CHAPTER 5



AEROGRAPHER'S MATE (AG)

NAVPERS 18068F-5E Change 95

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NAVY ENLISTED OCCUPATIONAL STANDARD

FOR

AEROGRAPHER'S MATE (AG)



SCOPE OF RATING

<u>Aerographer's Mates (AG)</u> collect, measure, and analyze the elements of the physical environment (Land/Sea/Air/Space) and land/sea interface; synthesize a vast array of oceanographic, hydrographic, celestial, and meteorological data and in situ observations and measurements to produce forecasts and warnings in support of safety of flight, navigation, and Naval/Joint operations and missions; demonstrate expertise in Meteorological and Oceanographic (METOC) equipment and systems, Geospatial Information and Services (GIS), and Tactical Decision Aids (TDA); combine knowledge of the operating environment with a thorough understanding of warfighting capabilities to assess and predict environmental impacts to friendly and enemy platforms, sensors, and weapon systems; develop actionable recommendations regarding tactics, techniques, and procedures that fully exploit environmental parameters, mitigate risks, and enable decision superiority across all warfighting areas and strategic and enabling capabilities; operate Unmanned Systems (UxS), small boats and expeditionary survey vehicles to collect meteorological, hydrographic and oceanographic data; and distribute data internally and externally to platforms and operational activities via communication devices, web-centric architecture, or on-scene in direct support of afloat units, Fleet/Joint staffs, or Combatant/Operational Commanders.

This Occupational Standard is to be incorporated in Volume I, Part B, of the Manual of Navy Enlisted Manpower and Personnel Classifications and Occupational Standards (NAVPERS 18068F) in Chapter 5.

GENERAL INFORMATION

CAREER PATTERN



Normal path of advancement to Chief Warrant Officer can be found in OPNAVINST 1420.1.

For rating entry requirements, refer to MILPERSMAN 1306-618.

SAFETY

The observance of Operational Risk Management (ORM) and proper safety precautions in all areas is an integral part of each billet and the responsibility of every Sailor; therefore, it is a universal requirement for all ratings.

Job Title Meteorological And Oceanographic (METOC) Analyst

NOC

TBD

Job Family

Life, Physical, and Social Science

Pay PlanCareer FieldENLISTEDAG

<u>Short Title (30 Characters)</u> METOC ANALYST Short Title (14 Characters) METOC ANALYST

Job Code

001695

Other Relationships and Rules NEC JXXX and 7XXX series and other NECs as assigned

Job Description

Meteorological and Oceanographic (METOC) Analysts observe, measure, and collect atmospheric and oceanographic data, phenomena, and parameters that affect platforms, sensors, and weapon systems performance; interpret numerical prediction models and provide limited analysis of operationally significant weather data (e.g., cloud cover, freezing level, fronts and pressure centers, significant weather, and hazards to flight, etc.); conduct routine analysis of hydrographic features and elements on nautical/navigation charts and prepare routine forecasts of METOC conditions on synoptic, meso, and micro scales in low risk operating areas; utilize Tactical Decision Aids (TDA) to generate graphical depictions of atmospheric refractive conditions and acoustic properties of the ocean; operate Unmanned Systems (UxS), small boats and expeditionary survey vehicles to collect meteorological, hydrographic and oceanographic data; process side-scan, multi-beam, and single-beam sonar imageries; brief current METOC conditions in support of Warfare (ASW), Mine Warfare (MIW), Strike Warfare (STW), Amphibious Warfare (AMW), Electromagnetic Maneuver Warfare (EMW)); operate classified/unclassified software and systems; and communicate METOC information internally and externally to platforms and operational activities.

DoD Relationship		O*NET Relationship		
<u>Group Title</u>	DoD Code	Occupation Title	SOC Code	Job Family
Weather, General	142000	Atmospheric and Space Scientists	19-2021.00	Life, Physical, and Social Science
<u>Skills</u>		Abilities		
Science		Information	Information Ordering	
Critical Thinking		Deductive I	Deductive Reasoning	
Speaking		Oral Expression		
Operation and Control		Flexibility	Flexibility of Closure	
Operations Analysis		Speech Cla	Speech Clarity	
Coordination		Written Expression		
Quality Control Analysis		Spatial Orientation		
Judgment and Decision Making		Written Comprehension		
Writing		Category Flexibility		
Management of Material Resources		Problem Se	ensitivity	

ASSIMILATION, APPLICATION, AND PREDICTION

Paygrade	Task Type	Task Statements
E5	CORE	Assess climatological data for long-range mission planning
E4	CORE	Brief satellite derived meteorological features and elements

CHARACTERIZATION AND ANALYSIS

Paygrade	Task Type	Task Statements
E4	CORE	Analyze atmospheric refractive conditions
E4	CORE	Analyze bathythermograph data
E4	CORE	Analyze hydrographic data
E4	NON-CORE	Analyze impacts of clutter density data to mission timelines
E4	CORE	Analyze ocean surface buoy data
E4	CORE	Analyze open ocean wave conditions (i.e., average and significant wave heights, lengths, and periods)
E4	CORE	Analyze ray trace diagrams
E4	CORE	Analyze sea ice conditions
E4	CORE	Analyze sea surface conditions (i.e., current direction and speed, ocean fronts and eddies, and sea surface temperature)
E4	NON-CORE	Analyze sonar imagery (i.e., side-scan, multi-beam and single beam)

CHARACTERIZATION AND ANALYSIS (CONT'D)

