DEPARTMENT OF THE AIR FORCE
12TH COMBAT TRAINING SQUADRON (ACC)
FT IRWIN, CALIFORNIA

9 March 2023

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*
(e) Air Force Manual 15-129, *Air and Space Weather Operations, 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 (12CTS.Weather.Flight@us.af.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 an Air Force Weather Web Services (AFW-WEBS) username/password NLT 30 days prior to arrival at NTC. Email the Weather Org Box (12CTS.Weather.Flight@us.af.mil) for access to the google 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 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 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) by request 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. Conduct a meteorological conference (METCON) with the rotational units and the BLAAF forecaster prior to MOAF 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. 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. Provide local area of DD 175-1 pilot briefs to NTC Flight Detachment (Eagle Team) and 2916th Aviation Battalion pilots and flight crews.

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 / COMM 760-380-5419 or via email at 12CTS.Weather.Flight@us.af.mil .

8/9/2023

X Fallon Fulgenzi

FALLON L. FULGENZI, Capt, USAF
Weather Flight Commander
Signed by: FULGENZI.FALLON.LEE.1287377424

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 redeploys 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

NTC Rotation [ ]

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/1SG 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

STAFF WEATHER OFFICE

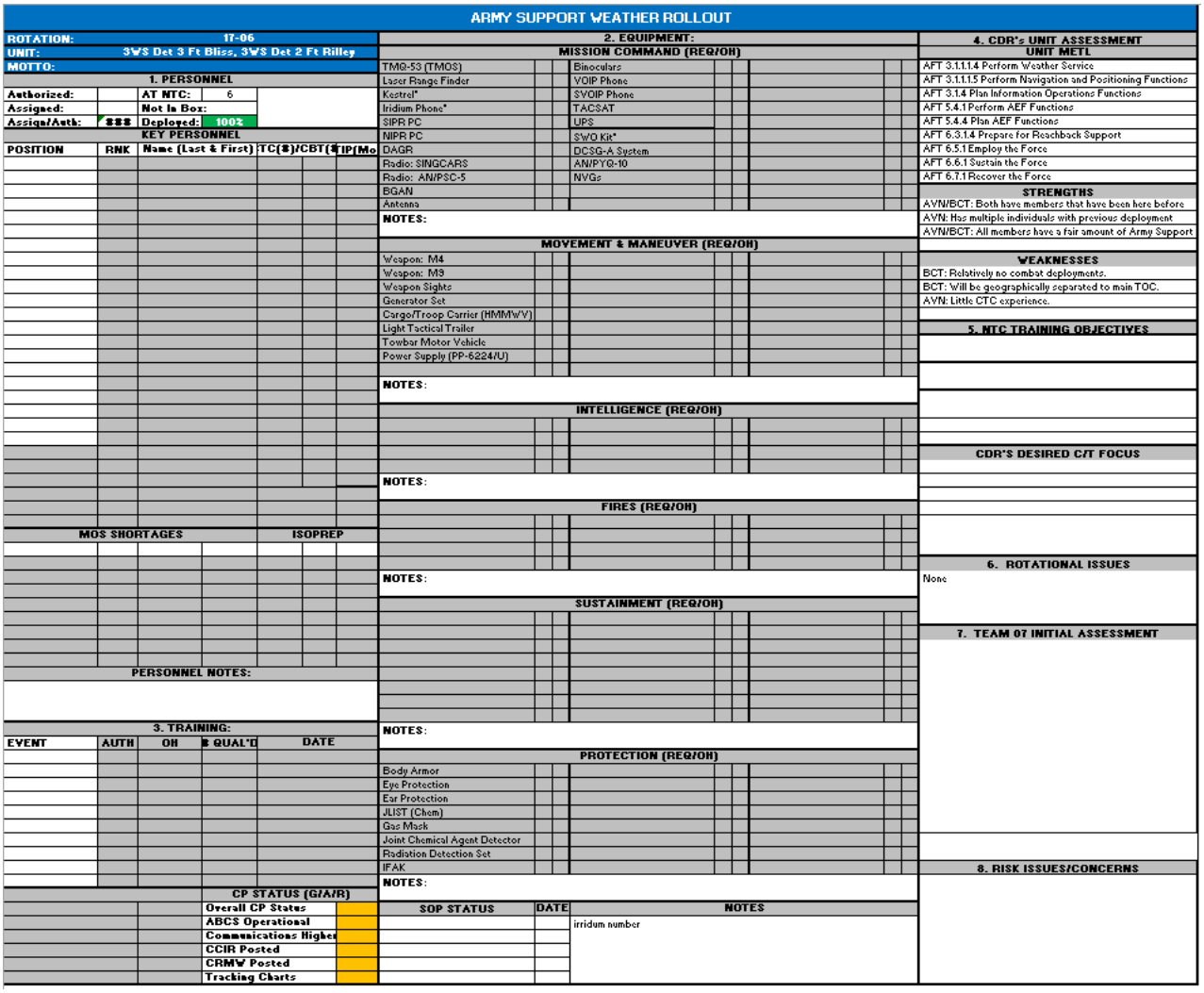
PAR NO	LIN	ERC	NOMENCLATURE	REQ EQ	AUTH EQ	PARENT UNIT REQ EQ	PARENT UNIT AUTH EQ	RMK 1	RMK 2	MDU ICO	SUB
512	A35329	P	WORKSTATION PORTABLE MULTIFUNCTION: AN/TYQ-93(V)		1	1	1	1			
512	A79381	A	ANTENNA GROUP: OE-254()/GRC		1	1	1	1			
512	B49004	A	BAYONET MULTIPURPOSE SYSTEM: XM9		4	4	4	4			
512	B67766	A	BINOCULAR: MODULAR CONSTRUCTION MIL SCALE RETICLE 7X50MM W/E		1	1	1	1			
512	C05002	A	COMPUTER SYS DIGITAL: AN/PYQ-10(C)		1	1	1	1			
512	J00697	A	JOINT CHMCL AGENT: DETECTOR		1	1	1	1			
512	M12986	A	MASK CHEMICL BIOLOGICL JOINT SERVICE GENERAL PURPOSE: FIELD M50		4	4	4	4			
512	N05482	A	NIGHT VISION: GOGGLE		2	2	2	2			
512	N96248	A	NAVIGATION SET: SATELLITE SIGNALS AN/PSN-13		1	1	1	1			
512	R20684	A	RADIAC SET: AN/VDR-2		1	1	1	1			
512	R31061	A	RADIAC SET: AN/UDR-13		1	1	1	1			
512	R68044	A	RADIO SET: AN/VRC-90F(C)		1	1	1	1			
512	R97234	A	RIFLE 5 56 MILLIMETER: M4		4	4	4	4			
512	S60288	A	SIGHT: REFLEX COLLIMATOR		4	4	4	4			
512	T61494	A	TRUCK UTILITY: CARGO/TROOP CARRIER 1-1/4 TON 4X4 W/E (HMMWV)		1	1	1	1			
512	T95992	A	LIGHT TACTICAL TRAILER: 3/4 TON		1	1	1	1			

