

# OPERATION RAPID EAGLE 11/18/11

**Flight:**

| Pilot            | Call Sign          | Side #     | Freq       | Role       | T/O Time     | TOT          | End Vul      |
|------------------|--------------------|------------|------------|------------|--------------|--------------|--------------|
| <b>Mike-Mike</b> | <b>Hellcat 1-1</b> | <b>105</b> | <b>260</b> | <b>CAS</b> | <b>05:00</b> | <b>05:20</b> | <b>06:00</b> |
| <b>Chief</b>     | <b>Hellcat 1-2</b> | <b>053</b> | <b>260</b> | <b>CAS</b> | <b>04:50</b> | <b>05:20</b> | <b>06:00</b> |

**Loadout:**

7   6   5   4B   4A   3   2   1

|                  |                 |                   |            |                  |                 |
|------------------|-----------------|-------------------|------------|------------------|-----------------|
| <b>Station 7</b> | Mk-20           | <b>Station 4B</b> | GAU-12     | <b>Station 3</b> | AGM-65L         |
| <b>Station 6</b> | M-282 MPP APKWS | <b>Ammo</b>       | SAPHEI-T   | <b>Station 2</b> | M-282 MPP APKWS |
| <b>Station 5</b> | AGM-65L         | <b>Station 4A</b> | TARGET POD | <b>Station 1</b> | Mk-20           |

|                     |           |
|---------------------|-----------|
| <b>Fuel</b>         | 7,758 LB  |
| <b>Gross Weight</b> | 26,652 LB |

**Countermeasure Bins:**

|                        |          |
|------------------------|----------|
| <b>Top Front Left</b>  | 30 CHAFF |
| <b>Top Front Right</b> | 30 CHAFF |
| <b>Top Rear Left</b>   | 30 FLARE |
| <b>Top Rear Right</b>  | 30 FLARE |
| <b>Bottom Left</b>     | 30 FLARE |
| <b>Bottom Right</b>    | 30 FLARE |

**Weather:**

| Clouds                          | Wind   | Temperature | Precipitation |
|---------------------------------|--|-------------|---------------|
| Scattered - Broken<br>14,000 ft | 308 @ 2Kn GL<br>133 @ 6Kn 6600 ft<br>218 @ 10Kn 26000 ft | 15°C        | N/A           |