<u>Paygrade</u> E4	<u>Task Type</u> CORE	<u>Task Statements</u> Analyze Sound Speed Profile (SSP) (e.g., sonic layer depth, sound channels, best depth, cut-off frequencies, etc.)
E5	NON-CORE	Analyze Unmanned Underwater Vehicle (UUV) data
E4	NON-CORE	Apply geospatial orientation on Meteorological and Oceanographic (METOC) products
E4	CORE	Brief basic Meteorological and Oceanographic (METOC) elements and features on climatological products and information
E4	NON-CORE	Brief hydrographic features and elements on nautical/navigation charts
E4	CORE	Brief meteorological features and elements on surface weather charts
E4	CORE	Brief oceanographic and biological properties of the oceans (e.g., bottom types, bioluminescence, etc.)
E4	CORE	Brief satellite derived oceanographic features and elements
E4	NON-CORE	Characterize hydrographic features and elements on nautical/navigation charts
E4	CORE	Characterize meteorological features and elements on constant pressure charts
E4	CORE	Characterize meteorological features and elements on satellite imagery
E4	CORE	Characterize meteorological features and elements on surface weather charts
E4	CORE	Characterize meteorological features and elements on upper air data
E4	CORE	Characterize oceanographic features and elements on satellite imagery
E4	CORE	Characterize physical and biological properties of the oceans
E4	CORE	Characterize severe weather (e.g., tornadoes, thunderstorms, hail, etc.)
E4	CORE	Compile oceanographic and biological data (e.g., bottom types, bioluminescence, etc.)
E5	CORE	Develop tropical streamline analyses
E4	CORE	Evaluate ocean surface buoy data
E4	CORE	Evaluate ray trace diagrams
E4	NON-CORE	Generate graphical depictions of hydrographic properties of the ocean
E4	CORE	Integrate bathythermograph data into oceanographic prediction products
E4	NON-CORE	Perform change detection and contact fusion analyses
E4	NON-CORE	Process multi-beam sonar imagery
E4	NON-CORE	Process single beam sonar imagery
MET	TEOROLOGICA	L, OCEANOGRAPHIC, AND HYDROGRAPHIC DATA COLLECTION
Paygrade	Task Type	Task Statements
E4	CORE	Collect climatological data for long-range mission planning
E4	NON-CORE	Collect hydrographic data
E4	NON-CORE	Collect ocean bottom data using Unmanned Underwater Vehicles (UUV)
E4	CORE	Collect satellite imagery using shipboard or shore-based satellite data terminal (i.e., SMQ-11 and FMQ-17)
E4	CORE	Compile astronomical data (e.g., solar, lunar, tidal, etc.)
E4	CORE	Document observed surf conditions (e.g., breaker height, breaker type, breaker angle, etc.)

E4 NON-CORE Launch oceanographic buoys

METEOROLOGICAL, OCEANOGRAPHIC, AND HYDROGRAPHIC DATA COLLECTION (CONT'D)

Paygrade	<u>Task Type</u>	Task Statements
E4	CORE	Measure current atmospheric conditions (e.g., land-based, shipboard, upper air, etc.)
E4	CORE	Observe surf conditions (e.g., breaker height, breaker type, breaker angle, etc.)
E4	NON-CORE	Perform launch and recovery of Unmanned Underwater Vehicles (UUV)
E4	NON-CORE	Perform small craft operations (e.g., Expeditionary Survey Vehicle (ESV), Combat Rubber Raiding Craft (CRRC), etc.)
E4	NON-CORE	Process side-scan sonar imagery
E4	NON-CORE	Record current tidal observations
E4	CORE	Record current weather observations (e.g., land-based, shipboard, upper air, etc.)
E4	NON-CORE	Recover oceanographic buoys

METOC ADMINISTRATION, TRAINING, AND QUALITY CONTROL

Paygrade	<u>Task Type</u>	Task Statements
E4	CORE	Archive Meteorological and Oceanographic (METOC) data
E4	NON-CORE	Conduct Meteorological and Oceanographic (METOC) training
E4	CORE	Disseminate Meteorological and Oceanographic (METOC) forecasts and products
E4	NON-CORE	Inspect Meteorological and Oceanographic (METOC) equipment
E4	CORE	Maintain Meteorological and Oceanographic (METOC) administrative files
E4	CORE	Maintain Meteorological and Oceanographic (METOC) publications and databases
E4	CORE	Maintain Tactical Decision Aid (TDA) sensor databases
E4	CORE	Perform environmental observation quality control checks (e.g., surface, synoptic, surf, etc.)
E5	NON-CORE	Provide Meteorological and Oceanographic (METOC) information for Daily Intentions Message System (DIMS)
E4	CORE	Verify deployable Meteorological and Oceanographic (METOC) equipment readiness

SAFETY OF FLIGHT, NAVIGATION, AND INFRASTRUCTURE

<u>Paygrade</u>	<u>Task Type</u>	Task Statements
E4	CORE	Analyze radar data in support of flight operations (i.e., convective and non- convective meteorological features significant to aircraft operations and safety)
E4	CORE	Brief flight weather conditions and recommendations
E4	CORE	Brief sea ice conditions and forecasts
E4	CORE	Brief Terminal Aerodrome Forecast (TAF)
E4	CORE	Collect observed environmental conditions in the event of a mishap (e.g., aircraft, ship, infrastructure, personnel, etc.)
E4	NON-CORE	Construct digital flight weather packages (i.e., ditch headings, satellite image, and flight level wind)
E4	NON-CORE	Create Optimum Path Aircraft Routing System (OPARS) customized flight plan predictions
E4	CORE	Develop Horizontal Weather Depictions (HWD) (e.g., cloud cover, freezing level, fronts and pressure centers, significant weather, hazards to flight, etc.)
E4	CORE	Plot ship Projected Intended Movement (PIM) and Movement Reports (MOVREP)

Paygrade Task Type **Task Statements** NON-CORE E4 Analyze acoustic and non-acoustic contacts E4 CORE Assess astronomical data (e.g., solar, lunar, tidal, etc.) E4 CORE Brief Chain of Command (COC) of environmental conditions impacting operations E4 NON-CORE Brief change detection and contact fusion analyses E4 CORE Brief communications forecasts, impacts, and recommendations Brief current local weather conditions, advisories, and warnings E4 CORE E4 CORE Brief current/forecasted Meteorological and Oceanographic (METOC) conditions in support of warfare operations (e.g., Undersea Warfare (USW), Mine Warfare (MIW), Strike Warfare (STW), Intelligence, Surveillance, and Reconnaissance (ISR), etc.) E4 CORE Brief forecasted atmospheric refractive conditions E5 NON-CORE Brief Humanitarian Assistance and Disaster Relief (HADR) forecasts and recommendations E4 NON-CORE Brief impacts of clutter density data to mission timelines E4 CORE Brief oceanographic acoustic prediction assessments and recommendations E5 CORE Brief Search and Rescue (SAR) forecasts and recommendations E5 CORE Brief surf forecasts and recommendations

animations, audio, and tactical visualizations)

Develop hydrographic mission planning briefs

Develop electro-optic sensor predictions

Develop mosaic mapped imagery

Develop electromagnetic wave propagation predictions

Create oceanographic acoustic prediction products (i.e., three-dimensional graphics,

E4

E4

E4

E4

E4

CORE

CORE

CORE

NON-CORE

NON-CORE

TACTICAL/OPERATIONAL ASSESSMENTS AND RECOMMENDATIONS

Job Title **Meteorological And Oceanographic (METOC) Forecaster**

NOC Short Title (30 Characters) Job Family TBD METOC FORECASTER Life, Physical, and Social Science Pay Plan **Career Field Other Relationships and Rules** ENLISTED NEC JXXX and 7XXX series and other NECs as assigned AG

