JPMRC 26-02

Coming of Age of the Arctic Combat Training Center

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23 March 2026

Training an Arctic Brigade

The scale of the US Army Pacific's annual exercise in Alaska intensified this year, at a time when national strategic interest in Arctic operations continues to grow. The exercise puts the 11th Airborne and supporting joint forces through an extreme cold-weather trial and creates one of the few opportunities for the joint force to innovate and rehearse combat at extreme northern latitudes. As in years past, the exercise placed a brigade combat team of the 11th Airborne Division into the Yukon Training Area for 10 days, although a winter storm shortened the event by 24 hours.[1] The event began with a combined air and ground assault followed by limited offensive operations to expand the lodgment. The brigade then transitioned into a defense to prepare for resuming offensive operations after an enemy counter-attack.[2] The brigade was supported by aviation, sustainment, and SOF elements under the command of the 11th Airborne.

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[1] RTU_OPORD 26-030 (OPN ARCTIC LOBO) 1.pdf; DD1594 26_02_20FEB26_T6 RTO Log.docx

JPMRC Alaska's New Look

The amplitude of the 26-02 JPMRC Alaska exceeds the last in several important ways. The event now echoes the strategic messaging and campaigning approach of INDOPACOM exercises. Embedded reporters followed the rotational unit and the US Army Chief of Staff paid a visit. Innovation with experimental equipment for arctic conditions was tested across every warfighting function, particularly in sustainment and reconnaissance/strike.[3] The training area's geography expanded, adding the Tanana Flats to "the box." This permitted the sustainment battalion (CSSB) to operate not in garrison, but in a field environment, subject to the same threats as other units.[4] Finally, the exercise hosted a large and diverse multinational presence. The Canadian 3RCR, a battalion-sized element, used JPMRC as a readiness certifying exercise and played a key role in the success of the rotational unit.[5] Norwegian and Italian special operations troops conducted reconnaissance and irregular warfare, while a Swedish and Mongolian platoon embedded with US infantry battalions.

Continuing a successful program from the previous rotation, the Northern Warfare Training Center provided squad and platoon-level coaching to rotational units. This approach gave feedback to NCOs and junior officers on arctic fieldcraft and corrected complacency or dangerous habits before they could cause injury.[6]

For the first time, the 1-297 IN of the Alaska National Guard linked its annual training to JPMRC as an "out-of-sector" mission. Although the linkage was minor, the milestone strengthens the relationship with the 11th Airborne and sets conditions for more involvement in future rotations.

Another feature enabling analysis was the data collection program from the JPMRC staff. The range and amount of data collected on the rotational unit was at its most expansive this year. This data, from sensors and observers, as well as the unit's own reflections, provided the basis for an assessment of brigade-level combat in arctic conditions.

The growth of more elaborate programming and a full embrace of innovation in exercise design marks the coming of age of JPMRC Alaska. By all appearances the joint force now views the event as a critical opportunity to experiment and rehearse for high latitude combat.

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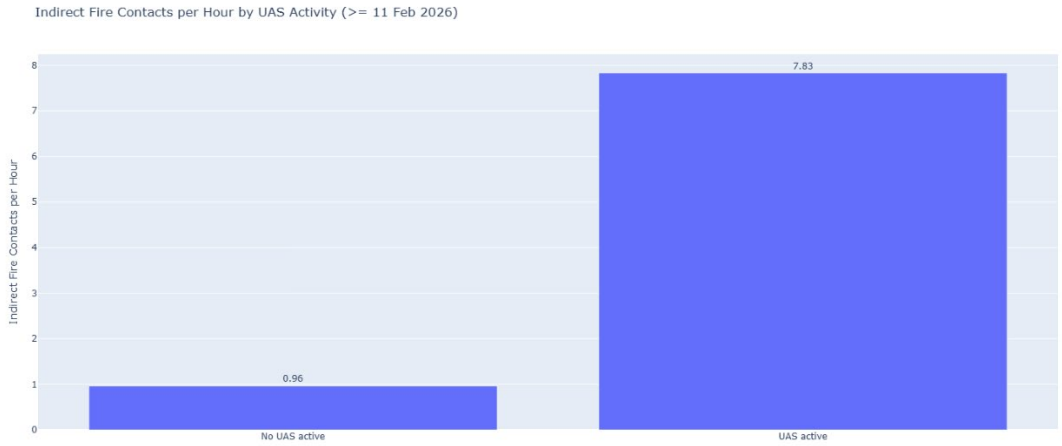
[2] RTU_OPORD 26-030 (OPN ARCTIC LOBO) 1.pdf
[3] NWTC Report Tracker_All RTU 26-02.xlsx
[4] JPMRC26-02 LOGISTICS BP2-3 18-23FEN2026.csv
[5] 3RCR MIDRO AAR TRANSCRIPTS(TF Maple).*docx*
[6] *NWTC Report Tracker_All RTU 26-02.xlsx*