AVN MTOE (Derived from CAB MTOE)

TAC/INTEL/ISR/SVO EL

PAR NO	LIN	ERC	NOMENCLATURE	REQ EQ	AUTH EQ	PARENT UNIT REQ EQ	PARENT UNIT AUTH EQ	RMK 1	RMK 2	MDU ICO	SUB
339	A35329	A	WORKSTATION PORTABLE MULTIFUNCTION: AN/TYQ-93(V)		1	1	1	1			
339	A79381	A	ANTENNA GROUP: OE-254()/GRC		1	1	1	1			
339	B49004	A	BAYONET MULTIPURPOSE SYSTEM: XM9		3	3	3	3			
339	B67766	A	BINOCULAR: MODULAR CONSTRUCTION MIL SCALE RETICLE 7X50MM W/E		2	2	2	2			
339	C05002	A	COMPUTER SYS DIGITAL: AN/PYQ-10(C)		1	1	1	1			
339	J00697	A	JOINT CHMCL AGENT: DETECTOR		1	1	1	1			
339	M12986	A	MASK CHEMICL BIOLOGICL JOINT SERVICE GENERAL PURPOSE: FIELD M50		3	3	3	3			
339	N05482	A	NIGHT VISION: GOGGLE		2	2	2	2			
339	N96248	A	NAVIGATION SET: SATELLITE SIGNALS AN/PSN-13		1	1	1	1			
339	R20684	A	RADIAC SET: AN/VDR-2		1	1	1	1			
339	R31061	A	RADIAC SET: AN/UDR-13		1	1	1	1			
339	R68044	A	RADIO SET: AN/VRC-90F(C)		1	1	1	1			
339	R97234	A	RIFLE 5 56 MILLIMETER: M4		3	3	3	3			
339	S60288	A	SIGHT: REFLEX COLLIMATOR		3	3	3	3			
339	T61494	A	TRUCK UTILITY: CARGO/TROOP CARRIER 1-1/4 TON 4X4 W/E (HMMWV)		1	1	1	1	599		
339	T95992	A	LIGHT TACTICAL TRAILER: 3/4 TON		1	1	1	1			

