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HSIAC

Story 1

Story 2

### Human Systems IAC Assesses Urban Operations for Joint Staff

The Human Systems Information Analysis Center (HSIAC) conducted the initial joint mission area analysis (JMAA) for military operations in urban terrain (MOUT). The HSIAC studies have identified requirements and revealed several mission need statements for joint MOUT considerations. As a result, new joint doctrine is being formulated for MOUT (JP 3-06, Joint Urban Operations). While this doctrine is under development, the Urban Working Group (UWG) (consisting of representatives from the Department of Defense (DoD), the services, and the CINCs) works cooperatively with the Human Systems IAC to track human performance issues related to urban operations.

[Continued on Story 1](#)

### Updating Strength Selection Criteria for the HQ Air Force Personnel Center (AFPC)

The make-up and duties of career fields, or Air Force Specialties (AFSs), do not remain constant and strength requirements must be updated. Through the Air Force Research Laboratory (AFRL) Human Effectiveness Directorate, the Human Systems Information Analysis Center (HSIAC) provides data gathering, analysis, and technical support to Headquarters Air Force Personnel Center (HQ AFPC), which is responsible for maintaining the Strength Aptitude Test (SAT) criterion for each enlisted AFS. The SAT is a classification tool for matching the physical strength abilities of individuals with the physical strength requirements of jobs in the Air Force.

[Continued on Story 2](#)

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HSIAC

Story 1

Story 2

### Human Systems IAC Assesses Urban Operations for Joint Staff (continued)

The Human Systems IAC made many recommendations for change with regard to urban considerations in the Phase II MOUT Study. These changes start with recommendations to the acquisition community as new material solutions are developed, and carry-over to the warfighters as new concepts are developed and tested in conjunction with the new roles the United States Military finds itself conducting in the new asymmetric threat environment. The key HSIAC recommendation is to develop an integrating mechanism to ensure that appropriate lessons learned regarding human performance are applied to the development and testing of new Joint Urban Operations concepts of in support of Joint Vision 2020. This mechanism requires a centralized control until Joint Urban Operations (JUO) has matured and been accepted as a focus for military operations of the future.

To prepare for this changing environment, the current Human Systems IAC study is providing an assessment of training shortfalls—those Joint training requirements that cannot be met with the existing training facilities. This study will propose solutions to meet those training needs. Human Systems IAC is also conducting a cost benefit analysis utilizing a best value approach to provide the rationale for the selection of training options.

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HSIAC

Story 1

Story 2

### Updating Strength Selection Criteria for the HQ Air Force Personnel Center (AFPC) (continued)

The SAT criteria are objectively defined, performance based, and the same for both men and women. The Air Force is the only service to have a uniform job requirements-based strength test for each enlisted job. As AFS physical demands change, the SAT criterion must be updated. Since the original survey of physical demands during 1978 to 1982, some AFSs have been subdivided and some combined to create new ones. In some cases, the systems and equipment used by the members of an AFS have changed. When changes in the job result in changes in the physical demands of the job, the SAT criterion may become obsolete. If this occurs, the physical demands must be re-analyzed to determine if the SAT criteria should be changed. Each year, the HSIAC through the AFRL Human Effectiveness Directorate re-surveys several AFSs and computes new SAT criteria for them.

After the AFS functional manager selects representative sites to visit, the re-survey consists of gathering, coordinating, and analyzing data to make a new SAT criterion recommendation for the AFS. During data collection, HSIAC personnel identify physically demanding tasks, interview workers, and measure object weights and forces associated with the task using precision equipment. Next, the AFS functional manager reviews the data to ensure they are complete and reasonable, but does not review the SAT criterion. Once the AFS functional manager concurs with the data, the SAT criterion computation is performed and a recommendation is presented to HQ AFPC.

In summary, the SAT criteria are kept up-to-date by re-surveying and re-measuring the physical demands of career fields that have changed. Since AFRL is independent of HQ AFPC, it is able to provide unbiased analyses of physical demand. Four benefits of the SAT are—

1. Improved job performance
2. Improved job satisfaction resulting from reduction of inadequate performance
3. Reduced attrition and re-training costs of weaker individuals departing from more physically demanding jobs
4. Reduced exposure to over-exertion injuries.

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