



# OPERATION BAKWA HAMMER





# MISSION SUMMARY

**Date:** 04 January 1991

**Location:** Kandahar, Afghanistan

**Situation:**

In 1991, amidst the global focus on the impending Operation Desert Storm, Iran has initiated a limited ground offensive into Afghanistan, aiming to secure strategic commercial routes in the Zaranj and Farah regions. Responding to an urgent request from Afghan authorities and a UN Security Council resolution, a coalition task force redeployed from the Gulf region and has established a main operating base at Kandahar. In a rapid move, Iranian forces have seized Farah and Zaranj airfields, deploying a small contingent of fighters and attack helicopters to support their ground offensive.

**Primary Objective:**

Disrupt Iranian Air Force ability to support ground operations East of Farah by denying the use of Farah airport.

**Mission Overview:**

Operation Bakwa Blitz is a swift and decisive air strike aimed at countering the Iranian incursion into Afghanistan. A small flight of aircraft of your choice will conduct a strike against Farah airport's runway, aiming at rendering it unusable. This action is critical in demonstrating the international community's ability to counter Iranian aggression and hinder the enemy's air support capabilities, in parallel to the operations in the Gulf. The flight will operate under strict Rules of Engagement (ROE) to avoid any collateral damage. This mission is designed for single or multiplayer, accommodating a flight of one or two aircraft.

**Estimated Mission Duration:** 90 minutes



# CONTEXT

In the turbulent backdrop of 1991, as the world's attention fixates on the imminent Operation Desert Storm in the Gulf, a calculated gamble by Iran has ignited a localized conflict in Afghanistan. Exploiting the international community's preoccupation, Iranian forces have launched a swift and limited ground offensive, seizing control of strategic airfields in Farah and Zaranj.

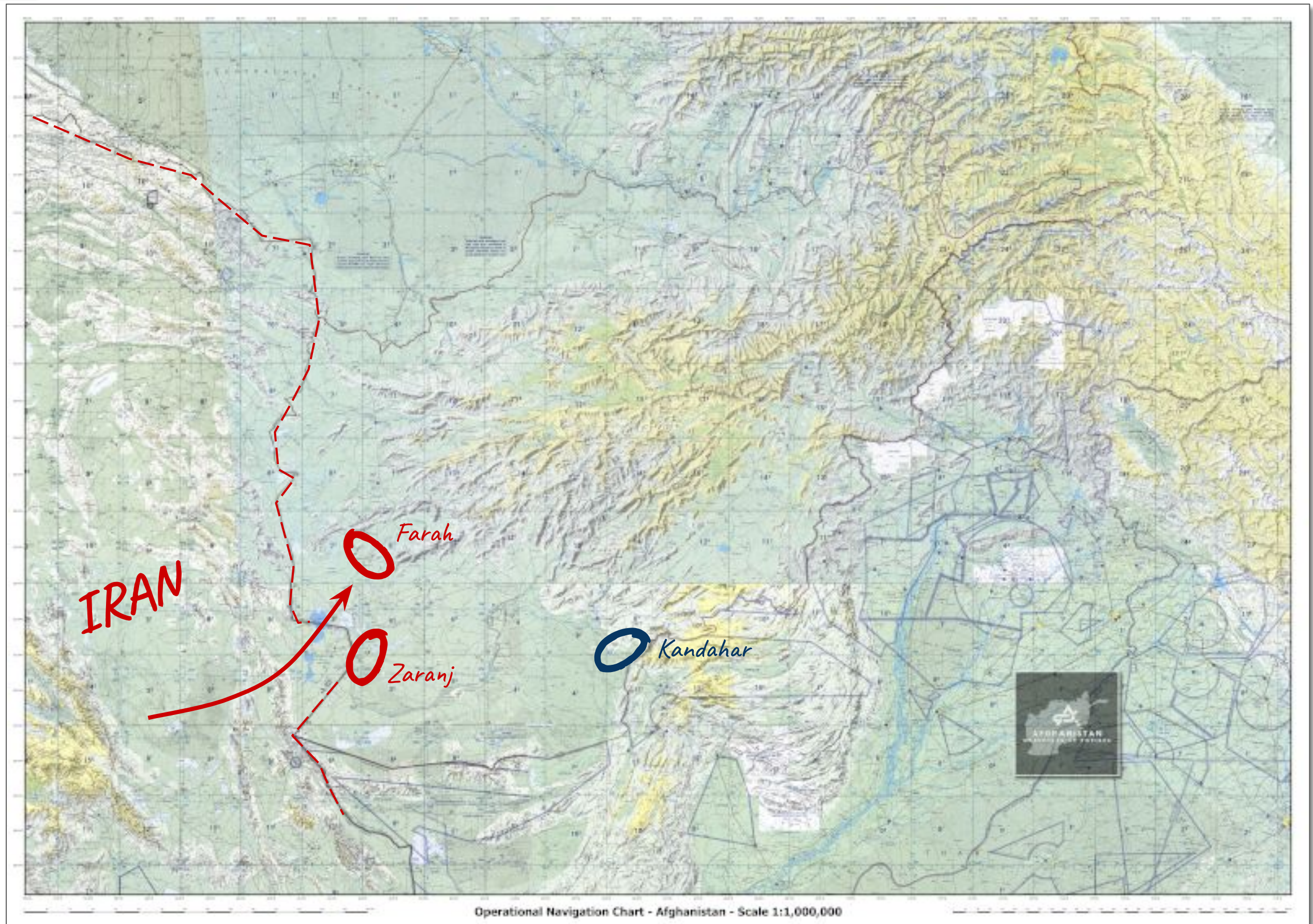
Their objective: to secure vital commercial routes and establish a foothold in the region, leveraging the element of surprise. This brazen violation of Afghan sovereignty has triggered an urgent response from the United Nations and a coalition of nations, who have rapidly deployed a task force from the Gulf theatre to Kandahar.

The immediate threat lies in Iran's deployment of Su-25 ground attack aircraft and attack helicopters to Farah airfield, providing critical air support to their advancing ground forces. To counter this, and to demonstrate the international community's unwavering resolve against this act of aggression, a decisive air strike is ordered. Operation Bakwa Hammer is launched. The mission: to neutralize Farah airfield and disrupt the Iranian air support capability, thereby hindering their ground operations and sending a clear message that such territorial violations will not be tolerated. This operation runs in parallel to the operations in the Gulf, reinforcing the idea that the international community is ready to act on multiple fronts.





# CONTEXT







# TIME & WEATHER

## Time:

**Mission Start:** 07:30:00 LOC / 02:30:00 ZULU

**Sunrise:** 07:34 LOC

## Weather:

**METAR:** OAKN 040230Z 25008KT 9999 -SHRA SCT070CU SCT200AC 02/M02 Q1009 A2980

## **Description:**

- Cloud Cover: expect scattered clouds at 7.000' and 20.000' with rain showers
- Wind: 8 kt from 250°
- Visibility: more than 10 km

## **Weather analysis:**

- Expect RWY 23 in use at Kandahar.
- You are very likely to have a weather suitable for visual bomb delivery on target area. Localised rain may hinder visibility but should not prevent you from conducting the strike in VMC conditions.
- The scattered clouds may be used to prevent visual acquisition or to provide cover against IR missiles in case of enemy intercept.
- At expected TOT, the sun will still be East and low over the horizon: you can use it to maximize IR cover and surprise effect.



# THREAT OVERVIEW

## Overall Threat Assessment:

Iranian forces have established a multi-layered defense network designed to protect their newly acquired airfields and operational areas in Afghanistan. This network combines potent Surface-to-Air (SAM) systems with a dedicated Air-to-Air (A/A) fighter presence, demonstrating a clear intent to deny coalition forces freedom of maneuver within the region.

## Surface-to-Air Threat:

- Long-range SA-5 systems pose a significant threat, capable of engaging aircraft at extended distances and high altitudes. Their presence at Zaranj airfield creates a wide area of denial.
- Mobile SA-6 systems, particularly the battery observed near Farah Airport, provide a crucial layer of close-in defense.
- The potential for MANPADs and AAA around airfields and force concentrations necessitates vigilance during low-altitude operations.

