



# RADIO & AIR LAW PART I


*ALTITUDE, AIRSPEED AND BRAINS. YOU NEED ONLY TWO OF THEM TO STAY ALIVE*

---

# IMPORTANT INFORMATION



- Restricted Radiotelephone Operator's Certificate
- Issued by Industry Canada
- Valid for life
- Must demonstrate a minimum of 70% on exam to obtain certificate

Industry Canada / Industrie Canada		CERTIFICATE OF PROFICIENCY IN RADIO	CERTIFICAT DE COMPÉTENCE EN RADIO
Certificate - Certificat <b>RADIO TELEPHONE OPERATOR'S RESTRICTED</b>		Number - Numéro <b>719904189</b>	
Certificate Holder - Titulaire du certificat <b>LYNCH, JAMES CHALLENGER</b>			
Qualifications or Restrictions - Compétences ou restrictions <b>AERONAUTICAL</b>			
FOLD/PLIER			
Issuing Office - Bureau responsable <b>TORONTO D.O.</b>		Issue Date Date de délivrance <b>1971-12-14</b>	
The certificate holder is qualified to operate radio stations as indicated in the regulations made pursuant to the Radiocommunication Act.		Le présent certificat atteste que le titulaire est qualifié pour exploiter les stations de radio comme l'indiquent les règlements établis en vertu de la Loi sur la radiocommunication.	
Signature of Holder - Signature du titulaire 		Date of Birth Date de naissance <b>1948-12-14</b>	

IC 2493 (12/95)

# NUMBERS, TIME, MONEY, ALTITUDE, HEADING

- Time: the 24 hour coordinated time (Zulu) system is used:
    - midnight = 00:00 hrs
    - 2:30 PM Local = 14:30 hrs Local
  - Money: say “dollars” at the beginning of the figure
    - 45.32\$ = “dollars-four-five-decimal-three-two”
    - Sometimes different in different countries
  - Altitude: Given in thousands and hundreds of feet
    - 1000' = thousand
    - 2500' = two ‘thousand’ five hundred
  - Heading: expressed in 3 figures (degrees MAGNETIC)
    - 060 = Heading zero six zero
-



# PRIORITY OF COMMUNICATION



- 1 – Distress Call
- 2 – Urgency Call
- 3 – Flight Safety Communications
- 4 – Weather Information Communications
- 5 – Schedule broadcasts
- 6 – All other communications



# MESSAGE TECHNIQUE



- Only use last **3 letters** of the glider's registration **after initial contact**
  - Parts of a message:
    - 1) **Call-up**: "St-Jean Tower, this is glider Foxtrot Delta Whiskey Bravo"
    - 2) **Reply** : "Glider Delta Whiskey Bravo, St-Jean Tower"
    - 3) **Message**: "St-Jean Tower, glider Delta Whiskey Bravo on left downwind for grass 29"
    - 4) **Tower Reply**: "Delta Whiskey Bravo, St-Jean Tower. Winds at 320 at 10 kts; cleared to land grass 29"
    - 5) **Acknowledgement**: "Delta Whiskey Bravo"
-



# TYPES OF EMERGENCY CALLS



- 1) Distress Call: “**MAYDAY, MAYDAY, MAYDAY**” (mayday x 3)
- 2) Urgency Call: “**PAN PAN, PAN PAN, PAN PAN**” (pan x 6 )
- 3) Call: “**SECURITE, SECURITE, SECURITE** (securite x 3)



# DISTRESS CALL



- Transmitted on the current air-ground frequency first
- Then, 121.5MHz (international distress frequency)
- For a distress call you must follow this format:
  - Mayday (3 times)
  - "This is"
  - Call sign (3 times)
  - Distress Message





# RADIO CHECKS



- A radio check should not last more than 10 seconds
- Example: “ Glider DWB, this is glider ACQ for radio check, over.”

“Glider ACQ, read you 5/5.”

“5/5, you as well thank you.”

- Readability scale:

Loudness vs clarity

When replying to a radio check, the following readability scale should be used:

- |    |           |                                |
|----|-----------|--------------------------------|
| 1. | Bad       | (unreadable)                   |
| 2. | Poor      | (readable now and then)        |
| 3. | Fair      | (readable but with difficulty) |
| 4. | Good      | (readable)                     |
| 5. | Excellent | (perfectly readable)           |



