

Human Performance Training Center FAC: 17

CATCODE: 171250

OPR: AETC/ACC/AFSOC

OCR: AF/A3S, 19AF/DOA, AETC/A3S, ACC/A3TH, & AFSOC/A1Z

Updated August 24

1.1. Description. Human Performance (HP) is more than traditional strength and conditioning in the base gymnasium. Along with strength, power, and energy system development, HP programs purposely incorporate movement quality, mobility, recovery, performance nutrition, sleep hygiene, cognitive enhancement performance, and emotional resilience. This comprehensive approach elevates mission capability while reducing injury rates. When injuries do occur, medical profile durations are typically truncated through focused rehab and an aggressive “return to fight” mindset. By design, and when appropriate, HP programs must also deliberately and routinely incorporate innovative methods and technology to bolster performance and further inform programming. Ultimately, this holistic approach enables the human weapons system to be more cognitively, emotionally, and physically prepared to excel in their demanding operational environment.

Human Performance Training Centers (HPTCs) are therefore required for the execution of mission for a variety of Air Force Warfighters, Aircrew, Special Warfare Operators and Enablers.

Listed below are the typical users of this type of facility but the HPTC should not be exclusively limited to these missions.

- **Air Force Special Warfare (AFSPECWAR):** AFSPECWAR is the Department of the Air Force’s offensive ground force that specializes in air-ground-space-cyber integration in hostile, denied, and politically sensitive environments to achieve air, space, and cyber dominance. AFSPECWAR consists of the Guardian Angel (GA), Tactical Air Control Party (TACP), and Special Tactics (ST) weapon systems to include Special Warfare trainees with Airmen referred to as “Operators”. (Note: For the purposes of these standards, AFSPECWAR operators will be referred to as facility “users” under general requirements and operators under AFSPECWAR-specific requirements). Human Performance is a fundamental and enhancing capability that is required for Special Warfare operators and enablers. Human Performance Optimization requires purpose-built combat conditioning centers (both indoor and outdoor). These centers are tailored to the AFSPECWAR mission that combine strength and conditioning (both physical and cognitive) with rapid rehabilitation and pre-emptive remedies that minimize risk of conditions that result in being pulled off mission status.
- **Aircrew Units:** Aircrew includes pilots, sensor operators, flight engineers, gunners, and other regularly assigned members present on the aircraft. (Note: For the purposes of these standards, aircrew, and Undergraduate Pilot Training (UPT) students are also referred to as “users” in these requirements). Aircrew undergo additional rigors such as increased physical loads from equipment, G-force induced strain, novel environmental stressors, as well as heavy mental demand for situational awareness and critical thinking. Optimizing this category of warfighters requires targeted training and exercises to mitigate the physical

and mental impacts inherent to their mission requirements and directly improve both warfighting potential, as well as retention.

- Note: **Survival Evasion, Resistance & Escape (SERE)** training schoolhouses are included for HPTC requirements only. Information related to SERE-specific training requirements will not be addressed in this CATCODE 171250.

This space standard is focused on operational units at the base level. It is not meant to be used for Training Centers serving multiple installations and is a separate criterion from AFSPECWAR Combat Conditioning Centers.

1.2. Requirements Determination. Consideration is given to providing this type of specialized facility for installations with a total number of 35 or more operators/users within the AFSPECWAR and/or Aircrew units. This facility is focused on supporting the operations of a team of human performance specialists focused on maximizing warfighter performance. It should not be confused with the base gymnasium or rehabilitation clinics which serve the general base population including dependents and retirees. Ensure the HPTC provides spaces for the following functions: Strength and Conditioning, Recovery/Rehabilitation, Restoration/Regeneration, Performance Nutrition, Cognitive Enhancement, and Integrated Resiliency.

1.3. Scope Determination. The primary determinants of the scope and space requirements of a HPTC facility will be derived from the number of full-time assigned treatment providers, and non-treatment personnel. Additional consideration will be given to part-time staff to ensure they are provided with enough space to effectively perform their duties. The unit commander should also have the discretion to make allocation adjustments based on their unit's specific mission requirements. The **HPTC Space Allocation Calculator** is a supplemental guidance tool useful for estimating the applicable facility features and square footages based on the user and staff populations. **Table 1. HPTC Administrative and Special Purpose Spaces** provides a summary of the staff offices, administrative support, and special purpose space allocations listed in the Calculator. Additional **AFSPECWAR-Specific Requirements** are listed in **Table 3** and **AFSPECWAR Outdoor Training Area Requirements** are listed in **Table 4**. The outdoor training areas are not listed in the Calculator because these required structures should be addressed through their distinct CATCODES. They are separate from HPTC's CATCODE 171250.

