



# **ELEVATE YOUR FIGHT**

Airmen and Guardians, readiness demands more than just passing a test; it demands peak performance. Leveling up our fitness is crucial to dominating the fight - anytime, anywhere. The Warfighter's Fitness Playbook is your guide to achieving that level of performance.

Peak physical fitness is not just aligned with our combined core values of Integrity first, Service before self, Excellence in all we do, Character, Connection, Commitment, and Courage; it embodies them. It's not optional; it's the foundation of our strength as a force. Whether in the cockpit, on the ground, or behind a screen, a stronger body fuels a stronger mind, enabling us to think faster, react quicker, and endure longer. This translates directly to enhanced lethality and mission success.

The demands of air and space power -executing global operations, maintaining complex aircraft, securing our nation's space interests, performing under pressure - require stamina, strength, and GRIT (Greatness Requires Intentional Training), GRIT isn't just about pushing through the pain; it's about consistent, deliberate effort towards a goal. We are committed to a higher standard, leading by example and ensuring every Airman and Guardian is equipped to excel. Maintaining peak fitness is a commitment to ourselves, our service, and our nation. Individual readiness builds unit readiness.

The Warfighter's Fitness Playbook and the GRIT program provide a holistic approach to building a stronger, faster, more resilient you. This playbook covers workouts, recovery strategies, sleep optimization techniques, and nutrition guidance - all interconnected elements crucial for optimal performance. It's simple, but not easy. The time to commit is now. This isn't just a fitness program; it's an investment in your capability, your career, and your future as an Airman or Guardian.

G.R.I.T.

(Greatness Requires Intentional Training)

#### **How to Use This Playbook:**

This playbook is your comprehensive resource for improving fitness, sleep, nutrition, stress management, and overall well-being - all vital for mission readiness. It provides a structured 12-week physical training plan, designed for 2–3 sessions per week. These sessions are flexible—easily adapted for both individual workouts and group training. Each workout includes a 10 to 15-minute warm-up, 30 to 40-minute main workout, and 10 to 15-minute cool-down.

**Scalability is key.** Our Air and Space Forces are comprised of Airmen and Guardians with diverse fitness levels, and this program is designed to meet everyone where they are. This playbook provides a common template for each workout, but empowers you **to customize it to your individual abilities.** All movements are scalable - you can increase or decrease the difficulty, or substitute exercises to match your current fitness level. Don't hesitate to adjust movements mid-session based on fatigue or how you're feeling. **Remember, progress, not perfection, is the goal.** Alternate movements are provided throughout to accommodate individual needs and modify intensity.

### **Complete the Workouts**

Follow the structured plans to build strength, speed, and endurance—regardless of your starting point.

### **Recover Smart**

Implement the recovery strategies and sleep guidance to stay mission-ready and prevent overtraining. Recovery is just as important as the workout itself.

### **Fuel Right**

Use the nutrition tips to optimize performance, enhance recovery, and maintain peak cognitive function.

#### Airmen and Guardians are Expected to:

- Understand the purpose of each workout and each movement, including scalable options.
- Be proficient in proper form and safe execution. If you're unsure about form, seek guidance from a Peer Fitness Leader (PFL) or qualified instructor.
- Prepare for each session, considering required equipment and environmental considerations.
- Lead or participate in workouts using these core principles:
  - 1. Three-phased approach: Warm-up, Workout, Cool-down
  - 2. Form Over Speed and Intensity (FOSI): Master the movement before adding weight or increasing pace.
  - 3. Scalable movements and substitution options: Adapt the workout to your individual needs.
  - 4. Prioritize Recovery: Hydration, basic performance nutrition, and adequate rest.

This guide provides a strong foundation. PFLs, Airmen and Guardians are encouraged to expand their knowledge by coordinating with installation support agencies and incorporating relevant, evidence-based resources into sessions and coaching conversations. **Remember, continuous learning and adaptation are essential for long-term success.** 

#### **References:**

- Appendix 1 Adaptive Exercise Program
- Appendix 2 2-mile Remedial Action Program
- Appendix 3 Beginner 5km Training Program
- Appendix 4 Sample Workouts
- Appendix 5 Exercise Library
- Appendix 6 HAMR Improvement Program
- Appendix 7 Data Conversion Tables
- Appendix 8 Sleep Sheet
- Appendix 9 Sleep Diary
- Appendix 10 Progression and Regression Examples
- Appendix 11 Stress Utilization Cards
- Appendix 12 Eat to Fuel Performance
- Appendix 13 Warmups and Cooldowns



#### **Exercise Precautions:**

Your health and safety are paramount. Members with medical restrictions documented on a completed DAF Form 422 Duty Medical Profile, Limiting Condition Report, DAF Form 469 or Exercise Prescription must adhere to their restrictions and participate to the best level of their ability. Always prioritize your health and consult with medical personnel if you have concerns.

#### **Universal Precautions for Physical Training and Conditioning**

The following precautions apply to physical training sessions expected to require moderate exertion (you should be breathing heavily but still able to hold a conversation, and begin to sweat within a few minutes):

- 1. Acclimatization. Allow approximately 2 to 4 weeks to adjust to warmer environments or higher altitudes. For the first 5-7 days, reduce aerobic activity (lower intensity, sessions no longer than 30-minutes) and strength training.
- 2. **Progressive Overload.** Gradually increase exercise duration and intensity.
- 3. Hydration. Drink plenty of water before, during, and after exercise.
- 4. Thermal Stress. Follow DAFI 48-151 Thermal Stress Program guidelines for work/rest cycles.
- 5. Supplement Safety. Consult a physician or registered dietitian before using supplements, including pre-workout products and energy drinks. Avoid nicotine, alcohol, and excess caffeine before and during exercise.
- **6. Seek Medical Attention.** At the first signs of distress, seek prompt medical attention.

#### **Exercise and Heat Stress Risk Factors**

#### Exercising in the direct sun on a hot, humid day (pay attention to the local heat stress conditions)

- 2. Dehydration (not having enough fluids in the body)
- 3. Overhydration (consuming too much fluid)
- 4. Poor physical fitness or lack of experience exercising in the heat or outdoors
- 5. Obesity/Overweight
- Exercise clothing that is tight, dark, or heavy
- Use of dehydrating beverages and medications (caffeine, alcohol, energy drinks)
- 8. Current illness/fever
- 9. Prior history of heat-related illness and/or blood disorders

#### **Exercise Warning Signs**

- Abnormal heartbeat: irregular pulse, rapid or fluttering heart rate, or sudden increase or decrease of pulse rate during exercise
- 2. Heavy pumping or strongly felt palpitations in the throat or chest (beyond normal exercise feeling)
- 3. Dull pain, ache, or heavy pressure in the middle of the chest before, during, or after exercise
- 4. Abnormal shortness of breath
- 5. Sudden pain or numbness in any part of the body (especially in the left arm)
- 6. Pain or heart burn in region of the upper abdomen
- Extreme dizziness, sudden loss of coordination, cold sweat or loss of consciousness
- 8. Temporary loss of speech or vision

#### **Recognizing Overtraining**

- 1. Excess fatigue when exercising, even on the "easy" days
- 2. Sluggish or low energy workout performance
- 3. Disturbance in sleep patterns or poor sleep in general
- 4. Feeling sleepy during the day
- 5. Loss of appetite
- 6. Upset stomach
- 7. Weight loss greater than 1-2 pounds weekly
- 8. Emotionally irritable
- 9. Increased respiratory infections and/or more susceptible to illness
- 10. Persistent and excessive stiffness, soreness, or tenderness in muscles or joints lasting greater than 72 hours after a training session



#### **Fitness Principles**

### FITT Principle

FITT - Frequency - Intensity - Time - Type

- Frequency: How many times per week you exercise
- Intensity: How hard you exercise
- **Time**: How long each exercise lasts
  - Less Time = Higher Intensity
  - More Time = Less Intensity
- Type of Activity: Specific type of exercise you do
- Physical Training
- Flexibility/Mobility

### **Workout Components**

- Preparation: Dynamic Warm-up
- Physical Training: Strength & Endurance
- **Recovery:** Cool-Down, Flexibility, Mobility, & Mental Fitness

### **Fitness Principles**

- **Specificity**: Fitness gains are specific to the type of training you do (e.g. running improves running fitness, not necessarily strength).
- **Progression/Overload:** Gradually increase the challenge aim for 5-10% increase per week
  - Beginner (Initial Stage): 4-6 weeks
  - Intermediate (Improvement Stage): 4-5
  - Advanced (Maintenance Stage): >6 months
- **Regularity/Reversibility:** Use it or lose it! Consistent training is key.
- Variety/Balance: Keep your workouts interesting and challenge different muscle groups
- **Recovery:** Prioritize time, nutrition, and sleep for optimal recovery.

#### **Domains of Fitness**

Peak performance requires a holistic approach. These four domains – Physical, Stress Utilization, Nutritional, and Sleep & Recovery – work together to enable you to perform effectively, remain mission-ready, and avoid injury.

#### 1. Physical Fitness

Physical fitness is the foundation of readiness. It's about building the strength, endurance, and mobility needed to excel in any situation - remain mission ready!

- **Strength Training:** Use progressive overload (gradually increasing challenge) through bodyweight exercises, calisthenics, and functional fitness movements to build muscular strength and endurance.
- Cardiovascular Conditioning: Develop aerobic capacity and stamina through interval training, long-distance running, and functional drills such as rucking, swimming, and sprint workouts.
- **Mobility & Flexibility:** Improve range of motion and reduce injury risk with dynamic warm-ups, static stretching, mobility exercises, and yoga.
- **Recovery Strategies**: Incorporate active recovery methods (light movement), foam rolling, stretching, and deep recovery protocols to enhance performance and prevent burnout.
- **Functional Fitness:** Integrate multi-joint movements, varying intensity workouts, and mission-specific training to build combat readiness and versatility.
- Injury Prevention: Proactive mobility work and proactive recovery strategies are key.





#### **Domains of Fitness**

#### **2. Stress Utilization Fitness** (See Appendix 11 for more information)

Stress is a part of life – and can be a powerful tool. Effective stress utilization techniques help you harness the physiological stress response for added energy and resilience. Practice is crucial! Even 2-5 minutes a week can build the skills needed to thrive under pressure. Remember, it's how you perceive stress, not just the amount, that matters.

- Identify the Stressor: Recognize challenges, hindrances and threats
- Mindfulness Practices: Engage in guided meditations, progressive muscle relaxation, and visualization techniques.
- Physical Activity as Stress Relief: Utilize light aerobic exercises such as walking, swimming, or yoga to manage stress.
- Work-Life Harmony Strategies: Prioritize downtime, schedule recreational activities, and set healthy boundaries.

#### **3. Nutritional Fitness** (See Appendix 12 for more information)

Fuel your body for peak performance. A balanced diet supports physical training, cognitive function, and recovery.

