PART I: PRE-EVALUATION ADMINISTRATION

EVALUATION SCHEDULE

1. Evaluation schedules will vary based on location. To register for a FORCE Evaluation, CAF personnel will contact their Unit Coordinator or local PSP fitness staff.

PRE-EVALUATION INSTRUCTIONS FOR CAF PERSONNEL

1. A minimum of 48 hours prior to the FORCE Evaluation, CAF personnel must be informed of the following guidelines:

2. CAF personnel should not:
   a. Exercise six hours prior to the evaluation.
   b. Consume alcohol for at least six hours prior to the evaluation.
   c. Eat, smoke, or take stimulants (tea, coffee, energy drinks, pharmaceuticals, etc.) at least two hours prior to the evaluation.

3. Non-compliance with the above instructions does not necessarily mean evaluation postponement; however, CAF personnel must be informed that it can have a negative effect on their results.

4. The dress requirement for the FORCE Evaluation is standard PT kit. CADPAT can be worn as directed by the CoC. Knee pads can be worn for the FORCE Evaluation if desired. CAF personnel can use athletic tape to protect their fingernails. Weight belts, gloves, and chalk are not permitted.

NOTE: Prescribed stability braces are only permitted with the presentation of a valid med chit.

QUALIFIED FORCE EVALUATOR RESPONSIBILITIES

1. FORCE Evaluator responsibilities will vary, depending on job position and level of qualification. During every evaluation that uses the Fitness Evaluation System, a Qualified FORCE Evaluator will be the OPI and will ensure all information is correct prior to uploading to HRMS. Only the following positions are authorized to be OPIs of the FORCE Evaluation: Fitness and Sports Instructor (FSI), Fitness Coordinator (FC), Regional Adapted Fitness Specialist (RAFS), Physical Exercise Specialist (PES), and Strength and Conditioning Specialist (SCS). As per AFC direction, the Reserve Force and OUTCAN will use the DND 279 until 2017. See the table below for more information.
### Qualified PSP Fitness Staff

<table>
<thead>
<tr>
<th>Job Positions</th>
<th>Necessary Qualifications</th>
<th>Lead Evaluator</th>
<th>Explain Fitness Profile</th>
<th>Educate Participant on Programs Available</th>
<th>Exercise Prescription</th>
<th>Sign iPad (Fitness Evaluation System)</th>
<th>Upload Results (Fitness Evaluation System)</th>
<th>Sign DND 279</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSI FC RAFS PES SCS</td>
<td>CSEP-CPT or CSEP-CEP and PSP Fitness and Sports Level 1</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Fitness Leaders</td>
<td>PSP Fitness and Sports Level 1</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
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<td>✔️</td>
</tr>
</tbody>
</table>

### Qualified CAF FORCE Evaluators

<table>
<thead>
<tr>
<th>Job Positions</th>
<th>Necessary Qualifications</th>
<th>Lead Evaluator</th>
<th>Explain Fitness Profile</th>
<th>Educate Participant on Programs Available</th>
<th>Exercise Prescription</th>
<th>Sign iPad (Fitness Evaluation System)</th>
<th>Upload Results (Fitness Evaluation System)</th>
<th>PSP Fitness Staff Present</th>
<th>Sign DND 279</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAF Personnel Evaluating Regular Force</td>
<td>FORCE Evaluator Performance Objective after April 2016</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>CAF Personnel Evaluating Reserve Force and OUTCAN</td>
<td>FORCE Evaluator Performance Objective after April 2016</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
</tbody>
</table>

*Only DND 279 Evaluations until April 2017

**NOTE:** To obtain a list of CAF FORCE Evaluators, contact the National PSP Training Centre (705-424-1200 ext. 3127).

2. All FORCE Evaluators are responsible for the completion, accuracy, and management of all individual FORCE Evaluations administered.

3. Qualified FORCE Evaluators must participate in recertification training every two years in accordance with the FORCE Evaluator Qualification Standard. This will maintain the accuracy of conduct of protocol, prevent skill fade, and relay any updates or amendments made to the FORCE Evaluation. For information on the certification process, please contact your local MFS.

4. CAF FORCE Evaluators located in remote locations where there is no access to a PSP FORCE Instructor can request requalification from their support base.
EMERGENCY PROCEDURES

1. When the FORCE Program is properly administered, there are minimal risks to CAF personnel. Nevertheless, an appropriate emergency protocol will be developed in conjunction with the Emergency Response Team. MFS or equivalent will ensure that:

   a. All FORCE Evaluators are First Aid and CPR qualified.
   b. FORCE Evaluators brief all CAF personnel on safety requirements and emergency procedures prior to the start of the FORCE Evaluation.
   c. Prior to the administration of the evaluation, all FORCE Evaluators shall identify the location of the closest available Automated External Defibrillator (AED).

PART II: EVALUATION SET-UP

EQUIPMENT FOR THE FORCE EVALUATION

The following list represents the minimum equipment and facilities required to conduct the FORCE Evaluation:

1. 25 m length by 2 m wide flat floor surface
2. 2 m wide by 2 m high sturdy and flat wall surface
3. 8 x FORCE 20 kg sandbags (plus two spare sandbags, if possible)
4. 1 x 10 kg plate
5. 1 x FORCE strap
6. 6 x carabiners
7. 9 x pylons
8. 2 x rolls of floor tape
9. Stopwatch with recorded splits
10. Measuring tape (minimum 10 m in length)
11. Heys xScale Pro model luggage scale
12. Clipboard
13. Pens
14. Blood Pressure cuff and stethoscope or automatic blood pressure machine (LifeSource UA-767Plus)
CHAPTER 3 - THE FORCE EVALUATION USING DND 279

15. Metric measuring tape (Keuffel-Esser anthropometric tape or equivalent non-stretch tape)

16. Clothes pins (optional)

17. Folding gym mats

18. FORCE protocol scripts (Tools 7-11)

19. FORCE Program Operations Manual

20. FORCE Program forms (DND 279)

21. DFit.ca exercise prescription information

NOTE: Only approved FORCE Evaluation equipment, as listed above, will be used during the FORCE Evaluation.

