

## **ACKNOWLEDGEMENTS**

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## FOREWORD

1. The 2<sup>nd</sup> Edition of this Operations Manual has been prepared to provide instructions and guidance for conducting the Canadian Special Operations Regiment (CSOR) Pre-Screening Physical Fitness Test.
2. The Pre-Screening Physical Fitness test items and standards contained within this manual are *interim* pending scientific development and validation, and were developed based on a combination of their functional relevance and representation of the physical demands of CSOR roles, capabilities, and tasks; physical fitness components important for Special Operations Forces (SOF); physical fitness entrance and training requirements of Allied SOF; and current research findings quantifying the physical demands of selected SOF tasks.
3. It is essential that the evaluation protocols and instructions provided in this Operations Manual be adhered to, in order to ensure valid and reliable test results. Safety is paramount when administering this evaluation. Therefore, you must ensure that the evaluation is conducted in the safest manner and environment possible.

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## CHAPTER 1 – INTRODUCTION

### Background

1. The recent creation of the Canadian Special Operations Forces Command (CANSOFCOM) provides the Canadian Government and the Chief of Defence Staff with an agile, high readiness Special Operations Force (SOF) capable of conducting Special Operations (SO) across the spectrum of conflict at home and abroad. The Canadian Special Operations Regiment (CSOR) will be an integral key component of CANSOFCOM, and will provide a rapid response capability for SO missions throughout Canada and the world. The Canadian Special Operations Regiment will complement Joint Task Force 2 (JTF 2) and will be capable of independent high-readiness combat operations.
2. Personnel for the Canadian Special Operations Regiment will be recruited from across the Canadian Forces (CF) and the unit will be comprised of two categories of personnel:
  - a. Category (CAT) 1: Cdn Spec Ops Regt Operators (Ops) – consists of Ops and Specialists who are directly employed in the tactical aspects of SO and high value tasks; and
  - b. Category (CAT) 2: Support (Sp) – consists of Sp personnel selected from Regular and Reserve Forces Military Occupations (MOCs) to fulfill CSOR requirements in staff officer and Sp positions.

### Rationale for Inclusion of Pre-Screening Physical Fitness Test Items

3. Fitness Levels of SOF Soldiers: SOF soldiers are distinguished from their military counterparts by many different characteristics. Physiological research suggests that SOF soldiers are the most physically fit in the Army (Beckett, Goforth & Hodgdon, 1989; Muza, Sawka, Young, Denis, Gonzalez, Martin, Pandolf, and Valeri, 1987; Jacobs, Van Loon, Pasul, Pope, Bell, Kavanaugh, Beach, Scherzinger, and Kerrigan-Brown, 1989). The aerobic capacities of SOF soldiers, as reported in the scientific literature are as follows:
  - a. British Parachutists –  $58.5 \text{ ml/kg}^{-1}/\text{min}^{-1}$  (Vogel, 1985);
  - b. US Navy SEALs –  $57.5 \text{ ml/kg}^{-1}/\text{min}^{-1}$  (Beckett et al., 1989); and
  - c. US Army Special Forces (Green Berets) –  $55 \text{ ml/kg}^{-1}/\text{min}^{-1}$  (Muza et al., 1987).
4. In addition, the reported aerobic capacities of successful Basic Underwater Demolition School/ SEALs (BUD/s) and JTF 2 Phase III candidates is  $62.4$  and  $60.6 \text{ ml/kg}^{-1}/\text{min}^{-1}$  respectively (Beckett et al., 1989; Jaenen, 2001).
5. Physical Fitness Components Important for SO: Subject matter experts identified aerobic endurance as the primary fitness component in 93% of all Navy SEAL missions and 50% of all mission segments. Secondary fitness components identified as being important for successful completion of Navy SEAL missions included lower limb strength, neck/back strength, arm/shoulder strength, upper limb power, and lower limb power (Prusacyzk, Stuster, Goforth, & Meyer, 1995). Muscular strength, anaerobic and aerobic capacity have been identified as important fitness components for the completion of US Ranger missions and tasks (Pemrick, 1999). In addition, aerobic capacity, anaerobic capacity, muscular strength, muscular endurance, power, speed, agility, and balance have been identified as important physical fitness components for JTF 2 Special Operation Assaulters (Jaenen, 2000).

6. Weightload Marching: A common mission for SOF is surveillance-reconnaissance. In this type of operation, soldiers execute an insertion into a hostile area, move to the objective (dismounted), and perform observation or other information gathering activities. Ruck-marching or weightload marching is critical to this type of operation. Because of the communication gear, weapons systems, subsistence items, and protective equipment carried, the loads borne by soldiers are typically very heavy (Knapik et al., 1993). A fully loaded rucksack can easily weigh more than 45 kg (approximately 100 lbs), and data from the 504<sup>th</sup> Parachute Infantry Regiment of the 82<sup>nd</sup> Airborne Division (Task Force Devil) indicated that soldiers fighting in low intensity conflict in the deserts and mountainous regions of Afghanistan often carried loads in excess of 100 lbs, and that sometimes the load exceeded 140 lb (Dean, 2005).