- **Operational Nutrition:** Prepare for field work with portable nutrition options like protein bars, hydration packs, and meal-ready-to-eat (MRE) strategies.
- **Hydration Techniques:** Consume water regularly, aiming for half your body weight in ounces of water daily. Increase intake during high-intensity training and heat exposure.
- **Supplementation Guidelines:** Prioritize whole food sources for nutrients. If supplements are needed, choose those that are third-party tested and DoD-approved options.
- Meal Planning Strategies:
  - Try to make ¼ of your plate lean protein. "Lean" refers to protein sources that are lower in saturated fats.
  - Make ½ to ½ of your plate carbohydrates from whole grains, fruits, and starchy vegetables. Adjust amount based on activity level.
  - Aim for ½ to ½ of your plate to be non-starchy vegetables, depending on the amount of carbs on your plate.
  - Shoot for 1 thumb size of unsaturated fat. The amount of unsaturated fat on your plate should stay relatively consistent—about the size of 1–2 Tbsp of oils or nut butters or about a palmful of nuts or seeds.





#### **Domains of Fitness**

#### 4. Sleep & Recovery Fitness

Quality sleep and effective recovery are essential for sustaining energy, enhancing cognitive function, and maintaining physical readiness. Active recovery -- low-intensity movement -- reduces soreness, improves circulation, and prevents injury.

- **Optimal Sleep Protocols:** Aim for 7-9 hours of quality sleep per night. Maintain a consistent sleep and wake schedule, even on weekends.
- **Sleep Environment Optimization:** Create a dark, quiet, and cool sleep space. Use white noise machines or earplugs if needed.
- Active Recovery Day:
  - Brisk Walk 15 minutes (outdoors or treadmill)
  - Dynamic Stretch Circuit 10 minutes (arm swings, leg swings, trunk rotations, shoulder rolls)
  - Foam Rolling Routine 10 minutes (quads, glutes, hamstrings, back)
  - Deep Breathing & Hydration 5 minutes of deep breathing and water intake
- **Foam Rolling:** Use a foam roller for 5–10 minutes post-exercise or on recovery days to decrease muscle tightness and improve blood flow. Focus on large muscle groups like the quads, hamstrings, glutes, and back. This promotes faster recovery and helps maintain flexibility.
- **Dynamic Stretching & Mobility Work:** Perform light mobility drills and dynamic stretching to maintain joint health and improve range of motion. These exercises can be used after workout or on recovery days.
- **Breathing & Relaxation Techniques:** Deep breathing after activity lowers stress hormones and improves recovery. This supports mental clarity and a mission-focused mindset.
- **Low-impact activities:** Incorporate low-impact activities like walking, light jogging, or cycling at a relaxed pace for 10–20 minutes after workout, or on a recovery day. These movements help to improve circulation to muscles and maintain cardiovascular activity

#### Tips for a better night's sleep: We spent a third of our lives sleeping, aim to excel at it!

Prioritize	Set A Routine	Unplug	Avoid Caffeine	Optimize Environment	Other Tips
• Set an alarm to go to bed, and ensure you are getting 7-8 hours of sleep each night.	Maintain a consistent work, exercise, meal, and sleep routine.	<ul> <li>Avoid screen time close to bedtime.</li> <li>The blue light from your device disrupts your circadian rhythm.</li> </ul>	• Avoid caffeine at least 4 hours before bedtime, and earlier if you are more sensitive to it.	<ul> <li>Do not use your sleep space for games, television, or work.</li> <li>Aim for a dark, quiet, and cool sleep space.</li> </ul>	<ul> <li>Do not use alcohol as a sleep aid.</li> <li>Contact your primary care provider if sleep problems persist.</li> </ul>



#### Understanding Workout Programs: Resistance/Strength Training

#### Repetitions, Volume, and Intensity

Workout sessions are built around repetitions (reps) and sets. A "rep" is one complete execution of an exercise (e.g., one squat). A "set" is a group of consecutive reps (e.g., 3 sets of 10 squats). The number of reps and sets, along with the load (weight or resistance), are determined by your training goal. Generally, lower reps use higher weight, and vice versa. The chart below (Exercise Prescription Guidelines) provides a more detailed guide.

Repetition ranges are also linked to the Rating of Perceived Exertion (RPE). As you increase the number of reps within a set, the intensity (RPE) generally decreases. RPE is best used by those with some training experience who understand different levels of effort. (See the Rating of Perceived Exertion scale for reference.)

#### **Exercise Prescription Guidelines:**

Goal	Range of Reps	Optimal # of Reps	Reps Per Set	Intensity (RPE)
Muscular Endurance	18-30	24	3-6	5.5-6.5
Muscular Strength	12-24	18	3-6	7-8
Muscular Strength/Power	10-20	15	2-4	8-9
Muscular Strength/Power	4-10	7	1-2	9+

#### **Training Goals**

Different combinations of intensity and reps lead to different training outcomes. Understanding these goals will help you tailor your workouts:

- Muscular Endurance: The ability to repeatedly contract a muscle over time (think of the 1-minute max pushup test).
- Muscular Strength: The ability of a muscle to produce force, typically against resistance (measured by the number of reps completed at a given weight).
- Muscular Power: Applying force quickly combining strength and speed.
- Maximal Strength: The maximum amount of force a muscle can produce in a single effort (e.g., a one-rep max in powerlifting).
- Maximal Power: Maximal strength combined with speed (e.g., a vertical jump or a maximum-effort barbell clean).

Your training goals should be aligned with your individual needs, work requirements, and lifestyle. They may change over time. Someone preparing for a powerlifting competition will prioritize maximal strength, while someone training for the Physical Fitness Assessment (PFA) will focus on muscular endurance. A balance of all these qualities is crucial for a strong, resilient life. As **WARFIGHTERS**, we must cultivate strength, mental and physical fortitude, and endurance to enhance readiness throughout the force. Workout sessions should balance all fitness components and training goals to continue increasing warfighter readiness and preparedness.



#### Understanding Workout Programs: Resistance/Strength Training

#### **Progression/Regression**

Adjusting exercises – making them easier (regression) or harder (progression) – is essential. This might be due to injury, equipment availability, training goals, or personal preference. Exercise selection and progression are a spectrum influenced by all these factors. (See Appendix 10 for examples of bodyweight and weighted progressions/regressions.)

When modifying an exercise, prioritize maintaining the intent of the movement whenever possible. Progressions increase the challenge, while regressions reduce it. Regressions can be used to work around injuries or limitations. Conversely, progressions are used when an exercise becomes too easy. This can involve increasing range of motion, adding weight, or changing the movement pattern.



Switching between running and machine-based cardio (fan bike, rower, skiErg, bikeErg) should be driven by your physical readiness, recovery status, and training goals. **Changing modalities is a tool for managing stress and fatigue, not a step backward**. Machine-based cardio can help maintain cardiovascular fitness while minimizing stress on your body, especially during periods of high fatigue or injury risk. While running should be prioritized when preparing for the PFA, alternative cardio options can be valuable throughout the year.





#### Understanding Workout Programs: Cardiovascular/Endurance Training

#### **Training Methods**

- Interval Training: This involves alternating between short bursts of high-intensity effort and periods of lower-intensity recovery. Intervals can range from 10-15 seconds to several minutes. This method is excellent for improving speed and cardiovascular capacity. During high-intensity periods, aim for a heart rate of 85-95% of your maximum heart rate (MHR), recovering to 50-75% MHR during recovery. \*Fartlek\* training is a variation of interval training based on "feel" varying intensity intuitively.
- **Tempo/Threshold Training:** This involves maintaining a consistently challenging pace near your anaerobic threshold. It's about finding that "comfortably hard" effort you can sustain for a period of time. Keep your heart rate at or below 85% +/- of your maximum heart rate, adjusting based on your individual fitness level. This builds endurance and improves your body's ability to clear lactic acid.
- Long Slow Distance (LSD): This focuses on maintaining a mild intensity for a longer duration. The key is time on your feet! Aim for a heart rate of 55-75% of your maximum heart rate. LSD builds a strong aerobic base, improving your body's efficiency in using oxygen.

#### **Using Rate of Perceived Exertion (RPE)**

If you don't have access to heart rate monitoring, you can use the Rating of Perceived Exertion (RPE) scale to gauge your intensity. (See RPE table below).

#### **Important Considerations:**

- Fatigue Accumulation: Remember that fatigue builds up during a workout. What feels easy at the beginning
- may feel harder towards the end.
- Holistic Assessment: RPE recommendations are generally for the \*overall\* session. Your perceived effort can be influenced by many factors, including session length, hydration, nutrition, sleep, stress, weather, and accumulated fatigue from previous workouts.
- Listen to Your Body: Pay attention to how you feel and adjust your intensity accordingly.

	Rating of Pe	erceived Exertion
10	Max Effort	Near impossible to continue, at the point of being out of breath, unable to talk
8-9	Very Hard Activity	Difficult to maintain intensity level, hard to speak more than a single word
6-7	Vigorous Activity	Verge of being uncomfortable, short of breath, can speak short sentences
4-5	Moderate Activity	Feel like you can maintain effort for long durations, able to talk and maintain a short conversation
2-3	Light Activity	Feels like you can maintain effort for multiple hours, easy of breath and carry a conversation
1	Very Light Activity	Light movement, just more than complete rest
<sup>7</sup> 0	Resting	Relaxing



#### **Adaptive Programing:**

This adaptive program, (detailed in Appendix 1), is designed for individuals needing extra support – either due to a failed Physical Fitness Assessment (PFA) or a fitness/movement-limiting profile. It's structured around three exercise days per week, combining strength/endurance and aerobic training.

#### **Key Principles:**

- Adaptability: If you can't run, use the distance conversion tables in Appendix 7 to adapt aerobic exercises to alternative equipment (rower, stationary bike, aquatics, etc.).
- Safe Substitutions: Prioritize safety! Substitute any movement causing pain or risk of injury with a similar, pain-free alternative. For example, perform push-ups against a wall if traditional push-ups are too difficult.
- Understanding Exercise Focus: Each resistance training movement is labeled with an exercise focus (see abbreviations below) to help with substitutions.
  - LE: Lower Extremity
  - UE: Upper Extremity
  - U/LE: Upper/Lower Extremity
  - C: Core
  - UE/C: Upper Extremity and Core
  - LE/C: Lower Extremity and Core
- Impact Modification: If you need to avoid impact (like running), choose non-impact alternatives for conditioning

#### **Abbreviations:**

Position	Distance	Implement
OH: Overhead	m: meters	BW: Bodyweight
Fwd: Forward	M: Miles	MB: Medicine Ball
Bkwd: Backward	Ft: Feet	DB: Dumbbell
Ea: Each Arm/Leg/Side	Yds: Yards	KB: Kettlebell
		BB: Barbell

#### **Implementation Suggestions:**

Monday	Tuesday	Wednesday	Thursday	Friday
Bodyweight	REST	Metabolic Interval	REST	Hybrid
Metabolic Interval	REST	Hybrid	REST	Bodyweight
Hybrid	REST	Bodyweight	REST	Metabolic Interval
Hybrid	REST	REST	Bodyweight	Metabolic Interval
Metabolic Interval	REST	REST	Bodyweight	Hybrid
Metabolic Interval	Bodyweight	REST	REST	Hybrid
Hybrid	Bodyweight	REST	REST	Metabolic Interval



#### **Adaptive Programing:**

#### **Training Tiers & Initial Placement**

You will be initially placed into one of three tiers based on your Fitness Assessment scores. While the PFA isn't the only measure of fitness, it provides a starting point.