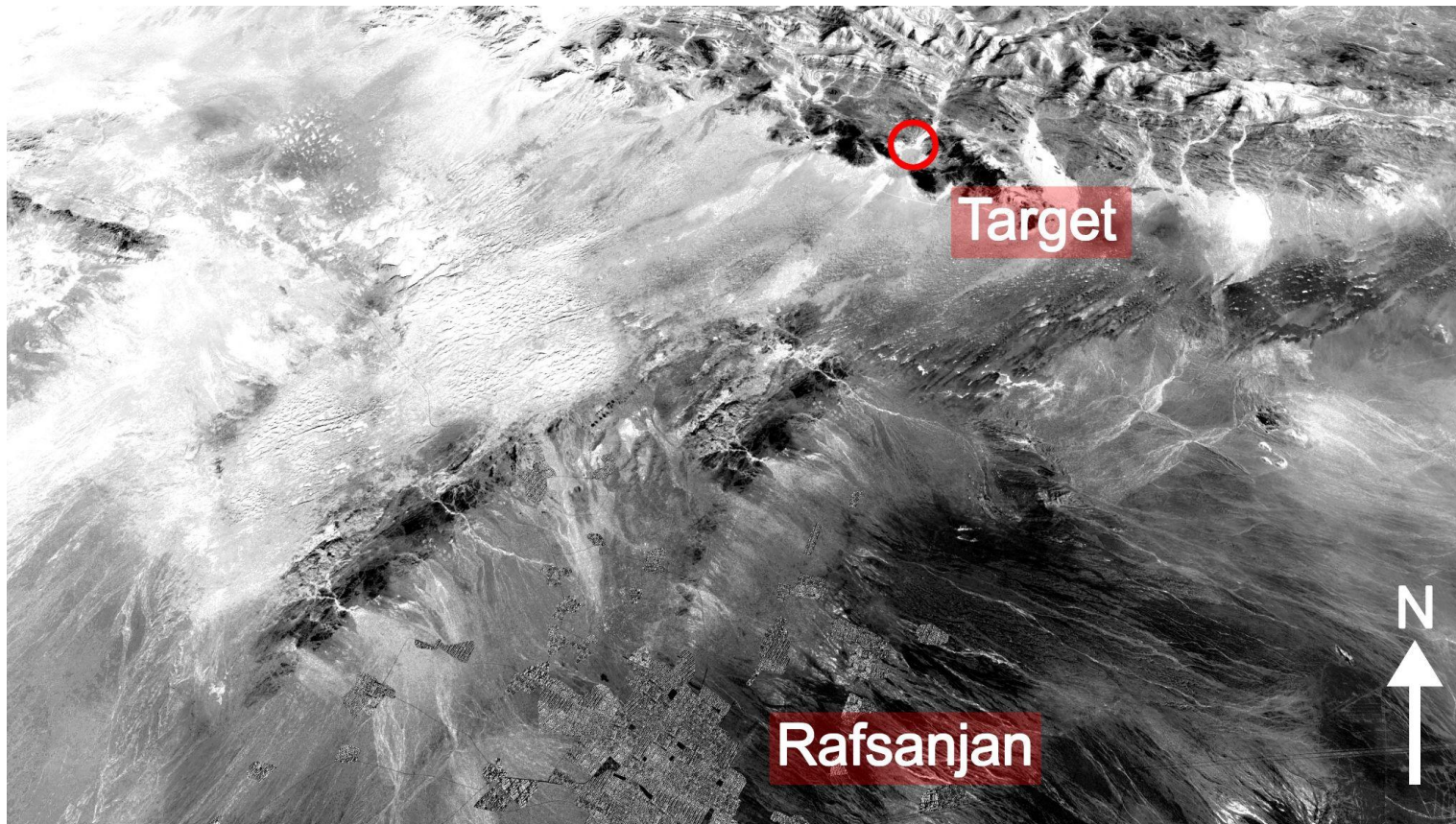
**Mission Support:**

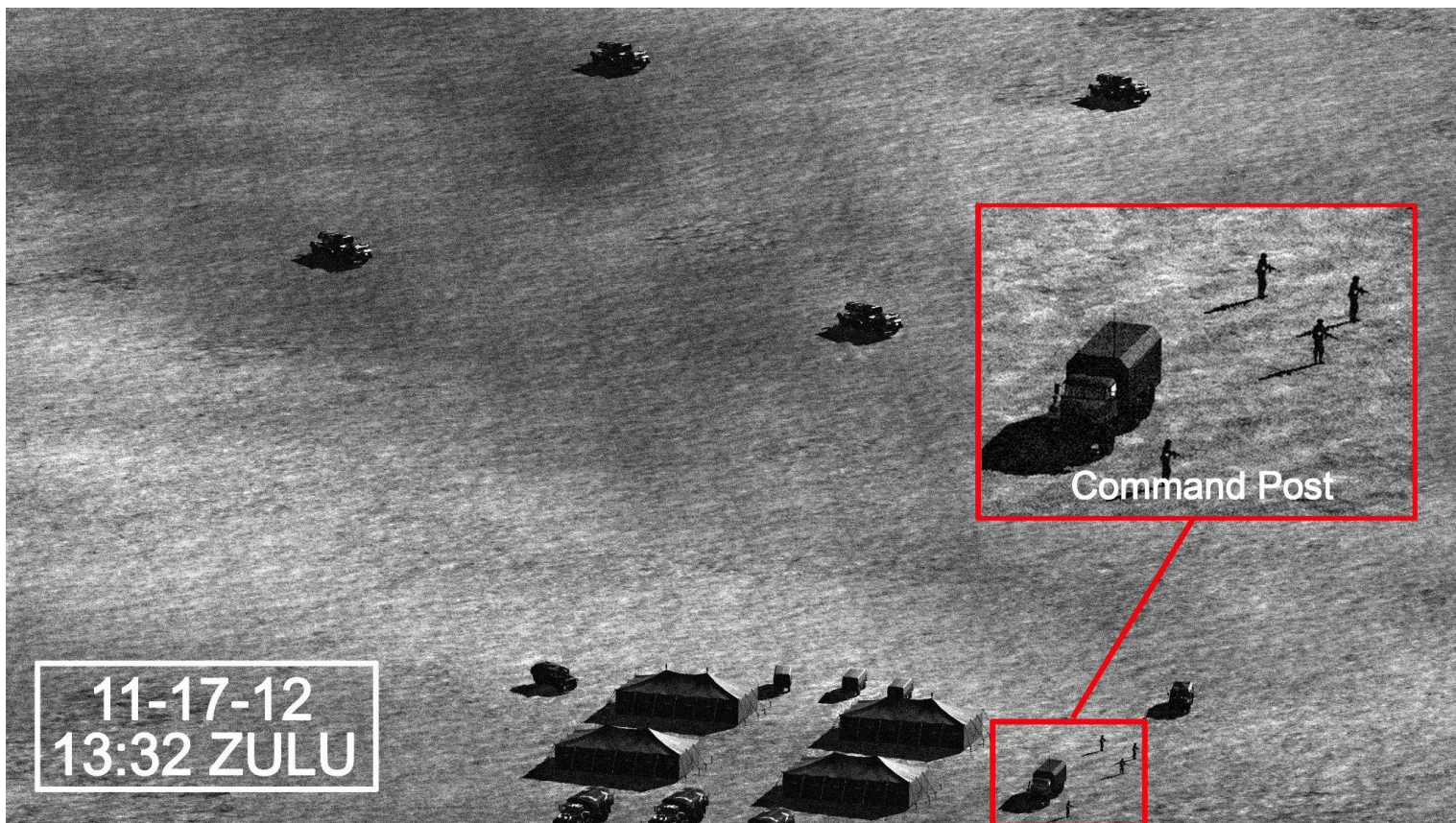
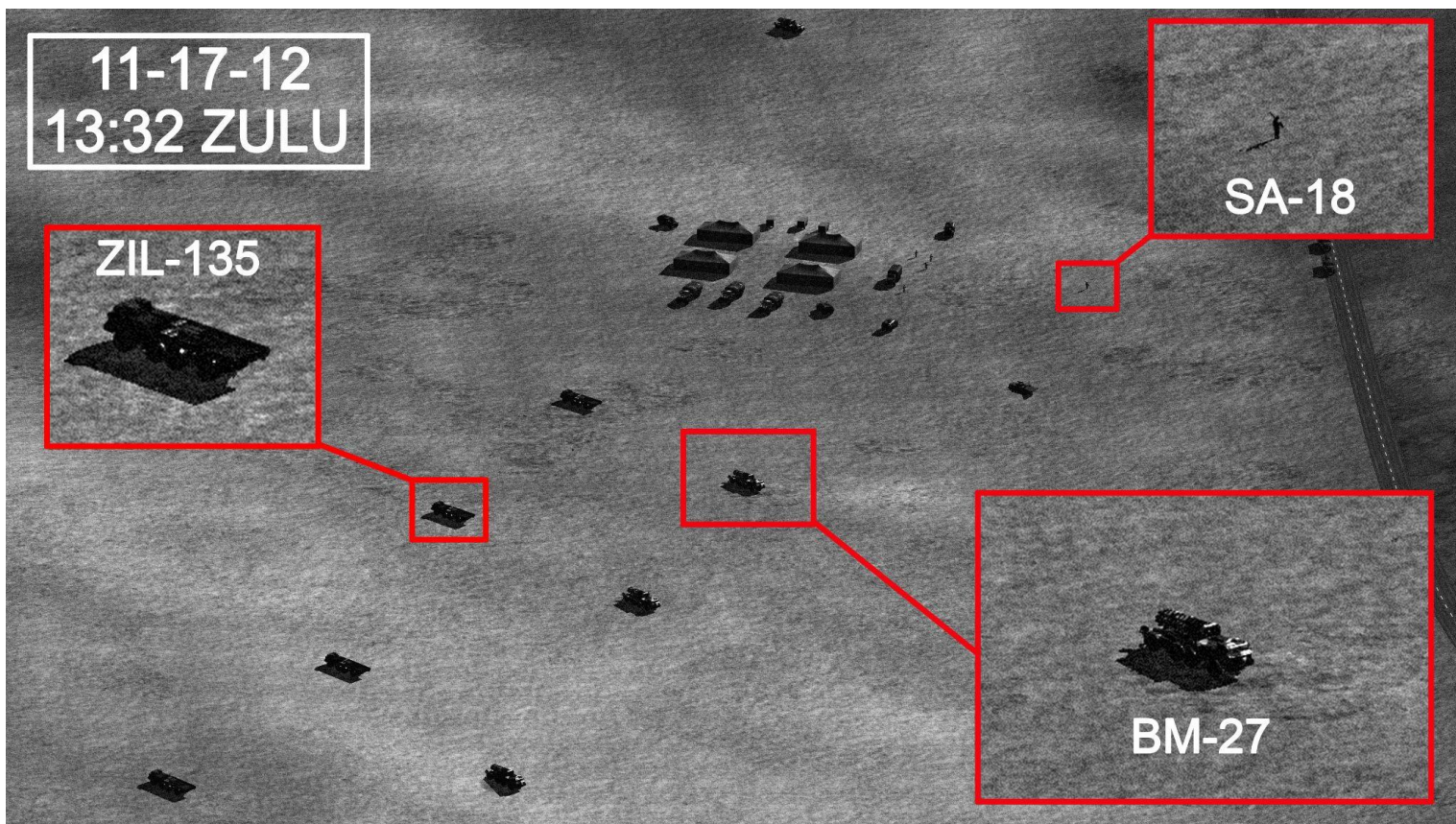
| Call Sign  | Type    | Frequency | Role   | Notes |
|------------|---------|-----------|--------|-------|
| Cyclops 3  | UAV     | 241.7     | ISR    |       |
| Wolf 4-2   | F/A-18C | 267       | FAC(A) |       |
| Reaper 3-1 | F/A-18C | 284.4     | SEAD   |       |
| Reaper 3-2 | F/A-18C | 289.9     | SEAD   |       |
| Reaper 4-1 | F/A-18C | 315.2     | CAP    |       |
| Spartan 3  | EA-18G  | 351.6     | EW     |       |

