

INFORMATION PAPER

Department of the Army, PEO-AIR
19 May 20

SUBJECT: Defense Advisory Committee on Women in the Services (DACOWITS)
June 2020 Quarterly Business Meeting Request for Information (RFI) 6: Women in Aviation

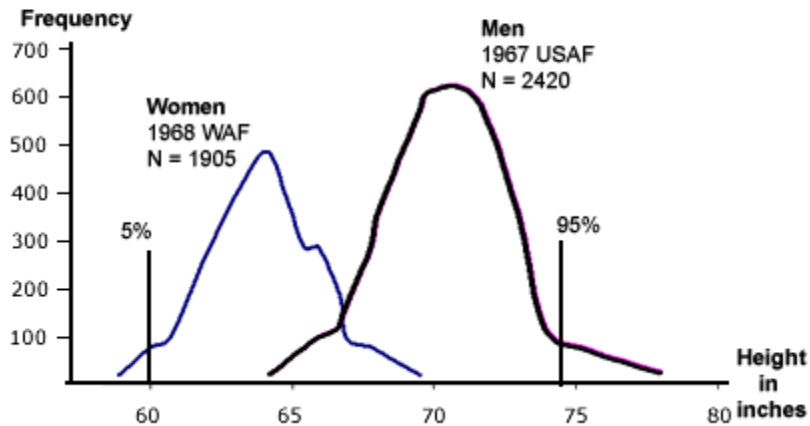
1. Purpose: To reply to the DACOWITS women in aviation RFI for the June 2020 Quarterly Business Meeting.
2. Facts: The Committee requests a written response from the Military Services on guidance or policies that address how new aircraft procurement accommodates the widest range of Service members, to include:
 - a. Does this guidance or policy consider anthropometric factors to ensure aircraft designs accommodate smaller female measurements?

Response: The Joint Capabilities Integration and Development System (JCIDS) defines and documents acquisition requirements and evaluation criteria for aircraft procurements. Human systems integration (HSI) attributes and requirements are identified in JCIDS documents. For aviation platforms, the JCIDS documents stipulate that aircraft designs must accommodate anthropometric measurements ranging from the 5th percentile female through 95th percentile male soldiers, which aligns with the design practice widely used and accepted by DOD, FAA, NASA, SAE, etc. Designing to this range captures 90 percent of the intended user population (see below from FAA Human Factors Design Guide). Accordingly, platforms are designed for the 5th percentile female through the 95th percentile male.

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You may have heard the expression "to design for the 5th percentile female to the 95th percentile male." This means that for the selected anthropometric measure, such as height, the lower limit of our range is the height of a 5th percentile female and the upper limit is the height of a 95th percentile male. This range accommodates 90% of the population for that one selected measure.



For more information, see the following references:

- Human Engineering Requirements for Military Systems, Equipment and Facilities MIL-STD-46855A
- Human Factors Design Guide DOT/FAA/CT-96/1
- Military Handbook Anthropometry of U.S. Military Personnel DOD-HDBK-743A
- Transportation Research Record 1480 by Rachel N. Weber
- 2012 Anthropometric Survey of U.S. Army NATICK/TR-15/007

b. What aircraft (by type and function) currently are not in accordance with these policies?

Response: All Army platforms satisfy the design policy for anthropometric measurements to range from the 5th percentile female through the 95th percentile male soldier

c. What are the current limitations associated with having some types of aircraft (e.g., trainers) that do not meet policy requirements?

Response: This question is not applicable as all Army aircraft comply with the "5th percentile female through 95th percentile male" design policy.

d. Are there accommodations that have been/can be made to legacy aircraft in the current inventory that are not in accordance with the policy to better accommodate

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the widest range of Service members? If so, what are those accommodations? If not, why not?

Response: This question is not applicable as all Army aircraft comply with the “5th percentile female through 95th percentile male” design policy.