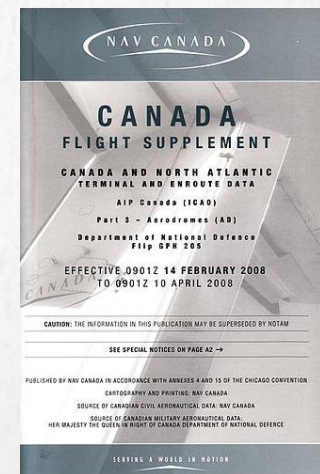
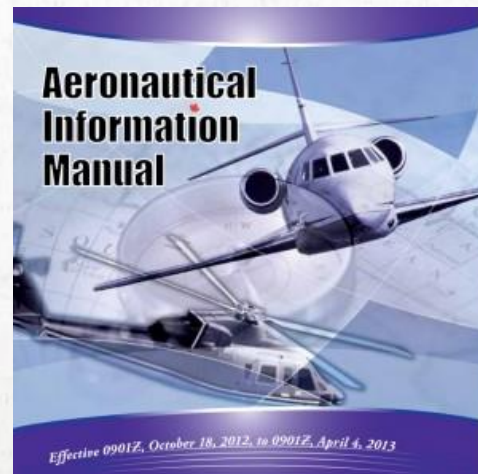


## CONFIRMATION – *WUN*

- Who issues radio licences?
  - Read the following: “67.21\$”
  - What is the urgency signal?
  - The readability scale is \_\_\_\_ vs \_\_\_\_?
-

# REGULATIONS AND MANUALS

- **Canadian Aviation Regulation (CAR)**
- **Aeronautical Information Manual (A.I.M. Canada)**
  - Updated twice a year, includes CAR + other aeronautical information
- **Canada Flight Supplement (CFS)**





# DOCUMENTS REQUIRED TO FLY



- A → Certificate of Airworthiness
- R →
- O →
- W →
- J →
- I →
- L →
- I →

UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION—FEDERAL AVIATION ADMINISTRATION <b>STANDARD AIRWORTHINESS CERTIFICATE</b>			
1 NATIONALITY AND REGISTRATION MARKS <b>N2631A</b>	2 MANUFACTURER AND MODEL <b>PIPER PA-22-135</b>	3 AIRCRAFT SERIAL NUMBER <b>22-903</b>	4 CATEGORY <b>NORMAL</b>
5. AUTHORITY AND BASIS FOR ISSUANCE This airworthiness certificate is issued pursuant to the Federal Aviation Act of 1958 and certifies that, as of the date of issuance, the aircraft to which issued has been inspected and found to conform to the type certificate therefor, to be in condition for safe operation, and has been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation, except as noted herein. Exceptions:  <b>NONE</b>			
6 TERMS AND CONDITIONS Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator, this airworthiness certificate is effective as long as the maintenance, preventative maintenance, and alterations are performed in accordance with Parts 21, 43, and 91 of the Federal Aviation Regulations, as appropriate, and the aircraft is registered in the United States.			
DATE OF ISSUANCE <b>08-10-95</b>	FAA REPRESENTATIVE <i>Marion W. Williams</i> <b>MARION W. WILLIAMS</b>		DESIGNATION NUMBER <b>SW-FSDO-OKC</b>
Any alteration, reproduction, or misuse of this certificate may be punishable by a fine not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS.			
FAA Form 8100-2 (8-82)			GPO 892-804



# DOCUMENTS REQUIRED TO FLY



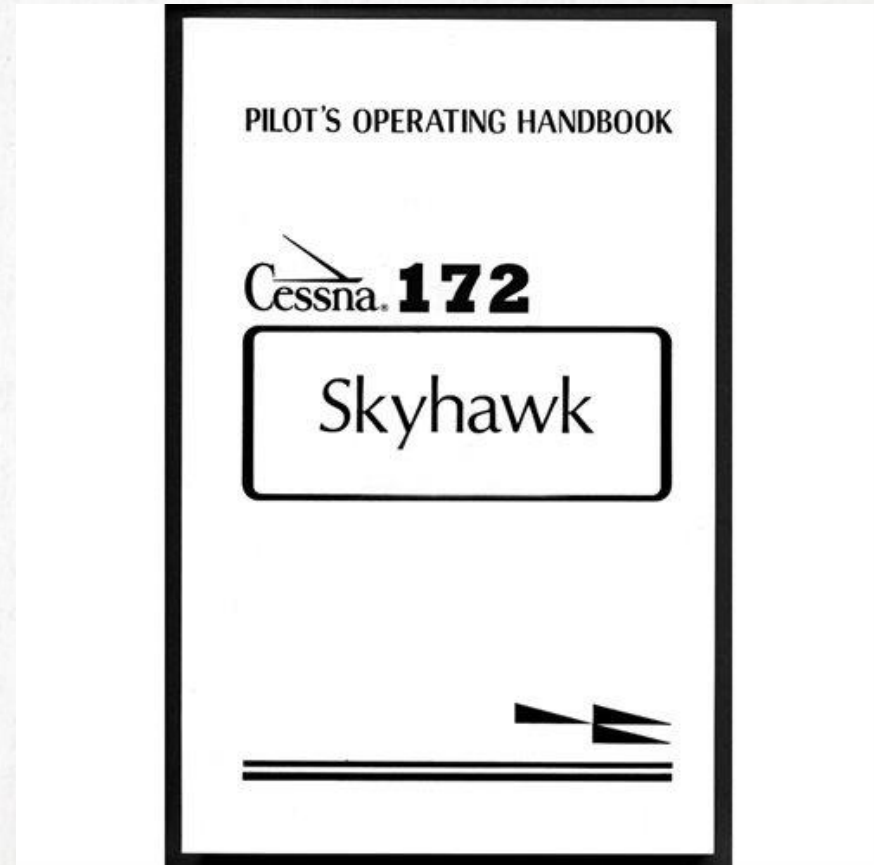
- **A** → Certificate of Airworthiness
- **R** → Certificate of Registration
- **O** →
- **W** →
- **J** →
- **I** →
- **L** →
- **I** →