Short Title (14 Characters) METOC FORCASTR

Job Code

001585

Job Description

Meteorological and Oceanographic (METOC) Forecasters carry out a broad range of METOC forecasting activities to be performed in a wide variety of contexts, some of which are complex and non-routine; demonstrate personal autonomy and responsibility in the generation of METOC products and operational recommendations; demonstrate critical thinking and the capacity to apply scientific knowledge and skills in an integrated way; predict and assess the impact of the elements of the physical environment (Land/Sea/Air/Space) and land/sea interface on both friendly and enemy platforms, sensors and weapon system performance, safety of flight and navigation, and Naval/Joint operations and missions; evaluate numerical model performance to quantify the accuracy and reliability of future performance in low and moderate risk operating areas; analyze hydrographic features and elements on nautical/navigation charts and forecast METOC conditions on synoptic, meso, and micro scales in moderate risk operating areas; analyze side-scan, multi-beam, and single-beam sonar imagery; collect and analyze ocean bottom data using unmanned underwater vehicles; create climatological studies supporting Naval warfare planning; produce forecasts and warnings; synthesize a vast array of METOC data to characterize the operating environment and recommend Courses of Actions (COA) to enhance the warfighter's ability to exploit the physical environment for successful mission accomplishment; brief forecasted METOC conditions in support of warfare operations (e.g., Anti-Submarine Warfare (ASW), Mine Warfare (MIW), Strike Warfare (STW), Amphibious Warfare (AMW), Electromagnetic Maneuver Warfare (EMW), Navy Special Warfare (NSW)); and distribute data internally and externally to aircraft, ships, and shore activities via communication devices/web-centric architecture.

DoD Relationship *.* .

O*NET Relationship

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<u>Group Title</u>	DoD Code	Occupation Title	SOC Code	Job Family	
Weather, General	142000	Atmospheric and Space Scientists	19-2021.00	Life, Physical, and Social Science	
<u>Skills</u>		Abilities			
Science		Informatio	on Ordering		
Critical Thinking		Deductive	Reasoning		
Complex Problem Solving		Written E.	xpression		
Speaking		Oral Expr	Oral Expression		
Judgment and Decision Making		Speech Cl	Speech Clarity		
Coordination		Flexibility	Flexibility of Closure		
Systems Analysis		Inductive	Reasoning		
Writing		Speed of G	Closure		
Operations Analysis		Visualizat	ion		
Operation and Control		Written C	omprehension		

ASSIMILATION, APPLICATION, AND PREDICTION

Paygrade	Task Type	Task Statements
E5	CORE	Analyze numerical model performance
E5	CORE	Assess climatological data for long-range mission planning
E4	CORE	Brief satellite derived meteorological features and elements
E5	CORE	Develop prognostic blend weather charts
E5	NON-CORE	Develop submarine operations forecasts
E5	CORE	Develop synoptic-scale surface weather forecasts (i.e., tropical, mid-latitude, and arctic)
E5	CORE	Evaluate numerical model performance
E5	CORE	Forecast aircraft en route weather (e.g., ditch headings, aircraft icing, flight weather winds, altimeter settings, freezing levels, etc.)
E5	CORE	Forecast electromagnetic wave propagation
E5	CORE	Forecast flight weather, visibility, and cloud ceiling conditions (i.e., Visual Flight Rules (VFR), Instrument Flight Rules (IFR), Visual Meteorological Conditions (VMC), and Instrument Meteorological Conditions (IMC))

ASSIMILATION, APPLICATION, AND PREDICTION (CONT'D)

<u>Paygrade</u> E5	<u>Task Type</u> CORE	<u>Task Statements</u> Forecast jet stream positions and intensities
E5	CORE	Forecast long wave patterns
E5	CORE	Forecast movement and intensity changes in major short wave troughs and ridges
E5	CORE	Forecast movement and intensity changes in surface pressure systems and features
E5	CORE	Forecast oceanographic near shore conditions (e.g., littoral currents, speeds, and direction, temperatures, surf, etc.)
E5	CORE	Forecast precipitation types, intensities, and durations
E5	CORE	Forecast sea surface conditions (e.g., sea states, current direction and speed, ocean fronts and eddies, sea surface temperature, etc.)
E5	CORE	Forecast severe weather (e.g., tornados, thunderstorms, hail, etc.)
E5	CORE	Forecast sky conditions (e.g., cloud types, amounts, layer heights, etc.)
E5	CORE	Forecast sound propagation (e.g., sonic layer depth, sound channels, best depth, etc.)
E5	CORE	Forecast surface air temperatures (e.g., ambient air, dew point, heat stress, wind chill, etc.)
E5	CORE	Forecast synoptic-scale meteorological features and elements (e.g., pressure systems, frontal boundaries, cloud cover, precipitation, etc.)
E5	CORE	Forecast tropical cyclone development, movement, and intensity changes
E5	CORE	Forecast visibility obstructions (e.g., fog, rain, haze, smoke, etc.)
E5	CORE	Forecast wind conditions (e.g., direction, speed, character, shifts, etc.)
E5	CORE	Forecast wind shear and turbulence (e.g., types, intensities, levels, and locations, etc.)
E6	CORE	Synthesize performance trends of multiple numerical models
E5	CORE	Validate severe weather advisories, watches and warnings (e.g., tornadoes, thunderstorms, hail, etc.)
		CHARACTERIZATION AND ANALYSIS
<u>Paygrade</u> E6	<u>Task Type</u> CORE	<u>Task Statements</u> Analyze advanced physics-based effects (e.g., dynamics, kinematics, thermodynamics, etc.)
E4	CORE	Analyze atmospheric refractive conditions
E4	CORE	Analyze bathythermograph data
E4	CORE	Analyze hydrographic data

NON-CORE Analyze hydrographic features and elements on nautical/navigation charts

NON-CORE Analyze imageries for environmental Essential Elements of Information (EEI)

NON-CORE Analyze impacts of clutter density data to mission timelines

E4

E5

E4

E5

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E5

NON-CORE	Analyze Magnetic Anomaly Detection (MAD) Magnetic Operational Effectiveness
	(MOE) charts

NON-CORE Analyze Meteorological and Oceanographic (METOC) features and elements on full motion videos

E5COREAnalyze meteorological features and elements on constant pressure chartsE5COREAnalyze meteorological features and elements on satellite imagery

