



**CWT CAREER PATH**  
(IW/EXW/SW/AW)



Cyber Warfare Technician (CWT). CWTs employ tactical and strategic capabilities to plan, develop, and execute offensive and defensive Cyberspace Operations; perform Threat Analysis, Digital Forensics, Network Exploitation, Research and Development, and Mission Planning; leverage tactical and strategic signals intelligence and cryptologic functions; produce and execute cyberspace effects; identify and report worldwide threats in support of Special Operations Forces (SOF), national, Fleet, and joint requirements; and control and safeguard access to classified material and information systems.

YEARS OF SERVICE	CAREER MILESTONES	AVERAGE TIME TO PROMOTE	COMMISSIONING OR OTHER SPECIAL PROGRAMS	SEA/SHORE FLOW	TYPICAL CAREER PATH DEVELOPMENT
26-30	CWTCM	21.1 Yrs		Not Defined	8 <sup>th</sup> CONUS/OCONUS <b>Billets:</b> Cyberspace Operations Planner, TECHAD, CSEL, Rating Advisors/Stakeholder positions (NAVIFOR, OPNAV, FCC, CIWT) <b>Duty:</b> Cyber Mission Force, NIOC, NCDOC, DEVGRU, IWTC, Naval Special Warfare SEL, Fleet Staff.
23-26	CWTCM CWTCS CWTC	21.1 Yrs 16.5 12.3	CSEL	Not Defined	7 <sup>th</sup> CONUS/OCONUS <b>Billets:</b> Staff Duty (ie. 2 <sup>nd</sup> /3 <sup>rd</sup> /5 <sup>th</sup> /6 <sup>th</sup> /7 <sup>th</sup> /10 <sup>th</sup> Fleets/Echelon II/III), DCO Deployer LCPO, CSEL, DEPT LCPO, Cyberspace Operations Planner, Directorate SEL, CMF NCOIC, TECHAD, Detailer, JCAC Manager, FIRES, NIWDC, Rate Training Leads (JCAC, CIWT, etc). <b>Duty:</b> Cyber Mission Force, NIOC, NSA/CSS, NCDOC, Navy Cyber Defense Team (NCDT), Embarked Staff, IWTC, NCWDG, DEVGRU, Naval Special Warfare. <b>Qualification:</b> SEA, Interactive Operator Training (H13A/14A/15A/16A), US Cyber Command Basic Offensive Cyberspace Operator (H41A), Cyber Research Development Specialist (H42A), SOF Operator (785B), DNA (H11A), EA (H12A), Cyberspace Planner (H29A), CDA (H30A), CDA-Host (H31A), CTEO (H32A), CDA-Network (H34A), Instructor (805A), DCO Watch Officer (No NEC). Battle Watch Captain (No NEC). WTI 702C. Maritime Staff Operators Course (831A).



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YEARS OF SERVICE	CAREER MILESTONES	AVERAGE TIME TO PROMOTE	COMMISSIONING OR OTHER SPECIAL PROGRAMS	SEA/ShORE FLOW	TYPICAL CAREER PATH DEVELOPMENT
20-23	CWTCM CWTC CWTC CWT1	21.1 Yrs 16.5 12.3 7.3	CSEL, MACO, CNODP	Not Defined	<p>6th CONUS/OCONUS</p> <p><b>Billets:</b> Staff Duty (ie. 2<sup>nd</sup>/3<sup>rd</sup>/5<sup>th</sup>/6<sup>th</sup>/7<sup>th</sup>/10<sup>th</sup> Fleets/Echelon II/III), DCO Deployer LCPO, CSEL, DEPT LCPO, Cyberspace Operations Planner, Directorate SEL, CMF NCOIC, TECHAD, Detailer, JCAC Manager, FIRES, NIWDC, Rate Training Leads (JCAC, CIWT, etc).</p> <p><b>Duty:</b> USCYBERCOM, FLTCYBER, Cyber Mission Force, NIOC, NSA/CSS, NCDOC, Navy Cyber Defense Team (NCDT), Embarked Staff, IWTC, NCWDG, DEVGRU, Naval Special Warfare.</p> <p><b>Qualification:</b> Mission Director, SEA, Interactive Operator Training (H13A/14A/15A /16A), US Cyber Command Basic Offensive Cyberspace Operator (H41A), Cyber Research Development Specialist (H42A), SOF Operator (785B), DNA (H11A), EA (H12A), Cyberspace Planner (H29A), CDA (H30A), CDA-Host (H31A), CTEO (H32A), CDA-Network (H34A), WTI L4/L5 702C. Instructor (805A), DCO Watch Officer (No NEC). Battle Watch Captain (No NEC). Maritime Staff Operators Course (831A).</p>



