have TAFs make the best candidates

# One Navigational Facility

If there is at least one navigational facility at the selected alternate providing a straight in IAP (or circling IAP if a straight-in is not available), you add:

- ✈ **400 feet** to the HAT (or HAA) portion of the MDA/DA
- ✈ **1 statute mile** to the minimum visibility for that approach.

The result is the ceiling and visibility that you will need to see on your TAF in order to designate that airport as your alternate.

# Two Navigational Facilities

If the selected alternate airport is served by *two different* navigational facilities, each providing a *straight-in* IAP to *two different **suitable** runways*, you add:

- ✈ **200 feet** to the *higher* of the two MDA/DAs (remember to use the HAT number not the MSL number), and
- ✈ **½ statute mile** to the *higher* of the two required visibilities.

Note: our IFR alternate airport minimums may be reduced to as low as 400' ceiling and 1 SM visibility.



# Important Notes for Alternate Minimums

“**Suitable**” is the key word when determining alternate minimums.

Wind, runway contamination and NOTAMs can all be factors in determining runway suitability.

The most important thing to remember is that the same airport may have drastically different alternate minimums from one day to the next, due to changing conditions.

TEMPO conditions on a TAF, as well as current conditions, are regulatory and must meet the above criteria.



# Alternate Minimums Example

You have selected HYA as a potential alternate. The forecast and NOTAMS show that both runways 15 and 24 would be suitable upon arrival at HYA.

✈ Choose the higher of the two DAs and visibilities.

In this case, the ILS 24 has both the higher DA and visibility.

DA = 250' (HAT).

Visibility = 1 SM

✈ Add 200' to the 250' HAT for a total of 450'.

✈ Add ½ SM to the 1 SM visibility for a total of 1 ½ SM.

✈ Round the 450' to 500' (ceilings are only given in hundreds of feet).

✈ In order to list Hyannis as your alternate, the TAF must show a ceiling of at least 500' and a visibility of at least 1 ½ SM.

# Contact Approach

An aircraft on an IFR flight plan may deviate from the instrument approach procedure and proceed to the destination airport by visual reference to the surface. This is called a Contact Approach

# When can we execute a Contact Approach?

We can execute a contact approach when:

- ✈ The destination airport is reporting at least 1 SM visibility **or** is at or above the authorized IFR minimum for the category I *non-precision* approach established for that runway – ***whichever is higher.***

Example: You would need 1½ SM visibility in order to make a contact approach at Chatham (CQX).

- ✈ It is requested by the pilot
- ✈ Given ATC Authorization
- ✈ We are able to operate clear of clouds with at least 1 mile flight visibility.

# Contact Approach (Continued)

You may begin the contact approach if all the requirements are met. However, you *cannot descend* below the FAF altitude (or the MVA if requested) unless the following conditions are met:

- If you do not have the airport in sight and there is a reported ceiling below your altitude, you may not execute the contact approach. Without the airport in sight, you may only descend below the final approach fix altitude if you are receiving positive course guidance from the approach aid serving that runway and there is no ceiling reported below your altitude.
- If you DO have the airport in sight, you can descend provided there is not a ceiling between you and the airport.
- You may not descend below the highest circling MDA for the runway of intended landing until you can descend to touch down within the touchdown zone at a normal rate of descent using normal maneuvers.

# Contact Approach Scenario #1

You are en route to Hyannis under IFR. Hyannis is currently reporting a ceiling of 2,000' with a 2 SM visibility. While being vectored for the ILS at 1,500', you realize you have the field in sight, and you request the Contact Approach. Can you execute the Contact Approach?

Answer: Yes. You have the airport in sight and there is no ceiling between you and the airport.

