

THE CIVIL AIR SEARCH AND RESCUE ASSOCIATION

INTRODUCTION TO SEARCH AND RESCUE

The Civil Air Search and Rescue Association (CASARA) is one of the leaders in the provision of Search and Rescue (SAR) trained volunteers to the National SAR program. The CASARA further recognizes the Air Cadet League of Canada as a leader in the provision of aviation programs to the youth of Canada.

CASARA with the concurrence of the Air Cadet League of Canada, proposes a program of training for senior Air Cadets (16 years or older) titled "INTRODUCTION TO SEARCH AND RESCUE". This training would be optional and conducted at the squadron local headquarters unless otherwise indicated. All instruction and training material would be provided, by CASARA, without cost. CASARA volunteers providing such training would be "certified" in accordance with the CASARA policy and would accept screening as required by the Air Cadet League.

CASARA, when conducting authorized flights, shall conduct all such flights in accordance with the provisions of CATO 52-07, as amended.

Implementation of this training would be over a three year period with CASARA increasing the number of squadrons to which training would be available as their membership gains experience. CASARA may qualify certain individuals using a "train the trainer" concept to provide additional qualified presenters for the purpose.

Once established, the "INTRODUCTION TO SEARCH AND RESCUE", training program will continue until either CASARA or the Air Cadet League of Canada agree to terminate this agreement. Normally termination will be at the end of the Cadet training year.

All cadets successfully completing the "INTRODUCTION TO SEARCH AND RESCUE", training, will receive a course report, a certificate of achievement and an associate membership in CASARA. All training received shall be credited toward CASARA Spotter Certification. Notwithstanding this training, Air Cadets so trained shall not be authorized by CASARA to participate in actual search operations.

The "INTRODUCTION TO SEARCH AND RESCUE" training program is hereby acknowledged.

The Civil Air Search and Rescue Association

Original Signed by John Davidson

President

Nov. 15, 2002

Date

The Air Cadet League of Canada

Original Signed by Jim Ash

President

Nov. 15, 2002

Date

COURSE TRAINING STANDARD

AIM

- 1) This course training standard will direct the conduct of the Civil Air Search and Rescue Association and the Air Cadet League of Canada (CASARA/Cadet) "INTRODUCTION TO SEARCH AND RESCUE" optional training program.
- 2) The two aims are:
 - (a) develop an interest and understanding of Search and Rescue in Canada.
 - (b) develop Search and Rescue (SAR) skills in selected Cadets.
- 3) The training objectives are:
 - (a) to provide a history of SAR in Canada.
 - (b) to stimulate interest in the aviation element of SAR
 - (c) to teach skills in:
 1. search patterns
 2. map preparation
 3. spotting procedures
 4. electronic homing
 5. flight safety

OUTLINE OF TRAINING

- 4) The CASARA/Cadet "Introduction to SAR" training will consist of two components: - the academic training to be carried out at the squadron local headquarters, and the academic/practical training conducted at the local CASARA training base. Training will normally be carried out during the period that begins 1 Sep and ends the following year on 30 June.

USE OF THIS COURSE TRAINING STANDARD

- 5) This CTS will be the primary authority for implementation of this training program. It must be used in conjunction with the "Course Management Details" and the "Course Training Plan".

COURSE MANAGEMENT DETAILS

RESPONSIBLE AGENCIES

- 1) The agencies that are involved in this training program are as follows:
 - a) Controlling agencies – CASARA in association with the Air Cadet League of Canada.
 - b) Training agency – CASARA
 - c) Selecting agency – Cadet Squadron Commanding Officer
 - d) Loading agency – Cadet Squadron Commanding Officer and the CASARA representatives.
 - e) Supporting agencies – CASARA zone.
- 2) The design of the “Introduction to SAR” program is the responsibility of CASARA. Training and implementation is the responsibility of the National VP Operations and Training.

SCHEDULING

- 3) Training will be scheduled by the Squadron Training Officer in cooperation with the responsible CASARA member. All training will be conducted during the cadet training year. Academic training will normally be conducted during the week at the squadron local headquarters. Practical training will normally be carried out on a weekend.

PREREQUISITES

- 4) The following are the minimum prerequisites for this course:
 - a) a cadet must reach his/her 17th birthday not later than 1 December of the course training year.
 - b) must volunteer for the training.
 - c) must be physically fit.
 - d) must have an interest in aviation.
 - e) may be required to attend an interview by an authorized CASARA member.

INSTRUCTORS ALLOCATION

- 5) CASARA shall provide all necessary instructors. (NOTE: CASARA may certify selected individuals to carry out this training through a “Train the Trainer” program.

COURSE CAPACITY

- 6) CASARA shall decide the course capacity for each Squadron. The number of candidates will be dictated by the capability of the CASARA Zone designated to provide the training.

INSTRUCTOR LANGUAGE

- 7) The “Introduction to Search and Rescue” program shall be conducted in an official language.