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16-20	CWTCS CWTC CWT1	16.5 Yrs 12.3 7.3	CSEL, MACO, CNODP	Not Defined	<p>5<sup>th</sup> CONUS/OCONUS</p> <p><b>Billetts:</b> Staff Duty (ie. 2<sup>nd</sup>/3<sup>rd</sup>/5<sup>th</sup>/6<sup>th</sup>/7<sup>th</sup>/10<sup>th</sup> Fleets/Echelon II/III), DCO Deployer LCPO, CSEL, DEPT LCPO, Cyberspace Operations Planner, Directorate SEL, CMF NCOIC, TECHAD, Detailer, JCAC Manager, FIRES, Rate Training Leads (JCAC, CIWT, etc)., NIWDC</p> <p><b>Duty:</b> USCYBERCOM, FLTCYBER, Cyber Mission Force, NIOC, NSA/CSS, NCDOC, Navy Cyber Defense Team (NCDT), Embarked Staff, IWTC, NCWDG, DEVGRU, Naval Special Warfare.</p> <p><b>Qualification:</b> MCCEP, Weapons and Tactics Director, Technical Director, Mission Director, SEA, Interactive Operator Training (H13A/14A/15A /16A), US Cyber Command Basic Offensive Cyberspace Operator (H41A), SOF Operator (785B), DNA (H11A), EA (H12A), Cyberspace Planner (H29A), CDA (H30A), CDA-Host (H31A), CTEO (H32A), CDA-NETWORK (H34A), Instructor (805A), DCO Watch Officer (No NEC). Battle Watch Captain (No NEC). WTI 702C, Mission Element Lead (No NEC), Crew Lead (No NEC).</p>



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YEARS OF SERVICE	CAREER MILESTONES	AVERAGE TIME TO PROMOTE	COMMISSIONING OR OTHER SPECIAL PROGRAMS	SEA/ShORE FLOW	TYPICAL CAREER PATH DEVELOPMENT
12-16	CWTC CWT1 CWT2	12.3 Yrs 7.3 2.9	OCS, MECF, Cyber Warrant, MACO, CNODP	Not Defined	<p>4<sup>th</sup> CONUS/OCONUS</p> <p><b>Billetts:</b> Staff Duty (ie. 2<sup>nd</sup>/3<sup>rd</sup>/5<sup>th</sup>/6<sup>th</sup>/7<sup>th</sup>/10<sup>th</sup> Fleets/Echelon II/III), Div LCPO, LPO, Cyberspace Operations Planner, JCU and JCOG, Staff, Instructor, Joint Staff, Navy Staff.</p> <p><b>Duty:</b> Cyber Mission Force, NIOC, NSA/CSS, NCDOC, Navy Cyber Defense Team (NCDT), NCWDG, White House Communications Agency (WHCA), DEVGRU, Naval Special Warfare, JCU and JCOG.</p> <p><b>Qualification:</b> MCCEP, Weapons and Tactics Director, Technical Director, Mission Director, Interactive Operator Training (H13A/14A/15A /16A), US Cyber Command Basic Offensive Cyberspace Operator (H41A), Cyber Research Development Specialist (H42A), SOF Operator (785B), DNA (H11A), EA (H12A), Cyberspace Planner (H29A), CDA (H30A), CDA-Host (H31A), CTEO (H32A), CDA-Network (H34A), Instructor (805A), DCO Watch Officer (No NEC), Battle Watch Captain (No NEC), Mission Element Lead (No NEC), Crew Lead (No NEC).</p>



