



CAP MASTER SAFETY COURSE



CAP Safety Program Master Safety Course



CAP MASTER SAFETY COURSE



- ◆ This presentation is intended to be used by members who wish to progress to the Master level in the Civil Air Patrol's Safety Officer specialty track.
- ◆ Training in the Safety Officer specialty track is self-paced and intended to take place both on-the-job and through self-study. This presentation and CAP Pamphlet 217 will guide senior members through the training and is designed to help them learn effectively as Safety Officers.
- ◆ Specialty tracks are governed by CAPR 50-17, *Senior Member Professional Development Program*.



CAP MASTER SAFETY COURSE



- ◆ Your decision to obtain the Master rating represents your commitment to acquire the highest level of knowledge in the CAP's safety program.
- ◆ A safety officer's job is a continuous learning experience and provides you the opportunity to mentor others, both senior members and cadets.



Course Outline

- ◆ Review of CAP safety officer's duties and responsibilities
- ◆ The safety officer's role in CAP's three missions:
 - Aerospace Education
 - Cadet Programs
 - Emergency Services
- ◆ Safety officer inspections of aircraft



Safety Officer Duties and Responsibilities

- ◆ CAP safety officer positions are established to assist and advise commanders. They report directly to their commanders.
- ◆ Ensure your appointment as safety officer is documented and accomplished in accordance with CAPR 35-1, *Assignment and Duty Status*.
- ◆ Notify the next higher echelon safety officer of your appointment as safety officer.



Safety Officer Duties and Responsibilities

- ◆ Develop a program of regular safety education and accident prevention training for the unit.
 - Deliver no less than 15 minutes per month of face-to-face safety education and training to unit members.
 - Use rational flexibility to get the latest safety meeting information to members who missed the monthly safety meeting before they participate in a CAP activity, including unit meetings.
 - Obviously, they may have to come to a unit meeting to review the information from the missed meeting.



Safety Officer Duties and Responsibilities

- ◆ Develop a program of regular safety education and accident prevention training for the unit.
 - Incorporate a review CAP's *Sentinel* and newsletters of other safety orientated organizations.
 - Conduct an Operational Risk Management (ORM) briefing at least once annually during a unit safety meeting.
 - Ensure all new CAP members receive ORM training.
 - Forward monthly briefing reports to the next higher echelon of command including topics covered and total members attending.
 - Maintain a roster of subordinate unit safety officers.



Safety Officer Duties and Responsibilities

- ◆ Ensure ORM and safety briefings are incorporated into all field training exercises, encampments, and other special activities where members face elevated risks.
- ◆ Assist the unit commander, as needed, to establish his/her accident prevention program with letters, reports, bulletins, directives or operating procedures.
- ◆ Complete the annual on-line safety survey and ensure all reported hazards and/or practices identified have been corrected prior to the report being closed.



Safety Officer Duties and Responsibilities

- ◆ Conduct an annual Safety Day during the month of October to focus on improving safety knowledge and attitudes during the new fiscal year.
- ◆ Have CAPFs 26, *CAP Safety Improvement or Hazard Report* and *FAA Forms 8740-5, Safety Improvement Report*, available to unit members and provide instructions on how to use them.
- ◆ Conduct staff visits to subordinate units to assist them in identifying and solving safety problems.



Safety Officer Duties and Responsibilities

- ◆ Establish unit mishap reporting procedures.
- ◆ Report all cases of mishaps arising out of CAP activities using the on-line reporting system within the time limits specified in CAPR 62-2.
- ◆ Review and analyze findings from mishap investigation reports to determine trends and methods to prevent future mishaps.
- ◆ Encourage pilots to participate in FAA's Pilot Proficiency Program (*Wings Program*).
- ◆ Encourage nominations for CAP's safety awards.



Safety Officer Duties and Responsibilities

- ◆ Establish a safety meeting file to include:
 - Safety lecture outlines for topics to be covered in safety presentations.
 - A list of safety meeting resources, i.e. guest speakers, safety websites, nearby military safety personnel , videos, etc.
 - Monthly meeting reports.
- ◆ Establish a file of safety educational material.
- ◆ Establish a safety schedule of events.



Safety Officer Continuity Book

- ◆ Most successful safety officers have a continuity book.
- ◆ Without a continuity book, a safety officer often must relearn the same lessons and information that his/her predecessor already discovered.
- ◆ Should be used daily as a source of reference with information not readily found elsewhere.
- ◆ Continuity books can be on paper in a book or can be electronic.
- ◆ Additional information about continuity books can be found at: <http://www.cawg.cap.gov/html/Pa/bucb.pdf>



CAP MASTER SAFETY COURSE



The Safety Officer and CAP's Three Missions

- ◆ The Master rating in any CAP specialty track represents the highest level of knowledge associated with that staff position.
- ◆ The Master rated safety officer's knowledge encompasses all three mission areas of CAP: Aerospace Education, Cadet Programs and Emergency Services.



The Safety Officer and Aerospace Education

- ◆ CAP's Aerospace Education mission is covered by these publications:
 - CAPR 280-2, *Civil Air Patrol Aerospace Education*
 - CAPR 50-20, *CAP Model Rocketry Program*
 - CAPP 15, *Aerospace Education Officers' Handbook Mission*
 - CAPP 52-11, *Sally Ride Science Festivals - Project Officer's Guide*



The Safety Officer and Aerospace Education

- ◆ Apply ORM to all Aerospace Education activities including:
 - *Model Rocketry*
 - *Fly-A-Teacher*
 - *Summer Workshops for Teachers*
 - *Annual AEO School for AE officers*
 - *Aerospace Education Excellence (AEX) Program*



The Safety Officer and Aerospace Education

- ◆ CAP's Model Rocketry Program consists of three stages and is conducted in accordance with CAPR 50-20.
- ◆ CAPR 50-20 says, "It is the responsibility of the Qualified Senior Member to see that the (*National Association of Rocketry*) NAR Safety Code guidelines are followed."
 - The NAR Safety Code guidelines may be viewed at www.nar.org/NARmrsc.html



The Safety Officer and Aerospace Education

- ◆ CAP's Fly-A-Teacher program allows CAP pilots to give orientation flights to teachers who are Aerospace Education Members (AEM).
- ◆ It is important that all safety measures associated with aircraft operations are applied to Fly-A-Teacher flights.



The Safety Officer and Aerospace Education

- ◆ CAP's Aerospace Education Excellence (AEX) program consists of six aerospace activities and one two-hour or longer field experience.
- ◆ ORM should be conducted at the start of these AE projects to include materials to be used and construction procedures.
- ◆ Project guides for cadets and senior members can be ordered when a unit enrolls in the program.



The Safety Officer and Cadet Programs

- ◆ CAP's Cadet Programs mission is covered by these publications:
 - CAPR 52-16, *Cadet Program Management*
 - CAPM 52-4, *National Cadet Competition*
 - CAPP 52-7, *Cadet Orientation Flight Syllabus*
 - CAPP 52-8, *CAP Unit Honor Guard Program*
 - CAPP 52-18, *Cadet Physical Fitness Program*



The Safety Officer and Cadet Programs

- ◆ Approximately 40% of CAP's members are cadets.
- ◆ The majority of a year's bodily injury mishap reports are submitted in June, July and August - the months when most cadet special activities occur.
 - These mishaps occur to both the cadet participants and the senior member support personnel at the activity.
- ◆ Safety **MUST** become the number one priority in the cadet program for both the cadets and the senior members who support the program.



The Safety Officer and Cadet Programs

- ◆ Areas of concern at all cadet activities, based on trends from reported mishaps, are:
 - Dehydration.
 - Passing out due to locked knees during formations.
 - Honor guards passing out because they duct taped their shirts and ascots too tightly to prevent them from “riding up.”
 - Improper or lack of warm-up and stretching before PT.
 - Sunburn in summer and winter.
 - Blisters from improper fitting shoes.
 - Trips, sprains, cuts and abrasions.



