Syria’s Military Capabilities and Options for Military Intervention

Background paper

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This background paper does not endorse any military action towards Syria. The document does not reflect or express any official Danish policy or a position of the University of Copenhagen or the Centre for Military Studies. The purpose of this paper is to briefly describe military capabilities and options in order to provide a factual background for the ongoing discussion on possible military intervention in the Syrian conflict and Denmark’s possible participation in such an intervention. The paper is primarily based on the Military Balance published by the International Institute for Strategic Studies.

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Background

Through the last 16 months the UN estimates that more than 10,000 people have been killed in Syria and tens of thousands displaced. The atrocities are continuing and despite attempts from the international community on securing a peaceful solution in Syria they have so far not shown to be effective. An United Nations Security Council Resolution was vetoed by China and Russia on February 4th 2012 and this gave Assad’s military the ‘green light’ to further continuing its violence against civilians.

On 21 April 2012, the Security Council adopted resolution 2043 that set up the UN Supervision Mission in Syria (UNSMIS), initially for a period of 90 days and a deployment of up to 300 unarmed military observers and a civilian component. Despite the attempts from the UN as well as initiatives from the Arab League (AL), and the international community as a whole the atrocities are still continuing and according to the UN intensifying.

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Argument Overview

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Country Description

To give the setting of the environment of which a potential military intervention would have to operate within a short description of Syria is necessary. Syria is situated in the Middle East between Turkey, Iraq, Jordan, Israel, Lebanon and bordering the Mediterranean Sea. See Figure 1.

Figure 1: Syria in the Middle East

Syria is 185,180 square kilometer in size, about 40 per cent the size of Iraq, and has 2253 km land borders and 193 km of coastline. Syria’s terrain mostly consists of desert plateau, a narrow coastal plain and mountains to the West. The highest point is Mount Hermon (2814m), which is

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situated at the northern parts of the Israeli-Syrian disputed area of the Golan Heights (see Figure 2.10.)

Figure 2: The Disputed Golan Heights

Syria’s 22,517,750 population is mainly Arabs (90.3%) and 9.7% Kurds, Armenians, and other. Arabic is the predominant language. 74% of the population are Sunni Muslim, 16% other Muslim (includes Alawite and Druze), 10% Christian and some tiny communities of Jews.

Syria’s capital is Damascus in the southwestern part of the country close to Lebanon; other major cities are Aleppo in the north, Homs, and Hamah both in the middle in the western part of the country.

Syria is a republic ruled by a president Assad and his regime. Syria has a military of a total of 295,000 active members and a reserve of 314,000.11 Syria expenditure of its GDP on military is about 5.9% of its GDP (2005 est.)12 Assad’s elite units are loyal to the regime whereas the


conventional army units seem to be less reliable and the military experience an increase in defections from soldiers and junior officers.\(^{13}\)

This very short description of Syria was to set the grounds for understanding the environment in Syria and its population. Syria in many respects, despite many differences of course, looks like Iraq and Libya, where the international community has intervened in various ways. To understand the Syrian military and its capabilities further and what kind of military a possible international intervention force would face it is necessary to look into the Syrian armed forces more closely.

**Syria’s Military**

Syria’s active service consists of about 295,000 soldiers divided as follows:

<table>
<thead>
<tr>
<th>Service (active)</th>
<th>Number of soldiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Army</td>
<td>220,000</td>
</tr>
<tr>
<td>Navy</td>
<td>5,000</td>
</tr>
<tr>
<td>Air Force</td>
<td>30,000</td>
</tr>
<tr>
<td>Air Defence</td>
<td>40,000</td>
</tr>
<tr>
<td>Paramilitary</td>
<td>108,000</td>
</tr>
</tbody>
</table>


\(^{14}\) Ibid
Syria’s reserve is a little larger than the active service a total of about 314,000 and does not have any Paramilitary unit:

### Figure 2: Reserve Members

<table>
<thead>
<tr>
<th>Service (reserve)</th>
<th>Number of soldiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Army</td>
<td>280,000</td>
</tr>
<tr>
<td>Navy</td>
<td>4,000</td>
</tr>
<tr>
<td>Air Force</td>
<td>10,000</td>
</tr>
<tr>
<td>Air Defense</td>
<td>20,000</td>
</tr>
</tbody>
</table>

**Army**

The Syrian army consists of command headquarters, special forces, maneuver units and combat support. The Syrian army is built up as follows:

Soldiers: 220,000

- **COMMAND & CONTROL**
  - 3 corps Headquarters

- **SPECIAL FORCES**
  - 1 Special Forces (SF) division (10 SF groups)