REGISTRATION NOT TRANSFERABLE	
UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION CERTIFICATE OF AIRCRAFT REGISTRATION	
This certificate must be in aircraft when operated.	
NATIONALITY AND REGISTRATION MARKS	N 12345 AIRCRAFT SERIAL NO. 6969
MANUFACTURER AND MANUFACTURER'S DESIGNATION OF AIRCRAFT CESSNA C-150L ICAO Aircraft Address Code:	
I S S U E D  T O	ROBERT E. BARO 300 MOERKLE ST ANYTOWN, OHIO 12345
	This certificate is issued for registration purposes only and is not a certificate of title. The Federal Aviation Administration does not determine rights of ownership as between private persons.
It is certified that the above described aircraft has been entered on the register of the Federal Aviation Administration, United States of America, in accordance with the Convention on International Civil Aviation dated December 7, 1944, and with the Federal Aviation Act of 1958, and regulations issued thereunder.	
DATE OF ISSUE February 15, 1996	<i>David Hinson</i> ADMINISTRATOR
U.S. Department of Transportation Federal Aviation Administration	
AC Form 8050-3(11/93) Supersedes previous editions	

# DOCUMENTS REQUIRED TO FLY



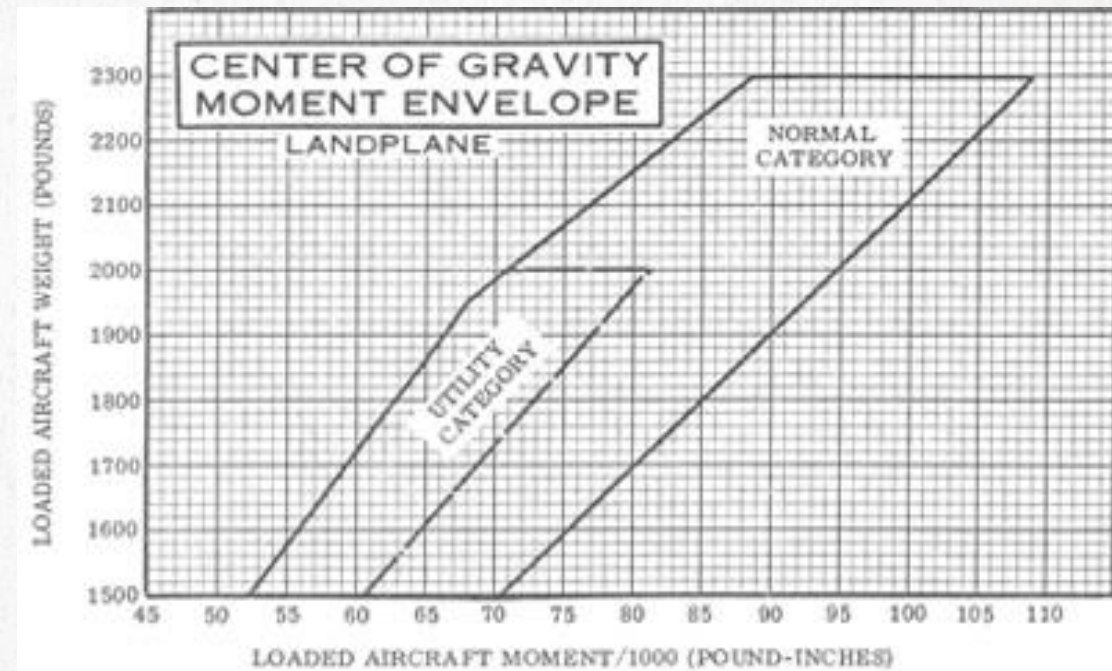
- **A** → Certificate of Airworthiness
- **R** → Certificate of Registration
- **O** → Operator's Handbook
- **W** →
- **J** →
- **I** →
- **L** →
- **I** →



