INCOSE Chesapeake Chapter
International Council on Systems Engineering

Welcome

INCOSE Chesapeake Chapter

2nd Annual Maryland CSEP Gala

7 September 2011

INCOSE Chesapeake Chapter
International Council on Systems Engineering

Get involved

Help the BoD grow the Chapter

INCOSE Chesapeake Chapter
International Council on Systems Engineering

Got a topic to share?

Join our great list of speakers – Give a Lecture at our Monthly meetings

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Share your Thoughts – Blog It

- Contact Paul Martin, Communications Officer to become a contributor.

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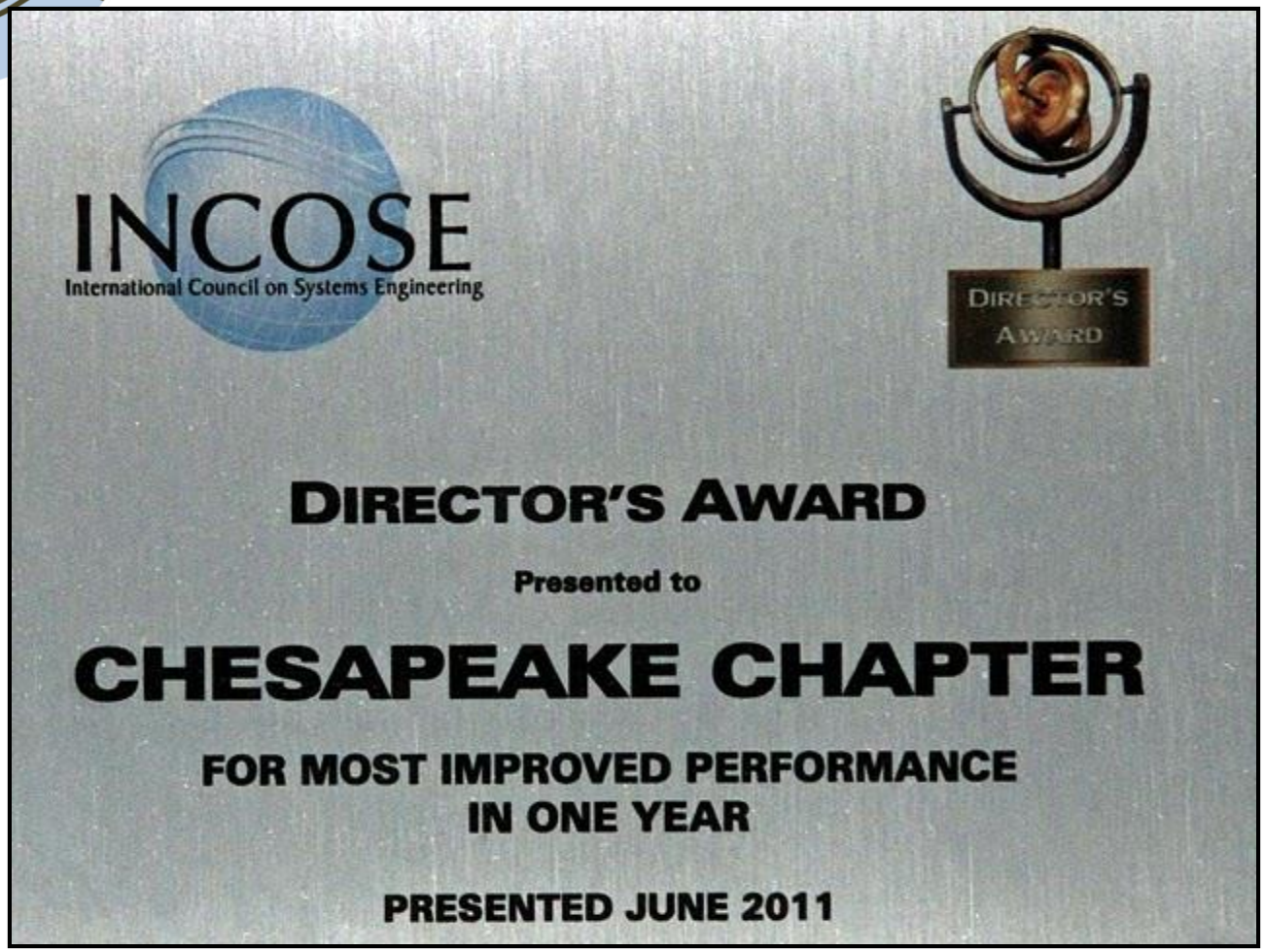