#### Level 2: Level 3: Level 1: PFA Score: <80 or FA not PFA Score: 80-89.9 composite PFA Score: 90+ completed 2- Mile Run: <16:00 2-Mile Run: 18:00+ 2-Mile Run: 16:00-18:00 **HAMR: 80+ HAMR: <60** HAMR: 60-79 Marginal performance in one or Meets all component standards more components without exceeding

#### **Sample Workouts**

Located in Appendix 4 are a variety of sample workouts. These can be modified to fit an individual (performed as is), as a small group (splitting the exercise by smaller groups or done in sections) or as a large group. It's always important to remember that the workout should meet the goals of the individual/group and match the amount of equipment needed to complete the session. If there are not enough weights for the group (or to split into smaller groups), a bodyweight workout workout can be used. Similarly, lack of access to a track or large space may limit the group's ability to do certain workouts included. Finally, these workouts are included as samples to give more ideas on how YOU can help improve the culture of FITNESS within your unit.





#### **Conclusion:**

Your physical fitness, health, nutrition, and sleep are all critical components of your performance and effectiveness as an Airman or Guardian. Maintaining overall fitness isn't a temporary goal – it's a year-round commitment.

This playbook is designed to provide you with sound guidance on your journey to good physical fitness and health. However, you are the most important factor in your own success. Your personal dedication and consistent effort towards a healthy, active lifestyle will be the key determinants of your achievements.

As a member of the Profession of Arms in the United States Air Force or United States Space Force, you've bravely committed to joining an elite community bound by a shared creed: to serve as the "Nation's Sword and Shield...Sentry and Avenger." Our Esprit de Corps unites us through a common spirit of enthusiasm, devotion, and honor.

To thrive both personally and professionally, our actions must embody the Air and Space-Minded (ASM) Warrior Ethos – shaping our character and building resilience, tenacity, grit, and focus. The ASM Warrior Ethos embodies the "warrior spirit," fostering tough-mindedness, tireless motivation, unceasing vigilance, and a commitment to be Ready and Fight Strong.

Remember: Knowing is Half the Battle. This Warfighter Fitness Playbook is your resource to inspire and empower you to "Follow Through" on your commitments to serve in the world's greatest Air & Space Force, enabling our Forces to dominate the fight – anytime, anywhere!





#### Appendix 1 – Adaptive Exercise Program (Bodyweight Day)

Dynamic Warm-Up/Movement Prep (10 min), 10 total reps or 10 yards each drill			
1) Calf Raise / Dorsi-Flex	6) Glute Bridge	11) Alternating Lateral Lunge	
2) Arm Rotations (small to large)	7) Bird Dog	12) Jumping Jacks	
3) 4-Way Neck Series	8) Air Squats	13) Butt Kicks	
4) Walk-Outs	9) Reverse Lunge & Twist	14) Vertical / Side Hops	
5) World's Greatest Stretch	10) Single Leg Romanian Dead Lift (RDL)		

В	odyweight Movement	Level 1	Level 2	Level 3
LE	Air Squats	x 8-12 reps	x 10-15 reps	x 15-20 reps
C/LE	Glute Bridge	x 8-12 reps	x 10-15 reps	x 15-20 reps
UE	Push-ups	x 8-12 reps	x 10-15 reps	x 15-20 reps
UE	Inverted Row	x 8-12 reps	x 10-15 reps	x 15-20 reps
C/ULE	Hollow Body Rock	x :15-:20	x :25-:30	-
C/UE	Side Planks	x :15-:20 ea	x :25-:30	x 15-20 reps
UE	HR Push-ups	-	x 10-15 reps	x 15-20 reps
LE	Split Squats	-	x 10-15 reps	-
C/LE	Cross Leg Reverse Crunch	-	-	x 15-20 reps
LE	Reverse Lunge	-	-	x 15-20 reps

#### Exercise Focus: LE: Lower Extremity/ UE: Upper Extremity/ ULE: Upper/Lower Extremity/ C: Core Exercise

Level 1: Complete 2-3 rounds of the strength training circuit with members moving at their own pace.

Level 2: Complete 2-3 rounds of the strength training circuit with members moving at their own pace.

Level 3: Complete 3-4 rounds of the strength training circuit with members moving at their own pace.

#### **Aerobic Conditioning**

Weeks 1 & 2: 7 x 2 min jog / 1 min walk @ easy, conversation pace

Weeks 3 & 4: 5 x 4 min jog / 2 min walk @ easy, conversation pace

Weeks 5 & 6:5 x 6 min jog / 2 min walk @ medium, slightly stressed conversation pace

Weeks 7 - 9: 4x1:00 on (medium pace) / 1:00 off followed by 4x1:00 on (easy pace) / 1:00 off followed by 4x1:00 on (hard) / 1:00 off (12 sets in total)

Weeks 10 & 11:  $4 \times 1:15$  on (medium pace) / 1:00 off followed by  $4 \times 1:15$  on (easy pace) / 1:00 off followed by  $4 \times 1:15$  on (hard) / 1:00 off (12 sets in total)

Week 12:  $2 \times 1:15$  on (medium pace) / 1:00 off followed by  $2 \times 1:15$  on (easy pace) / 1:00 off followed by  $2 \times 1:15$  on (hard) / 1:00 off (6 sets in total)

#### Initial Cool Down: 3-5 min walk

\*Low Impact Modification: Perform the same times & intensities on low impact cardio equipment\*

Recovery / Mobility (all x 20 – 30 sec hold)		
Hamstring Stretch	Chest Stretch	
90 / 90 Stretch	Frog Stretch	
Figure 4 Stretch		
Hip Flexor Stretch		



### Appendix 1 - Adaptive Exercise Program (Metabolic Interval Day)

Dynamic Warm-Up/Movement Prep (10 min), 10 total reps or 10 yards each drill			
1) Calf Raise / Dorsi-Flex	6) Glute Bridge	11) Alternating Lateral Lunge	
2) Arm Rotations (small to large)	7) Bird Dog	12) Jumping Jacks	
3) 4-Way Neck Series	8) Air Squats	13) Butt Kicks	
4) Walk-Outs	9) Reverse Lunge & Twist	14) Vertical / Side Hops	
5) World's Greatest Stretch	10) 1 Leg RDL		

Bodyv	veight Movement	Level 1	Level 2	Level 3	
LE	Air Squats		-	-	
LE	Frog Jumps		25 sec on / 35 sec off each movement	-	-
UE	Push-ups	20 sec on / 40 sec off each movement		-	
C/UE	Forearm Plank			-	
LE	Run In Place				
LE	Reverse Lunge	-			
LE	Side Hops	-	-	30 sec on / 30 sec	
UE	HR Push-ups	-	-	off each movement	
C/LE	Cross Leg Reverse Crunch	-	-		
C/UE	Side Plank	-	-		

\*Rest 2 minutes between each complete round\*

#### Exercise Focus: LE: Lower Extremity/ UE: Upper Extremity/ ULE: Upper/Lower Extremity/ C: Core Exercise

Level 1: Complete 3-4 rounds of the interval circuit with members moving at a high pace with good form.

Level 2: Complete 4-5 rounds of the interval circuit with members moving at a high pace with good form.

Level 3: Complete 4-5 rounds of the interval circuit with members moving at a high pace with good form.

#### **Aerobic Conditioning**

Weeks 1 & 2: 12 x 30 sec Run/Jog (medium-hard pace) / 1:00 walk

Weeks 3 & 4: 12 x 45 sec Run/Jog (medium-hard pace) / 1:00 walk

Weeks 5 & 6: 4x1:00 on (medium pace) / 1:00 off followed by 4x1:00 on (easy pace) / 1:00 off followed by 4x1:00 on (hard) / 1:00 off (12 sets in total)

Week 7: Steady state run for 20:00 @ medium, slightly stressed conversation pace

Week 8: Steady state run for 24:00 @ medium, slightly stressed conversation pace

Week 9: Steady state run for 28:00 @ medium, slightly stressed conversation pace

Weeks 10 & 11: Steady state run for 32:00 @ medium, slightly stressed conversation pace

Week 12: Steady state run for 25:00 @ easy, conversation pace

#### Initial Cool Down: 3-5 min walk

\*Low Impact Modification: Perform the same times & intensities on low impact cardio equipment\*

#### Recovery / Mobility (all x 20 – 30 sec hold)

Hamstring Stretch	Chest Stretch
90 / 90 Stretch	Frog Stretch
Figure 4 Stretch	
Hip Flexor Stretch	



#### Appendix 1 – Adaptive Exercise Program (Hybrid Day)

Dynamic Warm-Up/Movement Prep (10 min), 10 total reps or 10 yards each drill			
1) Calf Raise / Dorsi-Flex	6) Glute Bridge	11) Alternating Lateral Lunge	
2) Arm Rotations (small to large)	7) Bird Dog	12) Jumping Jacks	
3) 4-Way Neck Series	8) Air Squats	13) Butt Kicks	
4) Walk-Outs	9) Reverse Lunge & Twist	14) Vertical / Side Hops	
5) World's Greatest Stretch	10) 1 Leg RDL		

Level 1		Level 2		Level 3	
UE Push-up Pyramid (1-10-1)		UE	Push-up Pyramid (1-12-1)	UE	Push-up Pyramid (1-14-1)
ULE	Goblet Squat 3x10	ULE	Goblet Squat 3x12	ULE	1 ½ Goblet Squat 3x12
C/UE	RKC Forearm Plank 3x 20	C/UE	Cross Leg Rev Crunch 3x30	C/UE	1 Arm Forearm Plank
UE	Seated DB Shoulder Press 3x10	UE	DB Chest Press 3x12	UE	DB Chest Press (3 sec negative) 3x12
LE	DB Alternating Lunge 3x8 ea	LE	DB Walking Lunge 3x12ea	LE	Goblet Alt. Drop Lunge 3x12ea
C/LE	Cross Leg Rev Crunch 3x20	C/UE	Forearm Plank 3x max hold	C/ULE	Hollow Body Rock 3x12
UE	TRX Row 3x10	UE	Pull-ups 3x 3-6	UE	Pull-ups 3x 5-8
С	Sit-ups 3x20	C	Sit-ups 3x30	С	Sit-ups 3x40

#### Exercise Focus: LE: Lower Extremity/ UE: Upper Extremity/ ULE: Upper/Lower Extremity/ C: Core Exercise

Level 1: Complete 2-3 rounds of the strength training circuit with members moving at their own pace.

Level 2: Complete 2-3 rounds of the strength training circuit with members moving at their own pace.

Level 3: Complete 3-4 rounds of the strength training circuit with members moving at their own pace.

