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BACKGROUNDER

August 26, 2013

U.S. NAVY POSITIONS SHIPS FOR POSSIBLE STRIKE AGAINST SYRIAN TARGETS

U.S. Navy warships are positioned for a strike against Syria using long range Tomahawk Land Attack Missiles (TLAM). Such an attack could cause varying degrees of limited damage to the Assad regime's ability to use more chemical weapons or continue effective operations against the opposition. It cannot eliminate the regime's military or chemical weapons capabilities, however, nor cause more than a temporary degradation in regime operations. Such a strike will be ineffective unless it is part of a coherent, properly resourced effort towards achieving clearly-articulated U.S. strategic aims in Syria. Those aims should include helping the moderate and more secular elements of the opposition defeat both the Iranian-backed Assad regime and the al Qaeda-affiliated extremists who threaten to hijack the rebellion. Limited TLAM strikes alone will not accomplish such aims.

The United States seems to be preparing to take direct military action in Syria. The U.S. Navy has repositioned several ships to the Eastern Mediterranean since the Assad regime used chemical weapons against civilian targets in and around Damascus. Although the use of chemical weapons against the civilian population is horrific, and every effort should be made to dissuade the Assad regime from using them again, recent comments from anonymous senior officials that a potential strike against Syria would be "punitive" are alarming.[1] A strike taken to punish leaders does not constitute a strategy or even a sound military objective.

Secretary of Defense Chuck Hagel and Chairman of the Joint Chiefs General Marty Dempsey have rightly raised questions about the utility of military action without a comprehensive, stated U.S. policy in Syria. General Dempsey clearly identified the strategic error of taking tactical action in the absence of comprehensive policy in his letter to Senator Levin, Chairman of the Senate Armed Services Committee, when he stated "Too often, these options are considered in isolation. It would be better if they were assessed and discussed in the context of an overall whole-of-government strategy for achieving our policy objectives in coordination with our allies and partners."[2]

One can easily take this argument too far and allow the uncertainty inherent in war to paralyze decision-making. It is not necessary to know exactly how the conflict will go or precisely how it will end to decide to take action in order to shape events in a more desirable (or less undesirable) direction. But it is necessary to articulate the desired objective clearly. The fall of the Assad regime is one clear objective. Depriving Assad of the ability to use or proliferate chemical weapons is another. Punishing Assad for using chemical weapons is not. If the U.S. is going to become militarily involved in Syria—and there are good arguments for doing so, as well as important cautions—then President Obama absolutely must explain clearly and cogently what it is he is trying to achieve.

This ISW backgrounder will review the recent use of chemical weapons in Syria and the initial U.S. military response to that action as discerned from the repositioning and availability of certain ships and weaponry in the eastern Mediterranean. It is important to understand what the weapons systems currently being visibly mobilized in the Mediterranean can and cannot do. It is even more important, however, to decide what needs to be done in order to achieve a clear objective.

REPORTS OF CHEMICAL WEAPONS DEPLOYED IN SYRIA

On Wednesday, August 21, several thousand Syrian civilians in rebel-controlled territory just east of Damascus fell ill with symptoms consistent with "mass exposure to a neurotoxic agent."[3] The international medical charity Médecins Sans Frontières (MSF) reported that over a

three hour period, approximately 3,600 patients were admitted to hospitals in Damascus affiliated with MSF.[4] As a result of likely exposure to the neurotoxic agent, at least 355 Syrians died. Some were exposed at the scene, and some were exposed later in hospitals.

Syrian opposition leadership immediately accused the Syrian regime of deliberately launching an attack with chemical weapons. The Syrian regime acknowledged launching an offensive against rebel controlled territory, but blamed the use of chemical weapons on the rebels.[5] By blaming each other for the use of chemical weapons, both the Syrian regime and Syrian rebels acknowledged that chemical weapons had in fact been used in significant quantities. Shortly following the use of chemical weapons on Wednesday, August 21, U.S. and Western intelligence agencies reportedly reached the preliminary conclusion that chemical weapons were used, likely with high-level approval from the Assad regime.[6] Secretary of State John Kerry declared on August 26 that the regime had undeniably used chemical weapons against its own people.[7]

Secretary of Defense Hagel stated in a press briefing on August 23 that "The Defense Department has a responsibility to provide the president with options for contingencies, and that requires positioning our forces, positioning our assets, to be able to carry out different options – whatever options the president might choose."[8] Secretary Kerry said, "President Obama believes there must be accountability for those who would use the world's most heinous weapons against the world's most vulnerable people."[9] Neither they nor any other administration officials have offered more clarity on what the strategic aims of military action might be.