# DOCUMENTS REQUIRED TO FLY



- **A** → Certificate of Airworthiness
- **R** → Certificate of Registration
- **O** → Operator's Handbook
- **W** → Weight and Balance
- **J** →
- **I** →
- **L** →
- **I** →

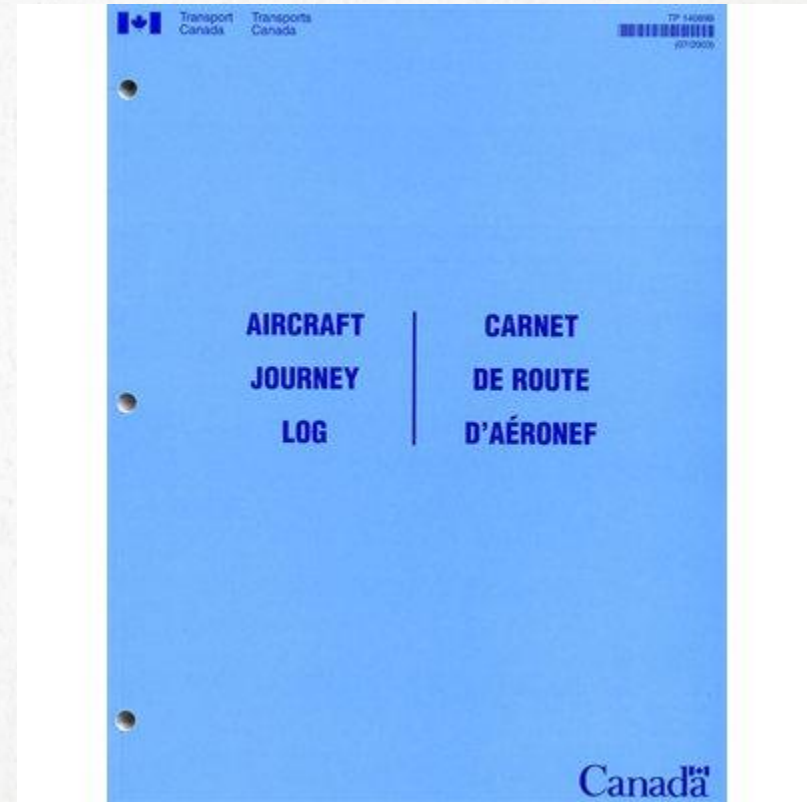




# DOCUMENTS REQUIRED TO FLY



- **A** → Certificate of Airworthiness
- **R** → Certificate of Registration
- **O** → Operator's Handbook
- **W** → Weight and Balance
- **J** → Journey Log
- **I** →
- **L** →
- **I** →



# DOCUMENTS REQUIRED TO FLY



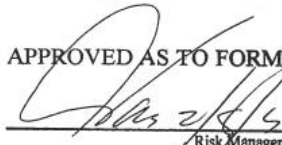
- **A** → Certificate of Airworthiness
- **R** → Certificate of Registration
- **O** → Operator's Handbook
- **W** → Weight and Balance
- **J** → Journey Log
- **I** → Insurance
- **L** →
- **I** →

 AOPA Insurance Agency, Inc.  
P.O. Box 9170  
Wichita, KS 67277  
(800) 622-AOPA (2672)  
KS (316) 942-2223  
Fax (316) 942-0091

AIRCRAFT CERTIFICATE OF INSURANCE  
Date: 01/25/2011

This certificate is issued to  
City of Riverside  
6951 Flight Rd  
Riverside, CA 92504  
Descriptive Schedule  
Named Insured and Address:  
Richard D Roth & Cynthia G Roth  
PO BOX 708  
RIVERSIDE, CA 92502-0708

Company: Chartis Aerospace Insurance Services, Inc.  
Policy Number: PND1293144  
Effective Date: 01/27/2011  
Expiration Date: 01/27/2012  
Aircraft Covered: N8661M 1964 BEECH P35

APPROVED AS TO FORM  
  
Risk Manager

COVERAGES	LIMITS OF LIABILITY
Single Limit Bodily Injury & Property Damage Liability	Each Occurrence: \$1,000,000 Including Passenger Sub-Limit each passenger \$100,000
Aircraft Physical Damage	Agreed Value: \$60,000 Full Ground & Flight
Deductible	In Motion \$100
Deductible	Not In Motion \$100