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8-12	CWTC CWT1 CWT2	12.3 Yrs 7.3 2.9	Cyber Warrant, OCS, STA-21, OCS, MECP, MACO, CNODP	Not Defined	<p>3<sup>rd</sup> CONUS/OCONUS  <b>Billets:</b> Div LCPO, LPO, Cyberspace Operations Planner, JCU and JCOG, Staff, Instructor, Joint Staff, Navy Staff.  <b>Duty:</b> Cyber Mission Force, NIOC, NSA/CSS, NCDOC, Navy Cyber Defense Team (NCDT), NCWDG, DEVGRU, Naval Special Warfare, JCU and JCOG.  <b>Qualification:</b> MCCEP, Interactive Operator Training (H13A/14A/15A /16A), US Cyber Command Basic Offensive Cyberspace Operator (H41A), Cyber Research Development Specialist (H42A), SOF Operator (785B), DNA (H11A), EA (H12A), Cyberspace Planner (H29A), CDA (H30A), CDA-HOST (H31A), CTEO (H32A), CDA-Network (H34A), Instructor (805A), DCO Watch Officer (No NEC), Battle Watch Captain (No NEC).</p>
4-8	CWT1 CWT2 CWT3	7.3 Yrs 2.9 0.7		Not Defined	<p>2<sup>nd</sup> CONUS/OCONUS  <b>Billets:</b> Analyst and operator OCO or DCO billets. JCU and JCOG, Staff, Instructor, Joint Staff, Navy Staff.  <b>Duty:</b> Cyber Mission Force, NIOC, NSA/CSS, NCDOC, Navy Cyber Defense Team (NCDT), NCWDG, DEVGRU, Naval Special Warfare, JCU and JCOG.  <b>Qualification:</b> MCCEP, Interactive Operator Training (H13A/14A/15A /16A), US Cyber Command Basic Offensive Cyberspace Operator (H41A), Cyber Research Development Specialist (H42A), SOF Operator (785B), DNA (H11A), EA (H12A), CDA (H30A), CDA-HOST (H31A), CTEO (H32A), CDA-Network (H34A), Instructor (805A), DCO Watch Officer (No NEC).</p>



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<b>YEARS OF SERVICE</b>	<b>CAREER MILESTONES</b>	<b>AVERAGE TIME TO PROMOTE</b>	<b>COMMISSIONING OR OTHER SPECIAL PROGRAMS</b>	<b>SEA/SHORE FLOW</b>	<b>TYPICAL CAREER PATH DEVELOPMENT</b>
1-4	CWT2 CWT3	2.9 Yrs 0.7	Naval Academy, NROTC	Not Defined	1 <sup>st</sup> CONUS <b>Billets:</b> Analyst and operator OCO or DCO billets. <b>Duty:</b> Cyber Mission Force, NIOC, NSA/CSS, NCDOC, Navy Cyber Defense Team (NCDDT), NCWDG <b>Qualification:</b> MCCEP, Interactive Operator Training (H13A/14A/15A /16A), US Cyber Command Basic Offensive Cyberspace Operator (H41A), DNA (H11A), EA (H12A), CDA (H30A), CDA-HOST (H31A), CTEO (H32A).
1+/-	CWTSN CWTSA Accession Training	9 Months			Recruit Training/Student CWT “A” School (Joint Cyber Analysis Course - JCAC).