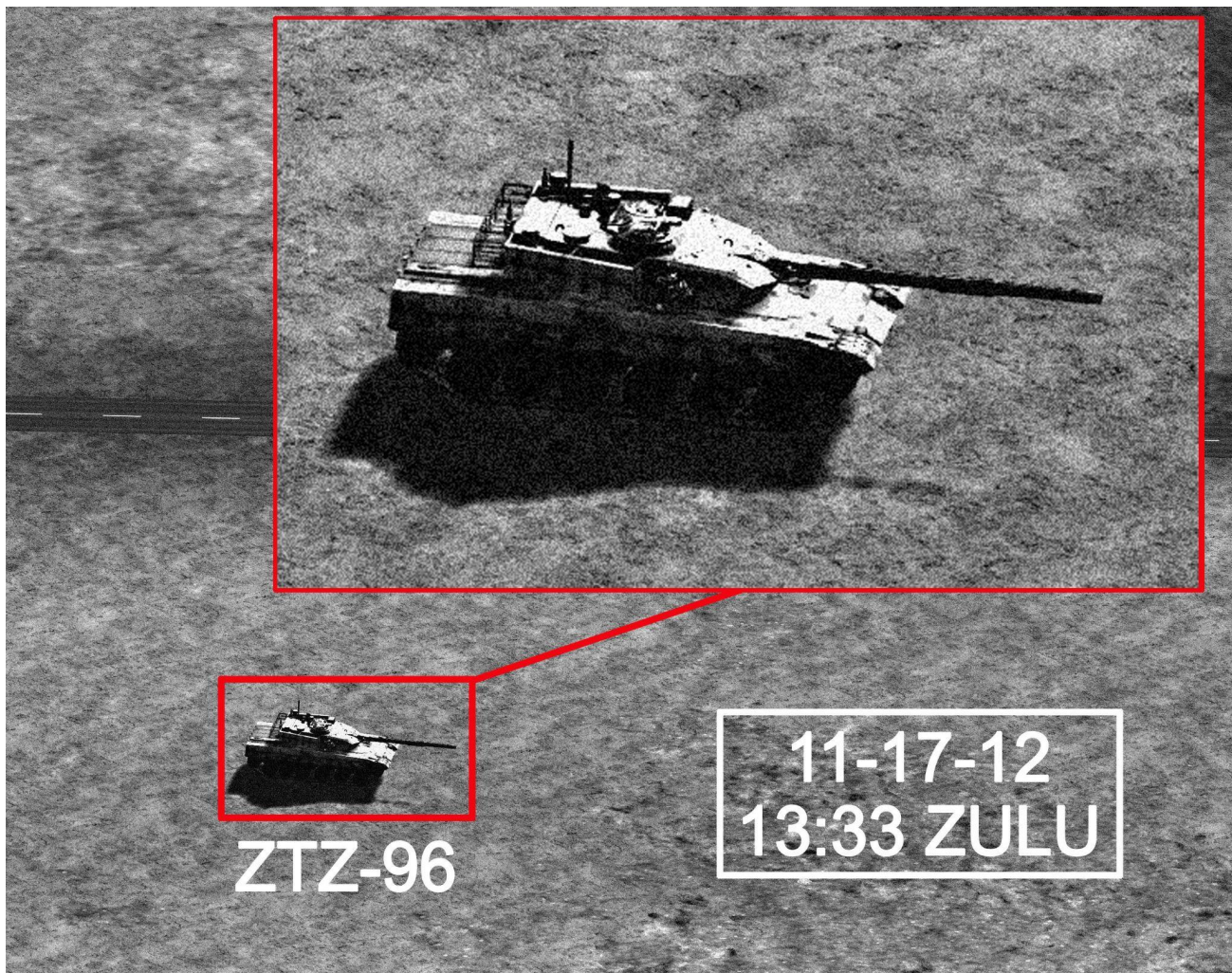
**Mission:**

*Primary target - 8 x BM-27 Uragan MLRS.*

Secondary Target - Armour and IRGC command post.