#### **Aerobic Conditioning**

Weeks 1 & 2: 7 x 2 min jog / 1 min walk @ easy, conversation pace

Weeks 3 & 4: 5 x 4 min jog / 2 min walk @ easy, conversation pace

Weeks 5 & 6: 5 x 6 min jog / 2 min walk @ medium, slightly stressed conversation pace

Weeks 7 - 9: 4x1:00 on (medium pace) / 1:00 off followed by 4x1:00 on (easy pace) / 1:00 off followed by 4x1:00 on (hard) / 1:00 of (12 sets in total)

Weeks 10 & 11: 4 x 1:15 on (medium pace) / 1:00 off followed by 4 x 1:15 on (easy pace) / 1:00 off followed by 4 x 1:15 on (hard) / 1:00 off (12 sets in total)

Week 12: Mock 2-mile run test or 20m HAMR test

#### Initial Cool Down: 3-5 min walk

\*Low Impact Modification: Perform the same times & intensities on low impact cardio equipment\*

#### Recovery / Mobility (all $\times 20 - 30$ sec hold)

Hamstring Stretch	Chest Stretch
90 / 90 Stretch	Frog Stretch
Figure 4 Stretch	
Hip Flexor Stretch	



#### Appendix 2 – 2-mile Remedial Action Program

**Level I** – Ideal for Airman/Guardians returning to running after being off for 8+ weeks. Start the program by building up to 30 minutes of non-stop walking, then progress to level II

	Day 1	Day 2	Day 3
Week 1	Walk 20 min	Walk 22 min	Walk 24 min
Week 2 Walk 26 min		Walk 28 min	Walk 30 min

**Level II** – For Airmen/Guardians returning to running after being off 4+ weeks. Gradually add short intervals of running between longer intervals of walking

Week 1 Walk 5 min/Run 1 min Repeat x 5		Walk 5 min/Run 1 min Repeat x 5	Walk 5 min/Run 1 min Repeat x 5	
Week 2	Walk 4 min/Run 2 min	Walk 4 min/Run 2 min	Walk 4 min/Run 2 min	
	Repeat x 5	Repeat x 5	Repeat x 5	
Week 3	Walk 3 min/Run 3 min	Walk 3 min/Run 3 min	Walk 3 min/Run 3 min	
	Repeat x 5	Repeat x 5	Repeat x 5	
Week 4	Walk 2 min/Run 4 min	Walk 2 min/Run 4 min	Walk 2 min/Run 4 min	
	Repeat x 5	Repeat x 5	Repeat x 5	
Week 5 Walk 1 min/Run 5 min Repeat x 5  Week 6 Walk 1 min/Run 8 min Repeat x 3		Walk 1 min/Run 5 min Repeat x 5	Walk 1 min/Run 5 min Repeat x 5	
		Walk 1 min/Run 8 min Repeat x 3	Walk 1 min/Run 8 min Repeat x 3	
Week 7	Walk 1 min/Run 10 min	Walk 1 min/Run 10 min	Walk 1 min/Run 10 min	
	Repeat x 2	Repeat x 2	Repeat x 2	
Week 8	Walk 1 min/ Run 15 min at PFA Pace	Walk 1 min/ Run 17 min Must be at a light/moderate pace	Walk 1 min/ Run mock PFA 2-mile	

Ready to return to strength and conditioning program, as able/indicated.



### Appendix 3 – Beginner 5km Training Program

	Day 1	Day 2	Day 3
	Warmup – Walk 1 Lap	Warmup – Walk 1 Lap	Warmup – Walk 1 Lap
Week 1	Alternate jog/walk every 100m for 1 mile Cooldown – Walk 1 Lap	Alternate jog/walk every 200m for 1 mile Cooldown – Walk 1 Lap	Alternate jog/walk every 200m for 1 mile
			Cooldown – Walk 1 Lap
	Warmup – Walk 1 Lap	Warmup – Walk 1 Lap	Warmup – Walk 1 Lap
	200m Run/200m Walk	300m Run/300m Walk	400m Run/400m Walk
	300m Run/300m Walk	300m Run/300m Walk	200m Run/200m Walk
Week 2	200m Run/200m Walk	400m Run/400m Walk	400m Run/400m Walk
	300m Run/300m Walk	200m Run/200m Walk	200m Run/200m Walk
	200m Run/200m Walk	Cooldown – Walk 1 Lap	Cooldown – Walk 1 Lap
	Cooldown – Walk 1 Lap		•
	Warmup – Walk 1 Lap	Warmup – Walk 1 Lap	Warmup – Walk 1 Lap
	400m Run/200m Walk	600m Run/300m Walk	800m Run/400m Walk
***	400m Run/200m Walk	600m Run/300m Walk	800m Run/400m Walk
Week 3	400m Run/200m Walk	600m Run/300m Walk	Push for a 2:30 min/lap pace
	400m Run/200m Walk	Push for a 2:30 min/lap pace	Cooldown – Walk 1 Lap
	Cooldown – Walk 1 Lap	Cooldown – Walk 1 Lap	*
	Warmup – Walk 1 Lap	Warmup – Walk 1 Lap	Warmup – Walk 1 Lap
	800m Jog/400m Walk	1200m Jog/800m Walk	2-mile jog, no walking
	800m Jog/400m Walk	1200m Jog	Cooldown – Walk 1 Lap
Week 4	800m Jog	Push for a 2:30 min/lap pace	Cooldown Walk I Eap
	Push for a 2:30 min/lap pace	Cooldown – Walk 1 Lap	
	Cooldown – Walk 1 Lap	Section want 1 2ap	
	Warmup – Walk 1 Lap	Warmup – Walk 1 Lap	Warmup – Walk 1 Lap
	800m Jog/400m Walk	1200m Jog/800m Walk	2-mile (3200m) jog, no walking
Week 5	800m Jog/400m Walk	400m Jog	Cooldown – Walk 1 Lap
WEEK 3	800m Jog	Cooldown – Walk 1 Lap	Cooldown Walk I Eap
	Cooldown – Walk 1 Lap	Cooldowii – Waik i Lap	
	Warmup – Walk 1 Lap	Warmup – Walk 1 Lap	Warmup – Walk 1 Lap
	800m Jog/400m Walk	1600m Jog/400m Walk	2.25-mile (3600m) jog, no walking
Week 6	400m Jog/400m Walk	1600m Jog	Cooldown – Walk 1 Lap
Week 6	800m Jog	Cooldown – Walk 1 Lap	Cooldowii – Walk I Lap
	Cooldown – Walk 1 Lap	Cooldown Walk I Lap	
	Warmup – Walk 1 Lap	Warmup – Walk 1 Lap	Warmup – Walk 1 Lap
	2.5-mile jog, no walking, vary PACE as	2.5-mile jog, no walking, vary PACE as	2.5-mile jog, no walking, vary PACE
Week 7	needed	needed	as needed
	Cooldown – Walk 1 Lap	Cooldown – Walk 1 Lap	Cooldown – Walk 1 Lap
	Warmup – Walk 1 Lap	Warmup – Walk 1 Lap	Warmup – Walk 1 Lap
		2.75-mile jog, no walking, vary PACE as	2.75-mile jog, no walking, vary PACE
Week 8	needed needed	needed	as needed
	Cooldown – Walk 1 Lap	Cooldown – Walk 1 Lap	Cooldown – Walk 1 Lap
	_	_	Warmup – Walk 1 Lap
	Warmup – Walk 1 Lap	Warmup – Walk 1 Lap	1 * *
Week 9	3-mile jog, no walking, vary PACE as	3-mile jog, no walking, vary PACE as	3-mile jog, no walking, vary PACE as
,, 0022 >	needed	needed	needed
	Cooldown – Walk 1 Lap	Cooldown – Walk 1 Lap	Cooldown – Walk 1 Lap
	Warmup – Walk 1 Lap	Warmup – Walk 1 Lap	Warmup – Walk 1 Lap
Week 10	3.25-mile jog, no walking, vary PACE as	3.25-mile jog, no walking, vary PACE as	3.25-mile jog, no walking, vary PACE
,, con 10	needed	needed	as needed
	Cooldown – Walk 1 Lap	Cooldown – Walk 1 Lap	Cooldown – Walk 1 Lap



#### **Appendix 4 – Sample Workouts**

Workout 1	The purpose of this session is to train at higher, sustained intensity for the 2-mile run
-----------	---

Warmup	
Walking Knee Hugs	x 10 yds
Straight leg kicks (Frankensteins)	x 10 yds
Heel to Toe walks	x 10 yds
Lateral shuffle	x 20 yds
High knees	x 10 yds + jog back
Butt kicks	x 10 yds + jog back
Forward Pogo hops	x 10 yds + jog back
Progressive striders (progressively get faster)	2 x 40 yds

	Endurance					
Exercise	Pace	Intensity	Rest			
1 x 800m	~10 seconds less than 2-mile goal pace	7/10 RPE	1:2			
2 x 400m	~5-10 seconds less than 2-mile goal pace	or 60-70% of HR max for untrained and 70-	1:2			
4 x 200m	=/>5 seconds less than 2-mile goal pace	80% HR max for trained	1:3			

#### **Notes**

**Groups**: Recommend splitting into pacing groups pending number of participants. For example, Group A runs 2-mi <16:00; Group B 16:00-18:00; Group C >18:00.

**Pace:** For example, if your goal is to run 2-mi in 16min., you would run 2min. per lap (400m) and 4 min. per 2 laps (800m). So, your goal for this workout session would be to complete 1 lap in 1:50- 1:55min and 2 laps in 3:50min.

**Rest:** 1:2 rest means your rest is double the amount of time it took you to complete the exercise. For example, if you ran a lap in 2 mins, then you would take 4 minutes of rest.

Cooldown/Recovery		
Walk 1 lap		
Quad stretch		
Standing Hamstring stretch		
Standing calf stretch		
Kneeling Hip Flexor Stretch		



#### Appendix 4 – Sample Workouts Continued

### Workout 2

The purpose of this session is to target all major muscle groups for a full body weight training workout. This session includes explosive movements to improve power.

Warmup	
World's Greatest	2 x 8 each
Inchworms	2 x 8
90/90 hip switch	2 x 12 total
Knee hug to lunge	x 10 yd + jog back
Straight leg kicks	x 10 yd + jog back
Quad pulls	x 10 yd + jog back
High knees	x 10 yd + jog back
Butt kicks	x 10 yd + jog back
Pogo hops fwd / back	x 10 yd fwd down and 10 yd back
Striders / Run	x 20 yd down and 20 yd back

	Strength/Resistance Training				
	Exercise	Sets	Reps	Tips	
	DB Thrusters		10	Choose a wt. light enough that you can be explosive	
	OH weighted hamstring walk outs		5 total	Take 4 steps out then in for each rep	
Block A	Rotational MB throws	3 x	10 each	Perform 20 Russian twists if wall or MB is unavailable	
	Suitcase carry		x 10 yd each	Avoid letting KB rest or touch your hip/thighs	
	KB Swings		15	Hinge at hips	
	DB chest press		10	Can use BB or DB on bench or ground	
Block B	Renegade row	3 x	12 total	No push-up in between. Avoid rocking hips	
	Sled push or plate push		x 20 yd		

#### **Notes**

Split up into 2 groups. One group completes Block A and the other completes Block B. After group completes assigned block, they will switch to other block. For each block, complete one set of each exercise, then repeat second set starting back at first exercise.

BB = barbell; DB = dumbbell; KB = kettlebell; MB = Medicine Ball; OH = overhead

Cooldown/Recovery		
Standing hamstring stretch	Hold ~20sec. each leg	
Standing quad stretch	Hold ~20sec. each leg	
Chest opener stretch	Hold ∼20sec.	
Supine piriformis stretch	Hold ~20sec. each leg	
Child's pose	Hold 20sec	



### Appendix 4 – Sample Workouts Continued

#### **Workout 3**

The purpose of this session is to target all major muscle groups for a full body weight training workout. The goal is to increase muscle mass and improve strength. This workout requires a power rack, dumbbells, and adjustable bench.