## Air-to-Air Threat:

- MiG-29A fighters operating from Zaranj airfield represent the most immediate A/A threat. Their regular CAP missions between Farah and Zaranj indicate a proactive stance and a willingness to engage coalition aircraft.
- A MiG-29A squadron based in Birjand, while currently operating within Iranian airspace, possesses the capability to conduct rapid incursions into the AO, posing a threat to extended operations.

Pilots must be prepared to face a coordinated defense, utilizing both SAM and fighter assets. Careful mission planning and robust situational awareness is crucial for mission success and survivability.





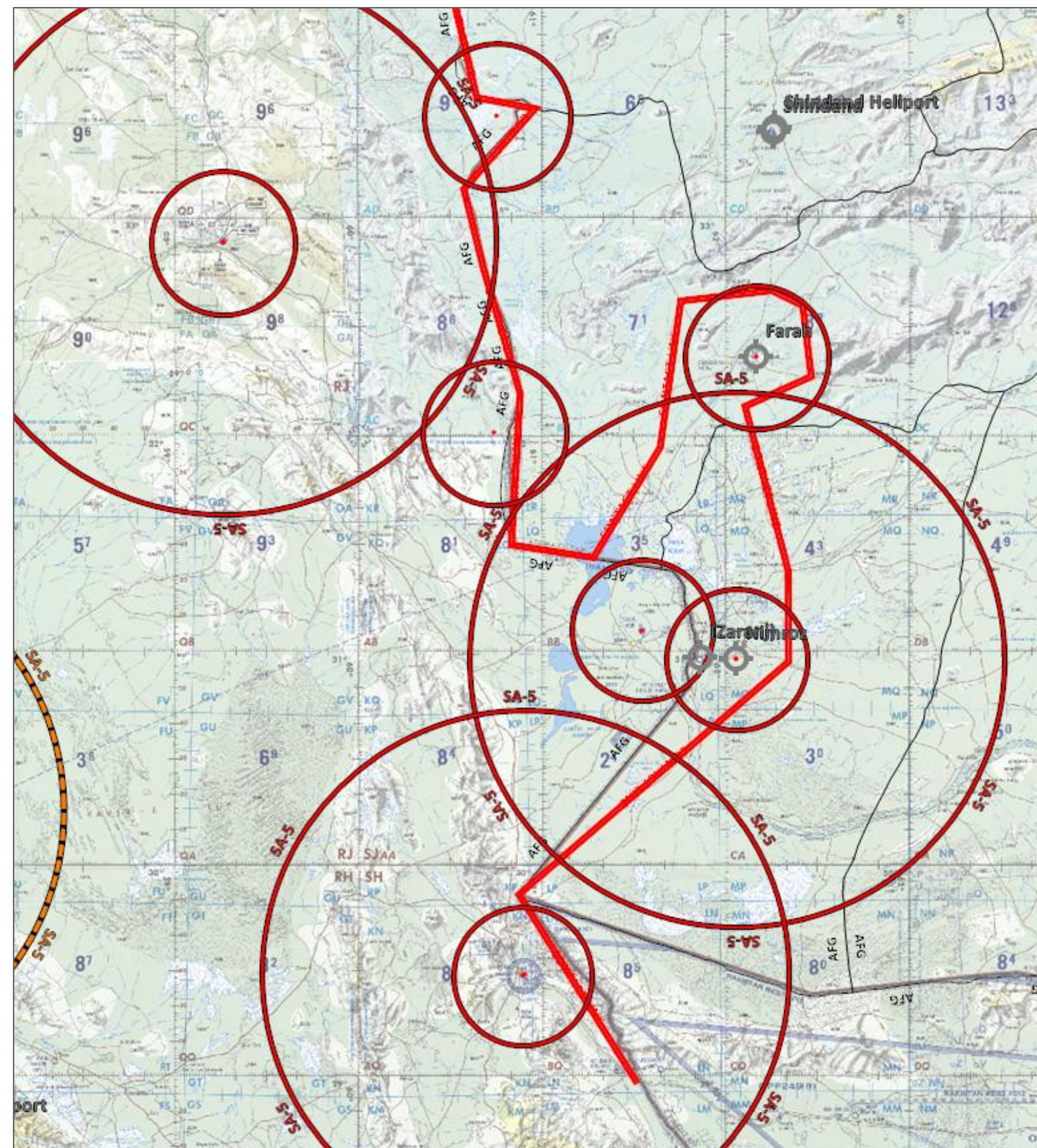
# S/A THREAT

## S/A order of Battle:

- SA-5: Zaranj, Birjand and Zahedan.
- SA-6: Zaranj, Birjand, Zahedan, Farah, Zabol, Yazdan and Mahihood.
- MANPADS: SA-7/14
- AAA: ZSU-23-4, ZU-23-2, possibly mobile

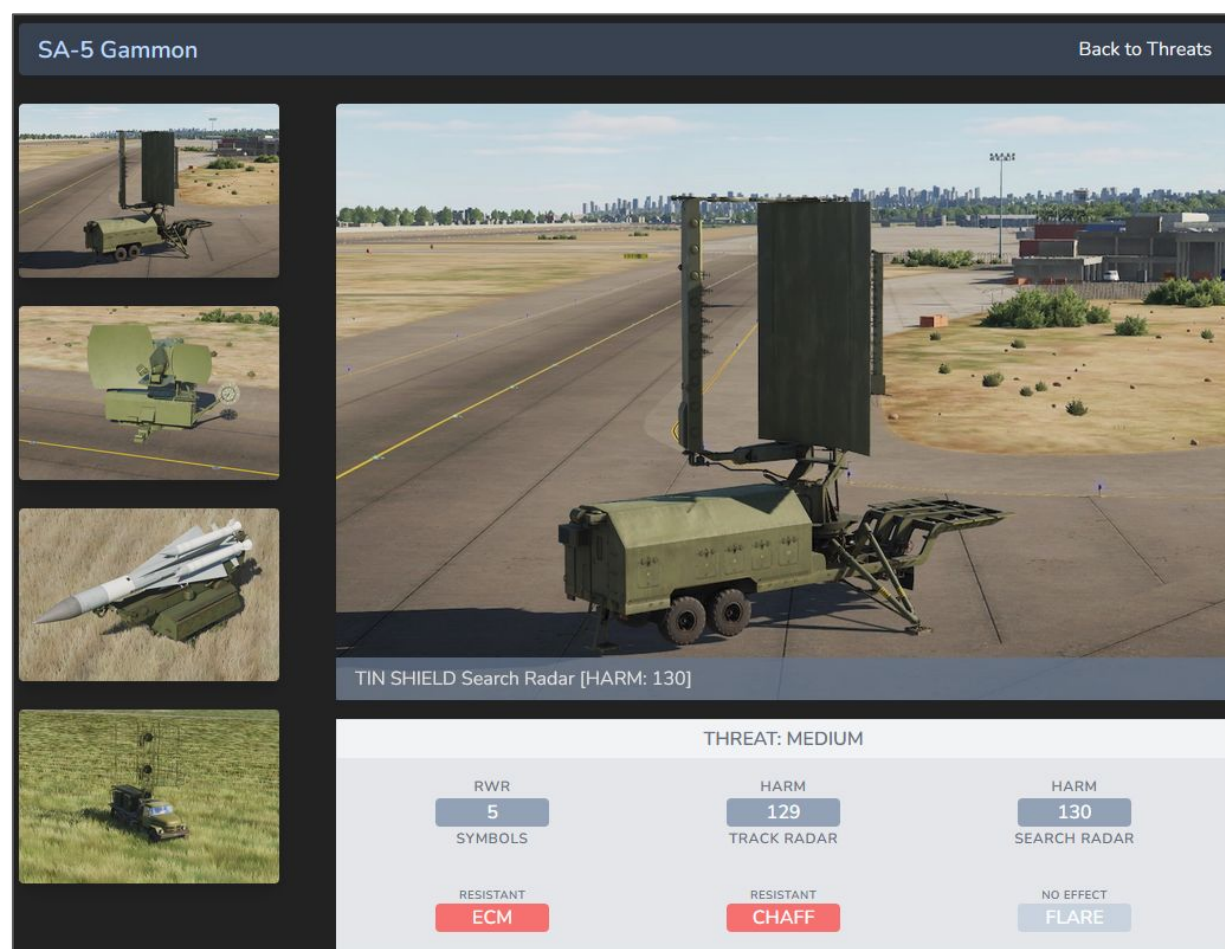
## Likely Engagement Tactics:

- **Early Warning and Long-Range Intercepts:** Expect SA-5 engagements at maximum range, likely aimed at forcing early defensive maneuvers and disrupting ingress routes.
- **Mobile Ambush:** The SA-6 battery near Farah might employ mobile ambush tactics, relocating frequently to engage aircraft from unexpected directions.
- **Terminal Defense Saturation:** Expect heavy AAA and MANPADS fire during low-altitude approaches and departures, especially in the vicinity of airfields and known garrison locations. Reattacks are highly discouraged..