CORE Analyze meteorological features and elements on surface weather charts

CHARACTERIZATION AND ANALYSIS (CONT'D)

<u>Paygrade</u> E5	<u>Task Type</u> CORE	<u>Task Statements</u> Analyze meteorological features and elements on upper air data	
E5	CORE	Analyze ocean bottom characteristics (e.g., topography, sediment, etc.)	
E4	CORE	Analyze ocean surface buoy data	
E5	NON-CORE	Analyze oceanographic features and elements on satellite imagery	
E4	CORE	Analyze open ocean wave conditions (i.e., average and significant wave heights, lengths, and periods)	
E5	CORE	Analyze physical and biological properties of the oceans	
E5	CORE	Analyze prognostic weather charts	
E4	CORE	Analyze ray trace diagrams	
E5	NON-CORE	Analyze riverine imagery	
E4	CORE	Analyze sea surface conditions (i.e., current direction and speed, ocean fronts and eddies, and sea surface temperature)	
E4	NON-CORE	Analyze sonar imagery (i.e., side-scan, multi-beam and single beam)	
E4	CORE	Analyze Sound Speed Profile (SSP) (e.g., sonic layer depth, sound channels, best depth, cut-off frequencies, etc.)	
E5	CORE	Analyze thickness and height change charts	
E5	NON-CORE	Analyze Unmanned Underwater Vehicle (UUV) data	
E5	CORE	Analyze vorticity charts	
E4	NON-CORE	Apply geospatial orientation on Meteorological and Oceanographic (METOC) products	
E4	CORE	Brief basic Meteorological and Oceanographic (METOC) elements and features on climatological products and information	
E5	NON-CORE	Brief graphical depictions of hydrographic properties of the ocean	
E4	NON-CORE	Brief hydrographic features and elements on nautical/navigation charts	
E4	CORE	Brief meteorological features and elements on surface weather charts	
E4	CORE	Brief oceanographic and biological properties of the oceans (e.g., bottom types, bioluminescence, etc.)	
E4	CORE	Brief satellite derived oceanographic features and elements	
E4	CORE	Characterize meteorological features and elements on constant pressure charts	
E4	CORE	Characterize meteorological features and elements on satellite imagery	
E4	CORE	Characterize meteorological features and elements on surface weather charts	
E4	CORE	Characterize meteorological features and elements on upper air data	
E4	CORE	Characterize oceanographic features and elements on satellite imagery	
E4	CORE	Characterize physical and biological properties of the oceans	
E4	CORE	Characterize severe weather (e.g., tornadoes, thunderstorms, hail, etc.)	
E4	CORE	Compile oceanographic and biological data (e.g., bottom types, bioluminescence, etc.)	
E5	CORE	Develop tropical streamline analyses	
E5	CORE	Enhance meteorological features and elements in multi-channel satellite derived imagery	
E4	CORE	Evaluate ocean surface buoy data	

CHARACTERIZATION AND ANALYSIS (CONT'D)

Paygrade	<u>Task Type</u>	Task Statements
E4	CORE	Evaluate ray trace diagrams
E5	CORE	Evaluate stability indices on upper air profiles
E5	CORE	Evaluate surf conditions (e.g., breaker height, breaker type, breaker angle, etc.)
E4	NON-CORE	Generate graphical depictions of hydrographic properties of the ocean
E4	CORE	Integrate bathythermograph data into oceanographic prediction products
E4	NON-CORE	Perform change detection and contact fusion analyses
E4	NON-CORE	Process multi-beam sonar imagery
E4	NON-CORE	Process single beam sonar imagery
E7	NON-CORE	Validate hydrographic features and elements on nautical/navigation charts

METEOROLOGICAL, OCEANOGRAPHIC, AND HYDROGRAPHIC DATA COLLECTION

Paygrade	<u>Task Type</u>	Task Statements
E4	NON-CORE	Collect hydrographic data
E4	NON-CORE	Collect ocean bottom data using Unmanned Underwater Vehicles (UUV)
E4	CORE	Compile astronomical data (e.g., solar, lunar, tidal, etc.)
E4	NON-CORE	Launch oceanographic buoys
E4	NON-CORE	Perform launch and recovery of Unmanned Underwater Vehicles (UUV)
E4	NON-CORE	Perform small craft operations (e.g., Expeditionary Survey Vehicle (ESV), Combat Rubber Raiding Craft (CRRC), etc.)
E4	NON-CORE	Process side-scan sonar imagery
E4	NON-CORE	Recover oceanographic buoys

METOC ADMINISTRATION, TRAINING, AND QUALITY CONTROL

Paygrade	Task Type	Task Statements
E4	CORE	Archive Meteorological and Oceanographic (METOC) data
E7	CORE	Compose Meteorological and Oceanographic (METOC) messages (e.g., Operational Task Report (OPTASK) Meteorological and Oceanographic (METOC), ANNEX H, Meteorological and Oceanographic (METOC) Letter of Instruction (LOI), etc.)
E7	CORE	Compose post-deployment Meteorological and Oceanographic (METOC) reports (e.g., lessons learned, operational impacts, equipment performance, etc.)
E5	NON-CORE	Compose tsunami reports
E5	CORE	Conduct Meteorological and Oceanographic (METOC) forecast and quality control checks
E4	NON-CORE	Conduct Meteorological and Oceanographic (METOC) training
E4	CORE	Disseminate Meteorological and Oceanographic (METOC) forecasts and products
E6	CORE	Establish Meteorological and Oceanographic (METOC) support requirements for warfare operations (e.g., Mine Warfare (MIW), Anti-Submarine Warfare (ASW)/Undersea Warfare (USW), Strike Warfare (STW), etc.)
E4	NON-CORE	Inspect Meteorological and Oceanographic (METOC) equipment
E5	NON-CORE	Issue environmental emergency notification warnings
E4	CORE	Maintain Meteorological and Oceanographic (METOC) administrative files

METOC ADMINISTRATION, TRAINING, AND QUALITY CONTROL (CONT'D)

Paygrade	Task Type	Task Statements
E4	CORE	Maintain Meteorological and Oceanographic (METOC) publications and databases
E4	CORE	Maintain Tactical Decision Aid (TDA) sensor databases
E4	CORE	Perform environmental observation quality control checks (e.g., surface, synoptic, surf, etc.)
E5	NON-CORE	Provide Meteorological and Oceanographic (METOC) information for Daily Intentions Message System (DIMS)
E4	CORE	Verify deployable Meteorological and Oceanographic (METOC) equipment readines