Warmup	
Scorpions	2 x 10 total
90/90 hip switch	2 x 10 total
T-spine book opener	2 x 6 each
Inchworms	2 x 8
Full range of motion arm circles	2 x 10 fwd / 10 reverse
Leg swings	2 x 10 each

Strength/Resistance Training				
	Exercise	Sets	Reps	Intensity
A1	BB Squat (Front/Back/Box)	3	10, 8, 8	
A2	Pull-ups*	3	60% of max reps	
A3	Deadbugs	3	10 total	
B1	BB RDL	3	10, 8, 8	Choose a weight that you are unable to easily complete 2-3 reps over listed reps. Difficulty
B2	DB half kneeling shoulder press	3	8 each	should be about 7/10. Recommend increasing
В3	Farmer's Carry	3	x 20 yd.	weight as reps decrease.
C1	DB Incline bench press	3	10, 8, 8	
C2	Stationary weighted lunges	3	8 each	
С3	Bear stance plank taps	3	20 total	

#### **Notes**

Perform one set of each exercise in the block, then repeat from beginning until each set is complete. After each set is complete for a block, move to the next block.

BB = barbell; DB = dumbbell

\*use assisted pull-up machine or bands if unable to complete body weight pull-up

Cooldown/Recovery		
Standing hamstring stretch	Hold ~20sec. each leg	
Standing quad stretch	Hold ~20sec. each leg	
Chest opener stretch	Hold ~20sec.	
Supine piriformis stretch	Hold ~20sec. each leg	
Child's pose	Hold 20sec.	



### Appendix 4 – Sample Workouts Continued

Workout 4 The purpose of this session is to get exposure to movements and help develop a base (1x20 Method).

Warmup	
Knee Hug + Lunge	25 yd
Quad Stretch + Single Leg RDL	25 yd
Lateral Lunge (alternate sides each rep)	25 yd
Hamstring Scoop or Straight Leg Kick	25 yd
High Knees	25 yd
Butt Kicks	25 yd
Shuffle	25 yd each side
Carioca	25 yd each side
50% Sprint + Backpedal back to original line	25 yd
3 Quick Hard Strides + Backpedal back to original line	25 yd

"Hybri	"Hybrid" (Strength and Endurance work) – Work capacity day				
	Exercise	Sets	Reps	Intensity	
A1	Goblet Squat	1	20	7-8	
A2	½ Kneeling Hip Flexor Stretch	2	:20 each side	7-8	
A3	Mini Band Monster Walks	2	:20 each side	7-8	
B1	Hand Release Push Ups	1	20	7-8	
B2	Stability Ball Leg Curls	1	20	7-8	
C1	TRX Rows or Barbell Inverted Row	2	20	7-8	
C2	2 Dumbbell RDL	2	20	7-8	
D1	Step Up to Hip Flexion	1	20	7-8	
D2	Lat Pull Down	1	20	7-8	
E1	Sit Up Variation for PT Test	1	20	7-8	
E2	Rope Face Pull	1	20	7-8	

### Notes

Pick a weight that you can get 20 reps but can't get many more after that.

Cooldown/Recovery	
5 minutes on bike	
90/90 Hip Flips	10 Flips
Child's Pose (3 Way Stretch)	Hold :30 in each position



### Appendix 4 – Sample Workouts Continued

Workout 5

The purpose of this session is to build muscular strength and endurance. The minimal rest period keeps heart rate elevated to promote cardiovascular fitness. The work and rest periods can be adjusted according to physical ability of the group.

Warmup			
90/90 hip switch		10 total	
Swimmers prone scap reach	2 x	8 total	
Single leg glute bridge	8 each leg		
Knee hug to lunge	x 10 yds + jog back	x 10 yds + jog back	
Quad pull to reach	x 10 yds + jog back	x 10 yds + jog back	
Hamstring sweep	x 10 yds + jog back	x 10 yds + jog back	
High knees	x 10 yds	x 10 yds	
Butt kicks	x 10 yds	x 10 yds	
Pogo hops Fwd/Back	x 10 yds each	x 10 yds each	
High Skips	x 10 yds		

"Hybri	"Hybrid" (Strength and Endurance work) – Work capacity day				
	Exercise	Notes	Stations:		
1	MB Clean to Press	Can use DB if needed			
2	Plank Taps		20		
3	KB swings		30 seconds on; 10 seconds off each exercise x 3-4 rounds		
4	DB Chest press on floor		1 minute rest in between rounds		
5	Walking lunges	Add weight to increase difficulty. Use alt. reverse lunges if limited space			
6	Alt. V-ups				
7	Renegade rows	Add push-up in b/t to increase difficulty	*adjust time on and off duration to increase or decrease intensity*		
8	Glute bridge with OH hold	Glute bridge marches to increase difficulty			
9	Flutter Kicks				

#### Notes

Use 10 second rest to change stations. Suggested 1-2 people per exercise at one time. Add or subtract exercises pending number of people.

MB = Medicine ball; DB = Dumbbell; KB = kettlebell; OH = overhead; Alt. = alternating

Cooldown/Recovery		
Supine piriformis stretch	Hold ~20sec. each leg	
Child's pose	Hold 20sec x 2	
Chest opener again wall/pole	Hold ~20sec. each arm	
Standing Iside OH reach	5 second reach with exhale x2 each way	



### Appendix 4 – Sample Workouts

#### **Workout 6**

The purpose of this session is to introduce Airmen to a benchmark workout that will screen, challenge and develop cardiorespiratory endurance, mobility, strength, flexibility, speed, coordination agility, balance and accuracy.

Warmup – 15 Minutes		
Slow Jog	2 x 10 yards (10 down; 10 back)	
Butt Kicks	2 x 10 yards (10 down; 10 back)	
High Knees	2 x 10 yards (10 down; 10 back)	
"A" Skips	2 x 10 yards (10 down; 10 back)	
Pike Plank Ankle Mobility	1 x 10 reps (Each Ankle)	
Sumo Squat with Overhead Reach	1 x 10 reps	
Walking World's Greatest/Spiderman	2 x 10 yards (10 down; 10 back)	
Walking Lunge with Reach	2 x 10 yards (10 down; 10 back)	
Walking Figure Four	2 x 10 yards (10 down; 10 back)	
Touch Toe Walk	2 x 10 yards (10 down; 10 back)	
Single Arm Alternating Backward Rotation	1 x 10 reps (Each Arm)	
Single Arm Alternating Forward Rotation	1 x 10 reps (Each Arm)	
Bent Over Double Arm Swings	1 x 10 reps	

"Hybr	"Hybrid" (Strength and Endurance Work) – 3 Rounds for Time of			
	Exercise	Sets	Reps	
	500 Meter Run	3		
	21 Air Squats	3	21	
	12 Hand Release Push-ups	3	12	

#### **Notes**

Perform the 500 meter run, 21 air squats, 12 hand release push-ups, this counts as one round, complete two more rounds for time

Time Goal is between 8 - 15 minutes.

- a. Under 8 minutes elite level of fitness
- b. 8 to 9 minutes high level of fitness
- c. 9 to 10 minutes high/moderate level of fitness
- d. 10 to 11 minutes moderate/low level of fitness
- e. 11 to 15 minutes low/sedentary level of fitness

Cooldown/Recovery – 15 Minutes	
Posterior Hip Stretch: Lying Down Hamstring Right and Left Leg	20 Second Hold Each Leg
Posterior Hip Stretch: 90/90 Crossover Right and Left Leg	20 Second Hold Each Leg
Posterior Hip Stretch: Figure Four Right and Left Leg	20 Second Hold Each Leg
Anterior Hip/Ankle Stretches: Right and Left Lunge	20 Seconds Hold Each Side
Anterior Hip/Ankle: World's Greatest/Spiderman	5 Reps Right and Left Side
Shoulders: Arms Behind Your Back/Fingers Interlocked; Hands Resting Against the	20 Second Hold
Tailbone; Shoulders Rolled Back and Shoulder Blades Squeezed Together	
Shoulders: Hang from Pull-up Bar	20 Second Hold



#### Appendix 5 – Exercise Library

### **Dynamic Warm-Up**

The purpose of the dynamic warm-up is to prepare the body for movement and higher-level performance. The goal of the warm-up is to increase heart rate, transfer blood flow to the working musculature, elevate core temperature, and help the joint structures prepare for exercise and movement.

Calf Raise/Dorsi-Flex Glute Bridge

Arm Rotations (small to large) Bird Dog Alternating Lateral Lunge

4-Way Neck Series

Air Squats

Butt Kicks

Walk-Outs

Reverse Lunge & Twist

Vertical/Side Hops

World's Greatest Stretch 1 Leg RDL

### **Physical Training**

Listed are exercises designed to develop muscular strength, stamina, and promote overall physical well-being. A majority of the movements are bodyweight, but some do require minimal equipment that can be found at most installations.

Air Squats Seated Dumbbell (DB) Shoulder Pull-ups
Glute Bridge Press TRX Row

Push-ups DB Alternating Lunge

Inverted Row Sit-ups

Hollow Body Hold Hand Release Push-up
Side Plank Cross Leg Reverse Crunch

Frog Jump Forearm Plank
Forearm Plank
Side Hops
Run in Place Split Squat
KB/DB Goblet Squat
DB Chest Press

### **Recovery Training**

Listed are activities that increase the body's mobility and ability to fully recover from physical training. These will help to expedite the recovery process and to maximize the training adaptations achieved through exercise.

Hamstring Stretch

90 / 90 Stretch

Figure 4 Stretch

Hip Flexor Stretch

**Chest Stretch** 

Quadruped Frog Stretch



#### **Appendix 5 – Exercise Library Continued**

### Calf Raise/Dorsi-Flex





Standing feet shoulder width apart, raise your heels up and then raise your toes up. Perform 10 repetitions for each movement.

#### **Arm Circles**





Standing feet shoulder width apart make small circles and then increase to larger. Perform 10 repetitions each direction.

### 4-Way Neck Series





Standing feet shoulder width apart. Slowly move head back, then forward, repeat for each side. Perform 10 repetitions front/back, then side to side.

#### Walk-Outs



Starting from a standing position, slowly put your hands on the ground and walk them out to an extended arm plank position, then walk your hands back towards your feet and stand up. Perform 10 repetitions.



#### Appendix 5 – Exercise Library Continued

#### World's Greatest Stretch



Start from a standing position. 1) Step forward with your left foot, into a lunge position. Bringing your left elbow to your left knee, reach across your right arm. 2) Twist your body and rotate up and to the left, reaching up with your left hand. 3) Bring your hands back down, returning to the lunge position and then back to the starting position. Perform 5 repetitions each side.

#### Glute Bridge





Lying on your back with arms away from your sides, with feet flexed. Raise your hips off the ground, forming an arch, resting your weight on your shoulder blades (not your neck). Use your hands for balance. Hold for 10-15 seconds and return to start position. Perform 5 repetitions.

