PROPOSED CORE SKILL REQUIREMENTS
4600P Subspecialty
(Human Systems Integration)

Billet subspecialty coding is to be based on the minimum education/training/experience level required for optimum performance. Human Systems Integration / 4600 coding is justified when, in addition to the general criteria stated in NAVPERS 15839 series (Manual of Navy Officer Manpower and Personnel Classification) Part B, the following specific criteria are satisfied:

1. Subspecialty Coding Restrictions:
   a. Billets assigned to shore-based Unrestricted Line Officers and Restricted Line Officers.

2. Applicable Officer Designator(s): 1110, 120X, and 13XX

3. Applicable Billet Designator: 1000, 1020, 1050, 1100, 120X, and 13XX

4. Significant Experience Criteria
   a. Human Systems Integration / 4600 S-coded Billets are justified when:

      (1) Demonstrate HSI domain knowledge in system or technology design through the application of HSI tasks (e.g. HSI planning, human performance requirements analysis, training analysis and design, manpower and personnel analyses, human performance metrics, and evaluation methods in technical reviews).

      (2) Perform tradeoff analysis across multiple HSI domains and other engineering disciplines, logistics, acquisition, and Test and Evaluation (T&E) to determine the most positive impact to human performance while minimizing total lifecycle costs. Tradeoff analysis can include applying various modeling and simulation techniques to determine the capabilities associated with alternate approaches, developing and evaluating design concepts, assessing HSI risk mitigation strategies, and conducting HSI T&E.

      (3) Demonstrate the ability to conduct human performance research and analyses to include requirements analysis, function allocation, task analysis, user interface design and evaluation, and HSI risk assessments.

Enclosure (6)
(4) Demonstrate the ability to apply the HSI process to the Systems Engineering (SE) and Logistics lifecycle process to include entrance/exit criteria to major lifecycle milestones and technical reviews.

(5) Demonstrate the ability to effectively communicate to technical and non-technical audiences the role and importance of HSI in DoD acquisition lifecycle and SE processes to include the cost, benefits and risks of recommended HSI approaches in system and technical design.

(6) Demonstrate the ability to develop and implement policy and guidance for the planning or execution of HSI within the Department of Defense acquisition life-cycle management system.

b. Human Systems Integration / 4600 S-coded Officers are justified when:

(1) FITREP justifies H, S, R, B, P, Q coded billet for more than 18 months and has no Subspecialty Code in this field.

(2) FITREP justifies that s/he has demonstrated a majority of the competencies indicated above for more than 18 months.

c. Human Systems Integration / 4600 R-coded Billets are justified when all of the S-coded billet functions above plus at least four of the below:

(1) Demonstrate HSI skills and abilities in system or technology design during the execution of HSI tasks (e.g. planning, human performance requirements analysis, training analysis and design, manpower and personnel analyses, human performance metrics, and evaluation methods in technical reviews).

(2) Ability to perform tradeoff recommendations based on analysis and risk across multiple HSI domains and other engineering disciplines, logistics, acquisition, and Test and Evaluation (T&E) to determine the most positive impact to human performance while minimizing total lifecycle costs. Tradeoff recommendations includes applying business case analysis using data derived from modeling and simulation techniques to determine the capabilities associated with alternate approaches, developing and evaluating design concepts, assessing HSI risk mitigation strategies, and conducting HSI T&E.

(3) Ability to recommend sound solutions to human performance research and analyses to include requirements
analysis, function allocation, task analysis, user interface
design and evaluation, and HSI risk assessments.

(4) Ability to comprehend the HSI process and integrate
into the Systems Engineering (SE) and Logistics lifecycle process
to include entrance/exit criteria to major lifecycle milestones
and technical reviews.

(5) Ability to deliver and engage with technical and non-
technical audiences the role and importance of HSI in DoD
acquisition lifecycle and SE processes to include the cost,
benefits and risks of recommended HSI approaches in system and
technical design.

(6) Ability to evaluate and recommend policy and guidance
revisions for the planning or execution of HSI within the
Department of Defense acquisition life-cycle management system.

d. Human Systems Integration / 4600 R-coded Officers are
justified when:

(1) All S-coded functions plus filled an S, R, B, H, P, Q
coded billet for more than 18 months and has no Subspecialty Code
in this field.

(2) The Officer’s FITREPS justify that s/he has
successfully demonstrated the Core Skill Requirements for at
least 18 months.

5. Baccalaureate Criteria

a. Human Systems Integration / 4600 E-coded Billets
and Officers are not authorized.

6. Elective Level Criteria – NOTE: These will be counted in
Quota Model for Masters degree.

a. Human Systems Integration / 4600 H-coded Billets are
justified when the billet desires an Officer with possessing an
HSI subspecialty code, but an HSI subspecialty is not required.

b. Human Systems Integration / 4600 H-coded Officers are
not authorized.

7. Functional Education Criteria

a. Human Systems Integration (4600) F-coded and G-coded
Billets are not authorized:
b. Human Systems Integration (4600) F-coded Officers are justified when:

(1) An Officer has not completed all required ESRs (not completed a Thesis at Naval Postgraduate School).

(2) An Officer attends a Civilian Intuition and completes all required ESRs (JPME related ESR not required).

c. Human Systems Integration / 4600 G-coded Officers are justified after having acquired a 4600S code and when:

(1) The Officer possesses an F code.

(2) The Officer has completed a tour in a masters degree billet or higher.