CORE Verify deployable Meteorological and Oceanographic (METOC) equipment readiness

SAFETY OF FLIGHT, NAVIGATION, AND INFRASTRUCTURE

Paygrade E4	<u>Task Type</u> CORE	<u>Task Statements</u> Analyze radar data in support of flight operations (i.e., convective and non- convective meteorological features significant to aircraft operations and safety)	
E5	CORE	Analyze radar data in support of resource protection (e.g., severe weather potential, precipitation type and intensity, storm tracking surveillance, etc.)	
E5	CORE	Assess aviation operations Meteorological and Oceanographic (METOC) support requirements	
E5	CORE	Assess maritime operations Meteorological and Oceanographic (METOC) support requirements	
E5	CORE	Assess operational risks due to hazardous environmental conditions	
E5	CORE	Brief aviation operations forecast and recommendations (e.g., Tactical Recovery of Aircraft and Personnel (TRAP), parachute operations, in-flight refueling, etc.)	
E4	CORE	Brief flight weather conditions and recommendations	
E4	CORE	Brief sea ice conditions and forecasts	
E4	CORE	Brief Terminal Aerodrome Forecast (TAF)	
E5	CORE	Compose Meteorological and Oceanographic (METOC) advisories, watches, and warnings	
E6	CORE	Compose tropical cyclone Conditions of Readiness (COR) recommendations and messages	
E4	NON-CORE	Construct digital flight weather packages (i.e., ditch headings, satellite image, and flight level wind)	
E4	NON-CORE	Create Optimum Path Aircraft Routing System (OPARS) customized flight plan predictions	
E5	CORE	Develop afloat cyclic operations forecasts and products	
E5	CORE	Develop aviation operations forecasts and recommendations (e.g., Tactical Recovery of Aircraft and Personnel (TRAP), parachute operations, in-flight refueling, etc.)	
E5	CORE	Develop en route Routine Weather (WEAX) forecasts and recommendations (e.g., task force, task group, submarine, ice, graphical, etc.)	
E4	CORE	Develop Horizontal Weather Depictions (HWD) (e.g., cloud cover, freezing level, fronts and pressure centers, significant weather, hazards to flight, etc.)	
E5	NON-CORE	Develop International Submarine Escape and Rescue Liaison Office (ISMERLO) forecasts and recommendations	

Paygrade **Task Type Task Statements** E5 CORE Develop local area forecasts and products E5 CORE Develop Terminal Aerodrome Forecasts (TAF) E5 Evaluate forecasted environmental conditions in the event of a mishap (e.g., CORE aircraft, ship, infrastructure, personnel, etc.) E5 CORE Forecast flight weather take-off, en route, and terminal conditions E5 CORE Forecast ice accretion conditions at-sea E6 CORE Provide mitigation strategies to avoid hazardous environmental conditions E5 CORE Update flight weather forecasts and products TACTICAL/OPERATIONAL ASSESSMENTS AND RECOMMENDATIONS **Paygrade** Task Type **Task Statements** NON-CORE Analyze acoustic and non-acoustic contacts E4 E5 NON-CORE Analyze Meteorological and Oceanographic (METOC) impacts on Unmanned Systems (UxS) E5 CORE Analyze upper air profiles for meteorological impacts (e.g., freezing level, icing, inversions, turbulence, etc.) Assess astronomical data (e.g., solar, lunar, tidal, etc.) E4 CORE CORE Assess environmental impacts to the Electromagnetic Spectrum (EMS) E5 E5 CORE Brief at-sea operations forecasts, impacts, and recommendations (e.g., Underway Replenishment (UNREP), Vertical Replenishment (VERTREP), and Visit, Board, Search, and Seizure (VBSS), etc.) E5 NON-CORE Brief ballistic wind forecasts and recommendations E6 NON-CORE Brief chaff dispersion forecasts and recommendations E4 CORE Brief Chain of Command (COC) of environmental conditions impacting operations E4 NON-CORE Brief change detection and contact fusion analyses E5 Brief Chemical, Biological, Radiological, and Nuclear Explosive (CBRNE) forecasts CORE and recommendations CORE E4 Brief communications forecasts, impacts, and recommendations E4 CORE Brief current local weather conditions, advisories, and warnings Brief current/forecasted Meteorological and Oceanographic (METOC) conditions in E4 CORE support of warfare operations (e.g., Undersea Warfare (USW), Mine Warfare (MIW), Strike Warfare (STW), Intelligence, Surveillance, and Reconnaissance (ISR), etc.) E5 CORE Brief current/forecasted tactical Meteorological and Oceanographic (METOC) recommendations in support of warfare operations (e.g., Undersea Warfare (USW), Mine Warfare (MIW), Strike Warfare (STW), Intelligence, Surveillance, and Reconnaissance (ISR), etc.) E4 CORE Brief forecasted atmospheric refractive conditions E5 NON-CORE Brief Humanitarian Assistance and Disaster Relief (HADR) forecasts and recommendations NON-CORE E4 Brief impacts of clutter density data to mission timelines E6 CORE Brief Meteorological and Oceanographic (METOC) support capabilities

SAFETY OF FLIGHT, NAVIGATION, AND INFRASTRUCTURE (CONT'D)

TACTICAL/OPERATIONAL ASSESSMENTS AND RECOMMENDATIONS (CONT'D)