Notes:

1. Cyber Warfare Technicians (CWTs) plan, develop, and execute offensive and defensive Cyberspace Operations; perform Analysis, Cyber Defense, Digital Forensics, Network Exploitation, Threat Emulation, Research and Development, Direct Support Operations, and Cyber Planning in support of national, Fleet, and joint requirements.
2. The CWT rating was established in June 2023 and replaced the disestablished Cryptologic Technician Networks (CTN). CTN was started in February 2004 and the first CTN selectees were rated October 1<sup>st</sup> 2004. CWT is an “A” School (JCAC) required rating. JCAC was established in Oct 2009. CWT is one of eight ratings in the Information Warfare Community.
3. CWT does NOT follow a Sea/Shore Flow (SSF) construct. Due to the unique nature and specific skill sets required by Sailors in the CWT rating, an INCONUS/OUTCONUS rotation is utilized, but is dependent upon billet availability and emerging needs of the Navy. Current emphasis is on retours at the Cyber Mission Force Teams. Sailors should do multiple tours in their workrole to build expertise. CWTs can also retour in the same command due to a heavy shore billet base and timing and operational priority of billets. All CONUS tours will be 48-month tours. Typically, CWTs will transfer between the Cyber Mission Force/Cyber National Mission Force (CMF/CNMF), Navy Information Operations Command (NIOC), Navy Cyber Warfare Development Group (NCWDG), Navy Cyber Defense Operations Command (NCDOC), Naval Special Warfare, Staff Duty, and DIRSUP Commands. All notes in this paragraph SHALL NOT be a limiting factor for selection / non-selection to the next paygrade.
4. CWT qualifications are typically divided into Offensive or Defensive areas shown below. Some NECs may appear in multiple career paths and “Other” NECs may not appear on these lists of Core NECs.



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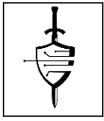


a. Offensive Cyberspace Operations (OCO) Core NECs

NEC	ROLE	RECOMMENDED PAYGRADES; COMMENTS
H11A	Digital Network Analyst (DNA)	CWT3+
H12A	Exploitation Analyst (EA)	CWT3+
H13A	Navy Interactive On-Net (ION) Operator	CWT3+; See section 5
H14A	Navy ION Operator (Windows)	CWT2+; See section 5
H15A	Navy ION Operator (Unix)	CWT2+; See section 5
H16A	Navy ION Operator (Networks)	CWT2+; See section 5
H29A	Cyberspace Operations (CO) Planner	CWT1+; Should be qualified in another technical work role within the career path prior to becoming a Cyber Planner
H41A	Basic Offensive Cyber Operator	CWT2+
H42A	Cyber Research and Development (R&D) Specialist	CWT2+

b. Defensive Cyberspace Operations (DCO) Core NECs

NEC	ROLE	RECOMMENDED PAYGRADES; COMMENTS
H29A	CO Planner	CWT1+; Should be qualified in another technical work role within the career path prior to becoming a Cyber Planner
H30A	Cyber Defense Analyst (CDA) - Basic	CWT3+
H31A	CDA (Host)	CWT3+
H32A	Cyber Threat Emulation Operator (CTEO)	CWT2+
H34A	CDA (Network)	CWT3+
H42A	Cyber R&D Specialist	CWT2+



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c. Naval Special Warfare (NSW) Cyberspace Operations (CO) Core NEC List

NEC	ROLE	RECOMMENDED PAYGRADES; COMMENTS
703C	NSW Tactical Information Operations (TIO) Analyst	CWT2+; See section 6
708A	Expeditionary Information Warfare (Tactical)	CWT2+; See section 6
771B	NSW TIO Operator	CWT2+; See sections 5-6
785B	Special Operations Forces (SOF) Offensive Cyberspace Operator	CWT2+; See sections 5-6

d. Rating “Other” NECs

NEC	ROLE	RECOMMENDED PAYGRADES; COMMENTS
H07A	Applied Cyber Operations Master	CWT1+
702C	Information Warfare (IW) Warfare Tactics Instructor (WTI)	CWTC+; See section 7
732A	East Asia Area Specialist	CWT2+

5. CWTs with NECs H13A-H16A and 785B complete a rigorous training pipeline and are considered highly trained Network Operators. Sailors with NECs H13A-H16A are required to complete a minimum of two consecutive Interactive On-Net (ION) Operator tours. CWTs with NEC 771B (NSW TIO Operator) and NEC 703C (NSW TIO Analyst) are assigned to Naval Special Warfare Development Group (DEVGRU) and Special Reconnaissance Teams (SRT). Assignment as a NSW TIO Operator incurs a five (5) year commitment while a NSW TIO Analyst incurs a four (4) year commitment. Sailors completing the qualification requirements for awarding of these NECs serve in a performance-based mission area and may not support traditional opportunities due to operational requirements and shall not be a limiting factor for selection / non-selection of the next paygrade.