# S/A THREAT



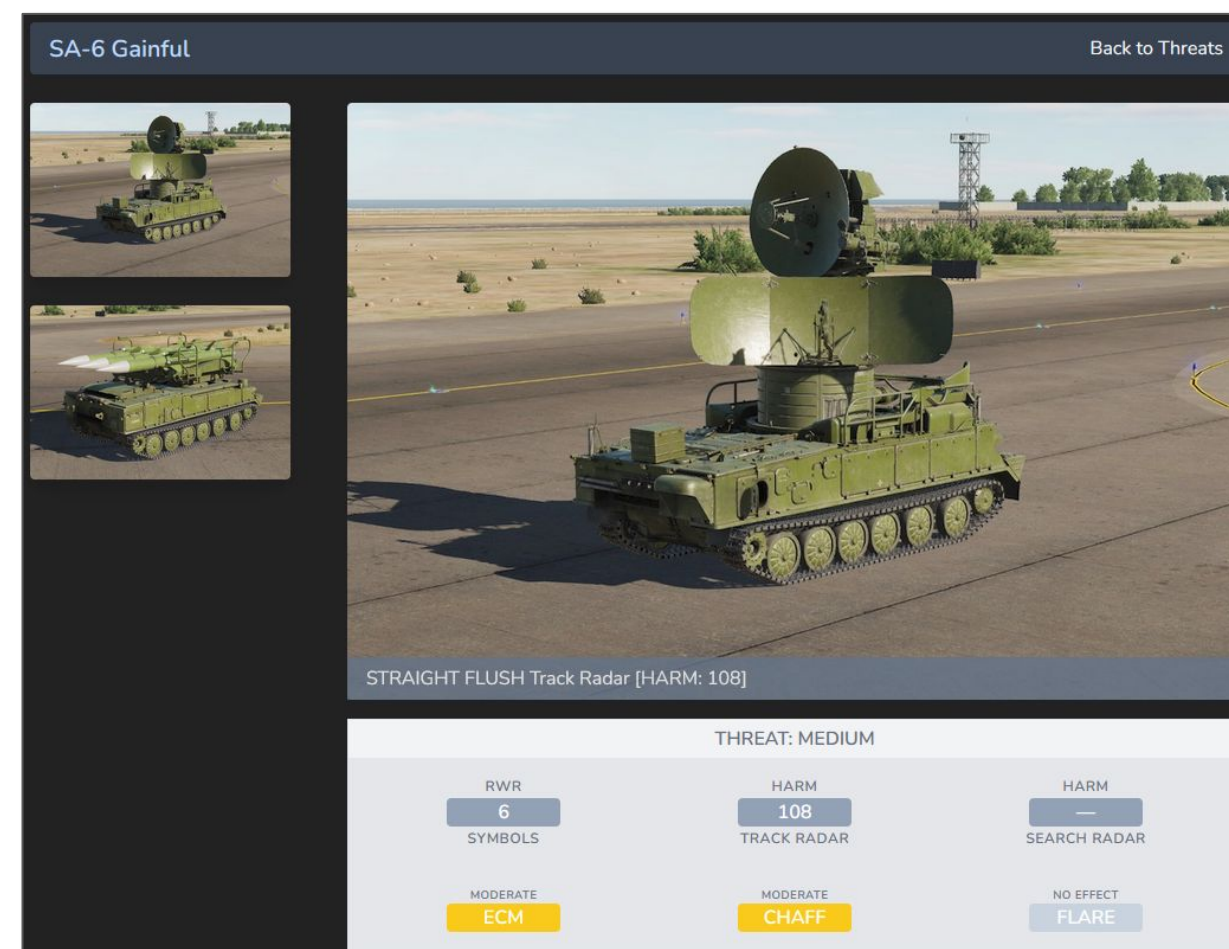
## SA-5 Gammon

**Max. Range:**  $\approx 150$  Nm (non-maneuvering) /  $\approx 75$  Nm (fighters).

**Max. Altitude:** Unlimited.

**Tactical balance:**

- + Max. Range
- + Early Warning capability
- Single target
- Poor in low level ( $<5.000'$ )
- Fixed
- Slow to relocate



## SA-6 Gainful

**Max. Range:**  $\approx 20$  Nm

**Max. Altitude:**  $\approx$  FL400

**Tactical balance:**

- + Mobile
- + Number of missiles (3/launcher)
- Single target
- Reactivity if autonomous ( $\approx 30''$ )





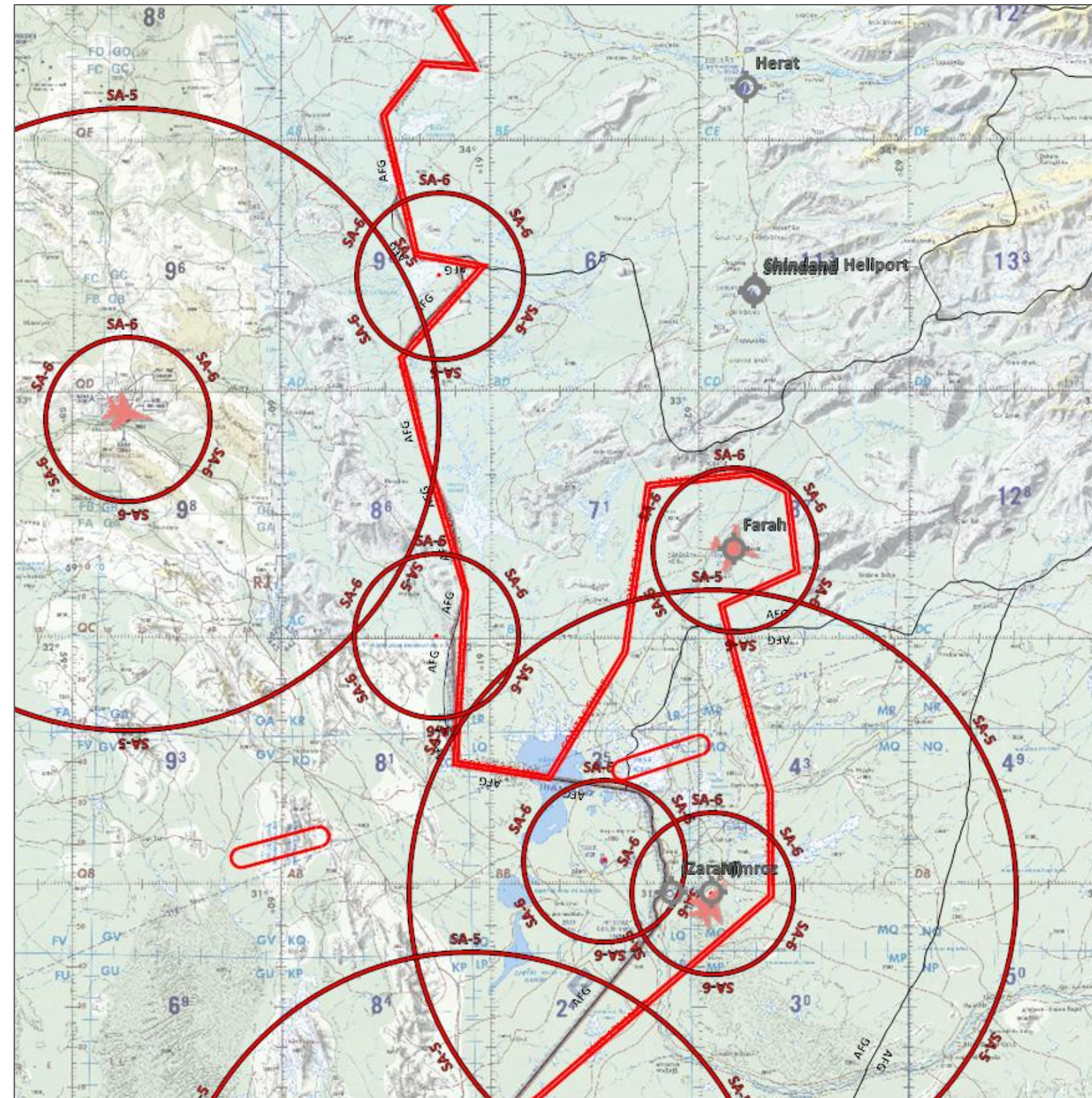
# A/A THREAT

## A/A order of Battle:

- Zaranj: 4 x MiG-29A observed for over a week
- Birjand: 20 x MiG-29A - permanent squadron.
- Farah: 4 x Su-25 observed 48H ago.

