

79th FS

*CPT. D WILSON*

---

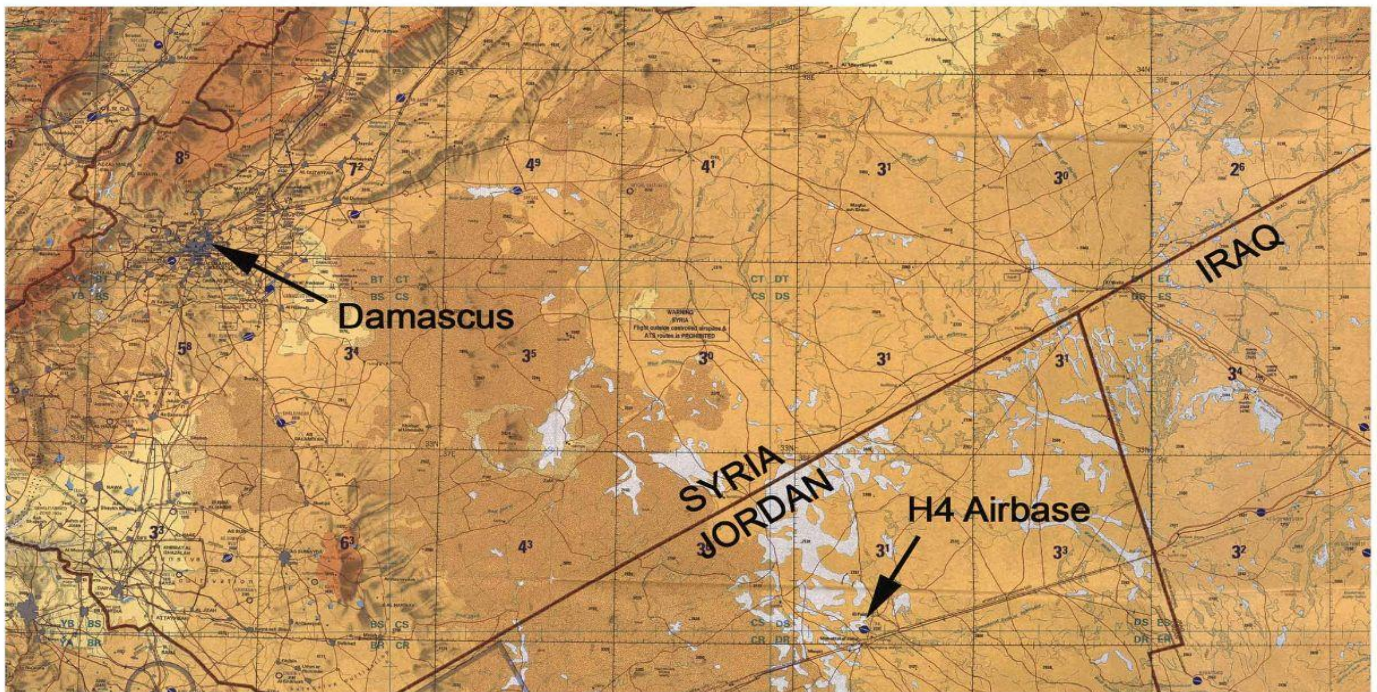
SPINS  
Covering  
H4 Airbase  
& the STO

---

# 79th FS

## H4 Airbase:

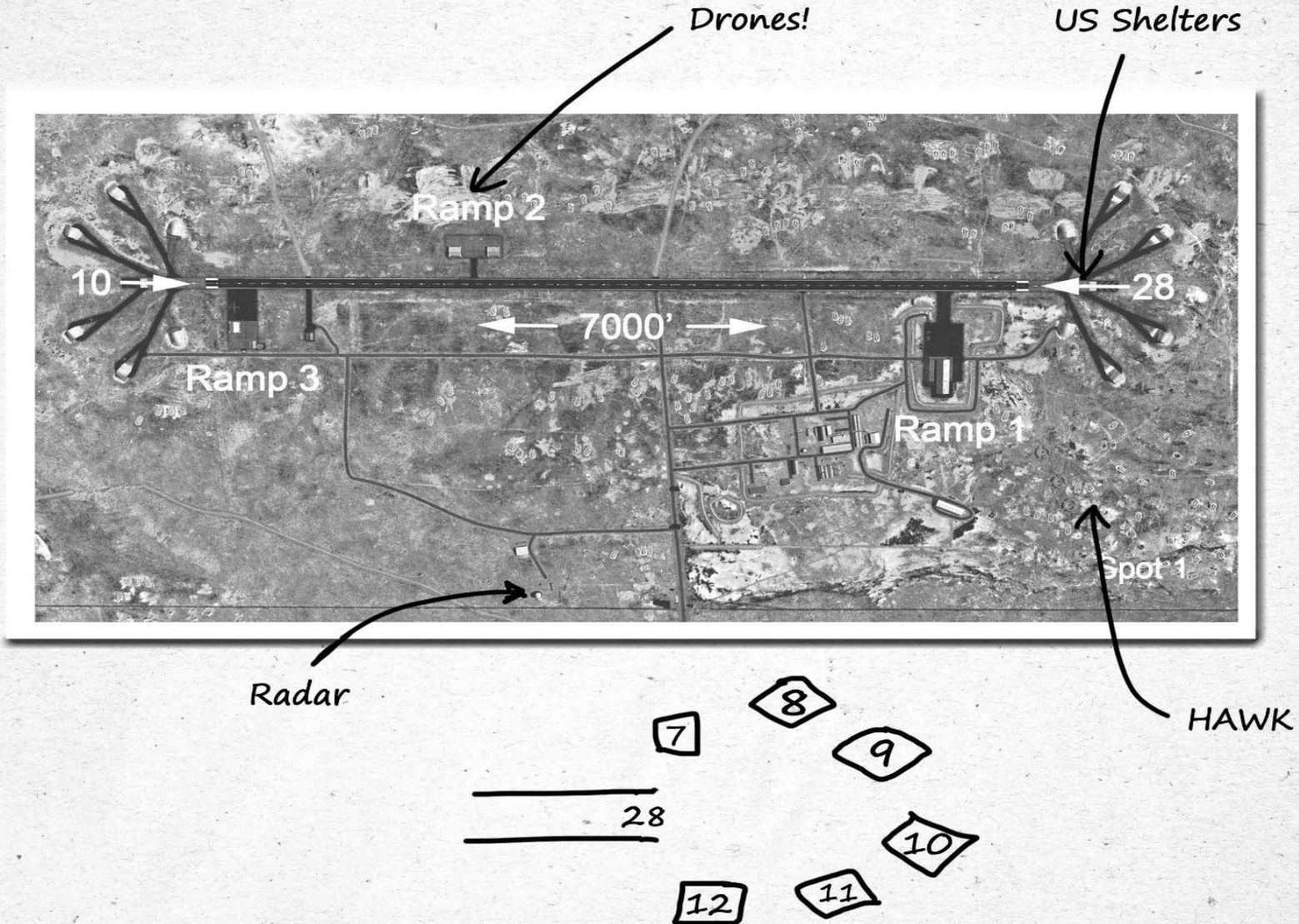
H4 is a Jordanian Air Force Base located approximately 30 miles from the Syrian border. It lies around 1.5 miles north of the town of Ruwaished, originally placed in a strategic location to support the oil pumping station on the Mosul to Haifa pipeline. The base is Jordanian owned and operated, although a limited contingent of US aircraft and personnel have been deployed to the base. This US presence is not being publicized due to Jordanian concerns about retaliation from both Syria and extremist elements linked with the SIA.