6. DEVGRU, SRTs, Joint Cyber Operations Group (JCOG), Joint Communication Unit (JCU), White House Communications Agency (WHCA), Navy Expeditionary Intelligence Command (NEIC) can be career enhancing and demanding tours. Secretary of the Navy Tours with Industry (SNTWI), Masters of Science in Applied Cyberspace Operations (MACO), and Computer Network Operations Development Program (CNODP) can be opportunities for CWTs to build additional technical expertise. These special programs require CWTs to be selectively screened and detailed. Subsequent tours within these special programs should not be looked at unfavorably. Those Sailors that are re-toured are placed in leadership billets commensurate at or above their current paygrade. Additionally, while on an operational shore tour or with Naval Special Warfare Special Reconnaissance Teams (SRT), DEVGRU, Joint Communications Unit (JCU) and Joint Cyber Operations Group (JCOG), Navy Expeditionary Intelligence Command (NEIC) may accrue extensive deployment and TDY supporting Overseas Contingency Operations and may have the opportunity to qualify EXWS. NCDOC’s Sea Duty component (Navy Cyber Defense Team (NCDT) offers CWTs the ability to conduct DCO afloat on Carrier Strike Group and Amphibious Ready Group Staffs. While in this capacity, CWTs have the opportunity to earn ESWS or EAWS.

7. CWTs with the Naval Information Warfighting Development Center (NIWDC) Warfare Tactics Instructor (WTI) Qualification are selected and screened to complete a demanding training pipeline; as WTIs, they develop tactics, techniques and procedures (TTPs) for publication into Naval doctrine. WTIs develop and validate TTPs, and integrate cyberspace operations capabilities into all warfare areas. WTIs demonstrate advanced instructional





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techniques; develop, implement, and evaluate curricula, and instruct for the Naval Information Warfighting Development Center WTI training development.

8. Emphasis should be placed on Sailors in the CWT rating who have clearly demonstrated mission expertise, mission leadership, and clear impact in their rating under their given scope of responsibilities. A career path that has solely focused on traditional leadership positions that have not demonstrated mission impact should not be weighed as heavily. In addition to the standard Navy Apprentice, Journeyman, Master levels, US Cyber Command (USCC) has established Basic, Senior, and Master level qualifications. Additionally, the following are examples of (but not limited to) these qualifications:

· OCO:

- Weapons and Tactics Instructor (WTI) (EA/ION – CMTs)
- Line of Effort (LOE) Lead (EA- CMTs)
- Weapons and Tactics Director (WTD) (EA/ION - JFHQ-Cs)
- Mission Director (EA/ION -USCC J38)

DCO:

- Mission Element Lead (CPTs)
- DCO BWC
- NCDOD Leads
- Navy Cyber Defense Team (NCDT)

9. Personnel assigned to Naval Recruiting, Recruit Training Command (RTC), Officer Training Command (OTC) and Naval Academy as a Recruit Division Commander, are carefully screened and selected for this high priority assignment.

10. The Computer Network Operations (CNO) Mid-Career Cryptologic Continuing Education Program (MCCEP) is designed to enhance the professional development and technical skills of its participants. Completing this program advances the technical knowledge and operational expertise in the field of cryptologic computer network operations. There are 4 phases in the track with typically 1 year experience for phase 1, 2 years for phase 2, 5 years for phase 3, and 8 years for phase 4. Currently, the program is open to individuals assigned to National (P3) mission billets. However, The Cryptologic Training Council is actively working with all Service's cryptologic signatories to expand access and opportunity across both National and Service billets and mission sets. MCCEP, although not a requirement, it is highly recommended and viewed as an enhancer for Sailors already assigned to P3 billets/supporting P3 mission sets as it significantly contributes to their technical growth.