7. Entrance Requirements for U.S. Ranger Training: Requirements include the successful completion of:

- 70% on the Army Physical Fitness Test (APFT) in the 17-21 year old age group:
  - Min std of 49 push-ups in 2 minutes; 59 sit-ups in 2 minutes, 6 pull-ups; and < 15:10 (min/sec) for a 2 mile run.
- Combat Water Survival Test:
  - Part 1: Wearing BDUs (combat uniform), boots, and load carrying equipment (LCE, rifle, pistol belt, suspenders, two ammo pouches, and 2 full canteens) jump in the water and swim 15 metres.
  - Part 2: Walk blindfolded off a 3 metre diving board with rifle and load carrying equipment. After entering water, remove blindfold and swim to side of pool.
  - Part 3: Enter water, submerge, discard rifle, remove load carrying equipment and swim to side of pool.

8. Entrance Requirements for U.S. SOF (Green Berets): Requirements include the successful completion of:

- Achieve a minimum of 60 points on each APFT item (2 mile run, sit-ups, and push-ups) and an overall score of 229 points.
- Achieving the minimum standard for each of the three APFT items equals a total of 180 points.
- The pre-selection physical fitness training program indicates that candidates should be able to complete a 18 km forced march with a 50 lb rucksack in 4 hours and 30 minutes (road) or 6 hours (cross-country) by week 5 of the training program.

9. Relationships Between Fitness Test Scores, Common Task Performance and Special Forces Assessment and Selection (US Green Berets): The US Army Research Institute evaluated the ability of Special Forces Assessment and Selection (SFAS) students to perform a 4-mile ruckmarch in BDU (combat uniform), boots, M-16, load bearing equipment, and a 45 lb rucksack and correlated performance with success in SFAS. In this specific study, the relationship of Army Physical Fitness Test (APFT) scores (2 mile run, push-ups and sit-ups) and ruckmarch times with success in SFAS were explored, and it was reported that the ruckmarch was a better predictor of success than the APFT. In fact, the average correlation between the ruckmarch and graduate/non-graduate status was  $r = 0.45$  compared to an average correlation of  $r = 0.25$  for the APFT (Teplitzky, 1991). Although not reported by Teplitzky (1991), the poor correlation between the APFT and success in the SFAS may in part be attributed to the fact that the APFT does not assess lower body or leg strength and muscular endurance, and it has been reported that upper and lower body strength and endurance, leg strength and endurance, balance, and aerobic fitness are all physical components of load bearing performance (Buckalew, 1990). In another study, it was reported that the strongest predictors of performance in the SFAS were the physical measures including the APFT and pull-ups (Zaazanis, Kilcullen, Sanders, and Crocker, 1999). It should be noted that in this particular study, the ruckmarch was not included as a predictor variable in the correlation analyses.

10. Entrance Requirements for US Navy SEALs: Requirements include the successful completion of:

- 500 yard swim in 12.5 minutes;
  - 10 minutes of rest;
- Minimum performance of 42 push-ups in 2 minutes;
  - 2 minutes of rest;
- Minimum performance of 50 sit-ups in 2 minutes;
  - 2 minutes of rest;
- Minimum performance of 6 pull-ups;
  - 10 minutes rest;
- 1.5 mile run in 11.5 minutes wearing boots and long pants.

11. Entrance Requirements to Australian Special Forces. The Australian Special Forces Barrier Testing (SFBT) is conducted over 36 hours and is comprised of the following test items and standards:

- 60 push-ups;
- 85 sit-ups;
- 10 heaves (chin-ups);
- 3.2 km battle run < 16:30 (min/sec). Battle run is completed in patrol order weighing 7 kg with weapon;
- 4 hour endurance march carrying 28 kg. A minimum of 22 km must be covered in this time period;
- Tread water for 2 minutes;
- Swim 400 m ≤ 18 minutes while wearing Disruptive Pattern Camouflage Uniform (DPCU);
- Complete a theoretical and practical navigation test; and
- Complete a weapons test.

### **Interim Cdn Spec Ops Regt (CSOR) Pre-Screening Physical Fitness Test**

12. The interim CSOR Pre-screening Physical Fitness (PF) Test is comprised of two separate tests and standards: a PF test for CAT 1 (Ops) personnel and a PF test for CAT 2 (Sp) personnel.

13. CAT 1 Pre-Screening Physical Fitness Test Items and Standards:

CAT 1 - PART 1 (DAY 1):

- 20 Metre Shuttle Run (20 MSR) – Level 9;
  - Minimum of 5 minutes of rest;
- Handgrip: minimum requirements as per CF EXPRES MPFS;
  - Minimum of 2 minutes of rest;
- Minimum of 40 continuous push-ups;
  - Minimum of 2 minutes of rest;
- Minimum of 40 sit-ups in one minute;
  - Minimum of 2 minutes of rest;
- Minimum of 5 continuous pull-ups;
  - Minimum of 15 minutes of rest; and
- Combat Swim Test (25 metre swim in combats, boots, rifle, no flotation – no time limit).

NOTE: Handgrip Protocol (Optional for those individuals wanting results to apply towards an annual EXPRES evaluation)

14. Cdn Spec Ops Regt Combat Swim Test (CST): The CSOR Combat Swim Test was developed to ensure that applicants screened for Cdn Spec Ops Regt selection and training are capable of swimming a short distance to safety should they end up in the water in their fighting order during amphibious operations. The test is comprised of swimming a distance of 25 metres without a flotation device while wearing a combat shirt, combat trousers, combat boots and carrying a simulated C-7 rifle. Any swimming stroke may be utilized, and walking on the pool bottom, and touching the pool bottom or sides is not permitted. The CSOR Combat Swim Test (CST) was trialed on seven Sp personnel from the Dwyer Hill Training Centre (DHTC). First, the subjects were provided with familiarization of being in a water environment wearing combats pants, shirt and boots and carrying a rifle. Second, the subjects were asked to classify themselves as either a “weak”, “average”, or “strong” swimmer. Upon completion of the CST, subjects were asked to identify the physical demands and/or their exertion during the test using a 6 point scale as follows:

- 1 = no exertion;
- 2 = very light;
- 3 = light;
- 4 = somewhat hard;
- 5 = hard; and
- 6 = very hard.