<u>Paygrade</u> E5	<u>Task Type</u> NON-CORE	<u>Task Statements</u> Brief Non-combative Evacuation Operation (NEO) forecasts and recommendations	
E4	CORE	Brief oceanographic acoustic prediction assessments and recommendations	
E5	CORE	Brief Operating Area (OPAREA) forecasts, impacts, and recommendations (e.g., port operations, gas and oil platform, inner harbor, etc.)	
E5	NON-CORE	Brief riverine imagery	
E5	CORE	Brief Search and Rescue (SAR) forecasts and recommendations	
E5	CORE	Brief surf forecasts and recommendations	
E5	CORE	Brief target area forecasts and recommendations	
E5	CORE	Calculate evasion and detection depths	
E4	CORE	Create oceanographic acoustic prediction products (i.e., three-dimensional graphics, animations, audio, and tactical visualizations)	
E5	CORE	Develop amphibious warfare operations forecasts and recommendations	
E5	CORE	Develop at-sea operations forecasts, impacts, and recommendations (e.g., Underway Replenishment (UNREP), Vertical Replenishment (VERTREP), and Visit, Board, Search, and Seizure (VBSS), etc.)	
E5	CORE	Develop aviation strike operations forecasts and recommendations	
E5	NON-CORE	Develop ballistic wind forecasts and recommendations	
E5	NON-CORE	Develop chaff dispersion forecasts and recommendations	
E5	CORE	Develop Chemical, Biological, Radiological, and Nuclear Explosive (CBRNE) forecasts and recommendations	
E5	CORE	Develop communications forecasts, impacts, and recommendations	
E4	CORE	Develop electromagnetic wave propagation predictions	
E4	CORE	Develop electro-optic sensor predictions	
E5	CORE	Develop expeditionary forecasts and recommendations	
E5	NON-CORE	Develop Extended Echo Ranging (EER) forecasts and recommendations	
E5	NON-CORE	Develop ground operating area forecasts and recommendations (e.g., civil affairs, direct action mission, ground operations, etc.)	
E5	NON-CORE	Develop Humanitarian Assistance and Disaster Relief (HADR) forecasts and recommendations	
E4	NON-CORE	Develop hydrographic mission planning briefs	
E6	NON-CORE	Develop hydrographic mission planning recommendations	
E5	NON-CORE	Develop Intelligence, Surveillance, and Reconnaissance (ISR) forecasts and recommendations	
E5	CORE	Develop Meteorological and Oceanographic (METOC) pre-deployment briefs	
E5	NON-CORE	Develop Mine Warfare (MIW) forecasts, summaries, and recommendations (e.g., dive plans, bottom characteristics, etc.)	
E4	NON-CORE	Develop mosaic mapped imagery	
E5	NON-CORE	Develop Non-combative Evacuation Operation (NEO) forecasts and recommendations	
E5	CORE	Develop Operating Area (OPAREA) forecasts, impacts and recommendations (e.g., port operations, gas and oil platform, inner harbor, etc.)	

TACTICAL/OPERATIONAL ASSESSMENTS AND RECOMMENDATIONS (CONT'D)

Paygrade	Task Type	Task Statements		
ES	NON-CORE	Develop riverine forecasts and recommendations		
E5	CORE	Develop Search and Rescue (SAR) forecasts and recommendations		
E5	NON-CORE	Develop special operations forecasts and recommendations (e.g., psychological, swimmer, strategic and tactical reconnaissance, etc.)		
E5	NON-CORE	Develop Special Warfare (SPECWAR) mission forecasts and recommendations (e Sea, Air, and Land (SEAL) Delivery Vehicle (SDV), Special Boat Team (SBT), technical operations (tech ops), etc.)		
E5	CORE	Develop surf forecasts and recommendations		
E5	CORE	Develop Tactical Atmospheric Summaries (TAS)		
E5	CORE	Develop Tactical Oceanographic Summaries (TOS)		
E5	CORE	Develop tactical recommendations based on Tactical Decision Aid (TDA) output		
E5	CORE	Develop target area forecasts and recommendations		
E5	CORE	Develop Undersea Warfare (USW) forecasts and recommendations		
E5	NON-CORE	Develop Unmanned Systems (UxS) forecasts and recommendations		
E5	CORE	Evaluate impact of upwelling on operations		
E5	CORE	Evaluate upper air profiles for meteorological impacts (e.g., freezing level, icing, inversions, turbulence, etc.)		
E6	CORE	Exploit bathythermograph data		
E6	CORE	Exploit climatological data for long-range mission planning		
E6	CORE	Exploit meteorological features and elements on upper air data		
E6	CORE	Exploit physical and biological properties of the oceans		
E5	CORE	Forecast acoustic parameters and ranges (e.g., passive and active ranges, ambient noise, cutoff frequencies, etc.)		
E5	CORE	Forecast atmospheric effects on electro-optic sensors and weapons		
E6	CORE	Provide Meteorological and Oceanographic (METOC) impact recommendations for warfare mission plans		
E5	NON-CORE	Validate acoustic and non-acoustic contacts		

Job TitleJob CodeMaster Meteorological And Oceanographic (METOC) Forecaster001640

<u>Job Family</u>		<u>NOC</u>	Short Title (30 Characters)	Short Title (14 Characters)
Life, Physical, and Social Science		TBD	MASTER METOC FORECASTER	MSTRMETOCFORC
Pay Plan	Career Field	Other Relationships and Rules		
ENLISTED	AG	NEC JXXX	and 7XXX series and other NECs as assigned	

Job Description

Master Meteorological and Oceanographic (METOC) Forecasters apply a significant range of fundamental scientific principles and complex techniques across a wide and often unpredictable variety of contexts; demonstrate substantial personal autonomy and responsibility in the generation of METOC products and operational recommendations; establish METOC support requirements to provide the most relevant products for operational and mission success; evaluate numerical model performance and stochastic model output to quantify the accuracy and reliability of future performance in high risk operating areas; analyze hydrographic features and elements on nautical/navigation charts and the physical and biological properties of the oceans; forecast METOC conditions on synoptic, meso, and micro scales in complex environments; validate side-scan, multi-beam, and single-beam sonar imagery; develop tactical recommendations based on forecasted atmospheric refractive conditions and acoustic properties of the ocean generated by Tactical Decision Aid (TDA) output; coordinate continuity of support with other METOC activities; integrate impacts of the physical environment into warfighter mission plans; manage METOC quality control and environmental impact metrics programs; ensure operational success through effective leadership of personnel, training, re-training and management of METOC assets; comply with international and governmental regulations, local procedures, and established priorities; and develop solutions to meet METOC equipment acquisition and training programs.

DoD Relationship		O*NET Relationship			
<u>Group Title</u> Weathan Communit	<u>DoD Code</u>	<u>Occupation Title</u>	<u>SOC Code</u>	Job Family	
weather, General	142000	Atmospheric and Space Scientists	19-2021.00	Life, Physical, and Social Science	
<u>Skills</u>		Abilities			
Science		Oral Expre	Oral Expression		
Complex Problem Solvin	g	Information	n Ordering		
Speaking		Written Exp	Written Expression		
Critical Thinking		Speech Cla	Speech Clarity		
Coordination		Deductive	Deductive Reasoning		
Management of Material	Resources	Inductive R	Reasoning		
Systems Evaluation		Problem Se	ensitivity		
Writing		Written Co.	mprehension		
Quality Control Analysis		Mathematic	cal Reasoning		
Judgment and Decision 1	Making	Oral Comp	orehension		

ASSIMILATION, APPLICATION, AND PREDICTION

Paygrade	<u>Task Type</u>	Task Statements
E5	CORE	Analyze numerical model performance
E4	CORE	Brief satellite derived meteorological features and elements
E5	CORE	Evaluate numerical model performance
E5	CORE	Forecast electromagnetic wave propagation
E5	CORE	Forecast severe weather (e.g., tornados, thunderstorms, hail, etc.)
E5	CORE	Forecast tropical cyclone development, movement, and intensity changes
E7	CORE	Quantify operational risks utilizing stochastic model output
E6	CORE	Synthesize performance trends of multiple numerical models
E5	CORE	Validate severe weather advisories, watches and warnings (e.g., tornadoes, thunderstorms, hail, etc.)