EVALUATION CENTRE SET-UP

1. Prior to the FORCE Evaluation, the lead 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.

2. Weekly, or when there is any change that effects the integrity of the sandbag, the lead evaluator will calibrate all FORCE sandbags to 20 kg and if the difference is more than ± 0.2 kg, the lead evaluator will adjust the weight. See Tool 4: Sandbag Filling Process for more information.

3. The Sandbag Drag must be calibrated before each FORCE Evaluation. Record the calibration information in Tool 5: Calibration Log. See Tool 6: Sandbag Drag Surface Calibration for more information.
20 metre Rushes Set-up

1. Measure a 20 m course over a flat and hard surface. Place lines with floor tape and cones at both ends of the 20 m line of floor tape (20 m measurement is taken from the middle of the line to the middle of the line).

2. Place a line with floor tape and cone 10 m from the start line.

---

Sandbag Lift Set-up

1. Tape a 1.83 m long line parallel to the floor (Figure 2: horizontal line) at a height of 1.0 m (floor to the bottom edge of the tape).

2. At 0.25 m from the end of the 1.83 m line, place two lines extending upwards 1.54 m from the floor. Extend those lines to the floor to a minimum of 1.0 m from the wall. (Figure 2: vertical lines)

3. Check the ties on the sandbags “pigtails” to ensure they are tight and will not come loose during the evaluation.

**NOTE:** You can use any colour tape to identify the lines, as long as it contrasts with the background.
CHAPTER 3 - THE FORCE EVALUATION USING DND 279

Intermittent Loaded Shuttles Set-up

1. Measure out a 20 m distance over a flat and hard surface. Mark each end of the 20 m with a line of floor tape (20 m measurement is taken from the middle of the line to the middle of the line).

2. Lay a 20 kg sandbag behind the start line.

3. Place a cone at the ‘turn-around’ point at the opposite end (20 m) from the start line.

4. Check the tie on the sandbag “pigtail” to ensure it is tight and will not come loose during the evaluation.

Sandbag Drag Set-up

1. Measure out a 20 m distance over a flat and hard surface. Mark each end of the 20 m with a line of floor tape (measurement is taken from the middle of the line to the middle of the line).

2. Place cones at both ends so that the location of the lines can be seen from a distance.

3. Feed the 3 m strap around the handle of the sandbag that will be carried, so that the length of both ends is 1.54 m.

4. Secure the ends of the straps to the carabiners and handles on the sandbags that will be dragged by the CAF personnel.

Figure 3: Set-up for Intermittent Loaded Shuttles

Figure 4: Sandbag drag set-up
5. Attach the four sandbags that will be dragged on the floor together as follows:
   a. Use the four oval carabiners to secure the four dragging sandbags together by the eyelets.
   b. Connect the outside eyelets of the front sandbags by looping the carabiner through the eyelets of the rear sandbags.
   c. Connect the inside eyelets of the sandbag by criss-crossing the carabiners in order to stop sideways movement.

   ![Figure 5: Carabiners and strap]

6. To account for the different approved floor surfaces, see Tool 6: Sandbag Drag Surface Calibration.

   ![Figure 6: Set-up options for different floor surfaces, as per Tool 6]

   NOTE: Any surface not listed in Tool 6 must be approved by DFIT. Please contact the local MFS for more information.
CHAPTER 3 - THE FORCE EVALUATION USING DND 279

7. Place the sandbags on the floor so that the front pair of sandbags is aligned with the start line and cone. The front pair of sandbags is always dragged with the tie side “pigtail” facing towards the CAF personnel.

Figure 7: Starting position for Sandbag Drag

Figure 8: Set-up for Sandbag Drag

PART III: REGISTRATION

INFORMATION SECURITY

The FORCE Program Form (DND 279) is a protected B document and should be treated as such.

DND 279 SECTION A – Service Particulars

1. Firmly and legibly print all service particulars in the boxes located on the FORCE Program Form (DND 279). If a number has fewer digits than the allocated spaces on the form, use zeros, beginning at the left side (for example, record DOB 7 Mar 1960 as 1960/03/07). Each location is represented by a four-digit location code. To determine your location code, see Tool 18: Testing Centre Location Codes.
CHAPTER 3 - THE FORCE EVALUATION USING DND 279

2. CAF personnel must present their military ID to validate the information entered on the DND 279.

DND 279 SECTION B – Health Questionnaire

1. Prior to attempting the FORCE Evaluation, all CAF personnel must complete the Health Questionnaire in Section B of the DND 279. See the figure below. The Health Questionnaire consists of three questions which the CAF personnel will carefully read and answer honestly. This procedure is necessary to identify potential health issues that require a medical consultation prior to an evaluation.

