

Canadian Special Operations Forces Command



Physical Fitness Screening Evaluations

Operations Manual

July 2025

Canadian Forces Morale and Welfare Services

Personnel Support Programs

FOREWORD

1. This Operations Manual has been prepared to provide instructions and guidance for conducting Canadian Special Operations Forces Command (CANSOFCOM) Physical Fitness Screening Evaluations (PFSE).
2. CANSOFCOM PFSE were developed for the following groups and occupations:
 - a. The Canadian Joint Incident Response Unit (CJIRU) for the Technical Collection Operators (TCO) (previously named Chemical, Biological, Radiological and Nuclear [CBRN] Operator) occupation;
 - b. The Canadian Special Operations Regiment (CSOR) for the Special Forces (SF) Operator occupation; and
 - c. The Joint Task Force Two (JTF-2) for the Special Operations Assaulter (SOA) Occupation and Special Operations Coxswain (SO Coxn) Managed Specialty.
 - i. For the purpose of this manual, SO Coxn Managed Speciality will be referred to as an occupation throughout the document.
3. As of July 2025, this Operations Manual is the only reference for conducting the CANSOFCOM PFSE for all CANSOFCOM occupations. It replaces the previous operations manuals:
 - a. CANSOFCOM PFSE for the SF Operator and CBRN Operator occupations (1st edition, 2018); and
 - b. Interim Operations Manual for the JTF-2 Physical Fitness Selection Test (1st edition, 2007).
4. Revisions to this Operations Manual may occur by the Directorate of Programs (DProg) when required. The updated Operations Manual will be distributed formally after any review.
5. It is essential that the evaluation protocol and instructions provided in this Operations Manual be strictly adhered to and administered with care and attention in order to ensure valid and reliable results.
6. Evaluators must familiarize themselves with the instructions and ensure that the evaluation is conducted in the safest manner and environment possible.
7. Should you have any questions with the protocols or descriptions found within this Operations Manual, we ask that you contact your Manager, Fitness, Sports & Recreation (or equivalent) or the DProg office at dfit-cphysd@cfmws.com.

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CHAPTER 1: INTRODUCTION

Background

1. In 2009, the Commander (Comd) of the Canadian Special Operations Forces Command (CANSOFCOM) directed that the research and development of scientifically valid Physical Fitness Screening Evaluations (PFSE) and standards, as part of the application process for CANSOFCOM selection, be undertaken.
2. To this end, three (3) PFSEs were developed based on specific physical fitness components and their respective standards.
3. The PFSEs are the result of many years of research specifically focused on the physical demands required for the safe and effective completion of each CANSOFCOM Unit's specialized training and respective occupations' tasks.
4. This Operations Manual includes all the necessary information to administer every PFSE.

General

PFSE Summary

5. Given the unique differences between each CANSOFCOM selection process, three (3) distinct PFSEs have been developed, each of which are to be individually applied to the specific process the candidate plans to undertake.
 - a. PFSE 1, for:
 - i. JTF-2 Special Operations Assaulters (SOA).
 - b. PFSE 2, for:
 - i. Technical Collection Operators (TCO);
 - ii. JTF-2 Special Operations Coxswain (SO Coxn).
 - c. PFSE 3, for:
 - i. Special Forces Operators (SF Operators).
6. Each PFSE includes a selection of the following components:
 - a. Relative Handgrip
 - i. The Relative Handgrip component is linked to the upper body muscular strength requirements for the safe and effective completion of specialized CANSOFCOM training and job tasks.
 - ii. The Relative Handgrip score is calculated as a ratio, where combined (left and right) handgrip strength is divided by total body mass, plus 20 kg. The addition of 20 kg accounts for the minimum weight of

Mission Essential Gear (MEG) carried during specialized CANSOFCOM training and job tasks.

b. Standard Load Squats

- i. The Standard Load Squats component is linked to the lower body muscular strength and endurance requirements for the safe and effective completion of specialized CANSOFCOM training and job tasks.
- ii. Specialized CANSOFCOM training requires candidates to possess the maximal lower body muscular strength to support 100 kg. This will reduce the risk of candidates developing local fatigue during specialized CANSOFCOM training and job performance, which in turn will reduce the candidate's risk of injury.

c. Pull-ups

- i. The Pull-ups component is linked to the upper body muscular strength and endurance requirements for the safe and effective completion of specialized CANSOFCOM training and job tasks.

d. Sit-ups

- i. The Sit-ups component is linked to the torso/core muscular strength and endurance requirements for the safe and effective completion of specialized CANSOFCOM training and job tasks.

e. Push-ups

- i. The Push-ups component is linked to the upper body muscular strength and endurance requirements for the safe and effective completion of specialized CANSOFCOM training and job tasks.

f. 20m Shuttle Run (20mSR)

- i. The 20mSR component is linked to the aerobic capacity required for the safe and effective completion of specialized CANSOFCOM training and job tasks.
- ii. Specifically, candidates undertaking specialized CANSOFCOM training must possess a maximal aerobic capacity of 44.0 milliliters per kilogram per minute ($\text{mL} \cdot \text{kg}^{-1} \cdot \text{min}^{-1}$). This will reduce the risk of a candidate developing subjective or objective symptoms of fatigue during training and job performance, which will in turn reduce the candidate's risk of injury.

g. 1.5 Mile Run

- i. The 1.5 Mile Run component is linked to the aerobic capacity required for the safe and effective completion of specialized CANSOFCOM training and job tasks.
- h. Combat Swim Test
 - i. The Combat Swim Test component has been designed to ensure that candidates are capable of swimming a short distance to safety should they end up in the water in their fighting order during amphibious operations, which may occur during specialized CANSOFCOM training and job performance.
- i. Basic Military Swim Standard (BMSS) Test
 - i. The BMSS Test component has been designed to evaluate the rudimentary swimming skills of military members that may be required for different military-based activities.
 - ii. The BMSS Test ensures that CANSOFCOM candidates possess elementary swimming skills and related water safety knowledge so that they can respond effectively to emergency situations that may arise when working in, on, under or around water.
- j. Ruck March Test
 - i. The Ruck March Test component has been designed to assess load carriage ability and is reflective of the movement patterns and physical demands that candidates will be exposed to during specialized CANSOFCOM training and job performance.

7. Each PFSE has its own selection of the components detailed above:

| Official Reference Title | Example of Notice of Intent (NOI) | 1 Relative Handgrip (Score) | 2 Standard Load Squats (Reps) | 3 Pull-ups (Reps) | 4 Sit-ups (Reps) | 5 Push-ups (Reps) | 6 20m Shuttle Run (Level) | 7 1.5 Mile Run (Time) | 8 Combat Swim Test | 9 BMSS Test | 10 Ruck March (Time) |
|--------------------------|-----------------------------------|-----------------------------------|-------------------------------------|-------------------------|------------------------|-------------------------|---------------------------------|-----------------------------|-----------------------|----------------|----------------------------|
| PFSE 1 | JTF 2 Assaulter | X | X | X | X | X | | X | | X | |
| PFSE 2 | TCO // JTF 2 Coxswain | | | | | | X | | | X | |
| PFSE 3 | SF Operator | | | | | X | X | | X | | X |

Table 1.1 PFSE Respective Components

PFSE Timelines

8. PFSEs are to be completed as part of the application process for CANSOFCOM recruitment. That said, the exact timelines about evaluation dates should be mentioned on the relevant Canadian Forces General Messages (CANFORGEN).
9. Therefore, Personnel Support Program (PSP) Staff must refer to the CANFORGEN to know the exact dates associated with the administration of the different PFSE to the relevant candidate.

PFSE Validity

10. The PFSE results are only valid for the Notice of Intent (NOI) / Annual Posting Season (APS) cycle in which they were conducted.
11. Results are not valid for the next NOI/APS cycle, regardless if it is within 365 days.

PFSE Attempts

12. If a candidate did not achieve the performance standard on one (1) or more of the PFSE components specific to the PFSE they performed, **it is considered that they do not possess the minimum physical capacities required to continue the application process.**
 - a. More specifically, a candidate who fails to achieve any minimum standard(s) may be re-tested during the recruiting period. The re-attempt should not occur before a **minimum of 30 days of training**; however, common sense must prevail.
13. In the event of a re-attempt, all PFSE components must be administered again, even if the candidate was successful at some of them during the first attempt.

PFSE Order of Administration and Durations

14. The order of administration and estimated administration durations for each PFSE are as follows:

| PFSE | Day of Administration | Components | Durations |
|--------|-----------------------|--|----------------------------------|
| PFSE 1 | Day 1 | 1. 1.5 Mile Run 2. Relative Handgrip 3. Standard Load Squats 4. Pull-ups 5. Sit-ups 6. Push-ups | Total 75–120min |
| | Day 1 (or 2) | 7. BMSS Test* | Variable, depends on group size. |
| PFSE 2 | Day 1 | 1. Relative Handgrip 2. Standard Load Squats | Total 75–90min |

| | | | |
|--------|--------------|---|----------------------------------|
| | | 3. Pull-ups 4. Sit-ups 5. 20mSR | |
| | Day 1 (or 2) | 6. BMSS Test* | Variable, depends on group size. |
| PFSE 3 | Day 1 | 1. Relative Handgrip 2. Standard Load Squats 3. Pull-ups 4. Sit-ups 5. Push-ups 6. 20mSR | Total 75–90min |
| | Day 1 (or 2) | 7. Combat Swim Test* | Variable, depends on group size. |
| | Day 2 (or 3) | 8. Ruck March** | Approximately 02h:30min |

Table 1.2 PFSE Respective Order of Administration and Durations

*For the water components (BMSS Test and Combat Swim Test), **we recommend that the candidate completes their respective test on the same day as the other PFSE components, after them**, as this is how they will be administered at selection. However, if this is not possible based on resource and facility availabilities, the water components can also be administered on different days, either before or after the other PFSE components.

For the PFSE 3, we recommend that the Ruck March component be **administered the day after the other components, at any point during the day.

15. For each day of the PFSE, the components are performed consecutively, in the order detailed above, **with a minimum of 5 min to a maximum of 8 min break between them**. This allows for adequate recovery and to efficiently transition from a component to another.

PFSE Performance Standards

| Official Reference Title | Example NOI | 1 Relative Handgrip (Score) | 2 Standard Load Squats (Reps) | 3 Pull-ups (Reps) | 4 Sit-ups (Reps) | 5 Push-ups (Reps) | 6 20m Shuttle Run (Level) | 7 1.5 Mile Run (Time) | 8 Combat Swim Test | 9 Basic Military Swim Standard | 10 Ruck March (Time) |
|--------------------------------|-----------------|-----------------------------------|-------------------------------------|-------------------------|------------------------|-------------------------|---------------------------------|-----------------------------|-----------------------|-----------------------------------|----------------------------|
| PFSE 1 (Order = 7, 1–5 + 9) | JTF 2 Assaulter | ≥ 1.00 | ≥ 11 | ≥ 5 | ≥ 40 | ≥ 40 | n/a | ≤9m:45s | n/a | Yes | n/a |
| PFSE 2 (Order = 1–4, 6 + 9) | TCO // | | | | | n/a | ≥ 8.0 | n/a | n/a | Yes | n/a |

| | | | | | | | | | | | |
|--|-------------------|--|--|--|--|------|-------|-----|-----|-----|---------|
| | JTF 2 Coxswain | | | | | | | | | | |
| PFSE 3 (Order = 1-6 + 8 + 10) | SF Operator | | | | | ≥ 40 | ≥ 9.0 | n/a | Yes | n/a | ≤2h:24m |

Table 1.3 PFSE Performance Standards

Aim

16. This Operations Manual provides guidance and direction on how to administer each PFSE for the CANSOFCOM. PSP Fitness Staff involved in the overall administration of either evaluation must adhere to this manual.

References

17. The following orders, directives, and publications are associated with the CANSOFCOM PFSE and this Operations Manual. Some resources may only be found on the Defence Wide Area Network (DWAN).

- a. DAOD 2007-1, General Safety Program;
- b. DAOD 5009-1, Personnel Readiness Verification Screening;
- c. DAOD 5023-0, Universality of Service;
- d. DAOD 5045-0, Canadian Forces Personnel Support Programs;
- e. PSP Policy Manual.

Requirements and Responsibilities

18. Additional requirement and responsibilities fall to the following Offices of Primary Interest (OPI) and key stakeholders:

- a. Directorate of Military Career Policy and Grievance: The OPI for fitness policy covered under [DAOD 5023-0, Universality of Service](#) (UofS);
- b. Chief of Military Personnel Command (CMPC): The OPI for CAF Physical Fitness Programs;
- c. Canadian Forces Morale and Welfare Services (CFMWS)/Directorate of Programs (DProg): On behalf of CMPC, acts as the primary advisor on all matters pertaining to CAF physical fitness;
- d. National Training Centre (NTC): PSP National Training Centre: Responsive to DProg. They are responsible for the command and control of the CANSOFCOM PFSE Qualification Standards. They establish the necessary resources for the training and qualifications of Base/Wing PSP Fitness Staff;

- e. Senior Manager PSP and Manager Fitness, Sports and Recreation (MFSR) (or equivalent): Responsive to the needs of their respective Base/Wing Commanding Officer (CO). They are responsible for:
 - i. Delivering CANSOFCOM PFSE Qualification Standards.
 - ii. Maintaining an up-to-date list of local PSP Fitness Staff qualified as Evaluators to administer each respective CANSOFCOM PFSE.
 - iii. Ensuring protocols as described in the CANSOFCOM PFSE Operations Manual are being followed accurately.
 - iv. Ensuring that all Evaluators (local PSP Fitness Staff) remain current on any protocol changes.
 - v. Performing regular audits of delivery of PFSE.