# 79th FS

## H4 Airbase:

H4 is located at N32° 32' 21", E38° 11' 45". Field elevation is 2257 feet MSL. The single runway is 7000 feet in length and 100 feet wide, runway headings are 283 and 103. H4 is a relatively austere field, lacking a lot of facilities - including PAPI lights and ILS. However a TACAN beacon has been installed at the field, operating on channel 125X.



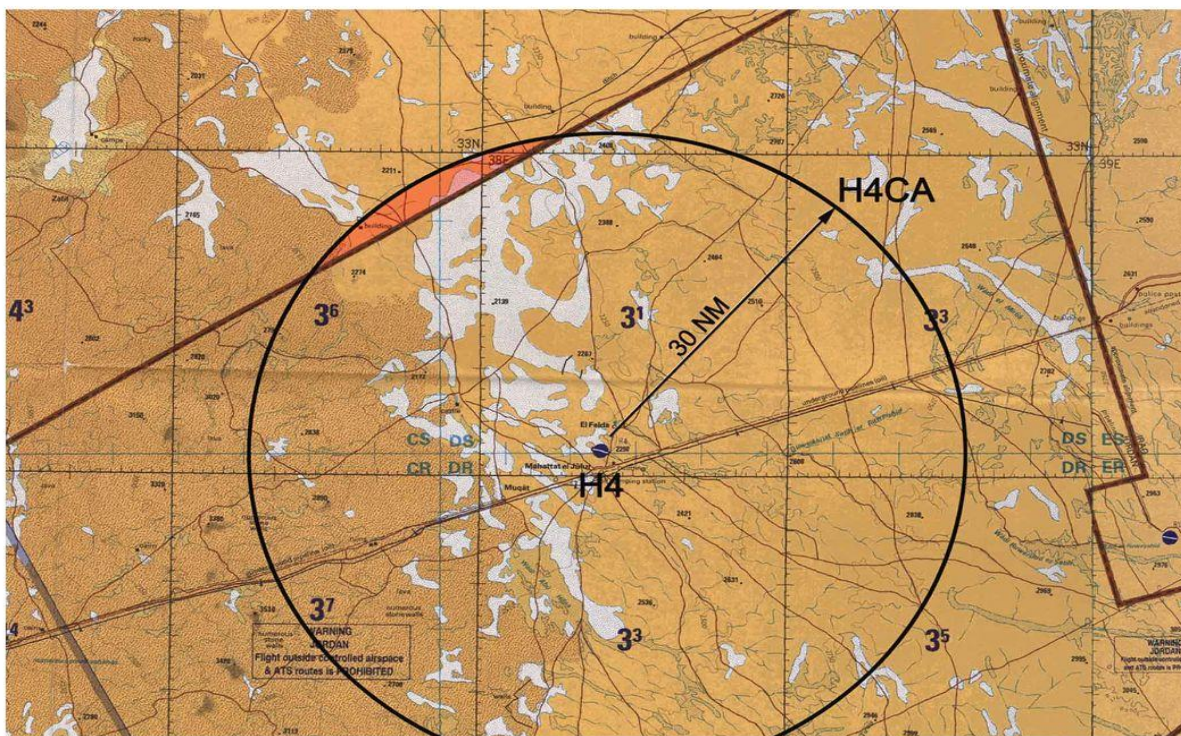
H4 contains 12 hardened shelters, 6 at the east end of the base, 6 at the west. The shelters are connected directly to the runway via short taxiways 45 feet in width. The 79th FS has been assigned the 6 shelters at the east end of the base (Spots 7-12). The base also contains 3 small ramps (Ramp 1, Ramp 2, Ramp 3). H4 houses part of Jordan's air defense network and is equipped with an AN/FPS-117 EW radar and a HAWK battery.

# 79th FS

## H4 ATC & Controlled Airspace:

H4 Air Traffic Control is manned by Jordanian Air Force Personnel. The base operates a number of controlling agencies for aircraft movement around the airbase and airspace. H4 Ground controls the movement of aircraft on taxiways and ramps. H4 Tower is responsible for the runway and all airspace within 5 nm of H4 between GL and 5,000 feet MSL.

H4 RAPCON (radar approach control) departure, approach and arrival are responsible for the H4CA (H4 Controlled Airspace). The H4CA extends 30 nm out from the base, up to 20,000 feet MSL, excluding the area of airspace that falls into Syria. Aircraft must maintain constant communication with the relevant controlling agency when within their area of responsibility.