The Safety Officer and Cadet Programs

- ◆ Safety officers should be familiar with the cadet orientation flights and flight training. All aspects of aircraft safety apply to these activities.
- ◆ Cadet safety officers should be involved in and work with you in ORM at cadet activities and at your local unit, as well as with any recommendations.
- ◆ Successfully mentoring a cadet safety officer in ORM and accident prevention will provide an avenue for cadets to emulate a peer in safety awareness and prevention.



The Safety Officer and Cadet Programs

- ◆ In order to obtain the Master rating you will be required to serve as a safety officer on staff at a group level or higher cadet competition, encampment, leadership school, or special activity lasting longer than two consecutive days.
- ◆ Complete a written ORM safety analyses and include recommending corrective actions to the activity commander/director.



The Safety Officer and Emergency Services

- ◆ CAP's Emergency Services mission is covered by these publications:
 - CAPR 60-1, *CAP Flight Management*
 - CAPR 60-3, *CAP Emergency Services Training and Operational Missions*
 - CAPR 60-5, *Critical Incident Stress Management*
 - CAPR 60-6, *CAP Counterdrug Operations*
 - CAPR 100-1, *Communications*



The Safety Officer and Emergency Services

- ◆ In CAP's Emergency Services (ES) mission, safety must always be a primary concern.
- ◆ To earn a Master safety officer rating, you must become a qualified Mission Safety Officer (MSO). MSOs report directly to Incident Commanders.
- ◆ As a MSO you are responsible to provide guidance to Communication Unit Leaders, Ground Branch Directors and/or Air Operations Branch Directors, to assist with vehicle and/or aircraft inspections and other duties as required.



The Safety Officer and Emergency Services

- ◆ ORM should be directed at reducing various types of risk while expanding operational capabilities and effectiveness.
- ◆ An initial primary hazards identification tool, like the Operations Analysis or Preliminary Hazards Analysis Tool is a good option for ORM's Step 1 (see Advanced ORM Course).
- ◆ Progress to the Logic Diagram and add specialty tools such as the Mapping Tool for airport and mission base hazards along with the Mission Protection Tool to ensure mission success.



The Safety Officer and Emergency Services

- ◆ Radio equipment poses specific electronic hazards and safety issues.
 - Stationary equipment must be grounded using a solid or stranded copper wire of 10 gage or higher.
 - Radio operators must know the location of the main power switch and be properly instructed in disconnect procedures.
 - Radio personnel should be familiar with first aid procedures concerned with electrical shock.
 - First aid kit will be available at all base stations.
 - Generator's gasoline engines pose carbon monoxide hazards, require safe gasoline storage and have fire extinguishers.



The Safety Officer and Emergency Services

- ◆ Ground team ORM should include the potential for sunburn, dehydration, insect and snake bites, blisters, etc.
 - A proper safety inspection should be preformed on the team's vehicle, to include necessary first aid and water supplies prior to leaving the mission base.
 - Prior to leaving the mission base, the ground team should have necessary personal equipment for all members to deal with any reasonably potential situations (weather, terrain, survival, etc.) it may encounter.



The Safety Officer and Emergency Services

- ◆ Aircraft operations hold the greatest potential for major safety mishaps of all ES activities.
 - Over 18% of CAP members are pilots.
 - Aircrews should be familiar with the vast amount of aircraft and airman related safety information available in print and on-line.
 - Courses from Aircraft Owners and Pilots Association Air Safety Foundation <http://www.aopa.org/asf/>
 - Advisory Circulars at Federal Aviation Administration <http://www.faa.gov/>
 - Safety officers may purchase or download (13MB+) the *FAA Risk Management Handbook* for their safety library.
<http://www.faa.gov/library/manuals/aviation/media/FAA-H-8083-2.pdf>



Aircraft Inspections – Overview

- ◆ This presentation assumes you are at a training or actual mission and that a full set of maintenance records is not available.
- ◆ These safety inspections do not go to the level of detail that compliance/subordinate unit inspections do.
- ◆ Aircraft safety inspections do not replace any required maintenance or aircrew inspections.
- ◆ There are 4 sections in this program and on the CAPF 71, *CAP Aircraft Inspection Checklist*:
 1. Aircraft Records
 2. Aircraft Interior
 3. Aircraft Exterior
 4. Aircraft Lighting



Aircraft Inspections – Getting Started

- ◆ Obtain a copy of a CAPF 71
- ◆ Fill in these items at the top left of the form:
 - Date / Wing _____
 - Registration N # (e.g. N999CP) _____
 - Make _____ / Model _____ / Year _____
 - Current Tach Time _____



CAP MASTER SAFETY COURSE



Aircraft Inspections – Getting Started

CAP Aircraft Inspection Checklist			
Wing: _____	Date/Tach Time _____	Last Mid-Cycle Insp/Oil Change: _____	
Tail #: _____		Date/Tach Time @ Last 100-Hour Insp: _____	
Make/Model/Year: _____		Date/Tach Time @ Last Annual Insp: _____	
Tach Time: _____			
Inspection Item	Y	N	Remarks / Discrepancy
(Installed/Serviceable/Current ⇒)			
1. Aircraft Log Books / Records			
A. Mid Cycle Insp/Oil Change, 100-Hour Insp, Annual Insp, & Airworthiness Directives (AD) Compliance Listing Current (Ref: FAR 91.417 & CAPR 66-1)			
B. Equipment List (CAPF 37A) Matches Comm / Nav Equipment Installed			
C. ELT Battery Current – Entry in Log Book (Ref: FAR 91-207)			
D. IFR Requirements			
1) Altimeter System Current – Entry in Logbook (24 Mo. Ref: FAR 91.411)			
2) Pitot / Static System Current – Entry in Logbook (24 Mo. Ref: FAR 91.411)			
3) Transponder Current – Entry in Logbook (24 Mo. Ref: FAR 91.413)			
4) VOR Operational Check – IFR Only (30 Days Ref: FAR 91.171)			
2. Aircraft Interior			
A. Required Documents in Aircraft A-R-O-W			
1) Airworthiness Certificate (Ref: FAR 91.203)			
2) Registration (Ref: FAR 91.203)			
3) Operating Handbook (Airplane Flight Manual / POH) (Ref: FAR 91.9)			
4) Current Weight & Balance Data (Ref: Acft Flight Manual / POH)			
B. Obvious Defects, Leaks, Corrosion, Cleanliness, and Condition of Interior			
C. “Not for Hire” Placard Displayed (Ref: CAPR 66-1)			
D. “Max Crosswind” Placard Displayed (Ref: CAPR 66-1)			



Aircraft Inspections – Getting Started

- ◆ Now fill in these items at the top right of the form:
 - Date / tach of last mid-cycle oil change _____
 - Date / tach of last 100-hour inspection _____
 - Date / tach of last annual inspection _____



Aircraft Inspections – Getting Started

CAP Aircraft Inspection Checklist Wing: _____ Date/Tach Time Last Mid-Cycle Insp/Oil Change: _____ Tail #: _____ Date/Tach Time @ Last 100-Hour Insp: _____ Make/Model/Year: _____ Date/Tach Time @ Last Annual Insp: _____ Tach Time: _____			
Inspection Item (Installed/Serviceable/Current ⇒)	Y	N	Remarks / Discrepancy
1. Aircraft Log Books / Records			
A. Mid Cycle Insp/Oil Change, 100-Hour Insp, Annual Insp, & Airworthiness Directives (AD) Compliance Listing Current (Ref: FAR 91.417 & CAPR 66-1)			
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CAP MASTER SAFETY COURSE



Aircraft Inspections – Getting Started

- ◆ Most of this information is on the front cover of the AIF:



CIVIL AIR PATROL

AIRCRAFT INFORMATION FILE



N _____ CPF – _____ TYPE _____ HP _____

FULL FUEL USEFUL LOAD _____ LBS OIL Exxon Elite 20W-50
 Mineral Oil / Other

TIRE PRESSURES — NOSE _____ PSI MAINS _____ PSI

— MAJOR INSPECTIONS DUE —

REQUIRED INSPECTIONS	DATE WHEN DONE	HOURS WHEN DONE	NEXT DUE HOURS	NEXT DUE DATE
MID - CYCLE OIL CHANGE				
100 HOUR / ANNUAL				
PITOT / STATIC / TRANSPONDER		NOTE: Annual inspections are due at the end of the 12th calendar month. Pitot / static inspections are due at the end of the 24th calendar month. Mid-cycle oil changes are due the last day of the 6th calendar month OR 50 hours since the last oil change (± 10 hours), whichever comes first.		
ELT BATTERY				
FIRE EXTINGUISHER				
CARBON MONOXIDE DETECTOR				
CORROSION CONTROL				

— LOOSE / REMOVEABLE EQUIPMENT —

Loose equipment (if checked below) is a part of this aircraft. Removal of equipment requires approval of the unit commander or maintenance officer. Removal shall be noted in the aircraft maintenance log. The PIC is responsible for assuring that all



Aircraft Inspections – Aircraft Records

- ◆ Section 1 is the “paperwork” and “documentation” verification part of the inspection.