The Department of Defense has fulfilled its responsibility to provide both a range of options to the President as well as the means to take action. Within hours of the attack, military planners in the Pentagon, at U.S. Central Command, and at U.S. Navy Sixth Fleet were positioning military assets to provide the President options. In order for their planning efforts to have any positive long-term outcome, they must have strategic guidance from President Obama that clearly identifies U.S. interests as well as what desired outcome tactical military action seeks to achieve.

U.S. NAVY SHIPS REPOSITION IN RESPONSE

On Friday, August 23, the United States Navy acknowledged that several surface combatant vessels were repositioning towards the eastern Mediterranean.[10] By Saturday morning, a total of four warships were either in the area, or moving into position, including USS Mahan, an Arleigh Burke Class destroyer that had finished its deployment but was extended on station by order of U.S. Navy Sixth Fleet, located in Naples, Italy.[11] The other three warships are the USS Ramage, USS Gravely, and USS Barry.[12] All four of these warships are Arleigh Burke Class destroyers, capable of launching Tomahawk Land Attack Missiles (TLAM).[13]

The TLAM is a precision strike weapon that can be launched at any time, in any weather, and hit targets up to 1,000 nautical miles away. It is the ideal first strike weapon prior to any manned aircraft striking a target, and was used in this role in multiple conflicts over the last twenty years including the First Gulf War, Bosnia/Kosovo, Afghanistan, the Second Gulf War, and most recently against targets in Libya.

CAPABILITIES OF ARLEIGH BURKE CLASS DESTROYERS

The Arleigh Burke Class destroyer has a variety of offensive and defensive weapons including machine guns, naval cannon, torpedoes, short- and long-range defensive missiles, embarked helicopters, and electronic warfare systems.[14] Arleigh Burke Class destroyers have extensive defensive capabilities, and are not at any significant risk from threats such as land-based Anti Ship Cruise Missiles (ASCM) or Syrian Navy vessels.[15]

The critical capability the four Burke class destroyers currently positioned in the eastern Mediterranean bring to bear against potential targets in Syria is the Mark 41 (MK 41) Vertical Launching System (VLS). The Flight I Arleigh Burke Class version of the VLS has 90 cells holding missiles in a "ready to fire" status.[16] The Flight II and IIA versions have a 96 cell VLS.[17]

When U.S. Navy surface combatant vessels deploy, they have a mix of weapons in the VLS, including defensive Standard Missile 2 (SM-2) Surface to Air Missiles (SAM), Standard Missile 3 (SM-3) for Ballistic Missile Defense (BMD) and Tomahawk Land Attack Missile (TLAM).[18] The Navy has fired far more TLAM missiles in recent history than SM-2 or SM-3 defensive missiles. Since TLAM was first fired in combat conditions during the First Gulf War, over 2,000 TLAM have been successfully employed in combat in Iraq, Afghanistan, Libya and other locales.[19] The U.S. Navy uses TLAM on such a regular basis that instructors at the Submarine Officer Basic Course often tell students that "You are more likely to shoot a Tomahawk missile than

PHOTO 1 | USS BARRY (DDG-52) (SOURCE: BARRY.NAVY.MIL)

any other weapon during your time in the military - even a handgun."[20]

Although the Navy does not disclose the exact mix of missiles loaded on deployed ships,[21] given that the U.S. Navy fires TLAM on a regular basis it is reasonable to assume that for the four Arleigh Burke Class destroyers in the eastern Mediterranean, probably half of their 90 to 96 cell VLS have offensive weaponry, Tomahawks, in them. If this assumption is accurate, each of the four U.S. Navy surface combatants currently in the eastern Mediterranean would have approximately 45 TLAM onboard, for a total of 180 TLAM.

Along with the four destroyers, the USS Harry S Truman, a nuclear powered aircraft carrier, is currently located in the Red Sea with four escort ships, the Ticonderoga class cruisers USS San Jacinto and USS Gettysburg, and two Arleigh Burke Class destroyers, the USS Bulkeley and USS Mason. These ships could also reposition to the Mediterranean in a matter of days.[22]

If the USS Truman aircraft carrier were repositioned to the eastern Mediterranean, it would significantly increase the striking power available to hit targets in Syria. With that said, given that the USS Truman is not currently positioned to strike into Syria, this analysis of probable strike options focuses on what is available and in position, namely the destroyers and submarines.