NTC ROLL OUT CARD



ARMY SUPPORT WEATHER ROLLOUT

ROTATION: 17-06
UNIT: 3WS Det 3 Ft Bliss, 3WS Det 2 Ft Rilley
MOTTO:

1. PERSONNEL

Authorized:		AT MTC:	6
Assigned:		Not In Box:	
Assign/Auth:	88%	Deployed:	100%

KEY PERSONNEL

POSITION	RNK	Name (Last & First)	TC(#)/CBT(#	IP(Mo

MOS SHORTAGES

			ISOPREP

PERSONNEL NOTES:

3. TRAINING:

EVENT	AUTH	OH	# QUAL'D	DATE

CP STATUS (G/A/R)

Overall CP Status	
ABCS Operational	
Communications Higher	
CCIR Posted	
CRMV Posted	
Tracking Charts	

2. EQUIPMENT:

MISSION COMMAND (REQ/OH)

TMQ-53 (TMOS)			Binoculars		
Laser Range Finder			VOIP Phone		
Kestrel*			SVOIP Phone		
Iridium Phone*			TACSAT		
SIPR PC			UPS		
NIPR PC			SWO Kit*		
DAGR			DCSG-A System		
Radio: SINGCARS			AN/PYQ-10		
Radio: AN/PSC-5			NVGs		
BGAN					
Antenna					

NOTES:

MOVEMENT & MANEUVER (REQ/OH)

Weapon: M4					
Weapon: M9					
Weapon Sights					
Generator Set					
Cargo/Troop Carrier (HMMWV)					
Light Tactical Trailer					
Towbar Motor Vehicle					
Power Supply (PP-6224/U)					

NOTES:

INTELLIGENCE (REQ/OH)

NOTES:

FIRES (REQ/OH)

NOTES:

SUSTAINMENT (REQ/OH)

NOTES:

PROTECTION (REQ/OH)

Body Armor					
Eye Protection					
Ear Protection					
JLIST (Chem)					
Gas Mask					
Joint Chemical Agent Detector					
Radiation Detection Set					
IFAK					

NOTES:

SOP STATUS	DATE	NOTES
		irridium number

4. CDR's UNIT ASSESSMENT

UNIT METL

- AFT 3.1.1.1.4 Perform Weather Service
- AFT 3.1.1.1.5 Perform Navigation and Positioning Functions
- AFT 3.1.4 Plan Information Operations Functions
- AFT 5.4.1 Perform AEF Functions
- AFT 5.4.4 Plan AEF Functions
- AFT 6.3.1.4 Prepare for Reachback Support
- AFT 6.5.1 Employ the Force
- AFT 6.6.1 Sustain the Force
- AFT 6.7.1 Recover the Force

STRENGTHS

- AVN/BCT: Both have members that have been here before
- AVN: Has multiple individuals with previous deployment
- AVN/BCT: All members have a fair amount of Army Support

WEAKNESSES

- BCT: Relatively no combat deployments.
- BCT: Will be geographically separated to main TOC.
- AVN: Little CTC experience.

5. MTC TRAINING OBJECTIVES

CDR'S DESIRED C/T FOCUS

6. ROTATIONAL ISSUES

None

7. TEAM 07 INITIAL ASSESSMENT

8. RISK ISSUES/CONCERNS

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)
- HMMVW(s)/Trailer(s)

Attachment 5

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

Attachment 6

NTC Weather Watches, Warnings, and Advisories (WWAs)

WWA and SWAP Criteria

Weather Advisories

Criteria	Forecast/Observed	Desired Lead Time	Issued By
Strong Winds*	Forecasted Winds >= 30KT but < 45KT	60 Minutes	25 OWS
Strong Winds*	Forecasted Winds >= 30KT but < 45KT	60 Minutes	25 OWS
Icing*	Observed Icing >= Moderate below 10,000FT MSL	Observed	WF
Icing*	Observed Icing >= Moderate below 10,000FT MSL	Observed	WF
Turbulence*	Observed CAT I Turbulence >= Moderate below 10,000FT MSL	Observed	WF
Turbulence*	Observed CAT I Turbulence >= Moderate below 10,000FT MSL	Observed	WF
Test	TEST is occurring of the IWWC dissemination system. This is only a test.	5 Minutes	25 OWS