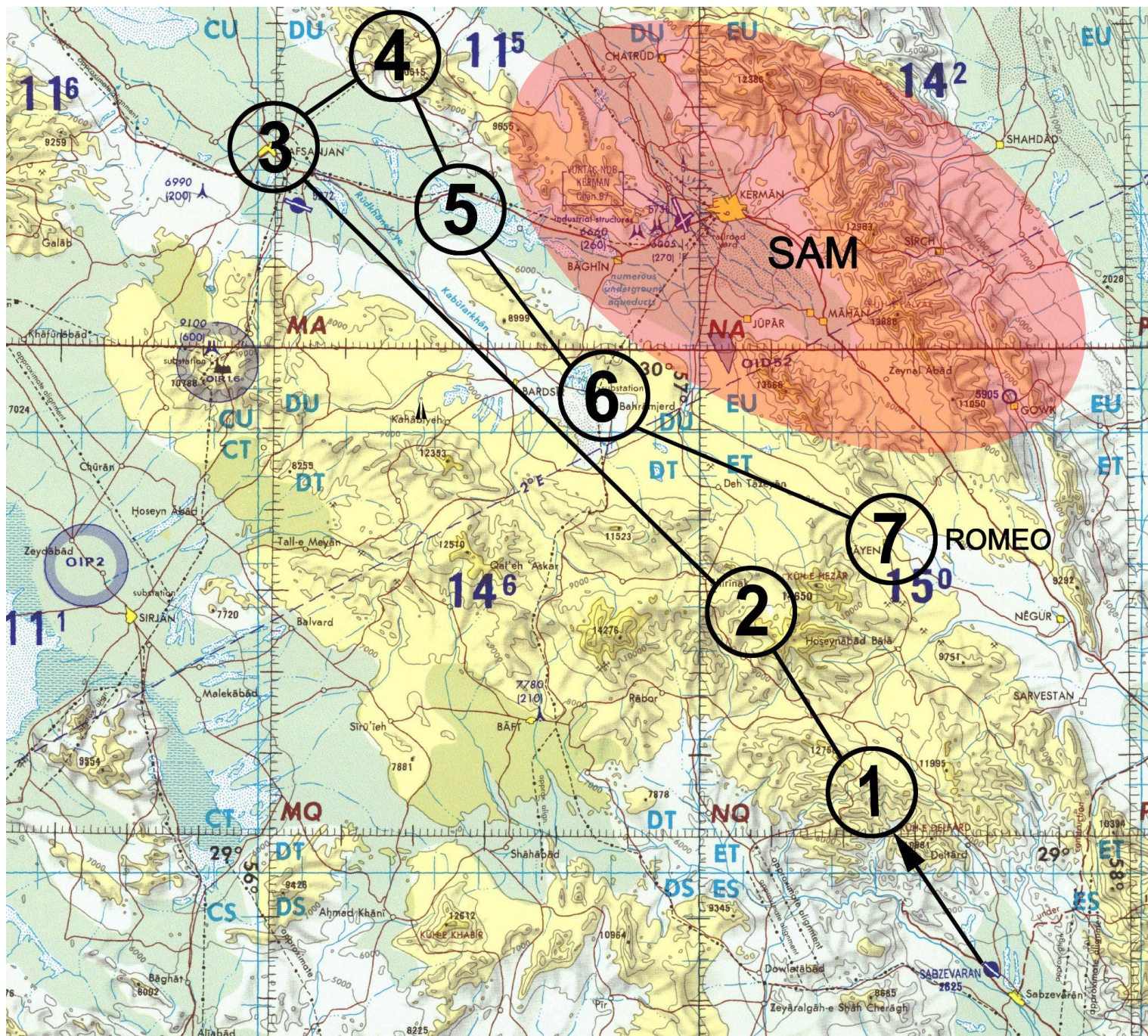




**Flight Plan:**

| Waypoint                             | Alt (K Ft MSL) | Mach | Notes       |
|--------------------------------------|----------------|------|-------------|
| 1                                    | 20             | 0.65 | RV flight   |
| 2                                    | 20             | 0.65 |             |
| 3                                    | 20             | 0.65 | Rafsanjan   |
| 4                                    | 7.1            |      | Primary TGT |
| 5                                    | 20             | 0.7  | Egress      |
| 6                                    | 20             | 0.7  |             |
| 7                                    | 7.2            |      | FARP Romeo  |
| <b>BULLS N29°30'55", E57°16 '24"</b> |                |      |             |

# OPERATION RAPID EAGLE 11/18/11





**Fuel Plan:**

| <b>Stage</b>  | <b>Notes</b>        | <b>Target Fuel lb</b> |
|---------------|---------------------|-----------------------|
| STARTING FUEL |                     | <b>7758</b>           |
| WP1           | <i>20Kft @ M0.7</i> | <b>6108</b>           |
| WP2           | <i>20Kft @ M0.7</i> | <b>5712</b>           |
| WP3           | <i>20Kft @ M0.7</i> | <b>4824</b>           |
| <b>Bingo</b>  |                     | <b>2124</b>           |
| WP6           | <i>25Kft @ M0.7</i> | <b>1624</b>           |
| WP7           | <i>FARP ROMEO</i>   | <b>1234</b>           |

**OPERATION RAPID EAGLE 11/18/11****Radio Plan:**

| <b>Channel</b> | <b>Comm 1</b>           | <b>Freq</b>   | <b>Comm 2</b>        | <b>Freq</b>  |
|----------------|-------------------------|---------------|----------------------|--------------|
| 1              | <i>Juliet Ground</i>    | <i>141.0</i>  | <i>Juliet Ground</i> | <i>141.0</i> |
| 2              | <i>Juliet Tower</i>     | <i>141.5</i>  | <i>Hellcat 1</i>     | <i>260.0</i> |
| 3              | <i>Juliet Departure</i> | <i>142.25</i> | <i>Reaper 3-1</i>    | <i>284.4</i> |
| 4              | <i>Juliet Arrival</i>   | <i>142.6</i>  | <i>Reaper 3-2</i>    | <i>289.9</i> |
