TRAINING MISSION ARCTIC (TRMA) SPECIAL INSTRUCTIONS (SPINS)

Summary of Changes:

Version 1.0: First version (Updated 2024-09-07).

1 Introduction

1.1 Scope

These SPINS outline those procedures to be followed to permit to the safe and effective operation of aircraft operating in Training Mission Arctic (TRMA).

These SPINS will not replace each participating squadrons SOP's but will ensure that all participating pilots have a common understanding of how to operate during the campaign.

1.2 Deviations

Deviations from these procedures require specific approval from participating squadrons/organizations and need to be briefed to all relevant actors.

1.3 Precedence

These SPINS take precedence over unit SOP's. This to ensure a safe environment for all aircrew participating in 132nd Virtual Wing hosted events.

1.4 Recommended changes

Recommendations for changes to these SPINS should be addressed at the 132nd Virtual Wing forums.

1.5 Changes

Minor changes (from version 1.0 to version 1.1) made in this document will be made visible in the following format:
Added text and ~~deleted text~~
Only changes from one version to the next will have these markings.
Major changes (from version 1.0 to version 2.0) will not have any markings, as the entire document need to be re-read.

2 General Information

2.1 Timezone

Timezone for all timings will be given in one of the following timings:

- ZULU time (Z): Real world Zulu time (UTC)
- Game time (G): In-game local time

2.2 Standard Units

In order to minimize the workload of VIS and JFACC, it is the responsibility of pilots submitting intelligence to record units in the correct format. If conversion is required, it is the responsibility of the pilot to perform the conversion.

2.2.1 Positions

Positions will be given in one of the following formats:

LAT/LONG: DD°MM.MMM' DDD°MM.MMM' (Standard)
MGRS: NNL LL NNNN NNNN Example: 12A BC 1234 6789 (For Attack Helicopters)

2.2.2 Distance

Distance will be given in nautical miles,
When working with Attack Helicopters, metres or KM may be used as required

2.2.3 Elevation
Elevation will be given in feet AMSL.

2.3 Reference documents

2.3.1 Close Air Support (CAS)
The following document outlines how CAS is conducted in OPAR:
132-TTP-1 CAS Manual v1.2

2.3.2 Armed Reconnaissance (AR)
The following document outlines how AR is conducted in OPAR:
132-TTP-12 Armed Reconnaissance v1.0

2.3.3 Strike Coordination And Reconnaissance (SCAR)
The following document outlines how SCAR is conducted in OPAR:
132-TTP-6 SCAR v2.0

2.3.4 Air Interdiction (AI)
The following document outlines how AI operations are conducted in OPAR:
132-TTP-13 Air Interdiction v1.0

2.3.5 AWACS
The following document outlines how integration and cooperation with AWACS is conducted in OPAR:
132-TTP-10-AWACS Procedures v2.0

2.3.6 Brevities and Abbreviations
The following document includes brevities and abbreviations used in this document:
132-TTP-4 Brevity and Abbreviations v2.0

2.4 ATO publication

ATO will be published at each events event description and/or comms chatter.
Note that the ATO will be published on host discretion but normally minimum 24 hours before event start.

3 Command, Control and Communications (C3)

- Where AWACS is manned, they as a controlling agency have jurisdiction within the battlespace.
- When operating within a package, the Mission Commander (MC) leading the package is a controlling agency responsible for the flights within the package. The MC can be tasked by AWACS.
- Flight leads remain responsible for the safe, efficient, and proper conduct of their flights.
- Where AR missions involve multiple flights, the flights should be directed by a SCAR. If no SCAR flight is present, the best suited flight should assume the responsibility of SCAR to coordinate flights and ensure the safe of operations.
- All flights shall follow ATC and AWACS Controller instructions. All flights are to monitor ATC frequencies when within an airfield's airspace control zone.
- All flights shall remain on an AWACS frequency, unless explicitly approved or directed by AWACS.

3.1.1 Flight Plans

All flights are to file a flight plan prior to the conduct of their missions. Flight plans should define:

- The point of departure
- The route to be flown
- The point of arrival
- The mission/tasking being undertaken.