## Likely Engagement Tactics:

- Combat Air Patrol (CAP) missions are conducted in pairs, and are regularly operating mid-way between Farah and Zaranj to provide air defense coverage.
- Rear CAP have also been observed, covering the gap between SA-5 sites in Iran.
- Quick Reaction Alert (QRA) single ship launches are observed, with a typical response time of 5-7 minutes.
- Expect aggressive intercepts and engagements from MiG-29As. They will use their medium range missiles to force early defensive actions but won't hesitate to utilize their close-in maneuverability.
- Ground-Controlled Intercept (GCI) support is provided. Expect vectoring and target information from ground-based radar sites. Unknown maximum coverage to the East.
- Expect JEZ operations within SA-5 coverage.





# A/A THREAT



## MiG-29A

**Standard Weapons Load:** 0/4/2+ or 0/2/4+

- R-27R AA-10A Alamo 0.25-20 Nm SARH
- R-27T AA-10B Alamo 0.25-18 Nm IR
- R-60 AA-8 Aphid 0.25-3 Nm IR

### **Tactical balance:**

- + Manoeuvrability, in particular low speed
- + Number of missiles
- + GCI and JEZ operations (work within SA-5 coverage)
- Poor look-down/shoot-down
- Limited playtime





# FRIENDLY SITUATION

## **Overview:**

Coalition forces are operating from newly established airfields and forward operating bases within the region, aiming to counter Iranian aggression and disrupt their operational capabilities. The allied disposition highlights a defensive posture, focused on protecting key assets and providing basic air support for strike operations.

## **Airfields:**

- Kandahar serves as the primary operating base, providing full support for allied air operations.
- Camp Bastion is available as a secondary, emergency airfield, offering limited ground support.
- Dwyer runway is currently unserviceable.

## **Surface-to-Air Defense:**

- Coalition forces have established a basic SAM defense network, deploying Hawk SAM batteries.
- Hawk sites are located at Kandahar, Camp Bastion, and Dwyer, providing medium-range, medium-altitude coverage over these critical locations.
- Very limited coordination with SAM sites: avoid low level / high speed operations within allied SAM range.

## **Air-to-Air Defense:**

- 8 x F-15C Eagles are deployed at Kandahar to maintain air superiority. SCL: 0/4/4+

## **Lateral support:**

- No AWACS, no AAR, no GCI.



# FRIENDLY SITUATION

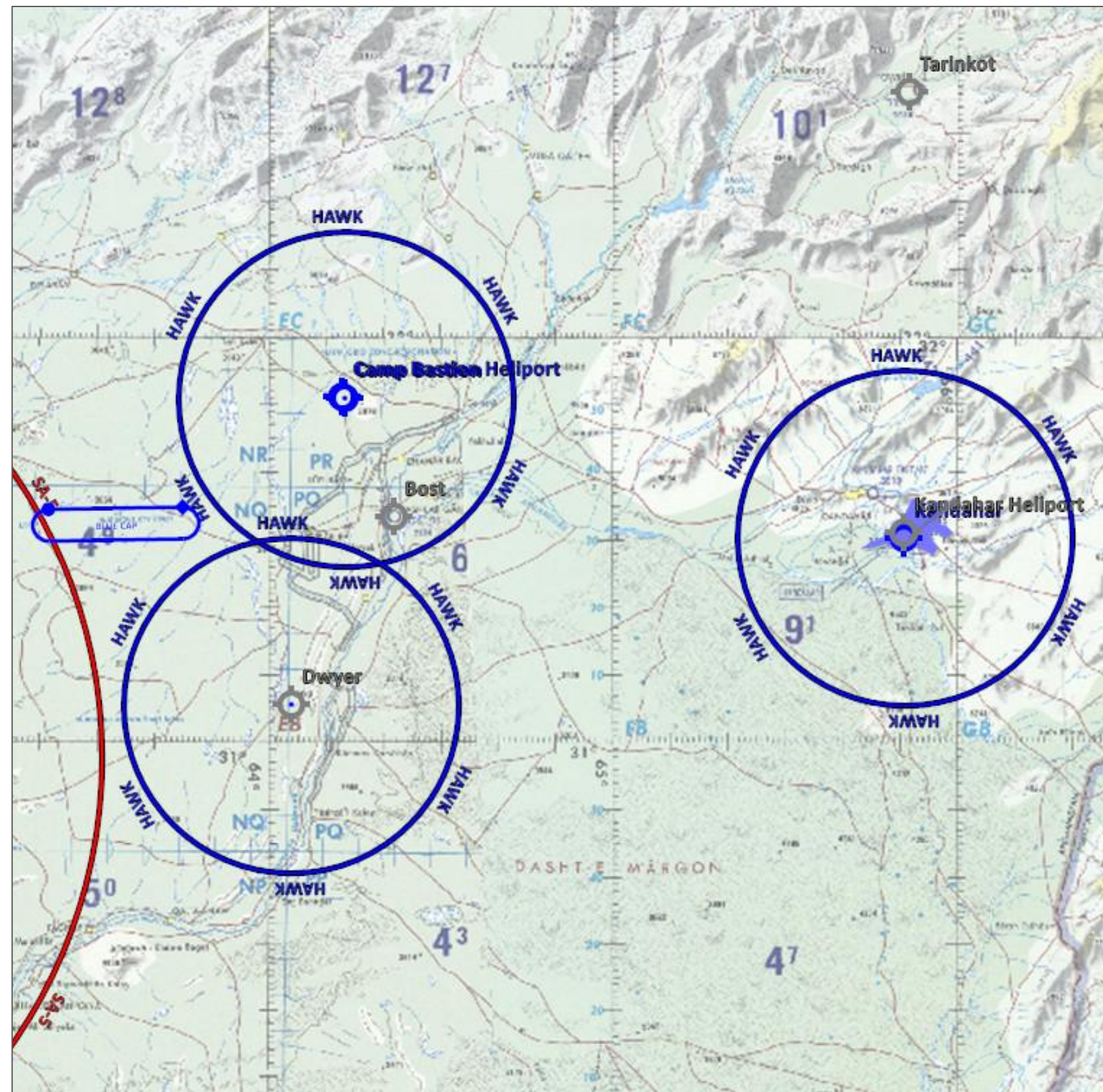
Allied forces are capable of defending their key locations against air threats, thanks to the Hawk deployments.

The F-15C aircraft provide a nearly continuous air to air presence.

Strike aircraft operating in the area will rely on their own onboard sensors and weapons, as there is no external support.

A CAP orbit (CAP Alpha) is placed between Camp Bastion and Dwyer to prevent any Iranian air activity East of  $64^{\circ}00'$ . They will be able to engage any threat in medium or high altitude, but will have limited ability to help in case you are intercepted in low level, especially over Farah.

Note that the Afghan Air Force has several MiG-21 deployed at Kandahar and they may be operating in the area. There virtually no coordination with them. We don't know where they are, and we don't know what they do...







# TASKING

## Objective:

Inflict maximum damages to the Farah Airport runway to prevent Iranian Su-25 aircraft from conducting flight operations for a period of 48 hours.