CHARACTERIZATION AND ANALYSIS

Paygrade	<u>Task Type</u>	Task Statements
E6	CORE	Analyze advanced physics-based effects (e.g., dynamics, kinematics, thermodynamics, etc.)
E4	CORE	Analyze atmospheric refractive conditions

CHARACTERIZATION AND ANALYSIS (CONT'D)

<u>Task Type</u>	Task Statements
NON-CORE	Analyze oceanographic features and elements on satellite imagery
CORE	Brief basic Meteorological and Oceanographic (METOC) elements and features on climatological products and information
NON-CORE	Brief graphical depictions of hydrographic properties of the ocean
NON-CORE	Brief hydrographic features and elements on nautical/navigation charts
CORE	Brief meteorological features and elements on surface weather charts
CORE	Brief oceanographic and biological properties of the oceans (e.g., bottom types, bioluminescence, etc.)
CORE	Brief satellite derived oceanographic features and elements
CORE	Conduct advanced remote sensing analyses
CORE	Enhance meteorological features and elements in multi-channel satellite derived imagery
CORE	Evaluate stochastic model outputs
NON-CORE	Generate graphical depictions of hydrographic properties of the ocean
NON-CORE	Validate change detection and contact fusion analysis results
NON-CORE	Validate hydrographic features and elements on nautical/navigation charts
NON-CORE	Validate multi-beam sonar imagery
NON-CORE	Validate side-scan sonar imagery
NON-CORE	Validate single beam sonar imagery
	Task TypeNON-CORECORENON-CORENON-CORECORECORECORECORENON-CORENON-CORENON-CORENON-CORENON-CORENON-CORENON-CORENON-CORENON-CORENON-CORENON-CORENON-CORENON-CORENON-CORENON-CORENON-CORENON-CORENON-CORENON-CORE

METEOROLOGICAL, OCEANOGRAPHIC, AND HYDROGRAPHIC DATA COLLECTION

Paygrade	Task Type	Task Statements
E4	NON-CORE	Collect ocean bottom data using Unmanned Underwater Vehicles (UUV)
E7	CORE	Coordinate with mission planners and oceanographers to develop Water Sampling Plan (WSP)

METOC ADMINISTRATION, TRAINING, AND QUALITY CONTROL

Paygrade	<u>Task Type</u>	Task Statements
E7	CORE	Analyze Meteorological and Oceanographic (METOC) environmental data requests
E7	NON-CORE	Arrange travel and logistics for deployable Meteorological and Oceanographic (METOC) teams
E7	CORE	Compose Meteorological and Oceanographic (METOC) messages (e.g., Operational Task Report (OPTASK) Meteorological and Oceanographic (METOC), ANNEX H, Meteorological and Oceanographic (METOC) Letter of Instruction (LOI), etc.)
E7	CORE	Compose Meteorological and Oceanographic (METOC) situation reports
E7	CORE	Compose post-deployment Meteorological and Oceanographic (METOC) reports (e.g., lessons learned, operational impacts, equipment performance, etc.)
E5	NON-CORE	Compose tsunami reports
E5	CORE	Conduct Meteorological and Oceanographic (METOC) forecast and quality control checks

METOC ADMINISTRATION, TRAINING, AND QUALITY CONTROL (CONT'D)

Paygrade E4	<u>Task Type</u> NON-CORE	<u>Task Statements</u> Conduct Meteorological and Oceanographic (METOC) training
E7	NON-CORE	Coordinate support with oceanography subject matter experts (e.g., acoustics, bathymetry and hydrography, etc.)
E4	CORE	Disseminate Meteorological and Oceanographic (METOC) forecasts and products
E7	CORE	Establish Meteorological and Oceanographic (METOC) support requirements for allied and coalition forces
E6	CORE	Establish Meteorological and Oceanographic (METOC) support requirements for warfare operations (e.g., Mine Warfare (MIW), Anti-Submarine Warfare (ASW)/Undersea Warfare (USW), Strike Warfare (STW), etc.)
E7	CORE	Evaluate ship's surface weather observation programs
E4	NON-CORE	Inspect Meteorological and Oceanographic (METOC) equipment
E5	NON-CORE	Issue environmental emergency notification warnings
E4	CORE	Maintain Tactical Decision Aid (TDA) sensor databases
E7	CORE	Manage Continuity of Operations Plans (COOP) and post-disaster contingency plans
E7	CORE	Manage deployable Meteorological and Oceanographic (METOC) team operational plans, schedules, and logistics
E7	CORE	Manage Meteorological and Oceanographic (METOC) certification and assessment programs
E7	CORE	Manage Meteorological and Oceanographic (METOC) equipment maintenance (e.g., Naval Integrated Tactical Environmental Suite (NITES), Unmanned Underwater Vehicle (UUV), Expeditionary Survey Vehicle (ESV), etc.)
E7	NON-CORE	Manage Meteorological and Oceanographic (METOC) quality control programs
E7	CORE	Manage Meteorological and Oceanographic (METOC) training and qualification programs
E7	CORE	Review Meteorological and Oceanographic (METOC) environmental data requests
E7	CORE	Validate Meteorological and Oceanographic (METOC) forecast and product accuracy
E4	CORE	Verify deployable Meteorological and Oceanographic (METOC) equipment readiness

SAFETY OF FLIGHT, NAVIGATION, AND INFRASTRUCTURE

<u>Task Type</u>	Task Statements
CORE	Analyze radar data in support of resource protection (e.g., severe weather potential, precipitation type and intensity, storm tracking surveillance, etc.)
CORE	Assess aviation operations Meteorological and Oceanographic (METOC) support requirements
CORE	Assess maritime operations Meteorological and Oceanographic (METOC) support requirements
CORE	Assess operational risks due to hazardous environmental conditions
CORE	Assign level of risk associated with severe weather
CORE	Brief tropical cyclone aircraft sortie recommendations
CORE	Brief tropical cyclone ship evasion and sortie recommendations
	Task Type CORE CORE CORE CORE CORE CORE CORE CORE

