MEMORANDUM FOR ARMY WEATHER SUPPORT TEAMS DEPLOYING TO THE NATIONAL TRAINING CENTER

FROM: 12TH COMBAT TRAINING SQUADRON / DOC
      Bldg. 661, 7th and Barstow Rd
      Fort Irwin, CA 92310

SUBJECT: Letter of Instruction (LOI) for Army Weather Support Teams (AWSTs) Deploying to the National Training Center (NTC)

References:
(a) Joint Publication 3-59, Meteorological and Oceanographic Operations
(b) Joint Meteorological & Oceanographic (METOC) Handbook
(c) Air Force Doctrine Document 3-59, Weather Operations
(d) Air Force Instruction 15-128, Air Force Weather Roles and Responsibilities, ACC SUP
(g) Air Force Instruction 15-157 (AR 115-10), Weather Support and Services for the U.S. Army
(h) Army Regulation (AR) 5-25, Army Weather Functional Activities
(i) FORSCOM Regulation 350-50-1, Training at the National Training Center
(j) NTC Regulation 350-1, Training at the National Training Center
(k) NTC Exercise Operating Procedures (EXOP)

1. Purpose. Identify Meteorological and Oceanographic (METOC) rotational training unit (RTU) forces supporting NTC deployment scenarios and establish roles, responsibilities, and services provided in accordance with (IAW) referenced guidance on weather operations to enable participating United States Armed Forces and Coalition Nation forces to conduct realistic training in a complex contested environment at the operational and tactical levels of war.

2. Background. The mission of the NTC is to provide tough, realistic joint and combined arms training focused at the brigade and battalion level, to assist commanders in developing trained, competent leaders and soldiers while identifying unit training deficiencies, providing feedback to improve the force and prepare for success on the future joint battlefield. The NTC provides an extensive training system composed of well-trained Opposing Forces (OPFOR), skilled Observer, Coach-Trainers (OC/Ts), large land areas, unrestricted ranges, a fully instrumented battlefield, and extensive logistics missions. The training provided at NTC provides a unique opportunity for combined-arms task forces to reinforce their mission essential task list (METL) training conducted at home station.
3. Personnel Requirements. All members of the rotational Army Weather Support Team (AWST) are expected to be able to perform their duties in an austere field environment through the completion of the deployment scenario. It is highly recommended that all members achieve full CMR, to include certification for driving tactical vehicles at night. Units jump several times during a rotation, most of the time at night, so personnel must be able to drive with NVGs during these movements. All medical and personnel issues that may affect an Airman’s performance while at NTC will be communicated to the 12 CTS personnel ASAP. As NTC Safety Observers, 12 CTS personnel must have notification of personnel issues prior to AWSTs deploying to/arriving at NTC. Army Weather Support (AWS) unit leadership must consider the following prior to selecting Airmen as NTC rotational players:

   a. Medical. IAW FORSCOM Regulation 350-50-1, all physical profiles will be reviewed by PCM and unit leadership to determine the deployment readiness of NTC participants. Pregnant Airmen will not deploy to the NTC. During the deployment scenario, the rotational Army unit will provide the weather teams with medical support and treatment to injuries and illnesses that occur during the NTC rotation. Rotational medical staff will determine if Airmen will be able to be treated and returned to NTC training and if not, the rotational Army unit will coordinate evacuation to home station for any Airmen who cannot return to training.

   b. Personnel. Personnel issues, such as high-risk for Red Cross messages, must be considered during the AWST selection process and, if necessary, the AWS unit will be prepared to replace or supplement the rotational AWSTs should a Red Cross message occur.

   c. Special Needs. The AWSTs will contact the supported Army unit in order to accommodate any special needs for rotational Airmen (i.e., dietary concerns due to medical or religious restrictions). 12th CTS personnel will not service Airmen’s special needs outside of emergency situations, as this should be coordinated with the supported Army unit prior to the NTC rotational deployment scenario.