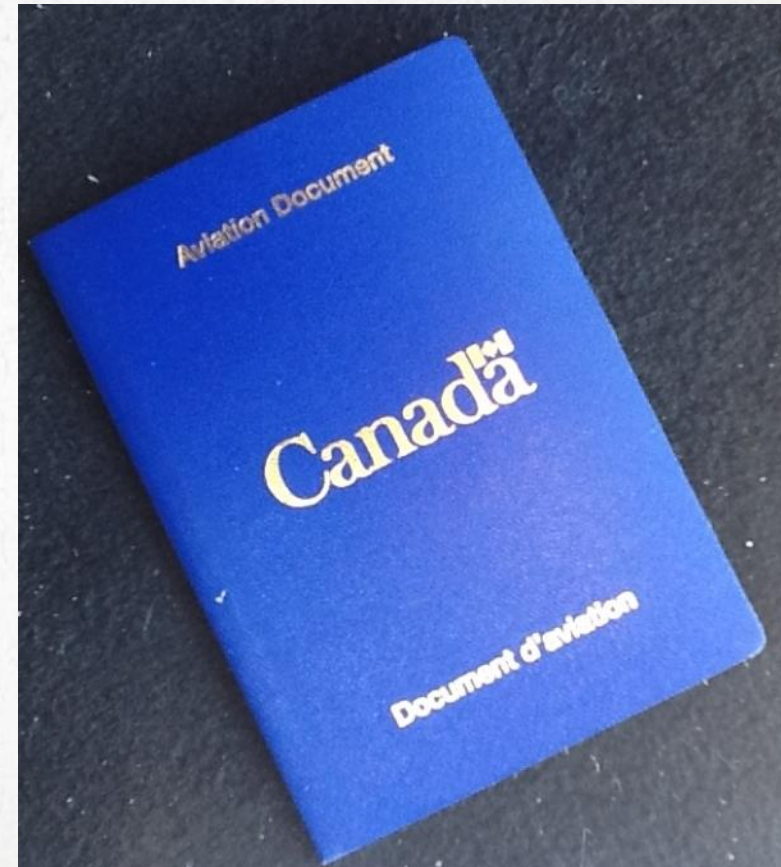
The entity shown above is included under Aircraft Liability Coverage as an Additional Insured but only to the extent of liability arising out of the Named Insured's ownership, maintenance or use of the Covered Aircraft. If the company cancels, the company will send 30 day prior written notice to the above. The company shall not be held liable for failure to give such notice.



# DOCUMENTS REQUIRED TO FLY



- **A** → Certificate of Airworthiness
- **R** → Certificate of Registration
- **O** → Operator's Handbook
- **W** → Weight and Balance
- **J** → Journey Log
- **I** → Insurance
- **L** → Licenses (and logbooks)
- **I** →





# DOCUMENTS REQUIRED TO FLY



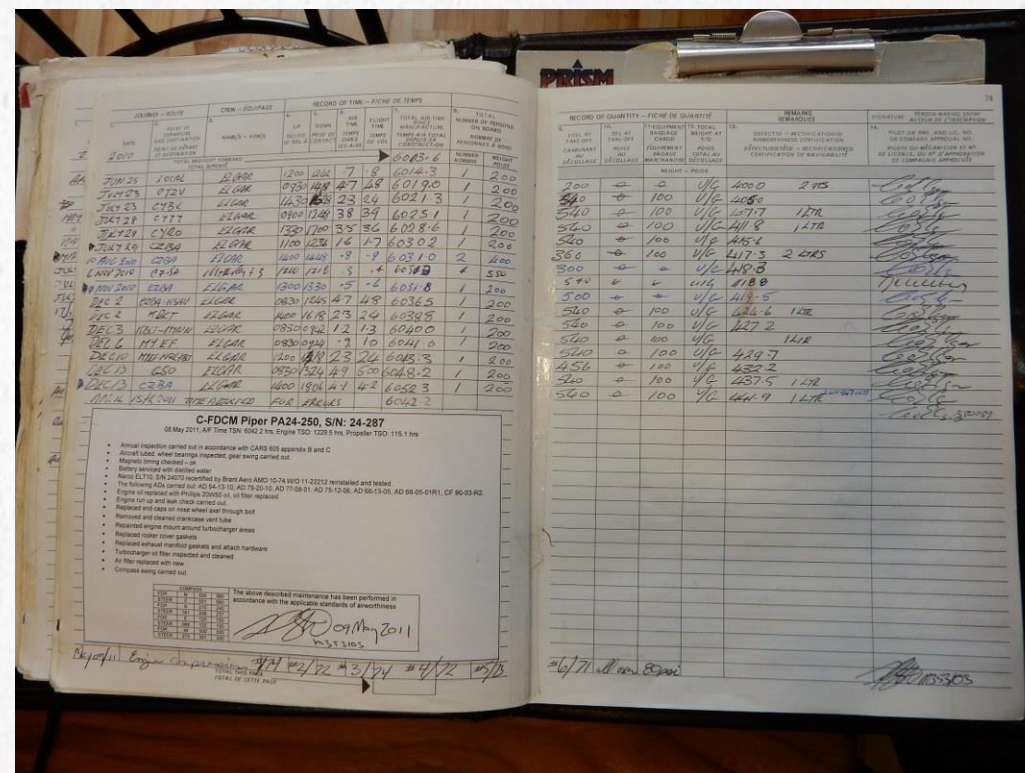
- **A** → Certificate of Airworthiness
- **R** → Certificate of Registration
- **O** → Operator's Handbook
- **W** → Weight and Balance
- **J** → Journey Log
- **I** → Insurance
- **L** → Licenses (and logbooks)
- **I** → Intercept Orders

