





# Syria as Candidate for Air Attack (SCAA)

# 1.1 Purpose

The purpose of this study is to provide information necessary for planning an air campaign against Syria.

# 1.2 Scope

This study is general in nature and is not operation specific and is created without a specific order to conduct an air attack against Syria. As such specifics for a given situation may not be available in this document but will be available in supporting intelligence reports.

#### 1.3 Guidance

The structure of Syria is divided into five general classifications and will be discussed as own chapters in this study: Fielded military forces, Population, Infrastructure, System essentials and Leadership.

Each of these elements should be considered for its applicability for attacks from air attack.

# 1.4 Maps

See CombatFlite files: OPAR\_JFC OPAR v2.0 Situation OPAR\_VID Joint Target List

# 2 Air Force Objectives

# 2.1 General Principles

The economic and social structure of Syria is highly integrated. A rapid and parallel destruction of selected critical vulnerabilities associated with Syria's Center of Gravity may bring a series of collapses in related areas until the entire system's structure collapses or persuades the Syrian regime to end the conflict.

A vital objective of the air forces is affecting such centers of gravity. Using air forces to exploit the maximum of their capability to reach and affect distant surface targets accomplishes the strategy of assuming the strategic offensive.

Since air forces can fly over natural obstacles and fielded military forces, they can affect any center of gravity known to exist with the Syrian national territory. Affecting such centers of gravity will be constrained by the number of targets needed to achieve the desired effects, the threats to air forces prosecuting these targets and the limitation in friendly capabilities to conduct such attacks.

#### 2.2 Air defense

It is vital that the Syrian air defense forces (Both aircrafts and SAM systems) are reduced to a level that they cannot prevent attacks from the air against the Syrian center of gravities.

# 2.3 Ideal Aerospace objective

The ideal objective for air attacks are undefended centers of gravity of the Syrian national structure.

# 2.4 CJTF objective in war with Syria

The political, military and economic history of Syria indicate that in a conflict, the Combined Joint Task Force objective would be to force the Syrian regime to follow the will of Coalition that is part of the CJTF.

This will include attacking and destroying the regime or destroying the means the regime have of projecting power.

Additional objectives will likely be to reduce the offensive capacity of Syria and remove the threat from weapons of mass destruction.

#### 2.5 Applications of principles in this study

The rest of this study will show that Syria is a structured modern nation, integrated with the world economy and vulnerable to air attack

Within Syria there are several potential centers of gravities which consists of a limited number of targets. Affecting such centers of gravity with air forces can accomplish or make a decisive contribution to the probable objectives in a war against Syria and The Coalition.

#### 3 Environment

#### 3.1 Geographical

Syria is a flat, littoral sand covered country along the Mediterranean Sea, broken only by lateral promontories running down from the mountains by the Turkish border to the sea, cut diagonally by the Euphrates River. Syria claims a territorial limit of 12 nautical miles off its Mediterranean coastline.

#### 3.2 Population

Syria has a population of around 20 million people. The population is a mosaic of social groups of various sizes that lack shared values and loyalties binding the population into a nation. A larger concentration of the population is found in the major cities of Damascus, Aleppo, and Homs.

#### 3.3 National Character

Not applicable.

# 3.4 Economy

The Syrian economy is highly connected to the world economy through export of agriculture products and export of oil products.

Syrian cities have both traditional and modern industry that export refined products such as cotton, clothing fruits and olive oil.

Syrian imports are primarily raw material needed for industrial production.

# 3.5 Political-military foundation

Syria is highly authoritarian regime. The president is also the general secretary of the national party, and function as the supreme commander in chief in wartime. See <a href="section8">section 8</a> for additional information. The Syrian civilian society and the Syrian military are organized as a very centralized and hierarchical system. The Syrian military are organized with a Syrian Army, Syrian Air Force (which include the Syrian Air Defense Forces) and a Syrian Navy. The Syrian armed forces are controlled by the General staff as the main military council in peacetime and as the headquarters of the Supreme High Command in war.

The Syrian army independent units are considered strategic assets and are controlled directly by the headquarters of the Supreme High Command.

The Syrian armed forces have given significant priority to their air defense systems, and as such the air defense forces are given the best training and equipment and have a very high morale.

Syria and Russia have an alliance together, which increases the Russian influence in the Middle East through its bases in Syria. Syria has close connections with Iran and is receiving support from Iran. Syria and Pakistan are sharing technology and have been working closer together the last years.

### 3.6 Summary

Syria is a highly authoritarian regime with a modern economy that is connected to the world markets for import and export. This makes it a viable candidate for air attacks through various targeting priorities. To put pressure on the regime and the centralized command and control will make it harder for the Syrian regime to react effectively in a time of crisis. Morale and the people can also be affected by the import and export for the regime. Syria have several close ties to other nations that may come to its aid if Syria is threatened.

# 4 Fielded Military Forces

# 4.1 National Military Policy

#### 4.1.1 Doctrine

The Syrian regime is a highly authoritarian regime with a strong hierarchy for its military forces. The Syrian armed forces use a very centralized system for command and control. The Syrians recognize that effective command and control is critical for success in modern warfare, while at the same time they do not want to give their commanders too much freedom as they are afraid of losing control of the various military units. Their method of ensuring success is to establish and maintain a system of tightly centralized command and control over the combat and supporting forces at each level of command.

The Syrian commander at each level is charged with overall responsibility for his forces. The Corps commander is responsible for the conduct of the entire operation in which his Corps is involved and for carrying out long-term operational plans. Division commanders, in turn, receive their missions from their respective Corps commanders.

Neutralization of the centralized command and control structure will have the effect of paralyzing the organization. If a division HQ/ Division commander is neutralized the Division's operations will come to a standstill, and it will take some time (1-2 days) before the command structure is re-established and a new commander is in place to work effectively.

Future plans are not shared down the chain of command and commanders so any attacks at higher echelons contribute to delaying Syrian offensive and defensive actions.

#### 4.1.2 Influence of geographic and economic factors

Revenue from export of oil from the oil industry in Syria is very important for the Syrian economy. Attacks or threats of attacks against the oil industry will create pressure and set conditions for leverage during negotiations in final phases of a conflict.

Due to the geography with an exposed coastline to the Eastern Mediterranean (EMED) and bordering to Israel and Turkey as an enemy, and Lebanon, Iraq and Jordan as neutral countries Syria have created a strategic depth towards the Iraqi border and placed high value items, critical infrastructure and important research in the desert far away from the coast and its enemies. In addition, along the coast and the borders of Israel and Turkey a heavy focus on air defense is on place.

#### 4.1.3 Perceived greatest threat

Syria's perceived greatest threat is western airpower and ability to conduct power projection from the air. Because of this Syria have put down a significant effort in increasing its air defense structure, and this is together with the WMD program the prioritized effort in the Syrian Armed Forces. WMD are being used as a deterrent toward any attacks, and it is likely that offensive operations against Syria will create a rationale for Syrian leadership to use or threaten to use WMD.

#### 4.1.4 Other planning factors

**NSTR** 

#### 4.2 Defense Establishment

The Syrian armed forces are organized into the following branches:

- The Syrian Army
- The Syrian Air Force (which include the Air Defense Forces)
- The Svrian Navv

The Syrian armed forces are loyal and answer directly to the President in his role as Supreme Commander in Chief. The President is supported by his general staff which have the direct control of the armed forces on behalf of the president. The Syrian armed forces are controlled by the General staff as the main military council in peacetime and as the headquarters of the Supreme High Command in war.

The Syrian army independent units are considered strategic assets and are controlled directly by the headquarters of the Supreme High Command.

Within the Syrian armed forces, the highest importance are the armored divisions in the Army, independent units (as strategic assets) and air defense forces. These units have the highest standards, highest training, receive the highest priority if needing to prioritize fuel, ammunition, or food.

#### 4.3 Syrian Army

See <u>Syrian Army detailed overview</u> for information about the Syrian Army. In addition to the active-duty units, the Syrian Army also has a 6<sup>th</sup> Corps that is reservists and can be mobilized on order. Mobilization of a Corps will take 7 days until the force is available at the base for mobilization, staging and training, and another 7 days of training before it can be deployed to the field. If needed, the Syrian Army headquarter also can mobilize only parts of the Corps as they see fit for the situation.

The Syrian army have 5 major bases (home base for 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> Corps). When the Corps is deployed in the field, the army base can be used as a mobilization base for mobilization units.