4. Responsibilities of Rotational AWSTs

   a. Coordinate weather and logistical support with rotational Army customer(s) prior to deploying to and redeploying from NTC (i.e., personnel, communications, transportation, etc.) and annotate support in a Memorandum of Agreement (MOA) or Army unit Operations Order/Fragmentary Order (OPORD/FRAGO) Annex. This should be accomplished NLT 30 days prior. Send the MOA or OPORD/FRAGO Annex to the 12th CTS weather org box (usarmy.irwin.12-cts.mbx.irwin-weather@mail.mil).

   b. Coordinate travel orders for NTC through Army chains, acquiring Army group orders or an Army fund site for Defense Travel System (DTS) orders.

   c. Inform 12 CTS/DOC of RTU travel itinerary ASAP, preferably 30 days prior to arrival at NTC.

   d. Request and acquire temporary KQ Identifiers for each team with 557th Weather Wing (557 WW) no later than (NLT) 30 days prior to arrival at NTC.
e. Complete and return the NTC Pre-deployment Survey found on the NTC weather homepage (http://www.irwin.army.mil/Pages/Rotation%20Tab/Weather.html) NLT 30 days prior to arrival at NTC (see Attachment 2).

f. Secure a Defense Collaboration Services (DCS) account and Air Force Weather Web Services (AFW-WEBS) username/password NLT 30 days prior to arrival at NTC. Email the 12th CTS Weather Org Box (usarmy.irwin.12-cts.mbx.irwin-weather@mail.mil) and provide the emails of everyone on the team for access to the DCS chatroom.

g. Provide pertinent RTU personnel, equipment, and Unit Commander’s Unit Assessment and training focus (see Attachment 2) and the NTC Roll-Out Card (see Attachment 3) found on the NTC Weather Homepage NLT 14 days prior to arrival at NTC (http://www.irwin.army.mil/Pages/Rotation%20Tab/Weather.html).

h. Coordinate all rotational flight weather briefing requests with their supported Army units. This includes any flight weather briefings needed for arrival at NTC from home station, prior to and during Reception, Staging, Onward-Movement, and Integration (RSOI) Week, and departure from NTC back to home station after the rotation has ended. IAW FORSCOM Regulation 350-50-1, the 12th CTS Weather Flight will NOT provide flight weather briefings to rotational Army units. Exceptions can be approved by the Flight Chief or Flight Commander on a case-by-case basis only. It is recommended that AWSTs send at least one SWO on ADVON to NTC for any needed briefing support before the main body arrives. Additionally, AWSTs are required to complete a 25th Operational Weather Squadron (OWS) Support Assistance Request (SAR) for any unique briefings or tailored products (as applicable).

i. Perform operations checks and physically inventory all weather communications equipment prior to deploying. Ensure team members have updated access to secure communications (SIPR tokens) as needed. There are some instances in which units never obtain NIPR communications and must reply on SIPR. Therefore, a SIPR token is required for each team member.

j. Secure M4 & M9 (optional) weapons, magazines (and blank fire adapters, as applicable) for all weather personnel (M4s must be brought for Decisive Action Training Environment rotations).

k. Secure gas masks and JLIST equipment (chemical gear) from your supported Army unit for all weather personnel (both simulated and actual tear gas are used during the NTC deployment scenario).

l. Bring required weather and tactical equipment IAW the RTU Modification Table of Organization and Equipment (MTOE) and deployable UTCs (see Attachment 3).

m. Upon arrival at Fort Irwin, contact the 12 CTS/DOC at DSN: 470-5419/5429/9527 or Commercial 760-380-5419/5429/9527 and provide them a copy of the RTU MOA and MTOE if not already sent via email.

n. Secure Multiple Integrated Engagement System (MILES) for all AWST personnel/vehicles from NTC Operations Group prior to the start of the deployment scenario.
o. Provide 24/7 weather support to enable Army commanders and their staffs to make informed decisions based on key weather factors IAW existing regulations. These services may include: route observations, staff weather briefings, mission weather products, weather impact assessments, routine Chemical Downwind Messages (CDMs), electro-optical tactical decision aids, space weather forecasts, etc.

p. Provide weather information including, but not limited to, flight weather briefings in support of helicopter and Unmanned Aerial Systems (UAS) operations, and tailored weather forecasts for time-sensitive targeting.

q. Establish and maintain communications with the 25 OWS and Fort Irwin/Bicycle Lake Army Airfield (BLAAF) forecaster via DCS or best available option once flight operations begin.

r. Take, record, and disseminate manual observations under the RTU’s respective KQ identifier in order to provide eyes forward presence for the 25 OWS and BLAAF forecaster. Observations are required from each weather team in the training range during the deployment scenario.

s. In the event of an OWS/BLAAF outage, the rotational Brigade or Division AWST can assist BLAAF forecaster with issuing Watches, Warnings and Advisories (WWAs) for NTC.

t. Provide Situational Reports (SITREPs) daily to 12 CTS/DOC while deployed in the NTC Range (see Attachment 9).

u. Provide written feedback comments and/or After Action Review (AAR) comments (as applicable) to the 12 CTS/DOC NLT 14 days following the end of the rotation.