### ATC FREQS:

H4 GROUND - 116.350

H4 TOWER - 117.500

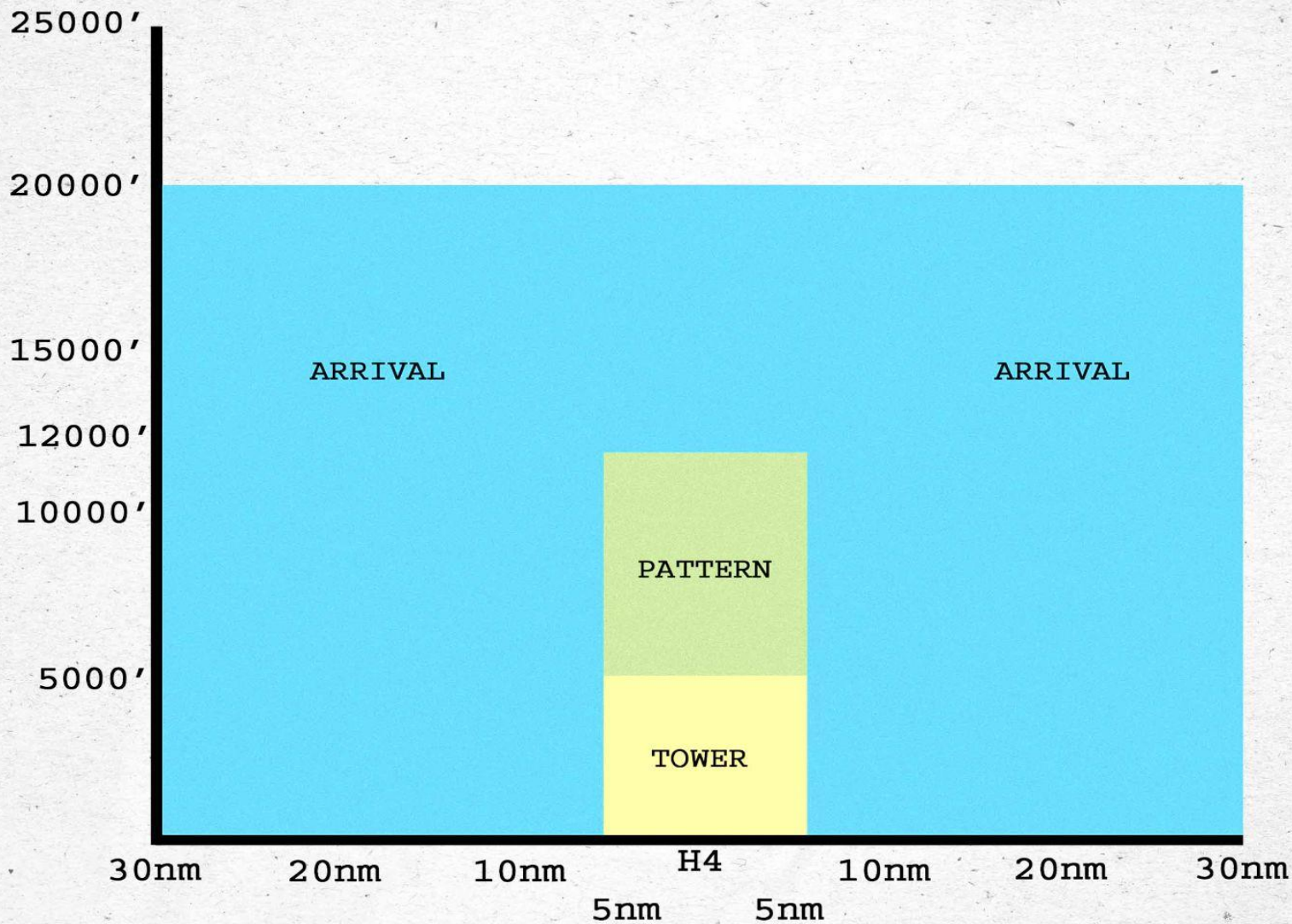
H4 DEPARTURE - 117.250

H4 APPROACH - 118.100

H4 ARRIVAL - 118.600

# 79th FS

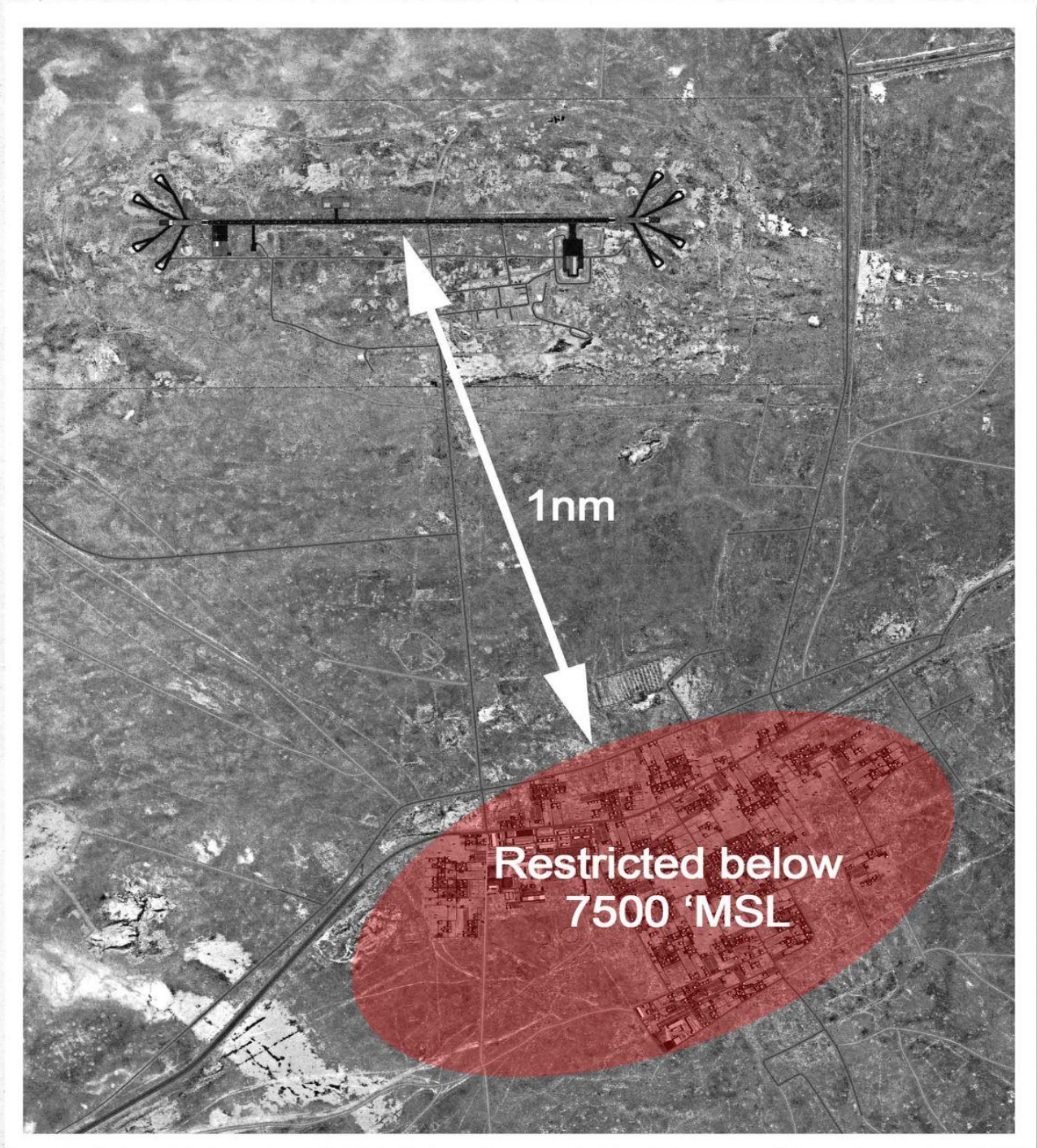
## H4 AIRSPACE:



# 79th FS

## Restricted Airspace:

Most of the area surrounding H4 is flat, featureless desert, meaning few flight restrictions are in place around the base. The only restriction that has been implemented is above the town of Ruwaished. Here aircraft are not permitted to fly below 7500 feet MSL over the town due to noise concerns.