15. The results of the CSOR CST trial are depicted in Table 1.

**Table 1 Results of Cdn Spec Ops Regt CST**

Type of Swimmer	Sample Size (n)	Time To Complete CST	Self Reported Physical Demand	Average Physical Demand
1 = Weak	3	DNF 52 Seconds 54 Seconds	6 (very hard) 5 (hard) 6 (very hard)	5.5 (hard/very hard)
2 = Average	2	50 Seconds 54 Seconds	4 (somewhat hard) 4 (somewhat hard)	4.0 (somewhat hard)
3 = Strong	2	43 Seconds 50 Seconds	4 (somewhat hard) 3 (light)	3.5 (light/somewhat hard)

CAT 1 - PART 2 (DAY 2):

- 13 km weightload march with 35 kg in 2 hrs 26 minutes, 20 seconds;
  - Minimum of 10 minutes of rest; and
- Casualty Evacuation of a soldier of similar build/weight for a distance of 100 metres in 60 seconds or less.

16. Personnel applying for CAT 1 positions are strongly encouraged to perform all Part 1 (Day 1) test items to the best of their ability as the physical fitness test scores will be used as part of the selection process, with preference being given to applicants obtaining higher scores on the physical fitness screening test.

17. CAT 2 Pre-Screening Physical Fitness Test Items and Standards:

CAT 2 - PART 1 (DAY 1):

- CF EXPRES (MPFS);

- Minimum of 15 minutes of rest; and
- Basic Military Swimming Standard Test (Water Safety Knowledge, abandon ship emergencies, and rudimentary swimming skills).

CAT 2 - PART 2 (DAY 2):

- 13 km weightload march with 24.5 kg in 2 hrs, 26 minutes, 20 seconds;
  - Minimum of 10 minutes of rest; and
- Casualty evacuation of a soldier of similar build/weight for a distance of 100 metres in 60 seconds or less.

18. Under no circumstances will CAT 1 or CAT 2 applicants be encouraged to complete the 13 km weightload march as quickly as possible for both safety and injury prevention reasons.

## Screening Process

19. Prior to attempting the CSOR Pre-Screening Physical Fitness Test, CAT 1 and CAT 2 applicants must meet the established pre-requisites for service as outlined in applicable CANFORGEN. In addition, the applicant must volunteer for service with CSOR through the chain of command using the Application Form for Service with CSOR. Applicants not completing the screening process as outlined in applicable CANFORGEN shall not be administered the CSOR Pre-Screening Physical Fitness Test. An applicant's results on the CSOR Pre-Screening Physical Fitness test will be valid for the current recruiting period up to a maximum of 6 months.

### Requirements and Responsibility

20. The Canadian Forces Personnel Support Agency (CFPSA), Directorate of Physical Education (DPE) is responsible for the delivery of the CSOR Pre-Screening Physical Fitness Test. Appropriately qualified PSP Fitness and Sports Instructors shall administer all components of the Pre-Screening Physical Fitness Test. CF members MCpl or above who are appropriately qualified as Basic Fitness Training Assistants (BFTA's), Advanced Fitness Training Assistants (AFTA's) or PLQ Mod 1 Fitness may, under the direction of PSP Fitness and Sports staff, may supervise applicants during the 13km weightload march.

## CHAPTER 2 – EVALUATION PROCEDURES

### CAT 1 APPLICANTS

#### Pre-Test Instructions for Assessors

1. To create credibility and enhance the potential for compliance, the PSP Fitness and Sports Instructor must be friendly, positive, well groomed, physically fit, and properly dressed in PSP clothing. In addition, the PSP Fitness and Sports Instructor must be objective, impartial, and adhere to the established testing protocols and standards. The testing procedures have been standardized to ensure safety and consistent results; however, clinical judgment and common sense must prevail.

#### Equipment

2. The equipment required for the conduct of the CSOR (CAT 1) Pre-Screening Physical Fitness Test is as follows:

- a. Cdn Spec Ops Regt Pre-Screening Physical Fitness Test Reporting Form – CAT 1 Pers;
- b. Cdn Spec Ops Regt CAT 1 Scoring Sheet;
- c. Healthy Physical Activity Participation Questionnaire;
- d. List of medications;
- e. DND 582 – Medical referral form;
- f. Thermometer;
- g. Emergency communications system;
- h. Beam scale or weight scale;
- i. Measuring tape (for 20 MSR);
- j. 20 Metre flat course (indoors or outdoors);
- k. Line marker or pylons at the two 20-metre boundaries and the two 1-metre lines;
- l. CD player;
- m. Compact disc (CD) titled 20-metre shuttle run;
- n. Numbered pinnies;
- o. Hand Grip Dynamometer
- p. Stethoscope;
- q. Aneroid sphygmomanometer;
- r. Chair with arm rests (for RHR and RBP measurements);
- s. Gym mat(s);
- t. Pull-up bar;
- u. Stop watch;
- v. Training aid rifle, drill purpose rifle, C7. Group class: 6910 Stock code: 219026191
- w. Measuring wheel (for measuring 13 km march and 100 metre casualty evacuation);
- x. Traffic vests (if on roads);
- y. Water cooler and cups for half-way re-hydration point; and
- z. Member's equipment:  
Fighting order with rucksack, total weight shall be 35 Kg, including applicant helmet, weapon and webbing.

