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The Free Syrian Army: Rifles to MANPADS



[TRADOC G-2 Intelligence Support Activity
\(TRISA\)](#)

Complex Operational Environment and
Threat Integration Directorate (CTID)





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Purpose

- To inform the Army training community about current Free Syrian Army (FSA) operations.
- To inform the Army training community about developing trends in the FSA's use of weapons.
- To provide information on developing FSA tactics, techniques, and procedures (TTP).

Executive Summary

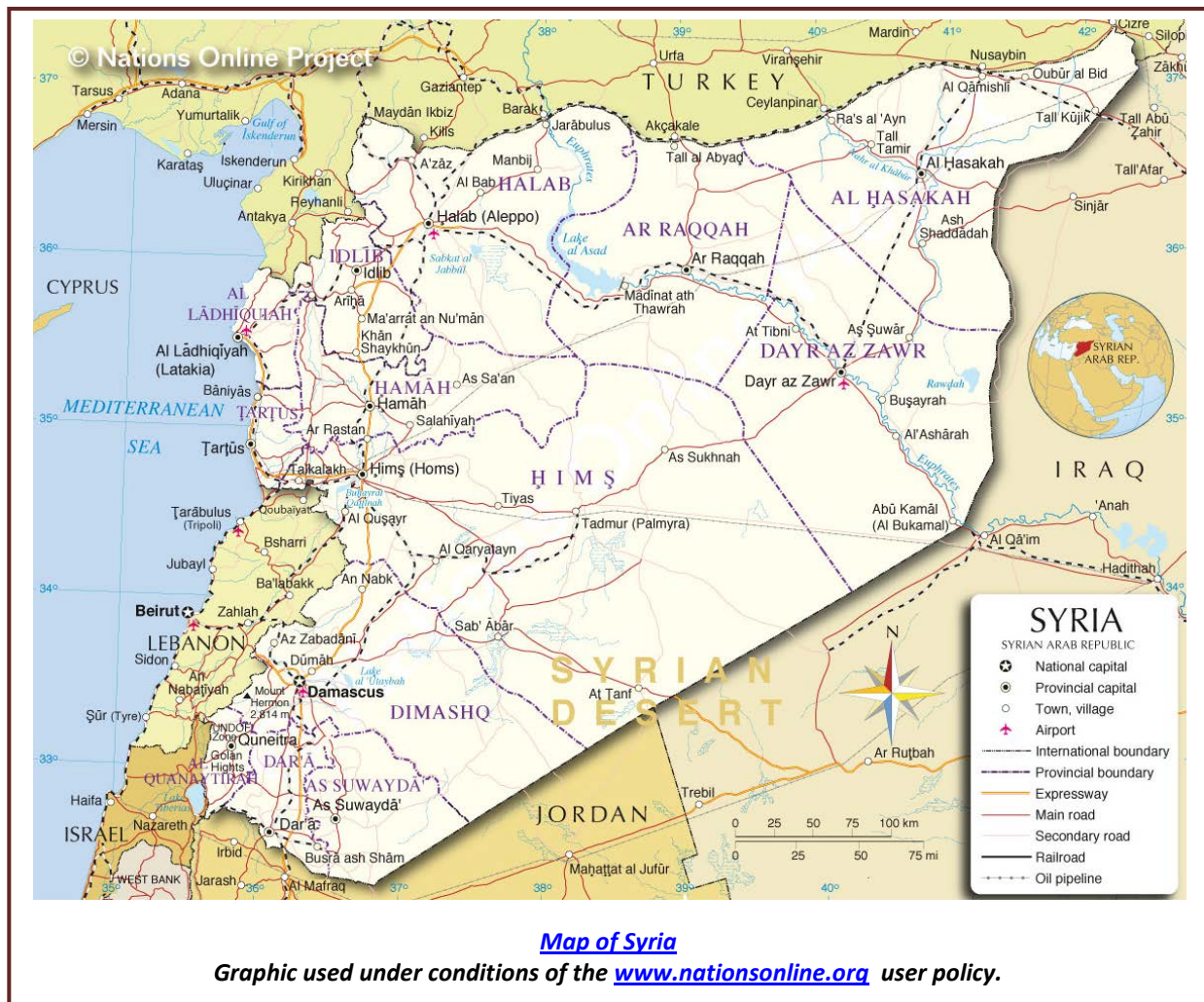
- Since it announced its formation on 29 July 2012 in an Internet video, the Free Syrian Army (FSA) has been the main armed opposition group operating in Syria.
- The FSA is an organization composed of loosely aligned groups that have organically grown up around defecting Syrian armed forces personnel, local militias, activists, and other volunteers actively opposing the Assad regime.
- The FSA utilized IEDs in an attempt to combat the capability superiority of the Syrian military.
- IEDs caused the Syrian military to reduce and, in some cases, totally eliminate infantry support for tanks, creating an opportunity for rocket-propelled grenade (RPG) attacks on vulnerable tanks.
- The FSA has also found ways to utilize multiple rocket launchers (MRLs) innovatively, such as mounting the weapon on the back of a pickup truck.
- The FSA has used anti aircraft weapons, such as the ZU-23-2, to bring down Syrian aircraft.
- The appearance of SA-7s in the FSA arsenal will increase the ability of the FSA to contend with the Syrian air force.