Destruction of an army base will have two effects:

- 1. It will make it impossible to mobilize Syrian forces at the base.
- 2. Destruction on the base will also impact the moral of the Corps that uses the base as its home base. Moral will be reduced (Skill level lowered in DCS).

# 4.3.1.1 SYTGT001 Syrian Army HQ building 1

Syrian Army HQ is located in Aleppo. The building houses sections for planning, organizing and development in the Syrian Army. If the building is destroyed, deployment or movement of Corps size units, or the 91<sup>st</sup> Republican Guard Armored Division (Syrian strategic reserve) will be delayed by 4-7 days.

If this building is destroyed, the Syrian Army ability to conduct a offensive using more than one Corps is removed, and thus a large scale invasion from a mobilized Syrian Army will not be possible.

# 4.3.1.2 SYTGT002 Syrian Army HQ building 2

The building houses the Syrian Army High Command section responsible for mobilization of the Syrian army. If this building is destroyed, any mobilization of army reserve units is delayed by 4-7 days.

The destruction of this building will also likely cause chaos in the mobilization and deployment of forces, and may cause battalions not ending up in the right position, causing further chaos and friction, and delaying combat effectiveness of the mobilized forces even more.

#### 4.4 Syrian Airforce

See INTREP VID OPAR-001 - Syrian Air Force for detailed information about the Syrian air force

See **INTREP VID OPAR-002 - Syrian IADS** for detailed information about Syrian Air Defense Forces.

#### 4.4.1.1 SYTGT103 Syrian Air Force Headquarter

The Syrian Air Force HQ primary role is to work with long term plans, training, budgeting, which has no effect on the short term. If destroyed will reduce ability to train new pilots, introduce new aircraft, weapons, and systems. Destruction of the Air Force headquarter will also slow the activation of new air defense units being trained at the Syrian Air Defense Academy (SYTGT062)

## 4.4.1.2 SYTGT072 60th Air Division HQ

Plans and execute major Syrian air operations for the 60th Air Division (A-A). If destroyed, the regiments belonging to that division will not be able to participate in major air operations until a new division headquarter is operational.

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This is for multiplayer online gaming using the Digital Combat Systems simulation software published by Eagle Dynamics. The information is not in any way suitable for real world use or operations.

#### 4.4.1.3 SYTGT073 70th Air Division HQ

Plans and execute major Syrian air operations for the 70th Air Division (A-G). If destroyed, the regiments belonging to that division will not be able to participate in major air operations until a new division headquarter is operational.

#### 4.4.1.4 SYTGT074 80th Air Division HQ

Plans and execute major Syrian air operations for the 80th Support Division (Support). If destroyed, the regiments belonging to that division will not be able to participate in major air operations until a new division headquarter is operational.

#### 4.4.1.5 Syrian Air Defense Academy (SYTGT062)

New air defense units produced at factories are sent to the Air Defense Academy for final testing and verification, and initial training and establishment of new air defense units to replace units lost in battle or reinforce active-duty Syrian Air defense units. Destruction of the facility will slow reinforcement of active-duty Syrian Air defense units.

# 4.5 Syrian Navy

#### 4.5.1.1 Syrian Navy HQ (SYTGT100)

Syrian Navy HQ reports to the General staff in wartime and coordinates all Syrian maritime operations. This headquarter also coordinates with any other nations that are supporting Syrian maritime operations. This headquarter is responsible for ensuring safety of crucial supplies into Syria via the sea and is also responsible for any reinforcement from the sea from supporting nations.

If destroyed, the Syrian ability to coordinate maritime operations will be severely reduced, and it will create friction in receiving supplies from civilian ship traffic with the potential to slow down the steady flow of supplies from the sea by 50%. Destruction of the building will also contribute to increased friction in coordination of oil tankers offloading from Syria with Syrian oil for the export market, and thus reducing the income for the Syrian government.

#### 4.5.2 1<sup>st</sup> Patrol Boat Squadron

Based in Latakia, with 5xFSG 1241.1 MP Molniy

# 4.5.3 2<sup>nd</sup> Frigate Squadron

Based in Tartus, with 3x Frigate 1135M Rezky

# 4.6 Command, Control and Communications

Due to the centralized nature of the Syrian Command and control system, the effects of destroying the Command Centers and communication links that enable command and control will likely remove the ability for the Syrian IADS network to operate efficiently, e.g. degraded IADS, reduced readiness, increased QRA reaction time and forced autonomous action by local commanders who are not at all used to making key decisions on their own.

# 4.6.1 SYTGT066 Syrian Air Defense Command Center (ADCC)

This is the central node of the entire Syrian IADS. The air defense command center coordinates all parts of the IADS and facilitates information flow to the relevant Sector Command Centers and other participants. The Air Defense Command Centre is powered by a primary power source and a backup power source. By attacking and destroying the power sources the air defense command center is unable to function. The Air Defense Command Centre also have a backup command Centre (SYTGT104) that takes its function if the DISCLAIMER:

primary command center is destroyed. The backup command center will have its own power sources to function. The air defense command center and backup command center are fixed installations that are not moved around.

# 4.6.2 Sector Command Centers (SCC)

Syrian Air Defense forces have three Sector Command Centers (SCC). Located at Al Dumayir (SYTGT067 - South), Tabqa (SYTGT068 - East) and Abu al-Duhur (SYTGT060 - West). If the SCC is destroyed, the IADS connectivity in that sector will be disrupted and SAMs in the sector will likely either go completely offline without detection or alert of coalition aircraft, or they will be activated once they lose connectivity to the SCC making them easier to target.

It is currently not known if the Syrian Air Defense Forces have been able to create backup SCC to take the role of the primary SCC if it falls out.

# 4.7 Military research

#### 4.7.1.1 Al Safira Military Research Center (SYTGT081)

Syrian military research for all domains is primarily done at Al Safira Military Research Center (SYTGT081) about 17nm SOUTHEAST of Aleppo. This research facility is both an academic center for research, and a center where military officers are sent to develop new doctrine and tactics for the Syrian armed forces. The research center is the central node in the Syrian military research, and it leads and coordinates research at other Syrian installations. The recent years the priority has been on air defense and missile and rocket technology. A focus has also been on the development of armor and reverse engineering of Russian T90 Tanks in order to start own production line of T90 tanks. Biological warfare also a priority and focus of effort for this research center, as the center is in competition with Sarqiyha Reserach Center (SYTGT059) which is researching on chemical weapons. Both as part of the Syrian WMD program.

#### 4.7.1.2 SYTGT059 Sargiyha Research Center - Chemical Weapon research facility

Destroying this facility will contribute to the overall effect of reducing the Syrian capability to enhance their weapons of mass destruction deterrence by producing more lethal and dangerous chemical weapons. Destruction of the facility will force the Syrians to only use what they currently have in its stockpile of chemical weapons, and not be able to add more advanced chemical weapons into the inventory.

#### 4.7.1.3 SYTGT058 Chemical Weapon research facility

Destroying this facility will contribute to the overall effect of reducing the Syrian capability to enhance their weapons of mass destruction deterrence by producing more lethal and dangerous chemical weapons. Destruction of the facility will force the Syrians to only use what they currently have in its stockpile of chemical weapons, and not be able to add more advanced chemical weapons into the inventory

#### 4.7.1.4 SYTGT064 Rocket research facility

Research into all aspects of rockets. Destroying this facility will contribute to the overall effect of reducing the Syrian capability of delivering weapons of mass destruction by rockets. Research is currently under way on how to better use rockets as delivery of chemical, biological, and nuclear weapons.

#### 4.8 Unconventional Warfare

#### 4.8.1 Alsyf Almuqadas

Alsyf Almuqadas, السيف المقدس (Holy Sword) is an international terrorist group that supports the Syrian Regime. The terrorist group is based in Syria, but have cells operating in several countries including Turkey, Lebanon, Jordan and Israel. Alsyf Almuqadas is capable of conducting complex attacks using both Vehicle Borne Improvised Explosive Devices (VBIED) in combination with attackers. The group is also reported to have been trying to acquire drones. It is likely that the groups is backed by IRAN and used in as a proxy for attacks against western influence in the region.

The group is led by Mehmed Salo, and he is responsible for several attacks against western forces in the region.

#### 4.8.2 Daw Satie

Daw' Satie (Shining Light) is a Turkish insurgency group that fights for independence in a region in Turkey. The group are supporting the Syrian regime in the border areas between Syria and Turkey. The Syrian regime is also supporting this insurgent group with weapons, money, and training. Daw' Satie has its origins in Gaziantep. The group can conduct regular terrorist attack but can also conduct conventional attacks. The group is led by Zoran Baid.