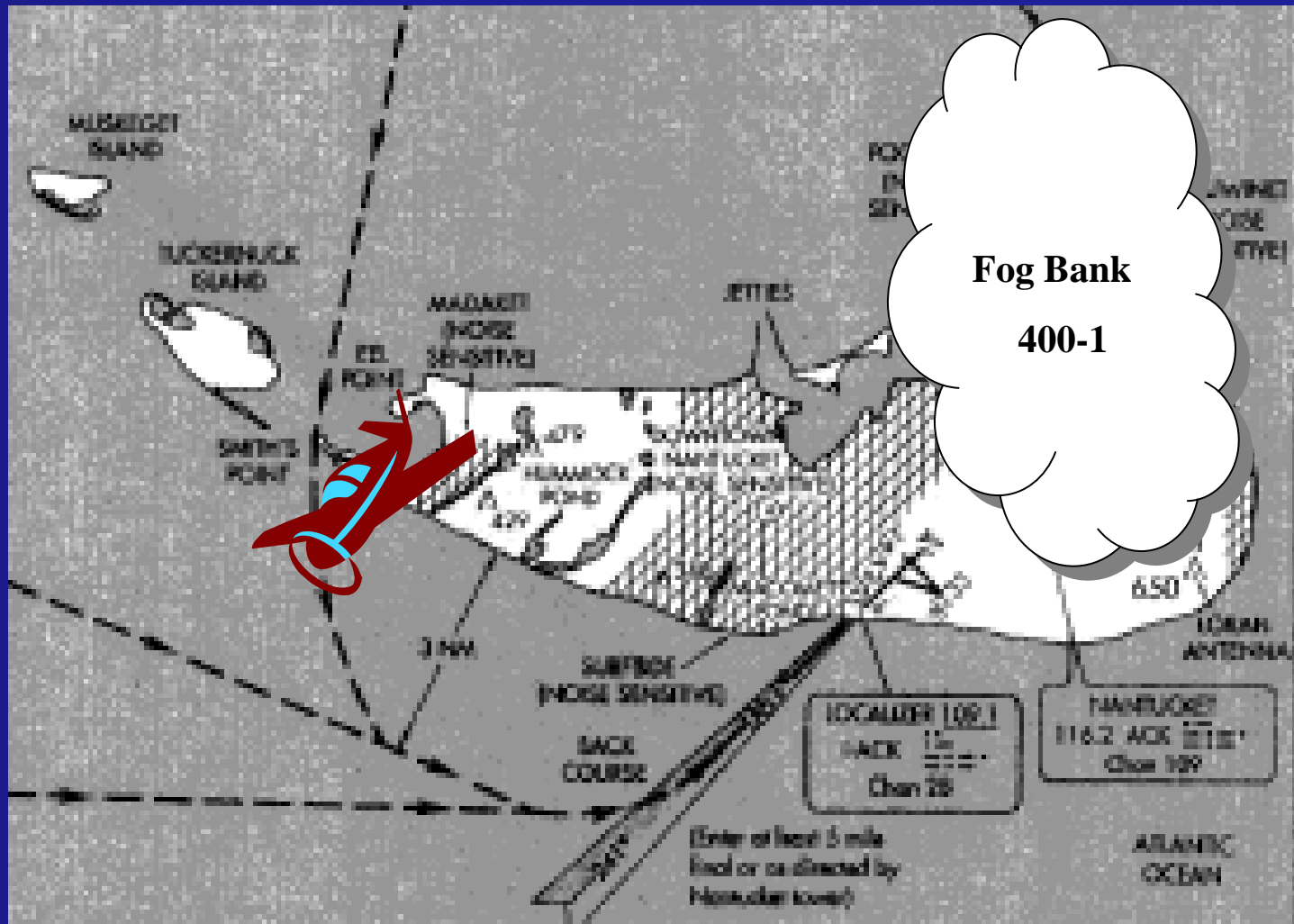
# Contact Approach Scenario #2

You are en route to Hyannis under IFR. Hyannis is currently reporting a ceiling of 1,200' with a 2 SM visibility. While being vectored for the ILS at 1,500', you recognize landmarks that you believe would allow you to safely navigate to the field. Can you execute the Contact Approach?

Answer: No. You must have the airport in sight before you can descend. It is not enough to just recognize landmarks.

