Credentialing for Military Engineers

Moderator: Col. Jason Smallfield, PMP, CFM, USA, U.S. Army Engineer School

Speakers:

• Lt. Col. Shawn Howley, USA (Ret.), Joint Engineer Operations Course Manager, U.S. Army Engineer School
• Sgt. Maj. Jon Meyer, USA, Regimental Credentialing Sergeant Major, Directorate of Training & Leader Development, U.S. Army Engineer School
• Lt. Col. Neal Wright, P.E., PMP, F.SAME, USA (Ret.), Vice President, Dewberry
• Chief Master Sgt. John Wilde, USAF, Deputy Director of Civil Engineers, Chief of Enlisted Matters, HQ U.S. Air Force
• Darren Amick, Operations Lead, Cheniere Workforce Development Program and Military Program Manager, BechtelOil, Gas & Chemicals
2015 SAME Joint Engineer Training Conference & Expo

Agenda

- Overview of Panel Objectives and Panel Member Introductions
- WTTF Overview and Deliverables
- Army CECL Concept, Current and Future Efforts
- Air Force Credentialing Concept, Current and Future Efforts
- Navy Credentialing Concept, Current and Future Efforts
- Industry Perspective and Opportunities
- Questions and Answers
Panel Objectives

1) Understand the current direction of credentialing within the Department of Defense, specifically, Credential, Education, Certification, License (CECL).

2) Overview of current Service credentialing efforts and information from the SAME Warrior Transition Task Force.

3) Overview of current Service credentialing effort and information resources, i.e. academic initiatives, COOL websites, and handbooks.

4) Seminar participants (i.e. industry and academia) are encouraged to participate in the discussion to broaden the perspective on potential approaches in achieving credentials for Service members, and to better inform the effort on industry's credentialing needs, so Service members can be better prepared for successful transition.
Why is CECL (credential, education, certification, license) important?

• Broadens the skills, knowledge, and abilities brought to the mission by the leader.
• Earns trust both inside and outside the military
• Improves competencies
• Measures of professionalism that are recognized by our Army and Nation.
• Ties to and nests with Soldier for Life
Army CECL Concept

- To develop leaders who can lead Soldiers and civilians for life in preventing conflict, shaping the security environments, and win wars while operating as part of our Joint Force and working with multiple partners
  - ADRP 1 Army Profession
  - Army Warfighting Challenges (1, 4, 8, 9, 10)
  - TRADOC Pam 525-3-1 Army Operating Concept
  - Post military unemployment
- Achieve strategic objectives, in whole or in part, through the arrangement of tactical actions in time, space, and purpose
  - TRADOC Pam 525-3-7 Human Dimension Concept
  - Human Dimension White Paper 9 OCT 14
    - Cognitive Dominance LOE 1
    - Institutional Agility LOE 2
    - Realistic Training LOE 3
- Increase technical competence in service
All three domains touch strategic, operational, and tactical levels.

**INSTITUTIONAL (SE1)**
- Align IMT/PME with civilian CECL (where feasible)
- Regimental Credential Books (How)
- COOL Credentialing Portal (What)
- CECL Pilot Programs
- 120 MOSs
- Create Job / Experience Book Standard

**OPERATIONAL (SE2)**
- Create experiences that support each MOS and CECL
- Skilled Trades AJM Model
- FE, PE
- Skilled Trades

**SELF (DO)**
- Develop leaders + Improve tech competency
- credential (PMP)
- Certification (Skilled Trades)
- Testing
- License (PE)

Legend
- Red = Domain
- Blue = Responsibility
- Black = Specific Efforts
- Green = Links

Three Generic Models for CECL
- Certification: Apprentice, Journeyman, Master (AJM)
- Education: Associates, BS/BA, MS/MA, PhD
- License/Credential: Apply (TNG, Exp), Test, Maintain

http://www.same.org/index.php/component/content/article/1040
http://go.usa.gov/etee
https://redi.usace.army.mil/sites/nzc
http://redi.usace.army.mil/sites/nzc/REDi

http://www.same.org/index.php/component/content/article/1040

Soldier For Life Transition Assistance Program
SFLTAP

Unit Unilateral Efforts
- Federal: USACE, VA
- State: Trade Associations
- Private: SAME
- Public: Schools
- Non Profit: AEA