CAPABILITIES OF U.S. NAVY SUBMARINES

U.S. Navy submarines may also be in the Mediterranean. For comparison, at the start of Operation Odyssey Dawn in 2011, the U.S. Navy placed three submarines off the coast of Libya.[23] Like the Arleigh Burke Class Destroyers, U.S. Navy submarines can also fire Tomahawk cruise missiles.

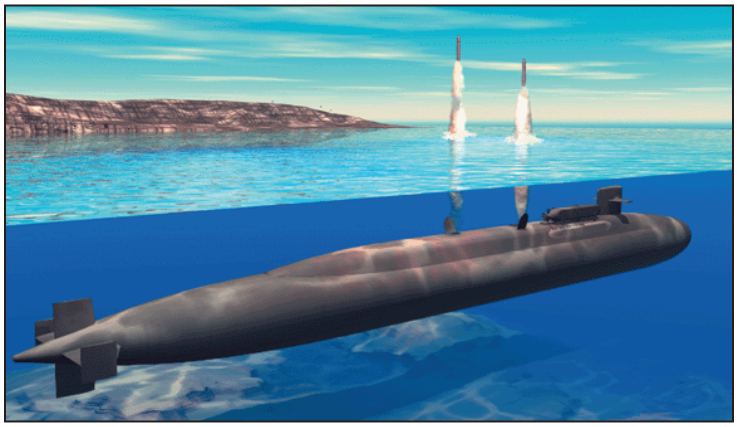
The U.S. Navy has three classes of attack submarines, the Los Angeles Class, the Seawolf Class, and the Virginia Class. All three are capable of employing TLAM, with an approximate load of twelve TLAM per submarine.[24] The U.S. Navy also has four Ohio class ballistic missile submarines that have been converted to cruise missile submarines (SSGN). These dedicated cruise missile submarines can carry up to 154 TLAM.[25] If the U.S. Navy has two attack submarines in the eastern Mediterranean, they would probably carry 12 TLAM apiece for a total of 24 TLAM to add to the 180 TLAM onboard the destroyers. If a cruise missile submarine is in the eastern Mediterranean, it would add 154 TLAM to the 180 TLAM onboard the destroyers. During Operation Odyssey Dawn, USS Florida fired 90 TLAM against targets in Libya without any requirement to reposition or resupply. Rear Admiral Rick Breckenridge, then Commander of Submarine Group Two, said "Never before in the history of the United States of America has one ship conducted that much land attack strikes, conventionally, in one short time period. And we did it from undersea."[26]

TOTAL TLAM ON STATION

Assuming 45 TLAM per destroyer, with four destroyers, and 12 TLAM per submarine, with two submarines, there are approximately 45 X 4 = 180 + (12 X 2) = 204 TLAM currently available. This number is more than enough to conduct a medium intensity strike against a variety of targets. Ships can pull into port once in theater to take on additional TLAM from supply / ammunition ships.[27]

With the ability to reload TLAM in theater, the Navy could also conduct an ongoing campaign if ordered to do so by keeping 2 - 3 destroyers / submarines on a firing line off the coast of Syria while 1 - 2 go into port to reload. Given the long range of the TLAM and the short distance to

PHOTO 2 | USS HARRY S TRUMAN (SOURCE: WIKIMEDIA COMMONS)



U.S. NAVY DEPICTION OF USS MICHIGAN (SSGN 727)

friendly ports to reload, the Navy could keep a continuous, low intensity campaign of 20 - 25 TLAM strikes per day going for several weeks without any additional vessels rotating into theatre.

TOMAHAWK LAND ATTACK MISSILE (TLAM) CAPABILITIES AND LIMITATIONS

TLAM is an extremely capable weapon as long as it is used against appropriate targets. It is very capable against "soft targets" such as radars, communication relays, antennae, commercial grade buildings, aircraft, and vehicles. When used against a soft target a TLAM will achieve what is known as a "hard kill," or complete physical destruction of the target.[28] When used against moderately armored targets, such as a reinforced concrete and asphalt runway, TLAM will cause enough damage to achieve a "mission kill" by rendering the runway unusable for a period of time, but not totally destroying it.[29] If used against a heavily defended target, such as a command bunker buried deep underground, the TLAM will have no effect. TLAM is a very capable weapon, but it must be used against appropriate targets for its capabilities.