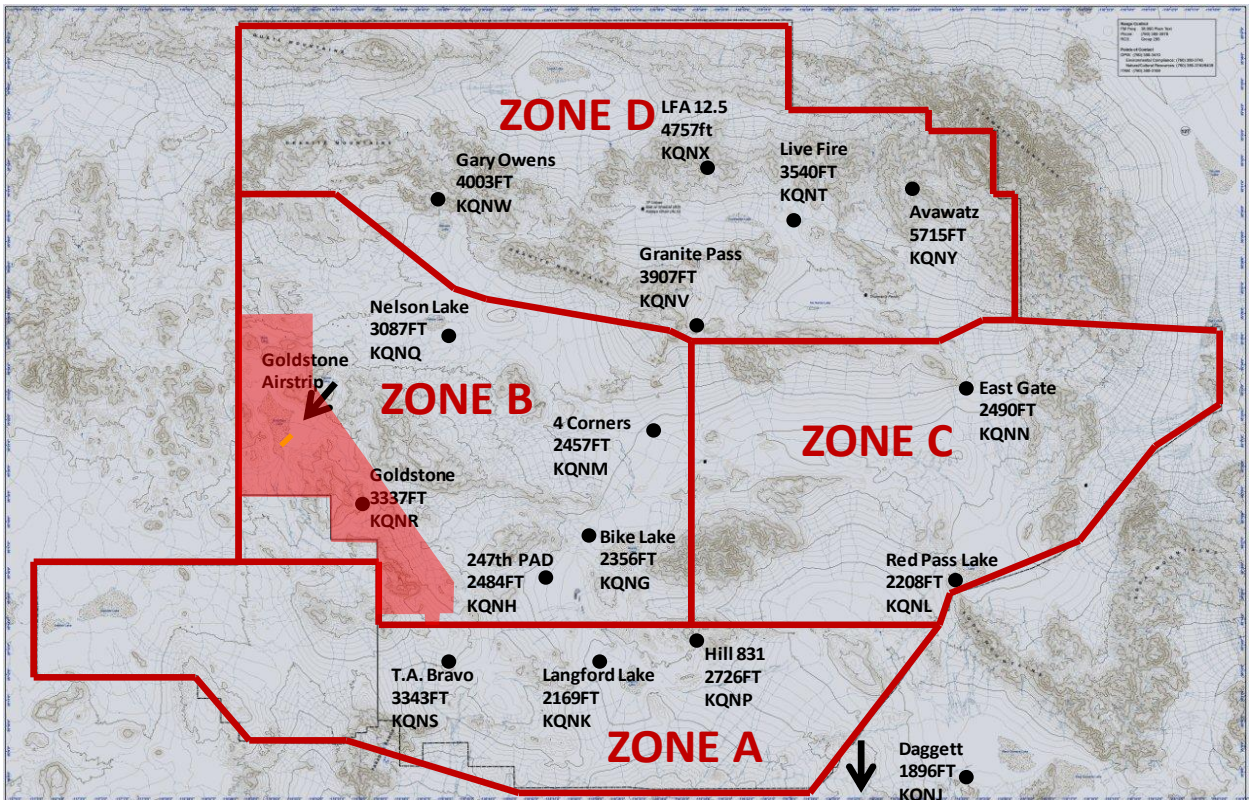
Weather Watches

Watch Type	Criteria	Desired Lead Time	Issued By
Tornado	Potential for Tornado or Funnel Cloud exists (SWAP)	60 Minutes	25 OWS
Tornado	Potential for Tornado or Funnel cloud exists within 5NM (SWAP)	60 Minutes	25 OWS
Damaging Winds	Potential for Damaging Winds >= 45KT (SWAP)	180 Minutes	25 OWS
Damaging Winds	Potential for Damaging Winds >= 45KT (SWAP)	180 Minutes	25 OWS
Moderate Thunderstorm	Moderate Thunderstorm (Hail >= 1/4IN but < 1/2IN and/or Damaging Winds >= 30KT but < 45KT and/or Flash Flooding)	180 Minutes	25 OWS
Moderate Thunderstorm	Moderate Thunderstorm (Hail >= 1/4IN but < 1/2IN and/or Damaging Winds >= 30KT but < 45KT and/or Flash Flooding)	180 Minutes	25 OWS
Severe Thunderstorm	Severe Thunderstorm (Hail >= 1/2IN and/or Damaging Winds >= 45KT and/or Flash Flooding) (SWAP)	180 Minutes	25 OWS
Severe Thunderstorm	Severe Thunderstorm (Hail >= 1/2IN and/or Damaging Winds >= 45KT and/or Flash Flooding) (SWAP)	180 Minutes	25 OWS
Lightning	Potential for Thunderstorms and Lightning exists within Training Range	30 Minutes	25 OWS
Lightning	Potential for Lightning exists within 5NM	30 Minutes	25 OWS
Lightning	Potential for Lightning exists within 5NM	30 Minutes	WF
Duststorm	Potential for Duststorm exists	180 Minutes	25 OWS
Duststorm	Potential for Duststorm exists	180 Minutes	25 OWS
Freezing Precipitation	Potential for Freezing Precipitation exists (SWAP)	120 Minutes	25 OWS
Freezing Precipitation	Potential for Freezing Precipitation exists (SWAP)	120 Minutes	25 OWS