### **Preliminary Instructions to the Cdn Spec Ops Regt (CSOR) CAT 1 Applicant**

3. In order to ensure accurate evaluation results, CSOR CAT 1 applicants shall be given preliminary instructions prior to their evaluation. The preliminary instructions should be promulgated in Base/Wing/Unit Routine Orders. The preliminary instructions shall advise the applicant that prior to their test, they should not:

- a. Exercise the same day;
- b. Consume alcohol for at least 6 hours; and
- c. Eat, smoke, or drink tea, coffee, or other caffeine beverages for at least 2 hours.

4. The preliminary instructions shall advise the CSOR CAT 1 applicant to bring the following personal gear with them to the test:

Day 1:

- a. Running shoes;
- b. Gym shorts or sweat pants;
- c. Gym shirt or sweat suit;
- d. Combats (shirt & trousers); and
- e. Combat boots.

Day 2:

- a. Combat shirt & trousers;
- b. Combat boots;
- c. Fighting order with rucksack, total weight shall be 35 Kg, including applicant helmet, weapon and webbing.

### **Emergency Procedures**

5. Appropriate safety measures must be employed. As with any form of physical fitness testing, inherent risks are involved and the possibility of a CSOR applicant experiencing an adverse event exists. However, the risk to applicants can be minimized by following established testing protocols and pre-screening methods, as well as employing best practice and common sense. Nevertheless, an appropriate emergency protocol shall be developed in conjunction with the Emergency Response Team as follows:

- a. Emergency procedures shall be posted in suitable locations;
- b. Emergency phone numbers are to be clearly posted at all telephones and should be written on the back of any evaluation clipboard;
- c. All evaluators shall be first aid and CPR trained and cognizant of emergency procedures; and
- d. PSP Fitness and Sports Instructors must brief all members on safety requirements and emergency procedures prior to the start of the fitness test.

### **Pre-Screening Prior to Administration of the Cdn Spec Ops Regt (CSOR) Fitness Test**

6. Completion of the CF Health Appraisal Questionnaire: Prior to attempting the CSOR Pre-Screening Physical Fitness Test, all CAT 1 applicants will answer the Health Appraisal Questionnaire.

7. Observations: Although the CF Health Appraisal Questionnaire will identify most concerns which would make the test inappropriate, the evaluator must also make some general observations during the screening process. The CSOR Pre-Screening PF Test shall be postponed and rescheduled if applicants:

- Demonstrate difficulty breathing at rest; or
- Cough persistently; or
- Are ill or have a fever; or
- Have lower-extremity swelling; or
- Have clearly ignored the preliminary instructions (i.e. have just eaten a heavy meal, alcohol on breath, have just finished a cigarette etc).

8. Measurement of Resting Heart Rate and Resting Blood Pressure: On day 1 of the CSOR Pre-Screening Physical Fitness Test, applicants will undergo resting heart rate (RHR) and resting blood pressure (RBP) screening to determine if medical issues have to be addressed prior to the test. These vital sign readings are not to be repeated on day 2 of the testing. Many conditions, including anxiety, can cause RHR and/or RBP to be elevated above the average resting value. Evaluators taking the time to explain evaluation procedures and/or answering questions may minimize elevated RHR and/or RBP measurements due to anxiety. **RHR and RBP protocols and ceilings are the same as the CF EXPRES.**

- a. **Heart Rate.** In the event that the RHR **exceeds 100 beats/minute**, wait an additional five minutes and repeat the procedure. Should the RHR still exceed 100 beats/minute on the second reading, the member shall be referred to a MO utilizing the DND 582. The member shall not perform the evaluation or receive an exercise program until appropriate medical clearance is received.
- b. **Blood Pressure.** In the event that the resting systolic blood pressure is **greater than 150 mm Hg** and/or the resting diastolic blood pressure is **greater than 100 mm Hg**, have the member rest quietly for five minutes before repeating the measurement. If after two readings, the members resting systolic blood pressure and/or resting diastolic blood pressure are still greater, the member shall not be permitted to undertake the evaluation. Refer to the MO utilizing the DND 582

9. Medical Referrals: CSOR applicants will be referred to a Medical Officer utilizing the Medical Referral Form, DND 582, prior to the CSOR Pre-Screening Physical Fitness Test if any of the following conditions become evident:

- Applicant answers **YES** to a question on the Health Appraisal Questionnaire;
- Applicant's resting heart rate exceeds 100 bpm, or blood pressure exceeds 150/100 mmHg after 2 readings; or
- Member develops any symptoms, which in the experience of the PSP Fitness and Sports Instructor or the member, are outside of those normally encountered; or
- If there is any concern for the well being of the member.

10. The Medical Officer, based on his/her assessment, will determine whether or not the applicant is currently fit to undertake the PF test. Applicants deemed by a Medical Officer to be currently unfit to complete any component of the CSOR Pre-Screening Physical Fitness Test will not be permitted to continue with the PF testing and/or screening process. For operational reasons, alternative PF testing protocols to those contained in this manual will not be administered to applicants who are unable or are unfit to complete the entire CSOR Pre-Screening PF Test. Therefore, it is important that Medical Officers (MO) or Physician Assistants (PA) **include appropriate dates and timelines** for each medical prognosis/prescriptions, so that PSP Fitness and Sports Staff can properly plan for future administration of the CSOR Pre-Screening PF Test.