# 79th FS

## Ground Procedures:

Aircraft movement around H4 is the responsibility of H4 Ground Control. Aircraft must request clearance to taxi before departing their parking location. Once cleared to taxi, aircraft will proceed directly to the runway, stopping at the runway entrance. Aircraft must not enter the runway without clearance from H4 Tower. There is no common hold short point for the taxiways at H4, each taxiway leads directly onto the runway.



## Takeoff Procedures:

Once aircraft are positioned short of the runway they will contact H4 Tower and request takeoff clearance. Once cleared aircraft will enter the runway and takeoff. If aircraft are required to takeoff from the opposite end of the runway they will be required to taxi the length of the runway and use the opposing taxiways to turn the aircraft around.

# 79th FS

## Departure Procedures:

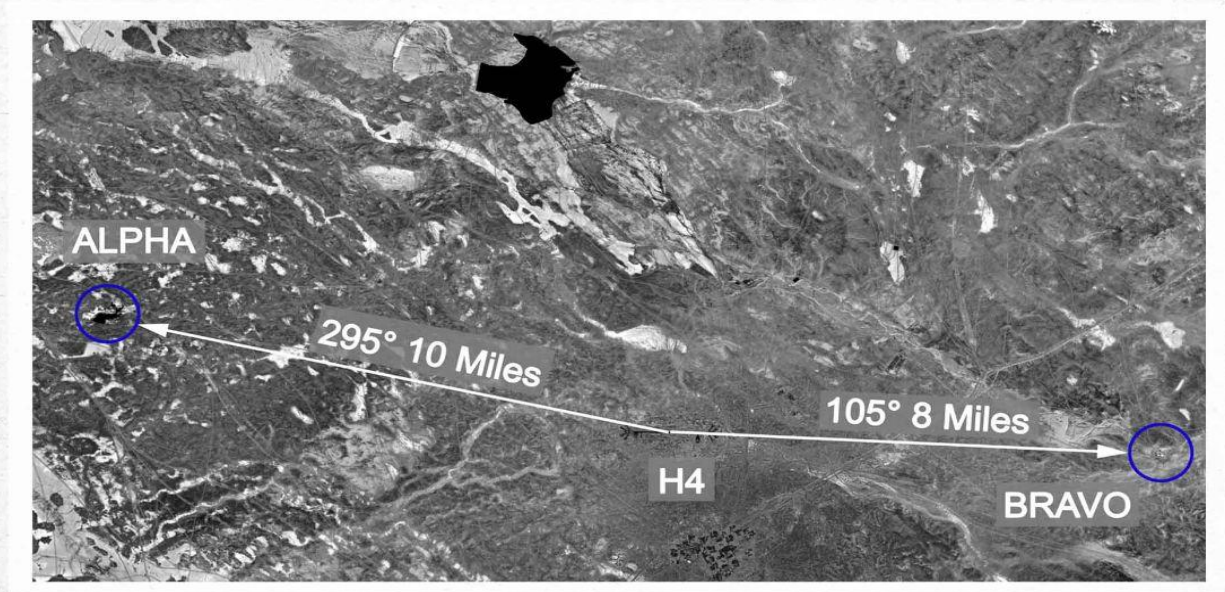
Once airborne, aircraft must stay below 4000 feet MSL until 5 nm away from H4, this will ensure deconfliction from the overhead pattern. Once clear of Tower airspace (5 nm), aircraft will contact H4 Departure, who will safely vector the aircraft out of H4CA. Once clear of H4CA, H4 Departure will hand off the aircraft to theater-wide controlling agencies.

## Approach Procedures:

Aircraft returning to H4CA must declare themselves as inbound to H4 Approach prior to arriving at the 30 nm boundary of controlled airspace.

## Arrival Procedures:

Upon arrival at the 30nm boundary of H4CA, aircraft must declare themselves to H4 Arrival. H4 Arrival will then assign the aircraft an approach for the H4 pattern. Approach Alpha uses the wind farm (bearing 295, 10 miles from H4 TACAN) as it's initial point. Approach Bravo uses the shale oil plant (bearing 105, 8 miles from H4 TACAN) as it's initial point. Aircraft will maintain their assigned altitude and proceed to the assigned initial point, upon arrival at Alpha or Bravo the aircraft will be assigned a pattern altitude.