### **Considerations for advancement from E6 to E7**

- Should clearly demonstrate operational leadership amongst peers by position and performance and team's ability to successfully execute mission.
- Shall show strong documented technical and operational knowledge. Technical expertise is the primary consideration.
- Should show leadership as Team Leader, Mission Supervisor, Mission Planner, Rating Detailer, Program Manager, or Instructor.
- Should have demonstrated success in a high profile position for paygrade, i.e. Mission Supervisor, DCOWO, Instructor, Senior and Master level workrole qualifications, or other key leadership positions.
- Master Training Specialist / Afloat Training Specialist (MTS/ATS) and Enlisted Warfare Qualifications are expected when available at commands with extra consideration for additional warfare qualifications. Those serving in a National instructor capacity should qualify Adjunct Faculty or Faculty Certification.
- Any Command or Assistant Command Collateral Duties should have documented successful impact to the command.
- Any FCPOA involvement should show leadership or strong involvement with documented quantifiable results.
- Any Sailor 360 involvement should have documented quantifiable results.



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- Enlisted Warfare Pins are expected when available. As of the release of COMNAVIFORINST 1414.1C, EIWS is not mandatory but should remain a factor of consideration when identifying Best Qualified candidates for advancement.

### **Considerations for advancement from E7 to E8**

- Shall demonstrate strong documented technical and operational knowledge and successful leadership in billet assigned.
- Demonstrated success in a high profile position for paygrade, i.e. LCPO, Instructor, or other key senior leadership command positions.
- Should clearly demonstrate operational leadership amongst peers by position and performance.
- Active participation and documented impact to CWT rating. Participation in events like OCCSTDs, AERR, or Rating Strategy Council should show documented impacts to the rating.
- Master Training Specialist / Afloat Training Specialist (MTS/ATS) and Enlisted Warfare Qualifications are expected when available at commands with extra consideration for additional warfare qualifications. Those serving in a National instructor capacity should qualify Adjunct Faculty or Faculty Certification
- Any Command or Assistant Command Collateral Duties should have documented successful impact to the command.
- Quantifiable and documented results in CPOA leadership or CPO Mess strong influential involvement may be considered.
- Quantifiable and documented results of Sailor 360 and CPO Initiation involvement and leading a committee may be considered.
- Enlisted Warfare Pins are expected when available. As of the release of COMNAVIFORINST 1414.1C, EIWS is not mandatory but should remain a factor of consideration when identifying Best Qualified candidates for advancement.

### **Considerations for advancement from E8 to E9**

- Shall show strong documented technical and operational knowledge and successful leadership in billet assigned.
- Should have documented demonstration of expertise while in a high profile position for paygrade, i.e. Command/Directorate SEL, CPT NCOIC, Department LCPO, Senior Rating Detailer, OPS Chief or other key leadership positions.
- Clear demonstration of leading a CPO Mess and peers.
- Clear demonstration in leading command events, collaterals, and mission opportunities.
- Active participation and documented impact to CWT rating. Participation in events like OCCSTDs, AERR, or Rating Strategy Council should show documented impacts to the rating.
- Master Training Specialist / Afloat Training Specialist (MTS/ATS) and Enlisted Warfare Qualifications are expected when available at commands with extra consideration for additional warfare qualifications. Those serving in a National instructor capacity should qualify Adjunct Faculty or Faculty Certification
- Should have demonstrated successful impact to the command if holding Command or Assistant Command Collateral Duties.
- Quantifiable and documented results in CPOA leadership or CPO Mess strong influential involvement may be considered.
- Quantifiable and documented results of Sailor 360 and CPO Initiation involvement and leading a committee may be considered.
- Enlisted Warfare Pins are expected when available. As of the release of COMNAVIFORINST 1414.1C, EIWS is not mandatory but should remain a factor of consideration when identifying Best Qualified candidates for advancement.