Evaluator's Responsibilities

- 19. Local PSP Fitness Staff are responsive to their MFSR to ensure the needs of their respective Base/Wing CO are met by planning, organizing, conducting, instructing, and evaluating CAF members on each respective CANSOFCOM PFSE.
 - a. PSP Fitness Staff must ensure that the candidate receives the PFSE Preliminary Information for candidates at least 48 hours before their evaluation ([Tool 7](#)).
- 20. PSP Fitness Staff may only administer the CANSOFCOM PFSE for which they have achieved the Qualification Standard (qualification expires every two (2) years).
- 21. To ensure valid and reliable results, PFSE Evaluators must:
 - a. Be organized in such a manner as to ensure a one-on-one (1:1) Evaluator-candidate ratio.
 - i. Exceptionally, for the 20mSR Test, the ratio should include at least two (2) Evaluators (one at each end line) for as many candidates as the Evaluator deems adequate for the facility.
 - ii. Exceptionally, for the Ruck March Test and the 1.5 Mile Run Test, the Evaluator can administer them to multiple candidates simultaneously.
 - b. Accurately complete sections B, C and D of the CANSOFCOM PFSE Reporting Form (DND 6013).
 - c. Ensure they have all the required equipment necessary to administer the relevant CANSOFCOM PFSE in advance of their administration.
 - d. Complete the PFSE set-up as detailed in this Operations Manual.
 - e. Calibrate the equipment as detailed in this Operations Manual.

22. Environmental Conditions Considerations

- a. Testing and training in extreme heat or cold can increase physiological strain, potentially impacting both performance and safety during the PFSE. Below are the established and recommended environmental guidelines and procedures for conducting PFSE in various conditions.
- b. Heat Stress Management and Testing Protocols
 - i. Ideal Testing Conditions: PFSE should be conducted in temperatures ranging from 20°C to 22°C, with relative humidity below 60%, and with adequate airflow to reduce the physiological impact of environmental conditions on test performance¹
 - ii. Monitoring and Thresholds for Environmental Heat Stress: The Wet-Bulb Globe Temperature (WBGT) is the preferred metric for assessing real-time environmental heat stress risks, and on-site monitoring is recommended whenever possible. Use the following WBGT thresholds to determine testing safety:
 1. Caution: If WBGT is between 23°C and 28°C, ensure access to cooling methods and encourage hydration.
 2. High Risk: If WBGT reaches 28°C or higher, testing should be postponed or rescheduled due to heightened risk for exertional heat illness, as ACSM notes significant risks at this level during strenuous activity.
 - iii. Using the Heat Index Chart as an Alternative to WBGT: Use the National Oceanic and Atmospheric Administration's Heat Index Chart to estimate WBGT. Cross-reference air temperature with relative humidity to determine the heat index, then approximate WBGT as follows:
 1. Heat Index 24 to 27°C = WBGT ≈ 21 to 23°C, suitable for most activities with some adjustments for hydration and rest.
 2. Heat Index 27 to 29°C = WBGT ≈ 23 to 25°C, where caution is advised, and monitoring participants is necessary.
 3. Heat Index 29 to 32°C: WBGT ≈ 25 to 27°C, a range in which moderate to high heat stress precautions are advised.
 4. Heat Index 32 to 35°C: WBGT ≈ 27 to 28°C, where testing and high-intensity activities should be modified or postponed.
 5. You can also estimate WBGT using online tools like [Occupational Health Clinics for Ontario Workers Heat Stress Calculator](#) using indoor temperature and relative humidity.

¹ ACSM, 2023.

- c. Emergency Preparedness and Immediate Cooling Protocols are detailed in [Tool 9: Emergency Preparedness and Immediate Cooling Protocols](#).

23. Emergency Procedures

- a. When PFSEs are properly administered, there are minimal risks to the candidate. Nevertheless, each local PSP Fitness Staff will develop an appropriate emergency protocol in conjunction with their respective location's Standard Operating Procedures (SOP).
- b. In addition, the local PSP Fitness Staff will ensure that all Evaluators:
 - i. Are First Aid and Cardio-pulmonary Resuscitation (CPR) qualified.
 - ii. Have briefed all candidates on safety requirements and emergency procedures prior to the start of the PFSE.
 - iii. Have identified the location of the closest Automated External Defibrillator (AED) (when available).
 - iv. Implement, in the event of a physical incident, the procedures of their local Occupational Health and Safety Committee.
 - 1. [Refer to 2007-1 General Safety Program](#), for more information.

Candidate's Responsibilities

24. Candidates are responsible for:

- a. Following the information and guidelines detailed in the [Tool 7: PFSE Preliminary information for candidates](#).
- b. Accurately completing section A of the CANSOFCOM PFSE Reporting Form (DND 6013).
- c. Adhering to the evaluation's protocol, as detailed by the Evaluator.
- d. Sharing copies of their CANSOFCOM PFSE Reporting Form to the respective authorities as detailed in the [Chapter 4: POST-PFSE ADMINISTRATION – Processing PFSE Results](#) section.

CHAPTER 2: PRE-PFSE ADMINISTRATION

PFSE Scheduling

1. Evaluation schedules/booking procedures will vary by location.

Information Protection

2. The CANSOFCOM PFSE Reporting Form (DND 6013) is a “Protected A” document and must be treated as such.

CANSOFCOM PFSE Reporting Form (DND 6013) – Section A: Service particulars

3. Firmly and legibly print all service particulars in the boxes located on the Reporting Form. If a number has fewer digits than the allocated spaces on the form, use zeros, beginning at the left side. For example, record a Date of Birth (DOB) of 07 Mar 1960 as 1960/03/07.
4. The Evaluator must ensure to write the correct PFSE number (1, 2 or 3), in the proper location in this section. Section C: PFSE Results will then only include the adequate results depending on which PFSE is administered.

Section A: Service particulars - Détails du service

| | | | | | | | | | | | | | | | |
|-----------------|--|--|--|-----------------|--|--------------|--|-----------|--|------------------|--|--------------|--|--|--|
| Surname - Nom | | | | | | | | | | Init. | | Rank - Grade | | Military ID - Piece d'identité militaire <input type="checkbox"/> Yes - Oui <input type="checkbox"/> No - Non | |
| DOB - DN (YYAA) | | | | (MM) | | (DJ) | | Age - Âge | | PFSE # - ECPS # | | | | | |
| SN - NM | | | | Location - Lieu | | Unit - Unité | | UIC - CIU | | MOS ID - ID SGMP | | | | | |

Figure 2.1: Section A: Service particulars

CANSOFCOM PFSE Reporting Form (DND 6013) – Section B: Health appraisal

5. Prior to attempting the CANSOFCOM PFSE, the candidate must complete the Section B: Health appraisal. The health appraisal consists of questions that the candidate must carefully read and answer honestly, and to the best of their knowledge. This procedure is necessary to identify potential health issues that require a medical consultation prior to the evaluation.

Section B: Health appraisal - Évaluation de la santé

| | | | | | |
|--|--|--------------------------|--------------------------|--|--|
| This questionnaire is a screening tool to identify personnel for whom fitness evaluation and physical activity may be contraindicated at this time. | | Yes Oui | No Non | Le présent questionnaire est un outil visant à identifier les personnes pour lesquelles une évaluation de la condition physique et l'activité physique sont actuellement contre-indiqués. | |
| 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 maximal fitness evaluation or a progressive training program? | | <input type="checkbox"/> | <input type="checkbox"/> | 1. À votre connaissance souffrez-vous d'un trouble médical ou avez-vous une contrainte à l'emploi pour raisons médicales (GERM) qui vous empêchent de participer à une évaluation de la condition physique avec effort maximal ou à un programme de conditionnement physique progressif? | |
| 2. Is there any other reason you should consult with a physician prior to your fitness evaluation or training program? | | <input type="checkbox"/> | <input type="checkbox"/> | 2. Y a-t-il d'autres raisons pour lesquelles vous devriez consulter un médecin avant de participer à l'évaluation de la condition physique ou d'entreprendre un programme de conditionnement physique? | |

Figure 2.2: Section B: Health appraisal

Components Set-up

6. General to all CANSOFCOM PFSE:

- a. Prior to conducting any CANSOFCOM PFSE, the Evaluator will complete a facility, equipment and floor surface inspection to eliminate any tripping/slipping hazards, equipment malfunctions, obstacles, inappropriate surfaces, and general safety risks.
- b. A comprehensive equipment list can be found in [Tool 2: Equipment Lists](#) for each respective PFSE, and all of them.

1) Relative Handgrip Set-up

7. Ensure that the handle attachment of the JAMAR® hydraulic handgrip dynamometer is set to the middle (3rd) rung of the device body (Figure 2.3).
8. Calibrate the JAMAR® hydraulic handgrip dynamometer as stated in the manufacturer's instruction manual provided with the dynamometer kit.
9. Calibrate the standing weigh scale using known weights once a year.
10. Ensure that the weigh scale, calculator and hand chalk (optional) are readily available.



Figure 2.3: JAMAR Device and Handle Configuration

2) Standard Load Squats Set-up

11. Ensure that the weigh scale, calculator and hand chalk (optional) are readily available.
12. Ensure that the Olympic bar and Olympic weight plates combine **to equal 72 kg or 158.5 Lbs (with a ± 0.5 lbs difference)**.
 - a. The weight of most equipment is not expected to change from day to day. Nevertheless, ensure that the weight plates and Olympic bar are weighed at least once a year.
 - b. Clip/fasten securely the Olympic weights to the Olympic bar using the Olympic bar weight clips.
13. Position the safety stoppers on the squat rack just below the candidate's shoulders when the candidate is squatting down to 90° at the rotational axis of the knee. For the upright position, position the bar just below the candidate's shoulders when in a standing position.
14. Ensure that the goniometer is in close proximity and easily accessible.
15. Set the metronome to a cadence of 42 beats per minute ($b \cdot \text{min}^{-1}$) and position it in such a way that the candidate can clearly hear the audible tone.

3) Pull-ups Set-up

16. Ensure access to a chin-up bar, where candidates can hang without touching the floor with legs crossed and bent at knees.
17. Have hand chalk (optional) readily available.

4) Sit-ups Set-up

18. Ensure that the cushioned floor mat and the goniometer are all in close proximity and easily accessible.
19. Position the cushioned floor mat away from walls and objects, providing sufficient space for administering the sit-ups.

5) Push-ups Set-up

20. Ensure that sufficient space is provided to the candidate and Evaluator for administering the push-ups.

6) 20-metres Shuttle Run Set-up

21. Lay out the 20-metres Shuttle Run (20mSR) in an organized fashion over a flat, hard surface (Figure 2.4).
22. Position the 20 m area so that any walls and/or objects are at least 2 m away from each end of the 20 m area (thus, the requirement for a minimum 24 m long area).

- a. Measure in a distance of one (1) m from each end of the 20 m course.
- b. Place lines using floor tape (at the 20 m and 19 m lines) and highlight the ends of each line with pylons (Figure 2.4).
- c. Place the floor tape and pylons inside the 20 m mark and inside the 19 m mark.