2. A Periodic Health Assessment (PHA) is valid for five years for CAF personnel under 40, and two years for CAF personnel over 40 for all Military Occupation Structure Identification (MOSID) unless otherwise specified. When a PHA is performed between the ages of 35 and 40, it will be valid for a maximum period of five years, but not beyond age 42.
### Table 1: Periodic Health Assessment (PHA) Validation Period

<table>
<thead>
<tr>
<th>Age</th>
<th>PHA Validation Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 40 years of age</td>
<td>5 years</td>
</tr>
<tr>
<td>More than 40 years of age</td>
<td>2 years</td>
</tr>
<tr>
<td>Between 35–40 years of age</td>
<td>5 years but not beyond age 42</td>
</tr>
</tbody>
</table>

3. If the CAF personnel has a valid PHA, proceed to Part IV – Waist Circumference.

4. If the CAF personnel has an expired or invalid PHA, the FORCE Evaluator will follow the guidelines outlined in Tool 7: Blood Pressure Procedures, and measure their blood pressure (BP) using a stethoscope and sphygmomanometer (if trained), or an automatic BP machine.

   a. **OK**: If the CAF personnel’s BP lower than to 140 / 100 mmHg, proceed to Part IV – Waist Circumference.

   b. **High**: If the CAF personnel’s BP is in the range of 141 / 91 – 150 / 100 mmHg, they may benefit from seeing a qualified Health Care Provider. However, the CAF personnel can still proceed with the evaluation. Proceed to Part IV – Waist Circumference.

   c. **Over**: If the CAF personnel’s BP is above 150 / 100 mmHg, their pre-evaluation BP is over the normal range. Measure their BP again in five minutes. If their BP is over the normal range again, the CAF personnel is not fit for evaluation. Advise the CAF personnel that their BP reading is slightly above the normal range and refer them to their Health Care Provider (see below). Verbally tell the CAF personnel that there is no cause for alarm and that consulting a Health Care Provider serves as a simple safety precaution.

#### Referral to a Health Care Provider

1. Only CAF personnel who answered “NO” to the first two questions, and “YES” to the third question are cleared for the evaluation.

2. Refer CAF personnel to a Health Care Provider when:
   a. CAF personnel answers “YES” to one or both of the first two questions of the Health Questionnaire on the DND 279 (Section B).

   or

   b. CAF personnel answers “NO” to question three of the Health Questionnaire on the DND 279 (Section B) AND their measured BP exceeds 150 / 100 mmHg after two attempts.

   or

   c. CAF personnel develops any symptoms, which in the experience of the evaluator or the CAF personnel are outside of those normally encountered.
d. You are concerned for the CAF personnel’s well-being.

**Referral Process**

1. CAF personnel referred to a Health Care Provider will be provided with a **DND 279** with the following information:
   a. Section A and B must be filled out.
   b. Ensure that “Referred to Health Care Provider” box is checked off in section B.
   c. Ensure that the CAF personnel signs section B.
   d. FORCE Evaluators will cross out sections C and D, and sign section F.

```
<table>
<thead>
<tr>
<th>Section A: Service Particulars - Détails du service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: John Doe</td>
</tr>
<tr>
<td>Date of Birth: 01/01/1980</td>
</tr>
<tr>
<td>Location: 201-202</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section B: Health Appraisal - Évaluation de la santé</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood Pressure: 120/80 mmHg</td>
</tr>
<tr>
<td>Blood Pressure: 140/90 mmHg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section C: FORCE Evaluation - Évaluation FORCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Force Ranges: 200 lbs</td>
</tr>
<tr>
<td>Sit-ups: 20</td>
</tr>
<tr>
<td>Push-ups: 20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section D: Results - Résultats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incentive program: Bronze</td>
</tr>
<tr>
<td>Next evaluation date: 01/01/2024</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section E: Fitness Program - Programme de Conditionnement Physique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workouts: 3 days per week</td>
</tr>
<tr>
<td>Time: 30 minutes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section F: Certification of Evaluation and Prescription - Attestation d'évaluation et prescription d'exercice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: John Doe</td>
</tr>
</tbody>
</table>
```
NOTE: DO NOT ATTEMPT to diagnose or discuss in detail why the CAF personnel had a “YES” response or why their BP is above the criteria for pre-screening. The FORCE Evaluation is physically demanding and can be an inappropriate evaluation for some CAF personnel.

PART IV: WAIST CIRCUMFERENCE

OVERVIEW

Waist Circumference (WC) provides an indication of abdominal fat and excess fat around the waist and upper body. The recommended waist measurements used are based on findings by the World Health Organization (WHO). Clinical evidence shows that the WC measurement is an accepted indicator of health risk, such as diabetes, heart disease, high blood pressure, and some cancers. Regardless of height, a WC near, at, or above 102 cm (40 in.) for men, and 88 cm (35 in.) for women, is associated with an increased risk of developing health problems.

NOTE: If needed, set up folding gym mats to form a privacy wall prior to taking a CAF personnel’s WC (Figs. 9–10). You can also offer CAF personnel the option of a private room when taking their WC. If you use this option, ensure that at least one other person is in the private room at all times.
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WAIST CIRCUMFERENCE PROCEDURE

1. Have the CAF personnel clear the abdomen and hip bone area (iliac crest) of all clothing and accessories. Use a clothes pin (optional) to keep the shirt clear of the abdomen area. (Fig. 11)

![Figure 11](image)

2. Take a position to the side of the CAF personnel’s body at a 45° angle. **NOTE:** It is important to be at eye level at the time of measurement, to ensure accuracy.