#### Bird Dog





Kneeling with palms and knees on the ground; knees directly below hips. Lift and extend left arm and right leg simultaneously. Hold for 10-15 seconds. Return to the start position. Perform 5 repetitions on each side.

#### Air Squats







Standing feet shoulder width apart. Squat deeply driving hips back with chest high, heels on the ground. At the same time, lift both arms to shoulder height. Squeeze glutes to return to standing.



#### **Appendix 5 – Exercise Library Continued**

#### Reverse Lunge and Twist











Standing feet shoulder width apart. Step back with right foot into lunge position. Brace your upper back and twist away from the front foot. Pause, twist back towards the front foot, then return to a standing position. Alternate legs and repeat the progression. Perform 5 repetitions on each leg.

### Single Leg Romanian Deadlift





Performance: Standing feet shoulder-width apart hands at your side. In one movement and keeping you back as flat as possible, push the hips back extending one leg up and to the rear while bending forward. Hold 5-10 seconds and return to start. Perform 5 repetitions.

#### Alternating Lateral Lunge









Standing feet wider than shoulder width apart, arms bent at 90 degrees to the front. Driving your hips backward, lower your upper body into a side-lunge position over the left foot, hold 5 seconds and return to start. Alternate legs and repeat the progression. Perform 5 repetitions on each leg.



#### **Appendix 5 – Exercise Library Continued**

### Jumping Jacks









Performance: From a standing position with your hands at your sides and feet together. On the start jump to spread your feet apart and hands meet overhead. Return to the start position. Perform 10 repetitions.

#### **Butt Kickers**



Performance: Standing straight, lift left foot up and back so that heel touches buttocks. Return to starting position and alternate legs. Alternate pumping opposite arms for balance. Perform 10 repetitions.

#### Vertical Side Hops





Standing on left foot with arms bent at 90 degrees. With weight in the ball of left foot hop sideways, as though over a small hurdle onto the right foot. Repeat this side hop continuously for 10 repetitions keeping knees slightly bent throughout.



#### Appendix 5 - Exercise Library Continued

#### Side Plank



On your left side with your body in a straight line (head, shoulder, hip, knees and ankles should be aligned) and forearm underneath you. Push up on your left forearm, lifting your right hip, creating a straight line from your shoulder to your ankle. Only your left foot and left forearm should remain on the ground. Resist hips sagging or rotating.

#### Frog Jump







Start with feet shoulder width apart, cross one hand over the other in front of the body with fingers pointing to the ground. Lower yourself into a squat position. Keep the chest tall with knees wide and in line with the toes. Jump into the air extending both arms toward the ground. Land gently and return to the starting position and repeat as directed.

#### Forearm Plank



Begin with both forearms and toes on the ground with the body in a straight line. Clasps the hands in a fist and place the elbows underneath the shoulders. Remain in this position throughout the duration of this exercise. Prevent hips from rotating, arching, or sagging and keep the core engaged throughout movement.

#### Split Squat



Start with feet shoulder width apart and hands on your hips. Step one leg back keeping the heel off the ground. Shift weight to the front leg and lower until the thigh is parallel with the floor. Push through your front foot and straight up. Feet stay in place for all repetitions, then switch.



### **Appendix 5 – Exercise Library Continued**

#### DK/KB Goblet Squat





Hold the weight in front of your chest just below the chin. Keep shoulder blades back and down throughout movement. Squat deeply with hips back and heels on the ground. Rise from squat position, contracting glutes and return to starting position.

#### Hollow Body Hold



Lay on your back with legs extended and arms at your side. Press the lower back into the floor. Lift your arms overhead and raise your shoulders off the ground. Lift your legs off the ground no more than 30 inches and hold as directed.

#### Push-ups



From the front leaning rest position, lower your body towards the ground until your elbows are bent at 90 degrees. Keep your back straight and return to the start position. Do not rest on ground.



#### **Appendix 5 – Exercise Library Continued**

#### **Dumbbell Shoulder Press**





Standing or seated, bring dumbbells to the shoulders with palms faced in. Press the dumbbells overhead maintaining slight bend in the elbow. Pause briefly, then in a controlled manner lower dumbbells to the start position.

#### **DB** Alternating Lunge









Standing with feet hip width apart and hands on the hips, take a step forward with the left foot, bend the back knee to lower the hips down towards the ground without allowing the knee to contact the ground. Squeeze gluts driving heel into the ground to return to starting position. Repeat with right leg.

#### Hand Release Push-ups











From front leaning rest position, lower your body towards the ground until your body is resting on the ground. Extend arms out to the side. Return your arms back underneath you, keeping your back straight, press up into the starting position.

#### Cross Leg Reverse Crunch











Start lying on your back arms crossed across the chest, knees in full extension, heels on the ground. Bring both knees towards the chest while rotating an elbow to the opposite thigh. Return to the starting position with heels tapping the ground. Repeat rotating torso to the opposite thigh.



#### **Appendix 5 – Exercise Library Continued**

#### Side Hops





Stand with your feet together and hands on your hips. Bend your knees and hips to crouch down. Hop to one side as far as you can safely. Hop back to the other side and repeat.

#### Sit-up





Lying on your back with your knees bent at 90 degrees, your feet and heels in contact with the ground. Cross your arms over your chest with your hands resting on your shoulders or on your upper chest. Bring your upper body forward until your elbows touch your knees or thighs. Lower your back until your shoulder blades touch the ground. Keep your buttocks in contact with the floor/ground throughout the exercise. Keep your hands in contact with your body throughout the exercise.

#### **DB Chest Press**







Lie back on a weight-bench with dumbbells in your hands. Press dumbbells up and away from the body. Under control, lower the dumbbells towards the chest, pause briefly, then return to the start position.

#### Run in Place



Feet shoulder width apart begin running in place. Good arm and knee action. Head up, upright torso.



#### **Appendix 5 – Exercise Library Continued**

#### Hamstring Stretch



Standing feet shoulder width apart, hands at sides. Hinge at the hips and bend down to the left to allow the shoulders to move forward and move towards the left toes. Hold 20-30 seconds and repeat on the right side.

#### 90/90 Stretch







Sit on the ground, left leg in front, bent at 90 degrees, the right leg will also be bent at 90 degrees. Extend both arms leaning the shoulders down towards the front knee. Hold 20-30 seconds and repeat on the opposite side.

#### Chest Stretch





Laying prone, slightly bend one elbow with that palm placed flat on the ground. Slowly apply pressure, lifting that shoulder off the ground while simultaneously reaching the same foot behind and across the body to stretch the shoulder and chest. Hold for 20-30 seconds and repeat on the other side.

#### Frog Stretch



Start by kneeling on the ground, knees wider than hips with lower leg 90-degrees back behind the body. Palms or forearms are placed on the ground, and using gentle pressure, press hips backwards stretching the inner thigh. Hold for 20-30 seconds and relax.



### Appendix 6 – HAMR Improvement Program

6-Week HAMR Improvement Program								
	Week 1	Week 2	Week 3					
Day 1	A. 4x200m Rest 60 sec. B. 2x400m Rest 75 sec. C. 3x30m Sprints	<ul><li>A. 4x200m Rest 60 sec.</li><li>B. 2x400m Rest 75 sec.</li><li>C. 3x30m Sprints</li></ul>	<ul><li>A. 5x200m Rest 60 sec.</li><li>B. 3x400m Rest 75 sec.</li><li>C. 3x30m Sprints</li></ul>					
Day 2	A. 20 min sustained run B. 5x100m Strides C. 2x200m Sprints, Rest 60 sec.	<ul> <li>A. 20 min sustained run</li> <li>B. 5x100m Sprint, walk back recovery</li> <li>C. 2x200m Sprint, Rest 60 sec.</li> </ul>	<ul><li>A. 25min sustained run</li><li>B. 6x100m Strides</li><li>C. 3x200m Sprints, Rest 60 sec.</li></ul>					
Day 3	A. Test your HAMR B. 4x20m Sprints, Rest 30 sec.	A. Test Your HAMR B. 4x20m Sprints, Rest 30 sec.	A. Test Your HAMR B. 5x20m Sprints, Rest 30 sec.					
	Week 4	Week 5	Week 6					
Day 1	A. 5x200m Sprints, Rest 60 sec. B. 3x400m Sprints, Rest 75 sec. C. 3x30m Sprints, Rest 30 sec.	<ul><li>A. 6x200m Rest 60 sec.</li><li>B. 4x400m, Rest 75 sec.</li><li>C. 3x30m Sprints, Rest 60 sec.</li></ul>	A. 6x200m Sprints, Rest 60 sec. B. 4x400m Sprints, Rest 75 sec. C. 3x30m Sprints, Rest 60 sec.					
Day 2	<ul> <li>A. 25 min sustained run</li> <li>B. 6x100m Strides, Walk Back recovery</li> <li>C. 3x200m, Rest 60sec.</li> </ul>	A. 30 min sustained run B. 8x100m, walk back recovery C. 4x200m, Rest 60 sec.	<ul><li>A. 30 min sustained run</li><li>B. 8x100m Sprints, walk back recovery</li><li>C. 4x200m, Rest 60 sec.</li></ul>					
Day 3	A. Test Your HAMR B. 5x20m Sprints, Rest 30 sec	A. Test Your HAMR B. 6x 20m Sprints, Rest 30 sec	A. Test Your HAMR B. 6x20m Sprints, Rest 30 sec					



### **Appendix 7 – Data Conversion Tables**

Distance Conversions								
Run (m)	Row (m)	BikeErg (m)	SkiErg (m)	Assault Bike (cals)	Echo Bike (cals)			
100	125 / 100	250 / 200	125 / 100	8 / 6	6/5			
200	250 / 200	500 / 400	250 / 200	15 / 12	12 / 10			
400	500 / 400	1,000 / 800	500 / 400	30 / 24	24 / 19			
600	750 / 600	1,500 / 1,200	750 / 600	45 / 36	36 / 29			
800	1,000 / 800	2,000 / 1,600	1,000 / 800	60 / 48	48 / 38			
1,000	1,250 / 1,000	2,500 / 2,000	1250 / 1,000	75 / 60	60 / 48			
1,600	2,000 / 1,600	4,000 / 3,200	2,000 / 1,600	120 / 96	96 / 77			
2,000	2,500 / 2,000	5,000 / 4,000	2,500 / 2,000	150 / 120	120 / 96			
5,000	6,250 / 5,000	12,500 / 10,000	6,250 / 5,000	375 / 300	300 / 240			
10,000	12,500 / 10,000	25,000 / 20,000	12,500 / 10,000	750 / 600	600 / 480			

Calorie Conversions							
Row / BikeErg / SkiErg	Assault Bike	Echo Bike	Air Runner				
10	8	6	8				
15	11	9	11				
20	15	12	15				
25	19	15	19				
30	23	18	23				
35	26	21	26				
40	30	24	30				
45	34	27	34				
50	38	30	38				