# 4.8.3 931st Special Forces Brigade

The Syrian regime uses it 931<sup>st</sup> Special Forces brigade for several roles. Its missions are:

- To mentor and support terrorist and insurgent groups.
- Long range reconnaissance (in other countries)
  - This can be toward airfields, FARPs, harbors, to give early warning about enemy activity.
- Direct action and sabotage against important targets in other countries.
  - This can be airfields, ammo storages, SAMs, radars, or other important targets in order to reduce the enemy capacity.

#### 4.9 Weapons of Mass Destruction

The Syrian army have three surface-to-surface missile regiments (922<sup>nd</sup>, 923<sup>rd</sup> and 924<sup>th</sup>) equipped with SCUD's. The SCUDs can be used with either a conventional warhead, or with a WMD warhead. Destruction of the SCUD regiments will eliminate the threat of WMD delivered by ballistic missiles.

SCUD battalions operate at three different alert levels:

- Alert level 1: Highest alert. SCUDs are deployed to the field and are either hidden or mobile to prevent targeting from enemy forces. In alert 1 SCUDs just need to rendezvous with fuel trucks and ammo trucks with warheads before being ready to fire.
- Alert level 2: SCUDs are still in base but are ready to leave base at 30 minutes notice in order to avoid being targeted from enemy forces.
- Alert level 3: Lowest alert. SCUDs are at home base and personnel can take leave and it will take up to 24 hours before the SCUDs can leave home base. This is the default alert level for SCUD battalions.

To launch an attack with WMD, the Syrian Regime need approximately 48<sup>th</sup> hours to prepare and set-up.

The assessed modus operandi for such an attack is as follows:

- 1. SCUDs depart from their bases to the desert to be hidden and not targeted. (Time dependent on alert status and distance from storage to operation area).
- 2. Precursor chemicals are brought from storage into facility X or Y. (Time dependent on storage and alertness of transport battalions)
- Precursor chemicals are mixed into the final chemical weapon warhead at either Tabqa chemical weapon production factory, SYTGT060 or Damascus Chemical Weapon research facility, SYTGT058. (Time: 12 hours)
- 4. Chemical Weapon warhead is brought out to location of SCUDs
- 5. SCUDs are loaded with chemical weapon warhead (4 hours)
- 6. SCUDs are loaded with propellent for the rocket (6 hours)
- 7. SCUDs are ready to launch

Alert level 1 does not necessarily mean that SCUDs are intended for attack or chemical weapon attack, as it can also be a defensive measure to prevent the SCUDs from being attacked. However, SCUD BN's at alert level 1 only need to link-up with the fuel trucks and the ammo trucks with the warheads before launch and if stage 2 and 3 is conducted without warning or indication, then warning time is reduced.

#### Indicators for SCUD attacks:

- SCUD leave home base (but can also just be raising alert to level 1)
- Fuel truck loading rocket fuel and joining up with SCUD BN in field (Special kind of fuel truck, only for rocket fuel, see Surface-to-surface missile regiment in INTREP VID B-001 Generic Ground Force Structure
- Ammo truck loading warhead (either conventional warhead from home base or SCUD storages. But can also be finished chemical weapon warhead from SYTGT060 or SYTGT058).
- SCUD TEL, fuel truck and ammo truck co-located

# 4.10 Summary

The Syrian armed forces have a large and capable army. Within the army the armor units are the top tier elements. The large army make it possible to defend Syria while at the same time being a threat to other neighbor countries such as Israel, Turkey, Jordan, Iraq, and Lebanon. The army are limited by the age of their equipment. For example, most armor units have the T-72. Only the Republican Guard Armor Division have a more modern T-80. Syria do not have any modern T-90 main battle tanks. The Army also have a significant capacity for rocket artillery that pose a threat to coalition forces. The Syrian Air Force have a sophisticated IADS to protect Syria against attacks from the air. Syria also has strategic assets in their SCUDs that can be used with both conventional or chemical warheads. The Syrian Armed forces are a potent adversary that pose a threat to neighboring countries.

# 4.11 Armed Forces as candidate for Aerospace attack

# 4.11.1 Strategic center of gravity (are the Syrian Armed forces Syria's national center of gravity?)

The Syrian Armed forces can be considered a strategic center of gravity. Without the Syrian armed forces, the Syrian regime will not have an offensive capability and will not have the ability to project power and influence in the neighboring states. The Syrian armed forces are also used to project power and maintain control internally in Syria and aids the regime in maintaining peace and order in Syria.

#### 4.11.2 Operational center of gravity (within the armed forces)

**Armor Divisions**: Gives the armed forces its offensive power

**Rocket artillery:** Highly capable units able to inflict heavy losses both offensively and defensively.

**SCUDs:** Threat of attacks with weapons of mass destruction is used by the Syrian regime to project power and influence.

**Air Defense Forces (IADS):** The ability to protect Syria from attack from the air is vital and enable the Syrian Army to operate without threat from the air.

# 4.12 Armed Forces Counterair capability

See INTREP VID OPAR-001 - Syrian Air Force and INTREP VID OPAR-002 - Syrian IADS for detailed information about Syrian armed forces counterair capability.

In addition to this, the Syrian Army's Corps have Air Defense divisions to protect the Syrian Army Corps. For additional information on the Air Defense in the Syrian Army see: *INTREP VID B-001 Generic Ground Force Structure* and Syrian Army Order Of Battle

# 5 Population

# 5.1 Food supply

If a food factory is destroyed, the Syrian government can change the priorities and ensure that food is directed to the corresponding food storage.

If food distribution to the Syrian armed forces is disrupted to the level where they do not get enough food, then the moral of the Syrian armed forces affected will be lowered (DCS skill level lowered)

Food is also delivered to the civilian market from international sources. This is done through ships coming in to Latakia and Tartus.

# 5.1.1.1 Hama food factory (SYTGT107)

This food factory produces food for SYTGT117 Raqqa Food storage. Food production in this factory ensures that SYTGT117 Raqqa food storage is filled up at any time. Every 2 days a convoy is dispatched from this food factory to Raqqa food storage to ensure it is topped up with food. The convoy consists of 18 supply trucks (1 Logistical BN with only supply trucks for food).

Dual purpose facility, as this food factory produces food both for the Syrian armed forces, but also for the civilian population. Civilian trucks are used for the distribution of the food going to the civilian market.

#### 5.1.1.2 SYTGT113 Tartus food factory

This food factory produces food for SYTGT118 Damascus Food storage. Food production in this factory ensures that SYTGT118 Damascus food storage is filled up at any time. Every 2 days a convoy is dispatched from this food factory to Damascus food storage to ensure it is topped up with food. The convoy consists of 18 supply trucks (1 Logistical BN with only supply trucks for food).

Dual purpose facility, as this food factory produces food both for the Syrian armed forces, but also for the civilian population. Civilian trucks are used for the distribution of the food going to the civilian market.

#### 5.1.1.3 SYTGT 114 Idlib Food factory

This food factory produces food for SYTGT116 Idlib Food storage. Food production in this factory ensures that SYTGT116 Idlib food storage is filled up at any time. Every 2 days a convoy is dispatched from this food factory to Idlib food storage to ensure it is topped up with

food. The convoy consists of 18 supply trucks (1 Logistical BN with only supply trucks for food).

Dual purpose facility, as this food factory produces food both for the Syrian armed forces, but also for the civilian population. Civilian trucks are used for the distribution of the food going to the civilian market.

# 5.1.1.4 SYTGT 115 Aleppo food factory

This is a military target as part of the Syrian armed forces. The factory produces specialized rations for Syrian military forces and is distributed to all military food storages. Every 6 days a convoy of 6 supply trucks (KAMAZ 43101) is sent to each of the military food storages.

#### 5.1.1.5 SYTGT 116 Idlib food storage (military)

Idlib food storage stores and distributes food for 1<sup>st</sup> and 2<sup>nd</sup> Corps. This storage is a military installation.

The food storage contain food for 7 days.

If destroyed, the food distribution to 1st and 2nd Corps will be temporarily disrupted.

Every 4 days a convoy is sent to both 1<sup>st</sup> Corps and to 2<sup>nd</sup> Corps to fill up with sufficient days of supply. Each convoy consist of 18 supply trucks (1 Logistical BN with only supply trucks for food).

There are 2 Logistical Battalions attached to this storage. Each logistical battalion consist of 18 supply trucks for food (KAMAZ 43101). The logistical battalions are responsible both for distribution to the Corps, but also to pick up food at the factory producing food to the storage.