SCHEDULE II				
VISUAL SIGNALS FOR USE IN THE EVENT OF INTERCEPTION				
Signals Initiated by Intercepting Aircraft and Response by Intercepted Aircraft				
Series	Intercepting Aircraft Signal	Meaning	Intercepted Aircraft Response	Meaning
1.	<p>DAY—Rocking wings from a position in front and, normally, to the left of the intercepted aircraft, and after acknowledgement, a slow level turn, normally to the left, on to the desired heading.</p> <p>NIGHT—Same, and in addition, flashing navigational lights at irregular intervals.</p> <p>DAY or NIGHT— Meteorological conditions or terrain may require the intercepting aircraft to take up a position in front and to the right of the intercepted aircraft, and to make the subsequent turn to the right.</p> <p>If the intercepted aircraft is not able to keep pace with the intercepting aircraft, the latter is expected to fly a series of racetrack patterns and to rock its wings each time it passes the intercepted aircraft.</p> <p>DAY or NIGHT—Flares dispensed in immediate vicinity.</p>	<p>You have been intercepted. Follow me.</p>	<p>AEROPLANES: DAY—Rocking wings and following.</p> <p>NIGHT—Same, and in addition, flashing navigational lights at irregular intervals.</p> <p>HELICOPTERS: DAY or NIGHT—Rocking aircraft, flashing navigational lights at irregular intervals, and following.</p> <p>Same as above.</p>	<p>Understood; will comply.</p>

# DOCUMENTS REQUIRED TO FLY



- **A** → Certificate of Airworthiness
- **R** → Certificate of Registration
- **O** → Pilot Operating Handbook
- **W** → Weight and Balance
- **J** → Journey Log
- **I** → Insurance
- **L** → Licenses
- **I** → Intercept Orders
- \*Technical Log







## CONFIRMATION - *TOO*

- Which document is the only document from AROWJILI that you only SOMETIMES have to carry on board and why?
  - What does the “**R**” stand for in AROWJILI
-

# PILOT'S LICENSE



- Unless you have a **pilot's license** you can not act as the **pilot-in-command (PIC)** or co-pilot
  - valid for the particular class and type of aircraft as stated in license
- **Student Permit**
  - May fly an aircraft as long as it is under supervision of a pilot