## Conduct of CSOR Pre-Screening PF Test

11. General: The CSOR Pre-Screening PF Test is comprised of two parts and the test is to be administered on two consecutive days. Part 1 is to be administered on Day 1 and Part 2 is to be administered on Day 2. If Part 1 is administered in the morning of Day 1, then Part 2 is to be administered in the morning of Day 2 for purposes of standardization and to permit adequate recovery time between Parts 1 and 2 of the test. Similarly, if Part 1 of the test is administered in the afternoon of Day 1, then Part 2 of the test is to be administered in the afternoon of Day 2.

12. Rest Periods Between Test Items and Components: Minimum periods of rest between test items and test components have been developed and must be adhered to for purposes of standardization, and to allow for transition between test items. Maximum periods of rest have not been developed, however, common sense must prevail.

13. Failure of a Test Component: Normally, the complete CSOR Pre-Selection PF test should be administered to all applicants. Failure of any test component will result in failure of the complete CSOR Pre-Screening Physical Fitness Test.

NOTE: members failing any single test component are not required to continue with other components.

14. Re-testing of Failures: Applicants who fail to meet the established standard(s) may be re-tested up to two times during any given recruiting period. Re-testing shall be conducted after an appropriate period of training. Typically, re-testing should occur after a minimum of 30 days of training, however, common sense must prevail. Applicants failing one component of the Pre-Screening Physical Fitness Test are only required to complete the test component that was initially failed. However, they must complete all test items within that component.

Examples: If an applicant fails Day 1 Part 1 (20 MSR, push-ups, sit-ups and pull-ups) but passes the other components (combat swim test and LFCPFS), he/she is required to complete all items of that component on the retest (20 MSR, handgrip, push-ups, sit-ups and pull-ups). He/she is not required to complete the other two components.

NOTE: If an applicant is still unsuccessful after a third trial, his/her Unit may make an application to the CSOR recruiting office for an additional testing date. This would only be done in special situations where an applicant has come extremely close to meeting the minimal CSOR PF standards in previous attempts. The CSOR PSO will be the approving authority on the granting of any additional testing attempts.

15. Part 1 Testing Sequence and Standardized Minimum Rest Periods: Part 1 of the test shall be administered in the following sequence interspersed with the noted rest periods:

- 20 MSR;
  - Minimum 5 minutes of rest;
- Handgrip: Optional
  - Minimum of 2 minutes of rest
- Push-ups;
  - Minimum of 2 minutes of rest;
- Sit-ups;
  - Minimum of 2 minutes of rest;
- Pull-ups;
  - Minimum of 15 minutes of rest; and

- Combat Swim Test.

16. Part 2 Testing Sequence and Standardized Minimum Rest Periods: Part 2 of the test shall be administered in the following sequence interspersed with the noted rest periods:

- 13 km weightload march (35 kg)
  - Minimum of 10 minutes of rest; and
- Casualty Evacuation.

### **CSOR CAT 1 Pre-Screening Physical Fitness Testing Protocols and Standards**

17. General: Minimum performance standards have been developed for all test items (except CST) and must be achieved by all applicants regardless of age, gender, rank or MOC. Applicants are to be strongly encouraged to perform all Part 1 (Day 1) test items, with the exception of the Combat Swim Test, to the best of their ability as the physical fitness test scores will be used as part of the selection process, with preference being given to applicants obtaining higher scores on the physical fitness screening test. Under no circumstances shall applicants be encouraged to complete the 13 km weightload march as quickly as possible for both safety and injury prevention reasons.

18. 20 MSR: The 20 MSR shall be administered IAW the established CF EXPRES Ops Manual 3<sup>rd</sup> Edition evaluation protocol. The minimum standard is Level 9.

19. The Handgrip evaluation protocol shall be administered IAW the established CF EXPRES Ops Manual, 3<sup>rd</sup> Edition. This test item is optional and the minimum requirement is the MPFS.

20. Push-ups: Push-ups shall be administered IAW the established CF EXPRES Ops Manual 3<sup>rd</sup> Edition evaluation protocol. The minimum standard is 40 continuous push-ups.

21. Sit-ups: Sit-ups shall be administered IAW the established CF EXPRES Ops Manual 3<sup>rd</sup> Edition evaluation protocol. The minimum standard is 40 sit-ups in one minute.

22. Pull-ups: The applicant shall be instructed to grasp the pull-up bar with an overhand grip (palms facing away from the body), hands shoulder width apart, legs crossed and bent slightly at the knees. Commencing in the down position (full extension of the arms), the applicant will pull themselves up until their chin is completely over the bar, and then lower themselves back down to full extension of the arms. Applicants will not be permitted to swing their body while pulling up, or be permitted to stop/pause at the top or bottom, or to rest on the bar. Incorrect repetitions will not be counted, and the applicant should be advised to correct their technique without stopping or pausing during the exercise. The consecutive number of correct pull-ups will be counted and recorded. The minimum standard is 5 consecutive pull-ups.