![Figure 12](image)
3. The landmarks for the WC are the superior edges of the hip bones. To locate them, have the CAF personnel palpate the upper part (top) of their hip bones until they locate the uppermost lateral borders of the hip bone at the midline (side) of their body. (Fig. 13)

4. Have the CAF personnel place their thumbs on both landmarks (right and left side).

5. Provide the CAF personnel with the end of the measuring tape and have them place it on the landmark (hip bone). (Fig. 14)
6. While the CAF personnel holds the measuring tape in place, have them turn their body to wrap the measuring tape around their abdomen.

7. Ensure that the measuring tape is not touching any part of the CAF personnel’s clothing.

8. Position the tape directly around the CAF personnel’s abdomen so that the interior edge of the tape is level with both landmarked points.

9. Have the CAF personnel stand with feet shoulder-width apart and arms crossed over their chest in a relaxed manner.

10. Ensure that the measuring tape is still in the proper position. (Figs. 15–17)

11. Apply tension to the tape until it is snug but not tight (no indentations on the skin).

12. At the end of a normal expiration, take the CAF personnel’s WC measurement by using the cross-handed technique to bring the zero line of the tape in line with the measuring aspect of the tape. The measurement must be taken at eye level, to ensure accuracy. (Figs. 18–20)
13. Take the measurement to the nearest 0.5 cm.

14. Record the measurement in Section B of DND 279.

PART V: FORCE EVALUATION

OVERVIEW

The FORCE Evaluation assesses a CAF personnel’s ability to successfully complete the six common military tasks as described in the DAOD 5023 series. The FORCE Evaluation is comprised of four tasks which all must be met to be successful. The Minimum Physical Fitness Standards (MPFS) are outlined below.

<table>
<thead>
<tr>
<th>Task</th>
<th>Minimum Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 metre Rushes</td>
<td>51.0 seconds or less</td>
</tr>
<tr>
<td>Sandbag Lift</td>
<td>30 repetitions in 3 minutes 30.0 seconds or less</td>
</tr>
<tr>
<td>Intermittent Loaded Shuttles</td>
<td>5 minutes 21.0 seconds or less</td>
</tr>
<tr>
<td>Sandbag Drag</td>
<td>Complete 20 m drag without stopping</td>
</tr>
</tbody>
</table>

Table 2: FORCE Minimum Physical Fitness Standards

INFORMATION BRIEFING

1. Before the warm-up a Qualified FORCE Evaluator will provide a clear explanation of each task using the provided script (see Tools 8–12). The FORCE Evaluator will also provide an overview of the Fitness Profile, discuss the objectives of the FORCE Evaluation, the MPFS, general technical information highlighting ideal technique, mandatory rest requirement of five minutes, the Emergency Action Plan (EAP), and provide an opportunity for CAF personnel to ask questions about the evaluation.
CHAPTER 3 - THE FORCE EVALUATION USING DND 279

2. During the explanation, an assistant (if available), will demonstrate each task as mentioned in the script. The assistant demonstrating the tasks must be physically capable of precisely conducting each evaluation protocol while:
   a. Maintaining a neutral spine and proper knee alignment during the movements (see Tool 13: Back Injury Prevention).
   b. Conducting the task at an appropriate pace for demonstrating a protocol.
   c. Maintaining various isometric positions within the protocol for explanatory purposes.

3. The demonstration will include a minimum of:
   a. 40 m of the 20 m Rushes
   b. Four Sandbag Lifts
   c. One Intermittent Loaded Shuttle
   d. 10 m of the Sandbag Drag

WARM-UP / EVALUATION PREPARATION

1. Prior to the evaluation, all CAF personnel shall undergo a warm-up led by a Qualified FORCE Evaluator (See Tool 14: Warm-up / Evaluation Preparation). The warm-up will include:
   a. Mandatory light aerobic activity (2–3 minutes), to include:
      i. 20 m x walking: easy arm circles 10 m in each direction
      ii. 10 m x walking: arms across chest and to back
      iii. 10 m walking: arms up and down
      iv. 20 m x walking knee lifts
      v. 20 m x walking butt kicks
      vi. 20 m x walking Frankenstein (alternating straight leg raise to opposite hand)
      vii. 2 x 20 m progressive jogging
      viii. 1 x 20 m side steps, alternating directions
      ix. 1 x 20 m carioca (cross-overs), alternating directions
   b. Mandatory dynamic movements (2–3 minutes) performed in a stationary position. During this phase of the warm-up, use this time to coach and correct on proper lifting techniques as described in Tool 13: Back Injury Prevention. Include the following:
      i. 5 x side reaching side bends (knees and hips unlocked)
      ii. 3 x squats
iii. 3 x side lunges forward / backward complex
iv. 3 x side alternating side / lateral step lunges
v. 3 x side Spiderman
vi. 5 x hand release push-up to get up
c. A reduced version of each protocol at the discretion of the CAF personnel, which can include:
   i. 4 Sandbag Lifts
   ii. 10 m of the Intermittent Loaded Shuttles
   iii. 10 m of the Sandbag Drag
   iv. 40 m of the 20 m Rushes at 50% pace
d. Additional 1–2 minute warm-up period, at the CAF personnel's discretion.

EVALUATION PROCEDURES

Task Termination
A task is terminated when one of the following scenarios occurs:

• The CAF personnel successfully completes the task.
• The CAF personnel chooses not to continue. Reasons for this could be fatigue, pain, injury, etc.
• The evaluator becomes concerned for the CAF personnel's safety due to immediate signs of serious distress. In the event of a medical issue, activate EMS.