Optionally, a flight plan may include the loadout specification of the flight.

The submission of flight plans is critical to provide ATC and AWACS controllers with information to deconflict flights and assist in the conduct of missions.

3.1.2 Datalink

3.1.2.1 SADL information

Group ID's are assigned per SQN. 617 Sqn uses 31-35. Other squadrons use 36-39. Flights will use their flight number for Own ID's. For example: TUSK 2-1 and 2-2 will use a OID of 21 and 22.

3.1.3 Secure communication

Secure communication may be used with amending SECURE (GREEN) after the frequency.
Secure frequencies will be noted in the ATO.
Revert to clear communication with PLAIN (RED).
Example: "*JEDI2, DARKSTAR, PUSH CHECK-IN GREEN". "VIPER1, PUSH CHECK-IN IN RED"*.

3.1.3.1 Standard crypto fill in

The standard SRS crypto fill in will be "2".
Being on a secure radio constitutes authentication, therefore AET100 challenge/response and other obfuscated communication such as codewords may be omitted.

3.1.4 Authentication

Authentication will be conducted with AET-100 TRMA v1.0
Backup for authentication is RAMROD.

3.1.4.1 RAMROD

Use real world date for figuring out if it is an even or odd day.
Real world even days (2,4,6,8): LUMBERJACK
Real world odd days (1,3,5,7): COMPLEXITY

3.1.4.2 Transmission authentication

Transmission authentication will be conducted with TAT-101 TRMA v1.0. Times used for TAT must be **real world Z time.**

3.1.5 Frequencies

All flights will be assigned a primary and secondary frequency in the ATO. Frequency table is available on 132nd website: http://132virtualwing.org/index.php/page/freqlist

3.1.6 IFF

Flights will be assigned IFF codes in the ATO, available on the 132nd website. Flights **must** squawk the assigned code and enable M4 before departure.

3.1.7 Laser Codes

Flights will be assigned laser codes in the ATO, available on the 132nd website.

3.1.8 TACAN

Flights will be assigned TACAN codes in the ATO, available on the 132nd website.

3.2 Command and Control Frequencies

3.2.1 AWACS frequencies

These frequencies are used by AWACS to control aircraft.

- Check-in: 237.0 (BLUE 3)
- In Flight Report frequency: 229.0 (GREEN 4)
- Air Request frequency: 21.00 FM (OLIVE 11)
- Air Request Net secondary frequency: 235.0 (WHITE 11)
- CSAR frequency: 248.0 (GRAY 2)
- VHF Backup: 140.0 (MAROON 11)
- HF: 2971
- Ground Alert frequency (Scramble frequency): 236.5 (LEMON 7)

3.2.2 Range frequencies

These frequencies are used by either AWACS or Mission Commanders / Flight Leads to use for the training and coordination of the mission in the designated airspace. These frequencies are also used as tactical frequencies for tactical training or scenario training.

RANGE FREQS				
Name	**Primary**	**Color**	**Secondary**	**Color**
Range 11	231.500	GREEN 7	134.700	COPPER 2
Range 12	235.750	AMBER 4	140.250	RED 1
Range 13	231.750	BROWN 8	119.500	ORANGE 9
Range 14	230.000	YELLOW 6	130.750	VIOLET 7
Range 15	240.000	VIOLET 1	141.000	OLIVE 3
Range 16	243.750	CHERRY 8	139.750	AQUA 10
Range 17	242.500	OCHRE 4	120.250	OCHRE 5
Range 18	237.750	YELLOW 3	138.250	CORAL 3
Range 21	225.750	INDIGO 10	133.700	COPPER 10
Range 22	246.250	ORANGE 7	120.500	WHITE 9
Range 23	242.000	CHERRY 3	132.700	BRONZE 7
Range 24	233.250	BROWN 7	132.750	LEMON 3
Range 31	230.500	INDIGO 11	137.700	COPPER 1
Range 32	234.000	OCHRE 9	130.700	BRONZE 3
Range 33	238.750	AMBER 2	135.750	CORAL 5

MOA FREQS				
Name	**Primary**	**Color**	**Secondary**	**Color**
MOA 1	235.250	GRAY 6	123.750	GREEN 10

3.2.3 JTAC frequencies and callsigns

JTACs will use range frequencies while doing operations on the range. Frequency and callsign will normally be published in event information. It is JTAC responsibility to ensure a callsign and frequency is assigned. It is both a CAS flight and JTAC responsibility to ensure the CAS flight know the frequency and callsign of the assigned JTAC.