SAFETY OF FLIGHT, NAVIGATION, AND INFRASTRUCTURE (CONT'D)

Paygrade E6	<u>Task Type</u> CORE	<u>Task Statements</u> Compose tropical cyclone Conditions of Readiness (COR) recommendations and messages
E7	NON-CORE	Coordinate International Submarine Escape and Rescue Liaison Office (ISMERLO) support requirements
E5	NON-CORE	Develop International Submarine Escape and Rescue Liaison Office (ISMERLO) forecasts and recommendations
E7	CORE	Develop Optimum Track Ship Routing (OTSR) surveillance advisories and recommendations
E7	CORE	Develop tropical cyclone aircraft sortie recommendations
E7	CORE	Develop tropical cyclone ship evasion and sortie recommendations
E5	CORE	Evaluate forecasted environmental conditions in the event of a mishap (e.g., aircraft, ship, infrastructure, personnel, etc.)
E7	CORE	Maintain continuity of support with other Meteorology and Oceanography (METOC) activities
E7	CORE	Manage aviation safety Meteorological and Oceanographic (METOC) support requirements
E7	CORE	Manage environmental mishap reconstruction (e.g., aircraft, ship, infrastructure, personnel, etc.)
E7	CORE	Manage maritime safety Meteorological and Oceanographic (METOC) support requirements
E6	CORE	Provide mitigation strategies to avoid hazardous environmental conditions
	TACTICAL/O	PERATIONAL ASSESSMENTS AND RECOMMENDATIONS
Paygrade	Task Type	Task Statements
E5	CORE	Assess environmental impacts to the Electromagnetic Spectrum (EMS)
E5	NON-CORE	Brief ballistic wind forecasts and recommendations
E6	NON-CORE	Brief chaff dispersion forecasts and recommendations
E4	CORE	Brief Chain of Command (COC) of environmental conditions impacting operations
E4	NON-CORE	Brief change detection and contact fusion analyses

- E5 CORE Brief Chemical, Biological, Radiological, and Nuclear Explosive (CBRNE) forecasts and recommendations
- E4 CORE Brief communications forecasts, impacts, and recommendations

E4

- CORE Brief current local weather conditions, advisories, and warnings
- E4 CORE Brief current/forecasted Meteorological and Oceanographic (METOC) conditions in support of warfare operations (e.g., Undersea Warfare (USW), Mine Warfare (MIW), Strike Warfare (STW), Intelligence, Surveillance, and Reconnaissance (ISR), etc.)

TACTICAL/OPERATIONAL ASSESSMENTS AND RECOMMENDATIONS (CONT'D)

Paygrade	<u>Task Type</u>	Task Statements
E5	CORE	Brief current/forecasted tactical Meteorological and Oceanographic (METOC) recommendations in support of warfare operations (e.g., Undersea Warfare (USW), Mine Warfare (MIW), Strike Warfare (STW), Intelligence, Surveillance, and Reconnaissance (ISR), etc.)
E4	CORE	Brief forecasted atmospheric refractive conditions
E5	NON-CORE	Brief Humanitarian Assistance and Disaster Relief (HADR) forecasts and recommendations
E4	NON-CORE	Brief impacts of clutter density data to mission timelines
E6	CORE	Brief Meteorological and Oceanographic (METOC) support capabilities
E5	NON-CORE	Brief Non-combative Evacuation Operation (NEO) forecasts and recommendations
E4	CORE	Brief oceanographic acoustic prediction assessments and recommendations
E5	CORE	Brief Operating Area (OPAREA) forecasts, impacts, and recommendations (e.g., port operations, gas and oil platform, inner harbor, etc.)
E5	CORE	Brief Search and Rescue (SAR) forecasts and recommendations
E5	CORE	Brief surf forecasts and recommendations
E5	CORE	Brief target area forecasts and recommendations
E5	CORE	Calculate evasion and detection depths
E5	CORE	Develop Chemical, Biological, Radiological, and Nuclear Explosive (CBRNE) forecasts and recommendations
E5	NON-CORE	Develop ground operating area forecasts and recommendations (e.g., civil affairs, direct action mission, ground operations, etc.)
E5	NON-CORE	Develop Humanitarian Assistance and Disaster Relief (HADR) forecasts and recommendations
E6	NON-CORE	Develop hydrographic mission planning recommendations
E5	CORE	Develop Meteorological and Oceanographic (METOC) pre-deployment briefs
E5	NON-CORE	Develop Non-combative Evacuation Operation (NEO) forecasts and recommendations
E5	CORE	Develop Search and Rescue (SAR) forecasts and recommendations
E5	NON-CORE	Develop special operations forecasts and recommendations (e.g., psychological, swimmer, strategic and tactical reconnaissance, etc.)
E5	NON-CORE	Develop Special Warfare (SPECWAR) mission forecasts and recommendations (e.g., Sea, Air, and Land (SEAL) Delivery Vehicle (SDV), Special Boat Team (SBT), technical operations (tech ops), etc.)
E5	CORE	Develop surf forecasts and recommendations
E5	CORE	Develop tactical oceanographic acoustic prediction assessments and recommendations
E5	CORE	Develop tactical recommendations based on Tactical Decision Aid (TDA) output
E5	CORE	Develop target area forecasts and recommendations
E5	NON-CORE	Develop Unmanned Systems (UxS) forecasts and recommendations
E5	CORE	Evaluate impact of upwelling on operations

TACTICAL/OPERATIONAL ASSESSMENTS AND RECOMMENDATIONS (CONT'D)

Paygrade	<u>Task Type</u>	Task Statements
E6	CORE	Exploit bathythermograph data
E6	CORE	Exploit climatological data for long-range mission planning
E6	CORE	Exploit meteorological features and elements on upper air data
E6	CORE	Exploit physical and biological properties of the oceans
E5	CORE	Forecast atmospheric effects on electro-optic sensors and weapons
E7	CORE	Formulate Meteorological and Oceanographic (METOC) Operational Risk Management (ORM) outcomes and recommendations (i.e., offensive and defensive)
E7	CORE	Liaise with Defense Threat Reduction Agency (DTRA) to support Chemical, Biological, Radiological, and Nuclear Explosive (CBRNE) events
E6	CORE	Provide Meteorological and Oceanographic (METOC) impact recommendations for warfare mission plans
E7	CORE	Provide recommendations for sensor and weapon employment and laydown