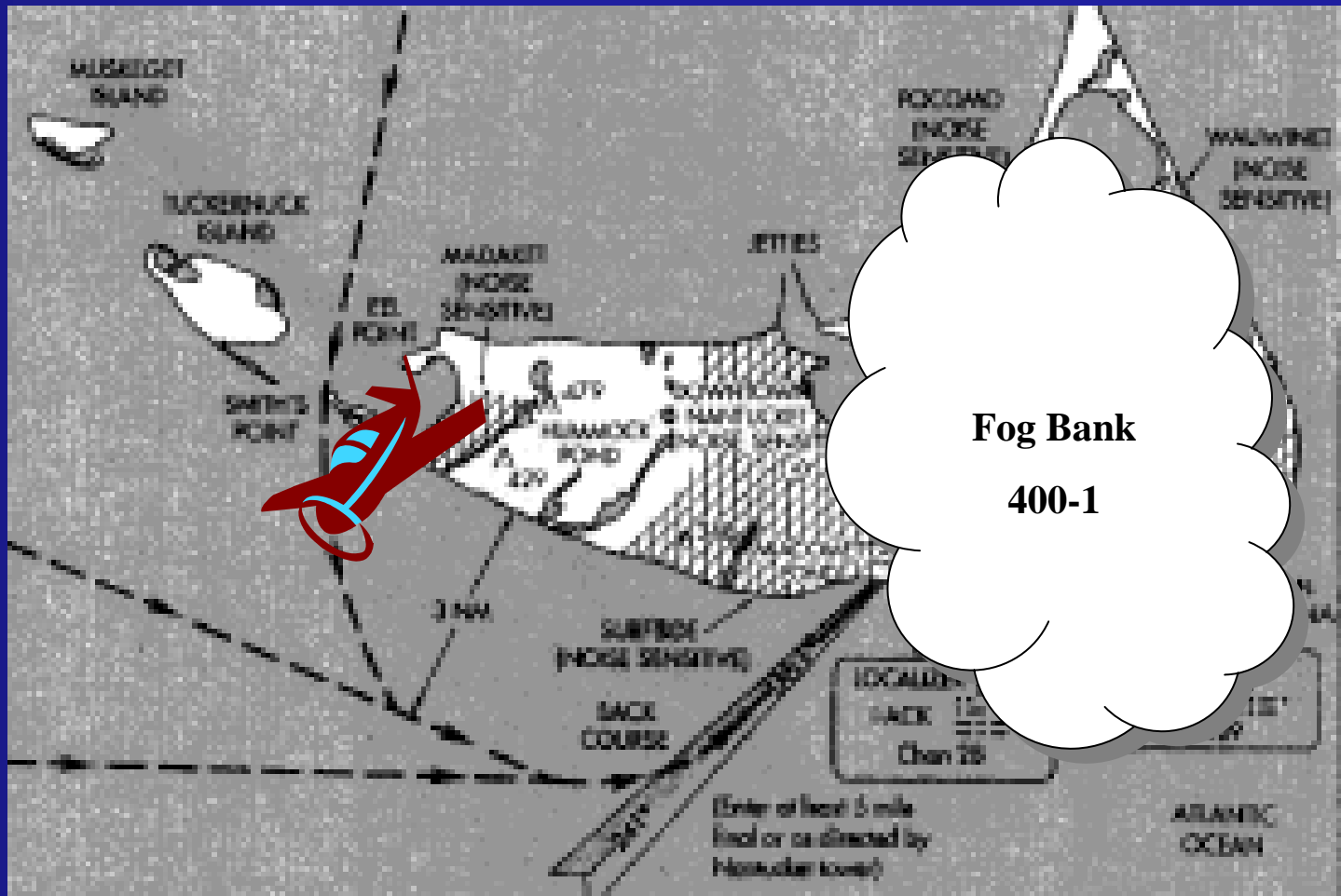
# Contact Approach Example #1

The airport is in sight. You can descend, provided there is no ceiling between you and the airport.



