APPENDIX F

JOURNEYMAN METOC ANALYST QUALIFICATION CHECKLIST

RANK: _____ NAME: _____ SSN: _____

METOC INSTRUCTOR: _____ LOCATION: _____

DATE CERTIFICATION BEGAN: _____ METOC CHIEF: _____

DATE QUALIFICATION AWARDED: _____ METOC OFFICER: _____

Tie-in	**Description**	**REQUIREMENT**			
JCP-121	To certify knowledge of the components, billets, equipment and capabilities that comprise the Marine Corps METOC support architecture.	MAI Init	Date	Qual Board	Date
JCP-121A	MCAS/MCAF METOC Support				
JCP-121B	Marine Wing Support Group				
JCP-121C	Marine Expeditionary Force				
JCP-121D	METOC Support Team (MST).				
JCP-121E	Marine Wing Support Squadron (MWSS) Weather Service Section.				
JCP-121F	Staff Weather Officer (SWO).				
JCP-121G	Joint Weather Officer (JWO).				
JCP-121H	Joint METOC Forecast Center (JMFU).				
JCP-121I	Aircraft Command Element (ACE) Weather Officer (ACE WXO).				
JCP-121J	Mobile Meteorological Facility Replacement (MetMF(R)).				
JCP-121K	NITES IV.				

Tie-in	**Description**	**REQUIREMENT**			
JCP-122	To certify knowledge of local area policies and procedures.	MAI Init	Date	Qual Board	Date
JCP-122A	Airfield description.				
JCP-122B	SOP procedures.				
JCP-122C	Command support structure.				
JCP-122D	Destructive weather procedures.				
JCP-122E	Security requirements.				
JCP-122F	Watch composition and schedule.				
JCP-122G	Watch procedures.				
JCP-122H	Local forms				
JCP-122I	Reference and Technical Library procedures.				
JCP-122J	Local area forecaster handbook-weather regimes.				

Tie-in	Description	REQUIREMENT			
JCP-123	To certify knowledge of regulations, orders, and instructions governing classified materials and software.	MAI Init	Date	Qual Board	Date
JCP-123A	The METOC Analyst Apprentice shall identify and state the security regulations, orders, and instructions governing security and state the general content of each.				

Tie-in	Description	REQUIREMENT			
JCP-124	To certify knowledge of operating garrison METOC equipment. The METOC Analyst Apprentice shall define and discuss strengths, weaknesses, and capabilities of the following garrison METOC equipment.	MAI Init	Date	Qual Board	Date
JCP-124A	Meteorological Integrated Data Display System (MIDDS).				
JCP-124B	Lightning Position and tracking system (LPATS).				
JCP-124C	Pilot to Forecaster Radio (METRO).				
JCP-124D	Doppler radar system (WSR88D).				
JCP-124E	Wet Bulb Globe Temperature Index Sensors (WBGTI).				
JCP-124F	Tower to metro displays/communications (WXVISION).				
JCP-124G	Hand Held equipment (PMQ-3, sling psychrometer, etc.).				

Tie-in	Description	REQUIREMENT			
JCP-125	To certify knowledge of METOC software applications. Without the aid of references, define and discuss, the performance capability, mission supported by application, and generated products of the specified meteorological software.	MAI Init	Date	Qual Board	Date
JCP-125A	GFMPL.				
JCP-125B	TAWS.				
JCP-125C	AREPS.				
JCP-125D	MIDDS.				
JCP-125E	METCAST.				
JCP-125F	JMV.				

Tie-in	Description	REQUIREMENT			
JCP-126	To certify knowledge of atmospheric fundamentals. The METOC Analyst Apprentice shall verbally define and discuss the atmospheric fundamentals listed.	MAI Init	Date	Qual Board	Date
JCP-126A	Long/short wave trough/ridges.				