3.2.4 AWACS check-in

Check-ins with AWACS is to be conducted at designated Contact Points (CPs) or when leaving the airfield or FARPs. If AWACS is unmanned, all flights are to announce intentions (check-in and what frequency they are leaving for) before they leave check-in frequency for a tactical frequency.

3.3 Codewords

Action/event	Codeword
On station	ARMENIA
Off station	BRAZIL
RTB	CANADA
Abort mission	DENMARK
Mission successful	EGYPT
Mission unsuccessful	FRANCE
Attack successful	GERMANY
Attack unsuccessful	HUNGARY
Last off target	IRELAND
Re-attack	JAPAN
Push(ing)	KENYA
(Request) Rolex	LIBERIA
Wounded Bird	MALTA

3.4 Reporting

3.4.1 In-Flight Report (INFLTREP)

During missions, in-flight reports can be used to pass information, situation updates or BDAs to AWACS. AWACS controllers will receive the INFLTREP over the in-flight report frequency, and the AWACS controller will submit the information via Campaign Manager. If a mission is underway, pilots can check Campaign Manager prior to stepping into DCS to get latest updates provided via in-flight reports from pilots already flying. In- Flight Report format:

132nd INFLTREP	Remarks	Example
(1) Callsign	Flight's callsign	*BEAST11*
(2) Mission number	From the ATO	*AR3211*
(3) Target Location	Gridlocation or a geographical area commonly known	*N41 32.100 E044 23.200 or Northwest in TSKHINVALI city*
(4) Time on Target	Time of the attack	*1255Z*
(5) Results (BDA)	Battle Damage Assessment (BDA)	*3x T-80 burning*
(6) Remarks	For example, area weather, enemy situation after attack,	*Overcast at FL120, 2 additional T-80s observed*

	recommendations	*moving SOUTH along the road at 1330Z*

3.4.2 After-Action Report (AAR)

After completion of a mission, all pilots and controllers are to file an after-action report. The after-action report contains the following important information, and is filled out on the 132nd website:

- Event sequence: What was done in the mission. Where was it flown.
- Lessons Learned: What experiences was done in the mission. What worked, what did not work.

3.4.2.1 Reporting accuracy

It is important after the mission to report locations in the format specified in SPINS.

The correct format is like this:
N DD MM.MMM E DDD MM.MMM or NDD MM.MMM EDDD MM.MMM
or
NNL LL NNNN NNNN (MGRS) Example: 12A BC 12345 67890

NOT like these:
N DD MM MMM E DDD MM MMM
N DD MM M E DD MM M
NNLLLNNNNNNNN
NNL LL NNN NNN

3.5 Retasking

Any flight flying in TRMA may be re-tasked to higher priority tasks during scenario training. AWACS have re-tasking authority during execution of scenario training. AWACS will not have re-tasking authority during basic training. Re-tasking will be conducted using the re-tasking brief:

132nd Retasking brief	Remarks	Example
(1) Task / Mission	What is the task or mission the flight is being re-tasked to do	*CAS* *or* *SCAR* *or* *Armed Reconnaissance*
(2) Location / Killbox name and status	What location or killbox are designated as the target area Killbox that are active are currently occupied by other flights- Killbox that are cold are not in use by other flights.	*Killbox P1 Active* *or* *Killbox P1 cold* *or* *2nm SOUTHEAST of GUDUATA airfield*
(3) Enemy situation / target	What is the general situation in the target area / What is the target	*Enemy fuel convoy is moving NORTH on the MSR leading into GUDUATA. Target is enemy fuel convoy.*
(4) Threat	Any known threats in the target area	*2x SHILKA at GUDUATA airfield.* *1xSA-8 2 nm NORTHWEST of GUDUATA*
(5) Friendlies	Any information about friendly forces in the target area	*Closest friendlies are 15 nm to the NORTHWEST in static defensive positions.*
(6) SCAR	SCAR flight and contact frequency. SCAR field is optional, and only included if a SCAR flight is supporting the mission. If no SCAR flight is supporting the mission, this line will be omitted.	*AXE 2-1 on 258.250*
(7) Ordnance restrictions or request	If certain ordnance is not authorized, or of certain ordnance is requested to meet the objective	*No CBU's allowed*
(8) Remarks	Any additional information not included in the lines above.	*Routing via SENAKI at Angels 15 and CP C03 at Angels 10. Contact AXE 2-1 at over SENAKI.*

3.6 Joint Tactical Air Support Request

The Joint Tactical Air Support Request is used for requesting air support from AWACS during missions. The Joint Tactical Air Support Request format is shown below:

1.___AWACS___ This is: __Callsign___
2.Request number _____ Date-time _____
3.Preplanned/Immediate, priority (1 = emergency, 2 = priority, 3 = routine)
4.Target is/are: _____
5.Target location is: _____ (MGRS, /LAT/LONG, KILLBOX)
6.Target Time/Date: ASAP / Not later than / At
7.Desired ordnance:_____
8.A. Final control: JTAC / FAC(A) /SCAR
8.B. Callsign:_____
8.C. Frequency:_____
8.D. Contact Point:_____
9.Remarks:_____

4 Air to Air Instructions

4.1 Identification terms

4.1.1 HOSTILE
A contact identified as enemy upon which clearance to fire is authorized in accordance with (IAW) current rules of engagement (ROE) and Identification Criteria.

4.1.2 BANDIT
A contact positively identified as an enemy authorized in accordance with (IAW) current rules of engagement (ROE) and Identification Criteria.

4.1.3 BOGEY
Unknown contact. Need more investigation.

4.1.4 FRIENDLY
A positively identified friendly contact.

4.1.5 NEUTRAL
Aircraft identified as civilian with current ROE and Identification criteria.

4.1.6 RIDER
An unknown contact (BOGEY) that is complying with airspace control order/airspace control plan or following a published Minimum Risk Route (MRR). Require additional identification.

4.1.7 OUTLAW
Unknown contact (BOGEY) taking off from enemy territory / enemy airbase.

4.1.8 SPADES
An interrogated GROUP or radar contact that lacks all the air tasking order (or equivalent) IFF or selective ID feature modes and codes required for the ID criteria.

4.2 Identification criteria
In TRMA the following Identification criteria are be used.

4.2.1 NEUTRAL indicators
- Valid IFF squawk code of 60XX and adhering to published air routes in Airspace Control Plan (ACP), Airspace Control Order (ACO) or event information.

OR

- Visually/electro optically identified as civilian aircraft (airliner).

OR

- Visually/electro optically identified as from a country not part in the conflict (military aircraft)

4.2.2 FRIENDLY (Positive Friendly Indicators)
Any **one** of the following:

- Datalink Precise Position Location & Identification **(PPLI)** indicates friend.
  Tracks that auto-correlate as friendly in LotATC count as having a PPLI from AWACS perspective.
- IFF interrogation reply indicates friend.
- Communications with unit is established and the unit is authenticated as friendly.
- Visually (VID) or electro optically (EO) ID to friendly unit.

4.2.3 BANDIT Criteria

- Visual Identification (VID) or Electro Optical (EO) to known enemy unit. *Visual ID (VID) or Electro Optical ID to known enemy unit overrides any need for additional positive enemy indicators (PEI). No additional PEIs are required to upgrade to BANDIT.*

Or any **two** of the following positive enemy indicators (PEI):

- Lack of IFF and/or Lack of PPLI **(SPADES)**
- PPLI indicates enemy (red) – *note – this does NOT automatically denote hostile.*
- Point of origin at enemy airfield or enemy territory **(OUTLAW).**
- RWR correlation to known enemy unit.
- Pattern racetrack in known enemy territory.
- High Fast Flier profile **(HFF)** – (40.000ft or higher and 800 KTS or higher.)