Skill Identifiers (W1-7)

INSTITUTIONAL (SE1)
- Create Job / Experience Book Standard
- Education (AS, BS, MS)

OPERATIONAL (SE2)
- Skilled Trades AJM Model
- FE, PE

SELF (DO)
- Develop leaders + Improve tech competency
- Certification (Skilled Trades)
- Testing
- License (PE)

Legend
- Red = Domain
- Blue = Responsibility
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- Green = Links
Credentialing, Education, Certification and Licensing (CECL)

- LTC (Ret.) Neal Wright, Chair-WTTF, P.E., F.SAME
- SGM Jon Meyer, USAES CECL PM, M.SAME
- CMSgt John Wilde, AFIT Credentialing PM
- UCCM (SCW) Mike DiLanni, CSFE Career Analyst/N34
- Mr. Darren Amick, Bechtel, M.SAME
SAME Warrior Transition Task Force
A Report for the Military Credentialing Panel Discussion
May 20, 2015

Neal T. Wright, P.E., PMP, F. SAME  LTC, US Army (retired)
Purpose of our WTTF Efforts

• To assist Transitioning Service Members in preparing for careers following active duty military service.

• To Increase the Professionalism of current service members by offering a roadmap to professional certification.

• Create a more Empowered Alumni from the military engineering community.
MISSION of the WTTF

The directed Mission of the SAME Warrior Transition Task Force is as follows (mission directive August 6, 2012):

• Investigate the opportunities for SAME to contribute to the credentialing of military engineers while they are in uniform so that they have better opportunities for employment after leaving military service.

• The credentialing should address the needs of enlisted, [warrant officer] and officer personnel, although the emphasis may be focused on the enlisted force.

• The Task Force should also investigate how SAME continuing education programs, can help in the process.
SAME Engineer and Related Credentials Portal
# SAME Engineer and Related Credentials Portal

**Architecture/Engineering/Construction (A/E/C) Credentials**

<table>
<thead>
<tr>
<th>A/E/C Credential</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certified Plant Maintenance Manager (CPMM)</td>
<td>Life Facilities Engineering</td>
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<tr>
<td>Certified Plant Engineer (CPE)</td>
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<tr>
<td>Certified Plant Supervisor</td>
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<tr>
<td>Concrete Field Testing Tech</td>
<td>ACI</td>
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<tr>
<td>Concrete Strength Testing Tech</td>
<td></td>
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<tr>
<td>Concrete Lab Testing Tech, Levels I and II</td>
<td></td>
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<tr>
<td>Building Security Certified Professional (BSCP)(ASCE)</td>
<td>ASCE</td>
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<tr>
<td>Construction Manager-in-Training</td>
<td>CMAA Construction Management</td>
</tr>
<tr>
<td>Certified Construction Manager</td>
<td>Association of America</td>
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<tr>
<td>Associate Design Build Institute of America</td>
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<tr>
<td>Professional Design Build Institute of America</td>
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<tr>
<td>Certified Professional Manager</td>
<td>BM Managers</td>
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<tr>
<td>Facility Management Professional (FMP)</td>
<td>IFMA</td>
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<tr>
<td>Sustainability Facility Professional</td>
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<tr>
<td>Certified Facility Manager</td>
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<tr>
<td>Certified Hazardous Materials Manager (CHMM)</td>
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<tr>
<td>Certified Hazardous Materials Practitioner (CHMP)</td>
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<tr>
<td>Hazardous Materials Manager-in-Training (HMMT)</td>
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<tr>
<th>A/E/C Credential</th>
<th>Agency</th>
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<tbody>
<tr>
<td>ASEFP - Systems Engineering Professional (entry level)</td>
<td>INCASE</td>
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<tr>
<td>CSEP - Systems Engineering Professional (foundation level)</td>
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<tr>
<td>FSEP - Systems Eng Professional (senior level)</td>
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</tr>
<tr>
<td>Transportation: Bridge Safety Inspection - Level I, II, III</td>
<td>NICET National Institute for</td>
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<tr>
<td>Electrical Power Testing - Level I, II, III</td>
<td>Certification in Engineering</td>
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<tr>
<td>Construction Materials Testing: Concrete Level I, II, III</td>
<td>Technology</td>
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<td>Water and Sewer Lines</td>
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<tr>
<td>Generalist: Geo Tech Cons.</td>
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<tr>
<td>Transportation: Highway Construction, Level I, II, III</td>
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<td>Transportation: Highway Surveys</td>
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<td>Transportation: Highway Materials</td>
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<td>Transportation: Highway Design</td>
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<tr>
<td>Industrial Instrumentation</td>
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<tr>
<td>Erosion and Sediment Control</td>
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<tr>
<td>Certified Associate in Project Management (CAPM)</td>
<td>PMI</td>
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<tr>
<td>Project Management Professional (PMP)</td>
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<td>Unified Association Veterans in Piping (UAVP)</td>
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<tr>
<td>Leadership in Energy &amp; Environmental Design (LEED)</td>
<td>IEEK</td>
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<td>Green Assocation</td>
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<tr>
<td>Leadership in Energy &amp; Environment Design (LEED) Applied Practices (AP)</td>
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<tr>
<td>UXO Tech Level I</td>
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SAME Engineer and Related Credentials Portal