## Available means:

2 x strike aircraft of your choice with the best available anti-runway ordnance. Cf. next page for loadouts.

## Desired Mean Points of Impact List:

- DMPI 1: Intersection of Farah Airport runway and main apron, approximately 2500 feet from the runway's western end.
- DMPI 2: Location approximately 2500 feet from the runway's eastern end.

## Desired Effects:

- Create multiple runway cuts at DMPI 1 and DMPI 2 to render the runway unusable for Su-25 operations.
- Ensure that no section of the runway remains with a continuous 70x3000 ft surface, which is the minimum required for Su-25 takeoffs and landings.

Note: for single player, a single runway cut at DMPI 1 is considered successful.

## Communications

- Kandahar Tower: 125.500 / 360.200 MHz
- CAP/STRIKE Coordination: 361.200 MHz

## Time Coordination: (LOCAL time)

- |                                   |  |
|-----------------------------------|--|
| • CAP:                            | • STRIKE:                                |
| ◦ 2 x F-15C - C/S: ENFIELD 41     | ◦ 1 or 2 x ACFT - C/S: SPRINGFIELD 51    |
| ◦ TAXI - 07:46                    | ◦ TAXI - 07:46                           |
| ◦ T/O - OAKN - 07:50              | ◦ T/O - OAKN - 07:52                     |
| ◦ DCA - CAP ALPHA - [08:00-08:40] | ◦ <b>TOT - FARAH RWY - [08:19-08:21]</b> |
| ◦ L/D - OAKN - 09:00              | ◦ L/D - OAKN - 08:55                     |



# LOADOUTS

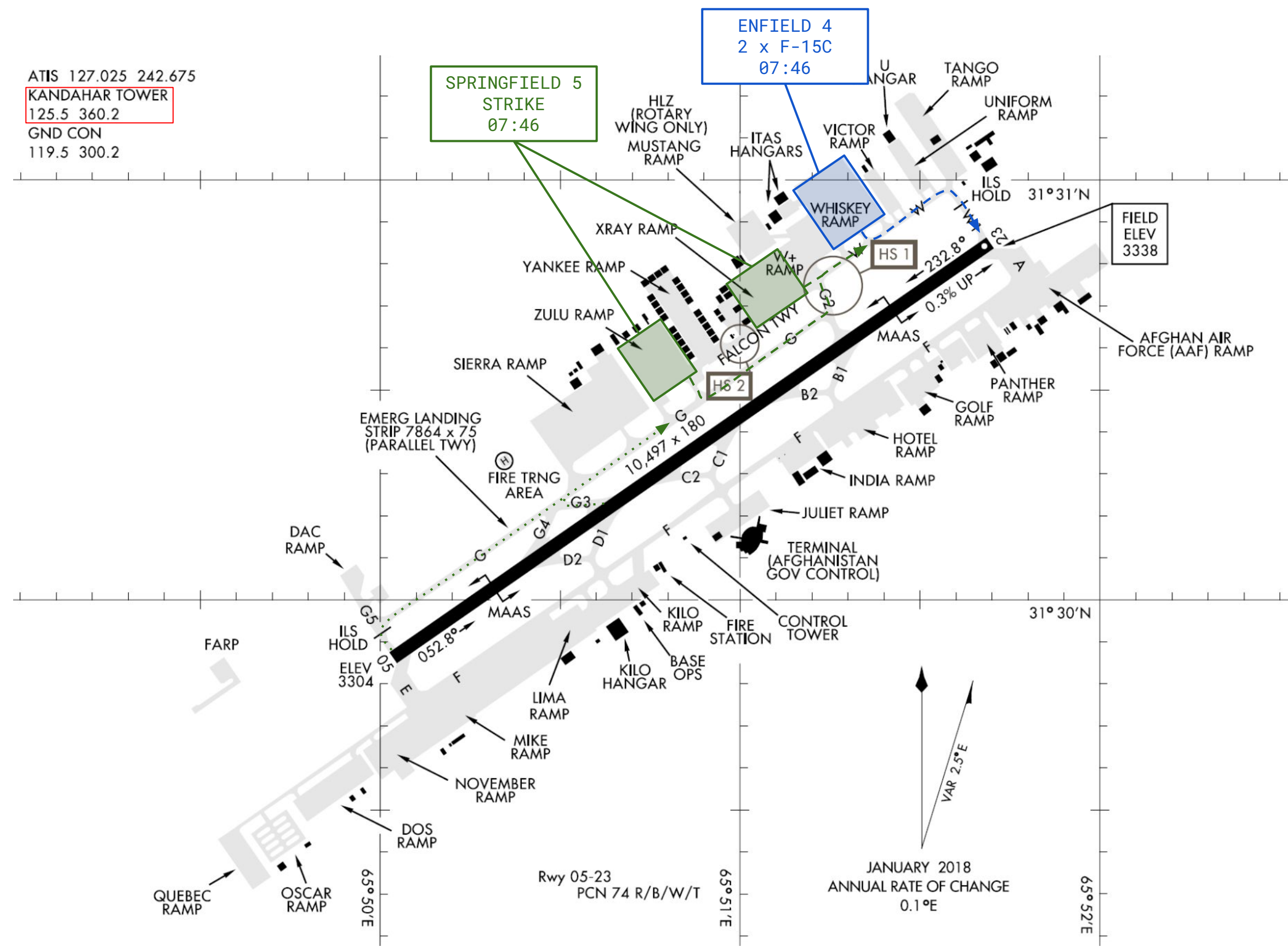
Aircraft Type	Fuel Tanks	A/G Loadout	A/A Loadout
F-4E	2	12 x BLU-107	0/0/2+
F-5E	2	7 x Mk-82SE	0/0/2+
F-14B	2	8 x Mk-82SE	0/0/2+
F-15E	1	12 x BLU-107	0/0/2+
F-16C	1	12 x Mk-82SE	0/0/2+
F/A-18C	1	8 x Mk-82SE	0/0/2+
A-10C	0	12 x Mk-82AB	0/0/2+
M-2000C	2	18 x BAP-100	0/0/2+
M-F1-CE	2	6 x BLU-107	0/0/2+
M-F1-EE	2	6 x BLU-107	0/0/2+
AJS-37	1	16 x SB71HD	0/0/2+
JF-17	1	6 x Type 200A	0/0/2+
AV-8B	0	8 x Mk-82SE	0/0/2+

Note: fuel 100%, chaffs and flares available for all aircraft.