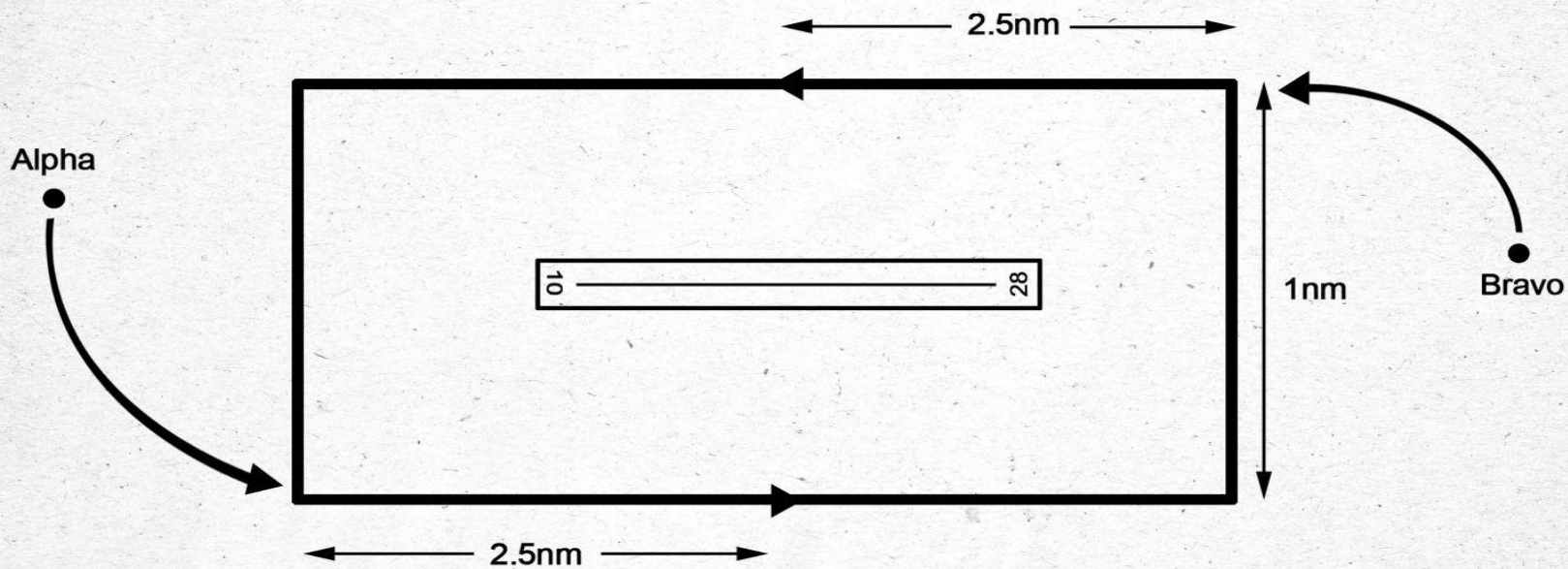




# 79th FS

## H4 Pattern:

The overhead pattern at H4 covers airspace ranging from 5,000 feet MSL to 12,000 feet MSL, within a 5 nm radius of the base. The pattern runs in an anticlockwise direction, with the upwind and downwind legs extending 2.5nm east and west of the base for a total length of 5nm. Once directed to enter the pattern at a specified altitude by H4 Arrival, aircraft must maintain this altitude in the pattern until directed otherwise. Once the runway is available, H4 Arrival will hand the aircraft over to H4 Tower.



AVOID  
RUWAISHED - RESTRICTED  
BELOW 7500 'MSL

# 79th FS

## Landing Procedures:

Once instructed to depart the pattern by H4 Arrival, aircraft will switch to H4 Tower and request final landing clearance. Once confirmation is given by the tower aircraft will execute a final approach and landing.

## Emergency Procedures:

In the event of an emergency situation, aircraft should contact H4 Emergency for an immediate straight in landing.

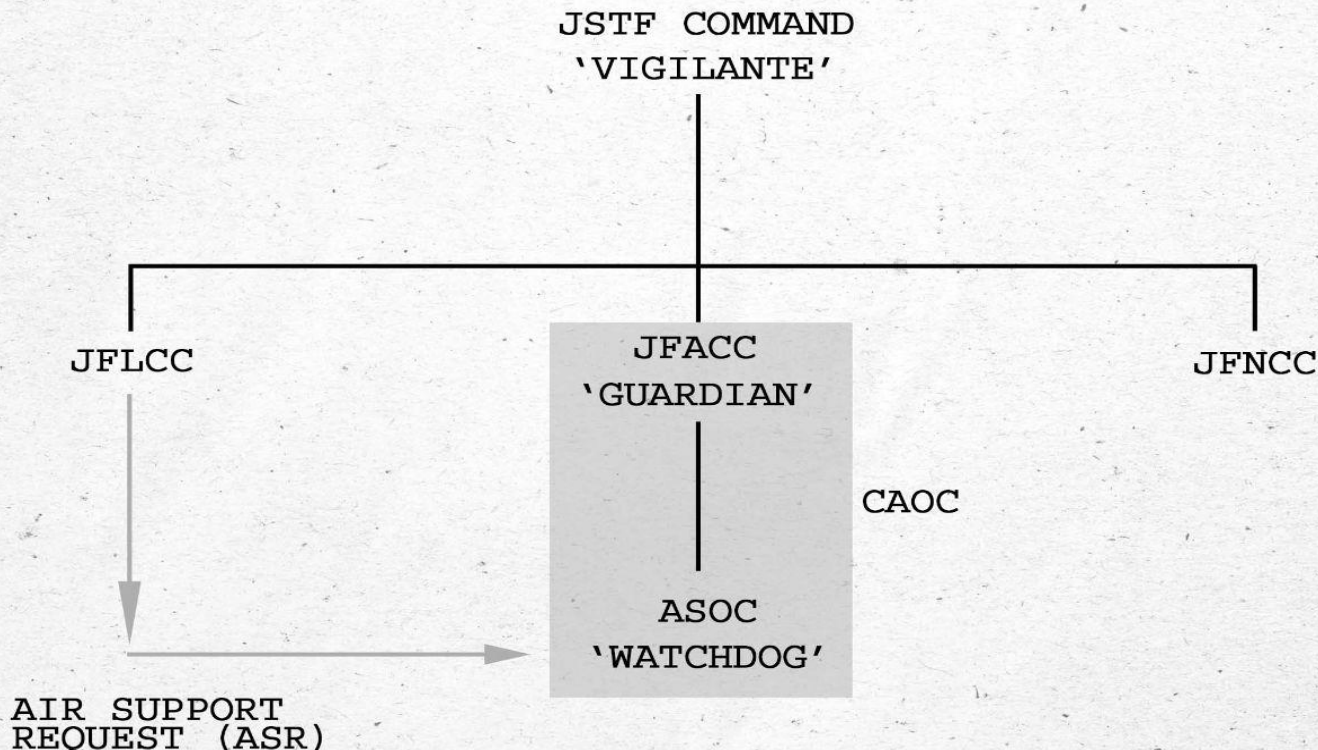
# 79th FS

## The Syrian Theater of Operations

Command of the JSTF (Vigilante) is headquartered at Incirlik. The JSTF has three lines of reporting into Vigilante, namely the Air (JFACC), Land (JFLCC) and Naval (JFNCC) component commanders, with all forces in the STO reporting into one of these.