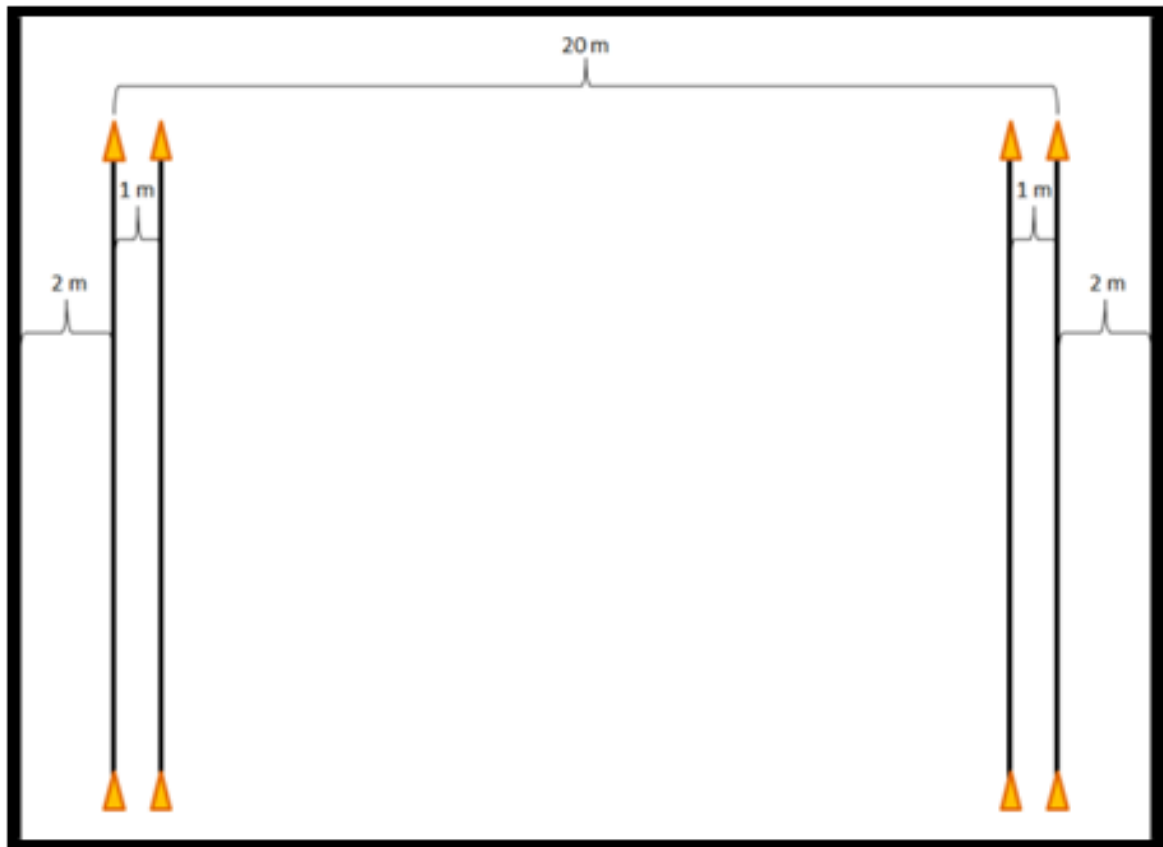


Figure 2.4: Layout of the 20mSR

7) 1.5 Mile Run Set-up

23. A measured 1.5-mile flat course² or a track (200 or 400 metres) may be used, outdoors or indoors.

24. The Evaluator must ensure to have a stopwatch.

8) Combat Swim Test Set-up

25. Access to a pool.

- a. Ensure that a swimming lane is free for the administration of the test.
- b. Access to both the shallow and the deep end of a pool for the familiarization and the administration of the test, respectively.

² A flat course refers to a route that is relatively level without significant inclines or declines.

- c. The width of the swimming lane must be a minimum of 2 m wide.

9) Basic Military Swim Standard Test Set-up

26. The Evaluator must set up the Basic Military Swim Standard (BMSS) Test as per the [BMSS Test – Operations Manual, 2024](#).

27. Access to a pool.

- a. Ensure that a swimming lane is free for the administration of the test.

28. The Evaluator must ensure to have coveralls and personal floatation devices (PFD) of all sizes available to administer the BMSS Test.

10) Ruck March Set-up

29. Ensure that the 12 km course, preferably an outdoor road, is accurately measured and marked with pylons.

- a. Two pylons will be positioned in a straight line at the starting point (and turn-around point, if required), with enough space to allow the candidate to pass between the pylons.
- b. If needed, you can also administer the test in an indoor facility, if available.

30. For the Rucksack:

- a. The candidate will fill their rucksack with weights at their discretion.
 - i. The Evaluator will provide the candidate with instructions on how to load their rucksack through the [Tool 8 – Instructions for Load Carriage Packing and Fitting](#), if they wish.
- b. The Evaluator will weigh the backpack to ensure the **total weight of the bag is 35 kg (+/- 1 kg)**. This is done by weighing the candidate without the rucksack as well as weighing the candidate wearing their rucksack.

Information briefing

31. At the beginning of the evaluation, the Evaluator will start by welcoming the candidate(s) using the [Introduction to the PFSE Script available in Tool 5](#) and cover the Emergency Action Plan (EAP) in place for their location.

32. Additionally, before the warm-up and movement preparation, the Evaluator will provide a clear explanation of each component being performed using the [Components explanation and demonstration PFSE Script available in Tool 5](#).

33. More specifically, for the specific CANSOFCOM PFSE being administered, the Evaluator will clearly address the minimum [PFSE Performance Standards](#) for each component.

34. Lastly, the Evaluator will cover general technical information highlighting ideal technique and provide an opportunity for the candidate to ask questions about their PFSE.

Explanation and demonstrations

35. During the information briefing, the Evaluator will ensure to demonstrate the following components of the PFSE, as applicable:
- a. Relative Handgrip: Proper grip position with the JAMAR®.
 - b. Standard Load Squats: Three (3) complete reps of the Standard Load Squats, ensuring proper squatting technique and keeping with the beat of the metronome. The Evaluator may conduct this demonstration with an unloaded Olympic bar if they so choose.
 - c. Pull-ups: Three (3) complete reps of the Pull-ups, ensuring proper technique.
 - d. Sit-ups: Three (3) complete reps of the Sit-ups, ensuring proper technique.
 - e. Push-ups: Three (3) complete reps of the Push-ups, ensuring proper technique.
 - f. 20mSR: One (1) down-and-back repetition of the 20mSR (without audio), ensuring proper contact with the 20 m lines, proper pivot and turn-around, and highlighting violations associated with the 19 m line.
 - g. 1.5 Mile Run: No demonstration required.
 - h. Combat Swim Test: No demonstration required.
 - i. BMSS Test: As per [BMSS Test Operations Manual \(2024\)](#).
 - j. Ruck March: No demonstration required.

Warm-up/Movement preparation

36. Prior to the PFSE, each candidate must undergo a warm-up and movement preparation led by an Evaluator. We recommend that the warm-up and evaluation preparation include the following:
- a. Myofascial release techniques (e.g., foam rolling).
 - b. Light aerobic activity (10 to 12 min).
 - c. Dynamic movements (5 to 8 min) that reflect the movement patterns used during the PFSE. Have the candidate perform these movements in a smooth and controlled manner, going to full range of motion and using correct technique.

- d. Recommend an additional 2 to 5 min warm-up period (to be completed at the candidate's discretion).

37. A comprehensive list of warm-up/evaluation preparation exercises is in [Tool 4: Warm-up/Movement preparation](#).

DRAFT

CHAPTER 3: PFSE PROTOCOLS AND TERMINATION

Protocols

1) Relative Handgrip Protocol

1. The candidate must perform the following mandatory steps in order to successfully complete the Relative Handgrip component:

| Mandatory steps | |
|--|---|
| a. While dressed in their fitness dress of choice and running shoes, weigh the candidate to the nearest 0.1 kg. | |
| b. Record this body mass in Section C: Results of the CANSOFCOM PFSE Reporting Form, where indicated. | |
| c. The candidate's body position during the evaluation is shown in Figure 3.1, and is described as follows: <ol style="list-style-type: none">i. Standing erect with both feet flat on the floor, shoulder width apart.ii. Elbow flexed at 90°.iii. Forearm neutral (thumb up), with straight wrist.iv. Hand and forearm in slight shoulder internal rotation, so that the position of the JAMAR® is vertical and directly in front of the midline of the body. | |
| d. Instruct the candidate to apply force by gripping the handle with a single, forceful, maximal effort. | |
| e. Take measurements of each hand alternately and conduct two (2) trials per hand. | |
| f. Provide the candidate with one (1) min of rest between trials on each hand, in accordance with Heyward (2006). | |
| g. Record the values for each trial on each hand to the nearest kg. | |
| h. Record and combine the best right-hand value and best left-hand value to give a best-combined handgrip value on the Reporting Form. | |
| i. The candidate may chalk their hands for the evaluation, if they choose. | |
| Faults | |
| Forearm resting on surface | j. The candidate's forearm may not rest on any surface. |

| | |
|---|--|
| Flex core / bring JAMAR® into their body | k. The candidate is not permitted to flex their core and bring the JAMAR® into their body. |
| Termination of the component | |
| This component is terminated once the candidate's weight has been recorded and the two (2) relative handgrips (right and left) have been measured and recorded. | |



Figure 3.1: Frontal (A) and Sagittal (B) View of the Correct JAMAR® and Body Position to Conduct the Relative Handgrip component

2. Calculation of Relative Handgrip Score

- a. The calculation of the relative handgrip score requires the candidate's measured body mass (kg) and combined handgrip value (kg).
- b. As described previously, the combined handgrip value (kg) is the sum of the best left handgrip value (kg), plus the best right handgrip value (kg).
- c. Use a calculator to enter the two variables of body mass (kg) and combined handgrip value (kg) in the following equation:

$$\text{Relative Handgrip Score} = \frac{\text{Combined Handgrip Value (kg)}}{\text{Body Mass (kg)} + 20}$$

- d. Record the candidate's relative handgrip score on the Reporting Form to the nearest hundredth, that is, two (2) decimal places.

2) Standard Load Squats Protocol

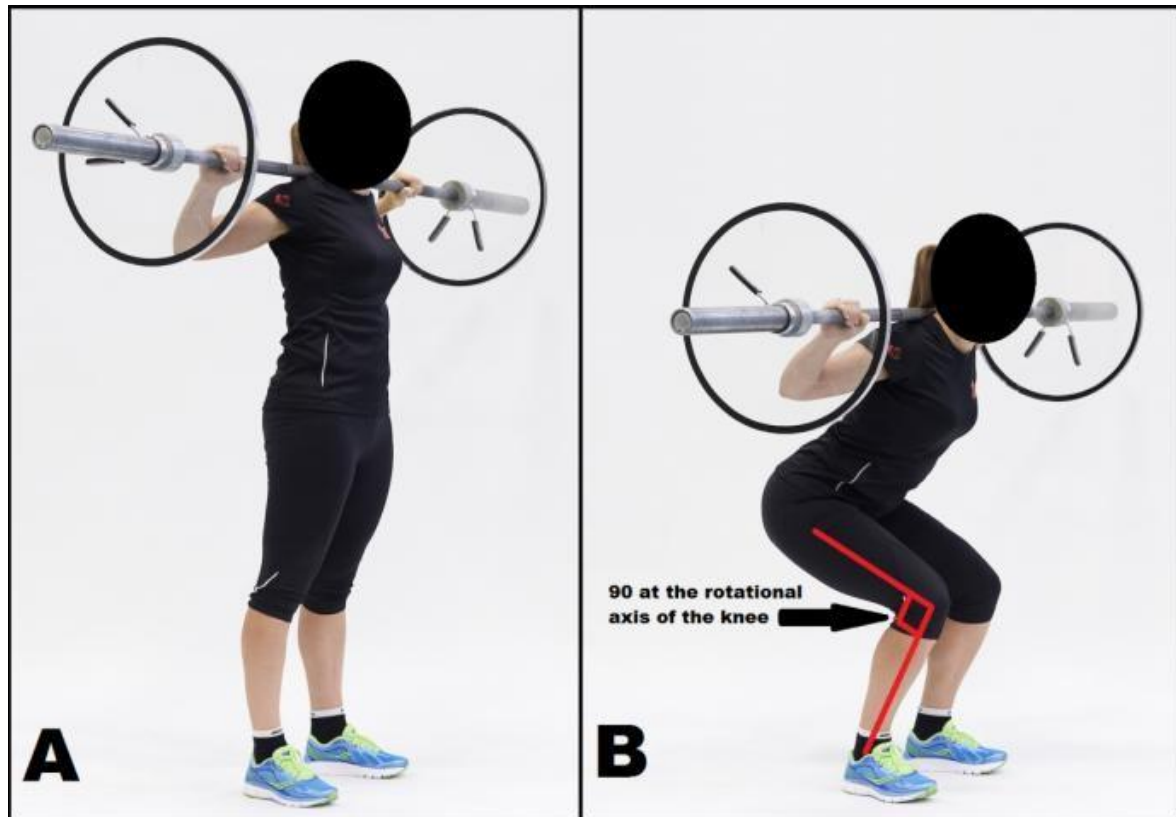
3. The candidate must perform the following mandatory steps in order to successfully complete the Standard Load Squats component:

| Component specific warm-up | |
|----------------------------|---|
| a. | In addition to the general PFSE warm-up/movement preparation (previously described), prior to the start of the Standard Load Squats, instruct the candidate to perform eight (8) to ten (10) repetitions of the Standard Load Squats with an unloaded Olympic bar. The purpose of this additional warm-up/component preparation is three-fold. <ol style="list-style-type: none">i. Determination of 90° at the rotational axis of the knee: The Evaluator will have the candidate squat down until they reach 90° at the rotational axis of the knee. The Evaluator will confirm this angle with a goniometer. This measurement will provide kinesthetic feedback to the candidate as to the correct squat depth for the evaluation.ii. Familiarity of movement cadence/timing: The Evaluator will have the candidate practice the squat movement repeatedly while moving at the cadence of the metronome, set to 42 b · min⁻¹. This will ensure that candidate is familiar with the movement cadence once the Standard Load Squats starts.iii. Safe squatting technique: The Evaluator will assess the candidate's squatting technique in order to identify any potential areas of concern and to provide feedback to the candidate for injury prevention. |

| Mandatory steps | |
|---|---|
| b. Once the additional warm-up with the unloaded Olympic bar has been completed, have the candidate perform the Standard Load Squats using an Olympic bar, weighted to 72 kg. | |
| c. When ready, the candidate will squat down to a 90° angle at the rotational axis of the knee, at the discretion of the Evaluator. | |
| d. Once in the correct down position, the candidate will return to full extension (standing). | |
| e. Each of these down and up movements will be performed while moving to the cadence of 42 b · min ⁻¹ , as set by the metronome, where each beat of the metronome will signal the start of a movement in either the up or down direction (from the standing or squat position): It is important to ensure that the candidate is beginning each up and down phase of movement at the beat of the metronome, rather than performing a “fast” up movement (for example), then waiting in the standing up position until the next beat of the metronome. The movement pattern should flow smoothly from one direction to the next. | |
| f. Do not count incorrect repetitions and advise the candidate to correct their technique without stopping or pausing during the exercise. Each repetition will be counted out loud by the Evaluator. | |
| g. Record the maximum number of correct repetitions that the candidate completed before falling behind the required cadence on the Reporting Form. | |
| Fault Repetitions not counted; self-correcting needed | |
| Incomplete range of motion repetition | h. The candidate does not complete a full range of motion squat, ensuring a 90° at the rotational axis of the knee. |
| Termination of the component | |
| This component is terminated once the candidate can no longer complete repetitions at the required cadence (42 b · min⁻¹). | |

IMPORTANT NOTE: If, after the first two (2) to three (3) reps, it is clear that the candidate is not moving to the correct cadence (tempo) and/or the candidate is not using safe lifting techniques, the Evaluator will stop the evaluation by having the candidate safely rack the Olympic bar. The Evaluator will then provide the candidate with 5 minutes of rest, and have the candidate start the Standard Load Squats Protocol as detailed in the table above. The candidate will complete the component-related warm-up again with the unloaded Olympic bar in order to practice moving to the cadence of the metronome and/or focus on safe lifting techniques. Once the Evaluator feels comfortable with the

candidate's ability to move to the cadence and/or with the candidate's lifting techniques, the candidate will be instructed to begin the evaluation a second time with the 72 kg Olympic bar. The candidate only has two (2) trials at this component.