NOTE: If it is evident that a CAF personnel will not complete a task within the standard, the Qualified FORCE Evaluator will allow them to continue until completion of the task. It is also strongly encouraged that the CAF personnel complete all tasks of the FORCE Evaluation in order to provide specific exercise prescription and training recommendations.

20 m Rushes Protocol

General Information
The purpose of the 20 m Rushes is to assess the CAF personnel's ability to move quickly over short distances while changing body positions every 10 m. This task is a simulation of escape to cover in the form of a sprint agility evaluation with no equipment.
NOTE: The CAF personnel may wear knee pads throughout the evaluation.

20 m Rushes Protocol

1. The CAF personnel starts by lying on the floor in the prone position at one end of the 20 m course. The CAF personnel lies facing the opposite end, with their shoulders and hands behind the start line. The CAF personnel will raise both hands off the floor.

2. The CAF personnel remains in the starting position until the evaluator gives the “5, 4, 3, 2, 1, Go” command.

3. Once the command is given, the CAF personnel gets up off the floor and sprints to the 10 m line.

4. At the 10 m line, the CAF personnel touches one foot on or over the line, and then gets down into the prone position, perpendicular to the line, with shoulders and hands facing forward on or behind the line.
5. Once in the prone position, the CAF personnel lifts their hands, forearms, and elbows off the floor (referred to as a “hand release”).

6. The CAF personnel must then get up and sprint another 10 m to the 20 m line. At the 20 m line, the CAF personnel touches one foot on or over the line, and then gets down into the prone position, perpendicular to the line with shoulders and hands facing forward on or behind the line. The CAF personnel will then perform another hand release.

7. The CAF personnel will then get up, turn around, and sprint back to the 10 m line. At the 10 m line, the CAF personnel repeats steps 4–7 until they have covered 4 x 20 m and completed seven hand releases.

8. If the CAF personnel does not touch the 20 m line with at least one foot, you will call out “Touch the line”. The CAF personnel must immediately correct the mistake by touching the line.

9. If the CAF personnel does not place their hands and / or shoulders on or behind the line, you will call out “Hands and / or shoulders on or behind the line”. To correct the mistake, the CAF personnel must immediately place their hands and / or shoulders on or behind the line.

10. Any time the CAF personnel does not perform a hand release, you will call “Hands” to indicate that the CAF personnel has not performed a proper hand release. The CAF personnel must immediately correct the mistake by performing a proper hand release.
NOTE: The CAF personnel is not permitted to dive or drop into the prone position at any point during the test. If diving or dropping to the prone position occurs, you will stop the CAF personnel then immediately, retrain on the protocol and then permit to restart the evaluation. This will not constitute an attempt at the evaluation. The CAF personnel must move to and from the prone position with control.

11. When the CAF personnel’s foot is on or crosses over the 20 m line after completing 80 m, stop the clock.

12. The time to completion is recorded to the nearest tenth of a second. For example, the pass criteria will be 0:51.0. Did not meet standard will be 0:51.1.

13. During the FORCE Evaluation, a mandatory rest period of a minimum of five minutes is required prior to attempting the next task.

Did not Meet Standard

1. CAF personnel who did not meet the 20 m Rushes standard can re-attempt the evaluation a maximum of one time during their evaluation, after a minimum five minute break.

2. CAF personnel who did not meet the 20 m Rushes standard twice in one evaluation session must re-attempt the FORCE Evaluation after proper Remedial Physical Fitness Training as per DAOD 5023-2.

Sandbag Lift Protocol

General Information

Material handling, such as the use of sandbags, is an important aspect of military service. This task is designed to assess CAF personnel’s physical capability with military material handling tasks. The sandbag weighs 20 kg and can represent a variety of environmental or trade-specific materials.

Sandbag Lift Protocol

1. In an upright position, have the CAF personnel stand directly behind one of the sandbags, facing the wall, so that the line on the floor is positioned between both feet. They will remain in this position until you give the “5, 4, 3, 2, 1, Go” command.

2. Once the command is given, the CAF personnel picks up the first sandbag with two hands and lifts the sandbag to touch the midline on or above the intersecting lines at 1.0 m above the floor. If the sandbag is not horizontal when it touches the wall, the bottom of the sandbag must clear the 1.0 m line on the wall. The CAF personnel may lift the sandbag using the “pigtail”.

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NOTE: Grasping the sandbag straps or putting their finger through the eyelet to lift the sandbag is not permitted.

3. Once the CAF personnel touches the sandbag’s midline on or above the intersecting lines on the wall, they can release the sandbag and let it fall to the floor.

4. The CAF personnel then shifts sideways so that the other line on the floor is positioned between both feet.

5. The CAF personnel picks up the second sandbag and touches the sandbag’s midline on or above the intersecting lines on the wall before releasing it and shifting sideways back to the first vertical line and the first sandbag.

6. The CAF personnel must not throw the sandbag at the wall. They must have contact with the sandbag when it touches the wall.
7. Improper lifts (paragraphs 6–10) will not count.

8. You can, at your discretion, reposition or replace the sandbags due to safety concerns.

9. Once the CAF personnel has performed 30 successful lifts, stop the clock.

10. The time to completion is recorded to the nearest tenth of a second.

11. During the FORCE Evaluation, a mandatory rest period of a minimum of five minutes is required prior to attempting the next task.

   **NOTE:** You should encourage proper lifting technique but you cannot terminate the evaluation due to poor lifting technique. If the CAF personnel chooses to stoop or twist, you should emphasize that they should keep their back as straight as possible while facing the wall approximately at the vertical line.