Heavy Snow	Potential for Heavy Snow >= 2IN in 12 hours exists	180 Minutes	25 OWS
Heavy Snow	Potential for Heavy Snow >= 2IN in 12 hours exists	180 Minutes	25 OWS
Heavy Rain*	Potential for Heavy Rain >= 0.5IN within 6 hours exists	180 Minutes	25 OWS
Heavy Rain*	Potential for Heavy Rain >= 0.5IN within 6 hours exists	180 Minutes	25 OWS
Test	TEST is occurring of the IWWC dissemination system. This is only a test.	5 Minutes	25 OWS

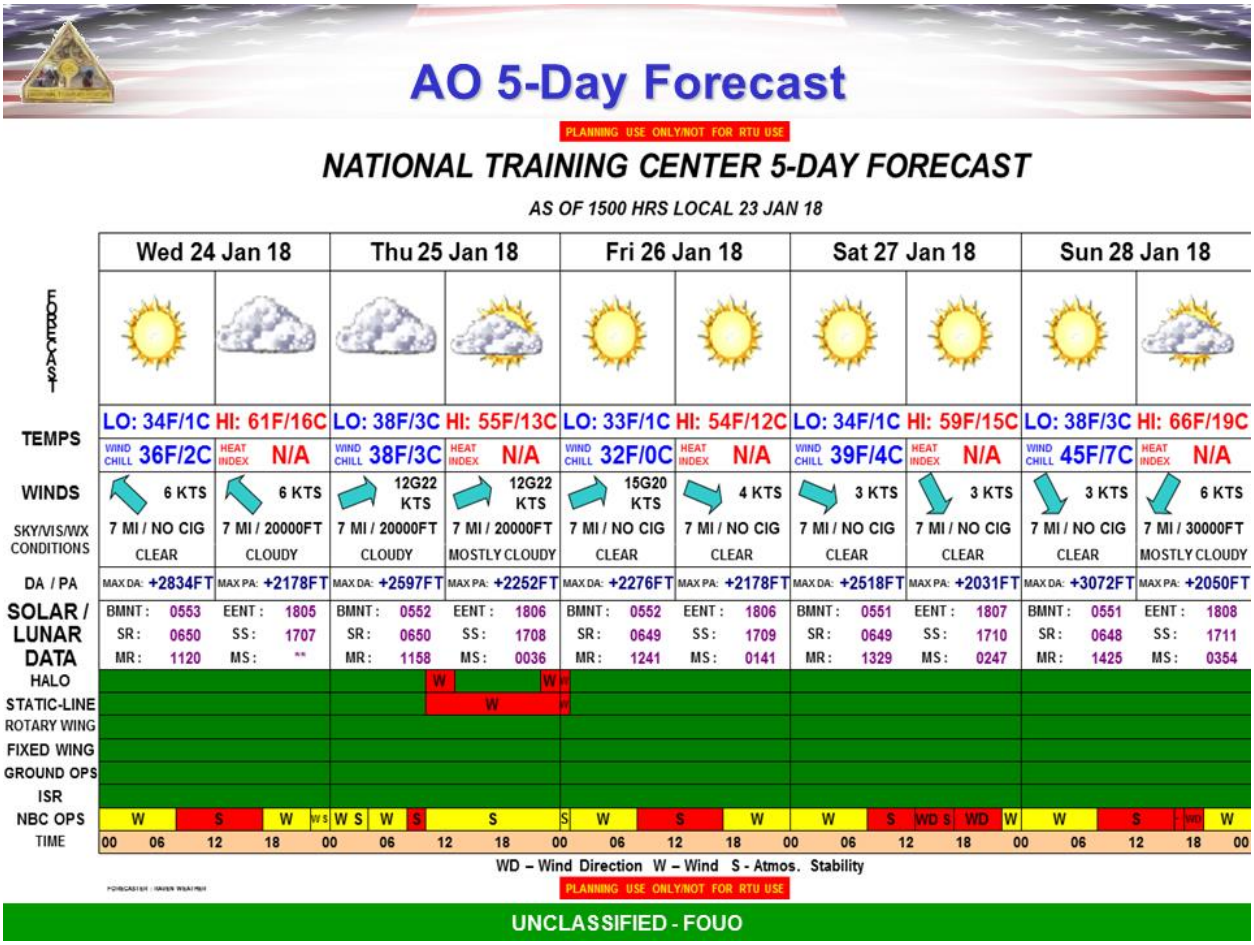
Weather Warnings

Warning Type	Criteria	Desired Lead Time	Issued By
Tornado	Tornado expected (SWAP)	30 Minutes	25 OWS
Tornado	Tornado expected (SWAP)	30 Minutes	25 OWS
Damaging Winds	Forecasted High Winds >= 45KT (SWAP)	90 Minutes	25 OWS
Damaging Winds	Forecasted High Winds >= 45KT (SWAP)	90 Minutes	25 OWS
Moderate Thunderstorm	Moderate Thunderstorm (Hail >= 1/4IN but < 1/2IN and/or Damaging Winds >= 30KT but < 45KT and/or Flash Flooding)	90 Minutes	25 OWS
Moderate Thunderstorm	Moderate Thunderstorm (Hail >= 1/4IN but < 1/2IN and/or Damaging Winds >= 30KT but < 45KT and/or Flash Flooding)	90 Minutes	25 OWS
Severe Thunderstorm	Severe Thunderstorm (Hail >= 1/2IN and/or Damaging Winds >= 45KT and/or Flash Flooding) (SWAP)	90 Minutes	25 OWS
Severe Thunderstorm	Severe Thunderstorm (Hail >= 1/2IN and/or Damaging Winds >= 45KT and/or Flash Flooding) (SWAP)	90 Minutes	25 OWS
Lightning	Observed Thunderstorm with Lighnting within Training Range	Observed	25OWS
Lightning	Observed Lightning within 5NM (SWAP)	Observed	WF
Lightning	Observed Lightning within 5NM	Observed	25 OWS
Duststorm	Duststorm Expected	90 Minutes	25 OWS
Duststorm	Duststorm Expected	90 Minutes	25 OWS
Freezing Precipitation	Freezing Precipitation Expected (SWAP)	60 Minutes	25 OWS
Freezing Precipitation	Freezing Precipitation Expected (SWAP)	60 Minutes	25 OWS
Heavy Snow	Heavy Snow >= 2IN within 12 hours	90 Minutes	25 OWS
Heavy Snow	Heavy Snow >= 2IN within 12 hours	90 Minutes	25 OWS
Heavy Rain*	Heavy Rain >= 0.5IN within 6 hours	90 Minutes	25 OWS
Heavy Rain*	Heavy Rain >= 0.5IN within 6 hours	90 Minutes	25 OWS
TEST	TEST is occurring of the IWWC dissemination system. This is only a test.	5 Minutes	25 OWS