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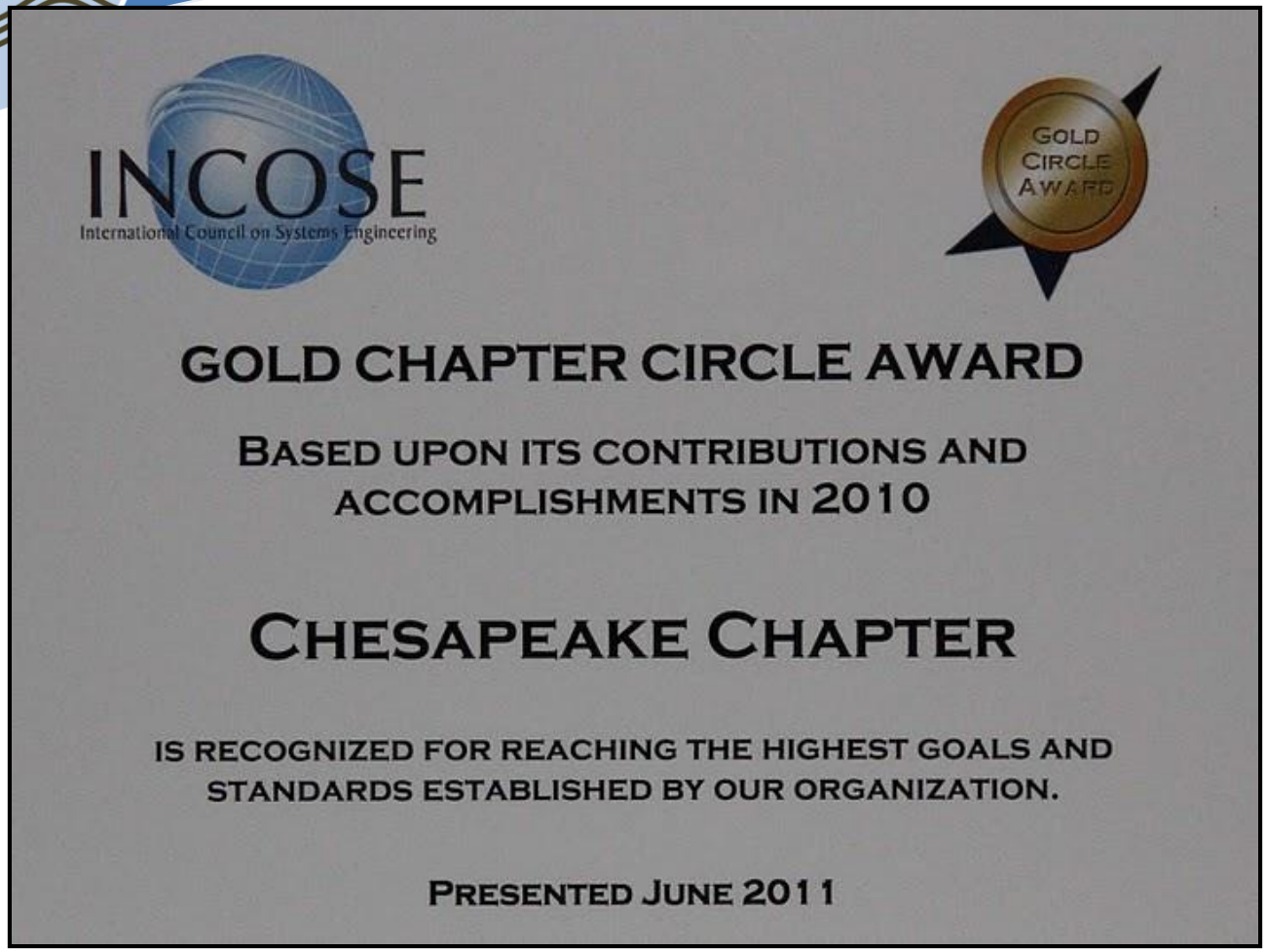
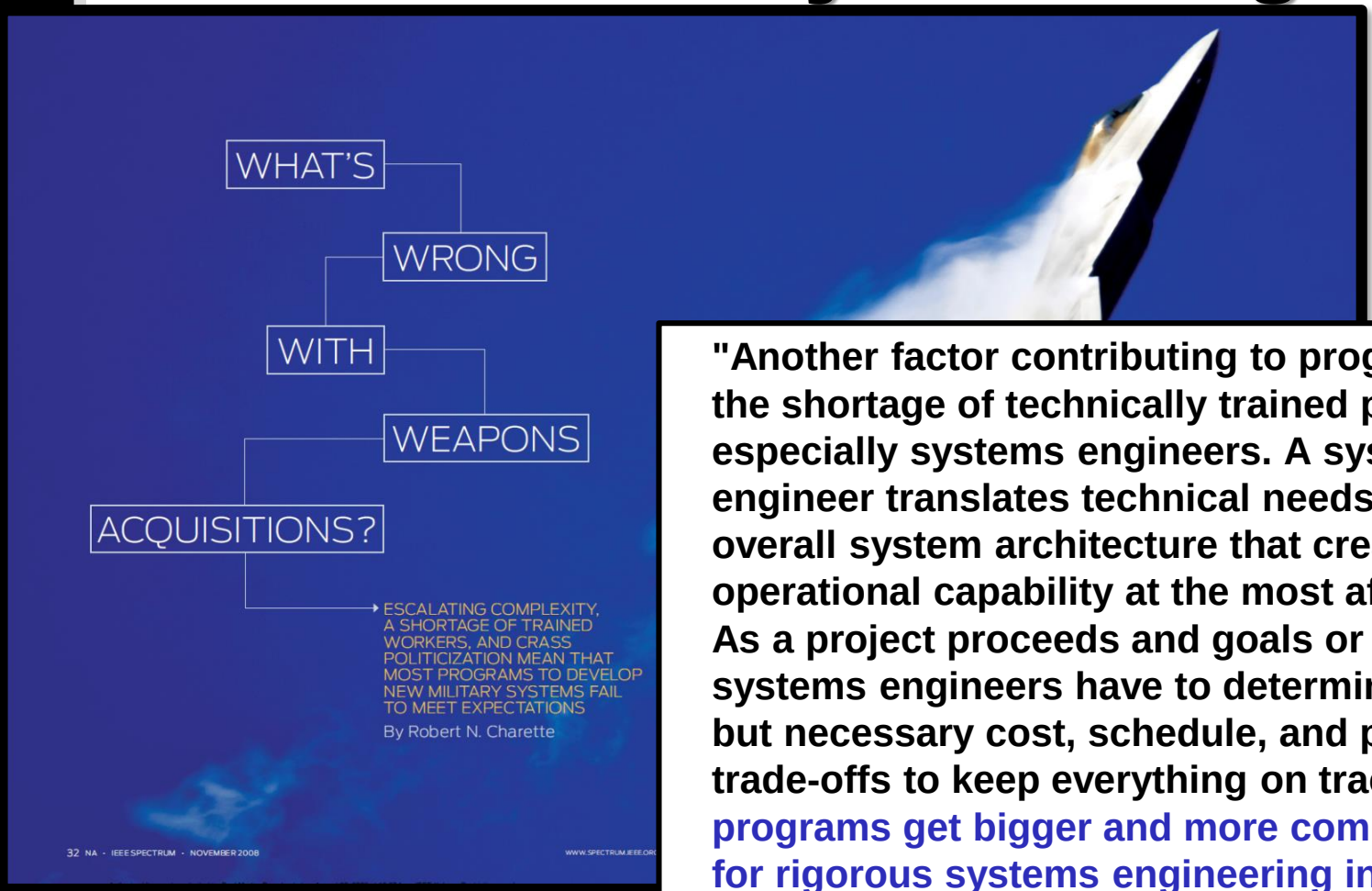