	(a) Deepening/building/intensifying. (b) Filling/weakening. (c) Cyclogenesis/frontogenesis. (d) Cyclolysis/frontolysis.				
JCP-126B	Pressure systems. (a) Baroclinic/barotropic. (b) Warm/cold air advection. (c) Dry/moist air advection.				
JCP-126C	Frontal systems. (a) Active/inactive cold fronts. (b) Active/inactive warm fronts. (c) Stationary fronts. (d) Warm/Cold occlusions. (e) Type “A”/”B” occlusions.				
JCP-126D	Jet features. (a) Polar front jet stream. (b) Subtropical jet stream. (c) Conduction-radiation—advection-convection.				
JCP-126E	Thickness.				
JCP-126F	Vorticity.				
JCP-126G	Condensation/evaporation/sublimation.				
JCP-126H	Convergence/confluence.				
JCP-126I	Divergence/diffluence.				
JCP-126J	Types of baroclinic/barotropic low-pressure systems.				
JCP-126K	Types of baroclinic/barotropic high-pressure systems.				
JCP-126L	Gradient wind.				
JCP-126M	Geostrophic wind.				
JCP-126N	Relative/absolute/specific humidity.				
JCP-126O	Pressure gradient.				
JCP-126P	Cloud identification/formation.				

Tie-in	**Description**	**REQUIREMENT**			
JCP-127	To certify knowledge of analyzing and interpreting upper atmospheric weather charts. Given reference materials, The METOC Analyst Apprentice shall analyze and interpret the 925/850/700/500/300/250/200 mb constant pressure charts for the features listed.	MAI Init	Date	Qual Board	Date
JCP-127A	Isoheights.				
JCP-127B	Isotherms.				
JCP-127C	Areas of significant moisture.				
JCP-127D	Major short wave axis, troughs and ridges.				
JCP-127E	Minor short wave axis, troughs and ridges.				
JCP-127F	High and Low height centers.				
JCP-127G	Warm and cold pockets.				
JCP-127H	Upper fronts (where applicable).				

Tie-in	Description	REQUIREMENT			
JCP-128	To certify knowledge of analyzing and interpreting a surface pressure chart. When given a surface chart, the METOC Analyst Apprentice shall apply analytical techniques and depict the features listed.	MAI Init	Date	Qual Board	Date
JCP-128	Isobars.				
JCP-128	High and Low pressure centers.				
JCP-128	Fronts.				
JCP-128	Highlight weather symbols.				
JCP-128	Troughs.				
JCP-128	Label air masses.				
JCP-128	Dry lines.				
JCP-128	Isallobars.				
JCP-128	Isodrosotherms.				
JCP-128	Identify outflow boundaries.				

Tie-in	Description	REQUIREMENT			
JCP-129	To certify knowledge of analyzing and interpreting a thickness chart. The METOC Analyst Apprentice when given a thickness chart, shall apply analytical techniques and depict the features listed.	MAI Init	Date	Qual Board	Date
JCP-129	Warm/cold air advection.				
JCP-129	High and Low pressure centers.				
JCP-129	Fronts.				
JCP-129	540Dam Line				
JCP-129	Troughs.				
JCP-129	Label air masses.				
JCP-129	Jet stream.				

Tie-in	Description	REQUIREMENT			
JCP-130	To certify knowledge of analyzing and interpreting a vorticity chart. When given a vorticity chart, apply analytical techniques and depict the features listed.	MAI Init	Date	Qual Board	MAI Init
JCP-130A	Positive/negative vorticity areas.				
JCP-130B	Shear lobes.				
JCP-130C	Advection lobes.				
JCP-130D	Vorticity lobes.				
JCP-130E	X-N distribution.				
JCP-130F	Jet stream				
JCP-130G	UVM/DVM				

Tie-in	Description	REQUIREMENT			
JCP-131	To certify knowledge of analyzing and interpreting satellite imagery. When given satellite imagery, determine and state the type of satellite imagery, apply analytical techniques, and depict the features listed.	MAI Init	Date	Qual Board	MAI Init
JCP-131A	Jet stream(s). (a) Location of jet stream(s). (b) Type of jet stream(s).				
JCP-131B	High and Low circulation center locations.				
JCP-131C	Cloud types.				
JCP-131D	Frontal systems, troughs and ridges.				
JCP-131E	Land/terrain features.				
JCP-131F	Significant weather phenomena. (a) Thunderstorms. (b) Squall Lines.				
JCP-131G	Tropical features. (a) Tropical cyclones. (b) Tropical Upper tropospheric troughs.				