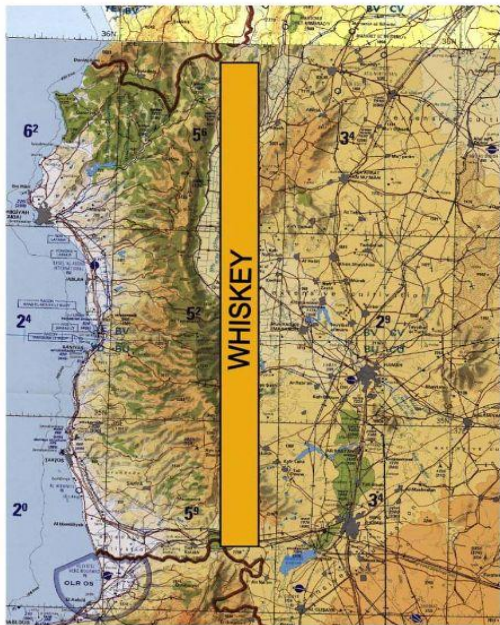
All aircraft (fixed and rotary) in the STO fall under the command of the JFACC (Guardian). The Combined Air Operations Center (CAOC), also headquartered at Incirlik consists of the JFACC HQ and the Air Support Operations Center (ASOC - designated Watchdog). The Airborne Command and Control Center (ABCCC - designated Sentinel) will provide the link between airborne aircraft and the CAOC. An ABCCC will be on station around the clock.

Requests for close air support from the components of JFLCC will be made into the ASOC and designated to aircraft through the ABCCC.



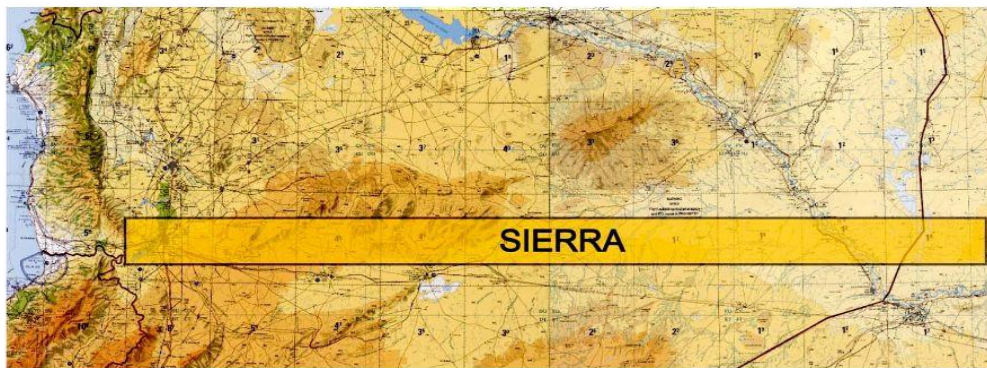
# 79th FS

## No Fly Zones



Operation Cerberus North has seen the establishment of two no fly zones within the STO, in order to prevent the Syrian Air Force from attacking SDF, YPG and civilian locations in northern Syria. The first zone - Whiskey (Longitude E36°20'), is located west of Hama and runs north to south from the Turkish to Lebanese borders. Syrian aircraft are not permitted to cross the Nusayriyah Mountains.

The second no fly - Sierra, is located 5 miles south of Homs (Latitude N34°37') and runs west to east from the Lebanese to Iraqi borders.

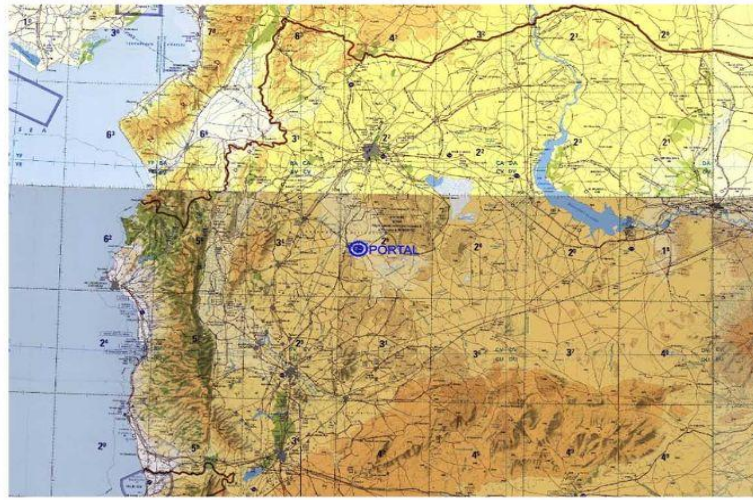


The no fly order applies to all Syrian rotary and fixed wing aircraft. The no fly order only applies to Syrian aircraft and NOT Russian aircraft operating over Syria. Due to Syria operating Russian built aircraft any incursions into the no fly zone must be identified visually to avoid the unintended engagement of Russian aircraft.

# 79th FS

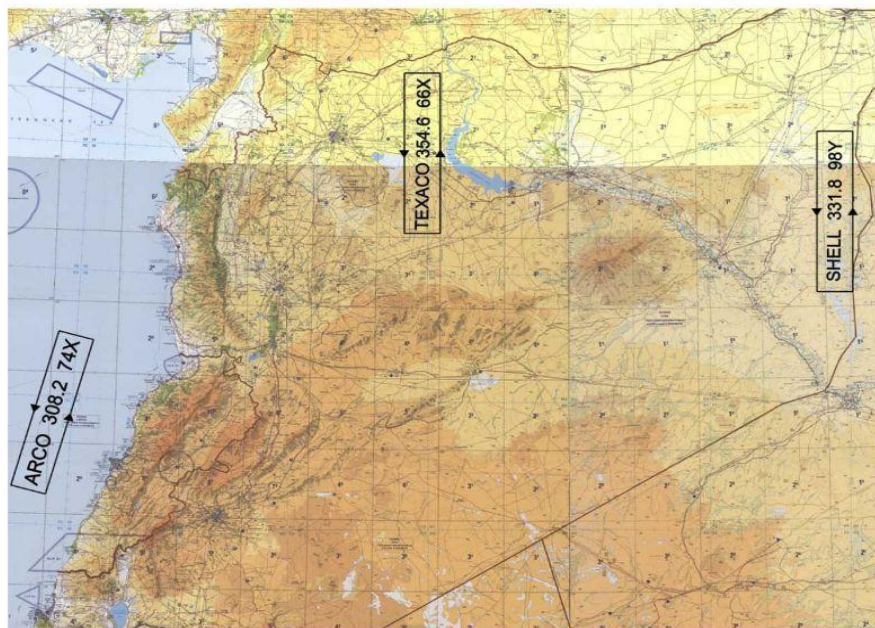
## Bullseye:

The Bullseye within the STO is Abu al-Duhur airfield, located at N 35°43'59" E 37°06'17", designation - Portal.



## AAR Tracks:

The following Air-Air Refueling tracks are in operation to support operations in Syria. Texaco will operate east of Aleppo on a north to south track. Shell will operate in the east along the Iraq/Syria border, north of Sierra. Arco will be on station over the Mediterranean, parallel to the Lebanese coast.