Cover photo: [Official Free Syrian Army logo](#), used in accordance with their use policy.



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Map





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Introduction

Since it announced its formation on 29 July 2012 in an Internet video, the Free Syrian Army (FSA) has been the main armed opposition group operating in Syria. The proclaimed goal of the FSA has been to overthrow the Assad regime. With modest beginnings, the FSA has progressed from small arms against the Assad regime's air, artillery, and armored combat power to a force slowly chipping away at these advantages. Using mostly unexploded ordnance and captured Syrian security force weapons from both defecting military members and bribery, the FSA has been able to strengthen its ability to combat the Syrian government forces. The FSA has also experimented with some unconventional weapons with limited success.

This Threat Report will discuss the evolution of the FSA's tactics in its fight with the Assad security forces. The FSA began fighting tanks, air assets, and artillery with small arms. As has been seen in Iraq and Afghanistan, the FSA used improvised explosive devices (IED) to level the combat advantage enjoyed by the Syrian security forces. The FSA experimented to find ways to impact the Syrian military's combat advantage through weapons such as large slingshots. **More recently, the FSA has acquired a limited number of man portable air defense systems (MANPADS), threatening Assad's ability to freely conduct air raids.**

As the conflict continues, the FSA will continue to find additional approaches to mitigate the combat advantage enjoyed by the Syrian government. To date, the FSA has mostly used weapons either captured or obtained through the black market. Undoubtedly, as the conflict continues, pressure to end the violence will compel outside players to provide the FSA with weapons that will further impact the balance of combat power.

The Free Syrian Army (FSA)

The FSA is an organization composed of loosely aligned groups that have organically grown up around defecting Syrian armed forces personnel, local militias, activists, and other volunteers actively opposing the Assad regime. The leader of the group identified himself as Colonel Riad al-Asaad on 29 July 2011 in an Internet video with a group of deserters from the Syrian military. In the video, Colonel al-Asaad called upon members of the Syrian army to join them. The stated objective of the FSA is to work with



[Creation of the Free Syrian Army](#)

Graphic used under conditions of YouTube user policy



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protesters and activists to bring down the Syrian government and the group has declared that any forces attacking civilians will be justified targets.

In September 2012, the FSA announced it would move its headquarters from exile in Turkey to rebel-held territory inside Syria. This move is evidence of the growing confidence of the FSA in its efforts to end the current Syrian government. The tactics and resources used to bring the FSA to this point have taken a logical progression from small arms to the current introduction of SA-7s into the fight.