Tie-in	Description	REQUIREMENT			
JCP-132	To certify knowledge of analyzing and interpreting Doppler radar imagery. When given Doppler radar imagery, determine and state the type of radar data and identify meteorological features on the products listed.	MAI Init	Date	Qual Board	MAI Init
JCP-132A	Base reflectivity products. (a) Bow echoes (b) Potential thunderstorm features. (c) Outflow boundaries. (d) Circulation induced boundaries.				
JCP-132B	Base velocity products. (a) Outflow patterns. (b) Regions of shear. (c) Circulation patterns.				
JCP-132C	Base spectrum width products.				
JCP-132D	Derived products.				

Tie-in	Description	REQUIREMENT			
JCP-133	To certify knowledge of conducting streamline analysis. When given a wind chart, conduct a streamline analysis denoting the features listed.	MAI Init	Date	Qual Board	MAI Init
JCP-133A	Streamlines.				
JCP-133B	Asymptotes (convergent/divergent).				
JCP-133C	Neutral points.				
JCP-133D	Label cyclonic and anti-cyclonic centers.				
JCP-133E	Isotachs.				

JCP-133F	Wind maximums and minimums.				

Tie-in	Description	REQUIREMENT			
JCP-134	To certify knowledge of analyzing and forecasting atmospheric conditions from the Skew-T, Log P Diagram.	MAI Init	Date	Qual Board	MAI Init
JCP-134A	Compute indices. (a) Lifted index (b) KI index (c) Sweat index (d) Showalter's index (e) Total Totals				
JCP-134B	Analyze negative/positive energy areas.				
JCP-134C	Analyze for equilibrium levels.				
JCP-134D	Compute turbulent areas.				
JCP-134E	Compute tops of convective activity.				
JCP-134F	Compute contrails.				
JCP-134G	Compute icing types and levels.				
JCP-134H	Compute maximum and minimum temperatures.				
JCP-134I	Compute hail.				
JCP-134J	Compute thunderstorm gusts.				
JCP-134K	Analyze freezing level.				
JCP-134L	Analyze for areas of moisture.				
JCP-134M	Compute D-Values.				
JCP-134N	Compute Relative humidity.				

Tie-in	Description	REQUIREMENT			
JCP-135	To certify knowledge of applied meteorological reasoning in the forecasting of movement and intensity of synoptic scale features. When given required charts, forecast intensity and movement of features listed.	MAI Init	Date	Qual Board	MAI Init
JCP-135A	Forecast movement and intensity changes in major short wave troughs/ridges.				
JCP-135B	Forecast movement and intensity in upper level high and low pressure system.				
JCP-135C	Forecast isotherms in major short wave features.				
JCP-135D	Forecast moisture in major short wave features.				
JCP-135E	Forecast movement and intensity in minor short waves.				
JCP-135F	Forecast cyclogenesis of baroclinic low-pressure systems.				
JCP-135G	Forecast cyclolosis of baroclinic low-pressure systems.				
JCP-135H	Forecast anticyclogenesis of baroclinic high-pressure systems.				

JCP-135I	Forecast anti-cyclolysis of baroclinic high-pressure systems.				
JCP-135J	Forecast movement and intensity changes in surface pressure systems.				
JCP-135K	Forecast movement and intensity changes in surface frontal systems.				
JCP-135L	Forecast synoptic scale precipitation.				
JCP-135M	Forecast long wave patterns.				
JCP-135N	forecast movement of jet maxes.				

Tie-in	**Description**	**REQUIREMENT**			
JCP-136	To certify knowledge of forecasting severe weather. When given required charts, The METOC Analyst Apprentice shall analyze and forecast for severe weather elements listed.	MAI Init	Date	Qual Board	MAI Init
JCP-136A	Vertical and horizontal wind shear gradients.				
JCP-136B	Severe Icing.				
JCP-136C	Severe/Extreme Turbulence.				
JCP-136D	Tornadic activity.				
JCP-136E	Thunderstorm activity.				
JCP-136F	Tropical Systems.				
JCP-136G	Winter Storms.				