**Did Not Meet Standard**

CAF personnel who did not meet the Sandbag Lift standard will not be permitted a second attempt. They must re-attempt the FORCE Evaluation after proper Remedial Physical Fitness Training as per DAOD 5023-2.

**Intermittent Loaded Shuttles Protocol**

**General Information**

Carrying objects is a common task with a variety of military applications, as equipment and supplies need to be moved from one location to another. This task is designed to measure the CAF personnel's physical capability to perform repeated carries.

**Intermittent Loaded Shuttles Protocol**

1. In an upright position the CAF personnel stands directly behind the sandbag.

2. On the “5, 4, 3, 2, 1, Go” command, the CAF personnel safely picks up the sandbag, carries it to the opposite end of the 20 m course, travels around the cone, and returns back to the start line.
3. The CAF personnel must walk (one foot remains in contact with the floor at all times) when carrying the sandbag.

4. The CAF personnel can carry the sandbag using any safe technique illustrated below, including the use of the straps or “pigtail”.

5. The CAF personnel must place at least one foot on or over the start line before dropping the sandbag behind the line (outside the 20 m zone). If the CAF personnel does not place at least one foot on or over the start line, they must immediately return to touch or cross the start line before continuing. If the CAF personnel drops the sandbag inside the 20 m zone, they must immediately pick up the sandbag and drop it behind the start line. These requirements must be met in order to complete this protocol.

6. If any CAF personnel runs during a loaded shuttle direct them to “stop”. Forward movement must stop completely before you can permit the CAF personnel to continue. Timing of the evaluation will not be stopped.

7. The CAF personnel must not throw the sandbag.

8. Unless it becomes a safety hazard, you must not reposition the sandbag to move it closer to the 20 m line. The CAF personnel must pick up the sandbag from wherever they dropped it behind the line.

9. Once the CAF personnel has dropped the sandbag past the start line, they perform an unloaded trip to the opposite end of the 20 m course, travel around the cone, and return back to the start line. If the CAF personnel fails to touch the line or go around the cone, direct them to correct the fault. Timing of the evaluation will not be stopped.

10. Running is permitted during the unloaded trips ONLY.
11. The CAF personnel alternates loaded and unloaded shuttles for a total of five sets (each set equals the combination of one loaded shuttle and one unloaded shuttle) and covers a total distance of 400 m.

12. The CAF personnel is permitted to set the sandbag down at any point to rest. However, their recorded time will continue to elapse during this time.

13. After the CAF personnel touches or crosses the line for the last time, stop the clock.

14. The time to completion is recorded to the nearest tenth of a second.

15. During the FORCE Evaluation, a mandatory rest period of a minimum of five minutes is required prior to attempting the next task.

Did not Meet Standard

CAF personnel who did not meet the Intermittent Loaded Shuttles standard will not be permitted a second attempt. They must re-attempt the FORCE Evaluation after proper Remedial Physical Fitness Training as per DAOD 5023-2.

Sandbag Drag Protocol

General

Pulling strength is an important component of many common military tasks. This task is designed to evaluate the CAF personnel’s ability to drag a load continuously over a 20 m distance.

Sandbag Drag Protocol

1. The main body of the first row of “dragging” sandbags is placed behind the 20 m line. The main body of the sandbag does not include the “pigtail”.

[Image of sandbags being dragged]
2. The CAF personnel picks up the “carry” sandbag in a cradle carry (hands underneath, fingers laced or crossed) and adjusts the sandbag in their arms to ensure that the straps from the “carry” sandbag are pointing downwards. The CAF personnel then walks backwards so that the straps are taut.

3. The CAF personnel will not use the “carry” sandbag handles or straps to drag the sandbags.

4. Once the CAF personnel initiates movement, the evaluation begins.

5. Once started, the CAF personnel must move backwards continuously (without stopping), and must drag the sandbags to the opposite end of the 20 m course.

6. Once the first row of sandbags crosses the finish line, call “Clear” and stop the clock. Time to completion, for Fitness Profile purposes, is recorded to the nearest tenth of a second.

7. During the FORCE Evaluation, a mandatory rest period of a minimum of five minutes is required prior to attempting the next task.

Did not Meet Standard

1. Only CAF personnel who did not meet the Sandbag Drag standard due to slipping or falling can re-attempt the evaluation a maximum of one time during their evaluation, after a minimum five minute rest period.

2. CAF personnel who did not meet the Sandbag Drag standard for reasons other than slipping or falling must re-attempt the FORCE Evaluation after proper Remedial Physical Fitness Training as per DAOD 5023-2.
PART VI: FORCE EVALUATION RESULTS AND COOL-DOWN

DND 279 SECTION C – FORCE EVALUATION

1. For all four tasks (20 m Rushes, Sandbag Lift, Intermittent Loaded Shuttles and Sandbag Drag), select Met if the CAF personnel met the standard. Select Did not meet if the CAF personnel did not meet the standard. Record the CAF personnel's time for each task as indicated in the section below of the DND 279 form.

NOTE: The Sandbag Drag time is for Fitness Profile purposes only.

DND 279 SECTION D – RESULTS

1. **Met standard**: Insert an “x” in the box if the CAF personnel has met the standard, and record the year.

2. **Did not meet standard**: Insert an “x” in the box if the CAF personnel has not met one or more task standard, and record the year.
   
   a. In this case, the CAF personnel must register for the Supplementary Physical Training Program. See Ch 4: CAF Supplementary Physical Training Program for more information.