You will find the following graphics hyperlinked to the actual YouTube videos. Click on the link below the graphics or on the graphic itself to be taken to the video.

IEDs

As has happened in Iraq and Afghanistan and other places around the world, the FSA quickly gravitated to using IEDs as an equalizing weapon against the Syrian military. The low cost of production, available materials, and unsophisticated production requirements make IEDs a primary and fundamental weapon of intimidation against a superior force. The videos to the right and immediately below show the resourcefulness of the FSA in using old artillery shells and unexploded ordnance to create new IEDs.



[Unexploded bomb being harvested for explosives used in pipe bombs](#)
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The FSA has used IEDs effectively against tanks, vehicles, and buildings. The next three videos show attacks conducted by the FSA against Syrian security forces. The first video (right) shows an army truck attacked in a remote area. The second demonstrates a tank attack with two successive IEDs. The third video shows an urban attack on a Syrian tank. The randomness of IED



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attacks against Syrian security forces results in anxiety on the part of Syrian security forces, which creates more caution in their actions.



[IED being made from an artillery shell](#)
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[Free Syrian Army IED attack on a Syrian military vehicle](#)
Graphic used under conditions of the YouTube user policy



[Free Syrian Army double IED attack on Syrian Army tank](#)
Graphic used under conditions of the YouTube user policy



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[Free Syrian Army IED attack on Syrian Army tank in urban area](#)
Graphic used under conditions of the YouTube user policy

RPGs

For more detailed information about the RPG weapon system, refer to the [Worldwide Equipment Guide, Vol 1: Ground Systems](#), pp. 2-39 and 2-40.

An outcome of successful FSA IED attacks on Syrian personnel is the elimination of infantry soldiers supporting tanks, particularly in urban areas. Without supporting infantry, tanks have become more vulnerable to anti-tank attacks. The first video below shows an FSA soldier firing a rifle at a tank, essentially luring it into a better position to be fired on by an RPG. The second video shows a tank about to be fired on by the FSA with an RPG. The third video shows a brazen attack by a soldier who fires on a tank as he runs across the street in front of the tank. The fear of IEDs changed the tactics of the Syrian military, which reduced the effectiveness of its heavy assets and left it vulnerable to attacks from a developing arsenal of anti-tank weapons.



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[Luring a tank with no infantry support into an urban area](#)
Graphic used under conditions of the YouTube user policy



[Tank about to be engaged by an RPG](#)
Graphic used under conditions of the YouTube user policy



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[RPG fired at tank in the open](#)

Graphic used under conditions of the YouTube user policy

Multiple Rocket Launchers (MRLs)

For more detailed information about multiple rocket launchers, refer to the [Worldwide Equipment Guide, Vol 1: Ground Systems](#), p. 7-38 (also Improvised Rocket Launchers pp. 14-5 and 14-6).

The FSA has also innovated and adapted MRLs for transporting and firing. Lacking more sophisticated assets, the following videos show a Type 63 MRL mounted on the back of a pickup truck and a portable version on two wheels. The MRL mounted on the back of a pickup, in particular, allows the FSA to shoot and quickly move to another location, thereby countering the more sophisticated assets of the Syrian military.



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[Truck-mounted type 63 Multiple Rocket Launcher](#)
Graphic used under conditions of the YouTube user policy



[Type 63 Multiple Rocket Launcher](#)
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ZU-23-2

For more information on the ZU-23-2 weapon system, refer to the [Worldwide Equipment Guide, Vol 2: Airspace and Air Defense Systems](#), p. 6-49.

The FSA has found some recent success in downing Syrian aircraft using anti aircraft weapons such as the ZU-23-2. The videos showing the downing of the Syrian aircraft do not show the specific weapons; however, the presence of the ZU-23-2 anti aircraft guns in other videos is evidence that this system is being used against Syrian aircraft.

Below are examples of successful FSA attacks on Syrian aircraft.