8. Masters Criteria

a. Human Systems Integration (4600) F-coded Billets are justified when the billet requires any of the following:

(1) Demonstrate HSI domain knowledge in system or technology design through the application of HSI tasks (e.g. HSI planning, human performance requirements analysis, training analysis and design, manpower and personnel analysis, human performance metrics, and evaluation methods in technical reviews).

(2) Perform tradeoff analysis across multiple HSI domains and other engineering disciplines, logistics, acquisition, and Test and Evaluation (T&E) to determine the most positive impact to human performance while minimizing total lifecycle costs. Tradeoff analysis can include applying various modeling and simulation techniques to determine the capabilities associated with alternate approaches, developing and evaluating design concepts, assessing HSI risk mitigation strategies, and conducting HSI T&E.

(3) Conduct human performance research and analyses to include requirements analysis, function allocation, task analysis, user interface design and evaluation, and HSI risk assessments.

(4) Ability to apply the HSI process to the Systems Engineering (SE) and Logistics lifecycle process to include entrance/exit criteria to major lifecycle and technical reviews.

(5) Ability to effectively communicate to technical and non-technical audiences the role and importance of HSI in DoD
acquisition lifecycle and SE processes to include the cost, benefits and risks of recommended HSI approaches in system and technical design.

(6) Ability to develop and implement policy and guidance for the planning or execution of HSI within the Department of Defense acquisition life-cycle management system.

b. Human Systems Integration (4600) P-coded Officers are justified when:

(1) An Officer completes NPS Curriculum 362 ESRs.

(2) If Thesis is not completed officer will be awarded an F Subspecialty Code. Utilization and obligations are still required.

c. Human Systems Integration / 4600 Q-coded Billets are justified when the billet requires a majority of the following:

(1) Demonstrate HSI domain knowledge in system or technology design through the application of HSI tasks (e.g. HSI planning, human performance requirements analysis, training analysis and design, manpower and personnel analyses, human performance metrics, and evaluation methods in technical reviews).

(2) The ability to perform tradeoff analysis across multiple HSI domains and other engineering disciplines, logistics, acquisition, and Test and Evaluation (T&E) to determine the most positive impact to human performance while minimizing total lifecycle costs. Tradeoff analysis can include applying various modeling and simulation techniques to determine the capabilities associated with alternate approaches, developing and evaluating design concepts, assessing HSI risk mitigation strategies, and conducting HSI T&E.

(3) The ability to conduct human performance research and analyses to include requirements analysis, function allocation, task analysis, user interface design and evaluation, and HSI risk assessments.

(4) The ability to apply the HSI process to the Systems Engineering (SE) and Logistics lifecycle process to include entrance/exit criteria to major lifecycle and technical reviews.

(5) The ability to effectively communicate to technical and non-technical audiences the role and importance of HSI in DoD acquisition lifecycle and SE processes to include the
cost, benefits and risks of recommended HSI approaches in system
and technical design.

(6) The ability to develop and implement policy and
guidance for the planning or execution of HSI within the
Department of Defense acquisition life-cycle management system.

d. Human Systems Integration (4600) Q-coded Officers are
justified when:

(1) They complete NPS Curriculum 362 ESRs and have
successfully completed at least 18 months in a master's degree
4600P coded billet or higher.

(2) Must have a P code prior to Q, B, and H coded tour.

(3) F coded officers cannot obtain Q codes. They will
be authorized G codes.

9. Post-Masters

a. Human Systems Integration (4600) N-coded Billets and
Officers are not authorized.

b. Human Systems Integration (4600) M-coded Billets and
Officers are not authorized.

10. Doctorate Criteria

a. Human Systems Integration (4600) D-coded Billets
and Officers are not authorized.

b. Human Systems Integration (4600) C-coded Billets and
Officers are not authorized.

11. Certificate and Distance Learning Criteria

a. Human Systems Integration (4600) K-coded Officers are
not authorized.

b. Human Systems Integration (4600) L-coded Officers are
justified when either of the following occurs:

(1) Completion of the NPS HSI Certificate
Program (Curriculum 262) ESRs.

(2) Completion of the NPS HSI Distance Learning
Program (Curriculum 359) ESRs.
c. Human Systems Integration (4600) P-coded Billets are not authorized.

12. Community Managers coordinated the CNO subspecialty requirements review:

<table>
<thead>
<tr>
<th>Designator</th>
<th>Officer Community Manager</th>
<th>Approval Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. 1110</td>
<td>CAPT ROBERT TORTORA SWO OCM</td>
<td>MAY2012</td>
</tr>
<tr>
<td>b. 120X</td>
<td>CDR CLAY CHILSON HR OCM</td>
<td>MAY2012</td>
</tr>
<tr>
<td>c. 13XX</td>
<td>CDR MATT VANDERSLUIJS AV OCM</td>
<td>MAY2012</td>
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</tbody>
</table>

13. Sponsor and Subject Matter Experts

a. Major Area Sponsor: Scott R. Van Buskirk, VADM, Deputy Chief of Naval Operations (Manpower, Personnel, Training and Education) (CNO (N1))

b. Subject Matter Expert: Mr. Richard Etheridge, Branch Chief, Acquisition and Human Systems Integration (OPNAV (N15))

REVIEWED: [Signature] 4/11/2013 [DATE]
Director, Information, Analysis and Development (OPNAV N15)

APPROVED: [Signature] 7/26/15 [DATE]
Deputy Chief of Naval Operations (Manpower, Personnel, Training and Education (OPNAV N1)}