- **MANOEUVRE UNITS**
  - **Armored**
    - 7 armored divisions (3 armored brigades, 1 mechanized brigade, 1 arty brigade)
    - 1 (Republican Guard) armored division (3 armored brigades, 1 mechanized brigade, 1 artillery brigade)
    - 1 independent tank regiment
  - **Mechanized**
    - 3 mechanized divisions (-) (1 armored brigade, 2 mechanized brigades, 1 artillery brigade)

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15 Ibid

The Syrian Reserve consist of one armored div HQ, four armored brigades, two tank regiments, 31 light infantry regiments, and three artillery regiments. It is however questionable whether these will be activated. The loyalty of the reserves is unknown, but with a large part of the population against the regime one could argue that a fairly large part of the reserves might not show up or even use the weapons issued against the regime. Therefore the argument for use of the reserve in case of an intervention from the international community seems rather weak.

The Syrian army is equipped mostly with Russian type equipment of various generations. It is notable that the structure is similar to what the former Eastern block’s armies looked like. A large amount of tanks and artillery as well as its own air defense.

The major threats to a land operation is the large amount of tanks especially the T-72. However, some of the Syrian models are with less armor than other models of the T-72 and thus not as resistant against high explosive anti-tank weapons, that can be delivered from i.e. western tank models and air-ground combat aircraft. The T-62 and T55 are less of a threat than the T-72.

Further threats are the large amount of artillery, which also is a threat to a land operation as well as it is one of the weapons that the Assad regime use against the Syrian population. Finally

\[17\] Ibid
another large threat to an intervention is the army’s air defense systems, which would poses a challenge for helicopters and fighter aircraft, since the SAM systems combined have an operational range up to about 14 kilometers (46,000ft) and the MANPADs operational range is up to about 5,200 meters (17,100ft).

The Syrian army has the following equipment:\(^\text{18}\):

- Main battle tanks (4950)
  - T-72 (1500-1700), T-62 (1000), and T-55 (2250)
- Reconnaissance vehicles (590)
- Armored Infantry Fighting Vehicles (2450)
  - BMP-1, BMP-2, and BMP-3
- Armored Personnel Carriers (1500)
  - BTR-152, BTR-50, BTR-60, and BTR-70
- Artillery (3440)
  - 122mm and 152mm
  - MRL 107mm and 122mm
  - Mortars 82mm, 120mm, 160mm, and 240mm
- Anti-Tank weapons
  - Missiles (2600)
  - RPGs 105mm
- Air Defense systems
  - SAM
    - Surface-Air systems (84)
      - SA-8, SA-9, SA-11, and SA-13
    - Man pads (4100)
      - SA-7, SA-14, and SA-18
  - Guns (1225)
- Tactical missiles – surface-surface (Scud types)(94)

\(^{18}\) Ibid
Navy

The Syrian navy is 5000 sailors large and consists of 43 ships of various types and generations from Russia and Iran and a small amount of helicopters. The navy would only pose a low threat towards a naval component of a coalition build around ships of western technology. The navy’s equipment is as follows19:

- Corvettes 2
- Fast Patrol Boats 22
- Patrol Boats 8
- Mine warfare and countermeasure boats 7
- Amphibious landing ships 3
- Logistics and support ship 1
- Helicopter – anti-surface attack 13

Air Force

The Syrian air force is 40,000 soldiers and an air defense of 60,000 soldiers in total 100,000 soldiers. As with the army and navy the majority of the equipment is older Russian generations of airplanes as well as its surface-air-missiles. The pilots gets between 15-70 hours of flying hours/year which means they are less proficient than their counterparts from i.e. NATO.

The Air force consists of the following types of units and equipment (figures in brackets are the number of aircraft types):20

- Fighter squadrons 6
  - MIG-23, and MIG-29 (85 combat capable) as well as MIG-25 (30 non-operational)
- Fighter squadrons (ground attack) 13
  - MIG-21, MIG-23, MIG-22 and MIG-24 (240 combat capable)
- Transport squadrons 4
  - Antonov, Illusion, Tupulev, Yak and Falcon (23)

19 Ibid
20 Ibid
• Training squadron 1
  o Albatros L-39 (81)
• Attack helicopter squadrons 5
  o Mi-25 (Hind) and Gazelle (33 and 30)
• Transport helicopter squadrons 6
  o Mi-8 (Hip), Mi-17 (Hip H) (40 and 40)

The air defense, also older generations of Russian equipment, consists of the following types of units and equipment:\(^\text{21}\):

• 2 air defense divisions with a total of 150 SAM batteries
  o SA-2 (468), SA-3 (148), SA-6 (195), and SA-7 (4000)
• 2 air defense regiments with a total of 2 SAM batteries
  o SA-5 (44)

One thing to note is that a SA-3 shut down a stealth aircraft (F-117) during the war in Bosnia, whether this was luck or operator skills is unknown. This however does not suggest that stealth aircraft is more detectable with the old systems, but indicates that they are detectable. This will however not hold back the use of these aircraft with this technology, since stealth is a clear force-multiplier of a coalition’s air-power.