# Contact Approach Example #2

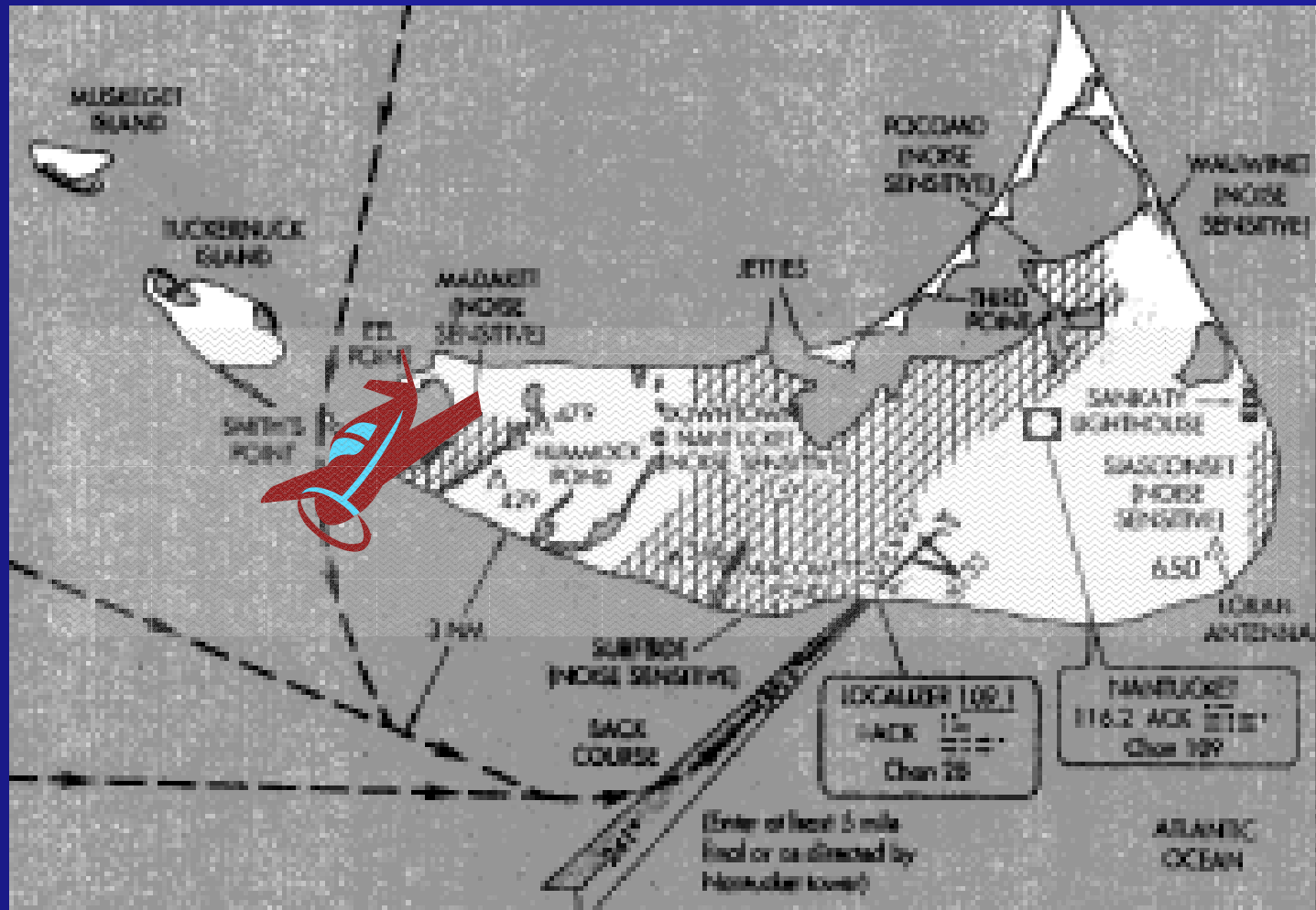
The ceiling is below your altitude and you do not have the airport in sight, and so you may not conduct the contact approach.