June 26, 2012

A helicopter was shot down in Maardebseh, Idlib. The Suqour al-Sham Brigade and the Shuhada Jebel al-Zawiyah Battalion both claimed responsibility. [Video Source](#)

July 7, 2012

A surveillance aircraft was shot down by members of the Jafar al-Tayyar Battalion in Deir Ezzor.

August 13, 2012

A MiG jet was shot down in the town of Mohasan, Deir Ezzor. [Video Source](#)

August 27, 2012

A helicopter was shot down in the vicinity of the Jobar neighborhood. [Video Source](#)

August 31, 2012

A MiG jet was shot down by the Shuhada Jebel al-Zawiyah Battalion during a week-long attack on the Abu Dhuhur airport. [Video Source](#)

September 4, 2012

A second MiG jet was shot down by the Shuhada Jebel al-Zawiyah Battalion during the week-long attack on the Abu Dhuhur airport.

September 5, 2012

A helicopter was shot down over Damascus by the Saif al-Islam Battalion of the al-Islam Brigade.



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SA-7

For more information on the SA-7 weapon system, refer to the [Worldwide Equipment Guide, Vol 2: Airspace and Air Defense Systems](#), page 6-56.

A recent shift in the ability of the FSA to contend with a more sophisticated military is the appearance of SA-7 systems. Simply having an SA-7, however, is not sufficient. In order to be operational a properly-functioning SA-7 requires three components – a missile tube, a battery unit, and a grip stock. Until the very recent past, a fully-functional SA-7 had not been documented. **Evidence from videos points to the FSA now in the possession of fully functional SA-7s.**

The international community has been wary about overtly supplying the FSA with sophisticated air defense weapons. It is more likely that the FSA received the weapons after they were smuggled in from places such as Libya. Libya, for example, with a reported 20,000 SA-7 systems, is missing several thousand SA-7s from its inventory. Other sources include captured Syrian military equipment, inventory obtained from bribed security personnel, and weapons brought with them by defecting military personnel. The FSA will likely continue to utilize multiple sources to increase its arsenal of air defense weapons.

Until recently, the Syrian Air Force had control of the skies, which allowed it to act with impunity, striking viciously at FSA strongholds and outposts. The increased FSA air defense capability will create a new dynamic in the fight against the Assad regime. Even with a limited numbers of SA-7s, pilots will become less confident and more cautious as the FSA obtains additional air defense weapons capable of bringing down modern aircraft.

Below are videos with identifiable SA-7s. Dates should be taken as general indicators of time and not as a specific date for a particular event, as videos are often uploaded after the actual event.

August 7, 2012

Complete SA-7 system. No missile visible. [Video Source](#)

August 24, 2012

Complete SA-7 system. No missile visible. [Video Source](#)

August 31, 2012

Complete (although the grip stock is not clearly visible) SA-7 system. No missile visible. [Video Source](#)

August 15, 2012

Complete SA-7 system. No missile visible. [Video Source](#)



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June 27, 2012

Incomplete SA-7 system. No grip stock visible. Missile visible. [Video Source 1](#) [Video Source 2](#)

August 31, 2012

Complete SA-7 system. No missile visible. [Video Source](#)

September 24, 2012

Complete SA-7 system. Missile visible. [Video Source](#)

October 14, 2012 (location unconfirmed)

Incomplete SA-7 system. No grip stock visible. No missile visible. [Video Source](#) and [Video Source](#)

October 15, 2012

SA-7 (location unconfirmed)

Incomplete SA-7 system. No grip stock visible. [Video Source](#)

Complete SA-7 system. [Video Source](#)

A missile might have been fired in this video. [Video Source](#)

October 31, 2012

Complete SA-7 system. No missile visible. [Video Source](#)

The following video shows an SA-7:



[SA-7](#)

Graphic used under conditions of the YouTube user policy



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The following video shows a two-man team with what appears to be a complete system. The man with the SA-7 does not spend much time looking before he is picked up by another man on a light motorcycle. The video indicates developing TTP for utilizing SA-7s.