Inspection Item	Y	N	Remarks / Discrepancy
(Installed/Serviceable/Current ⇒)			
1. Aircraft Log Books / Records			
A. Mid Cycle Insp/Oil Change, 100-Hour Insp, Annual Insp, & Airworthiness Directives (AD) Compliance Listing Current (Ref: FAR 91.417 & CAPR 66-1)			
B. Equipment List (CAPF 37A) Matches Comm / Nav Equipment Installed			
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4) Current Weight & Balance Data (Ref: Acft Flight Manual / POH)			
B. Obvious Defects, Leaks, Corrosion, Cleanliness, and Condition of Interior			
C. “Not for Hire” Placard Displayed (Ref: CAPR 66-1)			
D. “Max Crosswind” Placard Displayed (Ref: CAPR 66-1)			



Aircraft Inspections – Aircraft Records

- You want to be sure the aircraft has not exceeded the calendar date or total hours when maintenance is due.

Inspection Item	Y	N	Remarks / Discrepancy
(Installed/Serviceable/Current ⇒)			
1. Aircraft Log Books / Records			
A. Mid Cycle Insp/Oil Change, 100-Hour Insp, Annual Insp, & Airworthiness Directives (AD) Compliance Listing Current (Ref: FAR 91.417 & CAPR 66-1)			
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4) Current Weight & Balance Data (Ref: Acft Flight Manual / POH)			
B. Obvious Defects, Leaks, Corrosion, Cleanliness, and Condition of Interior			
C. “Not for Hire” Placard Displayed (Ref: CAPR 66-1)			
D. “Max Crosswind” Placard Displayed (Ref: CAPR 66-1)			



Aircraft Inspections – Aircraft Records

- ◆ You need to be sure that:
 - An annual inspection was completed in the last 12 calendar months
 - A 100-hour inspection was completed within the last 100 hours on the tachometer
 - Mid-Cycle oil changes are due between 40 and 60 tach hours since the last 100-hr/annual inspection
 - Altimeter, pitot static and transponder checks must have been completed within the last 24 months
 - The ELT battery must not have exceeded its expiration date



Aircraft Inspections – Aircraft Interior

Now its time to begin Section 2

**The hardest part is over –
now for the fun stuff!**



Aircraft Inspections – Aircraft Interior

- ◆ Run the checklist line by line
 - Details and additional information is on each line
 - The following photographs and schematics will highlight a few of these items and some logbook entries



Aircraft Inspections – Aircraft Interior

- ◆ Item 2a - AROW: Airworthiness; Registration, Operating Handbook; Weight & Balance

Airworthiness Certificate

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION
STANDARD AIRWORTHINESS CERTIFICATE

N1432D Cessna 182R 18268178 Normal

3-6-92 DOA-POL

Registration

REGISTRATION NOT TRANSFERABLE

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION
CERTIFICATE OF AIRCRAFT REGISTRATION

NATIONALITY AND REGISTRATION MARKS N1432D AIRCRAFT SERIAL NO. 18268178

MANUFACTURER AND MANUFACTURER'S DESIGNATION OF AIRCRAFT
CESSNA 182R

CIVIL AIR PATROL, INC.
125 S. HANWELL, ST.
MURFEL AFB, AL 36112

DATE OF ISSUE July 29, 1997

Pilot's Operating Handbook

PILOT'S OPERATING HANDBOOK
and
FAA APPROVED AIRPLANE FLIGHT MANUAL

CESSNA AIRCRAFT COMPANY

1982 MODEL 182R

Serial No. 18268178
Registration No. N1432D

THIS DOCUMENT MUST BE CARRIED IN THE AIRPLANE AT ALL TIMES

THIS HANDBOOK INCLUDES THE MATERIAL REQUIRED TO BE FURNISHED TO THE PILOT BY CAR PART 2 AND CONSTITUTES THE FAA APPROVED AIRPLANE FLIGHT MANUAL.

CESSNA AIRCRAFT COMPANY
WICHITA, KANSAS, USA

8th August 1981



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Aircraft Inspections – Aircraft Interior

- ◆ Item 2a(4) – Weight & Balance

WEIGHT & BALANCE / EQUIPMENT LIST ADDENDUM			
SOUTHERN AVIONICS & COMMUNICATIONS, INC. BLDG. 2495A BROOKLEY FIELD, MOBILE, AL 36615 (334) 433 - 9980 CRS - HW4R427M			
MAKE : CESSNA	MODEL : 182R	SERIAL # : 18268178	N-1432E
PREVIOUS DATA TAKEN FROM : Southern Avionics & communications, Inc.			DATED : 12/28/99
PREVIOUS WEIGHT & BALANCE :	WEIGHT	ARM	MOMENT
	1863.26	36.65	68,294.72
EQUIPMENT REMOVED			
1 EA	KN-72 p/n 066-4009-00 s/n 16940	1.30	133.20
1 EA	RS-08 s/n 12247	0.37	11.00
1 EA	GX-55 p/n 430-6050-200 s/n 6002591	2.00	12.50
1 EA	KX-155A p/n 069-01032-0101 s/n 14148	4.00	13.25
1 EA	KX-155A p/n 069-01032-0101 s/n 15270	4.00	13.25
TOTAL REMOVED WEIGHT & MOMENT :		11.67	308.23
EQUIPMENT INSTALLED			
1 EA	SL-30 p/n 430-6040-301 s/n 6028146	2.50	12.75
1 EA	ACU p/n 430-6080-300 s/n 6014851	0.52	16.00
1 EA	GX-60 p/n 430-6050-603 s/n 6028296	3.00	12.50
1 EA	MX-20 p/n 430-0270-500 s/n 6023847	4.25	13.25
1 EA	RS-232 Adapter p/n IA-RS232C-5 s/n IA-2483	0.75	128.70
TOTAL INSTALLED WEIGHT & MOMENT :		11.02	230.53
NET CHANGE :		-0.65	-77.70
NEW WEIGHT & BALANCE :		1862.61	68,217.02
NEW USEFUL LOAD	SIGNED : 		CERT # : 2417136
1237.39 lbs.	PRINT : Jeff Haddan		DATE : 12/06/00



Aircraft Inspections – Aircraft Interior

- ◆ Items 2c, 2d & 2e – Placards



**MAXIMUM CROSSWIND
COMPONENT FOR THIS
AIRCRAFT IS 15 KNOTS**



Aircraft Inspections – Aircraft Interior

- ◆ Items 2g – Avionics Control Lock





Aircraft Inspections – Aircraft Interior

- ◆ Item 2h – Fire Extinguisher (gauge required) and Item 2i – Carbon Monoxide Detector

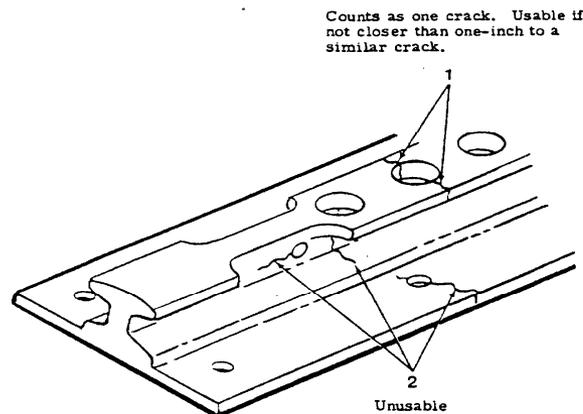




Aircraft Inspections – Aircraft Interior

◆ Item 2j – Seat Rails

FOR TRAINING PURPOSES ONLY



REPLACE SEAT RAIL WHEN:

- Any portion of web or lower flange is cracked, (index 2).
- Any crack in crown of rail is in any direction other than right angle to length of rail.
- Number of cracks on any one rail exceeds four, or any two cracks (index 1) are closer than one-inch.