QUALIFICATIONS

- 8) On successful completion of this training program the cadet will:
 - a) receive a graduation certification
 - b) have all training credited toward “Spotter” certification
 - c) Air Cadet membership

RELATED DOCUMENTS

- 9) The following list contains those documents that govern this training program:

ASSESSMENT OF CADETS

GENERAL

- 1) To successfully complete this course a cadet must:
 - a. attend not less than 75 of the scheduled training lectures
 - b. must complete all practical training, including flying
 - c. must pass all tests at or above the level set for CASARA certification

Note: tests may be oral, written or both

SUPPLEMENTAL ASSESSMENT

- 2) At the discretion of the responsible CASARA instructor, retesting may be approved.
A successful retest will be considered a pass as if the first attempt had been successful.

UNSATISFACTORY PROGRESS

- 3) Unsatisfactory progress may be indicated by any one of the following:
 - a. lack of attendance
 - b. inappropriate conduct of a course cadet
 - c. academic or practical failure after one approved retest

COURSE REPORTING

- 4) CASARA will maintain records of each cadet enrolled in the Introduction to SAR Course.
- 5) The appropriate Squadron Training Officer will be advised of each cadet's progress. An end of course "final report" will be provided to the Squadron Commanding Officer.

The final report will include at least the following:

- a. the cadets name
- b. PASS or FAIL with marks obtained
- c. Air Cadet membership - Recommended/Not Recommended
- d. certificate awarded - YES/NO

ISAR	PERFORMANCE STATEMENT	No. of Periods
01	History of Search and Rescue in Canada	2
02	Maps in SAR operations	1
03	Search Patterns and map preparation	3
04	Spotting Procedures and techniques	2
05	Electronic homing equipment and procedures	2
06	Aviation safety	1
07	*CASARA supplementary training	4
08	*CASARA search and rescue training exercise (SAREX)	3
	Total	18

- This training is to be conducted at a CASARA training base.

NOTE: This course training plan is effective as of January 2002.

INTRODUCTION TO SEARCH AND RESCUE	CTS CASARA/CADETS
ENABLING OBJECTIVE AND TEACHING POINTS	
History of Search and Rescue in Canada	
<p>1. PERFORMANCE – Review and explain the history of SAR in Canada. Discuss the development of CASARA</p> <p>2. CONDITIONS –</p> <p>A. Given – Study guide</p> <p>3. STANDARD – Cadets will understand the history and development of search and rescue in Canada.</p> <p>4. TEACHING POINTS –</p> <p>A. International Civil Aviation Organization and SAR</p> <p>B. SAR responsibility areas.</p> <p>C. Joint Rescue Coordination Center, locations and key duties and responsibilities.</p> <p>D. SAR aircraft in Canada (Include Cormorant)</p> <p>E. Special SAR equipment, include the role of the SAR Tech.</p>	<p>5. TIME- 2 30 minute periods</p> <p>6. METHOD/APPROACH</p> <p>Lecture and discussion.</p> <p>7. SUBSTANTIATION:</p> <p>Cadets should know the history of SAR in Canada and the implementation of the CASARA program.</p> <p>8. REFERENCES:</p> <p>Training guide.</p> <p>9. TRAINING AIDS 10. LEARNING AIDS</p> <p>N/A N/A</p> <p>11. TEST DETAILS:</p> <p>Oral questions only.</p> <p>12. REMARKS:</p> <p>Emphasize local SAR facilities where possible.</p>

INTRODUCTION TO SEARCH AND RESCUE	CTS CASARA/CADETS
ENABLING OBJECTIVE AND TEACHING POINTS	

<p style="text-align: center;">- signs</p> <p>D. Emergency code</p> <p>E. Search for missing - aircraft - persons - marine vessels.</p> <p>F. Reporting to the crew.</p>	<p>11. TEST DETAILS:</p> <p style="padding-left: 40px;">Cadets will complete the spotter written test. A successful score is 60% or better.</p> <p>12. REMARKS:</p> <p style="padding-left: 40px;">Emphasize the importance of the spotter.</p>
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INTRODUCTION TO SEARCH AND RESCUE	CTS CASARA/CADETS
ENABLING OBJECTIVE AND TEACHING POINTS	
Electronic Homing	
<p>1. Describe how the electronic homer works and discuss CASARA homing equipment. Describe homing procedures with the Little Helper (LH10A).</p> <p>2. CONDITIONS –</p> <p style="padding-left: 20px;">A. Given – Study guide</p> <p>3. STANDARD – Cadets should understand how a homer works and know the capabilities and limitations of electronic homing. A cadet should be able to complete a ground homing with LH10A.</p> <p>4. TEACHING POINTS –</p> <p style="padding-left: 20px;">A. Characteristics of an electronic homer.</p> <p style="padding-left: 20px;">B. How direction is determined.</p> <p style="padding-left: 20px;">C. Describe the Lil Helper (LH10A) - antenna system</p> <p style="padding-left: 20px;">D. Equipment required for an effective ground homing: - maps - compass etc.</p> <p style="padding-left: 20px;">E. Demonstrate a ground homing.</p>	<p>5. TIME - 2 30 minute periods</p> <p>6. METHOD/APPROACH</p> <p style="padding-left: 40px;">Lecture/demonstration</p> <p>7. SUBSTANTIATION:</p> <p style="padding-left: 40px;">Cadets should know the principles of present day electronic homing.</p> <p>8. REFERENCES:</p> <p style="padding-left: 40px;">Training Guide.</p> <p>9. TRAINING AIDS 10. LEARNING AIDS</p> <p style="padding-left: 40px;">Homer LH10A N/A</p> <p>11. TEST DETAILS</p> <p style="padding-left: 40px;">Oral questions only</p> <p>12. REMARKS:</p> <p style="padding-left: 40px;">Provide an overview of the following: ELT (aircraft), EPIRBS (marine vessels), PLBs (personal) SARSAT.</p>