# 79th FS

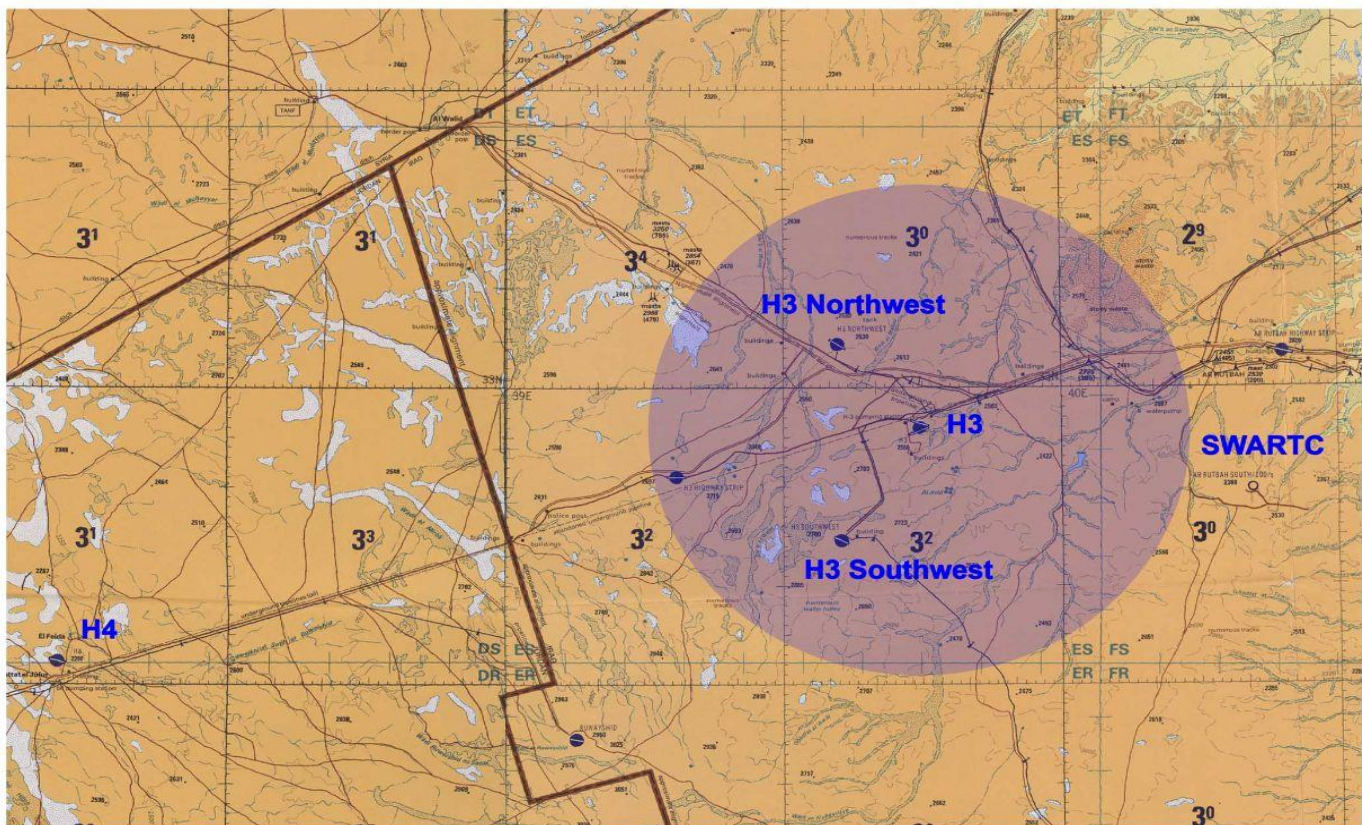
## South Western Ariel Range & Training Complex (SWARTC)

The SWARTC is the principle training range in use by US aircraft based in Iraq. The SWARTC consists of an area centered on the former H3 complex of Iraqi air bases. The SWARTC extends from ground level up to 30,000 feet MSL, 25nm out in all directions from the primary H3 base. The area is closed to ground traffic, and the base complexes themselves are abandoned and derelict.

The complex is authorized for the use of live fire. A variety of simulated radar emitters are in use on the SWARTC, and the complex has the ability to simulate the behavior of various SAM systems.

The SWARTC is controlled by SWARTC Range Control - callsign 'Gamesmaster'. Aircraft are not permitted to enter SWARTC airspace without clearance from Gamesmaster.

Gamesmaster 341.0



# 79th FS

## Theater Rules of Engagement

The standing ROE within the STO are divided into two categories; air to air and air to surface. This is in recognition of the complexities of the two different missions being served by operations in Syria.

### Air to Air:

The air to air component of Cerberus North will primarily be focused on the enforcement of the no fly zones. Given the prevalence of the Russian Air Force in theater enhanced ROEs have been established to prevent an unintended engagement of Russian aircraft.

The standing ROE for A-A weapons is return fire or fire upon authorisation.

Return fire can only be utilized following the deployment of a weapon by an aircraft that also meets the condition for a hostile act as laid out on the following pages. Return fire action can be taken without clearance from a higher agency providing the ROEs have been met.

Fire upon authorisation requires specific clearance from the senior mission commander to engage.

In addition the following condition applies within the STO.

All aircraft violating the no fly zone must receive visual identification due to the potential for Russian aircraft to enter the no fly zones.

# 79th FS

## Air to Surface:

The air to surface component of Cerberus North will likely cover a variety of target types and environments. It is likely that aircraft will be operating in a very complex and dynamic environment with hostile and friendly forces both operating in close proximity to civilians.

The following standing ROEs apply to all air to surface operations within the STO.

**Predefined targets.** Targets specifically defined within a briefing are pre-cleared for engagement providing the risk of fratricide and collateral damage is eliminated and the briefed details are followed precisely. Predefined targets will not require visual identification by the attacking aircraft to engage. For targets to meet the predefined condition precise coordinates must be available and the target must not be within an area requiring fire control or within a no fire area.

**Dynamic Targets.** Targets that do not meet the conditions for a predefined target will be considered a dynamic target. Dynamic targets may be assigned in the field via the CAOC or through a JTAC/FAC. Dynamic targets that are assigned and are not under the control of a JTAC/FAC require visual identification from the attacking aircraft or JTAC/FAC prior to engagement and clearance to engage from the mission commander. When an aircraft is under the control of a JTAC or FAC weapons release authority will be under the control of the JTAC/FAC at all times



# 79th FS

## Air to Surface - Restrictions:

The following restrictions and conditions apply at all times within the STO to reduce the likelihood of fratricide and collateral damage. The JFLCC and CAOC will collaborate on a daily basis to produce the air support chart (ASC).