Tie-in	**Description**	**REQUIREMENT**			
JCP-137	To certify briefing of METOC features from (re)analyzed products. Utilizing enclosure (5), analyze and brief (formally or informally) atmospheric dynamic fundamentals depicted on the following products.	MAI Init	Date	Qual Board	MAI Init
JCP-137A	Synoptic weather charts.				
JCP-137B	Thickness charts.				
JCP-137C	Vorticity charts.				
JCP-137D	Constant pressure charts.				
JCP-137E	Tropical cyclone warning displays.				
JCP-137F	Skew-T, Log P diagrams.				
JCP-137G	Streamline charts.				
JCP-137H	Satellite imagery.				
JCP-137I	Radar imagery.				

Tie-in	**Description**	**REQUIREMENT**			
JCP-138	To certify knowledge of the content and development of correspondence that relates to METOC operations. The apprentice METOC analyst, through practical application, shall exhibit knowledge of content and techniques of composition for the messages listed.	MAI Init	Date	Qual Board	MAI Init
	Casualty Reports. (CASREP)				
	Weather Forecast (WEAX).				

	Joint Operational Area Forecast (JOAF).				
	Tactical Atmospheric Summary (TAS).				
	Assault Forecast (ASLTFCST).				
	Amphibious Objective Area Forecast (AOAFCST).				
	Strike Forecast (STRKFCST).				
	Chemical Downwind Message (CDM).				

Tie-in	**Description**	**REQUIREMENT**			
JCP-139	To certify knowledge of Terminal Aerodrome Forecast (TAF) content and format.	MAI Init	Date	Qual Board	MAI Init
JCP-139A	Minimum altimeter setting.				
JCP-139B	Cloud types, amounts, and layer heights.				
JCP-139C	Precipitation types.				
JCP-139D	Surface visibility.				
JCP-139E	Weather and obstruction to visibility.				
JCP-139F	Maximum/Minimum temperatures.				
JCP-139G	Wind Speed, Direction, and character.				
JCP-139H	Icing type, height, and intensity.				
JCP-139I	Turbulence type, height, and intensity.				
JCP-139J	Encode forecast meteorological elements in accordance with reference.				

Tie-in	**Description**	**REQUIREMENT**			
JCP-140	To certify knowledge of Weather warnings. In accordance with references and local procedures, assess and forecast conditions phenomenon requiring generation of the listed weather warnings.	MAI Init	Date	Qual Board	MAI Init
JCP-140A	Thunderstorm warnings.				
JCP-140B	Severe Thunderstorm warnings/watches.				
JCP-140C	Tornado warnings/watches.				
JCP-140D	Wind warnings.				
JCP-140E	Storm warning.				
JCP-140F	Gale/Whole Gale warning.				
JCP-140G	Flood warning.				
JCP-140H	Flash flood warning.				
JCP-140I	Freeze/Hard Freeze warning.				
JCP-140J	Small craft warnings/advisories.				
JCP-140K	Lightning warnings.				

Tie-in	**Description**	**REQUIREMENT**			
JCP-141	To certify knowledge of Flight Weather Briefing.	MAI Init	Date	Qual Board	MAI Init
JCP-141A	Evaluate current atmospheric parameters along the flight path.				
JCP-141B	Forecast the following atmospheric				

	impacts along the flight path. (a) Turbulence. (b) Icing. (c) Thunderstorm Activity. (d) Flight visibility. (e) Flight level Winds and temperature.				
JCP-141C	Forecast the following meteorological conditions at destination(s) and alternate(s). (a) Sky Conditions (b) Visibility (c) Type and character of Precipitation or obstruction to visibility. (d) Wind Direction (e) Wind Speed (within 5 knots of actual conditions) (f) Altimeter Setting				

Tie-in	**Description**	**REQUIREMENT**			
JCP-142	To certify knowledge of flight weather packets. Given a flight weather packet request, prepare and brief a flight weather packet.	MAI Init	Date	Qual Board	MAI Init
JCP-142A	Construct a horizontal weather depiction.				
JCP-142B	Construct a ditch-heading chart.				
JCP-142C	Construct an altimeter setting chart.				
JCP-142D	Construct an upper-level wind chart.				
JCP-142E	Construct a sea surface temperature chart.				
JCP-142F	Prepare DD-175-1 flight weather brief.				
JCP-142G	Prepare an OPNAV 3140/25 flight forecast folder.				
JCP-142H	Include mission essential products as applicable.				