#### 5.1.1.6 SYTGT 117 Ragga food storage (military)

Damascus food storage stores and distributes food for 5<sup>th</sup> and 6<sup>th</sup> Corps. This storage is a military installation.

The food storage contains food for 7 days.

If destroyed, the food distribution to 5<sup>th</sup> and 6<sup>th</sup> Corps will be temporarily disrupted.

Every 4 days a convoy is sent to both 5<sup>th</sup> Corps and to 6<sup>th</sup> Corps to fill up with sufficient days of supply. Each convoy consists of 18 supply trucks (1 Logistical BN with only supply trucks for food).

There are 2 Logistical Battalions attached to this storage. Each logistical battalion consists of 18 supply trucks for food (KAMAZ 43101). The logistical battalions are responsible both for distribution to the Corps, but also to pick up food at the factory producing food to the storage.

# 5.1.1.7 SYTGT 118 Damascus food storage (military)

Damascus food storage stores and distributes food for 3<sup>rd</sup> and 4<sup>th</sup> Corps. This storage is a military installation.

The food storage contains food for 7 days.

If destroyed, the food distribution to 3<sup>rd</sup> and 4<sup>th</sup> Corps will be temporarily disrupted.

Every 4 days a convoy is sent both to 3<sup>rd</sup> Corps and to 4<sup>th</sup> Corps to fill up with sufficient days of supply. Each convoy consists of 18 supply trucks (1 Logistical BN with only supply trucks for food).

There are 2 Logistical Battalions attached to this storage. Each logistical battalion consists of 18 supply trucks for food (KAMAZ 43101). The logistical battalions is responsible both for distribution to the Corps, but also to pick up food at the factory producing food to the storage.

# 5.2 Clothing

**NSTR** 

#### 5.3 Shelter

**NSTR** 

#### 5.4 Public health

#### 5.4.1 Hospitals/direct health care

There are three main hospitals in Syria, which are defined as no-strike targets:

- Tartus Military Hospital: IVO SYTGT025
- Al Assad University Hospital: IVO SYTGT096
- Syrian Children's Hospital: IVO SYTGT070

In addition to these, there are multiple medical clinics throughout the country.

#### 5.4.2 Sanitation/water supply

The following water supplies is important for the civilian population in Syria, and are no-strike targets:

- Tisreen Dam: Northeast of Jirah
- Khafsa Water Treatment Plant: Co-located with SYTGT092
- Tabga Dam: IVO SYTGT083
- Baath Dam: East of Tabqa
- Al Rastan Water Treatment: IVO Al Rastan Reservoir

#### 5.4.3 Public utilities

**NSTR** 

### 5.5 Agriculture

- 5.5.1.1 SYTGT124 Kuweires E Food Processing Plant
- 5.5.1.2 SYTGT 125 Tel Am Grain Storage
- 5.5.1.3 SYTGT126 Aleppo Grain Storage
- 5.5.1.4 SYTGT127 Kuweires W Food Processing Plant

#### 5.6 Basic Industry

#### 5.6.1.1 SYTGT130 Madriayra Parts Factory

This factory produces electrical components used for Syrian Military vehicles. Destruction of the facility may interrupt the production of new military vehicles. The factory is also producing electronical components for the Syrian civilian society.

#### 5.6.1.2 SYTGT131 Damascus Parts Factory

This factory produces mechanical components used for Syrian Military vehicles. Destruction of the facility may interrupt the production of new military vehicles. The factory is also producing for the Syrian civilian society.

#### 5.7 Information

**NSTR** 

#### 5.8 Summary

The civilian food production in Syria also produce food for the military and is such a valid military target. Hospitals, medical clinics and water supplies are no-strike targets and important to avoid.

#### 6 Infrastructure

#### 6.1 Communications

## 6.1.1 Syrian Intelligence Internet Agency (SIIA) (SYTGT094)

Syria Intelligence Internet Agency (SIIA) (SYTGT094) serves two functions for the Syrian Armed Forces. The primary purpose is to collect intelligence in cyberspace. The second purpose is to conduct offensive operations in cyberspace. It is likely that SIIA are working towards CJTF forces both for collection and for offensive operations. Assessed targets of high interest for SIIA is penetrating command and control networks for collecting intelligence and penetrating Air Defense (Patriot and ship-based air defense), as well as logistics systems to hamper CJTF resupplies of critical items into the theater. If attacked, it is likely that the Syrian forces will conduct an advanced operation starting with an offensive cyber operation to take out CJTF air defense for a time window, followed by a strike from the Syrian air force.

Destruction of this target will remove the threat of offensive operations in cyberspace from SIIA. Removal of this target will thus ensure that the friendly air defense network will be operational (Patriot and ship-based air defense), and threat of logistical errors are removed.

#### 6.1.2 Telecommunications

#### 6.1.2.1 International communication center (SYTGT035)

The international communications center (SYTGT035) is a dual use facility. It is used by civilian Syrian media as well as international media. In addition, the Syrian Armed Forces are using one part of the building to create and broadcast propaganda on behalf of the Syrian Regime. In another part of the building the Syrian Armed Forces have a backup server for their command-and-control communications network that controls the armed forces. Due to the dual use and nature of this target with civilian international media, it is a sensitive target that needs approval from CJTF-82 Commander for engagement. Destruction of this target will reduce redundancy for Syrian armed forces to command and control own forces (Also see Damascus radio tower, SYTGT034). In addition, the destruction of the building will reduce Syrian ability to broadcast propaganda and morale of armed forces will decline (skill level of certain Syrian DCS units will be reduced

#### 6.1.3 Broadcast Media

#### 6.1.3.1 Damascus radio tower (SYTGT034)

Damascus radio tower (SYTGT034) is a dual use facility. Its primary purpose is to serve the Syrian society with radio coverage in the Damascus area in addition to provide the Syrian government long range communications (HF) with other parts of Syria. In addition, the Syrian Armed Forces are using the facility for long range (HF) communications for the armed forces. This tower is part of the command-and-control network for Syrian Armed Forces. Primarily communications from the general staff to the various services and Corps commanders are sent from this installation. Destruction of the tower will reduce redundancy in Syrian Armed

Forces ability to command and control own forces, and together with other efforts against the command-and-control network can hamper the Syrian General Staff's ability to give new direction to its commanders. Due to the dual use and nature of this target with civilian use of the radio long range communication, it is a sensitive target that needs approval from CJTF-82 Commander for engagement.

#### 6.1.3.2 Syrian Broadcasting Headquarter (SYTGT070)

The Syrian Broadcasting Headquarter (SYTGT070) is a dual use facility. Its primary purpose is to be the home of the Syrian broadcasting company with workspace, offices, and studios for both television and radio for several Syrian channels controlled by the Syrian Broadcasting Company. The Syrian regime is controlling the company and is using some of the channels to broadcast propaganda to the civilian population and the armed forces. Due to the nature of this target as a media outlet, it is categorized as a sensitive target that needs approval from CJTF-82 Commander for engagement.

Destruction of the building will reduce Syrian ability to broadcast propaganda and morale of armed forces will decline (skill level of certain Syrian DCS units will be reduced).

#### 6.1.4 Information Flow

#### 6.1.4.1 SYTGT065 Syrian Intelligence Agency HQ

Syrian Intelligence Agency HQ building situated in downtown Damascus. This is where central analysis of all Syrian intelligence activity takes place. Destruction of this building will remove Syrian ability to conduct targeting of mobile coalition units (for example aircraft carriers).

#### 6.1.4.2 SYTGT088 Syrian Intelligence office

This intelligence office is responsible for Syrian intelligence operations in the north-east sector. The building is located 16nm NORTHEAST of Jirah. Destruction of this building will reduce Syrian ability to provide intelligence to the Syrian Air Force and will reduce the attacks against coalition ground forces or will cause the attacks to be conducted towards wrong locations.

#### 6.1.4.3 SYTGT091 Syrian Intelligence office

This intelligence office is responsible for intelligence in the north-west sector. The building is located 20nm SOUTHEAST from Tartus. Destruction of this building will reduce Syrian ability to provide intelligence to the Syrian Air Force and will reduce the attacks against coalition ground forces or will cause the attacks to be conducted towards wrong locations.

#### 6.2 Electrical Power

#### 6.2.1 Effect on power distribution

For the power distribution centers to be neutralized and knocked offline, then there are two options:

- Long term neutralization (14 days or more): Destruction of 1/4th of the switchgear installations
- Short term neutralization (1 day=Next event): Destruction of 1 switchgear installation

Each switchgear installation consist of 4 structures. In order to be able destroy the switchgear installation the required amount of bombs (In accordance with <a href="https://open.com/open.co

#### 6.2.2 SYTGT082 Powerplant-Coal

11nm NORTHWEST of Hama.