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From a Task Force to Standing Committee

• SAME must now **identify and engage Senior NCO leaders** from each service to take point on this effort.

• These exceptional troop leaders will inform the service engineer communities of Credentialing, Education, Certification and Licensing (CECL) opportunities available through the services’ **Institutional (school), Operational (unit) and Individual (self-development) domains**.

• Therefore, the leadership of the Warrior Transition Task Force recommends SAME leadership designate a Standing Committee, entitled the **Military Engineer Credentialing, Education, Certification and Licensing (CECL) Committee**.
Army

Current Service credentialing effort:

- Established a credentialing program that support Project Management Professional (PMP), Certified Associate in Project Management (CAPM), Certified Manager (CM), Certified Construction Manager (CCM), and Certified Construction Manager-In-Training (CMIT).

- Coordinating with NICET and NCCER on MOS critical task and lesson plan alignment with credentials, certification, and licenses.

- Established a survey certification through Wesleyan College for 12Ys and 125 Warrant Officers.

- Helping shape Army policy on Credentials, Education, Certification, and Licensing (CECL).

- Assisting US Army TRADOC in developing a CECL policy.
Army

Information resources:

• Army COOL website  [https://www.cool.army.mil/](https://www.cool.army.mil/)
• Engineer Regimental Handbook (Professional Development)
• Army Career Skills Program (CSP) (Transition)
Air Force

Current Service credentialing effort:

- Identifying current courses with smallest “gap” to credentialing
  - Tractor-Trailer Training (3T)
    - Professional Truck Driver Institute accredited currently
  - Mobile Crane Operator course
    - Will be ANSI accredited in FY 16
- Trying to credential existing training vs sending to vendor
- Several credentials/certifications are currently mandated in CE Enterprise
  - Backflow Prevention Devices
  - EPA Refrigerant Certification (Types I, II, & III refrigerants)
  - IFSAC (International Fire Service Accreditation Congress)
Air Force

SAME Virginia Peninsula Post initiative

• PMP credential ‘beta-test’ for enlisted

Information resources:

  • Recently removed restrictions
• AFCEC Force Development Managers
  • Develop credentialing opportunities
• Air Education and Training Command
  • 364th and 366th Training Squadrons
Navy

Current Service credentialing effort:

• COOL (Credentialing Opportunities On-Line) helps Navy Service members find information on certifications and licenses related to enlisted ratings, designators, collateral duties/out of rate assignments, and officer designators. COOL explains how Sailors can meet civilian certification and license requirements and provides links to numerous resources to help get Sailors started.