#### Appendix 8 – Sleep Sheet

The Good		The	Bad	The Ugly		
Behavior	Effect on Sleep	Behavior	Effect on Sleep	Behavior	Effect on Sleep	
Consistent Sleep Schedule	Creating a routine helps support the body circadian rhythm. A Sleep Journal helps track sleep habits, allowing you to identify patterns and pinpoint habits that improve or disrupt your sleep quality.	Utilizing screens in bed	Screens emit blue light, which suppresses melatonin production, making it harder to fall asleep. Action- packed or emotionally intense content can increase heart rate and adrenaline levels, making it difficult to relax.	3 consecutive nights of bad sleep = 2 - 3 drinks of alcohol	Consistent lack of sleep has been shown to be the equivalent of consuming 2 - 3 alcoholic drinks	
Dark, cool, quiet environment	Dim lighting, especially warm- toned light, helps signal your body that it's time to wind down and prepare for sleep. Listening to soft music promotes relaxation and enhances melatonin production.	Daily melatonin supplement	Every once in a while is okay but regular use effects the body circadian rhythm and natural process of producing melatonin	Energy Drink Consumption	Contributes to restlessness, nervousness, anxiety, insomnia, tremors, seizures, psychosis, depression, hallucinations, and anxiety	
Meal choices and timing	A light snack, such as a banana with almond butter, provides a good mix of magnesium and protein to help relax muscles and stabilize blood sugar levels.  Foods like turkey, cherries, milk and oatmeal containing sleeppromoting nutrients like tryptophan, melatonin, magnesium, calcium and vitamin B which support restful sleep.	Nicotine within 2 hours of sleep Alcohol within 2 hours of sleep Caffeine within 6 hours of sleep	Caffeine is a stimulant and if consumed close to bed time makes it harder to fall asleep. Alcohol may help you fall asleep initially, but it disrupts the later stages of sleep, leading to poor quality rest.			
Consistent exercise routine	Exercising regularly helps you fall asleep faster, sleep more soundly, and wake refreshed.  Exercise helps regulate the body's internal clock, the circadian rhythm, promoting more consistent sleep patterns.	Over the counter sleep medicine	Temporary fix to fall asleep but will disrupt the later stages of sleep, leading to poor quality rest.			



Appendix 9 – Sleep Diary

# **Sleep Diary**

SLEEP	Bedtime:		
SCHEDULE	Rise Time:		

DAY OF THE WEEK							
DATE							
Q1 What time did you get into bed?							
Q2 What time did you try to go to sleep?							
Q3 How long did it take you to fall asleep?							
How many times did you wake up, not counting your final awakening?							
Q5 In total, how long did these awakenings last?							
Q6 What time was your final awakening?							
Q7 What time did you get out of bed for the day?							
Q8 How would you rate the quality of your sleep?	O Very poor O Poor O Fair O Good O Very good	O Very poor O Poor O Fair O Good O Very good	O Very poor O Poor O Fair O Good O Very good	O Very poor O Poor O Fair O Good O Very good	O Very poor O Poor O Fair O Good O Very good	O Very poor O Poor O Fair O Good O Very good	O very poor O Poor O Fair O Good O very good
Note anything that interfered with your sleep.							

	End-of-week calculation
	Easy calculations at
000	mysleepwell.ca/calculator

© 2018 D. Gardner, A. Murphy - Update: Dec 2024

**SLEEP NUMBERS**  1 Sleep window:

2 Time awake:

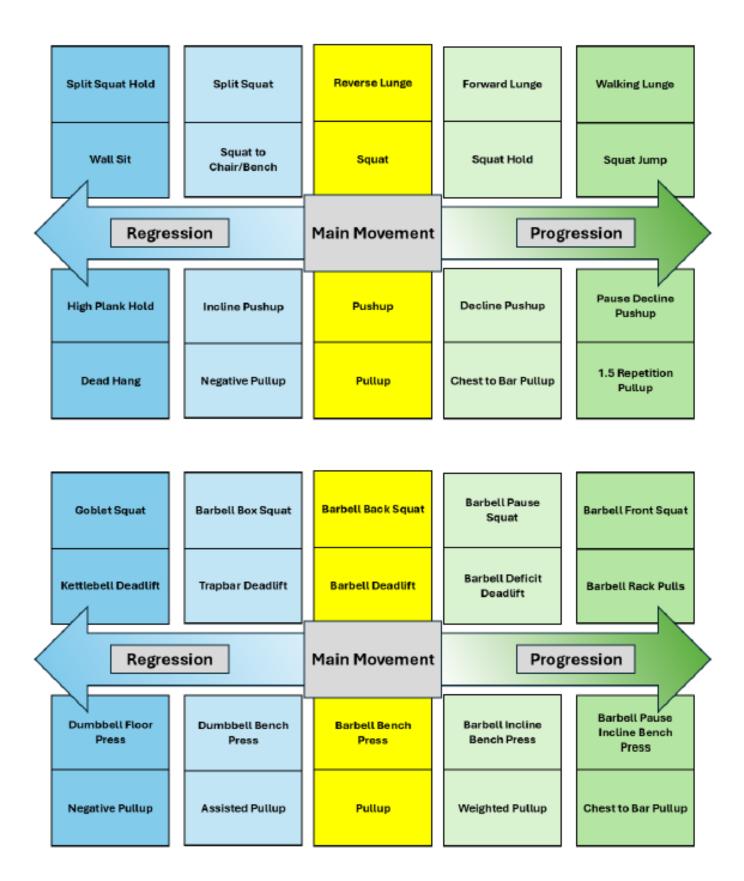
3 Time asleep:

4 Sleep efficiency:

%



#### **Appendix 10 - Progression and Regression Examples**





# **Stress Utilization Cards Included:**

- Skills Cards Overview (Page 41)
- Challenge Yourself (Page 42)
- Tactical Breathing (Page 43)
- Diver Reflex (Page 44)
- •5-4-3-2-1 (Page 45)
- Progressive Utilization (Page 46)
- Mindful Breathing (Page 47)



# Stress Utilization Skill Cards

Use these cards to quickly refer to stress utilization skills that can help across different types of stressors and times of stress. Practicing one of these skills for 2 - 5 minutes per week can increase your ability to effectively use them when they're needed most.

# 1. Match the Type and Timing of Stressor

- Refer to the left side of the card for the type of stressor: Challenge, Hindrance, or Threat
- Refer to the top right corner for the timing:
   Before, During, or After the stressor

#### 2. Find a Card That Best Fits Your Stressor

- Different stress skills are more effective for different stress types

## 3. Follow the Directions

- Practice increases effectiveness



# Stress Utilization Challenge Yourself

Change worrier into Warrior.

Perceiving stressors as a challenge allows you to raise up to a task and use the extra energy provided by stress to complete your missions and achieve more than you thought you could.

#### 1. Identify the Stressor

- Find out exactly what is cause you stress

#### 2. Focus on What You Can Control

- Find out what can you do to change your situation?

### 3. Change Your Perspective

 Look at the stressor as an opportunity for growth, or to show off what you can do

# 4. Set Achievable, Scalable Goals

- Make small, actionable steps to complete a larger goal

# 5. Emphasize the Benefits

# 6. Adopt a Problem-Solving Mindset

- "How can I?" instead of "I can't"



# Stress Utilization Tactical Breathing

Tactical or "Box" Breathing can be used during a stressful event to settle your body by lowering your heart rate, blood-pressure, and counterbalancing your fight or flight response.

# 1. Take a Deep Breath in for 4 Seconds

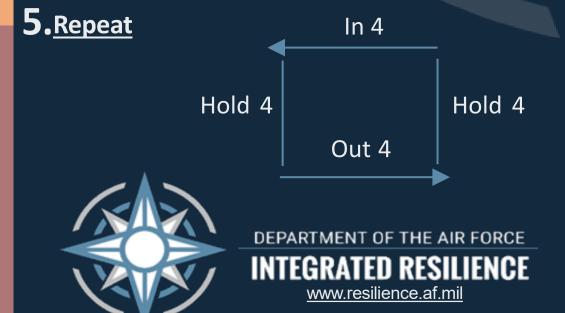
- Breath through your nose
- Extend your stomach not chest

# 2. Hold Your Breath for 4 Seconds

# 3. Exhale for 4 Seconds

- Exhale through your mouth
- Pull in your stomach

### 4. Hold Your Breath for 4 Seconds



# Stress Utilization Dive Reflex

The Dive reflex is a natural survival mechanism that triggers when you submerge your face into cold water. It resets your stress response allowing you to regain control and mental clarity.

# 1. Prepare a Large Bowl of Ice Water

- If you don't have ice, use very cold water
- Adding ice will increase the effectiveness

# 2. Submerge Your Face in the Water

 Hold your breath and gently dip your face in the water for 15-30 seconds

## 3. Slowly Remove Your Face

- Take slow deep breaths through your nose, exhaling out of your mouth
- Notice the change in alertness and energy

# 4. Repeat as Needed

 You can do this up to three times in one session, taking short breaks in between



# Stress Utilization

$$5-4-3-2-1$$

Grounding can be used during a stress response when you or a Wingman feel like you're losing control. It helps pull you back and lets you respond instead of freezing.

You may need to walk your Wingman through this.

# 5. Look around and name 5 things

- Say it out loud

# 4. Touch 4 specific things

- Seek out different things where you are
- Patches on your uniform, etc.

# 3. Listen for 3 separate sounds

- Try to tell the difference in their noise

# 2. Smell 2 different things

- Identify at least 2 different smells

# 1. Taste 1 thing

- Sour candy, protein bar, sweat, etc.
- The stronger taste the better



# **Stress Utilization** *Progressive Relaxation*

Progressive relaxation techniques can help you differentiate tension and relaxation, reducing symptoms of chronic stress and anxiety while aiding mental clarity.

## 1. Find a Comfortable, Seated Position

#### 2. Tension and Release

- Start by flexing the muscles in your your feet for 10 seconds
- Relax them completely for 20 seconds
- Notice the difference

# 3. Work Upwards

- Continue the cycle of tension and relaxation up your body
- > Calves, thighs, buttocks, abs, chest, arms, shoulders, and face
- Focus on the feelings before and after

### 4. Observe the Sensation of Relaxation

- Compare to how you felt before



# Stress Utilization Mindful Breathing

Mindful breathing exercises can help ease symptoms of anxiety by bringing you back into the moment, training you to focus on the here-and-now.

## 1. Find a Comfortable, Seated Position

## 2. Take Deep, Slow Breaths

- Breathe in through your nose
- Breathe out through your mouth
- Extend your stomach, not chest

# 3. Focus On, and Count Your Breaths

- Feel the air pass through your nose
- Clear your mind of all other distractions
- Keep count of your breaths

# 4. Stay Non-Judgmental

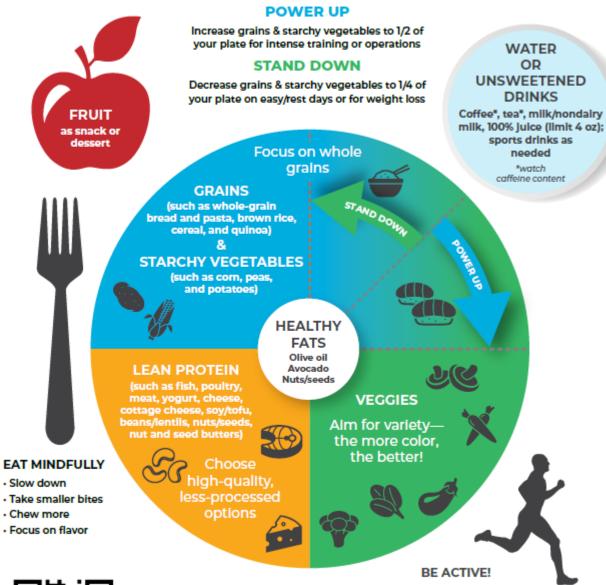
- If you think of something else that's okay, just work to clear your mind
- If you lose count, that's okay just start over
- It's not a competition
- You'll get better with practice



#### **Appendix 12 – Eat to Fuel Performance**

# POWER PLATE

#### EAT TO FUEL YOUR PERFORMANCE





For optimal performance, match your portions with your activity level (this can change day to day)

Adapted from: Team USA's Athlete's Plates For more information, visit HPRC-online.org/nutrition



HUMAN PERFORMANCE RESOURCES by CHAMP | HPRC-online.org





# WUT TO LOOK FOR



Throughout the day, remember to check your:

✓ WEIGHT: Check the scale

✓ URINE: Check the color

✓ THIRST: Check in with

your body

# Two or more WUT criteria mean you're dehydrated.

Slowly drink 16 ounces of fluid. Include electrolytes from a sports drink or salty food. Reassess as needed.