| 5              | <i>Juliet Emergency</i> | <i>143.1</i>  | <i>Reaper 4-1</i>    | <i>315.2</i> |
| 6              | <i>Chieftain</i>        | <i>291.5</i>  | <i>Wolf 4-2</i>      | <i>267.0</i> |
| 7              | <i>Steel Rain</i>       | <i>181.6</i>  | <i>Spartan 3</i>     | <i>351.6</i> |
| 8              | <i>Iceman</i>           | <i>185.7</i>  | <i>Sandman 1</i>     | <i>281.8</i> |
| 9              | <i>Fixer</i>            | <i>189.0</i>  | <i>Sandman 5</i>     | <i>289.4</i> |
| 10             | <i>Madman</i>           | <i>193.2</i>  | <i>Black</i>         | <i>329.8</i> |
| 11             | <i>Cyclops 3</i>        | <i>241.7</i>  | <i>White</i>         | <i>266.8</i> |
| 12             | <i>FARP Romeo</i>       | <i>296.9</i>  | <i>Red</i>           | <i>312.0</i> |
| 13             | <i>SPARE</i>            | <i>--</i>     | <i>Orange</i>        | <i>355.2</i> |
| 14             | <i>SPARE</i>            | <i>--</i>     | <i>Yellow</i>        | <i>231.4</i> |
| 15             | <i>SPARE</i>            | <i>--</i>     | <i>Green</i>         | <i>388.7</i> |
| 16             | <i>SPARE</i>            | <i>--</i>     | <i>Blue</i>          | <i>251.5</i> |
| 17             | <i>SPARE</i>            | <i>--</i>     | <i>Indigo</i>        | <i>363.4</i> |
| 18             | <i>SPARE</i>            | <i>--</i>     | <i>Violet</i>        | <i>200.6</i> |
| 19             | <i>SPARE</i>            | <i>--</i>     | <i>Magenta</i>       | <i>391.1</i> |
| 20             | <i>SPARE</i>            | <i>--</i>     | <i>Grey</i>          | <i>241.3</i> |
| 21             | <i>SPARE</i>            | <i>--</i>     | <i>SPARE</i>         | <i>--</i>    |
| 22             | <i>SPARE</i>            | <i>--</i>     | <i>SPARE</i>         | <i>--</i>    |
| 23             | <i>SPARE</i>            | <i>--</i>     | <i>SPARE</i>         | <i>--</i>    |
| 24             | <i>SPARE</i>            | <i>--</i>     | <i>SPARE</i>         | <i>--</i>    |
| 25             | <i>SPARE</i>            | <i>--</i>     | <i>SPARE</i>         | <i>--</i>    |
| 26             | <i>SPARE</i>            | <i>--</i>     | <i>SPARE</i>         | <i>--</i>    |