• COOL is a resource for:
  - **Navy Service Members** (enlisted and officers) who want to know what civilian credentials relate to their ratings, designators, and collateral duties/out of rate assignments and how to obtain the credentials.
  - **Education, Career and Transition Counselors** providing guidance on education, professional growth, and career requirements and opportunities.
  - **Navy Recruiters** who want to show potential recruits the opportunities for professional growth and civilian career preparation available through Navy service.
  - **Employers and Credentialing Boards** interested in how Navy training and experience prepares Navy service members for civilian credentials and jobs.

• COOL is for finding certifications and licenses that are related to your military occupation. COOL also has a lot of great information about credentialing in general, why it can be important to you, and what resources are available to help pay for training and testing.
Navy Information resources:

- Navy COOL website  [https://www.cool.navy.mil/](https://www.cool.navy.mil/)
- Non-Resident Training Courses (NRTC’s)
- Personnel Qualifications Standards (PQS)
- Job Qualification Requirements (JQR’s)
- Learning and Development Roadmaps (LaDR’s)
- Seabee Electronic Toolbox (SET)
- Civil Engineer Corps Electronic Toolbox (CECET)
- Formal Learning Centers
- Industry Handbooks
2015 SAME Joint Engineer Training Conference & Expo

Industry

Sabine Pass-LNG, Feb 2014
Intake to Hire (4127 screened to hire 829)
2015 SAME Joint Engineer Training Conference & Expo

ARMY

<table>
<thead>
<tr>
<th>Job Title</th>
<th>Military Title(s) and Code(s)</th>
<th>O*NET Job Number</th>
<th>Craft (NCCER)</th>
<th>Projected Job Growth</th>
<th>Wage Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricians</td>
<td>12R- Interior Electrician (Army-Enlisted); No longer active: 21Q- Power line Distribution Specialist (RC) (Army- Enlisted)</td>
<td>47-2111.00</td>
<td>Electrical Level 1-4</td>
<td>Bright Outlook: Faster than average (20% to 28%)</td>
<td>$25.62 Hourly, $53,294 Annual</td>
</tr>
</tbody>
</table>

NCCER Military Crosswalk (Open Shop Certification Body)
Skill to Skill Fit = Career

**12R10 Interior Electrician**
- **Phase 1** - Course Introduction
  - Introduction to Safety
  - Introduction to Environmental Stewardship
  - Fundamentals of Power

- **Phase 2** - Generator Operations Phase
  - Rescue an Electrical Shock Victim
  - Perform Generator Operations

- **Phase 3** - Interior Electrician Phase
  - Maintain Electrical Tools
  - Introduction to Electrical Codes and Standards
  - Interpret Electrical Prints and Drawings
  - Interpret Schematics
  - Install Service Entrance Systems
  - Install Electrical Boxes, Cable and Conduit Systems
  - Install Electrical Devices
  - Prepare an Electrical Materials Takeoff List
  - Install a Complete Electrical System
  - Interpret International Electrical Codes and Standards

**Industrial Electrician**
185 includes core (72.5) hours

**Modules:**
- Orientation to the Electrical Trade
- Electrical Safety
- Introduction to Electrical Circuits
- Electrical Theory
- Introduction to the National Electrical Code
- Device Boxes
- Hand Bending
- Raceways and Fittings
- Conductors and Cables
- Basic Electrical Construction Drawings
- Electrical Test Equipment
- Residential Electrical Services

**Journeyman C**
- $24.60 per hour
- $70 per Diem
Closing Comments

1) Overview of Department of Defense, specifically, Credential, Education, Certification, License (CECL).

2) Overview SAME Warrior Transition Task Force.

3) Overview of current Service credentialing efforts

4) Discussion to broaden the perspective on potential approaches in achieving credentials for Service members.