The need for Systems Engineers



"Another factor contributing to program failure is the shortage of technically trained people, especially systems engineers. A systems engineer translates technical needs into an overall system architecture that creates the best operational capability at the most affordable cost. As a project proceeds and goals or needs shift, systems engineers have to determine the difficult but necessary cost, schedule, and performance trade-offs to keep everything on track. As programs get bigger and more complex, the need for rigorous systems engineering increases."

IEEE Spectrum, Volume 45, Issue 11, November 2008 Page(s):33 - 39

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CNNMoney.com

- Date: Oct 2009
- Systems Engineer ranked as #1 job in America
- Mentions INCOSE CSEP as a potential pre-requisite

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INCOSE Multi-Level Certification

For every stage of your career

ESEP	Expert Systems Engineering Professional
CSEP	Certified Systems Engineering Professional
ASEP	Associate Systems Engineering Professional
-Acq	Certification w/ US DoD Acquisition

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Key Requirements of Certification

These elements of the INCOSE certifications are measurable tangible parameters consistent with ISO guidelines for a certification program.

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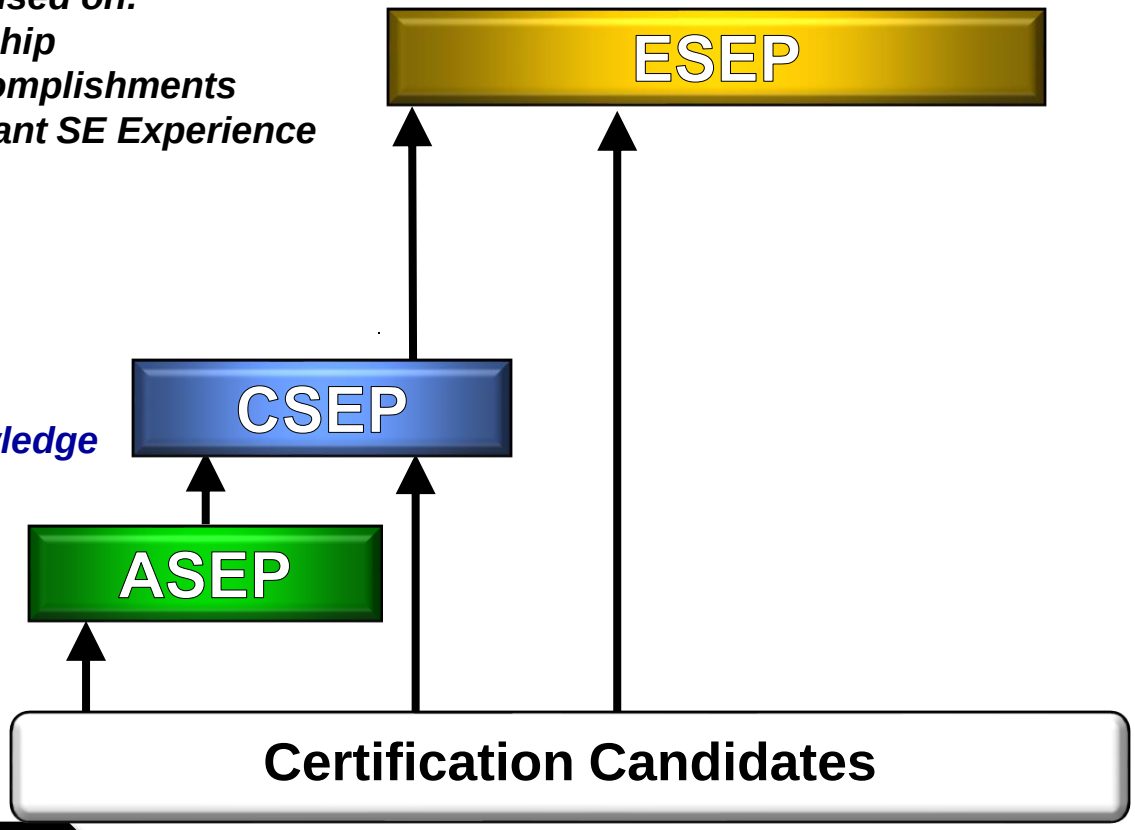
Certification Focuses on the Breadth of Demonstrated Learning Needed for a Career of System Engineering

ESEP focused on:
- ***Leadership***
- ***SE Accomplishments***
- ***Significant SE Experience***

ESEP focused on:
- ***SE Experience***
- ***Applied SE Knowledge***

ASEP focused on:
- ***SE Knowledge***



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Entry Level

Associate Systems Engineering Professional

- Targeted towards junior/emerging Systems Engineers and recent college graduates with limited Systems Engineers work experience
- ASEPs are certified against knowledge requirements through an exam
- ASEPs must be, and remain, INCOSE members
- Renewal every 5 years through professional development, maximum duration of 15 years
- Available since 2008

Foundation Level

Certified Systems Engineering Professional

- Targeted towards people with five or more years of Systems Engineers work experience
- CSEPs are certified against experience, education, and knowledge requirements
- Experience must be substantiated by 3-5 work-related references
- Knowledge certified through an exam
- INCOSE membership not required
- Renewal every 3 years through professional development
- Available since 2004