NOTE

Use of seat rail cargo tie-downs is not permissible on seat rails with cracks.



Aircraft Inspections – Aircraft Interior





Aircraft Inspections – Aircraft Exterior

Now on to Section 3

**This is the shortest section –
but one of the most important!**



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Aircraft Inspections – Aircraft Exterior

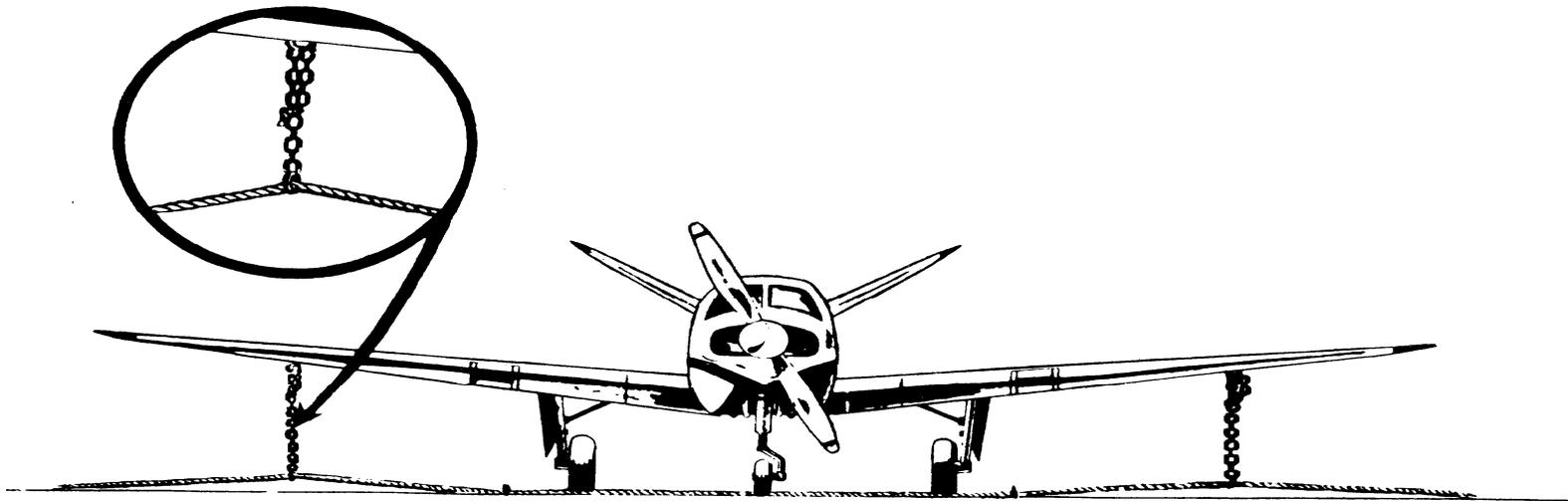
CAP Aircraft Inspection Checklist			
Wing: _____	Date/Tach Time Last Mid-Cycle Insp/Oil Change: _____		
Tail #: _____	Date/Tach Time @ Last 100-Hour Insp: _____		
Make/Model/Year: _____	Date/Tach Time @ Last Annual Insp: _____		
Tach Time: _____			
Inspection Item (Installed/Serviceable/Current ⇒)	Y	N	Remarks / Discrepancy

L. Cargo Tie-Down or Net Installed (Ref: FAR 91.525)			
M. Survival Kit. (Ref: CAPR 66-1)			
3. Aircraft Exterior			
A. Acft Properly Chocked, Tied Down, and Condition of Tie downs (CAPR 66-1)			
B. Obvious Defects, Leaks, Corrosion, Cleanliness, and Condition of Paint			
C. Condition of Prop – Nicks, Dents, Leaks, Corrosion, Evidence of Prop Strike			
D. External Aircraft Identification Plate (Ref: CAPR 66-1)			
E. Appropriate CAP decals on wings, doors and vertical stabilizer. (Ref: CAPR 66-1 and CAP Policy)			
F. Brakes for Leaks, Wear, Cracked Pads and Obvious Defects (Ref: Acft Service Manual)			
G. Tires for Proper Air Pressure and Serviceability (Ref: Acft Service Manual/STC)			
H. Engine Cowling for Proper Fit / Fasteners Serviceable and Secure			
I. Cessna Door Hinge Pins Installed			
4. Exterior And Interior Lighting For Proper Operation			
A. Landing / Taxi / Pulselite			
B. Anti-Collision Strobe (Ref: FAR 91.209)			
C. Navigation / Position (Ref: FAR 91.209)			
D. Flashing Beacon			



Aircraft Inspections – Aircraft Exterior

- ◆ Item 3a - No chains can be connected *directly* to a ground anchor point (**aircraft damage can result**)



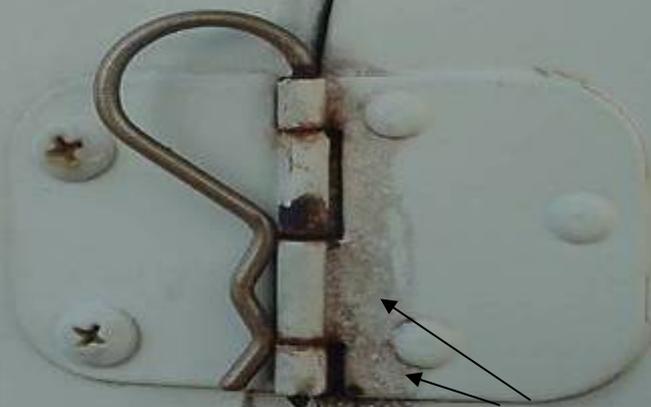
The diagram shows a vertical anchor using straight link coil chain for connection between the wire rope and aircraft wing. One link on the free end is then passed through a link of the taut portion and a safety snap is used to keep the link from passing back through. Any load on the chain is borne by the chain itself instead of the snap.



Aircraft Inspections – Aircraft Exterior

- ◆ Item 3b - Check aircraft for defects, leaks, cleanliness, and condition of paint