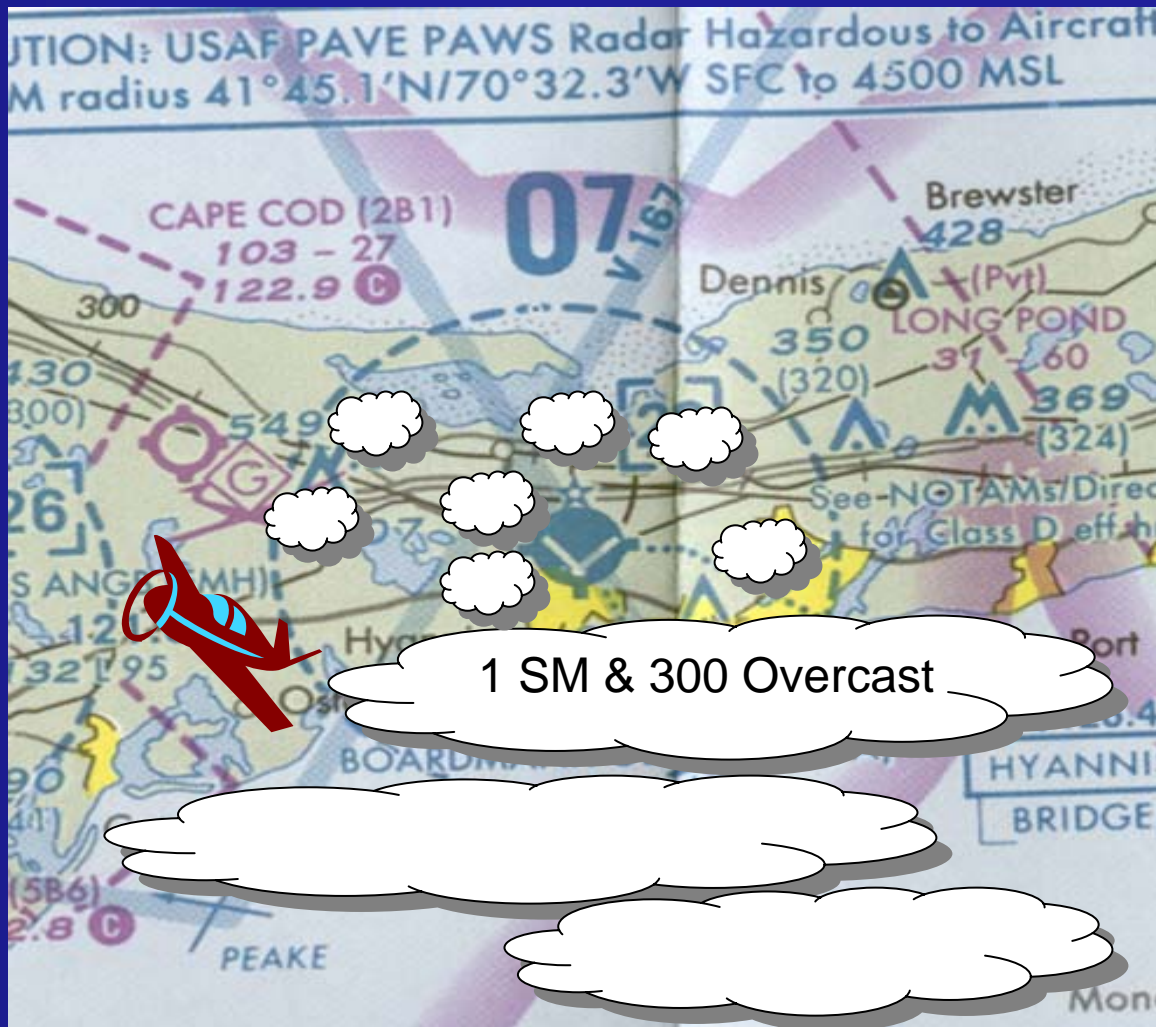
# Contact Approach Example #3

The visibility is 2 miles in haze. The airport is not in sight, and so you cannot descend until you have positive course guidance.



## Contact Approach Example #4

You can descend because the airport is in sight, and the ceiling is not between you and the airport.



# Time Before Overhaul (TBO)

The original TBO was 1800 hours.  
However, the present TBO for our TCM  
TSIO-520 VB engines is **2700** hours.  
(D071)

# Flight Operations Manual



# Exit Row Seating

The right seat of Row 2 on the Cessna 402C is considered an exit row seat.

Handicapped passengers may not sit in the exit row seat.

Children under the age of ten may not sit in the exit row seat.

# Unaccompanied Minors (UNAMS)

## Prior to Boarding:

The PIC will be notified that there is a UNAM on board the flight and **will be given a yellow copy of the UNAM form**. The PIC should keep the form and turn it in at the destination.

The PIC should meet the UNAM and ensure he/she has the UNAM pouch with the appropriate paperwork.

## In Range Radio Calls:

On all company radio calls, the PIC should include the fact that there is a UNAM on board.

## At Destination:

The UNAM will be met at the aircraft by a station representative.

See the FOM for details on the procedures for handling a UNAM when he/she is not met by a station representative.



# Company Pilot Reports

If any of the following conditions are encountered, the PIC must inform SOC as soon as practical:

Continuous moderate or greater turbulence

Any surface wind component in excess of 25 knots

Tailwind components greater than 10 knots or any tailwind component at PVC

Moderate or greater icing

Windshear on takeoff or approach

Any items that would be considered reportable under FAR 135.67.

# Braking Action/Freezing Rain

A pilot MAY NOT takeoff from or land on a runway on which the braking action is reported as “Nil” in accordance with a Runway Braking Action Report.

A pilot MAY NOT takeoff or land in freezing rain or freezing drizzle.



# Aircraft Logbook

All aircraft discrepancies should be entered into one of the four allotted spaces in the “Discrepancy” column of the aircraft logbook.

If a pilot enters a discrepancy into the aircraft logbook, he/she should immediately notify Maintenance Operations Control.

If there are no more spaces available in which to enter a discrepancy in the aircraft logbook, the pilot should cross out the remaining flight information lines and start a new logbook page.

After entering a discrepancy into the aircraft logbook, the flight crewmember should remove the logbook and place the “Logbook Has Been Removed” sign in a prominent location in the cockpit (see next slide).