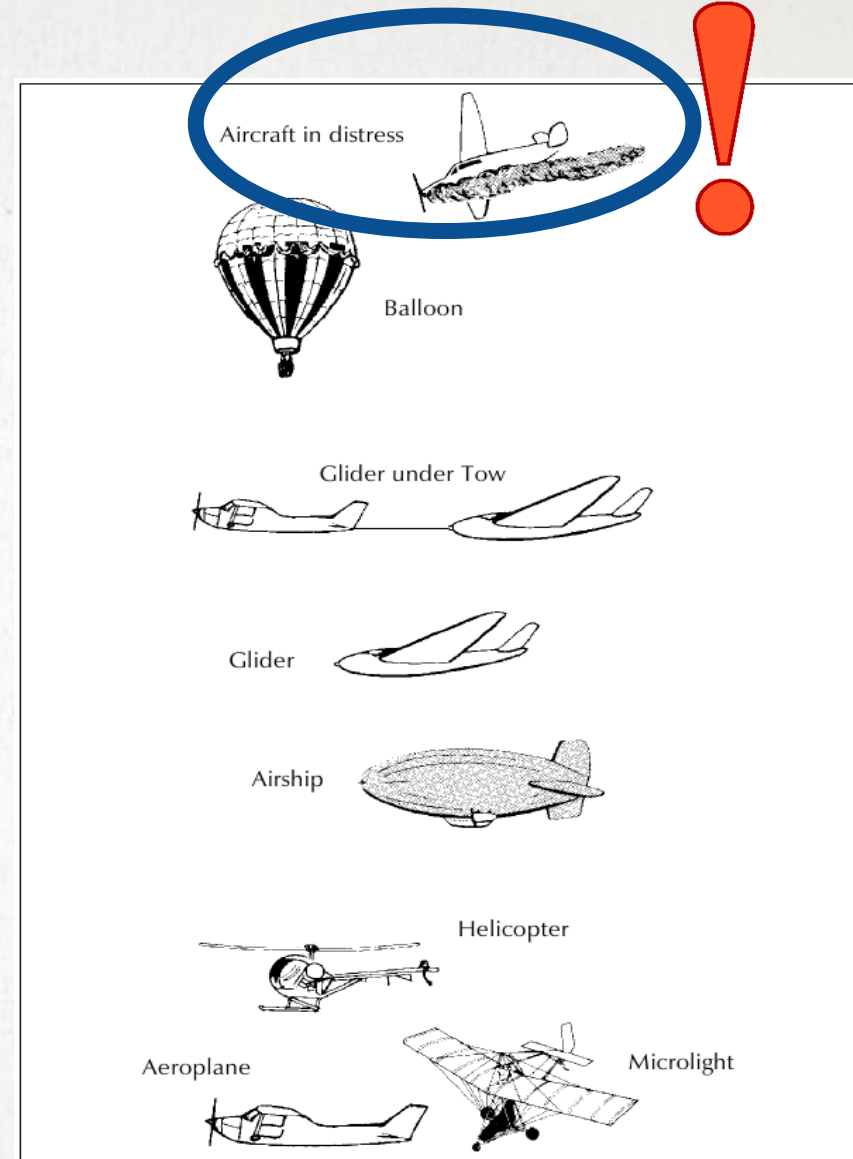
Time period	Requirement
6 months – carry passengers	5 take offs and landings
2 years	Completed a recurrent training program (ie: transport Canada seminar, completed a license or rating)
5 years	Flown as PIC or co-pilot



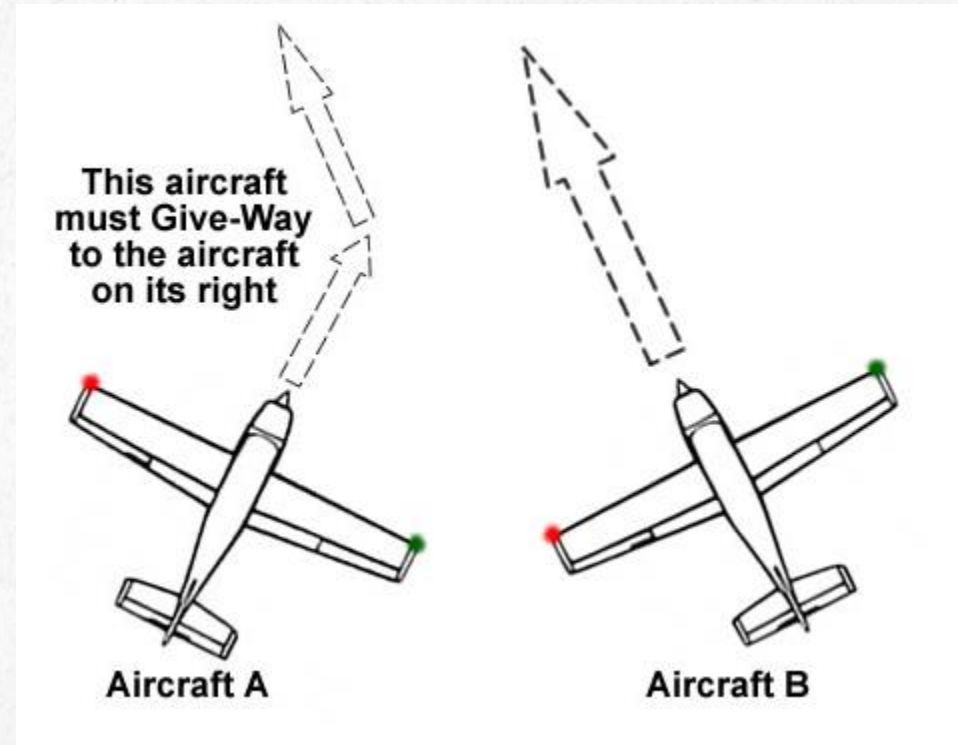
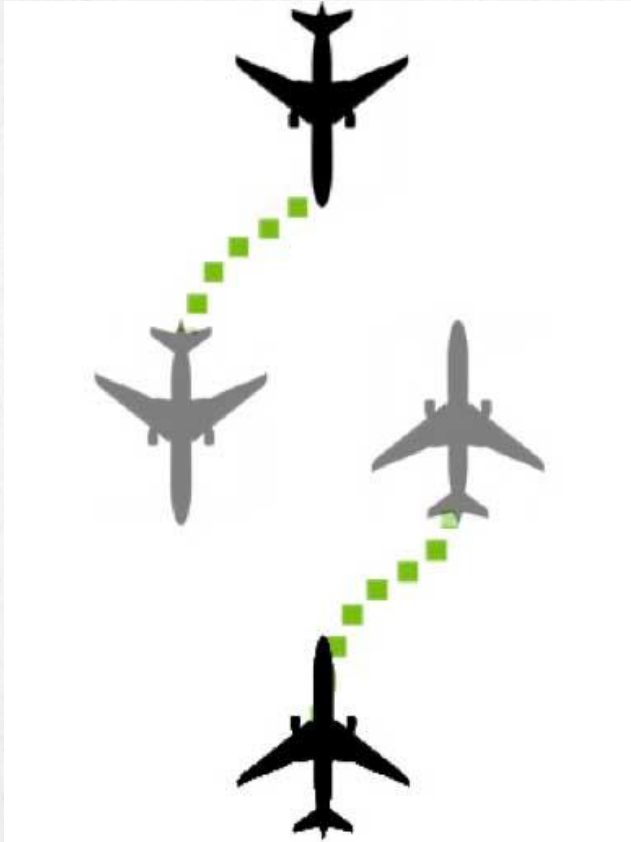
# RIGHT – OF – WAY