#### 6.2.3 SYTGT083 Power distribution

Located NORTH of Al Tabqa. Assessed as backup power for SCC East. . If destroyed it will force any factories IVO Raqqa to reduce production lines 50% (includes food factories and food processing facilities).

#### 6.2.4 SYTGT084 Powerplant - Coal

IVO Homs. Supplies power to Homs and Al Assad Airport.

#### 6.2.5 SYTGT090 Powerplant

Large powerplant and power distribution. 14nm NORTH of Homs.

Main powerplant for southern region but contributes to the entire grid. If taken out, will force any factories IVO Homs reduced production output to 1 production line, as available power will be reduced by half.

#### 6.2.6 SYTGT092 Power distribution

Located in Jirah West. Collateral damage close by: Dam and waterpipe. This target is the main power distribution for the northern region. If destroyed it will force any factories in the North region to reduce production lines 50%. Power for the Backup SDCC and SCC East and SCC West is also distributed from this target.

#### 6.2.7 SYTGT099 Power distribution

Located west of Damascus. This target is the main power distribution for the Damascus region. If destroyed it will force any factories IVO Damascus to reduce production lines 50%. Power for SDCC and SCC South.

#### 6.2.8 SYTGT121 Raqqa Power Distribution

Located between Tabqa and Raqqa. This target is the power distribution for the Raqqa region. If destroyed it will force any factories IVO Raqqa to reduce production lines 50% (includes food factories and food processing facilities).

#### 6.2.9 SYTGT122 Tishreen Power Distribution

Located IVO Tishreen Dam. This target is the power distribution for the Aleppo region. If destroyed it will force any factories IVO Aleppo to reduce production lines 50% (includes food factories and food processing facilities).

#### 6.3 Roads

For large movement of military convoys and military columns in a non-tactical formation, the Syrian armed forces normally use four different highways:

- M1 Runs from Homs to Latakia. It also connects Tartus, Baniyas and Jableh. Its length is 174 km.
- **M2** Runs from Damascus to Jdeidat Yabous, on the border with Lebanon. It also connects Al-Sabboura. Its length is 38 km.
- M4 Runs from Latakia to Saraqib. It also connects Arihah and Jisr al-Shughur. Its length is 120 km. Assuming that it shares some 60 km with the Motorway M5, it arrives until Aleppo, and from there, it has been expanded as a two-lane expressway that continues further east into the Iraqi border, ultimately reaching its destination at Mosul.
- **M5** This is the most important motorway in the country, due to its length and as it functions as the south-north backbone of the country network. It connects the border

with Jordan in the south with Damascus, the capital, and continues further north to Aleppo, the country's second largest city. Its length is 450 kilometers.

6.4 Railroads

#### 6.4.1.1 Homs railroad bridge (SYTGT105)

This bridge is a key bridge for rail traffic between north and south. Destruction of the railroad bridge will cause a delay in flow of supplies between north and south in Syria.

#### 6.4.1.2 Homs railroad station (OPARTG106)

This railroad station is a key junction for traffic between north and south in Syria. Destruction of the railroad station will cause delays in flow from supplies from factories north and south of the station. Destruction of the railroad station will prevent offload of vehicles intended for Syrian Air Defense Academy (SYTGT062) or prevent onload of trained units from Syrian Air Defense Academy.

#### 6.4.2 SYTGT120 Hama Railroad Station

Hama railroad station.

# 6.5 Shipping

#### 6.5.1 SYTGT055 Syrian Naval Base Latakia

Located in Latakia, home of 1<sup>st</sup> Fast Patrol Boat squadron.

#### 6.5.2 SYTGT056 Tartus Naval Base

Located in Tartus, home of 2<sup>nd</sup> Frigate squadron.

#### 6.5.3 SYTGT005 Jablah Navy port

Military port for receiving resupply to Bassel Al-Assad airbase.

Located 3nm southwest of Bassel Al-Assad airfield

If destroyed, supplies intended for Bassel Al Assad or other places in Syria from Jablah Navy port is slowed down.

#### 6.5.4 SYTGT006 Syrian Navy storage

Storage for the Syrian navy, key supplies to keep ships going. If destroyed Syrian vessels loose spare parts and are forced to spend longer time at home base for repairs.

#### 6.6 Civil aviation

See INTREP VID OPAR 003 Syrian Air Force for which airfields are used by the Syrian air force, and which are civilian airfields.

#### 6.7 Military Aviation

**INTREP VID OPAR 003 Syrian Air Force** 

#### 6.7.1 Airbases

Runway destruction is an effective way of reducing sorties from the Syrian air force. The Syrian forces have material and personnel for runway repair teams at all their airbases, so any destruction of the runway is only temporary.

#### DISCLAIMER:

This is for multiplayer online gaming using the Digital Combat Systems simulation software published by Eagle Dynamics. The information is not in any way suitable for real world use or operations.

- 4x 500 lbs bombs will render the runway non-operational for 8 hours
- 4x 1000 lbs bombs (or 8x500 lbs bombs) will render the runway nonoperational for 2 days
- 4x 2000 lbs bombs will render the runway non-operational for 4 days
- 6x 2000 lbs bombs will render the runway non-operational for 6 days
- 8x 2000 lbs bombs will render the runway non-operational for 8 days.

Syrian forces have material and personnel for runway repair teams at all their airbases.

#### 6.7.2 Airbase ammo storage

All active military airfields have two ammo storages. One primary (5 days), and one secondary storage (2 days).

The airbases contain ammunition for 7 days with a planned 12 sorties per day. Storage on the airbase is for ammunition for a total of 84 sorties. Once a week an ammunition convoy supplies the airbase with ammunition. For one day worth of ammunition, it requires 3 vehicles (1 platoon). 1 vehicle contains ammunition for 4 sorties. The weekly resupply convoy consists of 21 vehicles (7 platoons). Optionally ammunition can also be flown in using the IL-76. 3x IL-76s will resupply an airbase with necessary ammunition for 7 days. 1x IL-76 will resupply the airbase for one day.

Also see Jet fuel for ways to reduce Syrian air sorties.

# 6.8 Summary

Attacking infrastructure may have a large long-term impact on the Syrian Armed Forces and the Syrian regime. Several infrastructure targets ale present short-term options for facilitate or enable other operations.

# 7 System Essentials

# 7.1 Petroleum, Oil and Lubricants (POL)

#### 7.1.1 **Jet fuel:**

Each Air Force airbase contains fuel for 84 sorties. (7 days with 12 sorties per day). This is normally placed in primary fuel Depot (5 days) and secondary fuel Depot (2 days).

Every week a fuel convoy from the oil storage transits from the oil storage to the airbase to ensure the base is full up on fuel.

If primary and secondary fuel Depots are destroyed, then the airbase cannot store fuel, and will need resupply convoys each day until a fuel Depot can be constructed. Temporary fuel Depot can be constructed in 7 days and contains fuel for 3 days.

Each fuel truck have fuel for 4 sorties, so a total of 3 vehicles (fuel platoon) needed for a full day of sorties. The weekly convoy consist of 21 fuel vehicles (7 platoons).

So, a total of 4 things that can be attacked:

- Airbase (primary and secondary fuel depot)
- Oil storage (prevent long term usage) (SYTGT085, SYTGT087, SYTGT089)
- Oil refinery (Prevent refinement of raw oil to jet fuel)
- Convoy (prevent supplies for a period).

#### 7.1.2 Fuel for the Syrian Army

Syria has 3 large oil storages (Homs, Hama and Al Assad Oil Storages) that supplies the Syrian Army with fuel.

Each storage contains minimum 14 days of fuel for 3 Syrian Corps.

Everyday a convoy of 6 fuel trucks (1 fuel company from the logistics battalion in one of the 3 maneuver divisions) from each Corps arrive at an oil storage to supply the Corps with fuel. The next two days that company will be offloading its fuel at its parent division or for Corps assets.

There are a total of 4 things that can be targeted:

- Oil storage (prevent long term usage) (SYTGT085, SYTGT087, SYTGT089)
- Oil refinery (Prevent refinement of raw oil to fuel for vehicles)
- Convoy (cutoff supplies reaching the field, preventing mobility for the Syrian Army units)
- Fuel company in the field offloading fuel to the units.

#### 7.1.3 Oil refinery

The three oil refineries are used to transform raw oil into either jet fuel or fuel for vehicles used by the Syrian Armed forces.