Attachment 7

NTC 5-Day Forecast Example



AO 5-Day Forecast

PLANNING USE ONLY/NOT FOR RTU USE

NATIONAL TRAINING CENTER 5-DAY FORECAST

AS OF 1500 HRS LOCAL 23 JAN 18

	Wed 24 Jan 18		Thu 25 Jan 18		Fri 26 Jan 18		Sat 27 Jan 18		Sun 28 Jan 18	
FORECAST										
TEMPS	LO: 34F/1C	HI: 61F/16C	LO: 38F/3C	HI: 55F/13C	LO: 33F/1C	HI: 54F/12C	LO: 34F/1C	HI: 59F/15C	LO: 38F/3C	HI: 66F/19C
	WIND CHILL 36F/2C	HEAT INDEX N/A	WIND CHILL 38F/3C	HEAT INDEX N/A	WIND CHILL 32F/0C	HEAT INDEX N/A	WIND CHILL 39F/4C	HEAT INDEX N/A	WIND CHILL 45F/7C	HEAT INDEX N/A
WINDS	6 KTS	6 KTS	12G22 KTS	12G22 KTS	15G20 KTS	4 KTS	3 KTS	3 KTS	3 KTS	6 KTS
SKY/VIS/WX CONDITIONS	7 MI / NO CIG CLEAR	7 MI / 20000FT CLOUDY	7 MI / 20000FT CLOUDY	7 MI / 20000FT MOSTLY CLOUDY	7 MI / NO CIG CLEAR	7 MI / NO CIG CLEAR	7 MI / NO CIG CLEAR	7 MI / NO CIG CLEAR	7 MI / NO CIG CLEAR	7 MI / 30000FT MOSTLY CLOUDY
DA / PA	MAX DA: +2834FT	MAX PA: +2178FT	MAX DA: +2597FT	MAX PA: +2252FT	MAX DA: +2276FT	MAX PA: +2178FT	MAX DA: +2518FT	MAX PA: +2031FT	MAX DA: +3072FT	MAX PA: +2050FT
SOLAR / LUNAR DATA	BMNT: 0553 EENT: 1805		BMNT: 0552 EENT: 1806		BMNT: 0552 EENT: 1806		BMNT: 0551 EENT: 1807		BMNT: 0551 EENT: 1808	
	SR: 0650 SS: 1707		SR: 0650 SS: 1708		SR: 0649 SS: 1709		SR: 0649 SS: 1710		SR: 0648 SS: 1711	
	MR: 1120 MS: **		MR: 1158 MS: 0036		MR: 1241 MS: 0141		MR: 1329 MS: 0247		MR: 1425 MS: 0354	
HALO			W	W						
STATIC-LINE			W							
ROTARY WING										
FIXED WING										
GROUND OPS										
ISR										
NBC OPS	W S W W S		W S W S S		S W S W		W S WD S WD W		W S W	
TIME	00 06 12 18	00 06 12 18	00 06 12 18	00 06 12 18	00 06 12 18	00 06 12 18	00 06 12 18	00 06 12 18	00 06 12 18	00

WD – Wind Direction W – Wind S - Atmos. Stability

PLANNING USE ONLY/NOT FOR RTU USE

UNCLASSIFIED - FOUO

Attachment 8

NTC MWP Example

12th COMBAT TRAINING SQUADRON - FORT IRWIN MISSION PLANNING / EXECUTION FORECAST

DATE:	9-Mar-23	VALID TIME:	9/0800Z - 10/0800Z	MEF #	09	A	AMD #		TIME:	

SOLAR / LUNAR DATA

DATE	BMNT	SR	SS	EENT	MR	MS	ILLUM
8-Mar-23	0512L	0607L	1747L	1813L	1810L	0654L	100%
9-Mar-23	0512L	0607L	1747L	1813L	1810L	0654L	100%

SPACE WEATHER / MOON ANGLE

GPS	G	UHF	G	HF	G
MOON ANGLE ≥ 30°		08/2115L-09/0500L			
		09/2145L-10/0530L			

PMSV:69.95/66.90

WWA	25OWS	
BRIEF	VOID	INI

FLIGHT LEVEL WINDS (KNOTS) AND TEMPERATURES (°C) - KBYS/MPHP/NTC TRAINING AREA

FZ LVL	100	MSL											
025' MSL		030' MSL		040' MSL		050' MSL		080' MSL		100' MSL		120' MSL		150' MSL	
27020	06°C	27020	06°C	27020	05°C	27025	05°C	28030	03°C	28030	0°C	29035	-04°C	29040	-08°C

FLIGHT LEVEL WINDS (KNOTS) AND TEMPERATURES (°C) - KDAG

FZ LVL	100	MSL											
025' MSL		030' MSL		040' MSL		050' MSL		080' MSL		100' MSL		120' MSL		150' MSL	
27020	06°C	27020	06°C	27020	05°C	27025	05°C	28030	03°C	28030	0°C	29035	-04°C	29040	-08°C

FORT IRWIN RESERVATION AREA FORECAST (INCLUDES KBYS, GOLDSTONE AIR STRIP)

VALID TIME	SURFACE WIND		MIN VIS (SM)	SIG WX	SKY CON	MAX TEMP		MAX DPT	KBYS			GOLDSTONE		
						°C	°F	°C	MIN ALSTG	MAX PA	MAX DA	MIN ALSTG	MAX PA	MAX DA
08Z-12Z|24L-04L	26010	G20	7		SCT250	06	43	-04	30.06	2222 ft	1818 ft	30.06	2900 ft	2661 ft
12Z-16Z|04L-08L	27012		7		SCT250	07	45	-04	30.08	2203 ft	1924 ft	30.08	2881 ft	2767 ft
16Z-20Z|08L-12L	27012		7		SCT250	13	55	-03	30.06	2222 ft	2721 ft	30.06	2900 ft	3561 ft
20Z-24Z|12L-16L	27012		7		SCT250	16	61	-02	30.02	2259 ft	3154 ft	30.02	2937 ft	3993 ft
24Z-04Z|16L-20L	27012		7		SCT250	16	61	-02	30.01	2268 ft	3166 ft	30.01	2946 ft	4004 ft
04Z-08Z|20L-24L	26012	G18	7		SCT250	12	54	-03	30.02	2259 ft	2637 ft	30.02	2937 ft	3477 ft