Note: No “Quick Release “ door pins without a waiver

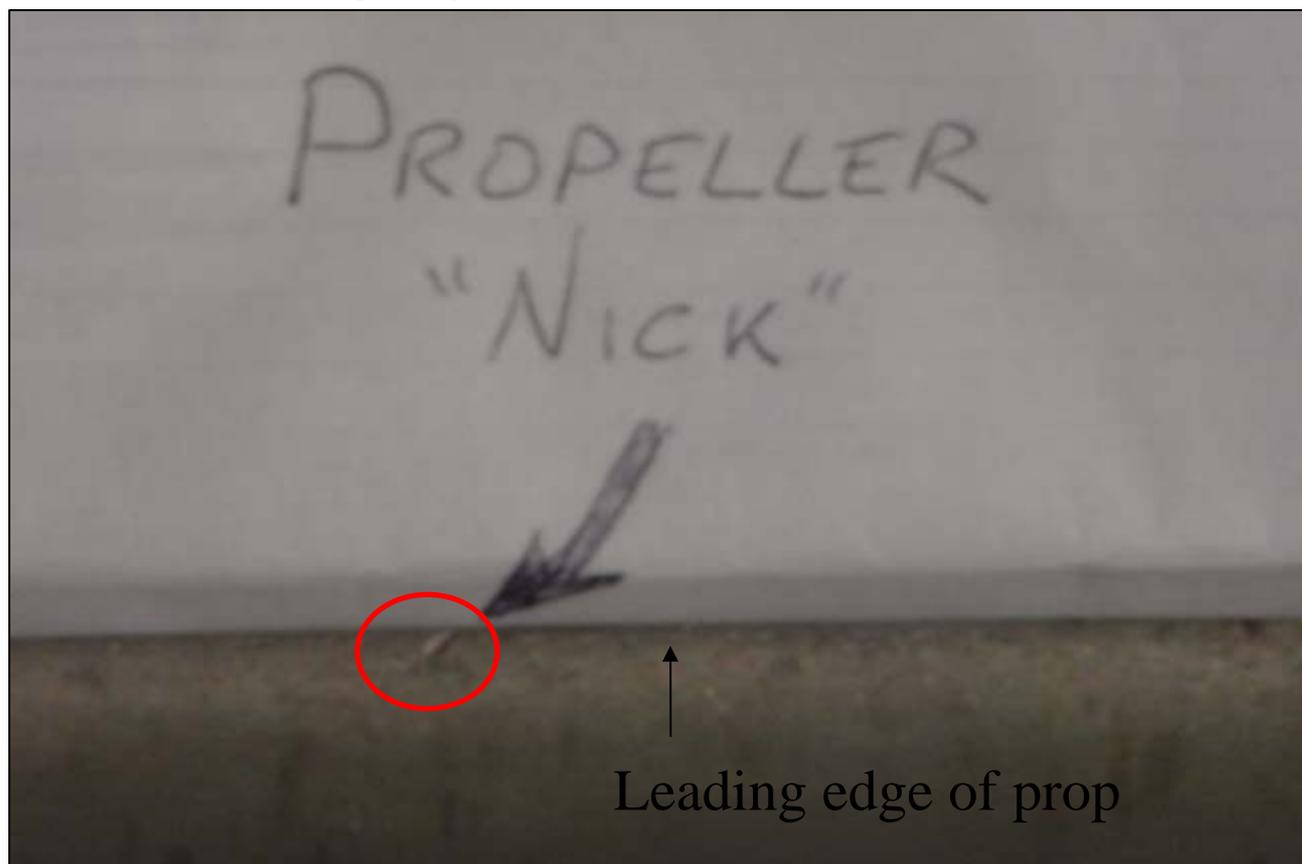


Corrosion forming here



Aircraft Inspections – Aircraft Exterior

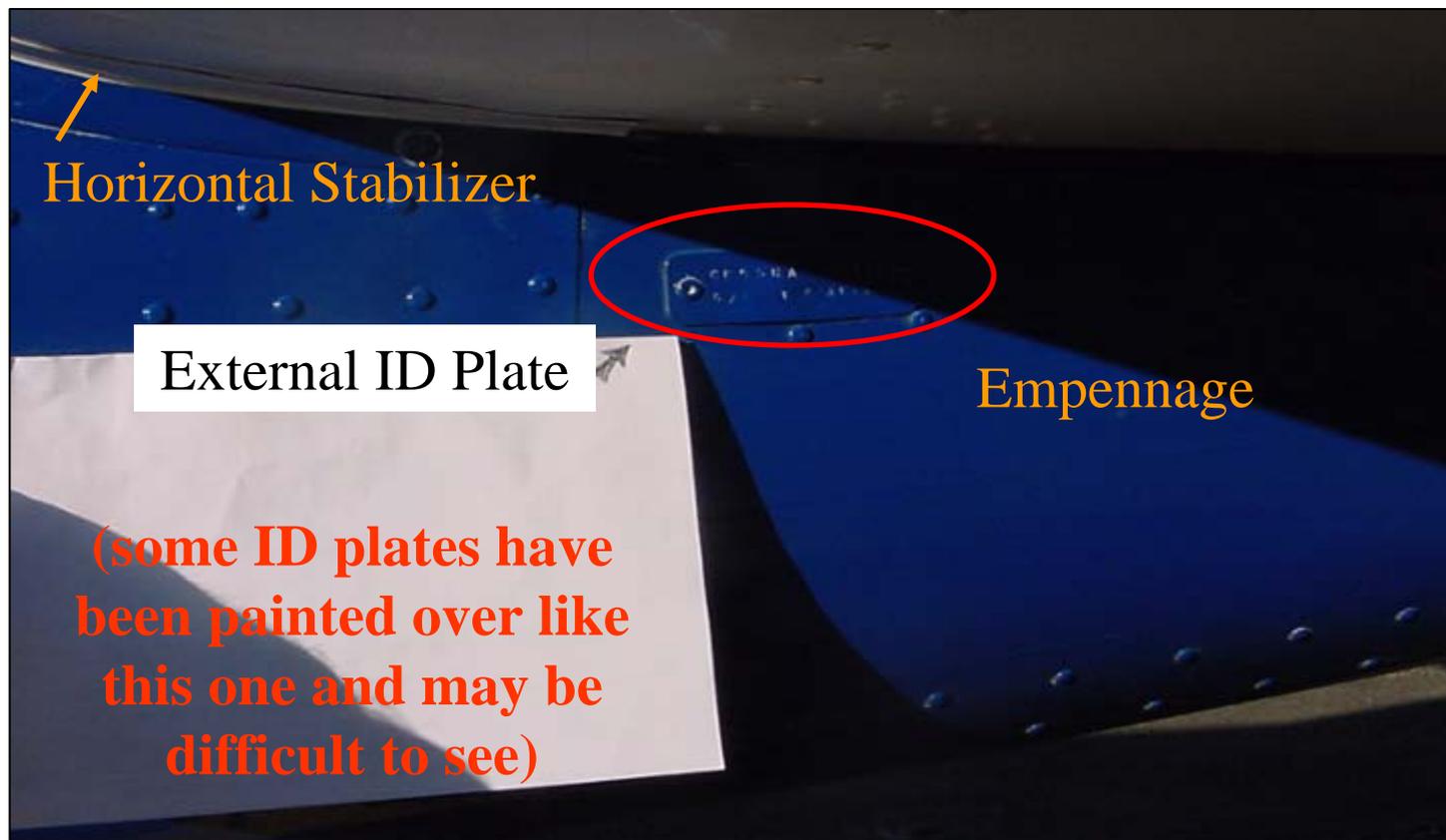
- ◆ Item 3c – Evidence of prop strikes, leaks, dents, nicks, corrosion