**Figure 3.2: Starting/Up (A) and Down/90° (B)
Positions for the Standard Load Squats**

4. Depending on the Evaluator's level of experience and comfort administering squats, the Evaluator may or may not choose to provide the candidate with additional instruction (optional), as follows:
 - a. When removing the Olympic bar from the rack:
 - i. Squeeze the shoulder blades together creating a "shelf" for the Olympic bar, rest it on the shelf, then lift the Olympic bar, and slowly step backwards.
 - b. Preparing to squat:
 - i. Stand with feet shoulder-width apart, toes pointing forwards, back erect, and head in a neutral position.
 - ii. "Screw" the feet into the floor by engaging the glutes and abdominals to brace the spine and imagine using the hands to break the Olympic bar over the shoulders. This will help set a stable upper body position.
 - c. Squatting:

- i. Press the hamstrings back, hinge slightly forwards at the hips and squat down until the 90° angle at the rotational axis of the knee is achieved.
 - ii. Maintain a neutral head position with the knees aligned over the feet and the shins remaining vertical.
- d. Returning to standing:
 - i. Return to the standing position by pressing the feet into the floor, extending the hips and knees while maintaining a stable upper body.
- e. Racking the bar:
 - i. Once completed, walk directly forward without turning the head and/or torso to watch the position of the Olympic bar. Turning the head and/or torso during this time will compromise the integrity of the body position.
 - ii. Walk forward until the Olympic bar makes firm contact with the squat rack, and then lower the Olympic bar onto the rack.

3) Pull-ups Protocol

5. The candidate must perform the following mandatory steps in order to successfully complete the Pull-up component:

| Mandatory steps |
|--|
| a. The Evaluator will instruct the candidate to grasp the pull-up bar with an overhand grip (palms facing away from the body), hands shoulder-width apart, and legs crossed and bent at the knees. |
| b. Starting in the down (arms fully extended) position, the Evaluator will instruct the candidate to pull them self up until their chin is completely over the bar. |
| c. Once their chin is over the bar, the candidate will then lower themselves back down to full extension of the arms in a controlled manner. |
| d. The candidate will continue to complete these pull-ups in a continuous manner. |
| e. Do not count incorrect repetitions and advise the candidate to correct their technique without stopping or pausing during the exercise. |
| f. Count and record the number of continuous, correct pull-ups completed on the Reporting Form. |

| Faults Repetitions not counted; self-correcting needed | |
|---|---|
| Chin not reaching over the bar | g. Repetitions will not be counted if the candidate's chin does not reach over the bar. |
| Swinging body to reach the bar | h. The candidate is not permitted to swing their body while pulling up. The candidate is not allowed to gain momentum by using a "kipping" method. If they do, their repetition(s) will not be counted. |
| Termination of the component | |
| This component is terminated once the candidate can no longer complete repetitions without pausing or breaking in between repetitions. | |

4) Sit-ups Protocol

6. The candidate must perform the following mandatory steps in order to successfully complete the Sit-ups component:

| Mandatory steps |
|--|
| a. The Evaluator will instruct the candidate to lie in a supine position on the mat with feet flat on the ground, shoulder-width apart, and knees bent to 90° at the axial rotation of the knee, as measured with the goniometer. |
| b. The Evaluator or another candidate will hold the candidate's ankles to ensure that their heels are in constant contact with the mat. Sitting on top of the candidate's feet or holding their legs/knees is not permissible. |
| c. The Evaluator will instruct the candidate to place their hands on the side of their head and to keep them in contact with the head at all times. |
| d. The candidate's elbows must remain pointed towards the knees throughout the duration of the sit-ups to prevent the elbows from flapping. |
| e. Once in this ready position, the Evaluator will give the command "standby, standby, GO". On the command "GO", the Evaluator will start the one (1) minute timer, and the candidate will begin the sit-ups. |
| f. The candidate must sit up off the mat and touch their elbows to the top of the knees, then lower themselves back down to the starting position. It is important to note that the candidate must touch both the shoulder blades to the mat between each repetition. Additionally, candidates must ensure to keep hips/lower back in full contact to the mat/floor when performing the sit-up. That said, candidates are not allowed to gain momentum by using that kind of "kipping" method. |

| | |
|--|---|
| g. Each touch of the elbows to the knees counts as one complete repetition. The candidate will perform as many repetitions as possible within the one (1) min. The candidate may pause whenever necessary. | |
| h. Count and record the number of correct sit-ups completed during the minute on the Reporting Form. | |
| Faults Repetitions not counted; self-correcting needed | |
| Hands not touching the sides of the head | i. The candidate's hands should always be in contact with the sides of their head. Any repetition where the hands do not touch the head will not count. |
| Incomplete range of motion repetition | j. The candidate's elbows should always create a contact with the knees (up) and shoulder blades create contact with the ground (down) to complete a repetition. Any repetition where these contacts are not made will not count. |
| Lifting hips/lower back from mat/floor | k. Candidates are not permitted to swing their body while sitting up. Candidates are not allowed to gain momentum by using a "kipping" method. If they do, their repetition(s) will not be counted. |
| Termination of the component | |
| This component is terminated at the end of the one (1) minute timer. | |

5) Push-ups Protocol

7. The candidate must perform the following mandatory steps in order to successfully complete the Push-ups component:

| Mandatory steps |
|--|
| a. The Evaluator will instruct the candidate to lie in a prone position with their palms on the floor, hands shoulder-width apart, and fingers pointed forward. |
| b. Once the candidate's hands are in the correct position, the candidate will move to the up (arms fully extended) position, ensuring their back is straight, with heels together and head up. |
| c. Once in the correct up position, the evaluation will start. |
| d. The candidate will lower themselves down until their elbows are bent to an angle of 90°, so that their elbows, upper arms, and shoulders are in line. |

| | |
|---|---|
| e. Once in the correct down position, the candidate will push themselves back to the up (arms fully extended) position while maintaining a straight back, heels together and head up. | |
| f. The candidate will continue to complete the push-ups in a continuous manner. | |
| g. The candidate should be advised to breathe out while fully extending their arms and informed not to hold their breath during this exercise. | |
| h. Count and record the number of correct, continuous push-ups completed on the Reporting Form. | |
| Fault Repetitions not counted; self-correcting needed | |
| Incomplete range of motion repetition | i. The candidate does not complete a full range of motion push-up, ensuring a 90° angle at the elbows in the down position and fully extended arms in the up position. Any repetition where the elbows do not bend at a 90° angle will not count. |
| Termination of the component This component is terminated once the candidate can no longer complete repetitions without pausing or breaking in between repetitions. | |

6) 20-metres Shuttle Run Protocol

8. The candidate must perform the following mandatory steps in order to successfully complete the 20-metres Shuttle Run component:

| Mandatory steps |
|--|
| a. The Evaluator must be positioned in view of the starting 20 m line, while another Evaluator must be positioned in view of the opposite 20 m line. Evaluators must be able to see if each candidate has not yet reached the line, is on or over the 19 m and the 20 m lines. |
| b. All candidates will start the 20mSR by lining up directly behind the starting 20 m line. |
| c. Once all candidates are in position, the Evaluator will start the 20mSR audio recording and will ensure that the volume is adequate for all candidates to clearly hear. |
| d. As prompted by the audio recording, candidates will start the 20mSR on the first “beep” by moving to the far 20 m line prior to the next “beep”. |

| | |
|--|--|
| e. The 20 m line is considered to be reached once a candidate makes contact with the line (i.e., they do not need to completely cross the line). When changing direction, the candidate must pivot and turn in a straight line, no “U-turns” are allowed. | |
| f. Record the last level completed by the candidate on the 20mSR on their respective Reporting Form. | |
| Warning Indicates to the candidate they are late at reaching the required distance on time | |
| Over the 19 m, not reaching the 20 m | g. If, at any point, a candidate is over the 19 m line but has not reached the 20 m line prior to the “beep”, they will receive a “WARNING”. The Evaluator will call out “WARNING” and clearly identify which candidate received the warning in a voice clear enough for the candidate and the other Evaluator(s) to hear. The candidate should turn around and touch the other sideline (20m) before the next “beep”. |
| | h. A candidate can accumulate an unlimited number of warnings, as long as they do not receive two (2) in a row. However, if it becomes evident that the candidate is trying to “play the system” by purposely not attempting to reach the 20 m line, the Evaluator has grounds to terminate the component for that candidate. |
| Termination of the component | |
| This component is terminated once the candidate can no longer run according to the shuttle “beeps”. More specifically if a candidate receives two (2) warnings in a row or if the candidate does not reach the 19 m line prior to the “beep”, this will result in an immediate termination of this component. | |

9. Following the component, all candidates should be encouraged to keep walking in order to progressively decrease their heart rate after the maximal effort.
 - a. Additionally, Evaluators should advise all candidates not to leave the evaluation area without permission.

7) 1.5 Mile Run Protocol

10. The candidate must perform the following mandatory steps in order to successfully complete the 1.5 Mile Run component:

| |
|------------------------|
| Mandatory steps |
|------------------------|

| | |
|--|--|
| a. The Evaluator must be positioned to view all candidates completing the 1.5 Mile Run from the starting position. | |
| i. No matter if this component is administered indoors or outdoors, the Evaluator will clearly identify the trajectory of the 1.5 Mile, its beginning and its end. If required, the Evaluator will clearly mention the number of laps required to reach the total distance of 1.5 miles. | |
| b. Candidates will start their 1.5 Mile Run at the signal of the Evaluator “standby, standby, GO”. | |
| c. Each candidate will run the 1.5 Mile as fast as they can. Each candidate is allowed to pause if they wish, however, the time will not be stopped. | |
| d. Record the total time of each candidate on their respective Reporting Form. | |
| Warning Indicates to the candidate they are late at reaching the required distance on time | |
| Past the performance standard time | e. A warning will be given to the candidate when the 9 min 45 sec minimum performance standard has been reached if the candidate is not yet finished completing the 1.5 Mile distance. |
| Termination of the component This component is terminated when the candidate has run the entire 1.5 Mile or, if the candidate has surpassed the minimum performance standard (9 min 45 sec) and the Evaluator decides to terminate the component. | |

11. Following the component, all candidates should be encouraged to keep walking in order to progressively decrease their heart rate after the maximal effort.

- a. Additionally, Evaluators should advise all candidates not to leave the evaluation area without permission.

8) Combat Swim Test Protocol

12. The candidate must perform the following mandatory steps in order to successfully complete the Combat Swim Test component:

| Familiarization |
|---|
| a. Prior to the evaluation of the Combat Swim Test, provide all candidates with opportunities to familiarize themselves with being in the water while wearing a combat shirt, combat trousers, combat boots and carrying a replica C-7 rifle. |

| | |
|---|--|
| <p>i. This may be possible prior to the evaluation date. However, local resources, program scheduling and policies will dictate if this is possible, and its frequency.</p> <p>ii. At the evaluation itself, provide all candidates with a quick opportunity to enter the shallow end of the pool, to try various swimming strokes.</p> | |
| Mandatory steps | |
| b. Upon completion of this familiarization period, direct all candidates to exit the pool and move to the deep end. | |
| c. The candidate will be permitted to sling their replica C-7 rifle during the conduct of the Combat Swim Test. However, they will not be permitted to use any additional floatation device. | |
| d. Once in position on the pool deck at the deep end of the pool, the Combat Swim Test will begin on the command, “standby, standby, GO”, at which point the candidate will enter the deep end of the pool by jumping vertically, feet first into the water. | |
| e. After surfacing vertically in the water, the candidate will swim a distance of 12.5 m using any style of propulsion. When they reach the 12.5 m mark, they will turn around and swim back to the edge of the pool (no time limit). | |
| f. During the Combat Swim Test, the candidate cannot touch the bottom or sides of the pool. Walking on the bottom of the pool is also strictly prohibited. | |
| g. Record on the Reporting Form if the Combat Swim Test was completed successfully or not. | |
| Fault | |
| Dropping their rifle in the pool | <p>h. If a candidate drops their rifle during any portion of the Combat Swim Test, they may retrieve the rifle from the bottom of the pool and continue with the completion of their 25 m swim.</p> <p>NOTE: If the pool is too deep to allow safe recovery of the rifle, the Evaluator may allow the candidate to restart the test - if it is clear that the rifle was not dropped intentionally or due to significant fatigue. This scenario may only occur once (1) during the conduct of the Combat Swim Test, where a second (2) fault will cause the termination and failure of the Combat Swim Test.</p> |
| Termination of the component | |
| This component is terminated once the candidate has completed the vertical jump in the water and the 25 m swim while wearing their combat attire (combat | |

shirt, combat trousers, combat boots) and carrying a replica C-7 rifle, without touching the bottom or sides of the pool.