The ASC will identify the following:

BCL - Battlefield Coordination Line.

FSCL - Fire Support Coordination Line.

RFA - Restricted Fire Area.

NFA - No Fire Area.

FFA - Free Fire Area.

BCL: The BCL displays the current forward line of troops (FLOT).

It is marked on the air support chart by a solid blue line and letters BCL, noting the coordinating agency and date/time it was updated.

FSCL: The FSCL marks the expected furthest forward operating area of friendly ground forces.

Ground forces should not advance beyond the FSCL without coordinating with agencies controlling aircraft attacks. Any targets that lie between the BCL and FSCL can only be attacked by aircraft when under the control of a JTAC/FAC.

Targets beyond the FSCL fall under the control of the CAOC or senior mission commander.

The FSCL should follow well defined terrain features easily identifiable from the air.

The FSCL is marked on the air support chart by a solid black line and letters FSCL, noting the coordinating agency and date/time it was updated.

# 79th FS

RFA: The RFA is a blanket condition that applies to all areas not covered by another restriction.

It can also be designated to a particular location and is marked on the air support chart as an enclosed area in a black outline with the letters RFA, noting the coordinating agency and date/time it was updated.

FFA: Targets within a FFA require no authorisation or control to engage targets providing the theater ROEs are met.

It is marked on the air support chart as an enclosed area in a green outline and letters FFA, noting the coordinating agency and date/time it was updated.

NFA: The employment of weapons in a NFA is forbidden in order to protect civilian or culturally significant locations.

It is marked on the air support chart as a closed area outlined in red with a cross through it and letters NFA, noting the coordinating agency and date it was updated.

FSCL "JFLCC" 06/06/12

---

BCL "JFLCC" 06/06/12

---

RFA "JFLCC" 06/06/12



FFA "JFLCC" 06/06/12



NFA "JFLCC" 06/06/12



# 79th FS

## Control of Air Support:

Air support requests (ASR) will commonly be made through the ground commander CAS to the air support operations center (ASOC).

The ASOC will process the ASR and match to available CAS platforms. ASOC will direct the CAS platform to the AO and connect them to the JTAC/FAC.

The JTAC or FAC will provide the targets details, locations of friendly forces or civilians and specify the attack details such as IP, attack direction, weapons to be employed and egress routes. The JTAC will also specify the type of control authority they will have over the attack, these are detailed as below.

### Type 1:

JTAC requires control of individual attacks and must visually acquire the attacking aircraft and the target for each attack. Targets and friendly positions should be marked whenever possible.

Visual acquisition must be obtained through eyes-on or via optics such as binoculars, without the use of third party devices such as laptops or other digital imagery.

Control will be made over the attack direction of the aircraft to reduce the risk of collateral damage or the attack affecting friendly forces.

### Type 2:

JTAC requires control of individual attacks but JTAC is unable to visually acquire the attacking aircraft at weapons release, unable to visually acquire the target, or the attacking aircraft is unable to acquire the mark/target prior to weapons release.

JTAC can acquire the target visually or use targeting data from a scout, fire support team, joint fires observer, unmanned aircraft (UA), special operations forces, CAS aircrew, or other asset with accurate real-time targeting information.

# 79th FS

## Type 3:

JTAC provides clearance for multiple attacks within a single engagement subject to specific attack restrictions.

JTAC does not need to visually acquire the aircraft or the target.

JTAC will provide attacking aircraft with targeting restrictions and then grant blanket weapons release clearance to meet the stated restrictions.

JTAC maintains abort authority.

## 9 Lines:

The JTAC will commonly provide the CAS platform with a 9 line specifying the instructions for the attack. The 9 line format is as follows.

1. Initial point (IP)
2. Heading from the IP to the target.
3. Distance from the IP to the target in nautical miles.
4. Target elevation in feet above mean sea level.
5. Target description.
6. Target location coordinates.
7. Type of mark.
8. Location of friendlies from the target, direction, and distance in meters.
9. Egress direction.

The pilot will respond by reading back lines 4,6 and 8. If readback is successful the JTAC/FAC will pass remarks and restrictions, these will cover the process for the attacking aircraft to 'call in' on their attack run, weapons release heading/final attack heading and any relevant threats.

# 79th FS

## Terminology:

The JTAC/FAC and air support platform will communicate using set terminology. This terminology is detailed here.

Bomb on Target (BOT) - target location will be described, usually through a 'talk-on'.

Bomb on Coordinates (BOC) - target location will be passed as precise coordinates.

Cleared hot - air support is cleared to engage the target under type 1 or 2 control.

Cleared to engage - air support is cleared to engage the target under type 3 control.

Abort - If the JTAC/FAC calls abort then the attacking aircraft must safety weapons systems and maneuver off target immediately.

Contact - refers to spotting visual references used to talk onto a target.

Tally - Visual confirmation by the pilot of the target.

Visual - Visual confirmation of friendly forces.

## Air to Surface - Exceptions:

If control of an attack has been placed under that of a JTAC/FAC and contact with the JTAC/FAC is subsequently lost, then the attack may proceed in the defense of friendly forces if the conditions for hostile intent can be met and friendly forces are in clear and imminent danger.

# 79th FS

## Hostile Intent

### Hostile Act considered if unit:

- Engages friendly forces with a weapons system, resulting in weapons release.

OR

- Supports the weapons systems of other units, resulting in weapons release. Including but not limited to lasing, marking, radar illumination of targets.

### Alternatively a Hostile Act considered if unit meets all the conditions below:

- Spikes/spots/marks a friendly target within their weapons range or the range of a supporting unit.
- Persistently maneuvers to maintain a weapons firing solution or to maintain solution for fire support.
- PosID as a bandit or belonging to a defined hostile force.

### Hostile Act considered if unit meets all the conditions below:

- Moves in a persistently aggressive manner towards friendly forces.
- Actively deploys countermeasures and/or seeks to avoid detection.
- PosID as a bandit or belonging to a hostile force.

### Hostile Act considered if unit meets any of the conditions below:

(note these conditions may apply to individuals that are civilian in appearance)

- Observed preparation of an ambush position, including but not limited to the positioning of weapons systems, explosives or significant obstructions in tactically advantageous positions.
- PosID as engaging in the command and control of hostile forces.
- Observed in the use, transportation or maintenance of weapons systems that pose a threat to JSTF forces within the STO.