Aircraft Inspections – Aircraft Exterior

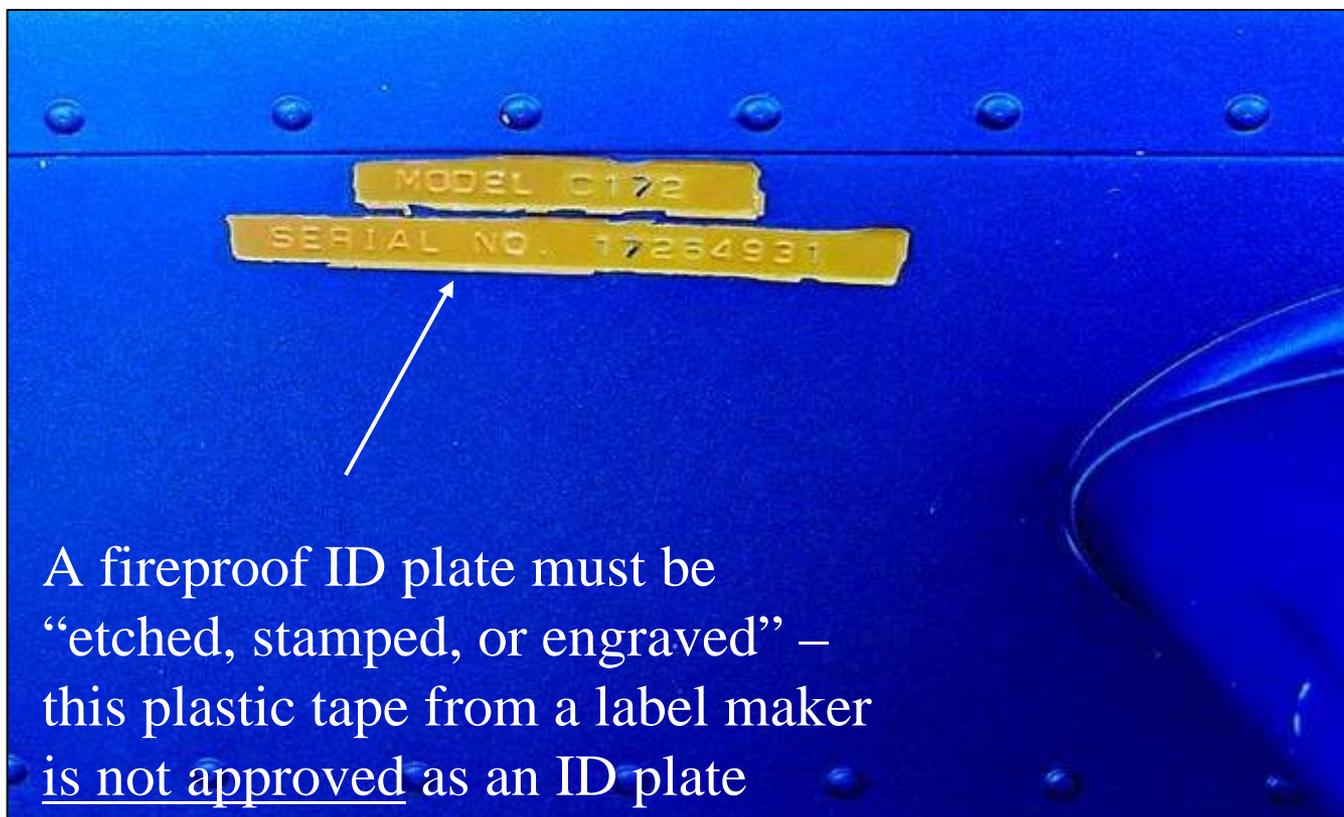
- ◆ Item 3d – External Identification Plate





Aircraft Inspections – Aircraft Exterior

- ◆ Item 3d – External Identification Plate



A fireproof ID plate must be “etched, stamped, or engraved” – this plastic tape from a label maker is not approved as an ID plate



Aircraft Inspections – Aircraft Exterior

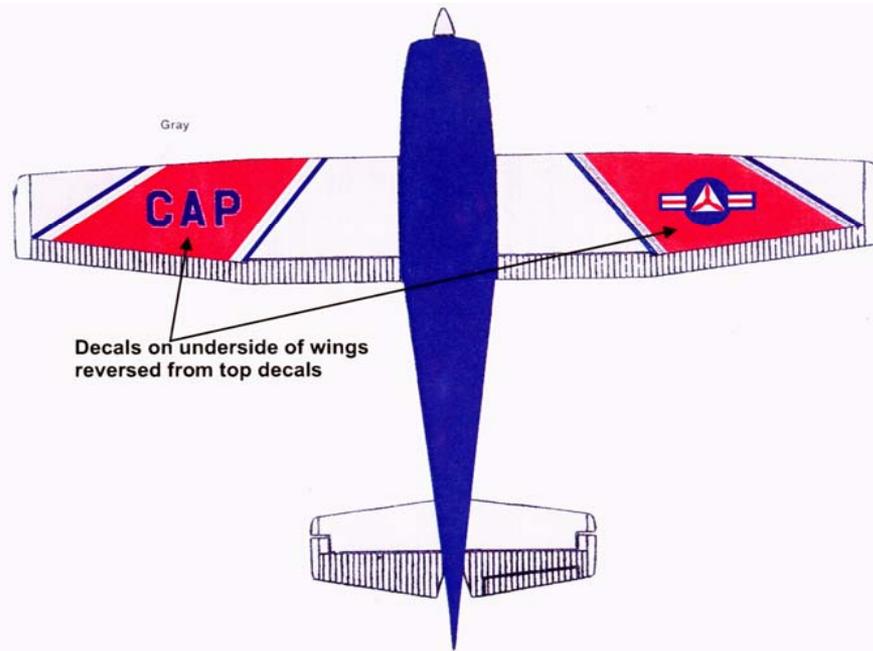
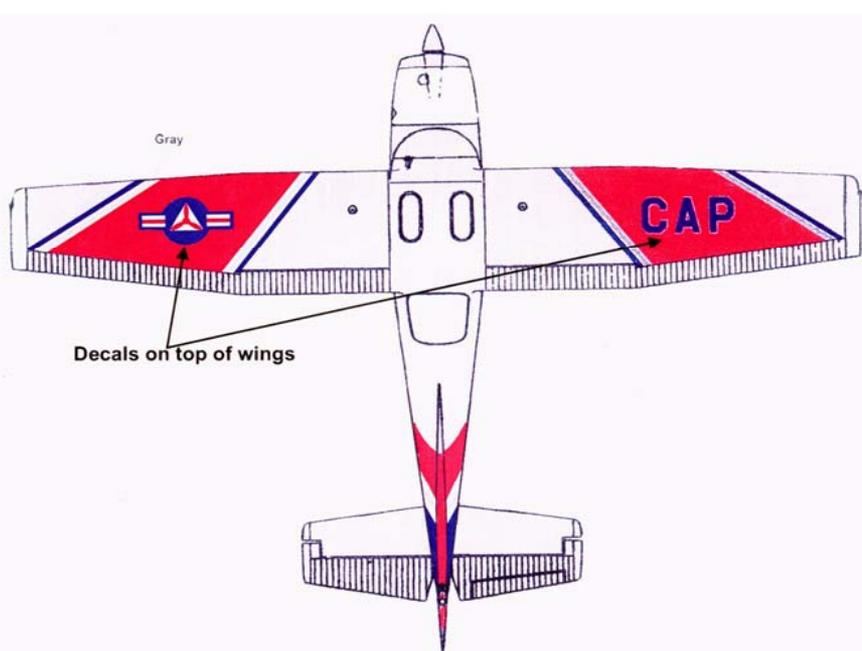
- ◆ Item 3e–CAP Patch on door and 6" CIVIL AIR PATROL on vertical stabilizer





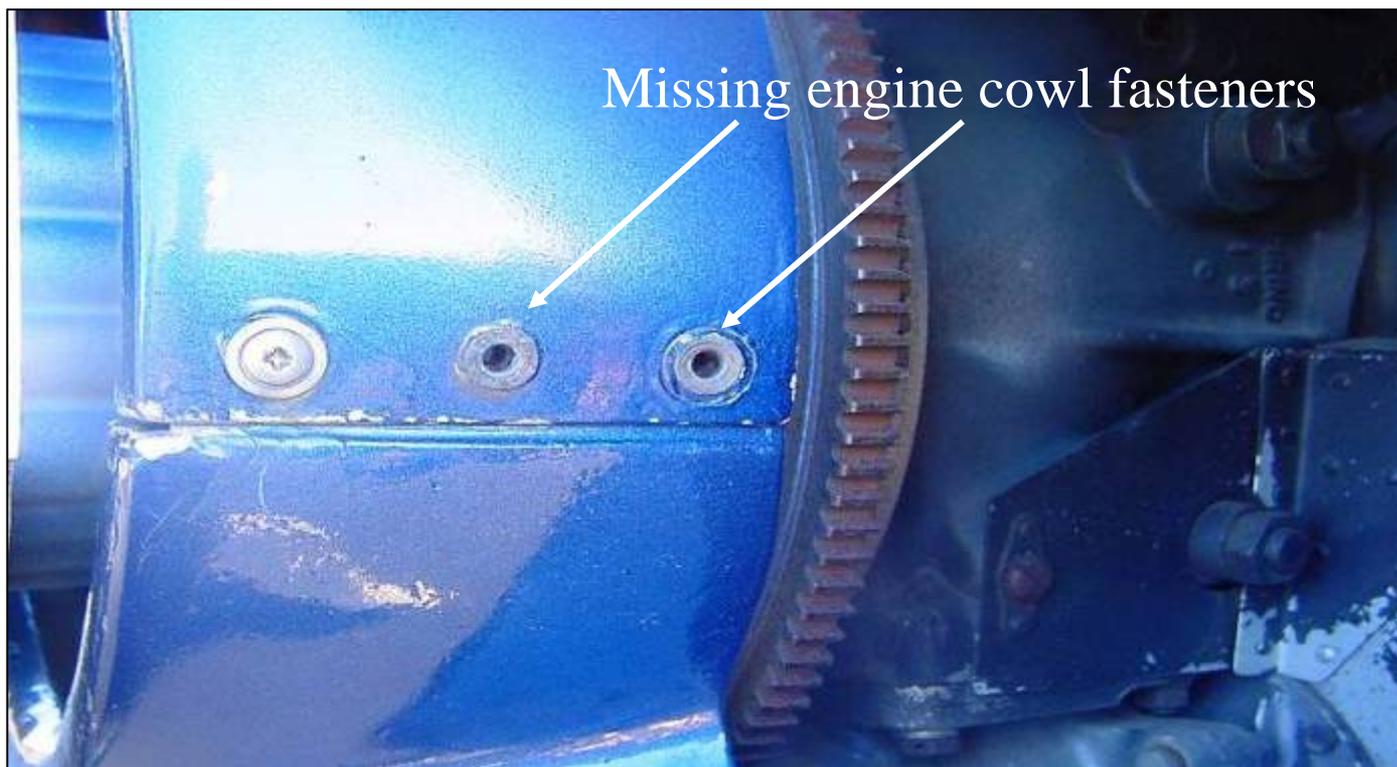
Aircraft Inspections – Aircraft Exterior