9) Basic Military Swim Standard Test Protocol

13. The candidate must perform the Basic Military Swim Standard (BMSS) Test as per the [BMSS Test – Operations Manual, 2024](#).
14. The BMSS Test is considered failed if any of the practical test components are failed. The practical test components are:
 - a. Component 2: Abandon Ship Drill
 - b. Component 3: Basic Swimming Skills
15. In the event a candidate fails the BMSS Test, they are deemed to not have met the performance standard for this component (see the [Results section in Chapter 4: Post-PFSE Administration](#)).

10) Ruck March Protocol

16. The candidate must perform the following mandatory steps in order to successfully complete the Ruck March component:

| Preparation | |
|-----------------|---|
| a. | The Evaluator will ensure the candidate's rucksack weighs 35 kg (± 1 kg), and that the weight does not include consumables such as water. |
| Mandatory steps | |
| b. | Once the rucksack weight has been verified, the candidate will stand with both feet behind the starting point (indicated by pylons) and will wait for the instruction to start the Ruck March. |
| c. | On the command, "standby, standby, GO", the Evaluator will start the stopwatch, and the candidate will start the Ruck March by moving as quickly as they choose for 12 km to the finish line, marked by pylons. |
| d. | Each candidate must walk (at least one foot must remain in contact with the ground at all times). Alternatively, a candidate may choose to shuffle. |
| e. | Each candidate may take rest breaks at any point during the march. However, total time will not be stopped. |

| | |
|---|--|
| f. Each candidate may pack their rucksack any way they choose, so long as the total weight carried is equal to 35 kg (\pm 1 kg) and does not include the weight of consumables, such as water. | |
| g. Candidates are not required to wear a helmet or to carry their C-7 rifle during the performance of the Ruck March. | |
| h. Once the candidate crosses the finish line, the Evaluator will record the total time to the nearest second on the Reporting Form. | |
| Fault Candidate stopped; self-correcting needed | |
| Running during the Ruck March | i. Candidates are not permitted to run; they can only walk. Walking is identified as having one foot in contact with the floor at all times. If a candidate runs, the Evaluator will call out, "STOP" and the candidate must come to a full stop before the Evaluator permits the candidate to continue. The time will not be stopped. |
| Termination of the component | |
| This component is terminated once the candidate has completed the 12 km Ruck March trajectory with their 35 kg rucksack. | |

17. Following the component, all candidates should be encouraged to keep walking in order to progressively decrease their heart rate.

- a. Additionally, Evaluators should advise all candidates not to leave the evaluation area without permission.

PFSE Termination

18. A PFSE is terminated when one (1) of the following scenarios occurs:

- a. The candidate successfully completes all components included in the PFSE they are being administered.
- b. The candidate chooses not to continue.
 - iii. Reasons for this could be fatigue, pain, injury, etc.
- c. The candidate reaches the termination of the respective component's protocol without completing the component's minimum performance standard (see point 20 below).
- d. The Evaluator becomes concerned for the candidate's safety due to immediate signs of serious distress.

- e. A physical incident occurs, resulting in the candidate being physically unable to continue.

19. When the PFSE is terminated for any one of the reasons listed from **b to e** (above), it is considered a **Failure / Did not meet standard**.

20. In the event that it is evident a candidate will not complete the PFSE to the minimum applicable standard, the Evaluator may allow them to continue in order to complete all components of the PFSE they are performing. We recommend to do so in order to provide specific fitness programming and training prescription. However, depending on human resources and time constraints, the PSP Fitness Staff may also terminate the PFSE Evaluation of a candidate at any point, as soon as they do not reach a minimum performance standard.

CHAPTER 4: POST-PFSE ADMINISTRATION

Cool down

1. A supervised walk within the evaluation area should take place upon completion of the PFSE, allowing the candidate to physically recover. If requested by the candidate, time and guidance will be provided for an active recovery with stretching.

Results

CANSOFCOM PFSE Reporting Form (DND 6013) – Section C: PFSE Results

Section C: PFSE Results - Résultats de l'ECPS

| | | | |
|---|--|--|--|
| <p>This section is to be completed in accordance with the CANFORGEN instructions for the specific evaluation to which the member has applied as only the relevant components of each evaluation are to be conducted and recorded. Please refer to the CANFORGEN for the official components to be conducted for each evaluation, their applicable standards, and order of administration.</p> | | <p>Cette section doit être remplie conformément aux instructions du CANFORGEN pour l'évaluation spécifique à laquelle le membre a postulé, car seules les composantes pertinentes à chacune des évaluations doivent être effectuées et enregistrées. Veuillez-vous référer au CANFORGEN pour les composantes officielles à effectuer pour chaque évaluation, leurs normes applicables et l'ordre d'administration.</p> | |
| <p>1. Relative hand grip - Force relative de préhension Equation - Equation: $c = b / a$</p> | | | |
| <p>Body mass (kg) Masse corporelle (kg) _____</p> <p>a. Body mass + 20 Masse corporelle + 20 _____</p> | <p>Right hand trial 1 Main droite essai 1 _____</p> <p>Left hand trial 1 Main gauche essai 1 _____</p> | <p>Right hand trial 2 Main droite essai 2 _____</p> <p>Left hand trial 2 Main gauche essai 2 _____</p> | <p>Best right hand Meilleur résultat main droite _____</p> <p>Best left hand Meilleur résultat main gauche _____</p> <p>b. Best combined hand grip (kg) Meilleur résultat combine de la force de préhension de la main (kg) _____</p> <p>c. Relative hand grip Force relative de préhension de la main _____</p> |
| <p><input type="checkbox"/> n/a - s/o <input type="checkbox"/> Met std - Satisfait la norme <input type="checkbox"/> Did not meet std - N'a pas satisfait la norme</p> | | | |
| <p>2. Std load squats Squats avec charge</p> <p>_____</p> <p>Total squats Nbre total de squats</p> | <p>3. Pull-ups Tractions à la barre</p> <p>_____</p> <p>Total pull-ups Nbre total de tractions à la barre</p> | <p>4. Sit-ups Redressements assis</p> <p>_____</p> <p>Total sit-ups Nbre total de redressements assis</p> | <p>5. Push-ups Extensions des bras</p> <p>_____</p> <p>Total push-ups Nbre total d'extensions des bras</p> |
| <p><input type="checkbox"/> n/a - s/o</p> <p><input type="checkbox"/> Met std Satisfait à la norme</p> <p><input type="checkbox"/> Did not meet std N'a pas satisfait à la norme</p> | <p><input type="checkbox"/> n/a - s/o</p> <p><input type="checkbox"/> Met std Satisfait à la norme</p> <p><input type="checkbox"/> Did not meet std N'a pas satisfait à la norme</p> | <p><input type="checkbox"/> n/a - s/o</p> <p><input type="checkbox"/> Met std Satisfait à la norme</p> <p><input type="checkbox"/> Did not meet std N'a pas satisfait à la norme</p> | <p><input type="checkbox"/> n/a - s/o</p> <p><input type="checkbox"/> Met std Satisfait à la norme</p> <p><input type="checkbox"/> Did not meet std N'a pas satisfait à la norme</p> |
| <p>6. 20 MSR CN 20 M</p> <p>_____</p> <p>Final level Dernier niveau atteint</p> | <p>7. 1.5 Mile run Course de 1,5 mile</p> <p>____ : ____</p> <p>Total time (min:s) Temps total (min:s)</p> | <p>8. Combat swim test Test de natation de combat</p> <p>_____</p> | <p>9. Basic military swim standard Norme de natation militaire de base</p> <p>_____</p> |
| <p><input type="checkbox"/> n/a - s/o</p> <p><input type="checkbox"/> Met std Satisfait à la norme</p> <p><input type="checkbox"/> Did not meet std N'a pas satisfait à la norme</p> | <p><input type="checkbox"/> n/a - s/o</p> <p><input type="checkbox"/> Met std Satisfait à la norme</p> <p><input type="checkbox"/> Did not meet std N'a pas satisfait à la norme</p> | <p><input type="checkbox"/> n/a - s/o</p> <p><input type="checkbox"/> Met std Satisfait à la norme</p> <p><input type="checkbox"/> Did not meet std N'a pas satisfait à la norme</p> | <p><input type="checkbox"/> n/a - s/o</p> <p><input type="checkbox"/> Met std Satisfait à la norme</p> <p><input type="checkbox"/> Did not meet std N'a pas satisfait à la norme</p> |
| <p>10. Ruck march evaluation Résultats de l'évaluation de la marche avec charge</p> <p>____ : ____ : ____</p> <p>Ruck march total time (h:min:s) Temps total pour la marche avec sac à dos (h:min:s)</p> | | <p>11. Overall results summary Sommaire des résultats</p> <p>Valid until - Valide jusqu'au</p> <p>2 0 ____ / ____ / ____</p> <p>Date - (YYAA) (MM) (DJ)</p> | |
| <p><input type="checkbox"/> n/a - s/o <input type="checkbox"/> Met std - Satisfait à la norme <input type="checkbox"/> Did not meet std - N'a pas satisfait à la norme</p> | | <p><input type="checkbox"/> Met std Satisfait à la norme</p> <p><input type="checkbox"/> Did not meet std N'a pas satisfait à la norme</p> | |

Figure 4.1 Section C: PFSE Results

2. Each Reporting Form must be filled according to the PFSE being administered.
 - a. No matter which PFSE is administered, **there should always be at least one (1) box checked off for each component attempted on the Reporting Form.**
 - i. Check off box “n/a”, if:

- The component is not required to be completed for the PFSE administered (use the [Tool 6: CANSOFCOM PFSE Quick Reference Guide](#)), or;
 - The component was not attempted due to the Evaluator not allowing the candidate to continue after falling short of a minimum performance standard earlier in the evaluation.
- Check off box **“Met standard”**, if the candidate has attempted and reached the performance standard for that specific component according to the PFSE administered.
 - Check off box **“Did not meet standard”**, if the candidate has attempted and not reached the performance standard for that specific component according to the PFSE administered.
- b. In addition to each individual component boxes, there is also a box summarizing the PFSE overall result for the candidate as well as the date until which their result is valid for (**11. Overall results summary**).
- Met standard** must be checked off if all components of the PFSE administered have been met or are above their respective minimum performance standards.
 - Did not meet standard** must be checked off if one (1) or more components of the PFSE administered did not meet their respective minimum performance standards.
 - The validity date must also be inputted**, following the validity period detailed in the [PFSE Validity](#) section in Chapter 1. No date needs to be inputted in case of a failure to meet standard.

| | | |
|---|---|---|
| 11. Overall results summary Sommaire des résultats | | <input type="checkbox"/> Met std Satisfait à la norme |
| | | <input type="checkbox"/> Did not meet std N'a pas satisfait à la norme |
| Valid until - Valide jusqu'au | | |
| 2 | 0 | <div> <div></div> <div></div> </div> |
| Date - (YYAA) | | (DJ) |

Figure 4.2 Section C: PFSE Results – Box 11

Debrief

- The local PSP Fitness Staff must debrief each candidate upon completion of their respective PFSE. The candidate must be provided with their scores and advised

on if they achieved each performance standard for each PFSE components that they performed.

4. Based on the Overall results summary, a candidate may be considered to possess the minimum physical capacities required to continue with the application process or be considered to not possess the minimum physical capacities required to continue the application process.
 - a. PSP Fitness Staff and candidates should refer to the section [PFSE Attempts](#) to know more about the opportunities to re-attempt such evaluation.
 - b. If a candidate has only reached the minimum performance standards (not exceeded them), they should be encouraged to keep training as candidates that only meet minimum standards are rarely successful at selection.

CANSOFCOM PFSE Reporting Form (DND 6013) – Section D: Certification of evaluation

5. The Evaluator will print and sign their name in the space provided, confirming the evaluation’s validity and the results’ accuracy.
 - a. Please note that once you e-sign Section D, it will automatically lock Sections C and D.

Section D: Certification of evaluation - Attestation d'évaluation

| | |
|---|---|
| Evaluator name (<i>print</i>) - Nom de l'évaluatrice ou de l'évaluateur (<i>en lettres moulées</i>) | Evaluator signature - Signature de l'évaluatrice ou de l'évaluateur |
|---|---|

Figure 4.3 Section D – Certification of evaluation

CANSOFCOM PFSE Reporting Form (DND 6013) – Section E: Certification of understanding

6. The candidate will sign their name and enter the evaluation’s date in the space provided, confirming their understanding of their results.
 - a. Please note that once the candidate e-signs Section E, it will automatically lock Section E as well as the entire form.
 - b. If they decide not to sign the form, write down “Member refused to sign”.