**Paramilitary**

The paramilitary is 108,000 soldiers and is divided into 8,000 gendarmerie and 100,000 in the worker’s militia also called the people’s Army (Ba’ath Party).

**Summary of the Syrian Armed Forces**

Syria’s armed forces is fairly large with a lot of hardware. However, the military equipment is not of modern western technology and thus is at a different level of generation compared to that of the West. Most of its equipment is old and is mainly based on Russian equipment, which was also seen during the cold war, and somewhat also of Iranian equipment. The structure of the

\(^{21}\) Ibid
armed forces looks like the old Eastern-block military construction and is of old style command structure. Overall the large numbers of soldiers and equipment would be the challenge as opposed to the technology of the equipment for a military intervention. Another thing to note about the structure of the forces is the division of air defense. This is a typical former eastern-block structure and division of air defense, separate air defense incorporated in the army and separate air defense to the air force. It is notable that the army has the most modern systems of SAM systems, which are mobile compared to the air defense in the air force, which has the very old and more or less stationary SAM systems (SA-2 and SA-3) combined with mobile units as well.

Possible Military Interventions

Syria’s military forces, its geography, and its location allows for a variety of military options in terms of an intervention. Two options for intervention will be described i) a look-a-like Libya setting which relies on the same conditions which was seen in Libya. The focus will be on air-power and naval forces, and with support to the Free Syrian Army and ii) a more heavy land-forces focused operation which involve army troops from Turkey and amphibious forces from the Mediterranean Sea supported by air-power. The following will describe how the latter two options would look like. What would be common for both would be an UN sanctioned operation through an United Nation Security Council Resolution on an intervention allowing for an arms embargo, establishment of a no-fly-zone (NFZ) and protection of civilians. Once the legal basis, international, and regional support for an intervention is in place a various options for military intervention exist. The following paragraphs will describe how two likely military interventions could look like.

The two options that are going to be described are different in terms of the use of forces from a coalition. Since Syria has a large armed forces both land and air force the options would be i) heavily relying on air power and ii) relying on land forces and air power. There will be a lot of similar operations and weapon platform and use of special equipment for both types of operations, which will enable the coalition to conduct its operations as effectively as possible. An example of this could be the use of drones for intelligence gathering as well as for combat operations.
OPTION 1 (Operation Thunderstorm)

Since the Syrian armed forces consists of a large number of ground forces which could pose difficult to deal with for coalition ground forces and the current international mindset that our countries does not like to lose soldiers an operation could look like the one seen against Libya. Which was mostly relying on airpower and support to the rebels of various kinds, combined with small groups of special forces in country.

Since the Syrian air force and its air-defense is large, but luckily not the most modern one, it would require a more robust engagement of coalition aircraft, than the one seen in Libya, but the technology difference will benefit the coalition.

One of the first things that would happen would be attacks against command and communication infrastructure as well as attacks against air defense systems. This could happen with use of stealth aircraft and cruise missiles. This could be combined with/followed up by a very directed air operation focusing on taking out the Syrian air force and air defense. To do this the coalition force would require the whole range of aircraft that is available i.e.: jammers, air-air, and air-ground, and refueling aircraft. Packages of combinations of these aircraft would attack different targets simultaneously and take out the Syrian air force and air defense. This would be a challenging operation because of the concentration of Syria’s airbases (see Figure 522) combined with the numbers of forces.

However, the Syrian equipment is of older generation compared to the Western equipment and thus will give the coalition an advantage. In military terms the coalition would have an advantage in technology that equals a factor ranging from 1:2 to 1:4 depending on the aircraft used in the operation. This is the same ratio that was seen technology wise in Libya related to aircraft. However, the Syrian air defense in the army and the air force would pose a higher threat towards a coalition and thus make it a more challenging task. It would require more aircraft or time to gain air superiority compared to Libya. The aircraft in the operation would be coming from bases

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22 Syrian Arab Air Force/Al Quwwat al-Jawwiya al Arabiya as-Souriya
in Europe and Turkey perhaps also Israel (however, this is a joker looking at the situation in the Middle East vs. Israel).

One could also argue that Iraq would be an option. But the lack of operational runways in Iraq as well as the issue of having US and western soldiers in large numbers based in Iraq again would create a problem for Iraq itself internally, and there would also be the issue of possible attacks against the coalition as the world saw during the occupation Iraq until last year.