1. Fixed or free balloons
2. Gliders
3. Airships
4. Power-driven fixed wing or rotary wing airplanes

**\*ALL AIRCRAFT WILL GIVE WAY  
TO ANY AIRCRAFT IN  
DISTRESS\***

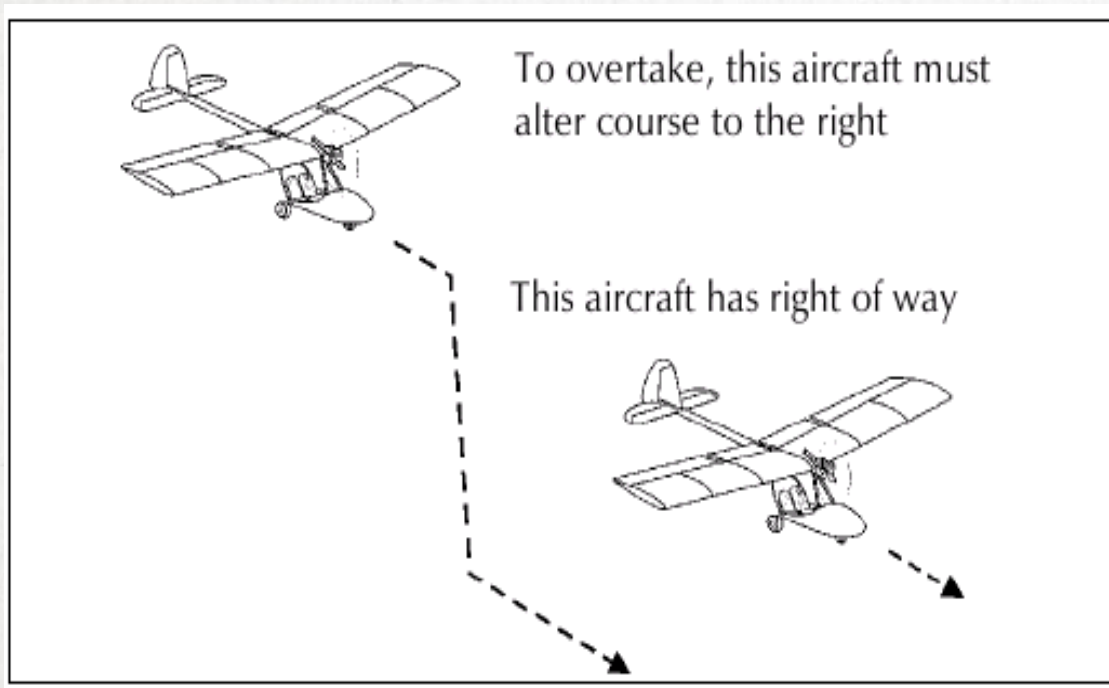


# RULES OF THE AIR - 1





# RULES OF THE AIR - 2





## CONFIRMATION - *TREE*

- If I haven't flown in 25 months, what must I do to fly again?
- You complete a right turn in a glider and suddenly you are right in front of an airship. What do you do?