23. Combat Swim Test: Prior to the administration of the CSOR CST, applicants shall be provided with the opportunity to familiarize themselves in the water while wearing combat clothing, combat boots and carrying a rifle (rifle sling may not be used). Applicants shall enter the shallow end of the pool and be provided with the opportunity to try various swimming strokes. Upon completion of this familiarization period, applicants shall be directed to exit the pool and move to the deep end of the pool. On the command to begin the CST, applicants shall enter the pool by jumping, feet first, into the deep water from the end of the pool. The applicant shall surface and swim a distance of 25 metres (no time limit) using any style of propulsion with rifle in hand. During the CST, the applicant shall not touch the bottom or sides of the pool. Walking on the bottom of the pool is strictly prohibited. If an applicant drops his/her rifle during any portion of

the CST, he/she may retrieve their weapon from the bottom of the pool and continue with the distance swim of 25m. If the pool is too deep to allow safe recovery, PSP staff may allow the candidate to restart the test if it is clear that the rifle was not dropped intentionally or due to significant fatigue (once only). The CST is a pass/fail item, and applicants shall not be encouraged to complete the test as quickly as possible, as there is no time limit for the completion of this test.

24. **Weightload March:** The 13 km weightload march is to be conducted IAW LFCO 24-2 Annex B evaluation protocol. Personnel must complete 13 Km in 2 hours and 26 minutes, 20 seconds. The march will be completed in fighting order with rucksack. However, instead of carrying 24.5 kg, applicants shall carry 35 kg. This weight includes the helmet, the weapon and the webbing. The helmet must be worn during the entire march. **Inclement weather may be a factor in ones not being able to attain the standard. In these cases staff are requested to record the time and note the weather route/conditions on the reporting form.** CF members MCpl or above who are appropriately qualified as Basic Fitness Training Assistants (BFTA's), Advanced Fitness Training Assistants (AFTA's) or PLQ Mod 1 Fitness may, under the direction of PSP Fitness and Sports staff, supervise applicants during the 13km weightload march.

25. **Casualty Evacuation:** The Casualty evacuation is to be conducted IAW LFCO 24-2 Annex B evaluation protocol. Each soldier will evacuate another soldier of approximately the same size and weight 100 metres in 60 seconds or less. Each soldier will wear helmet, webbing and carry his/her own and the injured soldier's weapon.

26. **Scoring of Test Items:** A scoring chart is contained on the CSOR Pre-Screening Physical Fitness Test Reporting Form. The scoring chart is comprised of three ratings: low performance = 1 point; average performance = 2 points; and high performance = 3 points. Only 4 test items are scored: 20 MSR, push-ups, sit-ups and pull-ups. Therefore, the maximum score an applicant can obtain is 12 points. A "Low" performance rating (1 point) is associated with the minimum performance standard for that specific test item.

Note that CSOR CAT 1 Applicants may apply results from their Pre-Screening Physical Fitness Testing towards an annual CF EXPRES evaluation. This will require members to perform the Handgrip protocol on Day 1 of testing. As per CF EXPRES evaluation, the Handgrip protocol will be performed immediately after completing the aerobic component (20MSR). Additionally, PSP Fitness and Sports Instructors will ensure that all CF EXPRES scores (20MSR, Handgrip, Push-Ups and Sit-Ups) are recorded on a corresponding DND 279. Handgrip testing must conform to section 59 of the Canadian Forces EXPRES Operations Manual (3<sup>rd</sup> Edition, 2005).

## CAT 2 APPLICANTS

### Conduct of CSOR (CAT 2) Pre-Screening PF Test

27. General: The Cdn Spec Ops Regt Pre-Screening PF Test is comprised of two parts and the test is to be administered on two consecutive days. Part 1 is to be administered on Day 1 and Part 2 is to be administered on Day 2. If Part 1 is administered in the morning of Day 1, then Part 2 is to be administered in the morning of Day 2 for purposes of standardization and to permit adequate recovery time between Parts 1 and 2 of the test. Similarly, if Part 1 of the test is administered in the afternoon of Day 1, then Part 2 of the test is to be administered in the afternoon of Day 2.

28. Failure of a Test Component: Normally, the complete CSOR Pre-Selection PF test should be administered to all applicants. Failure of any test component will result in failure of the complete CSOR Pre-Screening Physical Fitness Test.

NOTE: members failing any single test component are not required to continue with other components.

29. Re-testing of Failures: Applicants who fail to meet the established standard(s) may be re-tested up to two times during any given recruiting period. Re-testing shall be conducted after an appropriate period of training. Typically, re-testing should occur after a minimum of 30 days of training, however, common sense must prevail. Applicants failing one component of the Pre-Screening Physical Fitness Test are only required to complete the test component that was initially failed. However, they must complete all test items within that component.

Examples: If an applicant fails Day 1 Part 1 (20 MSR, handgrip, push-ups and sit-ups) but passes the other components (combat swim test and LFCPFS), he/she is required to complete all items of that component on the retest (20 MSR, push-ups and sit-ups). He/she is not required to complete the other two components.

NOTE: If an applicant is still unsuccessful after a third trial, his/her Unit may make an application to the CSOR recruiting office for an additional testing date. This would only be done in special situations where an applicant has come extremely close to meeting the minimal CSOR PF standards in previous attempts. The CSOR PSO will be the approving authority on the granting of any additional testing attempts.

30. Part 1 Testing Sequence and Standardized Minimum Rest Period: Part 1 of the test shall be administered in the following sequence interspersed with the noted rest period:

- CF EXPRES Evaluation;
  - Minimum 15 minutes of rest; and
- Basic Military Swimming Standard Test (BMSST).

31. Part 2 Testing Sequence and Standardized Minimum Rest Period: Part 2 of the test shall be administered in the following sequence interspersed with the noted rest period:

- 13 km weightload march with 24.5 kg in 2 hrs, 26 minutes, 20 seconds;
  - Minimum of 10 minutes of rest; and
- Casualty Evacuation. Casualty Evacuation of a soldier of similar build/weight for a distance of 100 metres in 60 seconds or less.