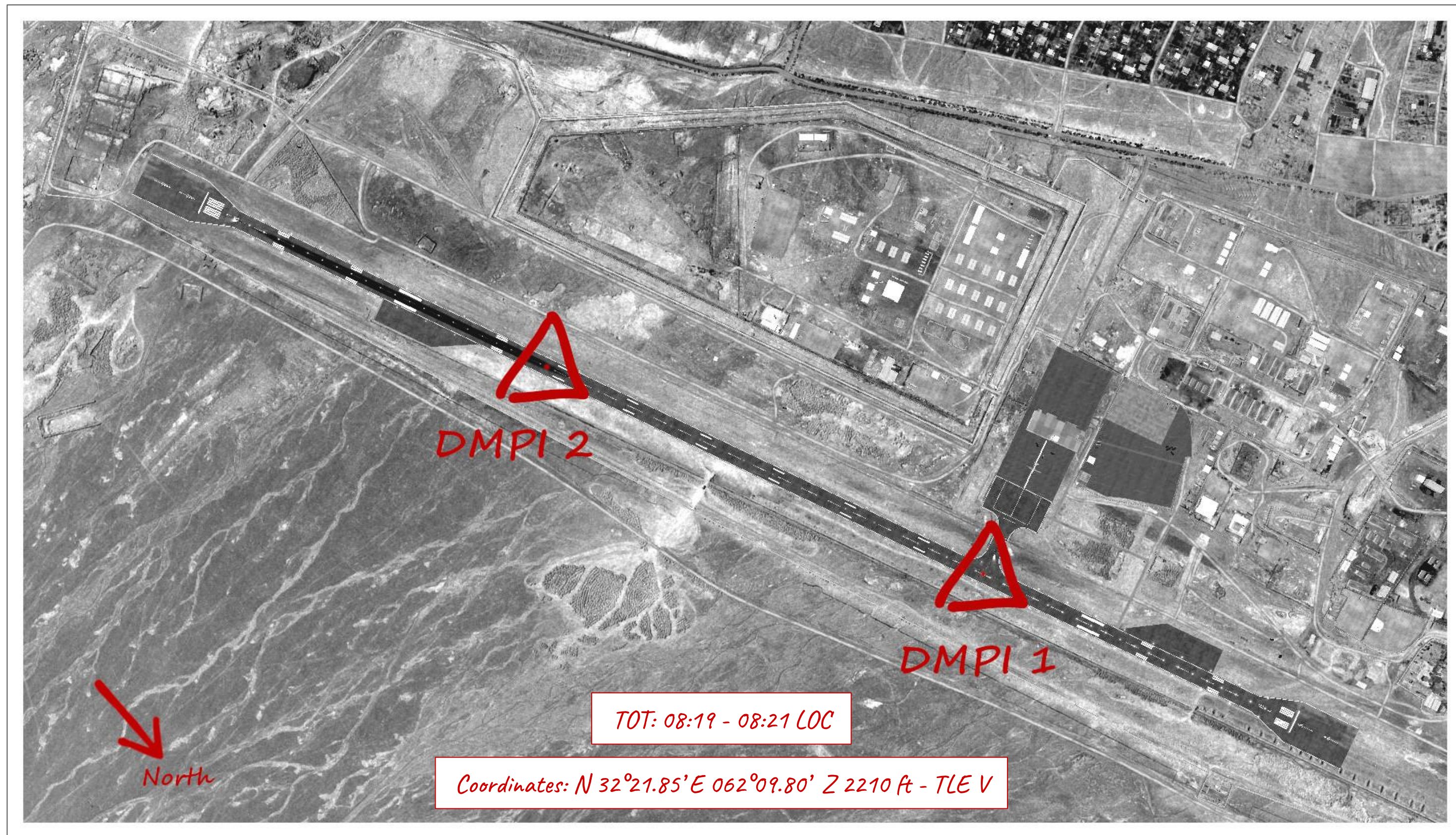


# TAXI PLAN





# TARGET DETAILS







# TARGET DETAILS

*Coordinates: N 32°21.85' E 062°09.80' Z 2210 ft - TLE V*

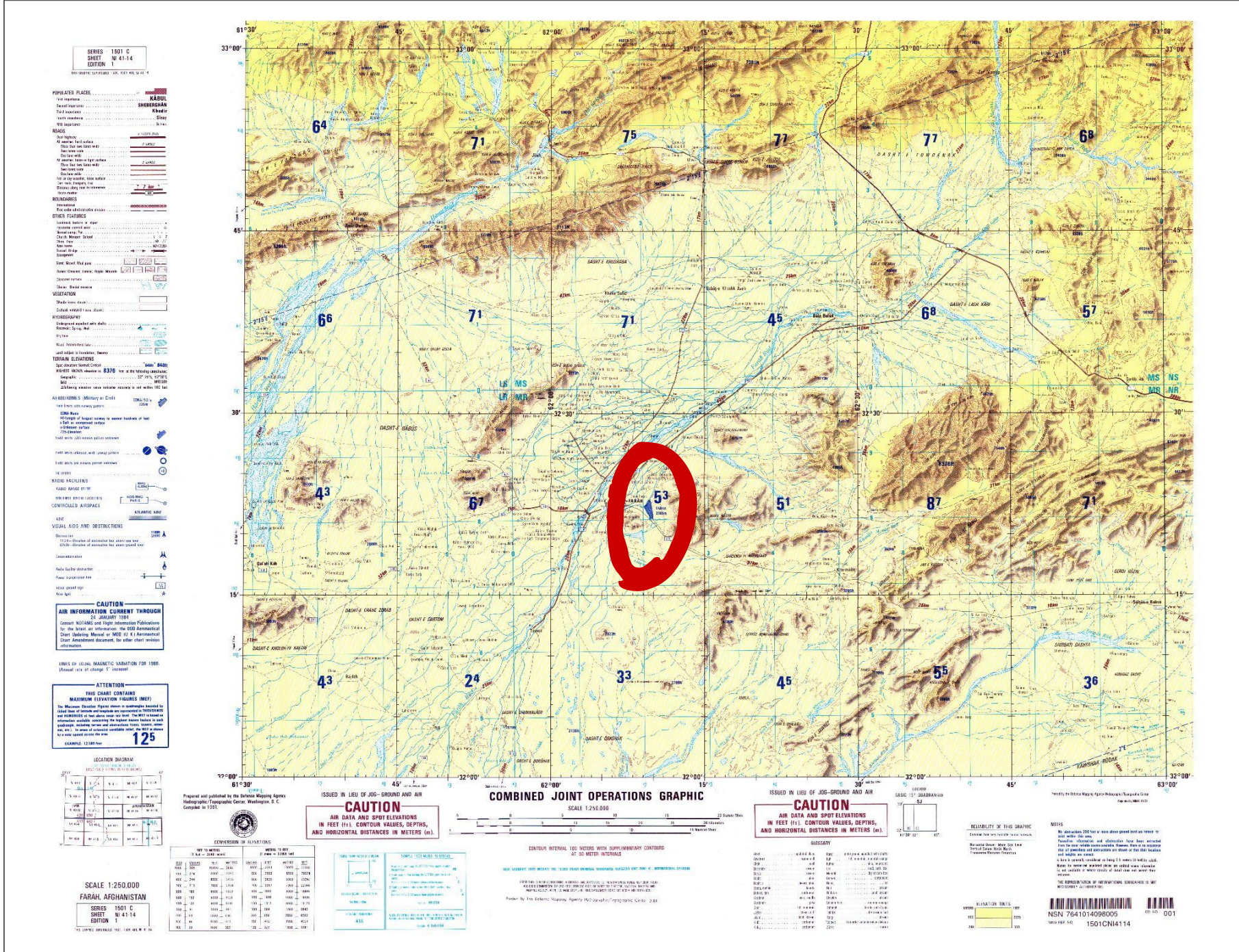
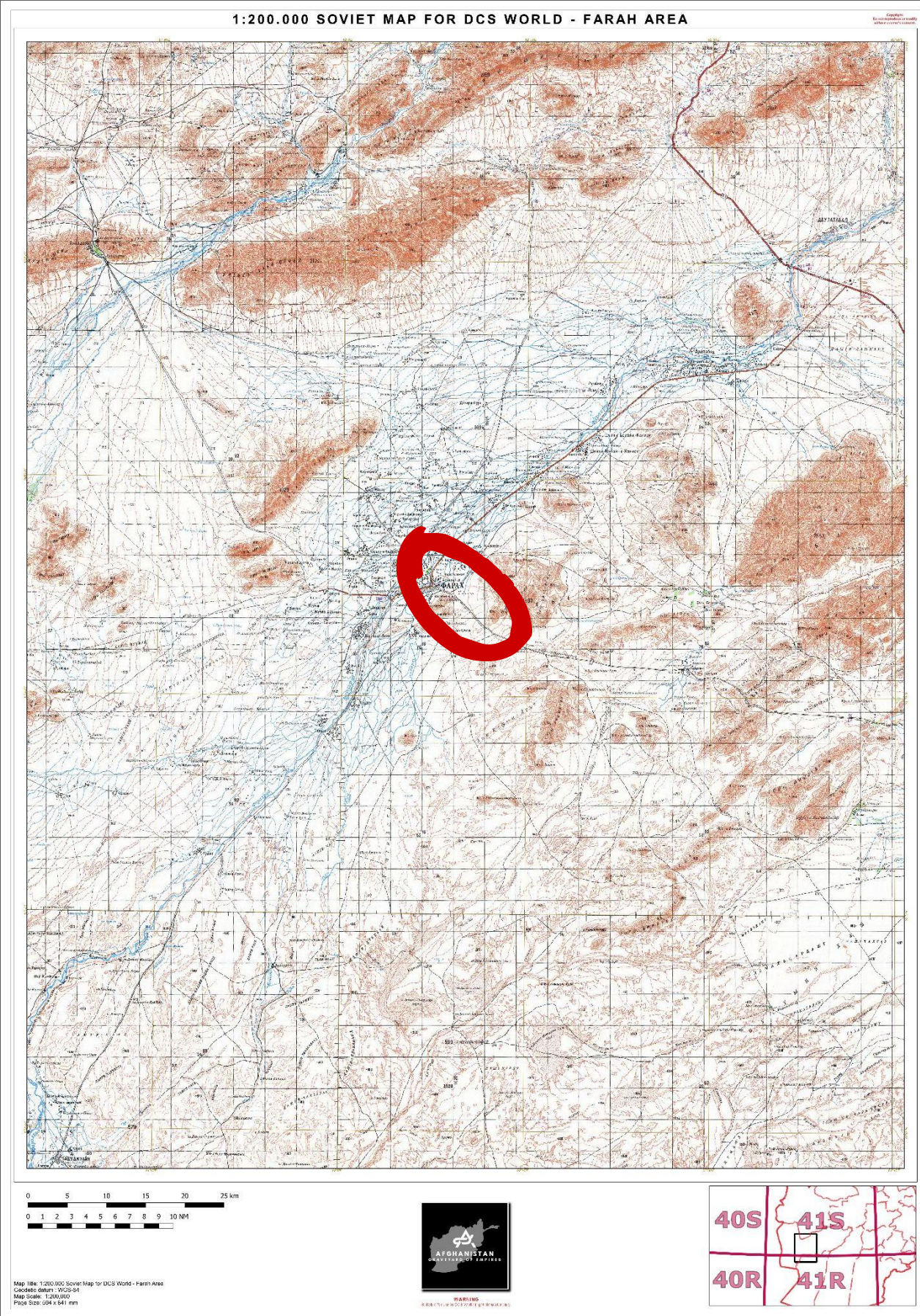
*TOT: 08:19 - 08:21 LOC*