4.2.4 HOSTILE Criteria

Any **three** of the following:

- Lack of IFF and/or Lack of PPLI **(SPADES)**
- PPLI indicates enemy (red) – *note: this does NOT automatically denote hostile.*
- Point of origin at enemy airfield or enemy territory **(OUTLAW).**
- RWR correlation to known enemy unit.
- Pattern racetrack in known enemy territory.
- High Fast Flier profile (HFF) – (40.000ft or higher and 800 KTS or higher.)

OR any Hostile Act **(HA)** or Hostile Intent **(HI)** criteria

4.2.4.1 Hostile Act (HA)

Any **one** of the following:

- Enemy forces that employ ordnance of any kind against any friendly forces as indicated by EO, Visual or RWR.
- Radar lock against any friendly forces.

4.2.4.2 Hostile Intent (HI)

Any **one** of the following:

- Maneuvering to obtain tactical advantage. Aspect less than 120°.
- High Fast Flier profile (HFF) originating from enemy airspace. (40k ft + 800knots or higher).

4.3 Rules of Engagement (ROE)

The following Rules of Engagement apply in TRMA.

4.3.1 Weapon status terms

The following weapon release status are used to determine what classification is required to employ ordinance.

4.3.2 WEAPON FREE

Weapons may be employed at any target not positively identified as FRIENDLY and NEUTRAL

4.3.3 WEAPON TIGHT

Weapons may be employed at any targets positively identified as HOSTILE and BANDIT.

4.3.4 WEAPON HOLD

Weapons may be employed in response to a formal order only.

4.3.4.1 Formal order

Formal order is given as *"Commit group XXX, Time now XX:XX, I authenticate XC"* (IAW TAT-101).

4.3.5 Default status

Unless briefed otherwise, the default status is:

- WEAPONS FREE in the area of operations (enemy side of the FLOT).
- WEAPONS TIGHT in International waters and Friendly territory (friendly side of the FLOT).

This default status may be overridden by:

- Event host for the specific event.
- AWACS.
- A Mission Commander **only in the absence of AWACS.**
- A Flight lead **only in the absence of AWACS and Mission Commander**

4.3.6 Self Defense

- Nothing in these ROE negates the right of individual self-defense.
- Nothing in these ROE negates a pilot's right to take all necessary and appropriate action in unit self-defense.

5 Offensive operations

5.1 Application of ALR

Mission commanders can use ALR definitions and associated tactics to determine the feasibility of mission accomplishment. If mission planning reveals that the mission is unlikely to succeed using the assigned risk level, the mission commander or flight lead should inform event host prior to mission execution.

Event host then has the following options:

- Scrub the mission in favor of an alternative mission that meets the assigned ALR.
- Allocate more assets to accomplish the mission or make other changes to the plan that will enhance the chance of that mission's success while adhering to the assigned ALR.
- Assign the mission a higher risk ALR using existing assets and the existing plan.

In flight, mission commanders and flight leads can use the tactical boundaries associated with an ALR to make the following tactical decisions:

- Accept or decline a merge based on AMR or targeting ratio.
- Make attack/reattack decisions based on real-time evaluation of SEAD effectiveness.
- Abort a mission or package when it looks like ALR will be, or has been, exceeded.