1.3.1. Strength and Conditioning areas should include: a multi-purpose training area, cardio training area, and a strength & conditioning/agility training area. These areas require enough space to accommodate a wide variety of unique equipment such as: pushing sleds, battle ropes, assault bikes, watt bikes, versa climbers, and Jacob's ladders. This area will also have provider offices and/or workspaces, evaluation rooms (1 room for every 4 providers), and a storage room. Typical providers working in this area include Strength and Conditioning Specialists, Athletic Trainers, and Exercise Physiologists. See **Table 1** for additional details and utilize the **HPTC Space Allocation Calculator** to calculate facility space based on the applicable allocation parameters.

1.3.2. Recovery/Rehabilitation areas should include a physical therapy exercise area, physical therapy (PT) treatment rooms and a sports medicine/physical assessment area.

Allocate 250 SF per each credentialed provider for the physical therapy exercise area, and two evaluation/treatment rooms for each credentialed provider, and one massage therapy room for each massage therapist assigned. This area will also have provider offices and/or workspaces for each Physical Therapist, Athletic Trainer, Rehabilitation Assistant, Occupational Therapist, Massage Therapist, Chiropractor, Sports Medicine Physicians, and additional provider types as appropriate. This area will also require a storage room. See **Table 1** for additional details and utilize the **HPTC Space Allocation Calculator** to calculate facility space based on the applicable allocation parameters.

1.3.3. The Performance Nutrition area should include one nutrition education training room/teaching kitchen per HPTC, staff offices, and a storage room for teaching materials and supplies. The kitchen should accommodate 20 students. Every two students share a cooking burner, 24 x 36 workstations, and the bank of ovens. An overhead projection system to visually display the instructor's methods is ideal. This space includes food and equipment storage. (Note: most installations have a teaching kitchen in the Force Support Squadron Airman & Family Readiness Center that could possibly be utilized in lieu of or in addition to the HPTC training kitchen).

Each HPTC will also have a classroom for the scheduled use of all provider and non-treatment staff at the facility. A classroom space that accommodates horseshoe or circle seating configurations is preferred, but the typical classroom style is acceptable. This classroom could be utilized for more traditional nutrition education activities, such as seminars, tastings, etc. See **Table 1** for additional details and utilize the **HPTC Space Allocation Calculator** to calculate facility space based on the applicable allocation parameters.

1.3.4. Cognitive Enhancement areas should include a training area with space for a variety of specialized equipment such as a NeuroTracker, Senaptec (Sensory) Station, and a projection system for visual exercises. Provider offices and a storage room will also be required. This space can vary depending on the unit's mission requirements and should be user justified for specific space allotment. See **Table 1** for additional details and utilize the **HPTC Space Allocation Calculator** to calculate facility space based on the applicable allocation parameters.

1.3.5. Integrated Resiliency should include staff offices and discussion rooms. Each full-time staff member earns a private office for counseling and individual discussions. In addition, there should be large discussion rooms for 10 people, and small discussion rooms for 6 people (see **HPTC Space Allocation Calculator**). Some of the staff will work part-time and care should be taken to ensure they have enough space to complete their duties. Several part-time staff may share one office. Staff should only have one office on each installation. Staff assigned to this function include Chaplain Corps personnel (Chaplain and Religious Affairs Airman), Licensed Clinical Social Workers, Mental Health Technicians, Sports Psychologists, and others as appropriate. See **Table 1** for additional details and utilize the **HPTC Space Allocation Calculator** to calculate facility space based on the applicable allocation parameters.

1.3.6. Restoration/Regeneration Area (if authorized) can include; sleep pods, float tanks, alpha chairs. Utilize the **HPTC Space Allocation Calculator** to calculate facility space for these apparatuses.