5. Responsibilities of the 25th Operational Weather Squadron (25 OWS)

a. Provide a 24-hour Military Operations Area Forecast (MOAF) three times a day during Training Days (TDs) 1-14 (amended as necessary). The MOAF is the controlling forecast and will include a synoptic discussion, forecast for clouds, visibility/present weather, surface/flight winds, hazards, and temperatures (see Attachment 5).

b. Issue Watches, Warnings and Advisories (WWAs) via the Joint Environmental Toolkit (JET) system for the NTC Area of Operations, Goldstone Airstrip, and Barstow-Daggett Airport as outlined in Attachment 6.

c. Conduct a meteorological conference (METCON) with the rotational units and the BLAAF forecaster prior to MOAF and WWA issuance via DCS and/or telephone/email.

6. Responsibilities of the BLAAF Forecasters

a. Designated “Pseudo-Division SWO” unless a rotational Division weather team deploys with their supported Army unit, in which case the BLAAF forecaster will be designated the Joint METOC Officer (JMO) for NTC.
b. Provide local area of DD 175-1 pilot briefs to NTC Flight Detachment (Eagle Team) and 2916th Aviation Battalion pilots and flight crews.

c. Provide WWAs as necessary for Bicycle Lake Army Airfield (see Attachment 6).

d. Issue 5-day weather planning outlook once a day (see Attachment 7).

e. Issue NTC Mission Weather Product (MWP) three times daily using the Mission Execution Forecast Process (MEFP) (see Attachment 8).

f. Provide staff weather support to NTC leadership in the form of: commanders’ updates, planning weather, and operational weather updates.

g. Relay current and forecast weather data, to include WWAs, to Warrior Tactical Operations Center (TOC) via phone or Fort Irwin Range Communications System (RCS).

h. Conduct METCON with the rotational units and the 25 OWS prior to MOAF and WWA issuance via DCS and/or telephone.

i. Directly support NTC Operations Group (52nd ID), 11 Armored Cavalry Regiment (ACR)/OPFOR, and 916th Support Brigade as their Staff Weather Officer (SWO) to manage operations.

7. Responsibilities of the NTC Observer-Coach/Trainers (OC/Ts)

a. Provide RTUs with required NTC informational and planning material NLT 90 days prior to the start of the rotation.

b. Provide guidance regarding NTC weather support and observe horizontal consistency and quality of MWPs produced by the RTU.

c. Provide Exercise Operating Procedures (EXOP) and NTC orientation briefings during (RSOI) week.

d. Ensure all safety concerns during the rotation are addressed and intervene as necessary.

e. Observe weather teams under deployed conditions and offer recommended sustains and improvements to the RTU.

f. Coach and mentor weather teams as required.

g. Operate as a liaison between the AWS RTUs, 25 OWS, 12 CTS, NTC Army OC/Ts, and supported Army customers as required.

h. Provide informal and formal AARs. Two formal AARs will be conducted during the rotation on TD-7 and TD-14. A formal written AAR will be sent to the RTU AWS leadership, HQ ACC/A3W, and OL-G, ACC/A3W (FORSCOM) NLT 30 days following the end of the rotation (see Attachment 10).
8. Communication: It is imperative and the responsibility of the rotational weather teams to coordinate communication requirements with the Army prior to deployment. Teams should be aware that they will be operating in a contested, non-permissive (austere) environment, meaning communication outages and attacks from opposition forces may be frequent. At a minimum, weather teams require Non-secure Internet Protocol Routing Network (NIPRNET), Secure Internet Protocol Routing Network (SIPRNET), DSN phone, and working radio equipment that can reach up to 30 miles beyond line of sight. It is highly recommended that AWSTs try to acquire Iridium or Satellite communications in order to mitigate potential communication outages while at NTC.

9. Any further comments regarding NTC Rotations and the expectations and responsibilities outlined in this Letter can be addressed by the 12th CTS/DOC at DSN 470-5419 or via email at usarmy.irwin.12-cts.mbx.irwin-weather@mail.mil.