INTRODUCTION TO SEARCH AND RESCUE	CTS CASARA/CADETS
ENABLING OBJECTIVE AND TEACHING POINTS	
Aviation Safety	
<p>1. PERFORMANCE – Discuss aviation safety from the spotter’s point of view.</p> <p>2. CONDITIONS –</p> <p>A. Given – Study guide.</p> <p>3. STANDARD – Cadets will know the importance of good safety procedures in search and rescue. Cadets will be able to identify good safety practices.</p> <p>4. TEACHING POINTS</p> <p>A. Safety around aircraft</p> <p>B. Proper clothing</p> <p>C. Proper rest</p> <p>D. Effects of poor health</p> <p>E. Survival and first aid</p> <p>F. Aircraft separation during a search.</p>	<p>5. TIME – 1 30 minute period</p> <p>6. METHOD/APPROACH</p> <p>Lecture</p> <p>7. SUBSTANTIATION</p> <p>Everyone in the aviation community is responsible for safety. The safety of the search crew and their aircraft is paramount.</p> <p>8. REFERENCES:</p> <p>Training guide.</p> <p>9. TRAINING AIDS</p> <p>N/A</p> <p>10. LEARNING AIDS</p> <p>N/A</p> <p>11. TEST DETAILS</p> <p>N/A</p> <p>12. REMARKS</p> <p>Mention Transport Canada’s safety program.</p>

INTRODUCTION TO SEARCH AND RESCUE	CTS CASARA/CADETS
ENABLING OBJECTIVE AND TEACHING POINTS	
CASARA Supplementary Training	

<p>1. PERFORMANCE – review and discuss supplementary activities that would be carried out at a CASARA training base during a search and rescue exercise. (SAREX)</p> <p>2. CONDITIONS –</p> <p>A. Given – facilities at a CASARA training base.</p> <p>3. STANDARD – Cadets will know the correct procedures for a CASARA training scenario. Cadets will demonstrate a knowledge of safety procedures and the ability to complete a ground homing with a LH10A.</p> <p>4. TEACHING POINTS –</p> <p>A. Aircraft pre-flight inspection</p> <p>B. Assemble and check CASARA equipment:</p> <ul style="list-style-type: none"> - maps - homer (LH10A) - radios - other zone equipment as appropriate. <p>C. Discuss the search and rescue coordinator position</p> <p>D. Discuss a “tasking”</p> <p>E. Discuss the parent Joint Rescue Coordination Centre (JRCC) and search and rescue squadron.</p> <p>F. Review reports and returns.</p>	<p>5. TIME - 4 30 minute periods</p> <p>6. METHOD/APPROACH:</p> <p>Discussion/demonstration.</p> <p>7. SUBSTANTIATION:</p> <p>Cadets should know how a CASARA training exercise is organized and carried out.</p> <p>8. REFERENCES:</p> <p>N/A</p> <p>9. TRAINING AIDS 10. LEARNING AIDS</p> <p>maps, radios, homer (LH10A) N/A</p> <p>11. TEST DETAILS:</p> <p>Oral questions Carry out practice ground homing.</p> <p>12. REMARKS: Other CASARA zone members should be present for this training exercise.</p>
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INTRODUCTION TO SEARCH AND RESCUE	CTS CASARA/CADETS
ENABLING OBJECTIVE AND TEACHING POINTS	
CASARA Search and Rescue Training Flight	
<p>1. PERFORMANCE – participation in a spotter training flight.</p> <p>2. CONDITIONS –</p> <p>A. Given – CASARA aircraft and crew with necessary targets.</p> <p>3. STANDARD – Cadets will be able to detect a target, report to the pilot and control the aircraft for a successful inspection of the target.</p> <p>4. TEACHING POINTS –</p>	<p>5. TIME - 3 30 minute periods</p> <p>6. METHOD/APPROACH:</p> <p>Practical</p> <p>7. SUBSTANTIATION:</p> <p>Skilled spotters greatly enhance the possibility of a successful search.</p>