**Threats:**

|                             |  |
|-----------------------------|--|
| <b>MIM-23 HAWK</b>          |  |
| <b>Guidance Type</b>        | <b>Semi Active Radar Homing</b>  |
| <b>Acquisition Range</b>    | <b>49 nm</b>   |
| <b>Max Engagement Range</b> | <b>25 nm</b>   |
| <b>Max Ceiling</b>          | <b>65,000 Ft MSL</b>   |
| <b>Missile Mach</b>         | <b>2.4</b>   |
| <b>Warhead Type</b>         | <b>119lb Frag HE</b>   |
| <b>RWR Symbology</b>        | <b>HA</b>  |
| <b>Notable Features</b>     | <p><b>US manufactured SAM system.</b></p> <p><b>Typical battery consists of Command Post, Search Radar, Track Radar and up to 6 launchers (3 missiles each). Some batteries may also contain a Continuous Wave Acquisition Radar, designed for low altitude detection.</b></p> <p><b>Missile burn time ~ 25 seconds.</b></p> |

|                             |   |
|-----------------------------|---|
| <b>SA-6 'GAINFUL'</b>       |   |
| <b>Guidance Type</b>        | <b>Radar, command guidance, semi active radar homing</b>  |
| <b>Acquisition Range</b>    | <b>40 nm</b>  |
| <b>Max Engagement Range</b> | <b>15 nm</b>  |
| <b>Max Ceiling</b>          | <b>40,000 Ft MSL</b>  |
| <b>Missile Mach</b>         | <b>2.8</b>  |
| <b>Warhead Type</b>         | <b>130lb Frag HE</b>  |
| <b>Fuzing</b>               | <b>Proximity/contact</b>  |
| <b>RWR Symbology</b>        | <b>6</b>  |
| <b>Notable Features</b>     | <p><b>Semi Active Radar Homing in terminal phase.</b></p> <p><b>Missile burn time ~ 21 seconds.</b></p> <p><b>Highly mobile, can be operational within 15 minutes of relocating.</b></p> <p><b>Typical configuration - 1 x Tracked 'Straight Flush' radar vehicle, 4 x tracked TEL's carrying 3 missile apiece.</b></p> |



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|                             |  |
|-----------------------------|--|
| <b>SA-8 'GECKO'</b>         |  |
| <b>Guidance Type</b>        | <b>Radar, command guidance</b>   |
| <b>Acquisition Range</b>    | <b>15 nm</b>   |
| <b>Max Engagement Range</b> | <b>6 nm</b>  |
| <b>Max Ceiling</b>          | <b>39,000 Ft MSL</b>   |
| <b>Missile Mach</b>         | <b>2.0</b>   |
| <b>Warhead Type</b>         | <b>35lb Frag HE</b>  |
| <b>Fuzing</b>               | <b>Proximity/contact</b>   |
| <b>RWR Symbology</b>        | <b>8</b>   |
| <b>Notable Features</b>     | <b>Amphibious &amp; highly mobile.</b><br><b>Missile burn time ~ 15 seconds.</b><br><b>6 missile load.</b> |