2/22/2018

Emily N. Graves
EMILY N. GRAVES, Capt, USAF
Weather Flight Commander
Signed by: GRAVES.EMILY.N.1108554203

11 Attachments:
1. NTC Deployment Timeline
2. NTC Pre-deployment Survey
3. MTOE and NTC Roll Out Card Examples
4. NTC Equipment/Packing List
5. NTC MOAF Example
6. NTC Weather Watches, Warnings, and Advisories (WWAs)
7. NTC 5-Day Forecast Example
8. NTC MWP Example
9. NTC SITREP Example
10. NTC Final AAR Example
11. Recent Trending Items for Improvement
Attachment 1

NTC Deployment Timeline
(Timeline based on 14-day training rotation, estimated dates for specific rotations and/or events may vary from rotation to rotation)

D-90
- AWS Squadron/Detachment notifies AWST of NTC rotation dates
- AWST receives NTC LOI and planning documents

D-75
- AWST coordinates Weather Support MOA with supported Army unit(s)

D-60
- AWS Squadron/Detachment leadership notifies 12 CTS/DOC of RTU AWST personnel

D-30
- AWST completes and emails the NTC Pre-Deployment Survey to 12 CTS/DOC
- AWST secures a DCS account and AFW-WEBS username/password
- AWST requests KQ identifier from 557th WW

D-14
- AWST/AWS Squadron/Detachment completes and emails the NTC Roll Out Card to 12 CTS/DOC

D-2
- AWST deploys to NTC/Ft Irwin and arrives at Rotational Unit Bivouac Area (RUBA)

D-0 (RSOI 1)
- Begins four days of academics/pre-deployment training/preparation for AWST
- AWST acquires MILES gear for personnel/vehicles (as applicable)

D+4 (RSOI 5)
- AWST deploys from RUBA to NTC Range

D+5 (TD 1)
- Begin Decisive Action Force on Force Operations

D+12 (TD 7)
- Mid-rotation Formal AAR

D+16 (TD 11)
- Transition to Live Fire/Separation of Forces

D+19 (TD 14)
• ENDRO/Final AAR with 12th CTS

D+20 (BRD 01)
• Begins Battlefield Recovery Day (BRD) week
• Final Army NTC AAR and Hero of the Rotation Award Ceremony

D+25-27
• AWST redeploy back to home station

D+33
• RTU Feedback/AAR completed and emailed to 12 CTS/DOC

D+49
• Final RTU AAR completed by 12 CTS/DOC and disseminated to RTU Leadership, AWS Squadron Leadership, HQ ACC/A3W, and OL-G ACC/A3W (FORSCOM)
Attachment 2

FOUO - UNCLASSIFIED
PRE-DEPLOYMENT
INFORMATION SURVEY

UNIT: __________________________
HOME STATION: __________________________
OFFICE DSN: __________________________
OPS CHIEF/DSN: __________________________
SQ CC/EMAIL: __________________________
DET CC/EMAIL: __________________________

MISSION: SUPPORT (ARMY UNIT) DURING NTC IN (DIV/BCT/SFAB/AVN) OPERATIONS

WHEN WERE YOU NOTIFIED OF YOUR DEPLOYMENT TO NTC FOR THIS ROTATION?: __________________________

HOW MANY PRE-NTC MEETINGS DID YOU ATTEND?: __________________________

STATE YOUR CC’s TRAINING OBJECTIVES FOR THIS NTC ROTATION:
1. __________________________
2. __________________________
3. __________________________

PERSONNEL RANK/NAMES & LAST DEPLOYMENT:
1. OIC: __________________________
2. NCOIC: __________________________
3. FORECASTER: __________________________
4. FORECASTER: __________________________

TOTAL ARMY EXPERIENCE:
1. NCOIC/OIC: __________________________
2. FORECASTER: __________________________
3. FORECASTER: __________________________

EQUIPMENT (Y/N) & HOW MANY:
TMQ-53: __________________________
KESTREL: __________________________
NIPR LAPTOP (USAF or Army): __________________________
SIPR LAPTOP (USAF or Army): __________________________
M4 & M9: __________________________
SATPHONE: __________________________
GPS (i.e., DAGR): __________________________
LASER RANGEFINDER: __________________________
PRINTER: __________________________
GAS MASK: __________________________
CHEM GEAR: __________________________

HAVE ALL PHYSICAL ISSUES/SPECIAL NEEDS OF EACH ROTATIONAL PLAYER BEEN REVIEWED BY YOUR COMMAND AND HAVE ANY/ALL PERSONNEL ISSUES BEEN REPORTED TO 12 CTS PERSONNEL AS ANNOTATED IN NTC LOI PARAGRAPH 4? CC/ISG INITIALS_________

DO YOU HAVE A SAR WITH THE 25TH OWS? (IF SO, PLEASE DESCRIBE THE SUPPORT THE 25TH WILL PROVIDE)

DO YOU HAVE A SIGNED MOA OR OPORD/FRAGO WITH THE SUPPORTED ARMY UNIT?
ARE YOU TRAVELING ON DTS OR ARMY GROUP ORDERS?

DO YOU HAVE A DCS ACCOUNT?

DO YOU HAVE A SIPR TOREN?