Oil is transported either to the oil storage or directly to the oil refinery

# 7.1.3.1 SYTGT133 Homs W Oil Refinery

IVO SYTGT085. 25% of Syrian oil is refined at this facility.

#### 7.1.3.2 SYTGT134 Homs S Oil Refinery

25% of Syrian oil is refined at this facility.

#### 7.1.3.3 SYTGT138 Palmyra W Oil Refinery

Due to its location inland, this is the most important Syrian oil refinery. 50% of Syrian oil is refined here.

#### 7.1.4 Rocket Fuel

SCUD rockets use a special type of fuel, and this is made only at this facility:

#### 7.1.4.1 SYTGT137 South Aleppo Rocket Fuel Factory

Destruction of this facility will prevent Syria from creating necessary rocket fuel for its SCUDs, and Syria will only have the rocket fuel they have in storage.

#### 7.1.5 Sources

Syria extracts oil from primary two oilfields:

- Deir el Zour Oil fields
- Ash Shaddadi Oil fields

#### 7.1.6 Storage

#### 7.1.6.1 SYTGT089 AI Assad Oil Storage

Primary storage for fuel in Syria. A very large oil storage situated along the coast. Can both ship and receive oil from tankers off the coast. 10nm SOUTH of Bassel Al-Assad Airfield. The fuel storage contains jet fuel for 840 sorties. The fuel storage also contains fuel for the Syrian Army for 14 days.

#### 7.1.6.2 SYTGT085 Homs Oil Storage

Secondary storage for fuel in the southern sector. The fuel storage contains jet fuel for 420 sorties (7 days, 5 airbases 12 sorties per day). The fuel storage also contains fuel for the Syrian Army for 7 days.

#### 7.1.6.3 SYTGT087 Hama Oil Storage

Secondary fuel storage for the northern sector. The fuel storage contains jet fuel for 420 sorties (7 days, 5 airbases 12 sorties per day). The fuel storage also contains fuel for the Syrian Army for 7 days.

#### 7.2 Strategic Materials

#### 7.2.1 Oil

Both the Syrian Air Force and the Syrian Army is highly reliant on oil to create jet fuel and fuel for vehicles. Destruction or disruption of the production of oil, production of fuel or distribution of fuel will in a long term make it hard for Syrian Armed forces units to conduct movement, and it will reduce the offensive ability of the forces.

#### 7.2.2 Food

Destruction or disruption of the production and distribution of food will have a high impact on the Syrian Armed Forces. If the forces are under food shortage, focus will change from fighting the coalition to getting food. If the forces are not getting food their support in the regime will also be reduced.

# 7.3 Military production

#### 7.3.1 Vehicle Factories

For vehicle factories they produce a certain amount of production lines. 1 production line means 1 vehicle every 7 days.

With a full mobilization of the Syrian society, the factories may also be able to surge their production and are able to increase the amount of production lines they are producing, increasing the number of vehicles being produced.

#### 7.3.1.1 Tartus Vehicle factory (SYTGT 021)

The vehicle factory in Tartus is producing military vehicles. It has been reported to be able to produce several types of vehicles at the same time as the factory is large. The factory is also producing SA-15 SAMs on an export license from Russia and is thus an important contribution to Syrian Air Defense. If needed, the factory can shift focus and change all production lines into the prioritized vehicles to double or triple the output of a certain type of vehicle. The factory currently can sustain 2 production lines.

#### 7.3.1.2 Ragga vehicle factory (SYTGT 022)

The vehicle factory in Tartus is producing military vehicles. It has been reported to be able to produce several types of vehicles at the same time as the factory is large. The factory is also producing SA-2 SAMs on an export license from Russia and is thus an important contribution to Syrian Air Defense. If needed, the factory can shift focus and change all production lines into the prioritized vehicles to double or triple the output of a certain type of vehicle. The factory currently can sustain 2 production lines.

#### 7.3.1.3 Aleppo vehicle factory (SYTGT023)

The vehicle factory in Aleppo is producing both civilian and military trucks. The factory is specialized in producing trucks using for supply operations both for the military and the civilian sector. This factory is producing trucks for Syrian logistical units such as supply trucks for ammunition, food, and fuel.

#### 7.3.1.4 SYTGT024 AI Dumayr Vehicle factory

Produces military and civilian trucks. Located between Al Dumayr and An Nasiriyah. It has been reported to be able to produce several types of vehicles at the same time as the factory is large. If needed, the factory can shift focus and change all production lines into the prioritized vehicles to double or triple the output of a certain type of vehicle. The factory currently can sustain 2 production lines.

#### 7.3.1.5 SYTGT025 Tartus S Vehicle factory

Tartus South Vehicle factory produces armored vehicles, but it has been reported to be able to produce several types of vehicles at the same time as the factory is large. The factory is producing SA-3 SAMs on an export license from Russia and is thus an important contribution to Syrian Air Defense. If needed, the factory can shift focus and change all production lines into the prioritized vehicles to double or triple the output of a certain type of vehicle. The factory currently can sustain 2 production lines.

#### 7.3.1.6 SYTGT026 Damascus W Vehicle factory

Damascus West vehicle factory has been reported to be able to produce several types of vehicles at the same time as the factory is large. The factory is producing EWR on an export license from Russia and is thus an important contribution to Syrian Air Defense. The factory can also produce various search radars used by the Syrian Air Defenses. The factory also produces armored vehicles for the Syrian Army. If needed, the factory can shift focus and change all production lines into the prioritized vehicles to double or triple the output of a certain type of vehicle. The factory currently can sustain 3 production lines.

#### 7.3.1.7 SYTGT027 Damascus N Vehicle factory

The factory is producing armored vehicles, SA-6 and SA-11 SAMs on an export license from Russia and is thus an important contribution to Syrian Air Defense. If needed, the factory can shift focus and change all production lines into the prioritized vehicles to double or triple the output of a certain type of vehicle. The factory currently can sustain 2 production lines.

#### 7.3.1.8 SYTGT028 Homs Vehicle factory

The vehicle factory in Homs produces armored units such as Main Battle Tanks (MBTs), BTRs and BMPs. It has been reported to be able to produce several types of vehicles at the same time as the factory is large. If needed, the factory can shift focus and change all production lines into the prioritized vehicles to double or triple the output of a certain type of vehicle. The factory currently can sustain 3 production lines.

# 7.3.1.9 SYTGT029 Hama Vehicle factory

The vehicle factory in Hama produces armored vehicles such as BMPs and BTRs and SCUDs. It has been reported to be able to produce several types of vehicles at the same time as the factory is large. If needed, the factory can shift focus and change all production lines into the prioritized vehicles to double or triple the output of a certain type of vehicle. The factory currently can sustain 2 production lines.

#### 7.3.2 Aircraft and aircraft parts factories

#### 7.3.2.1 SYTGT030 Damascus Aircraft parts factory

Supplier to SYTGT033 Hama Aircraft factory, Damascus aircraft parts factory produces MIG29 and MIG25s aircraft sections/spare parts on license from Russia. Destroying the parts factory will have the effect that sortie rates for affected airframes will be reduced by 1/3rd

each day as the Syrian Air Force will have to resort to parts cannibalization and ordering parts from Russia or other countries to keep their aircraft flying. Destruction of the factory also eliminates the possibility for making new MiG-29 or MiG-25 aircraft at SYTGT033 Hama Aircraft Factory. Aircraft sections are sent off to Hama aircraft factory for final assembly.

#### 7.3.2.2 SYTGT031 Al Dumayr Aircraft parts factory

Supplier to Hama Aircraft factory. Al Dumayr aircraft parts factory produces MIG21 and MIG23s aircraft/spare parts on license from Russia. Destroying the parts factory will have the effect that sortie rates for affected airframes will be diminished by 1/3rd each day as the Syrian Air Force will have to resort to parts cannibalization and ordering parts from Russia or other countries to keep their aircraft flying. Destruction of the factory also eliminates the possibility for making new MiG-21 or MiG-23 aircraft at SYTGT033 Hama Aircraft Factory. Aircraft sections are sent off to Hama aircraft factory for final assembly.

#### 7.3.2.3 SYTGT032 An Nasiriyah Aircraft parts factory

Nasiriyah Aircraft parts factory produces SU-24 / IL-76, AN-26B and YAK-46 aircraft/spare parts on license from Russia. Destroying the parts factory will have the effect that sortie rates for affected airframes will be diminished by1/3rd each day as the Syrian Air Force will have to resort to parts cannibalization and ordering parts from Russia or other countries to keep their aircraft flying.