Section E: Certification of understanding - Attestation de reconnaissance

| | | | |
|---|---------------|------|------|
| I acknowledge the above fitness evaluation results - Je reconnais les résultats de l'évaluation de la condition physique. | | | |
| Signature of personnel - Signature du membre | Date - (YYAA) | (MM) | (DJ) |

Figure 4.4 Section E – Certification of understanding

Processing PFSE Results

7. The CANSOFCOM PFSE Reporting Form (DND 6013) will be the only form used to record the candidate's PFSE results.
8. Following the *Privacy Act*, once completed, the reporting form is a "Protected A" document and must be treated as such.
9. Completed CANSOFCOM PFSE Reporting Forms will be distributed by the Local PSP Evaluator following the process below:
 - a. **Copy 1: CANSOFCOM PFSE Candidate**
 - i. The candidate has the responsibility to share with the appropriate authority (respective CANSOFCOM Unit Recruiting and Selection Cell]) for their CANSOFCOM application package.
 - b. **Copy 2: Kept by the Local PSP Staff** responsible for the Specialty Trades Evaluations and stored securely for future reference, if need be.

Tool 2: Equipment Lists

PSP Fitness Staff Equipment List

| | Components | PFSE 1 | PFSE 2 | PFSE 3 |
|----------|-------------------------|---|--------|--------|
| All PFSE | All components | <ul style="list-style-type: none"> CANSOFCOM PFSE Reporting Forms (DND 6013) Local Incident Report Forms Clipboard Pens Calculator Stopwatch | | |
| | 1) Relative Handgrip | <ul style="list-style-type: none"> A JAMAR® hydraulic handgrip dynamometer (Model 5030 J1, Sammons Preston Inc., Bolingbrook, IL, USA) Standing weigh scale | | |
| | 2) Standard Load Squats | <ul style="list-style-type: none"> Squat rack 1 x 20 kilogram (kg) Olympic bar 2 x sets of Olympic bar weight plates, 26 kg each (total 52 kg) 2 x Olympic bar weight clips Metronome, with 42 beats per minute ($b \cdot \text{min}^{-1}$) cadence capability Shoulder yoke (e.g., Manta Ray®) (optional) Metronome speaker with attachment (optional) | | |
| | 3) Pull-ups | <ul style="list-style-type: none"> Pull-up bar at height allowing candidates to hang with legs crossed, bent at knees Hand chalk (optional) | | |
| | 4) Sit-ups | <ul style="list-style-type: none"> Cushioned floor mat 1x goniometer | | |

| | | | | |
|--------------------|---------------------|--|---|---|
| Specific to a PFSE | 5) Push-ups | <ul style="list-style-type: none"> A hard flat surface | n/a | <ul style="list-style-type: none"> A hard flat surface |
| | 6) 20mSR | n/a | <ul style="list-style-type: none"> Measuring tape (minimum 20 metres in length) 24 m distance on a hard, flat surface, indoors or outdoors 8 x pylons Floor tape Audio recording of the 20mSR and supporting audio equipment | |
| | 7) 1.5 Mile Run | <ul style="list-style-type: none"> A measured 1.5 mile flat course or access to an indoor track (200-400 m), outdoors or indoors. | n/a | n/a |
| | 8) Combat Swim Test | n/a | <ul style="list-style-type: none"> Access to a pool Replica C-7 training rifle and sling | |
| | 9) BMSS Test | <ul style="list-style-type: none"> Access to a pool Coveralls of all sizes Personal Floatation Devices (PFD) of all sizes | n/a | |
| | 10) Ruck March | n/a | <ul style="list-style-type: none"> A measured 12 km flat course (outdoors) or access to an indoor track Rucksack weighted to 35 kg (should be available if the candidate needs it) Standing weigh scale | |

Candidate's Dress and Equipment List

- In addition to the equipment list to be prepared by PSP Fitness Staff and as per the preliminary evaluation instructions for candidates provided to them at least 48 hours prior to the evaluation, candidates are responsible to bring the following items:

| Equipment & dress | PFSE 1 | PFSE 2 | PFSE 3 |
|----------------------------------|--|---|--|
| All PFSE | <ul style="list-style-type: none"> • Fitness dress of choice, for example t-shirt, shorts, etc. • Running shoes (indoors and/or outdoors, depending on cardiovascular component) • Swimsuit (to put under the coverall or Combat dress) | | |
| Specific to a PFSE | n/a | n/a | <ul style="list-style-type: none"> • Boots typically worn in the field and with ankle support (low-cut boots are not permitted) • Combat pants and shirt. • Rucksack (Rucksack only weighted to 35 kg – may be provided). |
| Equipment provided by PSP | <ul style="list-style-type: none"> • A coverall and personal flotation device (PFD) for the BMSS Test. | <ul style="list-style-type: none"> • A coverall and personal flotation device (PFD) for the BMSS Test. | <ul style="list-style-type: none"> • Replica C-7 rifle and sling (provided) for the Combat Swim Test. |

Tool 3: Calibration of equipment

1. It is essential to calibrate the equipment to ensure the accuracy and the validity of the evaluation results.
2. The weight of most equipment is not expected to change from day to day. Nevertheless, ensure that the weight plates and Olympic bar are weighed once a year.
3. Calibrate the standing weigh scale using known weights once a year.
4. Calibrate the JAMAR® hydraulic handgrip dynamometer as stated in the manufacturer's instruction manual provided with the dynamometer kit.

Tool 4: Warm-up/Movement preparation

1. Prior to the PFSE, candidates must undergo a warm-up and evaluation preparation (total 22 to 36 min) led by an Evaluator. We recommend that the warm-up and evaluation preparation include the following:

| Steps | Duration | Exercises (sets and repetitions) |
|--|---|--|
| Myofascial release techniques (foam roll) | 5 to 8 min | <ul style="list-style-type: none"> • Adductor smash • Hamstring smash and move • Quad smash and move • Glute smash • Iliotibial band smash • Overhead tissue smash • T-Spine smash extension with side to side |
| Light aerobic activity | 10 to 15 min | <ul style="list-style-type: none"> • 8 to 10 min spinning or light jogging • 20 m x walking knee lifts • 20 m x walking butt kicks • 20 m x walking Frankenstein • 20 m x side steps, alternating directions • 20 m x carioca (crossovers), alternating directions • 20 m x walking lunge with twist • 20 m x progressive jogging (3 to 5 times) |
| Dynamic movements | <p>5 to 8 min reflecting the movement patterns used during the PFSE.</p> <p>Advise the candidate to perform these movements in a smooth and controlled manner, going to full range</p> | <ul style="list-style-type: none"> • 8 x supine bridges • 8 x squat to stand • 8 x frog squats • 8 x adductor dips (each side) • 8 x split stance mobilization (each side) • 8 x Spiderman with overhead reach (each side) • 8 x scapular wall slides |

| | | |
|---|--|---|
| | of motion and using correct technique. | <ul style="list-style-type: none"> • 8 x roller angels • 8 x quadruped extension and rotation • 8 x single arm windmills (each side) |
| <p>Recommend an additional 2 to 5 min warm-up period (to be completed at the candidate's discretion)</p> | | |

DRAFT

Tool 5: Scripts

The purpose of the following scripts is to provide the Evaluator with a standardized introduction and information briefing to the CANSOFCOM PFSE.

Introduction to the PFSE

1. Welcome to your Physical Fitness Screening Evaluation (PFSE). My name is: _(name)_, _(title)_. I will be your Evaluator today.

Provide the candidate with your name and title. Also address the Emergency Action Plan (EAP) in place at your location for your facility.

2. The purpose of this PFSE is to assess if you have the physical capacity to safely and effectively perform the Canadian Special Operations Forces Command (CANSOFCOM) Operations training and job tasks.

3. Depending on the exact trade you are applying to within CANSOFCOM, you are required to complete a combination of components as part of your PFSE. Today, you will be performing the following components:

Depending on which PFSE (and which day) you are administering, only list the relevant components and order of administration to the candidate.

| PFSE | NOI specific trade | Day of administration | Components and order of administration |
|--------|----------------------|-----------------------|--|
| PFSE 1 | JTF-2 Assaulter | Day 1 | 1. 1.5 Mile Run 2. Relative Handgrip 3. Standard Load Squats 4. Pull-ups 5. Sit-ups 6. Push-ups |
| | | Day 1 (or 2) | 7. BMSS Test |
| PFSE 2 | TCO & JTF-2 Coxswain | Day 1 | 1. Relative Handgrip 2. Standard Load Squats 3. Pull-ups 4. Sit-ups 5. 20mSR |
| | | Day 1 (or 2) | 6. BMSS Test |
| PFSE 3 | SF Operator | Day 1 | 1. Relative Handgrip |

| | | | |
|--|--|---------------------|---|
| | | | 2. Standard Load Squats 3. Pull-ups 4. Sit-ups 5. Push-ups 6. 20mSR |
| | | Day 1 (or 2) | 7. Combat Swim Test |
| | | Day 2 (or 3) | 8. Ruck March |

4. The PFSE components will be performed consecutively, in the order previously listed with a five (5) to eight (8) minute break between each component to ensure adequate recovery and transition.

5. Prior to the start of the PFSE, you will be required to complete a warm-up and movement preparation led by the Evaluator.

6. The PFSE will be terminated if one of the following occurs:

- a. You successfully complete all components included in the PFSE.
- b. You choose not to continue. Reasons for this could be fatigue, pain, injury, etc.
- c. You reach the number of fault(s) or warning(s) detailed in the respective component's protocol leading to its termination without completing the component's minimum performance standard.
- d. I become concerned for your safety due to immediate signs of serious distress.
- e. A physical incident occurs resulting your inability to physically continue the PFSE.

7. You may choose to withdraw from the evaluation at any point in time; however, please note that this will result in a failure of the PFSE.

8. Do you have any questions?

Answer any question they may have, to the best of your abilities.

Components explanation and demonstration

9. Before completing the warm-up and movement preparation, we will go over the explanation and demonstration of each relevant component to your PFSE.

Relative Handgrip

10. The Relative Handgrip component is linked to the upper body muscular strength requirements for the safe and effective completion of specialized CANSOFCOM training and job tasks.

11. The Relative Handgrip score is calculated as a ratio, where combined (left and right) handgrip strength is divided by total body mass, plus 20 kg. The addition of 20 kg accounts for the minimum weight of Mission Essential Gear (MEG) carried during specialized CANSOFCOM training and job tasks.

12. Therefore, the first step of the Relative Handgrip component consists of being weighed to the nearest 0.1 kg dressed in your fitness dress of choice and running shoes.

13. Then, for the Relative Handgrip scores, you will be required to:

- a. Stand erect with both feet flat on the floor, shoulder width apart.
- b. Elbow flexed at 90°.
- c. Forearm neutral (thumb up), with straight wrist.
- d. Hand and forearm in slight shoulder internal rotation, so that the position of the JAMAR® is vertical and directly in front of the midline of the body.

Demonstrate the correct position for the Relative Handgrip.

14. You will be required to apply force by gripping the handle with a single, forceful, maximal effort.

15. We will take measurements of each hand alternately and you will have two (2) trials per hand.

16. You will be provided with one (1) minute of rest between trials on each hand.

17. We will record the values to the nearest kg and combine the best right-hand value and best left-hand value to give a best-combined handgrip value on the Reporting Form.

18. You may chalk your hands for the evaluation, if you choose.

19. Only correct technique will count.

20. The minimal performance standard for this component for all of the PFSE is: ≥ 1.00 once calculated.

21. Do you have any questions?

Answer any question they may have, to the best of your abilities.

Standard Load Squats

22. The Standard Load Squats component is linked to the lower body muscular strength and endurance for the safe and effective completion of specialized CANSOFCOM training and job tasks.

23. In addition to the warm-up and movement preparation (previously described), prior to the start of the Standard Load Squats, you will be instructed to perform 8 to 10 repetitions of the Standard Load Squats with an unloaded Olympic bar, at the adequate cadence.

- a. During this specific component warm-up, we will go over three (3) important points of the protocol:
 - i. Determination of 90° at the rotational axis of the knee: I will instruct you to squat down until you reach 90° at the rotational axis of your knee, which I will confirm using a goniometer. This measurement will provide you with kinesthetic feedback as to the correct squat depth for the evaluation.
 - ii. Familiarity of movement cadence/timing: I will instruct you to practice your squat movement repeatedly while moving at the cadence of the metronome, set to $(42 \text{ b} \cdot \text{min}^{-1})$. This will ensure you are familiar with the movement cadence once the Standard Load Squats begins.
 - iii. Safe squatting technique: I will also assess your squatting technique and advise you on any potential areas of concern in regard to injury prevention.

Demonstrate the three (3) important protocol points of the Standard Load Squats performing at least three (3) repetitions with an unloaded bar.

24. After the completion of the component specific warm-up, we will load the Olympic bar to reach 72 kg.

25. You will then perform as many repetitions as possible making sure to complete full range of motion squats (90° at the rotational axis of the knee and standing fully erect), following the cadence dictated by the metronome ($42 \text{ b} \cdot \text{min}^{-1}$). Repetitions must be completed in a continuous fashion without stopping.