Key Observations for the Warfighter

Reconnaissance and Strike

Blue and Red forces engaged in hotly contested struggles to gain information about the enemy and connect that to a commander's decision or the kill chain. While evolving UAS capabilities were on display, UAS for smaller echelons remains at an endurance and power deficit. High winds and poor visibility challenged the effectiveness of these systems in answering priority information requirements or maintaining contact with the enemy.[7] The importance of solving the problem seems obvious when analyzing the violence of operations during favorable UAS operations. Whenever UAS could fly, the long range fires were active and effective. Whichever combatant can solve the power problem will have an overwhelming advantage.



In the case of this training cycle, enemy UAS benefited from the advantage of starting from static defensive positions. When weather permitted, they could fly sorties, return to their positions to charge or swap batteries, and return to fly again. They used this advantage to spot the movement—or evidence of movement, such as ski trails—of the rotational unit to great effect. Small units on the move could not so easily use this technique.

Current plans for Army transformation will strip some brigades of their reconnaissance squadron, shifting the burden to units not trained in reconnaissance tasks. Until small UAS can operate reliably in these conditions, commanders could struggle to make timely decisions. In the case of this rotation, a considerable amount, if not the majority of the unit's reconnaissance information was provided by ground-based assets.[8]

Larger UAS platforms with modular payloads had more flight time and helped get a fix on EW signatures to support targeting. Instead of moving direction-finding equipment by

[7] *DAT - 1230 OCT Report - Intel.csv; weather_combined_wide.csv*
[8] *DATUASReport.csv*

foot or vehicle through forests or clogged roads, UASs could ascend, search for a signature, and reposition. This allowed targeting information to be sent to the gun line to deliver fires on enemy command and control nodes.[9]

To cope with a separate, but related challenge, the training unit experimented with command and control of its forces. The rotational unit placed the bulk of its staff in "sanctuary" to the rear, while the commander and a small staff group were postured closer to the front.[10] This approach could reduce the signature of a large headquarters while maintaining the "thinking power" of a staff. In practice, this proved difficult. Communication challenges between the two elements prevented the concept from succeeding.[11] It was vulnerable to EW attacks. Before the advantages of this approach can be realized, work is needed to balance staff between the two nodes and secure dependable communication.[12]

Battlespace Management

The act of managing battlespace - maintaining a configuration of friendly forces in doctrinally sound and tactically useful positioning - often proves challenging at traditional combat training centers. The difficulty is magnified in arctic conditions. Here, the establishment of boundaries and control measures allow forces to conduct operations using sound tactics, such as positioning artillery without overcrowding an area. This is more difficult in deep snow with limited roads and clearings.[13] It is nearly impossible when heavy snowfall is added to existing snow. If dispersion mitigates risks of devastating long range artillery attacks, the forested and snowy terrain with limited roads snaking across ridgelines constitutes a nightmare scenario for offensive operations.

The brigade faced challenges dispersing to a doctrinally sound configuration. Snow removal was a limiting factor, with a limited number of vehicles capable of the task.[14] In one case, the division support area was isolated for 36 hours until mobility was restored.[15] This put logistical distribution behind schedule and stretched resources. Paradoxically, as the battlefield lengthened, sustainment and casualty evacuation improved, partly due to units learning and partly to a better ability to organize the battlefield.