#### 7.3.2.4 SYTGT033 Hama Aircraft factory

Located close to Hama airfield. Final aircraft assembly and production on license from Russia. Parts from SYTGT030 and SYTGT031 come here by Railroad. Railroad Station is also a target. Destroying the factory will stop final assembly of aircraft sections sent here.

#### 7.3.3 Munition Factories - Shells

#### 7.3.3.1 SYTGT007 Damascus NE Ammunition Factory

Produces HE Artillery shells and/or HE/AP shells for Mechanized/MBT units. Destroying this target will reduce ammunition resupply rate of armored units by 1/3rd.

#### 7.3.3.2 SYTGT008 Tartus Ammunition Factory

Produces HE Artillery shells and/or HE/AP shells for Mechanized/MBT units. Destroying this target will reduce ammunition resupply rate of armored units by 1/3rd.

#### 7.3.3.3 SYTGT009 Damascus N Ammunition Factory

Produces HE Artillery shells and/or HE/AP shells for Mechanized/MBT units. Destroying this target will reduce ammunition resupply rate of armored units by 1/3rd.

#### 7.3.4 Munition Factories - Rockets

#### 7.3.4.1 SYTGT010 Homs Ammunition Factory

Known to be producing Rockets. This includes rockets used in A-G ordinance as well as MSLR artillery rockets. Destroying these targets will delay the resupply of units using said rockets by 1/3.

#### 7.3.4.2 SYTGT011 Ragga Ammunition Factory

Known to be producing Rockets. This includes rockets used in A-G ordinance as well as MSLR artillery rockets. Destroying these targets will delay the resupply of units using rockets by 1/3.

#### 7.3.4.3 SYTGT012 Jirah SW Ammunition Factory

Known to be producing Rockets. This includes rockets used in A-G ordinance as well as MSLR artillery rockets. Destroying these targets will delay the resupply of units using rockets by 1/3.

#### 7.3.4.4 SYTGT063 Rocket motor production facility

MLRS and SCUD rocket engines. Repair and construction of rocket engines. South East of Damascus.

Munition Factories - Missiles

#### 7.3.4.5 SYTGT013 Damascus NE2 Ammunition Factory

Known to be producing Surface to Air missiles for SA5, SA2, SA3, SA6 and SA11 on license from Russia. Destroying this factory will delay resupply of those units until the facility can be repaired or the production line offloaded to another facility / production line.

#### 7.3.4.6 SYTGT014 Damascus NW Ammunition Factory

The factory produces missiles used by MIG 21, MIG23, MIG25 and MIG29 on license from Russia. Destroying this factory will delay resupply of those units until the facility can be repaired or the production line offloaded to another facility / production line.

#### 7.3.4.7 SYTGT015 Mezzeh Ammunition Factory

Known to be producing Surface to Air missiles for SA15 as well as SA8 and SA19 on license from Russia. Destroying this factory will delay resupply of those units until the facility can be repaired or the production line offloaded to another facility / production line.

#### 7.3.5 Munition Factories - Bombs

#### 7.3.5.1 SYTGT016 Homs SW Ammunition Factory

Known to be producing unguided bombs used in air to ground ordinance delivery. Destroying these factories will delay or deny the resupply unguided bomb units by half to front line fighter/bombers.

#### 7.3.5.2 SYTGT017 Jirah S Ammunition Factory

Known to be producing unguided bombs used in air to ground ordinance delivery. Also, final assembly of precision guided munitions. Destroying this factory will delay or deny the resupply unguided bomb units by half to front line fighter/bombers as well as stop the production of precision guided munitions.

#### 7.3.6 Munition Factories - Ammunition

#### 7.3.6.1 SYTGT018 Hama Ammunition Factory

This facility is known to be the sole producer of munitions for front line troops as well has heavier caliber shells. The largest munition factory in Syria. Destroying this facility will delay or deny the resupply of small arms fire units as well as AAA units.

#### **7.3.7 Storage**

#### 7.3.7.1 SYTGT080 Ammunition storage

Located 10nm WEST of Marj Ruhayil Airbase

#### 7.3.7.2 SYTGT098 Ammunition storage

North of Al Dumayr airfield. Grid is centregrid. Total of 7 storages (not bunkers). A-A missiles are stored here.

# 7.3.7.3 SYTGTGT119 AI Assad Ammo storage

#### **7.4 WMD**

#### **7.4.1 Storage**

#### 7.4.1.1 SYTGT057 Chemical Weapon storage (WMD)

One of two sites that store chemical weapons produced in Jirah Chemical Weapons production facility. Destroying this target will reduce the chemical weapons inventory by 50%.

#### 7.4.1.2 SYTGT061 Chemical Weapon Storage (WMD)

Destruction of this target will deny the chemical precursors stored here being mixed into a chemical weapon warhead that can be mounted on a SCUD.

#### 7.4.1.3 SYTGT020 Aleppo SCUD Storage site (WMD)

Syrian Armed Forces are secretly storing SCUDs at a civilian storage area in Aleppo. It is likely that these SCUDs are placed in storage covertly in an attempt to avoid them being targeted. It is likely that these SCUDs are connected to the Syrian weapon of mass destruction program and can be used for delivery of chemical weapons.

Covert storage in a civilian storage area connected to rail station. Located in Aleppo.

#### 7.4.1.4 SYTGT019 Al-Dumayr SCUD storage site (WMD)

The second storage for SCUDs associated with the weapon of mass destruction program is the Al-Dumayr SCUD storage site with its hardened bunkers. It is likely that Syrian Armed Forces are storing SCUDs in these hardened bunkers to keep them safe from air attacks from coalition forces. It is likely that vehicles will not be taken out from the facility before they are planned to be used.

#### 7.4.1.5 SYTGT057 Chemical Weapon storage (WMD)

North al Al Dumayr airfield. (3 bunkers)

Destruction of this target will deny the chemical precursors stored here being mixed into a chemical weapon warhead that can be mounted on a SCUD.

#### 7.4.2 Chemical - Production facilities, research facilities

#### 7.4.2.1 SYTGT058 Chemical Weapon research facility

Contribute to the overall effect of reducing the Syrian capability to wage war cause the Syrians to only use what they have, and not be able to add more stuff into the inventory.

#### 7.4.2.2 SYTGT060 Jirah Chemical Weapon production facility

#### 7.4.2.3 SYTGT059 Sargiyha Reserach Center - Chemical Weapon research facility

#### 7.4.2.4 SYTGT135 AI Safira Chemical Weapons Production and Storage Site (WMD)

Destruction of this target will reduce the Syrian ability to produce and store chemical weapons.

#### 7.4.3 Nuclear – facility being built, research facility

We have intelligence that the Syrians are doing secret research on a nuclear facility. Pakistan is providing Syria with the necessary information. As of the writing of this report, we do not have a location of the facility, or what status the construction of such building is. But it is likely that intelligence will be able to pick up indicators of preparations of startup of a nuclear generator in any facility. This will require uranium need to be transported and then enriched to be able to be used. Syria do not have any uranium and need to get this either

from Russia (unlikely as they do not want nuclear power to be proliferated. Russia's stance is that Syria do not need nuclear weapons, as Russia have them), Iran (Unlikely as they need all they got) or Pakistan (Likely)

#### 7.4.4 Uranium enrichment centrifuges

Unknown at the writing at this report.

#### 7.4.5 Biological - Research facility

## 7.4.5.1 Al Safira Military Research Center (SYTGT081) (WMD)

Syrian military research for all domains is primarily done at Al Safira Military Research Center (SYTGT081) about 17nm SOUTHEAST of Aleppo. This research facility is both an academic center for research, and a center where military officers are sent to develop new doctrine and tactics for the Syrian armed forces. The research center is the central node in the Syrian military research, and it leads and coordinates research at other Syrian installations. The recent years the priority has been on air defense and missile and rocket technology. A focus has also been on the development of armor and reverse engineering of Russian T90 Tanks to start own production line of T90 tanks.

Biological warfare also a priority and focus of effort for this research center, as the center is in competition with Sarqiyha Research Center (SYTGT059) which is researching on chemical weapons. Both as part of the Syrian WMD program.

# 7.5 Summary

Attack of POL targets will have both a near-term effect, as well as the long-term effect of making it harder for large maneuvers and offensives by the Syrian Armed Forces. Oil is also one of Syria's strategic materials, and destruction or reduction of Syrian oil production will reduce the income for the Syrian Regime. Attacks on the military production have a long-term effect on the Syrian Regimes ability to wage war or reconstruct after a conflict. Syria have well developed weapons of mass destruction program, and attacks on the WMD program will likely be important in any conflict in order to prevent the Syrian Regime using the weapons against friendly nations or coalition forces.