1.3.7. Large Equipment Storage is required to accommodate large training apparatus such as workout “flipping” tires, medicine balls, and plyometric “jump” cubes. Program this space at 500 SF per Strength and Conditioning coach. Criteria and allocation for these spaces are presented in the **HPTC Space Allocation Calculator**.

1.3.8. Common Support Space such as a laundry, water fountains, restrooms, lockers, and showers would be included in the Center. Storage space for facility maintenance equipment and supplies is also required. Criteria and allocation for these spaces are presented in the **HPTC Space Allocation Calculator**.

1.4. Design Considerations. Additional special telecom, electrical, and mechanical requirements that need to be considered when programming HTPC space include:

1.4.1. To meet Defense Health Agency medical documentation requirements, adequate space for supporting Information Technology (IT) equipment is necessary for connection to the applicable data systems.

1.4.2. The HPTC will require upgraded/enhanced electrical service to adequately meet the supply demands of its specialized equipment items including but not limited to standard treadmills, aquatic treadmills, treatment plinths, ice makers, and certain strength and conditioning equipment.

1.4.3. Enhanced plumbing service for pools, hydrotherapy tubs, and aquatic treadmills (drains, water quality maintenance systems, etc.), and for ice makers, evaluation room sinks, etc. are required. Floor drains and wall mounted hose faucets will also be required.

See *UFC 4-740-02 Fitness Centers*, for finishes and construction requirements.

1.5. Dimensions. To estimate the best fit facility sizes, utilize the **HPTC Space Allocation Calculator**. Additionally, **Tables 1, 2, 3 and 4** below provide additional granularity for specific spaces or specialized unit operator requirements. Each installation will have unique challenges and requirements that will need to be considered for final size determination. Discussions will require close coordination between the on-site management, unit commander, and Base Civil Engineering.

1.6. Unique Requirements for Specialized Units. Each unit will require unique specialized training areas and equipment. See **Tables 3 and 4** for AFSPECWAR-specific requirements.

1.6.1 Combative Training Space is required for AFSPECWAR operators. This training is conducted on grappling or wrestling mats. At a minimum, an eight square foot training area is required for each pair of participants. In addition to the minimum training area, ensure there is a six-foot buffer zone from any obstructions/obstacles near the training area. Examples of obstruction hazards may include but are not limited to furniture, support poles, walls, etc. Additional padding may be utilized to mitigate obstructions within these buffer zones.

1.6.2 Pools. AFSPECWAR personnel use pools to train and evaluate operational fitness, combat swim, and scuba requirements. Recommended pool length is 50 meters (m) with the number of lanes determined by the number of 1Z/19Z AFSC personnel on the Unit Manning Document (UMD). For units with assigned students, the average quarterly student count should be included in the total number of personnel. Recommend a minimum of 100 1Z/19Z AFSC personnel assigned to unit, in addition to assigned students, to earn 1 pool, 50m in length. Lane number recommendations are noted in **Table**

2. Smaller pools may be authorized for rehabilitation uses. Units should coordinate all additional pool training requirements with assigned dive training staff. Recommendation includes 12-15' deep end for dive training. If there are additional requirements, MAJCOM approval is needed. Utilize the HPTC Space Allocation Calculator to calculate facility space for these apparatuses if they are authorized.

Table 1.