At the platoon and company level, heavy snow created other dilemmas. Troops managed about four hours of rest for every 10-to-12-hour halt.[16] The reason was the need to dig out snow, erect tents, and conduct hygiene and maintenance before sleeping. Socks and undergarments needed to be changed or dried to reduce the odds of cold weather

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[9] *TF Mustang BDE Staff MIDRO AAR EXSUM.docx*
[10] *TF Mustang BDE Staff MIDRO AAR EXSUM.docx*
[11] *DAT - 1230 OCT Report - MCP.csv*
[12] *DAT - 1230 OCT Report - Signal.csv*
[13] *BECC.csv; 6 DEB MIDRO - TF HAMMER.docx*
[14] *02. RTN 26-04 Blade Utilization Tracker.xlsx*
[15] *DD1594 26_02_18FEB26* T4RTO Log.docx
[16] 3RCR MIDRO AAR TRANSCRIPTS(TF Maple)_.docx

injury.[17] One coach observed that a brigade's rate of march may depend on how long it takes to recover from a long movement and dry clothing before resuming.[18]

Specialized Equipment Fielding

Commercial off-the-shelf (COTS) solutions have been a means of filling capability gaps. Snowmobiles, footwear, tents, and sleds were acquired this way.[19] The division invested tremendous effort in an innovation program that should provide field tested answers to questions about equipment and technological solutions to extreme cold weather combat. The rub is likely to be bridging the chasm between defense supply programs and COTS options that meet a critical need. The purchase of COTS can come at the cost of maintenance and replacement. Snowmobiles and their fuel are not integrated into the army supply system, leading to ad-hoc solutions. Until a program of record integrates these systems, outfitting and maintaining this equipment will be difficult.[20]

Conclusions

Searching "downstream" of the problems generated by fighting a thinking enemy in the extreme cold generates a number of insights. Several annexes included in this report provide a detailed day by day look at the exercise and correlate its events to the prevailing environmental conditions such as snow depth, temperature, visibility, and wind. They highlight much of what is known about the difficulty of combat operations in the high latitudes as well as point to some unexpected systemic effects. Perhaps most prominent, it points to unsolved dilemmas of reconnaissance and strike in the arctic and the continued need for ground based scouts to act as observers and answer priority intelligence requirements. It also demonstrates how even experienced cold weather operators and staffs can miscalculate logistical needs or suffer misfortune due to fast changing weather windows. and how critical select pieces of equipment can be to accomplish a brigade combat team's mission. It is fortunate that planners and participants of this event now have the ability to seriously study and address these issues with deeper clarity.

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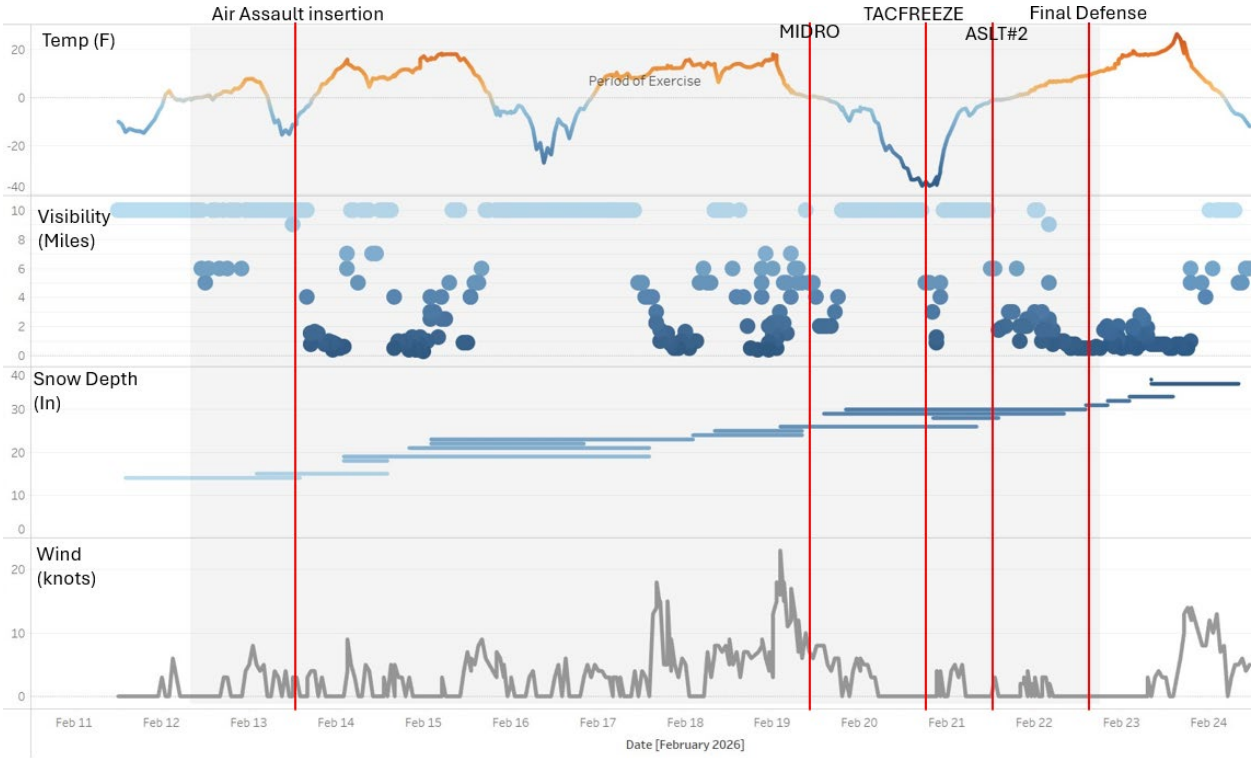
[17] DAT - RealWorld 9-Line MEDEVAC.csv
[18] O'Malley, "JPMRC Participant 2"
[19] NWTC Report Tracker_All RTU 26-02.xlsx
[20] JPMRC26-02 LOGISTICS BP2-3 18-23FEN2026.csv; Larson, "JPMRC Participant 3"