WHO IS YOUR S-2 POC?:

WHO IS YOUR S-3 POC?:

WHO IS YOUR S-6 POC?:

Send this form and a copy of your KQ ID(s), MTOE, MOA, and/or OPORD/FRAGO ANNEXES to the 12th CTS Weather Org Box
## Attachment 3

### MTOE and NTC ROLL OUT CARD Examples

#### BCT MTOE

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<th>REG</th>
<th>AUTH</th>
<th>PARENT</th>
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<th>R</th>
<th>R</th>
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<td>2. AVN MTOE (Derived from CAB MTOE)</td>
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#### AVN MTOE (Derived from CAB MTOE)

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<td>1. AVN MTOE</td>
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# NTC ROLL OUT CARD

## Army Support Weather Rollout

| NITATION | MOVE | MEASURE | MTN | UNIT
|----------|------|---------|----|-----
| 12-25    |      |         |    |     |

### 1. Personnel

<table>
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<th>Authorize</th>
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### 2. Network

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### 3. Key Personnel

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### 4. Mission Command (Region)

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### 5. Unit Notes

- 1. PERSONNEL
- 2. NETWORK
- 3. CRITICAL INDICATORS
- 4. MOVEMENT & MANEUVER (REGION)
- 5. INTELLIGENCE (REGION)
- 6. FOCUS

### 6. Training

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### 7. Training Notes

- 1. Initial Assessment

### 8. Risk Issues/Concerns

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### 9. Summary

- NTC Utilization

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**NOTES:**

- Movement & Maneuver (Region)
- Intelligence (Region)
- Focus
- Concept Development
- Sustainment (Region)
- Team

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**SUMMARY:**

- NTC Utilization

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**NOTES:**

- Movement & Maneuver (Region)
- Intelligence (Region)
- Focus
- Concept Development
- Sustainment (Region)
- Team
Attachment 4

NTC Equipment/Packing List
(This is not inclusive for every type of NTC rotation—check with leadership and supported Army units for additional guidance)

- Copies of current Joint, Air Force, and local guidance on METOC operations (ex. AFMAN 15-111, SOPs, etc.) (Note: if using electronic copies, they should be downloaded and saved to your computer(s) or CD)
- References of Unit Tactical Standard Operating Procedures (TSOPs)
- NIPRNET Laptop(s)
- SIPRNET Laptop(s) (DCGS-A)
- Radio(s) (HF/UHF/VHF)
- Satellite Phone(s)
- TMQ-53(s)
- Kestrel(s) (larger amount needed for use by eyes forward)
- SWO Kit(s) (to include USB Mice, clipboard(s), CDs, paper/printer, power strip(s), CAC reader(s), extension cords, etc.)
- Log book(s)
- Gas Masks and CHEM gear
- Kevlar Helmets
- Body Armor and Plates
- Weapons: M4s/M9s and associated equipment (with muzzle adapters if not provided by the Army)
- Reflective Belt(s)
- Eye Protection
- Ear Protection
- Camelback(s) and/or water container(s) (Gas Mask adaptors or canteens for chemical attacks)
- IFAK(s)
- Flashlight with red cover for night operations
- Sleeping bag, cot or mat, and pillow
- Toiletries (Hand sanitizer, baby wipes, toilet paper, sunscreen, etc.)
- ABUs or OCP Uniform Items
- PT Uniform Items
- Shower shoes
- Cold Weather Gear (if necessary)
- Poncho(s)
- Tent(s)
- HMMWV(s)/Trailer(s)
NTC MOAF Example

FOUS05 KAOS 222200
NATIONAL TRAINING CENTER MILITARY OPERATING AREA FORECAST
VALID: 22/2200Z TO 23/2200Z
RANGE SURFACE ELEVATION: 2500 FT MSL
ALL HEIGHTS HUNDREDS OF FEET MSL (UNLESS OTHERWISE NOTED)
TS/CB IMPLY MODERATE OR GREATER TURBULENCE/ICING
CEILING EQUAL TO BASE OF LOWEST BKN OR OVC CLOUD LAYER

SYNOPTIC DISCUSSION: WITH A STRONG BAND OF WINDS ASSOCIATED WITH THE PFJ MOVING OVER THE LOCATION FROM THE NORTH AND AN INVERSION BREAK WILL CAUSE HIGHER SPEEDS AND GUSTY WINDS AT THE SFC AROUND 12Z. THE HIGH STILL SITUATED OVER THE AREA KEEPING THE LOWER LEVELS DRY BUT ALLOWING FOR SOME UPPER LEVEL CLOUDS TO MOVE INTO THE AREA.