5.2 Acceptable Level of Risk (ALR)

Air-to-Ground Tactics restrictions based on ALR		
Acceptable Level of Risk	**Definition**	**A/G Tactics**
LOW	Withdraw to preserve forces. Accept only favorable engagements. Losses only at expected training or peacetime attrition rates.	• Single-ship FLOT crossings not authorized • Enter WEZ of SAM/AAA only with fully effective SEAD. • Fixed Wing - low-level tactics and reattacks not authorized
MEDIUM	Losses expected at historical combat rates (~25%). Accept neutral or disadvantageous engagements. Can withdraw to prevent heavy losses.	• Single-ship FLOT crossings not authorized • Operations in AAA and Manpad WEZ as required. • Operations in SAM envelopes are acceptable with partially effective SEAD. • One reattack authorized to meet mission objectives.
HIGH	Accept major losses (~50%) to achieve objective; Preserve some future capability, if able.	• Single-ship FLOT crossings authorized • Operations in AAA and Manpad WEZ as required. • Operations in SAM envelopes are acceptable with marginally effective SEAD. • Reattacks as required to meet mission objectives, withdraw if threat overwhelming.
EXTREME	Accept any losses necessary to accomplish mission. Defense against WMD (weapons of mass destruction), where consequences of failure is unacceptable.	• Single-ship FLOT crossings authorized • Mission may only be cancelled by higher authority (AWACS/AOC). • Aircraft recovery is not a factor in selection of tactics.

5.2.1 SEAD Effectiveness Table for A/G ALR

SEAD Effectiveness	Defined as
FULLY EFFECTIVE	SEAD Can deny Air Defense engagements by continuous suppression throughout the vulnerability period (VUL) using pre-emptive shots or otherwise completely denying SAM sites ability to engage.
PARTIALLY EFFECTIVE	SEAD Cannot deny Air Defense engagements but can distract SAM sites, delaying targeting or disrupt SAM guidance with **immediate reactive shots** forcing SAM sites to shut down during guidance or be destroyed. On-board countermeasures and maneuvers can effectively degrade terminal guidance of SAM sites.
MARGINALLY EFFECTIVE	SEAD Cannot deny or delay Air Defense engagements. On-board countermeasures have limited capability to degrade SAM guidance. Tactics depend primarily on overwhelming numbers to saturate defenses and maneuvers to defeat shots.

Air to AIR Tactics based on ALR			
Acceptable level of Risk	**Definition**	**A/A Tactics**	**AMR**
LOW	Accept only favorable engagements.	• Avoid merge when possible. • Accept merge only with superior merge ratios. • Use SKATE or SHORT SKATE.	2:1 or greater.
MEDIUM	Accept favorable or neutral engagements. Can withdraw to prevent heavy losses.	• Accept merge with equal merge ratios. • Use BANZAI as required. • Aircraft recovery higher priority than mission goal.	1:1
HIGH	Accept major losses (~50%) to achieve objective. Preserve some future capability if able.	• Accept merge with inferior merge ratios. • Use BANZAI tactics as required. • Recover aircraft if able.	1:2
EXTREME	Accept any losses necessary to accomplish mission.	• Accept merge with inferior merge ratios. • Aircraft recovery not an issue.	Any

Note the **Acceptable Merge Ratio (AMR)** is the ratio of friendlies to **peer** adversaries within Factor Range.[1] For general planning purposes – it is suggested to set FR to **25nm.**

Example 1:
4xF18Cs vs 2 groups of 2 MIG29´s that are within Factor Range of each other is 1:1 and thus requires ALR MEDIUM to MERGE.

Example 2:
4xF16s vs 4 groups of 2 MIG29´s that are outside of Factor Range of each other is 1:2 and thus requires ALR HIGH to MERGE.

[1] 132-TTP4 Defines Factor Range as "During merge tactics, the minimum acceptable distance between the group being merged with and the next nearest group. Groups outside of this range are unlikely to affect the merge with the targeted group. FR should allow engaging and killing the targeted group, egressing tail aspect to the second group, and remaining outside that group's maximum stern WEZ. FR is driven by threat weapons capability, fighter weapons capability, closure, and proficiency.

5.3 Target priority grade

5.3.1 Target priority A

- The target is essential for mission success in support of current objectives (or the target is a designated High Value Target, High Payoff Target, or TST).
- A target with priority A is crucial to the overall success of the operation.
- A target with priority A will have immediate and compelling effects.
- Its' timeliness as an urgent target for targets with priority A may not exist in the future.
- If not targeted, negative consequences may seriously jeopardize future friendly operations.