Annex A: Key Event – Operating Conditions Crosswalk



[21]

Date	Key Weather Conditions	Key Operational Events
Feb 12	Cold: Temperatures dropping.	Airborne Operation Disrupted: Initial airborne mission altered due to aircraft issues. Main force delayed.
Feb 13	Extreme Cold / Clear: Wind chill down to -26°F. Visibility excellent at 10 miles.	Exercise Commences: "Box is LIVE" at 04:09. First Air Assault: Conducted in the evening under clear but frigid conditions.
Feb 14	Poor Visibility / Cold: Visibility drops to < 0.5 miles.	First Major Ground Contact: C/1-24 IN engages an enemy squads. Poor visibility degrades UAS and rotary-wing support.
Feb 15	Extreme Low Visibility / Cold: Visibility as low as 0.25 miles.	Artillery Unit Overrun: A Battery, 2-8 FAR is overrun in the early morning. Suspected Friendly Fire: Incident occurs in conditions of poor visibility.
Feb 16	Bitterly Cold / Clear: Wind chill at -25°F. Visibility generally good.	Heavy Attritional Fighting: Marks the peak casualty day for the OPFOR. BLUFOR also sustains significant losses.

[21] Eilson ASOS; DD 1594 Duty Log, 11 - 23 Feb 2026

Feb 17	Severe Cold / Deep Snow: Wind chill at -27°F. Snow depth reaches 21 inches.	Planning and Reorganization: Major offensive operations stall as units focus on planning for a future air assault, hampered by deep snow.
Feb 18	Heavy Snow / Poor Visibility: Snow depth increases to 25 inches. Visibility often < 1 mile.	Engineer Breach & HIMARS Strike: A successful mobility breach is offset by a devastating enemy HIMARS strike on A/5-1 CAV.
Feb 19	Blizzard Conditions: Wind gusts up to 40 mph. Snow depth 26 inches. Visibility < 0.5 miles.	Operations Halt & MIDRO Begins: The severe blizzard forces a tactical pause and the start of the Mid-Rotation After Action Review.
Feb 20	Extreme Cold: "TEMP ZONE 5 conditions."	"TACFREEZE" Declared: All tactical elements are forced to shelter in place due to extreme cold, delaying the resumption of the fight.
Feb 21	Low Ceilings / Cold: Continued cold, with low cloud ceilings impacting air operations.	Major Air Assault & Disruption: The main air assault is executed but faces immediate friction. An Apache helicopter is “shot down,” and deteriorating weather forces the mission to be altered mid-execution.
Feb 22	Cold / Clearing: Conditions remain cold.	Transition to Defense: The BDE issues the order to establish a hasty defense. First Contact in the Defense: Enemy elements make contact with the new defensive line late in the evening.
Feb 23	Cold: Blowing snow and poor visibility limit mobility and air operations	Final Defensive Battle: Intense overnight fighting results in heavy casualties on both sides, including one company becoming combat ineffective, marking the culmination of the exercise.