**Figure 3: Syrian Air Bases (Paved)**

The most likely aircraft used would be fighters a-la F-15, F-16, Mirage, Tornado, F-18 as the predominant fighter and fighter bomber aircraft. Together with the fighters a series of dedicated bombers like the B-1, B-2 and B-52 would also be aircraft that could be used to destroy infrastructure like the runways and air defense systems. Air refueling is paramount for air operations of this kind. Other force multipliers would be reconnaissance aircraft, intelligence gathering aircraft, and jammer aircraft etc. (i.e. AEW&C (known as AWACS), J-STAR, Compass Call) that would enhance and increase the success-rate for the missions as well as raise the speed of which the operation would end.
While the air operation is on-going a Naval force would also be supporting the mission with cruise missiles and enforcing the embargo as well as fighting the Syrian Navy to ensure freedom of movement for the coalition forces at sea.

Once the air operation has created air dominance/superiority or even better air supremacy the Syrian army would then be the next target and the concentration would now be on limiting its movement and degrade its artillery and tanks so it cannot be used for attacks against the civilian population. Compared to i.e. Libya this would be a big challenge for the coalition. The amount of tanks in Syria is about 6 times more than in Libya and for artillery it is 1.5 times more. This would result in a longer lasting operation or require a lot more aircraft, bombs, missiles and rockets to deal with Syria’s large amount of tanks and artillery.

Meanwhile support to the rebels and the Free Syrian Army would take place by equipping them with weapons like handguns and ammunition up to and include RPGs as well as special units to help command the troops in the fight against Syrian forces.

The use of special forces would also be one of the key units in this operation. They would be able to take out infrastructure and communication as well as support air operations in locating targets as well as generate valuable and important intelligence. Special forces could also be used for engaging in taking out/detaining key-leaders from Syria.

In this operation the use of land forces for combat would be very limited since the focus would be to enforce the NFZ and the protection of civilians. After the combat operations has seized the international community together with the UN might decide to engage an UN peacekeeping force until the country is stabilized and a new government has been created.
**OPTION 2 (Operation Dust Storm)**

This option will also encompass a large amount of the elements in Option 1, the major difference in this operation would be that coalition land forces would play a major role in.

While air operation, supported by the NAVY and special forces, is taking place final preparations for a land invasion of Syria is taking place. Depending on Turkey’s position of this intervention, Turkey could be used as a hub and base for a majority of the land forces.

An invasion of Syria would be a combination of forces coming over the Turkish-Syrian border taking control of the northern parts of Syria as well as moving south as a strategic reserve to the amphibious forces. At the same time an amphibious force, which could be the US Marine Corps, would land on the shores of Syria’s beaches and at its harbors, depending on access, and start moving south towards Damascus. This would be synchronized with the rebel groups in Syria to assist in the battles. Depending on availability as well as the hostile environment it could be an option to use airborne units as well around the Damascus area or if Israel is willing to engage forces from the Israeli-Syrian border. See Figure 6. As with Option 1, one could argue that Iraq could be used for a land operation against Syria. This would be a possible solution, but the logistics together with most likely poor to none host-nation support this would be a very large-scale operation. Added to this would also be, as argued previously, the threat towards a coalition from rogue elements in Iraq.

**Figure 6: Land Operation in Syria**
This operation would be more complex for the coalition because of synchronization between a lot larger force as well as coordination with land force to avoid blue on blue. Further a division of forces between the air operation and support to the land operation would also complicate the operations due to prioritization of forces. This type of operation would most likely also generate more coalition casualties and also be of exposure for propaganda from Syria at the home countries trying to break the cohesion of the coalition and thus willingness to fulfill the operation.

Once the operations are over and have become a more peace enforcement/peace keeping a possible UN peacekeeping force could take over and hence the operation would therefore transition into a UN mission both civilian and military. With the goal of supporting a new Syrian government establishing itself and create a stable environment for everybody in Syria. The will be a lot of similar operations and weapon platform and use of special equipment for both types of operations which will enable the coalition to conduct its operations as effectively as possible. This could include the use of drones for intelligence as well as for combat.

If the international community decides that a military intervention is the only option, Denmark’s options for supporting this can vary depending on the commitment Denmark chooses, seen from the perspective that Denmark was a substantial player in terms of combat contribution during the missions in Libya.

What are Denmark’s options:

- Support from the Air Force with F-16’s as was seen during the mission in Libya.
- Naval support with one or two of the Danish Navy’s ships, which could be the Absalon-class and/or the new frigate, the Iver Huitfeldt-class once this is fully combat operational.
- Special forces from the navy and/or army.
- Army units embedded with the coalition i.e. a battle group or tanks.
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