26. Failing to adhere to the protocol will constitute a “no rep” and you will be given an opportunity to correct yourself without pausing or stopping.

27. Stopping will constitute termination of this component, and only correct repetitions will be counted. I will count each repetition out loud.

28. The minimal performance standard for this component for all of the PFSE is: ≥ 11 .

29. Do you have any questions?

Answer any question they may have, to the best of your abilities.

Pull-ups

30. *The Pull-ups component is linked to the upper body muscular strength and endurance requirements for the safe and effective completion of specialized CANSOFCOM training and job tasks.*

31. *For this component, you will be required to grasp the pull-up bar with an overhand grip (palms facing away from the body), hands shoulder-width apart, and legs crossed and bent at the knees.*

32. *Starting in the down (arms fully extended) position, you will be required to pull yourself up until your chin is completely over the bar.*

33. *Once your chin is over the bar, you will then lower yourself back down to full extension of your arms in a controlled manner.*

34. *You will need to complete as many repetitions as possible in a continuous manner (without pausing or breaking).*

35. *Failing to adhere to the protocol will constitute a “no rep” and you will be given an opportunity to correct yourself without pausing or stopping.*

36. *Any pause or stopping of continuous motion constitutes termination of this component.*

37. *I will count each repetition out loud and I will record the number of continuous, correct pull-ups completed.*

Demonstrate at least three (3) complete repetitions of the pull-ups, ensuring proper technique.

38. *The minimal performance standard for this component for all of the PFSE is: ≥ 5 .*

39. Do you have any questions?

Answer any question they may have, to the best of your abilities.

Sit-ups

40. *The Sit-ups component is linked to the torso/core muscular strength and endurance requirements for the safe and effective completion of specialized CANSOFCOM training and job tasks.*

41. *For this component, you will be required to lie in a supine position on the mat with feet flat on the ground, shoulder-width apart, and knees bent to 90° at the axial rotation of the knee measured with the goniometer.*

42. *I (or another candidate) will hold your ankles to ensure that your heels are in constant contact with the mat.*

43. *You will then place your hands on the side of your head, and you will need to keep them in contact with your head at all times.*

44. *Your elbows must remain pointed towards the knees throughout the duration of the component.*

45. *You must sit up off the mat and touch your elbows to the top of the knees, then lower yourself back down to the starting position. It is important to note that you must touch both shoulder blades to the mat in between each repetition.*

46. *Each touch of the elbows to the knees counts as one complete repetition.*

47. *Once in this ready position, I will instruct you to stand by (“standby, standby”) before the start of the timer. On the command “GO”, I will start the one (1) minute timer, and you will begin the sit-ups.*

48. *You will perform as many repetitions as possible within the one (1) minute.*

49. *Failing to adhere to the protocol will constitute a “no rep”. You may stop and rest at any time.*

50. *I will count each repetition out loud, and I will record the number of correct sit-ups completed during the minute.*

Demonstrate at least three (3) complete repetitions of the sit-ups, ensuring proper technique.

51. *The minimal performance standard for this component for all of the PFSE is: ≥40 in one (1) minute.*

52. *Do you have any questions?*

Answer any question they may have, to the best of your abilities.

Push-ups

This component only applies to PFSE 1 and 3.

53. *The Push-ups component is linked to the upper body muscular strength and endurance requirements for the safe and effective completion of specialized CANSOFCOM training and job tasks.*

54. *For this component, you will be instructed to lie in a prone position with your palms on the floor, hands shoulder-width apart, and fingers pointed forward.*

55. *Once your hands are in the correct position, you will move to the up (arms fully extended) position, ensuring your back is straight, with heels together and head up.*

56. *Once in the correct up position, the evaluation will begin.*

57. You will then lower yourself down until your elbows are bent to an angle of 90°, so that your elbows, upper arms, and shoulders are in line.

58. Once in the correct down position, you will push yourself back to the up (arms fully extended) position while maintaining a straight back, heels together and head up.

59. You will complete as many repetitions as possible in a continuous manner (without pausing or breaking).

60. Failing to adhere to the protocol will constitute a “no rep” and you will be given an opportunity to correct yourself without pausing or stopping. Any pause or stopping of continuous motion constitutes the termination of this component.

61. You should refrain from holding your breath during this exercise.

62. I will count each repetition out loud, and I will only count and record the number of correct, continuous push-ups completed.

Demonstrate at least three (3) complete repetitions of the push-ups, ensuring proper technique.

63. The minimal performance standard for this component for all of the PFSE is: ≥ 40 .

64. Do you have any questions?

Answer any question they may have, to the best of your abilities.

20m Shuttle Run

This component only applies to PFSE 2 and 3.

65. The 20mSR component is linked to the aerobic capacity required for the safe and effective completion of specialized CANSOFCOM training and job tasks.

66. For this component, you will be required to line up directly behind the starting 20 m line.

Clearly identify the starting line, the 19 m lines and the far 20 m line.

67. Once you are in position, I will start the 20mSR audio recording and will ensure that the volume is adequate for everyone to clearly hear.

68. As prompted by the audio recording; you will start the 20mSR on the first “beep” by moving to the far 20 m line prior to the next “beep”.

69. The 20 m line is considered to be reached once you make contact with the line. You do not need to have completely crossed the line.

Demonstrate the running from the starting line to the other line and touching the line with your foot.

Demonstrate the difference between touching the line and crossing the line with your body.

70. When changing direction, you must pivot and turn in a straight line, no “U-turns” are allowed.

Demonstrate the turn in a straight line, versus the “U-turn”.

71. During the test, if you have not reached the 19 m line (on either side) when the “beep” is heard, you will be advised that your test is terminated, and you can stop running.

72. However, during the test, if you are in between the 19 m line and the 20 m line (on either side) when the “beep” is heard, you will be given a warning.

Demonstrate how you will communicate the warning (e.g.: Out loud “WARNING – [candidate’s last name]”).

73. You can cumulate an unlimited number of warnings, as long as you do not receive two (2) in a row. If you receive two (2) warnings in a row, you will be advised that your test is terminated, and you can stop running.

74. If it is evident that you are trying to “play the system” with the warnings, I will advise you that your test is terminated, and you can stop running.

75. I will record the last level completed on the 20mSR audio on your Reporting Form.

76. Once your test is terminated; it is important to:

- a. Cool down appropriately by allowing your heart rate to progressively decrease.*

Indicate where candidates can cool down and how, according to your facility.

- b. Remain in the testing area where Evaluator(s) can see you at all times.*
 - i. If you require to exit the area, please advise an Evaluator.*

77. The minimal performance standards for this component are:

- a. For PFSE 2: ≥ Level 8.0.*
- b. For PFSE 3: ≥ Level 9.0.*

78. Do you have any questions?

Answer any question they may have, to the best of your abilities.

1.5 Mile Run

This component only applies to PFSE 1.

79. The 1.5 Mile Run component is linked to the aerobic capacity required for the safe and effective completion of specialized CANSOFCOM training and job tasks.

80. For this component, you will be required to run for 1.5 Mile using the identified trajectory.

Clearly identify the trajectory of the 1.5 Mile, its beginning and its end, as well as the number of laps required to reach the 1.5 Mile distance, if need be.

81. You will start your 1.5 Mile Run at my signal: “standby, standby, GO”.

82. You must run the 1.5 Mile as fast as you can. You are allowed to pause at any point; however, the time will not be stopped.

83. I will record the total time on your respective Reporting Form.

84. Once your test is terminated; it is important to:

- a. Cool down appropriately by allowing your heart rate to progressively decrease.

Indicate where candidates can cool down and how, according to your facility.

- b. Remain in the testing area where Evaluator(s) can see you at all times.

- i. If you require to exit the area, please advise an Evaluator.

85. The minimal performance standard for this component is 1.5 mile in 9 minutes and 45 seconds or less ($\leq 09:45$ mm: ss). If you are over the performance standard, I will let you know during your run.

86. Do you have any questions?

Answer any question they may have, to the best of your abilities.

Combat Swim Test

This component only applies to PFSE 3.

87. The Combat Swim Test component has been designed to ensure you are capable of swimming a short distance to safety should you end up in the water in your fighting order during amphibious operations, which may occur during specialized CANSOFCOM training and job performance.

88. Prior to the evaluation of the Combat Swim Test, you will be provided with an opportunity to familiarize yourself with being in the water while wearing a combat shirt, combat trousers, combat boots and carrying a replica C-7 rifle.

89. For the familiarization, you will be allowed to enter the shallow end of the pool and to try various swimming strokes.

90. Once we have completed the familiarization period, I will ask you to exit the pool and move to the deep end.

91. For this component, you will only be permitted to sling your replica C-7 rifle and you will not be permitted to use any additional floatation device.

92. *Once in position on the pool deck at the deep end of the pool, you will wait for my command “standby, standby, GO”, at which point you will jump feet first into the water.*

Demonstrate the position that the body must have when entering the water.

93. *You will need to surface vertically in the water, and swim a total distance of 25 m, using any style of propulsion.*

Demonstrate and reinforce the vertical position of the body upon re-surfacing.

94. *You will swim one way, until you reach the 12.5 m mark, then turn around and swim back to the edge of the pool (12.5 m), with no time limit.*

Clearly identify the 12.5 m marks (starting and turning points).

95. *You may not touch the bottom or sides of the pool. Walking on the bottom of the pool is also strictly prohibited.*

- i. If you touch the bottom or sides of the pool for any reason, your test will be terminated, and you will be asked to exit the pool safely.*

96. *If you drop your rifle in the pool;*

- i. And it is clear that you did not drop it intentionally or due to significant fatigue, you may retrieve it if the depth of the pool allows for a safe recovery of the rifle and continue the completion of your 25 m.*
- ii. And that it was clear it was not dropped intentionally or due to significant fatigue, but the depth of the pool does not allow for a safe recovery of the rifle, you will be asked to re-start the test from the beginning. This may only occur once (1) as a second (2) drop of your rifle would terminate your test, unsuccessfully.*

97. *The performance standard for this component is to successfully complete the Combat Swim Test.*

98. *Do you have any questions?*

Answer any question they may have, to the best of your abilities.

Basic Military Swim Standard Test

This component only applies to PFSE 1 and 2.

Use the [Tool 1: Scripts, as detailed in the BMSS Test Ops Manual](#).

99. *The performance standard for this component is to successfully complete the Basic Military Swim Standard by successfully completing all practical components of the BMSS test.*

100. *Do you have any questions?*

Answer any question they may have, to the best of your abilities.

Ruck March

This component only applies to PFSE 3.

101. The purpose of the Ruck March as part of the PFSE is to assess your load carriage ability, as reflective of specialized CANSOFCOM training and essential job tasks.

102. The Ruck March is a 12 km route marked with pylons, which you must march along to achieve the standard.

Describe any particularities to your route so the itinerary is clear.

103. Prior to the start of the march, we will ensure that the total weight of your ruck is 35 kg, plus or minus one (1) kg, and that the weight does not include consumables such as water.

104. To ensure your weight is correct, you will be asked to step on the weigh scale without your ruck. I will record your weight without your ruck.

105. You will then step off the scale, pick up your ruck, and step back on the scale. I will then record your weight including your ruck.

106. If it is determined that the total weight of your ruck is not equal to 35 kg, plus or minus one (1) kg, you will be required to adjust your ruck accordingly, by adding or subtracting weight, after which you will repeat the weighing process.

107. Once I determine that the total weight of your ruck is equal to 35 kg, plus or minus one (1) kg, you will put on your ruck and prepare to start the Ruck March.

108. You will start the evaluation by standing with your entire body behind the start line, as indicated by the pylons.

109. On the command, “standby, standby, GO”, the timer will start, and you will march as quickly as you choose for a total of 12 km to the finish line, as marked by the pylons.

110. Ensure you have drinking water available throughout the evaluation.

111. Once you have completely crossed the finish line, your time will be recorded, and you may remove your equipment.

112. You are advised to keep walking after the Ruck March in order to progressively lower your heart rate.

113. Additional rules for the Ruck March are as follows:

- a. You may move as quickly as you choose during the Ruck March; however, you will not run, which means at least one foot must remain in contact with the ground at all times. Instead, you may “shuffle”. If you run, I will ask you to come to a complete stop (“STOP”) and let you continue (“GO”)*

once you have come to a complete stop. The time of your performance will not be stopped.

- b. You may stop and rest at any time; however, all rest time will be included in your total Ruck March performance time.*
- c. If you knock over or bump a pylon at the start or finish line, replace the pylon to its original position before continuing.*

114. The performance standard for this component consists of completing the 12km ruck march in 2 hours and 24 minutes or less ($\leq 02:24$ hh: mm).

115. Any questions?

Answer any question they may have, to the best of your abilities.