KDAG FORECAST

08Z-12Z|24L-04L	26010	G20	7		SCT250	06	43	-04	30.06	1802 ft	1295 ft
12Z-16Z|04L-08L	27012		7		SCT250	07	45	-04	30.08	1783 ft	1402 ft
16Z-20Z|08L-12L	27012		7		SCT250	13	55	-03	30.06	1802 ft	2200 ft
20Z-24Z|12L-16L	27012		7		SCT250	16	61	-02	30.02	1839 ft	2635 ft
24Z-04Z|16L-20L	27012		7		SCT250	16	61	-02	30.01	1848 ft	2646 ft
04Z-08Z|20L-24L	26012	G18	7		SCT250	12	54	-03	30.02	1839 ft	2116 ft

	WIND	VIS (SM)	PRESENT WX	SKY CON (AGL)	C	F	
KPMD	22007	7	NSW	BKN250	05	41	AFT 12Z VRB05KT 7SM BKN250 AFT 21Z 24010KT 7SM BKN250

NTC TRAINING AREAS

VALID TIME	08Z-12Z|24L-04L		12Z-16Z|04L-08L	
LOCATION	ZONE D	ZONE A,B,C	ZONE D	ZONE A,B,C
MIN VIS(SM)/WX	7SM	7SM	7SM	7SM
SKY CON(MSL)	SCT270	SCT270	SCT270	SCT270
HAZARDS				
HEIGHT				
TURB CAT II	OCNL LGT			
HEIGHT	SFC-180			
TURB CAT I				
HEIGHT				
TS				

VALID TIME	16Z-20Z|08L-12L		20Z-24Z|12L-16L	
MIN VIS(SM)/WX	7SM	7SM	7SM	7SM
SKY CON(MSL)	SCT270	SCT270	SCT270	SCT270
HAZARDS				
HEIGHT				
TURB CAT II				
HEIGHT				
TURB CAT I				
HEIGHT				
TS				

VALID TIME	24Z-04Z|16L-20L		04Z-08Z|20L-24L	
MIN VIS(SM)/WX	7SM	7SM	7SM	7SM
SKY CON(MSL)	SCT270	SCT270	SCT270	SCT270
HAZARDS				
HEIGHT				
TURB CAT II				
HEIGHT				
TURB CAT I				
HEIGHT				
TS				

MEDEVAC AREAS

VALID TIME	08Z-16Z|24L-08L	
LOCATION	NTC TO KSBD	NTC TO KLAS
LANDING WEATHER	25005KT 7SM BKN250	22007KT 7SM BKN200
MIN VIS(SM)/WX	7SM	7SM
SKY CON(MSL)	BKN260	BKN220
HAZARDS		
HEIGHT		
TURB CAT II		
HEIGHT		
TS		

VALID TIME	16Z-24Z|08L - 16L	
LANDING WEATHER	25005KT 7SM BKN250	VRB06KT 7SM BKN200 AFT 20Z 12007KT 7SM SCT100 BKN200
MIN VIS(SM)/WX	7SM	7SM
SKY CON(MSL)	BKN260	SCT100 BKN200
HAZARDS		
HEIGHT		
TURB CAT II		
HEIGHT		
TS		

VALID TIME	24Z-08Z|16L-24L	
LANDING WEATHER	23007KT 7SM BKN120 AFT 03Z VRB05KT 7SM SCT080	20010KT 7SM SCT080 BKN200
MIN VIS(SM)/WX	7SM	7SM
SKY CON(MSL)	SCT090 BKN130	SCT080 BKN200
HAZARDS		
HEIGHT		
TURB CAT II		
HEIGHT		
TS		

NOTES

** "L" ANNOTATES LOCAL TIME** **NOT FOR USE BY ANY ROTATIONAL TRAINING UNIT/ALL RTU BRIEFS USING THIS PRODUCT ARE NOT VALID**
IRWIN WEATHER: COMM 760-380-9527 25TH OWS: COMM 520-228-6598/99

Attachment 9

NTC SITREP Example

DAILY SITREP UNIT DDMMMYYYY

PERSONNEL WEAPONS
NCIOC SERIAL #'S
FCSTR SERIAL #'S
FCSTR 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

Attachment 10

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.*

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

Attachment 11

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 having SIPR tokens

- Members not having working equipment

- Members not having Army procured NIPR/SIPR laptops

- 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?