Annex B: Rotational Unit Combat Summary

Plans: Operation ARCTIC LOBO

Based on the 1/11 Airborne Division's OPORD, Task Force (TF) WOLF's mission was to conduct a multi-phase offensive to defeat Olvanan forces. The goal was to attack and clear territory, seize objectives, and prevent the enemy from enveloping the main effort of friendly forces. The operation was designed to culminate in a defense to protect key routes, enabling I Corps to build combat power.

The commander's intent was to create dilemmas for the enemy by executing a simultaneous ground infiltration and air assault. The operation was broken into four phases, culminating in attacks to seize objectives like AUSTIN, OTTER, MAPLE, and WALRUS. Success hinged on this phased advance.

Execution

The execution of Operation ARCTIC LOBO diverged from the plan due to enemy actions, logistical friction, and the arctic environment.

Initial Deployment and Setbacks (February 12-13)

The airborne insertion of Opposing Forces on Feb 12th was hampered by aircraft issues, and Blue forces, 5-1 CAV, moved into the exercise area prematurely. The exercise went "HOT" on Feb 13th with wind chills at -26°F. The day ended with an air assault and 30 friendly KIAs.

First Engagements and Heavy Losses (February 14-15)

The battle to expand and secure the lodgment intensified as weather deteriorated, impacting equipment and leading to high casualty rates.

- February 14th: With visibility under half a mile, friendly forces sustained 82 KIAs and 84 WIAs. Poor visibility degraded UAS and rotary-wing operations.
- February 15th: The plan to seize OBJ OTTER was disrupted as A Battery was overrun. Statistics confirm the outcome: 126 Blueforce soldiers were killed, with another 40 wounded. The fighting also saw the destruction of 49 vehicles and 8 artillery systems.

Reorganization (February 16-18)

This period was marked by reorganization after losses while battling snow and cold.

- February 16th: With a wind chill of -25°F, this was the deadliest day for OPFOR, who suffered 182 casualties. Friendly forces sustained 107 KIA and 64 WIA.

- February 17th: The plan to seize OBJ AUSTIN was overshadowed by a -27°F wind chill and 21 inches of snow. Fighting continued, with another 77 friendly KIA.
- February 18th: Snow depth increased to 25 inches. An engineer breach was a success, but an enemy HIMARS strike killed 18 soldiers from A/5-1 CAV.

The Mid-Rotation Pause and AAR (February 19)

The exercise paused as a blizzard with 40 mph gusts and 26 inches of snow arrived. This allowed for a Mid-Rotation After Action Review (MIDRO), which concluded that difficulties resulted from the enemy, weather, and internal process failures in planning, communication, and sustainment.

The Air Assault and Final Defensive Battle (February 20-23)

The exercise resumed with an air assault and a defensive battle.

- February 20th: The exercise was halted by a "TACFREEZE" due to cold, forcing elements to shelter in place.
- February 21st: The air assault faced delays from ice and slow operations, and was complicated when an Apache was shot down. Deteriorating weather with icing forecasts and crew duty limits meant the full force could not be inserted. The mission was changed, and the landed element was given a smaller objective.
- February 22nd - 23rd: The focus shifted to defense. As units moved into position, minefields were not yet in place.
    - 3RCR reported casualties and being at 60% combat effectiveness.
    - 1-5 IN and 1-24 IN came into contact. A Co, 1-5 IN repelled an attack, inflicting 28 enemy KIA, but the commander of 1-24 IN was killed.
    - By early Feb 23rd, B Co, 1-5 IN was combat ineffective, suffering 26 KIA and the loss of two vehicles. Actions on OBJ Maple culminated, and OPFOR forces pulled back.

Annex C: Systemic Analysis with Supporting Reporting Excerpts

1. Systemic Effects of the Cold on Fires, C2, and Logistics

The core of the unit's struggle was a chain reaction: the cold attacked equipment, which in turn crippled communications and command and control (C2).