|                             |   |
|-----------------------------|---|
| <b>SA-15 'GAUNTLET'</b>     |   |
| <b>Guidance Type</b>        | <b>Radar Command Guidance</b>   |
| <b>Acquisition Range</b>    | <b>15 nm</b>  |
| <b>Max Engagement Range</b> | <b>8 nm</b>   |
| <b>Max Ceiling</b>          | <b>25,000 Ft MSL</b>  |
| <b>Missile Mach</b>         | <b>2.5</b>  |
| <b>Warhead Type</b>         | <b>30lb Frag HE</b>   |
| <b>Fuzing</b>               | <b>RF Proximity</b>   |
| <b>RWR Symbology</b>        | <b>15</b>   |
| <b>Notable Features</b>     | <b>Tracked TLAR highly mobile, carries 8 missiles ready to fire.</b><br><b>Missile burn time ~ 7 seconds.</b> |

**OPERATION RAPID EAGLE 11/18/11**

|                             |   |
|-----------------------------|---|
| <b>SA-18 'GROUSE'</b>       |   |
| <b>Guidance Type</b>        | <b>Infra-Red</b>  |
| <b>Acquisition Range</b>    | <b>Visual</b>   |
| <b>Max Engagement Range</b> | <b>3 nm</b>   |
| <b>Max Ceiling</b>          | <b>12,000 Ft MSL</b>  |
| <b>Missile Mach</b>         | <b>1.9</b>  |
| <b>Warhead Type</b>         | <b>2.6lb Frag HE</b>  |
| <b>Fuzing</b>               | <b>Contact / Grazing</b>  |
| <b>Notable Features</b>     | <b>Man Portable Air Defence (MANPAD), highly mobile and easy to hide.</b><br><b>May operate in teams of shooter/spotter, communicating over distance to ambush targets.</b> |

|                             |  |
|-----------------------------|--|
| <b>ZU-23 AAA</b>            |  |
| <b>Guidance Type</b>        | <b>None</b>  |
| <b>Acquisition Range</b>    | <b>Visual</b>  |
| <b>Max Engagement Range</b> | <b>1.5 nm</b>  |
| <b>Max Ceiling</b>          | <b>7,000 Ft MSL</b>  |
| <b>Notable Features</b>     | <b>Twin 23mm autocannon.</b><br><b>Towed system, easy to relocate. Cheap and widely proliferated. Can be truck mounted for a highly mobile, low cost air defence platform.</b><br><b>Fires HE rounds that explode on contact or at set altitude.</b> |

**OPERATION RAPID EAGLE 11/18/11**

|                             |  |
|-----------------------------|--|
| <b>S-60 AAA</b>             |  |
| <b>Guidance Type</b>        | <b>None</b>  |
| <b>Acquisition Range</b>    | <b>Visual</b>  |
| <b>Max Engagement Range</b> | <b>3 nm</b>  |
| <b>Max Ceiling</b>          | <b>20,000 Ft MSL</b>   |
| <b>Notable Features</b>     | <b>Single 57mm autocannon. Capable of firing over 70 rounds per minute.</b><br><b>Towed system, easy to relocate. Cheap and widely proliferated.</b><br><b>Fires HE rounds that explode on contact or at set altitude.</b> |

|                             |   |
|-----------------------------|---|
| <b>ZSU-23-4 AAA</b>         |   |
| <b>Guidance Type</b>        | <b>Radar</b>  |
| <b>Acquisition Range</b>    | <b>2.5 nm</b>   |
| <b>Max Engagement Range</b> | <b>1.5 nm</b>   |
| <b>Max Ceiling</b>          | <b>7,000 Ft MSL</b>   |
| <b>RWR Symbology</b>        | <b>A</b>  |
| <b>Notable Features</b>     | <b>Four x 23mm autocannon.</b><br><b>Tracked and high mobile.</b><br><b>Fires HE rounds that explode on contact or at set altitude.</b> |

|                             |   |
|-----------------------------|---|
| <b>ZU-57-2</b>              |   |
| <b>Guidance Type</b>        | <b>None</b>   |
| <b>Acquisition Range</b>    | <b>Visual</b>   |
| <b>Max Engagement Range</b> | <b>3 nm</b>   |
| <b>Max Ceiling</b>          | <b>20,000 Ft MSL</b>  |
| <b>Notable Features</b>     | <b>2 x 57mm autocannon.</b><br><b>Tracked, self-propelled system.</b><br><b>Uses a version of the widely proliferated S-60 AA cannon.</b> |