## CSOR CAT 2 Pre-Screening Physical Fitness Testing Protocols and Standards

32. CF EXPRES: The CF EXPRES evaluation shall be conducted IAW with the CF EXPRES Operations Manual, 3<sup>rd</sup> Edition, 2005. Applicants are required to meet the CF Minimum Physical Fitness Standards (MPFS), which are stratified by age and gender.

33. Basic Military Swimming Standard Test (BMSST): The Basic Military Swimming Standard Test shall be conducted IAW the Interim CF Aquatics and Water Safety Policy – Annex A.

34. Weightload March: The 13 km weightload march is to be conducted IAW LFCO 24-2 Annex B evaluation protocol. The performance standard for this test item is the same as the Land Force Command Physical Fitness Standard (2 hours and 26 minutes, 20 seconds). The march will be completed in fighting order with rucksack. Overall, the total weight shall be 24.5 Kg. This weight includes the helmet, the weapon and the webbing. The helmet must be worn during the entire march. Under no circumstances shall applicants be encouraged to complete the 13 km weightload march as quickly as possible for both safety and injury prevention reasons. **Inclement weather may be a factor in ones not being able to attain the standard. In these cases staff are requested to record the time and note the weather route/conditions on the reporting form.** CF members who hold the rank of MCpl or above and who are appropriately qualified as Basic Fitness Training Assistants (BFTA's), Advanced Fitness Training Assistants (AFTA's), or PLQ Mod 1 Fitness may, under the direction of PSP Fitness and Sports staff, supervise the march. In addition military personnel can be utilized in a number of non-supervisory functions during the conduct of the 13 km weightload march.

35. Casualty Evacuation: The casualty evacuation is to be conducted IAW LFCO 24-2 Annex B evaluation protocol for the Land Force Command Physical Fitness Standard. The performance standard for this test item is completing the evacuation in 60 seconds or less.

## CHAPTER 3 – ADMINISTRATION

### General

1. The testing of Cdn Spec Ops Regt applicants (CAT 1 and CAT 2) is a PSP responsibility under the auspices of DAOD 5023-2 Physical Fitness Program.
2. The CSOR Training and Assessment Courses will be promulgated annually by a CANFORGEN message. To facilitate the conduct of the Pre-Screening Physical Fitness Testing, PSP Fitness Sections should coordinate PF testing schedules at their respective locations with their Base/Wing/Unit Personnel Selection Officer to ensure that all components of the CSOR Pre-Screening are completed prior to established deadlines. The Cdn Spec Ops Regt Pre-Selection Test is designed to permit “group” or “mass” testing therefore it is highly recommended that this form of testing for CSOR applicants be conducted. The conduct of “group” or “mass” testing will increase the efficiency with which applicants are processed, and reduce overall testing time. This will require co-ordination and promulgation of CSOR testing dates at the local level.

### Reporting of Pre-Screening Physical Fitness Test Results

3. CAT 1 Applicants: The Pre-Screening Physical Fitness Test Results shall be recorded on the CAT 1 Pre-Screening Physical Fitness Test Reporting Form. Copies of the CAT 1 Pre-Screening Physical Fitness Test Reporting Form shall be signed by the PSP evaluator and distributed as follows:
  - a. The original forwarded to the applicant’s unit/section as applicable (UPR);
  - b. A copy made and provided to the CSOR applicant; and
  - c. A copy made and placed in the CSOR applicants CF EXPRES envelope (DND 1117).
  - d. If members wish to complete their annual CF EXPRES evaluation, PSP staff will administer the handgrip test item and fill out a DND 279 form including exercise prescription. Distribution as per CF EXPRES Operation manual 3<sup>rd</sup> Edition.
4. CAT 2 Applicants: The Pre-Screening Physical Fitness Test Results shall be recorded on a CF EXPRES DND 279. The EXPRES results, with the addition of the Handgrip test item and the exercise prescription, may count as the members’ annual CF EXPRES evaluation. In the comments section (J), the evaluator shall annotate that the applicant met or did not meet the following standards:
  - (a) Weightload March;
  - (b) Casualty Evacuation; and
  - (c) Basic Military Swimming Standard Test.
  - (d) CF MPFS or Incentive Program.

NOTE: Write in Section J “Comments” that the member is applying for the CSOR as a CAT 2 pers.

5. The DND 279 shall be signed by the evaluator and distributed as follows:
  - a. Copy 1 - destroyed;
  - b. Copy 2 - forwarded to the applicant’s unit/section as applicable (UPR);
  - c. Copy 3 - to PSP Fitness Section (Physical Fitness Envelope - DND 1117); and
  - d. Copy 4 - to member.

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## LIST OF MEDICATIONS

Members reporting for evaluation on the 20 MSR could be on a wide variety of medications. To complicate matters many medications are known by several different “Brand” names. The following list includes medications that are known to significantly hinder heart rate response to exercise and therefore make the interpretation of fitness testing results more difficult. The “Brand names” are in bold and listed in alphabetical order for ease of reference. The non-proprietary names are shown in brackets ( ) after each brand name. Anyone on the medications should be referred to his or her medical staff prior to any fitness assessment or exercise prescription.