5.3.2 Target priority B

- Targets have substantial, but not immediate impact on the battle.
- The cascading effects this target provides may not be realized in the future.
- If not targeted on this ATO, a significant level of effort may be required later.
- If not targeted, negative consequence may significantly hamper friendly operations.

5.3.3 Target priority C

- Target with priority C will contribute to the battle, but it is not critical to mission success.
- Targeting a target with priority C will further the success of the operation.
- Targets with priority C will eventually require targeting due to friendly future plans.
- If not targeted on this ATO, negative consequences will probably not impede ongoing operations.

5.3.4 Target priority D

- Target of opportunity if:
    - A: Other targets not suitable for this ATO.
    - B: As a backup target
- Targets with priority D will have minor contributions to the operation.
- Targets with priority D may be required for targeting but are not considered time critical.
- Targets with priority D will not have a negative impact if not targeted.

5.4 Effects

The following effects may be tasked on the ATO:

5.4.1 Destroy

1)To damage the condition of the target so that it cannot function as intended nor to be restored to a usable condition.
2) Damage done to the function is permanent, and all aspects of the function have been affected.
3) A function's operation is permanently impaired, and the damage extends to all facets of the function's operation.

5.4.2 Degrade

1) Damage done to the function is permanent, but only portions of the function were affected, that is, the function is still operational, but not fully
2) A functions operation is permanently impaired, but the damage does not extend to all facets of the functions operation.

5.4.3 Neutralize

1) To render an enemy weapon system and maneuver unit ineffective or unusable for a specific period of time
2) To render ineffective, invalid or unable to perform a particular task or function
3) To counteract the activity or effect of

5.4.4 Attrit

1) To destroy or kill by the use of firepower (troops for example)

5.4.5 Disrupt

1) To break apart, disturb or interrupt a function
2) Damage done to the function is temporary, and only portions of the function have been affected
3) A functions operation is impaired over the short term and the damage does not extend to all facets of the function’s operations

5.4.6 Deny

1) To hinder the enemy the use of space, personnel, or facilities. It may include destruction, removal
2) Damage done to the function is only temporary, but all aspects of the function were affected
3) A function's operations is impaired over the short term, but the damage extends to all facets of the functions operations

5.4.7 Harass

1) To disturb the rest of the troops, curtail their movement and lower morale by threat of loss.

5.4.8 Prevent

1) To deprive of hope or power of acting or succeeding
2) To keep from happening to avert

5.5 Close Air Support (CAS)

The following formats are used for CAS operations in TRMA:

5.5.1 CAS check-in briefing

Mission number
Number and type of aircraft
Position and altitude
Ordnance
Time on station
Capabilities
Abort code

5.5.2 Area Operations update (AO update)

Threat
Target
Friendly situation
Artillery activity
Clearance authority
Ordnance
Restrictions
Hazards
Remarks

5.5.3 CAS brief

Gameplan	
Type of control (1/2/3)	
Method of engagement (Bomb on target / Bomb on coordinate)	
Ordnance	
9-line	
1	IP/BP
2	Heading
3	Distance
4	Target elevation
5	Target description
6	Target location
7	Type Mark Laser code:
8	Friendlies
9	Egress
	Remarks
	Restrictions

5.6 SCAR
See AR TTP and SCAR TTP

5.7 Time Sensitive Targeting (TST)
TST are of critical importance for the overall execution of the campaign. If any TST target is located during execution of a mission, this will take precedence over any other tasking, and resources should be used to neutralize this target as soon as possible.

TST matrix with valid TST targets, desired effect and accepted risk level is published as required per the scenario or advanced training by event host.