# Display the “Logbook Removed” Placard when removing the Can



# Door Openings

If any aircraft door (other than a wing locker) opens in flight, the event must be entered in the aircraft logbook and MOC must be notified. In addition, the PIC must complete an EIA Report.

Before the aircraft can return to flight, the PIC must inspect the aircraft to ensure the door is undamaged and will remain secure upon closing. If the PIC deems the door is secure, he/she must enter the following in the “Corrective Action” column of the logbook:

“Visually inspected \_\_\_\_\_ door. No defects noted at this time.”

If the PIC is unsure of the security of any door, he/she should have it inspected by maintenance before the aircraft returns to service.

# Flows

The cockpit flows are an essential ingredient in a safe cockpit environment. Unless otherwise noted, the cockpit flows must be performed in their entirety during every flight.

The following items must be physically checked when performing cockpit flows:

- ✈ Fuel selectors
- ✈ Emergency Crossfeed Shutoff
- ✈ Cowl flaps
- ✈ Trim wheels
- ✈ Wing flaps
- ✈ Throttle, propeller and mixture
- ✈ Alternate air controls
- ✈ Flight controls
- ✈ Crew door

# Cycling Props

The “Cycle Props” task in the “Before Takeoff” flow may be waived if the oil temperature is at or above 75°F (bottom of the green arc) and the aircraft has not remained static for more than 30 minutes in ambient temperatures less than 50°F (10°C).

# Use of Autopilot

After engaging the autopilot, the pilot should confirm that the autopilot is operating in accordance with his/her expectations before performing other tasks.

When using an S-TEC autopilot, flight crewmembers must assure that the Autopilot Master Switch is off for takeoff or landing (other than coupled approaches).

# Emergency Procedures: Deviating from the FAR's

A pilot may deviate from any rule under Parts 91 or 135 to the extent necessary to meet an emergency.

Local Authorities should be the first notified following an accident/incident.

A pilot who deviates from a rule under Part 135 during an emergency shall give a written report of the deviation to the System Chief Pilot on company letterhead and in duplicate within 5 days.

# Communication with Station Operations

The following represent the proper actions/techniques when communicating with Station Operations:

Monitor the company frequency

Establish two-way radio communications prior to reporting FLIFO.

Give complete FLIFO



# Ensuring Security of Doors

It is the responsibility of the pilot to ensure the security of all doors prior to boarding the aircraft.

After the ramp agent has boarded the passengers and remaining baggage, he/she will complete a final walkaround to ensure all doors are securely closed.

When all doors are secure, the ramp agent will signal with a twisted fist signal, indicating the doors are secure.

The pilot will respond with a thumbs up signal, indicating that no door warning lights are illuminated on the warning panel.

# Vacuum System

After starting the left engine, the right suction button should be checked to make sure it is still visible.

When shutting down after the first engine start of the day, the left engine should be shut down first, and the left button should appear in the suction gauge.

# Daily Aircraft Search Logs

A pilot is responsible to complete an aircraft search:

Before any flight on a secured route

Before any flight to/from an international destination

# Runway Selection

Takeoff from a runway that meets the requirements for takeoff distance but not accelerate-stop/accelerate-go is permitted under either of the following circumstances:

There is no other available runway

The headwind component on the shorter runway and the crosswind component on a longer available runway both exceed 15 knots.

# Intersection Departures

Intersection departures are permitted, provided the pilot determines the following:

- Accelerate-stop and accelerate-go distances are available from the intersection

- The takeoff will not place the airplane directly beneath a large aircraft's wake vortices

- The visibility is not less than 1 SM

- The airport is approved for such operations.

# Takeoff and Departure Procedures

The FOM requires the following for takeoff and departure:

When departing under IFR, a suitable approach for the departure airport should be set up in the primary navigation radios.

When taking off with a crosswind, the pilot should deflect the ailerons fully into the wind before the start of the takeoff roll.

The Pilot Flying (PF) should have one hand on the yoke and the other on the throttles from throttle advancement for takeoff through gear retraction.

The airplane should normally climb at the best rate of climb speed ( $V_y$ ) ( $V_x$  should not be used)

Pilots are requested to follow VFR noise abatement procedures whenever practicable.

Turns may not be made below 400' AGL unless necessary for wake turbulence avoidance or departure procedures.



# After Landing

During the after-landing rollout, the pilot must devote his/her full attention to safely bringing the aircraft to a stop.

The pilot may not initiate the after-landing flow until he/she is clear of the active runway and across hold short lines.

Thank you for your attention  
during this presentation.

Please see your instructor to  
obtain a copy of the quiz.