DRAFT

Tool 6: CANSOFCOM PFSE Quick Reference Guide

CANSOFCOM Physical Fitness Screening Evaluation Quick Reference Guide*

| Official Reference Title | Example NOI | 1 Relative Handgrip (Score) | 2 Standard Load Squat (Reps) | 3 Pull-ups (Reps) | 4 Sit-ups (Reps) | 5 Push-ups (Reps) | 6 20m Shuttle Run (Level) | 7 1.5 Mile Run (Time) | 8 Combat Swim Test | 9 Basic Military Swim Standard | 10 Ruck March (Time) |
|--|-----------------------|--------------------------------|---------------------------------|----------------------|---------------------|----------------------|------------------------------|------------------------------------|-----------------------|-----------------------------------|-----------------------------------|
| CANSOFCOM PFSE 1 (Order = 7, 1-5 + 9) | JTF 2 Assaulter | | | | | ≥ 40 | n/a | ≤ 09 ^m :45 ^s | n/a | Yes | n/a |
| CANSOFCOM PFSE 2 (Order = 1-4, 6 + 9) | TOC // JTF 2 Coxswain | ≥ 1.00 | ≥ 11 | ≥ 5 | ≥ 40 | n/a | ≥ 8.0 | n/a | n/a | Yes | n/a |
| CANSOFCOM PFSE 3 (Order = 1-6 + 8 + 10) | SF Operator | | | | | ≥ 40 | ≥ 9.0 | n/a | Yes | n/a | ≤ 2 ^m :24 ^m |

*This graphic is meant for general guidance only and does not constitute the official details of each applicable CANSOFCOM PFSE as these are subject to change. Always ensure you refer to official CANFORGENs and the CANSOFCOM PFSE Operations Manual for details pertaining to the application, standard, order of administration, and other details for each PFSE.



Tool 7: PFSE Preliminary information for candidates

Information to be sent to a candidate ideally when their evaluation is booked, as well as mandatorily at least 48 hours prior to their evaluation.

To whom this may concern,

If you receive this information, it is because you are scheduled for a Physical Fitness Screening Evaluation (PFSE) as part of the Canadian Special Operations Forces Command (CANSOFCOM) recruitment process. Please ensure to follow these important guidelines:

You should refrain from:

- *Exercising at least six (6) hours prior to the evaluation.*
- *Consuming alcohol at least six (6) hours prior to the evaluation.*
- *Eating, smoking, chewing smokeless tobacco, or taking stimulants (tea, coffee, energy drinks, pharmaceuticals, etc.) at least two (2) hours prior to the evaluation.*

Non-compliance with the above instructions does not necessarily mean PFSE postponement; however, it may have a negative effect on your results.

You are required to bring all necessary equipment to your PFSE and dress appropriately. Depending on which PFSE you are registered to, you are responsible to bring the following dress and equipment. You can also see listed what PSP Fitness Staff will provide for the PFSE.

| Equipment & dress | PFSE 1 | PFSE 2 | PFSE 3 |
|------------------------------|---|---------------|---|
| All PFSE | <ul style="list-style-type: none">• <i>Fitness dress of choice (for example, t-shirt, shorts, etc.)</i>• <i>Running shoes (indoors and/or outdoors, depending on cardiovascular component)</i>• <i>Swimsuit (to put under the coverall or Combat dress)</i> | | |
| Specific to a PFSE | <i>n/a</i> | <i>n/a</i> | <ul style="list-style-type: none">• <i>Boots typically worn in the field and with ankle support (low-cut boots are not permitted).</i>• <i>Combat pants and shirt.</i>• <i>Rucksack (Rucksack only)</i> |

| | | | |
|----------------------------------|---|---|--|
| | | | weighted to 35 kg – may be provided). |
| Equipment provided by PSP | <ul style="list-style-type: none"> A coverall and personal flotation device (PFD) for the BMSS Test. | <ul style="list-style-type: none"> A coverall and personal flotation device (PFD) for the BMSS Test. | <ul style="list-style-type: none"> Replica C-7 rifle and sling (provided) for the Combat Swim Test. |

You are encouraged to exert a maximal effort during all components of the evaluation.

Please be advised that physical fitness is assessed by Dwyer Hill Training Centre (DHTC) Staff as a critical attribute during the selection process, and that your PFSE results will be compared by DHTC Staff to PFSE results of other candidates. Candidates who meet the minimum PFSE Performance Standards will not be competitive with other candidates during the selection process. The specific components and order of administration of each PFSE and their respective minimum Performance Standards are as follows:

| Official Reference Title | Example NOI | 1 Relative Handgrip (Score) | 2 Standard Load Squats (Reps) | 3 Pull-ups (Reps) | 4 Sit-ups (Reps) | 5 Push-ups (Reps) | 6 20m Shuttle Run (Level) | 7 1.5 Mile Run (Time) | 8 Combat Swim Test | 9 Basic Military Swim Standard | 10 Ruck March (Time) |
|---|-----------------------------|-----------------------------------|-------------------------------------|-------------------------|------------------------|-------------------------|---------------------------------|-----------------------------|-----------------------|-----------------------------------|----------------------------|
| PFSE 1 (Order = 7, 1–5 + 9) | JTF 2 Assaulter | | | | | ≥ 40 | n/a | ≤09m:45s | n/a | Yes | n/a |
| PFSE 2 (Order = 1–4, 6 + 9) | TCO // JTF 2 Coxswain | ≥ 1.00 | ≥ 11 | ≥ 5 | ≥ 40 | n/a | ≥ 8.0 | n/a | n/a | Yes | n/a |
| PFSE 3 (Order = 1–6 + 8 + 10) | SF Operator | | | | | ≥ 40 | ≥ 9.0 | n/a | Yes | n/a | ≤2h:24 |

If you have any questions regarding your evaluation, please do not hesitate to contact your local PSP Fitness Staff for any additional information.

Your local PSP Fitness Staff

Tool 8: Instructions for load carriage packing and fitting

Hip belt sizing

1. Locate the iliac crest (the top of the most prominent point of the hipbone) and measure around the hips on this point.
2. When the hip belt is properly centered on the hip crest and tightened, the ends of the pads should extend at least eight (8) cm past the hip crest.

Shoulder strap adjustments

3. The shoulder straps should contour smoothly and be in contact throughout the entire length of the shoulder strap padding.
4. The adjustment buckle at the lower end of the shoulder strap should be positioned roughly even with the center of the armpit.



Figure A: Strap adjustments

Fine tuning: Hip belt angle flare

5. Adjust the angle at which the 2-inch webbing exits the front of the padding. Most females (left picture) require slightly more flare than males (right picture) (the angle at which the belt sits on the hips).



Figure B: Hip belt angle flare

Fine tuning: Load lifters

6. The purpose of the load lifters is to slightly lift the shoulder straps from the shoulders, not to bring the pack in against the back.
7. The ideal angle for the load lifter straps is 45°; however, an angle of 30° to 60° is quite acceptable.
8. Minimal tension is required for each strap to do its job if the backpack is correctly adjusted.



Figure C: Load lifters

Fine tuning: Load stabilizer

9. Reduce movement of the load weight by maximally tightening the strap.



Figure D: Load stabilizer

Organization of load weight

10. Materials:
 - a. 6 x 3 kg of concrete or clay bricks, or one 20 kg sandbag
 - b. 5 x 2.5 kg weight plates
 - c. Towels (approximately 10 small)
 - d. Small sealable bags of sand
11. Technique:

- a. Place a heavy rolled towel in the sleeping bag compartment of the backpack leaving the separating zipper open. Stuff this compartment as full as possible.
 - b. Roll each brick in a towel and stack them in the main section of the backpack two (2) layers of three (3) bricks) or insert the 20 kg sandbag.
 - c. Pack extra weight plates and towels around the bricks/sandbag for padding and stability.
 - d. Place another heavy rolled towel at the top of the backpack to fill the volume of the backpack.
12. Check the weight of the backpack to ensure that the load is 35 (+/- 1) kg.
- a. If the backpack is too light, fill a small sealable bag with some sand, and pack it into the main section of the backpack. This method will allow small adjustments to bring the weight of the backpack to exactly 35 (+/- 1) kg.
 - b. If the backpack is too heavy, remove a towel and then use the small sealable bag to adjust the weight to 35 (+/- 1) kg.



Figure E: Organization of load weight

Tool 9: Emergency Preparedness and Immediate Cooling Protocols

1. If exertional heat illness occurs during PFSE, it is critical to implement immediate on-site cooling measures. The gold standard method is ice water immersion (water temperature $<10^{\circ}\text{C}$), which provides the fastest cooling, or cold water-soaked towels applied to the torso, head, and limbs. According to [DAOD 5021-2 Heat stress](#) guidelines, any CAF member exhibiting signs or symptoms of heat stress illness should be removed from strenuous physical activity instantly, with immediate first aid and medical attention provided if required (DND, 2023).
 - a. Core Temperature Monitoring: Rectal thermometry is the preferred method for accurately assessing core body temperature, essential for determining when to cease cooling. If core temperature exceeds 40°C , the person should be cooled immediately until it reaches 38.6°C to minimize further health complications (Casa et al., 2015).
 - b. Recommended Cooling Durations Without Rectal Temperature Access: In field settings where rectal temperature monitoring is unavailable, follow immersion times based on water temperature to prevent post-cooling hypothermia:
 - i. Water temperature $\leq 9^{\circ}\text{C}$ = Immersion duration of 11 to 12 minutes.
 - ii. Water temperature $10\text{--}26^{\circ}\text{C}$ = Immersion duration of 18 to 19 minutes.These durations have been shown to effectively cool over 90% of patients with initial core temperatures between $39.5\text{--}42.8^{\circ}\text{C}$ ³.
 - c. Alternate Cooling Methods: If water immersion is not possible, consider rotating cold water-soaked towels or continuously dousing the body with cool water. In high humidity environments, evaporative cooling (fans combined with water misting) may be less effective and should be supplemented with conductive cooling methods when feasible.
 - d. Ongoing Monitoring: After initial cooling, continue to monitor the individual's core temperature and vital signs closely, ensuring safety for recovery or transport. Refer to Canadian Forces Health Services Group (CFHSG) Instruction 4440-16 for detailed guidelines on post-cooling care and monitoring⁴.

³ Flouris et al., 2023.

⁴ DND, 2023.

ACROYNMS & ABBREVIATIONS

2

| | |
|-----------------------|------------------|
| 20m Shuttle Run | |
| 20mSR | 8, 9, 11, 55, 63 |
| 20-metres Shuttle Run | |
| 20mSR | 4, 5, 18, 31 |

A

| | |
|----------------------------------|----|
| Annual Posting Season | |
| APS | 10 |
| Automated External Defibrillator | |
| AED | 15 |

B

| | |
|------------------------------|-------------------|
| Basic Military Swim Standard | |
| BMSS | 9, 11, 20, 58, 63 |
| beats per minute | |
| b-min-1 | 18, 43 |

C

| | |
|-----------------------------|--------------|
| Canadian Forces Health | |
| Services Group | |
| CFHSG | 67, 69 |
| Canadian Forces Morale and | |
| Welfare Services | |
| CFMWS | 3, 12 |
| Canadian Joint Incident | |
| Response Unit | |
| CJIRU | 2 |
| Canadian Special Operations | |
| Forces Command | |
| CANSOFCOM | 2, 7, 49, 62 |
| Canadian Special Operations | |
| Regiment | |
| CSOR | 2 |
| Cardio-Pulmonary | |
| Resuscitation | |
| CPR | 15 |
| Chemical, Biological, | |
| Radiological and Nuclear | |
| CBRN | 2 |

| | |
|-----------------------------|----|
| Chief of Military Personnel | |
| Command | |
| CMPC | 12 |
| Commander | |
| Comd | 7 |
| Commanding Officer | |
| CO | 13 |

D

| | |
|----------------------------|-------|
| Date of Birth | |
| DOB | 16 |
| Defence Wide Area Network | |
| DWAN | 12 |
| Directorate of Programs | |
| DProg | 2, 12 |
| Dwyer Hill Training Centre | |
| DHTC | 63 |

E

| | |
|-----------------------|--------|
| Emergency Action Plan | |
| EAP | 20, 49 |

J

| | |
|--------------------|---|
| Joint-Task Force 2 | |
| JTF-2 | 2 |

M

| | |
|-----------------------------|-------|
| Manager Fitness, Sports and | |
| Recreation | |
| MFSR | 13 |
| Manager, Fitness, Sports & | |
| Recreation | |
| Mgr | 2 |
| Mission Essential Gear | |
| MEG | 8, 51 |

N

| | |
|--------------------------|----|
| National Training Centre | |
| NTC | 12 |

| | |
|------------------|----|
| Notice of Intent | |
| NOI | 10 |

O

| | |
|-----------------------------|----|
| Offices of Primary Interest | |
| OPI | 12 |

P

| | |
|-----------------------------|-------|
| personal floatation devices | |
| PFD | 20 |
| Personnel Support Programs | |
| PSP | 3, 12 |
| Physical Fitness Screening | |
| Evaluations | |
| PFSE | 2, 7 |

S

| | |
|-------------------------------|------|
| Special Forces | |
| SF 2, 7 | |
| Special Operations Assaulters | |
| SOA | 2 |
| Special Operations Coxswain | |
| SO Coxn | 2, 7 |
| Standard Operating Procedures | |
| SOP | 15 |

T

| | |
|--------------------------------|------|
| Technical Collection Operators | |
| TCO | 2, 7 |

U

| | |
|-------------------------|--------|
| Universality of Service | |
| UoS | 12, 69 |

W

| | |
|----------------------------|----|
| Wet-Bulb Globe Temperature | |
| WBGT | 14 |

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