NOTE: In the event that a CAF personnel becomes injured while attempting the FORCE Evaluation and is unable to continue, indicate “Did not meet standard” and identify the following business day as the next annual evaluation.

3. Incentive program: Insert an “x” in the corresponding box. If there are time constraints, the CAF personnel’s copy does not require Incentive Program results. CAF personnel may go to www.cfmws.com/FORCEprogram to determine where they plot on the Fitness Profile.

NOTE: Section D of Original / UPR copy must be filled out by PSP fitness staff, or a Qualified FORCE Evaluator where PSP fitness staff are not present. Section F must be signed by a Qualified FORCE Evaluator with signing authority prior to entering the results into HRMS.
4. **DND 663 - General Safety Hazardous Occurrence Investigation Report (HAZOR) initiated**: Insert an “x” in the corresponding box if a DND 663 was initiated, due to the occurrence of a physical incident. See Tool 16: DND 663 General Safety Hazardous Occurrence Investigation Report (HAZOR) and DAOD 2007-1 for more information.

5. **Next evaluation before**: The FORCE Evaluator will indicate in this section of the DND 279 the appropriate date for the CAF personnel’s next annual evaluation. The FORCE Evaluation is valid for 365 days from the date the evaluation was completed. However, the reporting period is from April 1st to March 31st.

6. CAF personnel who do not meet the MPFS will be advised by the CoC if administrative procedures will apply in accordance with DAOD 5023-2.

**COOL-DOWN**

A supervised walk within the evaluation area should take place allowing the CAF personnel’s HR to slow down. If requested by CAF personnel, time and guidance will be provided to perform stretches concentrating on the musculature of the upper and lower extremities.

**PART VII: FORCE EVALUATION DEBRIEF, PROGRAMMING AND PENSIONABLE ACTIVITIES**

**FITNESS PROFILE**

1. The purpose of the FORCE Evaluation is to ensure that all CAF personnel have the required physical abilities and capabilities to meet the demands of service which are defined by the Universality of Service principle.

2. Physical fitness is generally comprised of five broad components:
   a. Muscular Strength (evaluated in the Sandbag Drag and Sandbag Lift)
   b. Muscular Endurance (evaluated in the Sandbag Lift and Intermittent Loaded Shuttles)
   c. Flexibility (evaluated in the Sandbag Lift and 20 m Rushes)
   d. Cardio-Respiratory Endurance
   e. Body Composition
3. Although the FORCE Evaluation was not designed to be a fitness evaluation per se, muscular strength, muscular endurance and flexibility are evaluated during the FORCE Evaluation and when performed at one’s maximal capacity, it becomes aerobically challenging.

4. Researchers from the PSP Directorate of Fitness compared maximal performances on the FORCE Evaluation with a maximal aerobic capacity (VO2 max) test performed on a treadmill and found that FORCE performances were strongly correlated to VO2 max results.

5. By adding a simple but reliable measure of body composition, waist circumference, they were able to create a strong prediction of one’s aerobic capacity by using their times on the four components of the FORCE Evaluation, combined with their age and gender.

6. Therefore, this new prediction of aerobic capacity or cardio-respiratory endurance with the addition of the waist circumference provided the missing elements to transform the FORCE Evaluation from a physical employment standard to a robust fitness evaluation that could now provide additional health-related fitness information to CAF personnel.

7. The medical literature is clear on the fact that poor aerobic capacity and obesity are independent predictors of morbidity and mortality from chronic diseases such as diabetes and heart disease. By having a predicted measure of aerobic capacity and of body composition included in the FORCE Evaluation results, it is now possible to demonstrate to all CAF personnel that poor physical fitness may increase their chances of developing such diseases later in life. The CAF have everything to gain from ensuring that their personnel are fit and healthy throughout their careers and beyond.

8. The Fitness Profile graph below depicts the three distinct components of the Fitness Profile:
i. **Operational Fitness**: Represented on the vertical axis, is measured using performances on the four components of the FORCE Evaluation (weighted equally in the operational fitness score). That score predicts one’s ability to meet or exceed the minimal physical rigours of military service.

ii. **Health-Related Fitness**: Represented on the horizontal axis, is obtained by the combination of the predicted aerobic capacity and the waist circumference (weighted at 75% and 25% respectively in the health-related fitness score). The combination of the two scores results in a coordinate on the FORCE Fitness Profile graph. Each colour represents a certain fitness status.

- **Red zone**: Represents CAF personnel who fail to meet the minimum standard on any of the FORCE Evaluation components. This results in being assigned to a directly supervised training program designed by PSP fitness staff. CAF personnel who fail will need to be re-evaluated in 12 weeks. See DAOD 5023-2 for more information.

- **Orange zone**: Represents CAF personnel who have met the physical requirements of Universality of Service but have poor health-related fitness. This can be a product of low aerobic capacity and/or some level of obesity.

- **Yellow zone**: Represents CAF personnel who have met the requirements to serve in the CAF but are not necessarily as physically fit as they could be.

- **Green zone**: Represents where all CAF personnel should be. Not only have they met the Universality of Service principle, but their fitness level is also contributing to reducing their risk of developing a chronic disease associated with sedentary behavior and/or obesity.

iii. **FORCE Incentive Program**. Using over 35,000 FORCE Evaluation results, researchers developed unique scoring tables on each component of the FORCE Evaluation for each gender and for every 5-year increment of age (e.g., 26–30, 41–45). This is meant to compare CAF personnel to their age and gender peers. The four different colours represent:

- **Bronze**: Set at the 50th percentile of each age-gender category. This means that they have an operational fitness level that is above the mean or average of their age and gender category.