[Two-man team with functional SA-7 with a missile in the tube](#)
Graphic used under conditions of the YouTube user policy

It does not appear that SA-7s have been successful in bringing down Syrian aircraft to date. A larger arsenal with more training and experience firing the SA-7s, however, will significantly decrease the ability of the Syrian air force to attack the FSA without repercussions. The Syrian military's main advantage has been the use of aircraft to overwhelm the FSA with massive firepower wherever it hid. With that advantage gone, the Syrian military will have to face the FSA on a more equal footing.



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Analyst Assessment

The FSA will continue to use a number of different means to attack the Syrian military. It has proven to be proficient at making improvements to its capabilities and at aggressively chipping away at the Syrian military's advantage. IEDs caused the Syrian security forces to eliminate its infantry protection of its armor, which created a vulnerability that decreased the effectiveness of Syrian tanks, particularly in urban areas. The FSA has also sought ways to combat the Syrian military's capability advantage through innovatively using available resources such as mounting weapons on the backs of available pickup trucks. The availability of captured and black market-purchased antiaircraft weapons has created a way for the FSA to combat the initial air superiority advantage of the Syrian air force. The most recent acquisition of SA-7 systems is further evidence of the FSA's ability to acquire an increasingly more sophisticated arsenal of weapons that decreases the initial combat advantage enjoyed by the Syrian military.

The Syrian military's inability to use its initial superior combat advantages to end the FSA rebellion in the early days will make it increasingly more difficult for the Assad government to end the rebellion on its own terms. The FSA will continue to adopt innovative ways to combat the military superiority of the Syrian military. As the FSA finds military success and proves it is capable of winning, outside sources for weapons will increase. The FSA will also be able to find black market sources for acquiring more weapons. Time is on the side of the FSA.

Training Implications

- Utilization of relatively unsophisticated weapons such as IEDs can cause changes in tactics that leave superior assets, such as tanks, vulnerable.
- Insurgent forces are not static and are always seeking and developing new ways to use weapons systems innovatively, such as mounting MRLs on the back of pickup trucks.
- The availability of black market weapons guarantees that insurgent forces will find ways to increase the sophistication of their weapons arsenals.
- The longer a conflict continues, the greater will be the ability of an insurgent force to chip away at a superior force's combat advantages.



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Related Products

Follow these links to view related products:

- [Syria Quick Guide November 2012](#)
- [Suicide Bombings-Syria Threat Report March 2012 \(FOUO\)](#)
- [The Shabiha of Syria Threat Report July 2012](#)

See also the [Red Diamond Newsletter](#), which contains current articles on a variety of topics useful to both soldiers and civilians ranging from enemy TTP to the nature and analysis of various threat actors.

For detailed information on weapons and equipment, see the [Worldwide Equipment Guide](#).

AKO: <https://www.us.army.mil/suite/portal/index.jsp>

Threat Products: AKO“Easy-Link”
Contemporary Operational Environment and Threat Integration Directorate

The screenshot displays the AKO Army Online web portal. On the left, a login box is visible with fields for Username and Password, and a 'Login' button circled in red and labeled with a '1'. Below the login box, there is a section for 'CAC Login to AKO/DEO'. In the center, a navigation pane shows a tree structure of folders and files. A folder named 'TRISA-CTID' is highlighted with a red circle and labeled with a '4'. To the right, a list of search results is shown, with the 'TRISA-CTID' folder also highlighted. A red arrow points from the 'TRISA-CTID' folder in the navigation pane to the search results. A '2' is placed near the top right of the main content area, and a '3' is placed near the 'TRISA-CTID' folder in the navigation pane.

1. Login
2. “Click” Files
3. Search to:
TRADOC G2
TRISA-CTID
4. “Click” & Find !



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POCs

OEA Team
913-684-7920 (COMM)
552-7920 (DSN)
913-684-7929 (COMM)
552-7929 (DSN)

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