6 Tanker information
KC-135 are used for boom operations (F-16 / A-10)
KC-135 MPRS are used for drogue operations (F/A-18 / F-14)

6.1 Tanker tracks.
Tanker tracks will be named ARXXX.
Tanker information is located on the TRMA Brief page: Tanker operations
AR1XX (Callsign TEXACO) for boom operations lower speed (speed 220kts FL115).
AR2XX (Callsign ARCO) for boom operations higher speed (speed Mach 0.65)
AR3XX (Callsign SHELL) for drogue operations (speed Mach 0.65)
AR4XX (Callsign ARCO) for aggressor boom operations higher speed (speed Mach 0.65)
AR5XX (Callsign SHELL) for aggressor drogue operations (speed Mach 0.65)

Altimeter setting. Unless otherwise directed an altimeter setting of standard pressure setting (29.92) is to be used for AAR operations.

6.2 Vertical separation
Receivers are to join from below and are to maintain a minimum of 1000ft vertical separation (unless otherwise directed by the controlling agency), until visual contact have been made.

6.3 Clearance
Receivers must receive clearance from the controlling agency (AWACS) before contacting the tanker. Wherever possible, flights should remain on the AWACS frequency as well as monitoring the tanker frequency.

6.4 Joining procedures
The left side of the tanker is to be used for joining aircraft. The first receiver of a formation may join directly astern the boom, when the receiver has visually confirmed that no refueling is in progress.

7 Airspace information

7.1 International airspace

12 nm outside coast of Norway and Russia is defined as international airspace.

7.2 Airspace Control Measures

Control/Initial Points are to be used for command and control of the airspace. These points can be used in flight plans. Minimum Risk Routes will be routes between Control/Initial Points.
See TRMA CombatFlite for graphical representation of airspace control measures.

7.2.1 Contact Points (CP)

Contact Points are points to be used to establish communications (check-in) with AWACS/FAC(A)/SCAR/JTAC's.

7.2.2 Initial Points (IP)

Initial points are primarily designed to facilitate initial points for attack runs in CAS operations. A secondary use is that they can be used as control points

7.2.3 Airspace Control Point (ACP)

Airspace Control Point is primarily designed to be routing points for air traffic.

7.2.4 Killbox

Killbox is a three-dimensional target area. It is a coordination measure enabling air assets to engage surface targets without needing further coordination with commanders and without terminal attack control. A killbox can be under the control of any flight. The space is defined by an area reference system.. A Killbox can be either active or closed. Killboxes are assigned in ATO and are pre-planned.

7.2.4.1 Active Killbox

This is a killbox currently allocated to a flight. Permission should be sought from the flight assigned to or controlling a killbox before entering, even if only to cross.

7.2.4.2 Closed Killbox

This is a killbox currently not in use by anyone and imposes no restrictions on air operations. This is the default value for killboxes.

7.2.4.3 Restricted Operating Zone (ROZ)

ROZ are a temporarily airspace zone established for a specific mission. ROZ can be used to facilitate SCAR, CAS or any other mission. As with Killbox, a ROZ have an owner that control that ROZ, and to enter the ROZ one need to establish communications with the current controlling agency (FAC(A), SCAR, Flight, JTAC, AWACS). A ROZ can be established temporarily during mission execution through AWACS.

7.2.4.4 Minimum Risk Routes (MRR)

Minimum Risk Route is a route that will keep air traffic reasonably safe from threats and are used to route traffic within friendly airspace.

7.2.4.5 Standard Pressure Settings (SPS)

For TRMA, standard pressure setting at altitudes above 7,000ft AMSL. When climbing above 7,000ft, switch to standard pressure setting (29.92). Altitudes will be given as flight levels (FL when operating on SPS. When descending below FL085, switch back to local QNH.

7.2.4.6 Force QNH

AWACS, JTAC, FAC(A) and SCAR can establish a force QNH within his area of responsibility. This in-order to avoid unnecessary QNH changes. When operating on force QNH, the C2 agency need to make sure all assets are briefed on the QNH in use prior to entering the area.

7.3 Routing of flights

All fixed wing flights in/out of Bodø Airbase are to use procedures outlined in charts available on the TRMA briefing page/event information or 132nd FLIP v1.3. Flights scrambled by a C2 agency are exempt from these requirements.