- **Silver**: Set at one standard deviation above that mean and represents a performance level that is better than the 84th percentile of their age and gender category.
• **Gold**: Set at two standard deviations above the mean and represents a performance level that is above the 98th percentile of their age and gender category.

• **Platinum**: The highest level of the Incentive Program and is set at three standard deviations from the mean, which results in these individuals being in the top 0.1% of their age and gender category.

**FORCE EVALUATION FITNESS PROFILE DEBRIEF**

The Fitness Profile must be calculated by using the Fitness Profile Calculator found on www.cfmws.com/FORCEprogram to determine where the participant plots on the chart.

If the Fitness Profile Calculator is available, discuss the results highlighting the CAF personnel’s strengths and areas in which they could improve. Explain which of the five general areas they fell into:

a. **Incentive Level** — (Bronze, Silver, Gold, Platinum)
b. **Green**: Met standard and has a high level of health-related fitness.
c. **Yellow**: Met standard and has a marginal level of health-related fitness.
d. **Orange**: Met standard and has a low level of health-related fitness.
e. **Red**: Did not meet standard.
NOTE: Some CAF personnel may reach an incentive level but their score may still indicate that they could improve their health-related fitness.

1. Provide CAF personnel with a brief explanation of the following:
   a. **Operational Fitness score (plots up and down):** This represents the CAF personnel’s ability to meet or exceed the minimal physical rigours of military service.
   b. **Health-Related score (plots left and right):** This is a combination of the CAF personnel’s predicted aerobic capacity and waist circumference (weighted at 75% and 25% respectively).
   c. By improving both their operational fitness (four task times) and health-related scores (VO2 max and waist circumference), the CAF personnel will see their plot point move up and towards the right-hand side of the Fitness Profile graph.
   d. The amount of points that are required to move to the next level are located in the middle of the page.
   e. **Goal setting:** The system automatically calculates a 5% improvement to all task times (not WC), in order to help CAF personnel efficiently set goals to improve their score for their next evaluation.

NOTE: If the CAF personnel did not meet the standard, explain the administrative process for not successfully completing their FORCE Evaluation as per Ch 4: CAF Supplementary Physical Training Program in accordance with DAOD 5023-2.

DND 279 SECTION E – Fitness Program

If the CAF personnel has met the standard: Insert an “x” in the corresponding box, instructing CAF personnel to get a fitness program generated by PSP Fitness Staff or DFit.ca (under self-supervision).

If the CAF personnel did not meet the standard: Insert an “x” in the corresponding box, instructing CAF personnel to get a fitness program generated by PSP Fitness Staff (under direct supervision).

NOTE: Direct supervision implies direct monitoring / reporting of a CAF personnel’s exercise program by certified PSP fitness staff. At locations where there are no PSP fitness staff, COs should seek direct consultation from PSP staff from their ASU and provide direct supervision with local military personnel who have approved fitness credentials (BFTA, AFTA, UFSO). Re-evaluation procedures must follow all DAOD 5023-2 directives and guidelines set out in this manual.
CHAPTER 3 - THE FORCE EVALUATION USING DND 279

PSP Physical Training Programming

CAF personnel should be directed to schedule an appointment with PSP fitness staff for personal fitness programming. Contact information can be found at the following website by selecting the appropriate base.

www.cfgateway.ca

DND 279 SECTION F – Certification of Evaluation and Prescription

The FORCE Evaluator will print and sign their name in the space provided.

DND 279 SECTION G – Certification of Understanding

The CAF personnel signs and acknowledges the prescription and the recommendation to maintain a CAF FORCE record book which can be done online at DFit.ca. In cases where the CAF personnel refuses to sign, the evaluator can note “CAF personnel refused to sign” in this section, and then distribute the required copies.
CHAPTER 3 - THE FORCE EVALUATION USING DND 279

Pensionable Activities

1. It is important that the DND 279 be completed in accordance with proper procedures (outlined in this chapter), as the completed form provides the CAF direction regarding approved fitness programming. The DND 279 and the programs developed by PSP fitness staff and / or from DFit.ca may be considered when determining a disability pension for injuries sustained while participating in approved fitness programming.

2. Due to the unique nature of the CAF work environment, it is not always possible for CAF personnel to participate in a fitness program during normal working hours. When engaged in the FORCE Program on their own time, it is understood that CAF personnel are doing so in the interest of service to meet military operational requirements.

3. Regular physical training or sports activities that are not authorized or organized by the CAF may still be in the interests of service when they could reasonably be expected to assist CAF personnel in meeting the CAF’s fitness requirements.

4. Where the interests of CAF personnel and the interests of the service are considered to be relatively equal in the performance of unauthorized physical training or sports activity, a service-connection may be presumed. For more information on this topic, please visit www.veterans.gc.ca, type “Physical Training or Sport” in the search box, and select the first document: Policy Document – Veterans Affairs Canada.

PART VIII: PROCESSING FORCE EVALUATION INFORMATION

FORCE PROGRAM FORM (DND 279)

1. The FORCE Program form (DND 279) will be the only form used to record CAF personnel evaluation results and exercise prescription. In accordance with the Privacy Act, once completed, the DND 279 is a protected A document and must be treated as such.

2. Completed DND 279 forms will be distributed in accordance with the following procedures:
   a. Copy 1: Unit to retain the UPR
   b. Copy 2: CAF personnel