**Apo-Acebutolol** (Acebutolol hydrochloride)  
**Apo-Atenolol** (Atenolol)  
**Apo-Metoprolol** (Metoprolol tartate)  
**Apo-Metoprolol -Type L** (Metoprolol tartate)  
**Apo-Nadolol**- Nadolol  
**Apo-Pindolol**- (Pindolol)  
**Apo-Propranolol**- (Propranolol hydrochloride)  
**Apo-Timolol**- (Timolol maleate)  
**Apo-Tomop**-(Timolol maleate)  
**Betaloc**- (Metoprolol tartate)  
**Betaloc Durules** – (Metoprolol tartate)  
**Betapace** – (Sotalol hydrochloride)  
**Beta-Tim**- (Timelol maleate)  
**Blocadren**- (Timelol maleate)  
**Corgard** – (Nadolol)  
**Corzide**- (Nadolol- Bendroflumethiazide)  
**Dentosol**- (Propranolol hydrochloride)  
**Gen-Atenolol** – (Atenolol)  
**Gen-Pindolol** - (Pindolol)  
**Gen-Tomolol** – (Timolol maleate)  
**Indérial** – (Propranolol hydrochloride)  
**Indérial-LA** – (Propranolol hydrochloride)  
**Indéride** – (Propranolol hydrochloride/hydrochlorothiazide)  
**Lopresor** – (Metoprolol tartate)  
Monitan – (**Acebutolol hydrochloride**)  
Novo-Atenolol – (**Atenolol**)  
Novo-Metoprol – (**Metoprolol tartate**)  
Novo-Nadolol – (**Nadolol**)  
Novo-Pindol – (**Pindolol**)

Novo-Pranol – (**Propranolol hydrochloride**)  
**Novo-Timol** – Timolol maleate)  
Nu-Atenolol – (**Atenolol**)  
Nu-Metop – (**Metoprolol tartate**)  
Nu-Pindol – (**Pindolol**)  
Nu-Propranolol – (**Propranolol hydrochloride**)  
Nu-Timolol – (**Timolol maleate**)  
PMS-Metoprolol-B – (**Metoprolol tartate**)  
PMS-Propranolol (**Propranolol hydrochloride**)  
Rhotral – (**Acebutolol hydrochloride**)  
Sectral - (**Acebutolol hydrochloride**)  
Slow-Trasicor (**Oxprenolol hydrochloride**)  
Sotacor – (**Sotalol hydrochloride**)  
**Syn-Nadolol** – (Nadolol)  
Syn-Pindolol - (**Pindolol**)  
Taro-Atenolol – (**Atenolol**)  
**Tenoretic** – (Atenolol/hlorthalidone)  
Tenormin – (**Atenolol**)  
Tim-Ak - (**Timolol maleate**)  
**Timolide** – (Timolol maleate/hydrochlorothiazide)  
Trasicor – (**Oxprenolol hydrochloride**)  
**Viskazide** – (Pindolol/hydrochlorothiazide)  
Visken – (**Pindolol**)

**CDN SPEC OPS REGT (CSOR) PRE-SCREENING PHYSICAL FITNESS TEST  
REPORTING FORM –CAT 1 PERS**  
(Protected A When Completed)

**SECTION A: SERVICE PARTICULARS**

Surname	Init	SN	Unit	UIC	Tel
Rank	DOB (day/month/year)		Age	Gender	

**SECTION B: HEALTH APPRAISAL QUESTIONNAIRE**

This questionnaire is a screening device to identify personnel for whom fitness evaluation and physical activity might be inappropriate at this time.

To the best of your knowledge:

1. To the best of your knowledge, do you have a medical condition or Medical Employment Limitation (MEL), which restricts you from participating in a fitness evaluation or a progressive training programme? Yes \_\_\_ No \_\_\_

2. Is there any other reason you would like to talk to a physician prior to your fitness evaluation or training programme? Yes \_\_\_ No \_\_\_

I HAVE READ, UNDERSTOOD, AND COMPLETED THIS QUESTIONNAIRE. ANY QUESTIONS I HAD WERE ANSWERED TO MY SATISFACTION.

**Signature of CSOR Cat 1 Applicant:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**VITAL SIGNS:**

1 <sup>st</sup> Reading: Resting Heart Rate (beats/min):	Resting Blood Pressure: Systolic
	Diastolic
2nd Reading: Resting Heart Rate (beats/min):	Resting Blood Pressure: Systolic
	Diastolic

**SECTION C: TEST RESULTS**

Test Item	Performance	Pass	Fail	Points
<b>20 MSR (stage)</b>				
<b>Push-ups (#)</b>				
<b>Sit-ups (#)</b>				
<b>Pull-ups (#)</b>				
<b>Combat Swim Test</b>	N/A			N/A
<b>13 Km Weightload March</b>	N/A			N/A
<b>Casualty Evacuation</b>	N/A			N/A

**MET MIN STD ON EACH TEST ITEM:** Yes: \_\_\_\_\_ No \_\_\_\_\_

**TOTAL POINTS:** \_\_\_\_\_

CFPSA Fitness and Sports Instructor Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**CDN SPEC OPS REGT (CSOR) PRE-SCREENING PHYSICAL FITNESS TEST SCORING**

<b>Test Item</b>	<b>Low</b>	<b>Points</b>	<b>Average</b>	<b>Points</b>	<b>High</b>	<b>Points</b>
20 MSR (stage)	9-10	1	11-12	2	13+	3
Push-ups (#)	40 - 44	1	45 - 49	2	50+	3
Sit-ups (#)	40 - 44	1	45 - 49	2	50+	3
Pull-ups (#)	5 -7	1	8 - 10	2	11+	3

**INSTRUCTOR'S COMMENTS:**