CLOUDS: BKN280/300
AFT 02Z: SCT280/300

SFC VIS/WX: 7SM/NONE

SFC WNDS: 28011KT
AFT 02Z: 26008KT
AFT 12Z: 35015G25KT
AFT 21Z: 32012G18KT

FLIGHT LEVEL HAZARDS:
MIN FZ_LVL: 096
TSTMS: NONE
TURB: NONE
ICING: NONE

KBYS
MIN ALSTG: 30.09INS
MAX PA: +2197
MAX/MIN TEMP: 17C/04C
MAX RH/TIME: 36%/15Z
HEAT INDEX: N/A
WIND CHILL: 02C

KDAG
MIN ALSTG: 30.09INS
MAX PA: SEE NOTE
MAX/MIN TEMP: 17C/04C
MAX RH/TIME: 36%/15Z
HEAT INDEX: N/A
WIND CHILL: 02C

CALL DUTY FORECASTER WITH LOCATION AND ELEVATION FOR MAX PA ON NTC RANGE

WINDS/TEMPS ALOFT:
002: 27010KT/16C
005: 26014KT/09C
007: 26016KT/10C
010: 25019KT/09C
015: 25019KT/08C
020: 24020KT/06C
030: 24022KT/03C
050: 24024KT/02C
070: 24029KT/01C
100: 25037KT/M04C
140: 31056KT/M11C
180: 25058KT/M22C
240: 25076KT/M35C
300: 25083KT/M48C

REMARKS: NONE
POC: 25OWS/WXAS DSN 228-7650
FORECASTER: SNUFFY
QA: BOSS
### NTC Weather Watches, Warnings, and Advisories (WWAs)

#### WWA and SWAP Criteria

<table>
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<th>Desired Lead Time</th>
<th>Issued By</th>
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<td>Strong Winds*</td>
<td>Forecasted Winds &gt;= 30KT but &lt; 45KT</td>
<td>60 Minutes</td>
<td>25 OWS</td>
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<tr>
<td>Strong Winds*</td>
<td>Forecasted Winds &gt;= 30KT but &lt; 45KT</td>
<td>60 Minutes</td>
<td>25 OWS</td>
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<td>WF</td>
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<tr>
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<td>Observed CAT I Turbulence &gt;= Moderate below 10,000FT MSL</td>
<td>Observed</td>
<td>WF</td>
</tr>
<tr>
<td>Test</td>
<td>TEST is occurring of the IWWC dissemination system. This is only a test.</td>
<td>5 Minutes</td>
<td>25 OWS</td>
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#### Weather Advisories