- ◆ Item 3e – CAP and "Prop & Bar" Decals on Wings



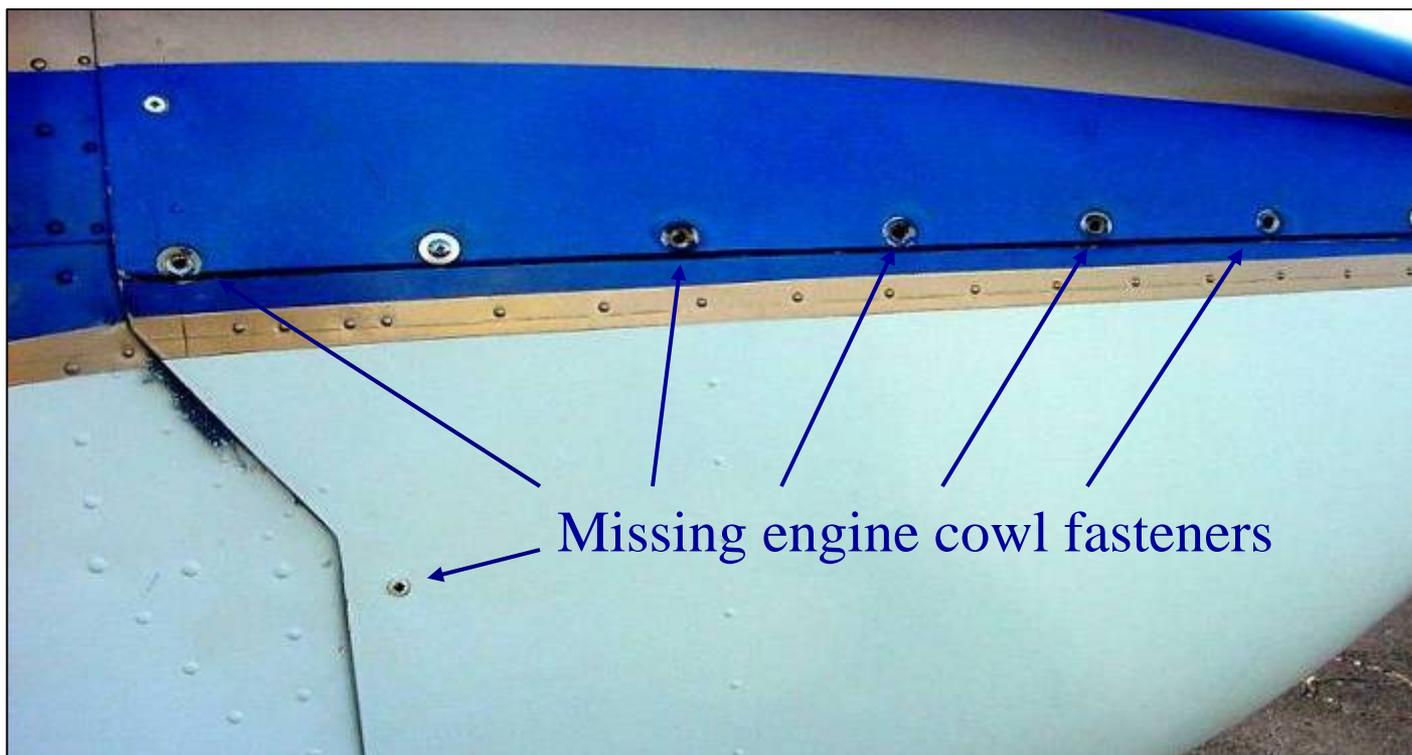
Aircraft Inspections – Aircraft Exterior

- ◆ Item 3h – Engine cowling for proper fit, security, contour and fasteners



Aircraft Inspections – Aircraft Exterior

- ◆ Item 3h – Engine cowling for proper fit, security, contour and fasteners





Aircraft Inspections – Aircraft Exterior

- ◆ Item 3h – Engine cowling for proper fit, security, contour and fasteners





Aircraft Inspections – Aircraft Lighting

Now the last part – Section 4

Last but not least



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Aircraft Inspections – Aircraft Lighting

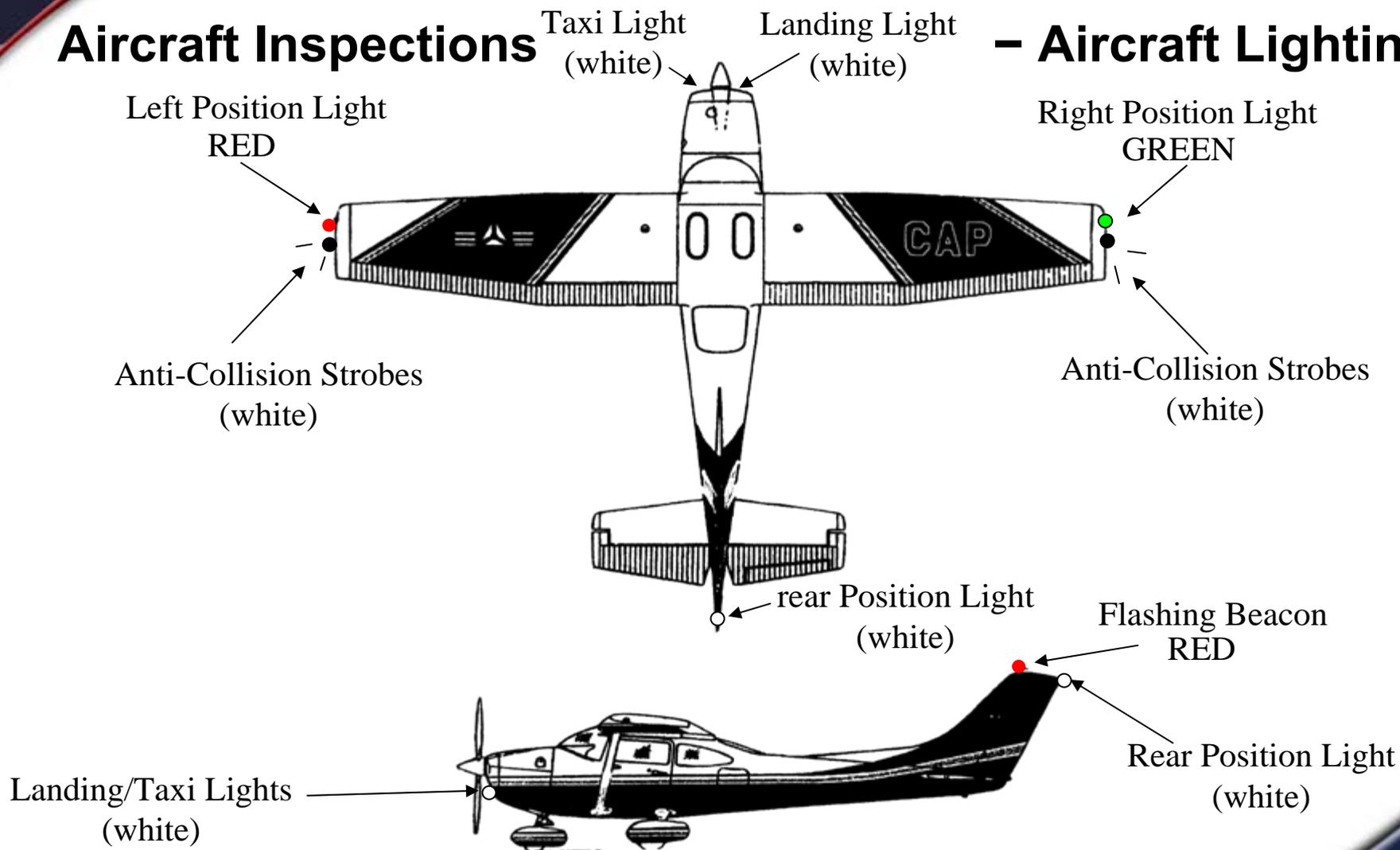
CAP Aircraft Inspection Checklist			
Wing: _____	Date/Tach Time Last Mid-Cycle Insp/Oil Change: _____		
Tail #: _____	Date/Tach Time @ Last 100-Hour Insp: _____		
Make/Model/Year: _____	Date/Tach Time @ Last Annual Insp: _____		
Tach Time: _____			
Inspection Item (Installed/Serviceable/Current ⇒)	Y	N	Remarks / Discrepancy