HPTC Administrative and Special Purpose Spaces		ft² (SF)	m²
Entry Control Point/ID Check/Reception Desk	1 per HPTC facility	120	11.2
Evaluation/Treatment Rooms	In the Strength & Conditioning area: 1 evaluation room for use by every 4 providers; In the Physical Therapy area: 2 treatment rooms per each assigned Physical Therapist, Athletic Trainer, Chiropractor, and Sports Medicine Physician	150	14.0
Massage Therapy Room	1 per full-time Massage Therapist	150	14.0
Patient Kiosk	Educational materials	20	1.9
Treatment Staff Offices	1 per full-time treatment staff assigned (e.g., Strength & Conditioning Specialist, Athletic Trainer, Physical Therapist, Occupational Therapist, Exercise Physiologists, Dietician) and respective assistants	36	3.3
Counseling Staff Offices	1 private office per Psychologist, Licensed Clinical Social Worker, Mental Health Technician, Chaplain Corps personnel (Chaplain and/or Religious Affairs Airman), etc. who are full-time assigned staff	100	9.3
Large Discussion Rooms	One room that accommodates 10 people for every 200 HPTC users	200	18.6
Small Discussion Rooms	Private discussion rooms to accommodate 6 people. One room for every 50 HPTC users	100	9.3
Classroom/Group Discussion Room	20 SF per seat for training/education, counseling, and meeting activities	20	1.9
Teaching Kitchen	Only authorized when there is a full-time dietician on staff. Accommodates 20 students. Every two students share a cooking burner, 24 x 36 workstations, bank of ovens and overhead projection system. This space includes food and equipment storage. One per HPTC. (see note #1)	800	74.3
Non-treatment Staff Offices (private office)	1 per full-time staff assigned (Program Manager, Quality Assurance, Research or Data Analyst, etc.)	100	9.3
Non-treatment Staff Offices (cubicle)	1 per full-time staff assigned	36	3.3
Conference Room/Team Room	For units with up to 49 full-time staff (for units with more than 49 full time staff see note #2)	150	14.0
Administrative Support Space	Copy room, printers, office supplies (8 SF per full-time staff = "person" = pn)	8*pn	0.74*pn

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Records Storage	2 SF*(# of Strength & Conditioning Specialists + # of PTs & ATs + # of Dieticians + # of Sport Psychologists) [full-time staff]	2*pn	0.19*pn
Staff Break Room	Includes space for sink, microwave & refrigerator). 3 SF per each full-time staff	3*pn	0.28*pn
Vending Area	1 per HPTC	200	18.6
Laundry	180 SF laundry + 30 SF per 500 authorized users, above first 500	Calculation	Calculation
HPTC Administrative and Special Purpose Spaces - continued		ft² (SF)	m²
Standard Lockers	12% of workout areas (range 8% - 15%)	Calculation	Calculation
AFSPECWAR Lockers	20 SF per peak ASPECWAR user (to meet additional storage space needs for these operators)	20	1.9
NOTE:			
<ol style="list-style-type: none"> 1. If no full-time dietician is authorized, the installation/base has a Force Support Squadron (FSS) "Airman & Family Readiness Center" kitchen available (CATCODE 740155), consider utilizing it for nutrition education "hands-on" activities. 2. For more than 49 full-time staff, see the <i>Whole Building Design Guide's (WBDG) AFMAN 32-1084 Facility Requirements Standards - Facility Class 6, Category Group 61: Administrative Facilities Overview: Table 6. Conference Room ft² (SF) by Unit Size.</i> 			

Table 2.

Training Pool Sizing Criteria		ft² (SF)	m²
Small Training Pool (6-8 lanes)	Supports between 100 - 200 users	11,000	1,022
Medium Training Pool (10 lanes)	Supports between 200 - 400 users	13,500	1,254
Large Training Pool (12 lanes)	Supports 400+ users	16,000	1,486
Pump Room	120 SF pump room to support pool, regardless of lane number	120	11.1
NOTE: A minimum of 100 1Z/19Z AFSC personnel assigned to unit, in addition to assigned students, to earn 1 pool, 50m in length.			

Table 3.

AFSPECWAR-Specific Requirements (in addition to applicable Table 1, 2 & 4 requirements)		ft² (SF)	m²
Aquatic Pools/Aquatic Treadmills	1 with threshold requirement of 100 unit assigned AFSPECWAR operators	100	9.3
Combative Training Space	1 for every 35 operators	200	18.6
Functional Training Space (Vision/Target Acquisition)	1 for every 35 operators	150	14.0
Motion Analysis Room	1 for every 35 operators	150	14.0

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AFSPECWAR Operator "Oversized" Lockers	One locker for peak number of operators	20	1.9
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Table 4.

AFSPECWAR Outdoor Training Area Requirements (Use the distinct CATCODES for each structure's criteria; these structures are separate from HPTC CATCODE 171250)		ft² (SF)	m²
Athletic Field, Standard	CATCODE 750179 (min 22,500 SF)	User Justified (UJ)	UJ
Athletic Track	CATCODE 750177	UJ	UJ
Obstacle Course	CATCODE 179923	UJ	UJ
Confidence Course	CATCODE 179002	UJ	UJ