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<th>Criteria</th>
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<tr>
<td>Tornado</td>
<td>Potential for Tornado or Funnel Cloud exists (SWAP)</td>
<td>60 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Tornado</td>
<td>Potential for Tornado or Funnel cloud exists within 5NM (SWAP)</td>
<td>60 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Damaging Winds</td>
<td>Potential for Damaging Winds &gt;= 45KT (SWAP)</td>
<td>180 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Damaging Winds</td>
<td>Potential for Damaging Winds &gt;= 45KT (SWAP)</td>
<td>180 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Moderate Thunderstorm</td>
<td>Moderate Thunderstorm (Hail &gt;= 1/4IN but &lt; 1/2IN and/or Damaging Winds &gt;= 30KT but &lt; 45KT and/or Flash Flooding)</td>
<td>180 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Moderate Thunderstorm</td>
<td>Moderate Thunderstorm (Hail &gt;= 1/4IN but &lt; 1/2IN and/or Damaging Winds &gt;= 30KT but &lt; 45KT and/or Flash Flooding)</td>
<td>180 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Severe Thunderstorm</td>
<td>Severe Thunderstorm (Hail &gt;= 1/2IN and/or Damaging Winds &gt;= 45KT and/or Flash Flooding) (SWAP)</td>
<td>180 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Severe Thunderstorm</td>
<td>Severe Thunderstorm (Hail &gt;= 1/2IN and/or Damaging Winds &gt;= 45KT and/or Flash Flooding) (SWAP)</td>
<td>180 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Lightning</td>
<td>Potential for Thunderstorms and Lightning exists within Training Range</td>
<td>30 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Lightning</td>
<td>Potential for Lightning exists within 5NM</td>
<td>30 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Lightning</td>
<td>Potential for Lightning exists within 5NM</td>
<td>30 Minutes</td>
<td>WF</td>
</tr>
<tr>
<td>Duststorm</td>
<td>Potential for Duststorm exists</td>
<td>180 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Duststorm</td>
<td>Potential for Duststorm exists</td>
<td>180 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Freezing Precipitation</td>
<td>Potential for Freezing Precipitation exists (SWAP)</td>
<td>120 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Warning Type</td>
<td>Criteria</td>
<td>Desired Lead Time</td>
<td>Issued By</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Tornado</td>
<td>Tornado expected (SWAP)</td>
<td>30 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Tornado</td>
<td>Tornado expected (SWAP)</td>
<td>30 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Damaging Winds</td>
<td>Forecasted High Winds &gt;= 45KT (SWAP)</td>
<td>90 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Damaging Winds</td>
<td>Forecasted High Winds &gt;= 45KT (SWAP)</td>
<td>90 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Moderate Thunderstorm</td>
<td>Moderate Thunderstorm (Hail &gt;= 1/4IN but &lt; 1/2IN and/or Damaging Winds &gt;= 30KT but &lt; 45KT and/or Flash Flooding)</td>
<td>90 Minutes</td>
<td>25 OWS</td>
</tr>
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<td>Moderate Thunderstorm</td>
<td>Moderate Thunderstorm (Hail &gt;= 1/4IN but &lt; 1/2IN and/or Damaging Winds &gt;= 30KT but &lt; 45KT and/or Flash Flooding)</td>
<td>90 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Severe Thunderstorm</td>
<td>Severe Thunderstorm (Hail &gt;= 1/2IN and/or Damaging Winds &gt;= 45KT and/or Flash Flooding) (SWAP)</td>
<td>90 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Severe Thunderstorm</td>
<td>Severe Thunderstorm (Hail &gt;= 1/2IN and/or Damaging Winds &gt;= 45KT and/or Flash Flooding) (SWAP)</td>
<td>90 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Lightning</td>
<td>Observed Thunderstorm with lightning within Training Range</td>
<td>Observed</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Lightning</td>
<td>Observed lightning within 5NM (SWAP)</td>
<td>Observed</td>
<td>WF</td>
</tr>
<tr>
<td>Lightning</td>
<td>Observed lightning within 5NM</td>
<td>Observed</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Duststorm</td>
<td>Duststorm Expected</td>
<td>90 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Duststorm</td>
<td>Duststorm Expected</td>
<td>90 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Freezing Precipitation</td>
<td>Freezing Precipitation Expected (SWAP)</td>
<td>60 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Freezing Precipitation</td>
<td>Freezing Precipitation Expected (SWAP)</td>
<td>60 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Heavy Snow</td>
<td>Heavy Snow &gt;= 2IN within 12 hours</td>
<td>90 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Heavy Snow</td>
<td>Heavy Snow &gt;= 2IN within 12 hours</td>
<td>90 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Heavy Rain*</td>
<td>Heavy Rain &gt;= 0.5IN within 6 hours</td>
<td>90 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>Heavy Rain*</td>
<td>Heavy Rain &gt;= 0.5IN within 6 hours</td>
<td>90 Minutes</td>
<td>25 OWS</td>
</tr>
<tr>
<td>TEST</td>
<td>TEST is occurring of the IWWC dissemination system. This is only a test.</td>
<td>5 Minutes</td>
<td>25 OWS</td>
</tr>
</tbody>
</table>
### NTC 5-Day Forecast Example

**AO 5-Day Forecast**

**National Training Center 5-Day Forecast**

As of 1500 HRS local 23 Jan 18

<table>
<thead>
<tr>
<th>Date</th>
<th>Weather Icon</th>
<th>Temps</th>
<th>Winds</th>
<th>Sky Conditions</th>
<th>Solar/Lunar Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wed 24 Jan 18</td>
<td>☀</td>
<td>LO: 34F/1C HI: 61F/16C</td>
<td>6 KTS</td>
<td>7 MI / NO CIG</td>
<td>Date: 0653 EENT: 1806</td>
</tr>
<tr>
<td>Fri 26 Jan 18</td>
<td>☀</td>
<td>LO: 33F/1C HI: 54F/12C</td>
<td>0G20 KTS</td>
<td>7 MI / NO CIG</td>
<td>SR: 0850 SS: 1706</td>
</tr>
<tr>
<td>Sat 27 Jan 18</td>
<td>☁</td>
<td>LO: 34F/1C HI: 59F/15C</td>
<td>6 KTS</td>
<td>7 MI / NO CIG</td>
<td>MR: 1120 MS: 0036</td>
</tr>
<tr>
<td>Sun 28 Jan 18</td>
<td>☀</td>
<td>LO: 38F/3C HI: 66F/19C</td>
<td>N/A</td>
<td>7 MI / NO CIG</td>
<td>**</td>
</tr>
</tbody>
</table>
NTC MWP Example
NTC SITREP Example