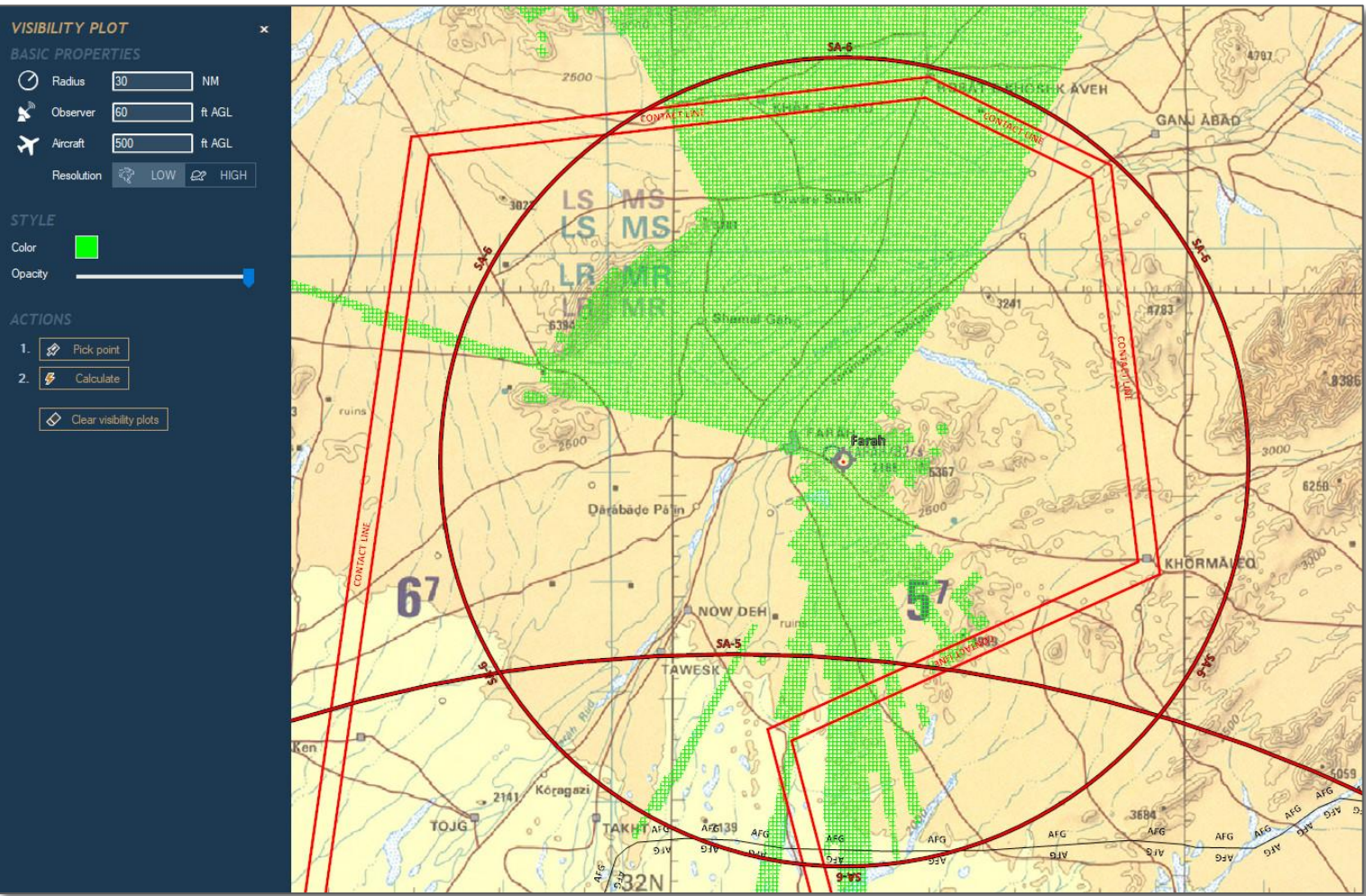
# TARGET DETAILS



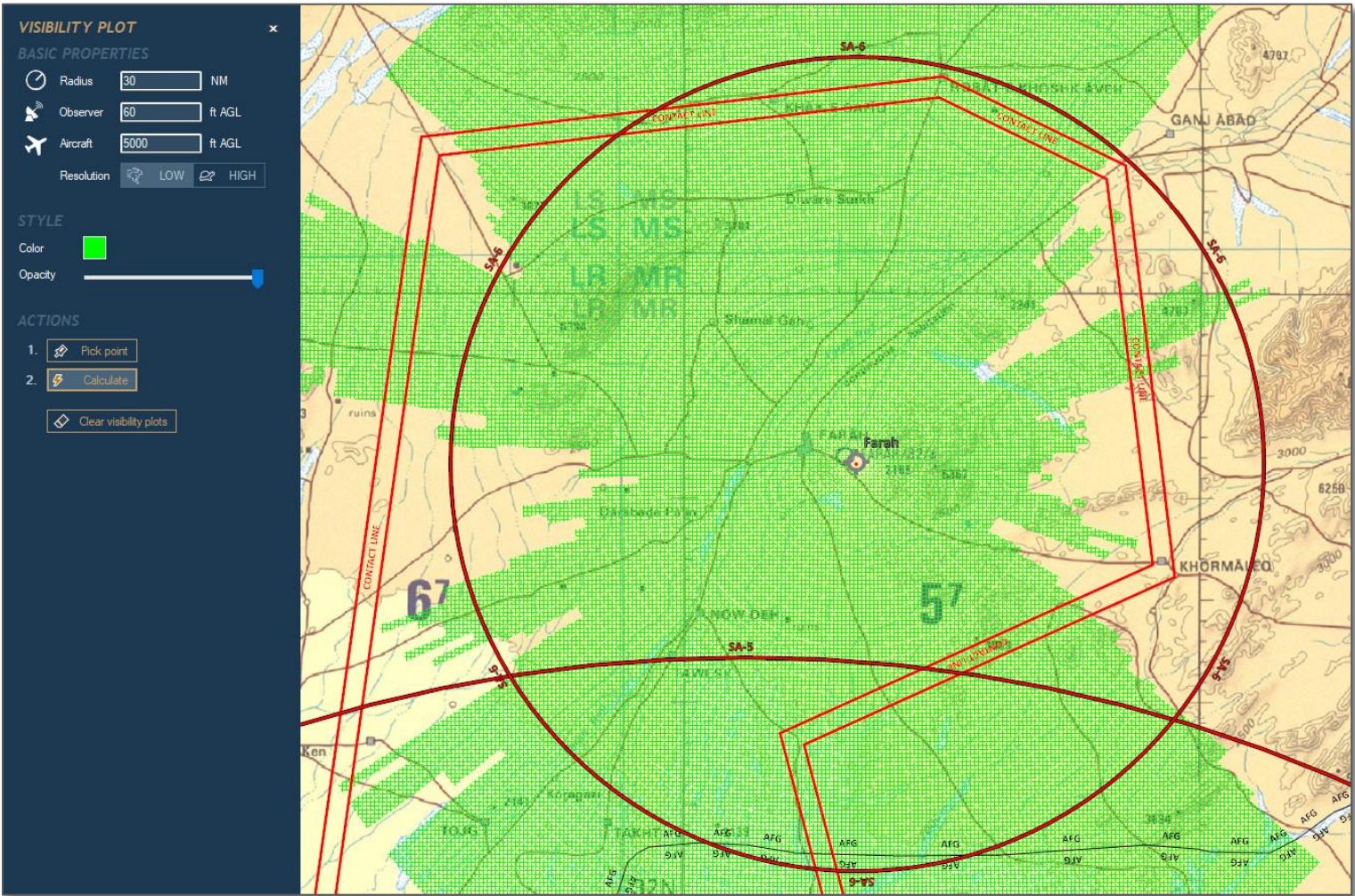




# TARGET DETAILS



Low Altitude Intervisibility (500' AGL)



Medium Altitude Intervisibility (5,000' AGL)





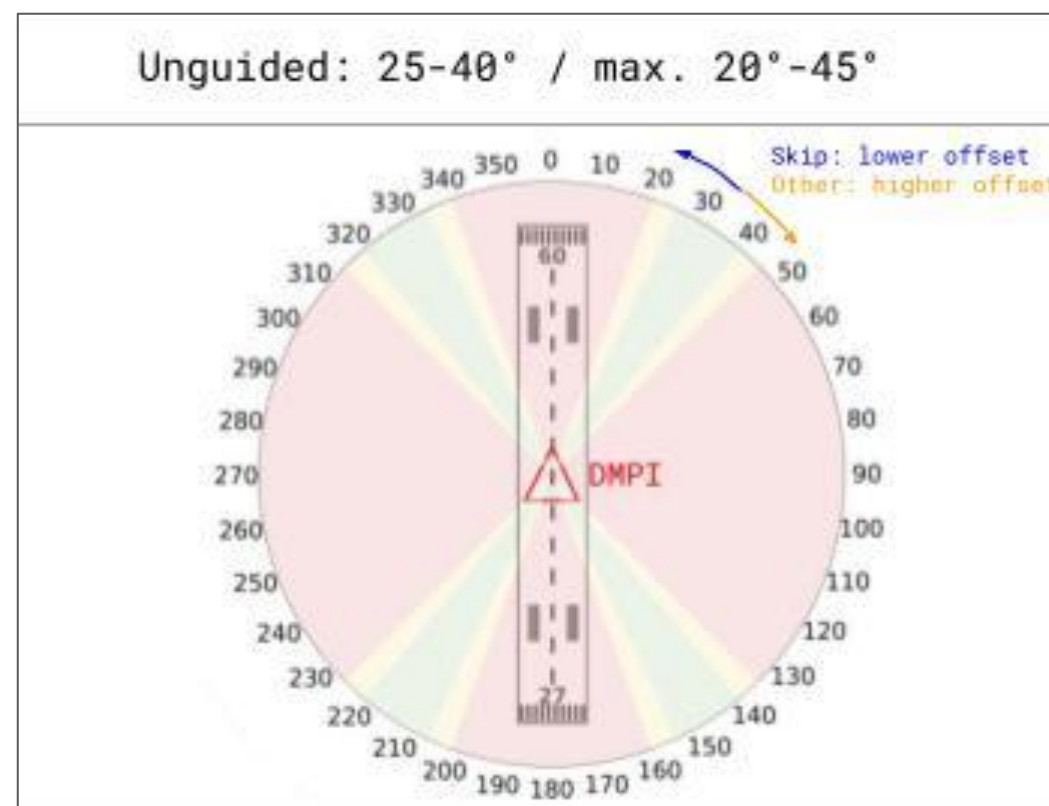
# TARGET DETAILS

## Tactical Advice for Effective Runway Denial

[As discussed here and in the following posts](#), achieving runway denial requires a meticulously planned and executed approach. One prevalent mistake is attacking parallel to the runway. This method drastically increases the risk of all bombs landing off-target due to inherent aiming errors, leaving the runway intact. Instead, pilots should avoid both strictly parallel and perpendicular attack angles. The optimal strategy lies in utilizing an oblique attack angle, which maximizes the chance of hitting the runway despite inevitable inaccuracies.

Beyond attack angles, the calculation of bomb intervals is paramount. Bombs dropped too close together waste ordnance, creating overlapping craters that do not significantly increase the damaged area. Conversely, bombs spaced too far apart leave gaps that allow continued aircraft operations. Pilots must strike a balance, ensuring that at least two or three bombs reliably crater the intended section.

Aiming errors, stemming from crosswind drift, height vs. piper depression, parallax, and bomb ballistics, are unavoidable. Effective pilots plan for these errors rather than assuming perfect accuracy. In multi-aircraft attacks, coordination is key. Avoid dropping bombs in the same area, ensure proper timing and spacing to prevent damage from bomb fragments, and deconflict attack runs to avoid interference.







# RULES OF ENGAGEMENT

## Use of Force:

- Use of necessary force against IRN air and ground forces in AFG is authorized.
- Use of necessary force against infrastructures in AFG is authorized only on designated target areas.
- Use of force in IRN is NOT authorized.
- Operating outside of the AFG airspace is NOT authorized.

## A/A Weapons Employment:

- VID is mandatory before any A/A ordnance employment. Civilian Air Traffic and Afghan Air Force may be operating in the area.

## A/G Weapons Employment:

- VID of ground targets is mandatory before weapons release.
- Choose final attack headings so as to minimize risks of collateral damage to civilian infrastructure and personnel in case of system or weapon malfunction.