# 8 Leadership

# 8.1 Key people/institutions

- General secretary of the National Party (President): Amid Nazmi Boulos
- Minister of Defense: Sharif Zayn Samaha
- Minister of Internal affairs: Jarir Mu'in Mustafa
- Syrian Armed Forces Commander: General Muti Irfan Asfour
- Chief of the General Staff: General Kareem Husam al Din Awad
- Chief of Civil Defense: Nasser Waggas Mifsud
- Chief of Main political administration: Youssed Abdul-Alim Asker
- Chief of Rear Services: Sabir Naif Haik
- Commander Syrian Air Force: General Jawad Talib Almasi
- Commander of the Syrian Air Defense Forces: General Jabalah Nasri Shalhoub:
- Commander of the Syrian Army: General Thagib Jamal Al Din Bab
- Commander of the Syrian Navy: Admiral Ubayy Adib Seif
- Commander of the Syrian Intelligence Service: General Jawar Jibran Essa
- Commander of the Syrian Special Forces: General Imad Abdul-Malik Cham

#### 8.1.1 The Syrian National Military Command Authority

The Syrian National Military Command Authority exercises complete control over the military-economic planning and activities of Syria. It is composed of three major bodies:

- The Council of Defense.
- The Main Military Council.
- The General Staff.

#### 8.1.1.1 The Council of Defense / State Committee of Defense (War cabinet)

The Council of Defense is responsible for planning and preparing the country for war. It is chaired by the General Secretary of the National Party of Syria. The council is made up of selected National party members, including the Minister of Defense. This council is Syria's highest military-economic planning agency; it deliberates interrelated issues concerning the nation's defenses, economic plans, and government branches. These include the mobilization of industry, transportation, and manpower for war, and the peacetime structure of the armed forces. Its deliberation and decrees are translated into law. In wartime, this body would be reorganized into the State Committee of Defense -essentially a war cabinet with oversight of the political, diplomatic, and economic aspects of the nation at war, as well as general policy matters concerned with the conduct of military operations. The state committee of defense holds its meetings in the basement of building SYTGT096 Syrian Ministry of Foreign Affairs

# 8.1.1.2 The Main Military Council / Headquarters of the Supreme High Command

The Main Military Council is immediately responsible to the Council of Defense for the overall leadership and status of the Syrian armed forces in peacetime. The Minister of Defense heads this council. The Chairman of the Council of Defense is a member, as are the First Deputy Ministers of Defense. The ministers include the Chief of the General Staff. Other members include the commanders of the five military services (Army, Navy, Airforce, Air Defense Forces, Special Forces), the Chief of the Main Political Administration, the Chief of the Rear Services, and the Chief of Civil Defense.

In wartime, the council is transferred into the Headquarters of the Supreme High Command, which represent the top echelon of Syrian wartime military-control. The General Secretary of the National Party, as Chairman of the State Committee of Defense, becomes the Supreme Commander in Chief of the Syrian Armed Forces. The Headquarters of the Supreme High Command plans and direct strategic operations on a large scale through different theaters of military operations, sizing and allocating forces to implement its plans. The number of fronts, their composition, missions, and the general plans for the conduct of strategic operations will be established by the Headquarters of the Supreme High Command. It also will monitor individual front and fleet actions and supervise coordination between them.

The Headquarters of the Supreme High Command is in the building of the Syrian Ministry of Defense (SYTGT095)

#### 8.1.1.3 The General Staff

The General Staff is the major link in the centralization of the Syrian National Military Command Authority. The General Staff is the executive agency for the Main Military Council in peacetime and The Headquarters of the Supreme High Command in wartime. The Syrian General Staff is charged with the basic military planning for the Syrian Armed Forces, both in peace and war. The military services, the military districts, and the Groups of Forces outside Syria report to the Minister of Defense through the General Staff in peacetime. In wartime, field forces) reports to the Supreme Commander in Chief and the headquarters of the supreme high command through the General Staff. The General Staff work and meet in the Presidential Palace (SYTGT132).

#### 8.1.1.4 SYTGT095 Syrian Ministry of Defense

Destruction of this will building will prevent the Supreme High Command to plan and execute further offensive operations.

#### 8.1.1.5 SYTGT096 Syrian Ministry of Foreign Affairs

Destruction of this building will significantly reduce the effort of the state committee of defense (war cabinet), and with the building destroyed the Syrian government will not be able to mobilize reserve or inactive forces from the Syrian society.

#### 8.1.1.6 SYTGT097 Syrian Ministry of Finance

Destruction of this building will make it impossible for the Syrian regime to pay their armed forces. Destruction of this building will thus impact the morale of the Syrian armed forces (DCS skill level lowered) once money is no longer being sent out for payment.

#### 8.1.1.7 SYTGT086 Syrian Armed Forces Commander residence

Destruction of this building will cause the Syrian regime to be more careful as an attack will show that they can all be targeted. High level Syrian officials will be forced more into hiding and effectiveness of the Syrian Regime will likely be reduced.

#### 8.1.1.8 SYTGT132 Presidential Palace

Destruction of the military part of this building will prevent the General Staff to work as normal, and it will slow down the pace of all Syrian Military operations.

# 8.2 Control Systems

NSTR

# 8.3 Opposition

NSTR

#### 8.4 Communications

NSTR

# 8.5 Strategic capabilities/assets

#### 8.5.1 SCUD

The Syrian Regime may use its SCUD missiles conventionally to terrorize neighboring countries. This can be used either for force concessions or threaten countries to limit the presence of a western coalition in the areas surrounding Syria. Targets can either be population centers to create fear and friction, or it can be aimed at large military targets such as airfields. It is likely that SCUDs will not be used against civilian targets outside Syria unless the Syrian regime itself is threatened.

#### 8.5.2 WMD

If the Syrian regime (leadership) is threatened, it is likely that the Syrian regime will threaten to use chemical weapons, or actually use chemical weapons against neighbouring countries that are allowing the western coalition to use its territory. Likely delivery will be Syrian SCUDs (as described under <a href="SCUD">SCUD</a>)

#### 8.5.3 Special Forces

**NSTR** 

# 8.6 External politics /alliances

Russia: is a close ally to Syria and have over many years supported the regime with political and military support. Russia currently uses the Bassel Al-Assad airfield and Tartus harbour in Syria for its operations in Syria and the Middle East. An attack on Syria may trigger a Russian response. Depending on the situation and the type of escalation it may directly involve Russian military forces, or it can be more clandestine support by weapon shipment of more advanced weapon systems. Due to tensions in region, Russia has forward staged modern military equipment in Egypt that may be intended for shipments to Syria.

**Iran:** is a close ally to Hezbollah and are using Syrian territory to move supplies, weapons, and personnel to Lebanon to strengthen Hezbollah. Iran is neutral to the regime in Syria, but is opposing the western coalition, and is likely to use its influence to try to hit the coalition when able.

**China**: Over the years China have become more aligned with Russia, but China does not have any alliance with Syria. Any Chinese interference will likely only be caused by a Chinese desire to prevent the coalition of western countries to meet their objectives. There is no intelligence that indicate any Chinese presence in Syria.

**Egypt:** Egypt is allied with Syria and Russia and are often staging Russian long-range aviation and strategic flights.

**Pakistan:** Syria have been sharing its chemical weapon research with Pakistan and have been receiving access to Pakistani access to nuclear weapon research. It is currently not known if Syria has a nuclear weapon program. Syria and Pakistan have also negotiated a deal on delivery of JF-17 fighter aircraft, and they are expected to arrive in Syria in September 2011. Syrian pilots have undergone training with the Pakistani Air Force the last year.

**Jordan:** Jordan is a neutral state, both to Syria and the western coalition

**Lebanon**: Lebanon is a neutral state, both to Syria and the western coalition

Israel: Israel is an enemy of Syria, and Israel is friendly toward the western coalition.

### 8.7 Summary

Removal of the President, Minister of Defense or Chief of the General Staff will likely provide moderates in the Syrian Regime the opportunity to change Syria policy and be a more moderate state. Destruction or prevention of use of SCUDs and WMD will be important to remove a major threat that the Syrian Regime can use to force political concessions and use for negotiations. Isolation of the Syrian regime from its allies will be important, and any action to prevent other nations from becoming involved in Syria's side in a conflict will be important.