DAILY SITREP UNIT DDMMYYYY

PERSONNEL
NCIOC
FCSTR
FCSTR

WEAPONS
SERIAL #'S
SERIAL #'S
SERIAL #'S

SIGACTS PAST 24
WHO
WHAT
WHERE
WHEN
WHY (ACCOUNTABILITY TIME)

SIGACTS NEXT 24
WHO
WHAT
WHERE
WHEN
WHY

SIGWX PAST 24
PLAIN LANGUAGE WITH IMPACTS

SIXWX NEXT 24
PLAIN LANGUAGE WITH IMPACTS

DELOPS PAST 24
BASIC DETAILS (LOCATION, AIRCRAFT, OUTCOME)

DELOPS NEXT 48
BASIC DETAILS (LOCATION, AIRCRAFT, PURPOSE)

IMPROVES PAST 24
LIST 2 BULLET FORM

SUSTAINS PAST 24
LIST 2 BULLET FORM

OUTSTANDING PERFORMER PAST 24
PLAIN LANGUAGE
NTC Final AAR Example

MEMORANDUM FOR SEE DISTRIBUTION

FROM: 12TH COMBAT TRAINING SQUADRON / CC
       Bldg. 661, 7th and Barstow Rd
       Fort Irwin, CA 92310

SUBJECT: National Training Center (NTC) Rotation 18-02 Weather Observer-Coach/Trainer (OC/T) After Actions Report (AAR)

1. Overview
   a. Executive Summary: Describe exercise overview.
   b. Deployed Personnel: List units and positions of ASWT members.
      
      | Name                  | Position                  |
      |-----------------------|---------------------------|
      | TSgt Joe Snuffy (AVN NCOIC) | Det X, Xst WS, Ft. Somewhere |
      | SrA John Doe (AVN)     | Det X, Xst WS, Ft. Somewhere |
      | TSgt Steve Somebody (BCT NCOIC) | Xd WS, Ft. Overthere |
      | SSgt Nancy Lastname (BCT) | Xd WS, Ft. Overthere |
   c. Deployed Equipment (Authorized/On-Hand for MTOE Items): List rotational training unit (RTU) weather/comm./tactical equipment below.

2. Significant Exercise Highlights. List significant weather and exercise events that occurred during the NTC rotation.

3. Weather Teams’ Lessons Learned. Note any lessons learned, particularly with respect to the weather scenario operation that occurred during the NTC rotation.
   a. Lesson Learned:
      (1) Discussion:
      (2) Recommendation:
   b. Lesson Learned:
      (1) Discussion:
      (2) Recommendation:

4. Sustains: List any outstanding actions/TTPs observed by RTUs during the NTC rotation.
   a. Sustain #1
   b. Sustain #2
5. **Conclusion.** *Summarize previous content of AAR and add final notes concerning ASWTs actions during the NTC rotation.*

6. **Hero of the Rotation.** *List member(s) recognized by 12 CTS/CC and NTC Operations Group.*

7. **Contact Information.** *Provide 12 CTS/DOC contact information.*

//signed//
XXXX X. XXXX, Lt Col, USAF
Commander

3 Attachments:
1. NTC XX-XX Site Map
2. BCT MTOE
3. AVN MTOE

DISTRIBUTION:
RTU
OL-G, HQ ACC/A3W (FORSCOM)
ACC/A3W
Recent Trending Items for Improvement
(This list reflects recent problem areas for which units should work a solution prior to arriving at NTC. This list is not inclusive for all items, and members should reference previous AARs for their respective units.)

- Members not bringing tactical vehicles (or not coordinating a solid plan for jumps/convoy movements if tactical vehicles are unavailable)
- Members not being licensed to drive tactical vehicles (to include nighttime operations)
- Members not bringing/coordinating NVGs
- Members not bringing body armor plates
- Members not bringing gas masks and J-LIST
- Members not having admin usernames and passwords for TMOS laptops
- Members not having signed MOAs from appropriate Army personnel (for instance, MOAs regarding communications requirements are signed by the S2, instead of the S6)*
  *When possible, members should get MOAs signed by Army unit commanders.
- SWOs not properly responding to aircraft mishaps (notification to OC/Ts, coordinating data save with the OWS, etc.)**
  **It also recommended to coordinate in advance with the S6 for times during which communications are shut down for real-world aircraft mishaps so that operations may continue. For instance, do SWOs need to sign nondisclosure agreements in advance to ensure that they still have NIPR access during real-world mishaps/emergencies?