## Self-Defense:

- None of the rules above should prevent you from employing necessary force in self-defense.



# MISSION DESIGN TIPS

## Synchronization with Enfield 4:

1. Make sure that you give way to the two F-15C on the ground. If you start taxiing at 07:46 as assigned, you'll be fine.
2. Check that your CAP is on station before pushing towards target area. They will give you a call on 361.200 Mhz (preset 2) when they are ready, around 08:00.
3. Once the CAP is on station, you'll have a new command in the F10 menu: you can ask for [DELOUSE](#) if you think that you are being engaged by an air threat that you cannot take care of by yourself. They'll do their best to support you.
4. If the fight is not going well for the CAP, they'll try to keep you posted.
5. A QRA is ready to supplement the CAP in case things turn bad. They are on a 5 minute duty.

## TOT Window:

1. You will have regular calls to remind you to check your timing.
2. There's no consequence if you cannot make it in your time slot, it's just a nice time management exercise!





# DOCUMENTS

The following documents are available for download [here](#) to support your planning and debriefing process:

## **Target Pictures:**

- Vertical photograph of Farah Airport with DMPs.
- Oblique photograph of Farah Airport.

## **Maps:**

- 1:200,000 scale Russian topographical map of the Farah area: provides detailed terrain and elevation data.
- 1:250,000 scale US JOG-A map of the Farah area: offers a tactical overview of the region, including key landmarks.
- 1:500,000 scale US TPC map of Southwest Afghanistan: provides a broader regional overview, useful for visual navigation planning.

## **CombatFlite materials:**

- .mbtiles map: digital map of the operational area in .mbtiles format, compatible with CombatFlite, for enhanced navigation and situational awareness.
- .cf overlay: CombatFlite overlay file depicting friendly and enemy S/A and A/A layouts, providing critical threat information for mission planning and execution.

More details on how to set-up a new theater for CombatFlite and additional maps [are available here](#) (Kola, Iraq, etc...)

## **Tacview Overlay:**

- .xml file with the border / line of contact and the precise location of DMPI 1 and DMPI 2, to be merged with the .acmi track for flight debrief.