#### Check the scale

Did you lose weight? Losing more than 1% of your weight counts as a marker of dehydration.



#### Check your urine

Has the color of your urine changed?

Dark-colored urine (more than 5 on the chart below) counts as a marker of dehydration.



#### Check in with your body

Do you feel thirsty? Feeling moderately thirsty counts as a marker of dehydration.

#### Watch out for other signs of dehydration:

Headache | Dry mouth | Fatigue | Dizziness | Severe muscle and stomach cramps | Nausea or vomiting | Confusion

1 2 3 4 5 6 7 8



Scan to learn more:



#### Appendix 13 – Sample Warmups and Cooldowns

#### **Warmups**

#### 1. 2 Minute Jog (or jog in place)

The purpose of the 2 minute jog is to slowly raise your heartrate, gradually oxygenate muscles and loosen up joints. The following dynamic stretches attempt to move the joints to their full range of motion and mimic movements that may be performed during the Human Performance workouts.

#### 2. Arm Rotations (1 arm at a time – forward 5x and backward 5x)

Face forward with feet shoulder width apart. Raise your right arm and rotate forward to create as large a circle as possible for five 4-count repetitions forwards, then five 4-count repetition backwards. Movement should be slow and steady, avoid any popping or pain in the shoulders. This movement introduces blood flow to the shoulders, upper back, triceps, and bicep and even engages the core.

#### 3. Trunk Rotations (10x – 5x each direction)

With feet shoulder width apart, extend your arms outward to your sides. With your fingers pointing towards the sky and rotate to the right while looking in the direction of the twist. Count 1 should be a twist to the rear and counts 2-4 should be held at the rear position. Do not use momentum to twist rapidly, the movement should be slow and deliberate. This movement activates the core, lower back and shoulders.

#### 4. Over the Fence (10x - 5x each direction)

With feet shoulder width apart, hands resting on hips and core engaged, step laterally over an imaginary fence, one foot at a time. Step as high as possible for maximum range of motion and be sure to step wide as you perform outward each step. Do not rotate your body as you perform this movement. Perform ten 4-count repetitions, alternating both legs (5x in each direction). Your feet should never cross at any time. This movement targets the hips, lower body, pelvis and core. When done correctly it can improve hip mobility, increase balance and stabilize the lower body.

#### 5. Under the Fence (10x - 5x) each direction

With feet shoulder width apart, cross arms over chest and slide under another imaginary fence. When going under the fence step as wide as possible and try to touch your chest or forearm to the top of your quadriceps. Keep your lower back straight and your chin up. Perform ten 4-count repetitions, alternating both legs (5x in each direction). Your feet should never cross at any time. Optional: position hands on thighs for stability. This movement targets the hips, lower body, lower back and core. When done correctly, this movement aides in hip mobility (adductors), spine alignment and flexibility.

#### 6. Open/Close the Gate (10x – each leg)

With feet shoulder width apart, hands resting on hips and core engaged, bring your right knee up to waist level and rotate your knee out (to your right) by opening your hip. Place your right foot on the ground at a 90-degree angle (pointed to the right). Bring your knee back up (hips should be open) then bring your knee in, place your right foot on the ground. Perform ten 4-count repetitions on each leg. This movement engages the hip flexors, gluteus medius/maximus and abdominal muscles, and aides in ankle stabilization.

#### 7. Good Morning (10x)

With feet shoulder width apart, cross arms over chest. Slightly bend the knees, lean forward while rotating the hips to the back (imagine holding a bag a groceries and closing a car door with your backside). In this downward phase, the weight should be concentrated in the heels, with the back flat. Fold at the waist until you feel the stretch in the hamstrings and gluteal muscles (posterior chain). Keep your chin up and eyes looking forward as you complete the entire movement. When a stretch is attained, hold for a 4 count and straighten out by unfolding the waist slowly to the upright position. Perform ten 4-count repetitions. This movements engages the core, lower back and glut



#### Appendix 13 - Warmups and Cooldowns Continued

#### 8. Heel Rocker (10x)

With your legs and feet together, begin by rocking as far as possible on your toes and then rocking on your heels as far as possible. Keep your body straight as much as possible. Perform ten 4-count repetitions. This movement engages the ankles, calf and shins and can help prevent shin splints.

#### 9. Pendulum Leg Swing (10x – each leg)

Face forward with your feet underneath your hips. Lift your right leg out to the side of your body to a height that allows you to maintain an upright body position. Swing your right leg down, slightly bent and in front of your left leg then return it to the side. Perform ten 4-count repetitions on each leg. This movement aides in hip abduction (out) and adduction (inward, across body), increases balance and stabilizes the ankle.

#### 10. Soccer Kicks (10x – each leg)

Face forward and place your feet together. Turn your left foot at a 45-degree angle. Keep your shoulders relaxed and your back straight. Bend your right knee slightly and swing your right leg forward for a light stretch of the hamstring. Make a downward swing back through the middle and continue the swing behind you, like a pendulum. Focus on the swing as one slow fluid movement. Caution: Do not swing swiftly and attempt to force a stretch. Perform ten 4-count repetitions on each leg. This movement aides in hip

#### **Cooldowns**

#### 1. 2-minute walk to lower heart rate

Immediately upon completing the workout, walk at a slow pace in an attempt to decrease your accelerated heart rate. Breathe in through your nose and out through your mouth and walk to slowly decrease your heart rate, breathing and blood pressure to pre-exercise levels.

NOTE: The following stretches are progressive in nature. As you work through each stretch, breathe in through your nose and out through your mouth and hold the stretch through all ten "repetitions". As you gently exhale, relax further and stretch more deeply. Perform each stretch for a minimum of 30 seconds. If you feel pain at any time relax the stretch.

#### 2. Shoulder Stretch (10x each arm)

Face forward with your feet underneath your hips and your toes facing forward. Keep shoulders even as you complete this stretch. Extend right arm across chest reaching to the left. Place left hand on the right elbow to gently support the arm during this stretch. Feel the stretch in your right arm and shoulder. Inhale through your nose, and exhale through your mouth, as you complete this stretch. Perform ten 4-count stretches with each arm while maintaining this position for the entire count. This stretch targets the deltoid heads, rotator cuff muscles and some muscles in the upper back.

#### 3. Triceps Stretch (10x each arm)

Face forward with your feet underneath your hips and your toes facing forward. Keep shoulders even as you complete this stretch. Bend right arm at elbow joint, lift arm next to your head. Position right fingers so they touch the shoulder blade area (if possible). Place left arm across top of head, and place left hand on the right elbow to gently support the arm during this stretch. Feel the stretch in your right triceps. Perform ten 4-count stretches with each arm while maintaining this position for the entire count. This stretch targets the triceps and the ligaments and tendons in the elbow.



#### Appendix 13 - Warmups and Cooldowns Continued

#### 4. Quad Stretch (10x each leg)

Face forward with your feet underneath your hips and your toes facing forward. Hold abdominal muscles in tightly for additional support. Bend right leg at knee. Grasp right foot behind you with right hand. Position both knees as close to each other as possible. Push hips forward. Feel the stretch in right quadriceps. Perform ten 4-count stretches with each leg while maintaining this position for the entire count. This stretch targets the quadriceps (4 different muscles) and the ligaments and tendons surrounding the knee.

#### 5. Seated Calf Stretch or Standing Calf Stretch (10x)

The seated calf stretch can be performed while sitting on the ground, extend both legs in front of you. Keeping your back straight and hips rolled forward, cross your arms over your chest and lean slightly forward. Keep your legs straight but at the same time flex your toes back towards your body. The standing calf stretch can be performed while placing one leg behind you with toes pointed forward. Keeping the back knee straight and heels on the ground, lunging forward onto the front leg until a stretch is felt in the back leg. Perform ten 4-count stretches while maintaining this position for the entire count. This stretch targets the calf muscles (3 different muscles).

#### 6. Butterfly Stretch (10x)

Sitting on the ground, bend both knees and bring the soles of your feet together (so that your knees point to the sides). Slowly slide your heels as close to your body as possible without discomfort. Sitting evenly and keeping your back straight, take hold of your ankles, or wrap your hands around your feet. Lean forward slowly and press your knees down to the floor, until you feel a light stretch in your inner thighs. Do not bounce your legs, as this can damage the hips and groin. Perform ten 4-count stretches while maintaining this position for the entire count. This stretch targets muscles in the groin and the hip flexors.

#### 7. Modified Hurdler Stretch (10x each leg)

Sitting on the ground, extend both legs in front of you. Pull one leg back toward your inner thigh as if you were sitting cross-legged. Keep the bottom of your foot on your inner thigh and your bent knee as close to the ground as possible. Point the toes on your extended foot upward. Lean forward from your lower back and reach for your toes with the opposite hand while extending your other hand behind you. Perform ten 4-count stretches on each leg while maintaining this position for the entire count. This stretch targets the hamstring (3 different muscles). If you're able to grab your foot this stretch can also target the calf.

#### 8. Piriformis Stretch (10x each leg)

Lie flat on your back to begin. Cross your left ankle over your right knee, as if you were crossing your legs while sitting. Lace your fingers together behind your right thigh. Make sure that your hands are not wet so that you can have the proper grip. Gently pull this knee toward your chest and press your left leg with your left elbow. Hold this position once you feel a stretch in your left buttock (IT band). Perform ten 4-count stretches on each leg while maintaining this position for the entire count. This stretch targets the glutes, hip flexors, groin and lower back. This stretch can aid in releasing tension on the sciatic nerve and can temporarily relieve hip and back pain.

#### 10. Half Pretzel (10x – each leg)

Lie flat on your back to begin. Keep right leg straight with toe pointed upwards, maintaining a 180-degree straight line with the right leg and the upper torso. Move your left leg towards the right, completely across the body while creating a 90-degree angle at the knee of the left leg. Place your right hand on the knee of the left leg for stability and turn your neck, looking to the left, in the opposite direction of the left leg. Attempt to place the left leg (knee) on the ground while concentrating the stretch in the left hip, spine and core. Perform ten 4-count stretches on each leg while maintaining this position for the entire count.