- Equipment Failure: Reports are filled with entries like: "M119 NMC due to frozen hydro pole," "Numerous vehicles NMC due to freezing," and "batteries not holding charge in cold."[22] C BTRY's howitzers became non-mission capable due to "transmission issues" and a blown "hydrostrut," both failures credited to extreme cold.[23] This was a degradation of combat power.
- Digital C2 Breakdown: This equipment failure led to a communications breakdown. Reports show a reliance on digital systems (MAVEN, WICKR) and a failure to rehearse analog procedures.[24] Reports state units were "overly focused on troubleshooting their AFATDS than getting comms" and noted a "heavy reliance on SATCOM. any disruption to MUOS would be crippling." When batteries died and satellite links failed, C2 nodes went dark. One report highlighted this, stating a unit had "Command and control seems to be a struggle based on terrain," a result of being "too reliant on ATAK."[25] The link between the Brigade's "big brain" in the rear and it's "smaller brain" closer to the front were severed eliminating 2/3s of the staff as a result.
- Logistical Cycle: The attempt to fight the cold created a logistical spiral. The need to run heaters to prevent vehicles from freezing led to fuel consumption that was "outpacing forecast."[26] Aggravating the problem were the availability of fuelers which struggled from the start achieve a satisfactory readiness rate.[27] This forced more resupply convoys over icy roads, straining maintenance and security. Canadian troops were particularly vulnerable since their snow machines ran on a different type of high octane fuel and US logistics were not configured to provide it.

2. Terrain and Mobility

The terrain, with deep snow and limited roads, restricted movement and forced units into predictable patterns.

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[22] DAT - 0500 OCT SITREP.csv; BECC.csv
[23] DAT - 1230 OCT Report - Logistics.csv
[24] DAT - 1230 OCT Report - Signal.csv
[25] DAT - Attack Assessment.csv
[26] DAT - 1230 OCT Report - Logistics.csv
[27] DAT - 1230 OCT Report - Logistics.csv

- Channeled Movement: Reports describe units being "bogged down" by snow.[28] Even specialized equipment was not immune, with a mortar platoon stating "one friction point is for the 120mm to get in the wood line. Due to current weather and snow pack , they are unable to go into the wood line for cover, exposing them and only allowing them to fire from the road."[29] This forced units onto predictable avenues of approach, making them targets.
- Degraded Air and UAS Operations: The weather grounded assets. Reports note that "weather prevented UAS operations" and that aerial reconnaissance was "not able to collect today due to high winds."[30] This blinded commanders, forcing reliance on unobserved fires, which reports confirm were ineffective, with one stating, "All missions have had no BDA. Highlighting a gap in the detect portion of D3A."[31]

3. Physical Toll of Arctic Operations

The reports show the physical toll the environment took on soldiers.

- Impact on Combat Effectiveness: One report states that offensive operations were only "Partially Met" because of "significant CWI casualties and CASEVAC failures."[32] The MIDRO AARs corroborate this, with leaders noting that time for survival tasks limited time for planning and rest, leading to exhausted soldiers. Cold Weather Injuries can be difficult to prevent altogether, but it is worth noting that Swedish conscripts embedded with a US unit suffered no CWI at all, while scores of their US peers had to seek medical attention for them.[33]

4. Grappling with the Environment

Assessments reveal a failure to plan for the realities of arctic warfare, leading to desynchronized operations.

- Air Assault and Weather: An assessment provides a "GO / NO-GO" scorecard. The major assault on February 22nd was a "NO/GO" on multiple tasks. The remarks explain: "Lift 2 chalk 1 was the only one to Air Assault before ceilings became too low. All subsequent chalks were scratched."[34] On further examination, delays in planning, preparing the PZ, and loading in deep snow cost the ground assault unit hours in a rather limited weather window and ultimately undermined the effectiveness of the air assault.

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[28] BECC.csv; DAT - 0500 OCT SITREP.csv
[29] DAT - 1230 OCT Report - Logistics.csv
[30] DAT - 1230 OCT Report - Intel.csv
[31] DAT - 1230 OCT Report - FIRES.csv
[32] JPMRC26-02 LINE UNIT BP2-3 18-23FEB2026.csv
[33] Swedish Observer/Coach, “JPMRC Participant 6.”
[34] DAT - Air Assault Assessment.csv

- The "Unseen" Battlefield: The weather blinded the unit. Fire reports are filled with entries like "Still minimal observation," "UAS continues to be a LIMFAC," and "Most fires are unobserved."[35] This lack of reconnaissance meant units were firing blind, wasting ammunition, and failing to produce effects, as noted: "RTU is terrain focused, and are shooting a large majority of their fire missions unobserved. They are not affecting the enemy."[36]

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[35] DAT - 1230 OCT Report - FIRES.csv
[36] DAT - 1230 OCT Report - FIRES.csv