3. Aircraft Exterior			
A. Acft Properly Chocked, Tied Down, and Condition of Tie downs (CAPR 66-1)			
B. Obvious Defects, Leaks, Corrosion, Cleanliness, and Condition of Paint			
C. Condition of Prop – Nicks, Dents, Leaks, Corrosion, Evidence of Prop Strike			
D. External Aircraft Identification Plate (Ref: CAPR 66-1)			
E. Appropriate CAP decals on wings, doors and vertical stabilizer. (Ref: CAPR 66-1 and CAP Policy)			
F. Brakes for Leaks, Wear, Cracked Pads and Obvious Defects (Ref: Acft Service Manual)			
G. Tires for Proper Air Pressure and Serviceability (Ref: Acft Service Manual/STC)			
H. Engine Cowling for Proper Fit / Fasteners Serviceable and Secure			
I. Cessna Door Hinge Pins Installed			
4. Exterior And Interior Lighting For Proper Operation			
A. Landing / Taxi / Pulselite			
B. Anti-Collision Strobe (Ref: FAR 91.209)			
C. Navigation / Position (Ref: FAR 91.209)			
D. Flashing Beacon			
E. Cabin / Panel			
F. Instrument			
Name Of Inspector: _____	Date: _____		



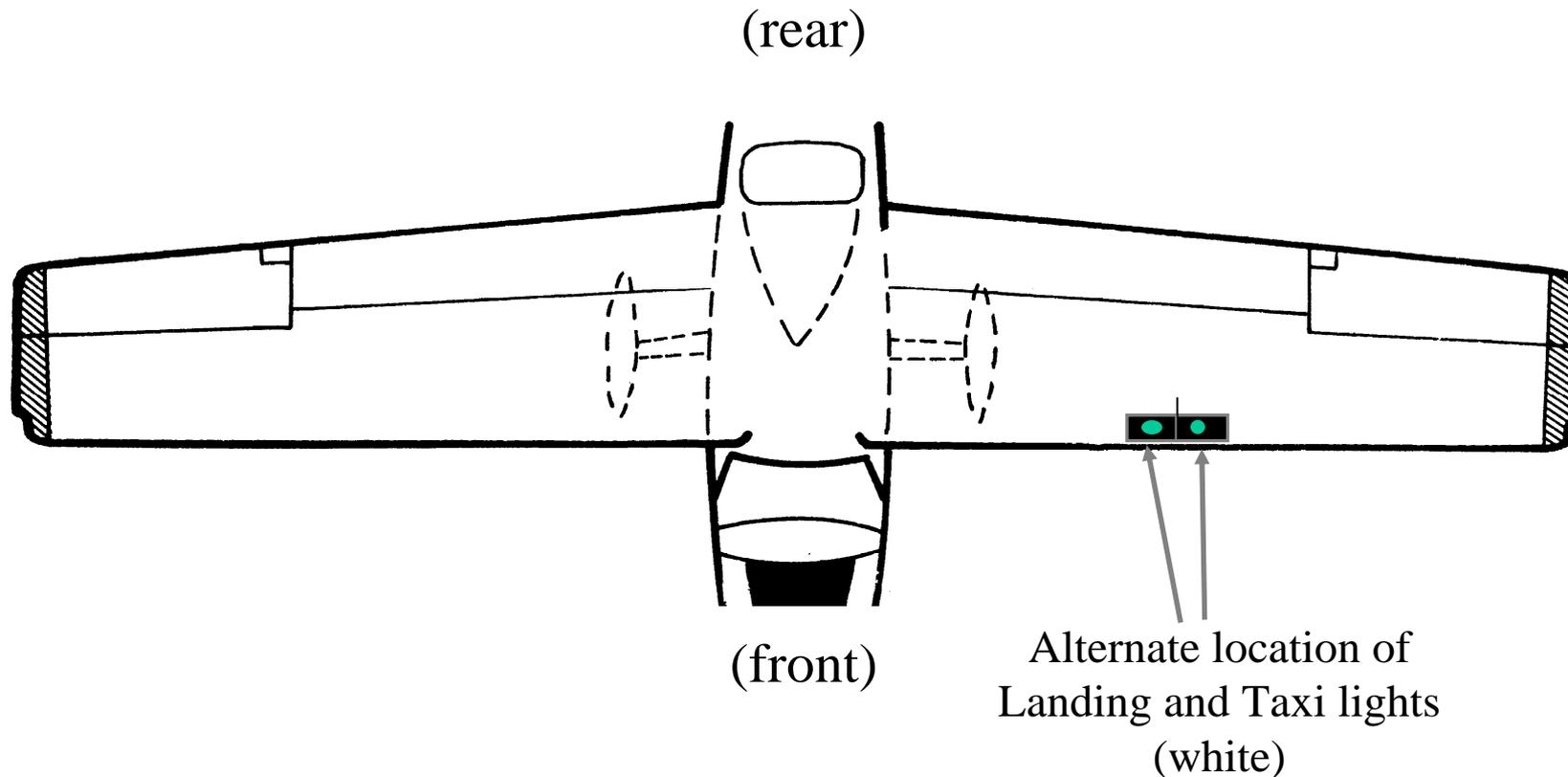
Aircraft Inspections

- Aircraft Lighting





Aircraft Inspections – Aircraft Lighting





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Aircraft Inspections – In Closing

Additional guidance for aircraft inspections can be found on the back of the CAPF 71, *Aircraft Inspection Checklist*

or

Call NHQ CAP/LGM: (DSN) 493-7748 ext 272
(877) 227-9142 ext 272

or

NHQ CAP/EXS (Safety Admin): (DSN) 493-7748 ext 229
(877) 227-9142 ext 229



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Summary

- ◆ Review of CAP safety officer's duties and responsibilities.
- ◆ The safety officer's role in CAP's three missions
 - Aerospace Education
 - Cadet Programs
 - Emergency Service
- ◆ The safety officer's role in aircraft inspections.



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Conclusion

- ◆ Congratulations on finishing the Master Safety Officer Course!

[Complete the Master Safety Course Test](#)