Tie-in	**Description**	**REQUIREMENT**			
JCP-143	To certify knowledge of verifying meteorological model output. Verify meteorological model output by identifying strengths and weaknesses of each of the following numerical models.	MAI Init	Date	Qual Board	MAI Init
JCP-143A	NOGAPS				
JCP-143B	COAMPS				
JCP-143C	MM5				
JCP-143D	AVN				
JCP-143E	ETA				

Tie-in	Description	REQUIREMENT			
JCP-144	To certify knowledge of surf forecasting. Given the appropriate software, generate a surf forecast that contains the listed components in accordance with the references.	MAI Init	Date	Qual Board	MAI Init
JCP-144A	Significant breaker height.				
JCP-144B	Maximum breaker height.				
JCP-144C	Breaker period.				
JCP-144D	Breaker type.				
JCP-144E	Breaker angle.				
JCP-144F	Littoral current speed and direction.				
JCP-144G	Modified surf index.				
JCP-144H	Wind direction in surf zone.				
JCP-144I	Obtain beach profile data.				

Tie-in	Description	REQUIREMENT			
JCP-145	To certify knowledge of limited data forecasting.	MAI Init	Date	Qual Board	MAI Init
JCP-145A	Given 3 METOC products, selected by the MIA, and a location, write a plain language forecast for a period of 48 hours and verify for accuracy.				

Tie-in	Description	REQUIREMENT			
JCP-146	To certify knowledge of generation of specialized mission support products. Given a Request For Information (RFI), develop the required specialized forecast product to fulfill RFI requirement.	MAI Init	Date	Qual Board	MAI Init
JCP-146A	WEAX.				
JCP-146B	JOAF.				
JCP-146C	EOTDA.				
JCP-146D	TAWS.				
JCP-146E	METOC Impacts to operations.				
JCP-146F	Tactical atmospheric summaries.				
JCP-146G	EM propagation summaries.				
JCP-146H	Amphibious Assault Forecasts.				
JCP-146I	Strike Forecasts.				
JCP-146J	Assault Forecasts.				
JCP-146K	Climatology.				
JCP-146L	Environmental Support Packages.				
JCP-146M	Tidal products.				
JCP-146N	Solar/ Lunar Products.				
JCP-146O	Search and Rescue Brief.				

Tie-in	Description	REQUIREMENT			
JCP-147	To certify knowledge of tailored METOC weather briefs. Develop and conduct specialized/tailored weather briefs listed.	MAI Init	Date	Qual Board	MAI Init
JCP-147A	Tropical cyclone brief.				
JCP-147B	Climatology brief.				
JCP-147C	Astronomical/Lunar Brief.				
JCP-147D	Instrument Ground School Brief.				

Tie-in	Description	REQUIREMENT			
JCP-148	To certify knowledge of basic network administration functions. Utilizing an established METOC network and be able to perform the following basic network functions in order to identify, safeguard, and maintain network integrity.	MAI Init	Date	Qual Board	MAI Init
JCP-148A	Log on to the Network.				
JCP-148B	Connect to other computers on the network.				
JCP-148C	Transfer data to other computers on the Network.				
JCP-148D	Use shared folders and files.				
JCP-148E	Monitor access to/from the network and identify possible intrusions/problems.				
JCP-148F	When directed, add computers to the network.				

Tie-in	Description	REQUIREMENT			
JCP-607	Attain certification of cores skills required for Journeyman METOC Analyst qualification.	MAI Init	Date	Qual Board	MAI Init
JCP-607A	Utilizing enclosure (6), local certification requirements, question and answer periods, exhibit knowledge of the core skills required. Upon completion of the certification checklist, the marine shall be the subject of a certification board (JMA-608) to discern proficiency in the core skills required for JMA qualification				

Tie-in	Description	REQUIREMENT			
JCP-608	Be the subject of a formal certification board to discern qualification eligibility.	MAI Init	Date	Qual Board	MAI Init
JCP-608A	SNM will be the subject of a formal certification board comprised of, at a minimum, the METOC Chief or, the METOC Officer, and assigned instructor/mentor and one qualified JMA. SNM will be required to respond in a professional and technically correct manner to questions posed.				