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Senior Level

Expert Systems Engineering Professional

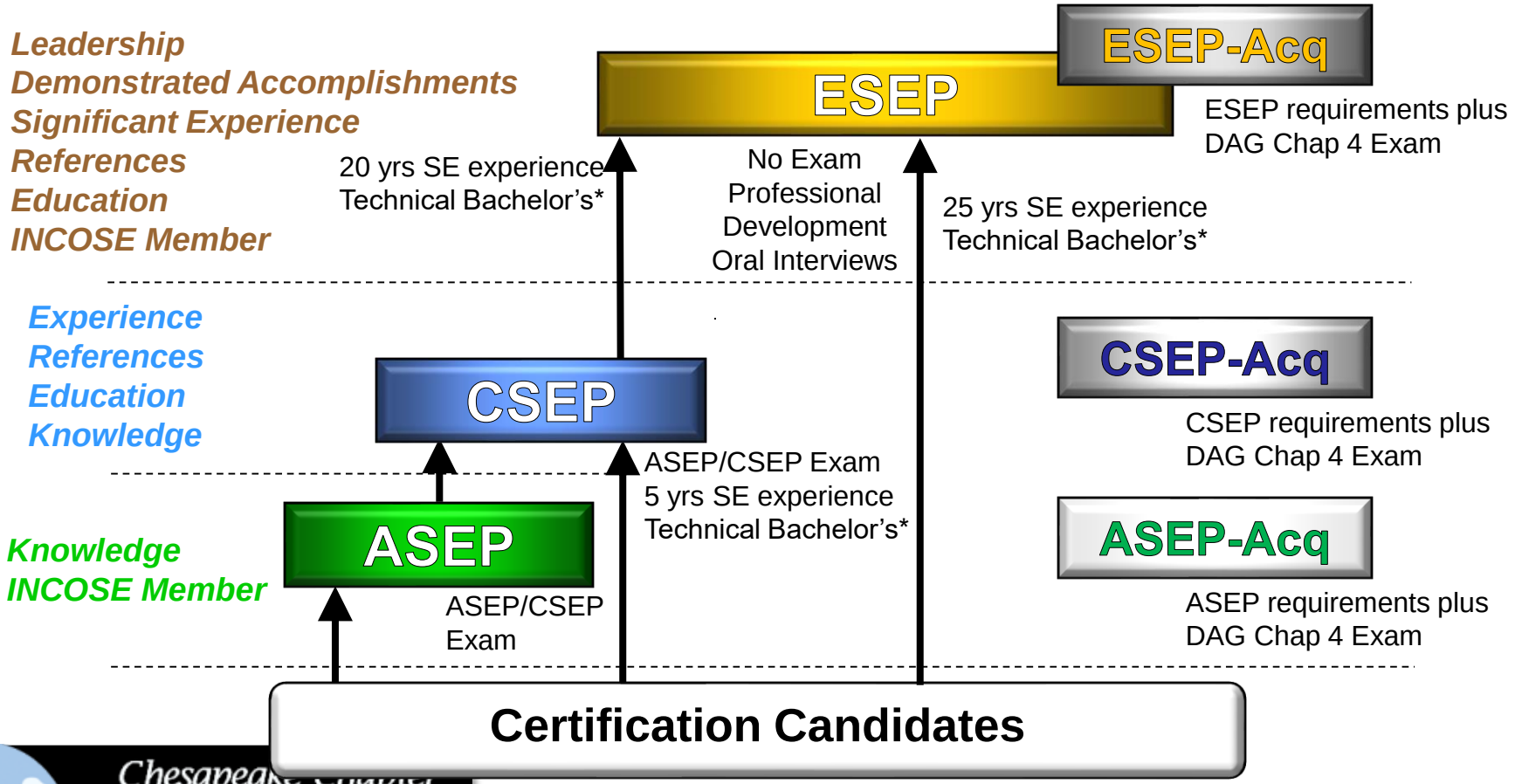
- Targeted towards Systems Engineering leaders with significant work experience and demonstrated systems accomplishments and who have many years of systems engineering experience
- ESEPs are certified against experience, leadership, professional development, and education requirements
- Experience must be substantiated by 3-5 work-related references
- Interviews used to validate leadership and significant systems accomplishments
- ESEPs must be, and remain, INCOSE members
- No renewal requirements other than INCOSE membership
- Available since 2010

Acquisition Extension

US DoD Acquisition Extensions

- Targeted towards Systems Engineers who support or work in a US Department of the Defense acquisition environment
- Candidates must first become an ASEP, CSEP, or ESEP
- Acquisition knowledge items tested through both the core ASEP/CSEP exam and an additional Acq exam
- Extension renewed concurrently with base certification
- Available since 2008

Multi-Level Certification Concept



** or Non-Tech Bachelor's & additional 5 yrs experience or No Bachelor's & additional 10 yrs experience*

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14 Functional Areas Recognized for Systems Engineering Experience

- SE Technical Competencies
  - Requirements Engineering
  - Design Development
  - System Integration
  - Qualification, Verification, and Validation
- SE Management Competencies
  - Technical Planning
  - Technical Effort Assessment
  - Risk and Opportunity Management
  - Baseline Control
- SE Support Competencies
  - Specialty Engineering
  - Process Definition
  - Training
  - Tool Support
  - Quality Assurance
- Other SE Competencies
  - To allow for the variety of SE across domains

Successful candidates must have balanced experience across multiple areas

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