PHOTO 3 | TLAM LAUNCHES FROM THE GUIDED MISSILE CRUISER USS CAPE ST. GEORGE (CG 71) (SOURCE: WIKIMEDIA COMMONS)

TLAM CAPABILITIES

- Extremely reliable[30]
- Rapid turnaround cycle from target identification to firing sequence[31]
- Extremely accurate[32]
  - Official Circular Error Probable (CEP) less than ten meters
  - Unofficially, most analysts say CEP less than one
- Reprogrammable in flight[33]
- Multiple warhead variants
  - 1000 lb. "unitary warhead" for maximum point damage
  - "bomblet" variant that can disperse 166 small bomblets for maximum dispersed damage
- 1000 nautical mile range, allowing ships to stand off completely out of Syrian weapon range
  - The Syrian P-800 Yakhont Anti Ship Cruise Missiles (ASCM) has a maximum range of 180 nautical miles.[34]

TLAM LIMITATIONS

- Cannot effectively attack heavily armored targets
- Cannot cause deep cratering of runways
- Insufficient warhead size to incinerate chemical weapons in situ
- Cannot effectively attack highly mobile targets

POTENTIAL TARGETS IN SYRIA

There are a number of targets TLAM could accurately and effectively attack in Syria. Of course, a militarily feasible target set does not constitute a strategy or even the hierarchy of operational or tactical tasks beneath it. Potential targets are nevertheless listed below as illustrations of what military planners may consider.

- Syrian Air Force (SAF) Infrastructure
  - Runways

  - Air Traffic Control towers, radars, radios
  - Fuel tanks
  - Spare parts storage
  - Maintenance facilities
- SAF Aircraft
  - SAF aircraft are highly vulnerable to first strike from TLAM
- Syrian Arab Army (SAA) vehicles
- Syrian regime command and control (C2) nodes and equipment
- Syrian Integrated Air Defense (IADS) static equipment
  - Heavy radars are fixed in place and do not move
  - Heavy missiles are fixed in place and do not move
- Syrian Navy vessels
- Syrian regime headquarters and government buildings
- Assad Presidential Palace

EFFECTS-BASED TARGETING

Military planners follow a very specific planning process when allocating resources against tasks or targets. Although that process varies slightly depending on the time, place, and nature of the mission and target, the Joint Targeting Cycle is always intended to be effects based, meaning that targets are chosen based on the likely effect destruction of that target will have on the enemy. Joint Publication 3-60, "Joint Targeting," defines Effects Based as: "The art of targeting seeks to create desired effects with the least risk and least expenditure of time and resources."[35]

The first step in the formally-defined process for planning Joint Operations is clearly defining and understanding strategic guidance.[36] The problem, as Secretary Hagel and General Dempsey have so clearly and often articulated, is that the discussion of military and policy options for Syria has so far occurred in a vacuum. The President should not choose means, such as targeting with TLAMS, without also articulating the mission and endstate that he wishes to achieve in Syria. And concepts such as "punitive strikes" in order to deter use of chemical weapons do not translate so simply into military target sets. Taking military action in order to prove that America will not stand idly by also does not constitute a strategy. It is not even good guidance for operational planning because it does not offer the military planners an endstate that they can pursue.

INFERRED POTENTIAL OBJECTIVES

In the absence of any clear statements from the administration about what strategic objectives it might be seeking to achieve with military action in Syria, we can infer a number of possible aims and consider their feasibility and requirements. But each aim is operational rather than strategic, and its real significance can only become clear when certain more basic questions are answered. Does President Obama intend to use military force to overthrow the Assad regime? Does he intend to restrict direct U.S. military involvement to the management of Syria's chemical weapons stockpile and delivery systems? Does he intend to coordinate U.S. military activities with specific rebel groups in order to achieve any particular end to the conflict? Does he wish to set conditions for any particular kind of post-conflict environment? Without answers to these questions, the specific tasks considered below are merely operational undertakings driving toward no particular over-arching national security objective.

Deter further chemical weapons attacks on civilians: If the desired objective is to deter further use of chemical weapons against civilians, any target that is intrinsically valuable to the Assad regime could be an effective target, assuming that the regime can be deterred at all. The Assad regime has shown the ability to endure a tremendous amount of punishment with no discernible change in policy or procedures. This type of targeting would force the Assad regime to weigh the potential value of any future use of chemical weapons against the value of the regime capabilities we would destroy in retaliation.

Punish the Assad regime for using chemical weapons against civilians: Deterrence and punishment are two different things. Targets selected for their probability to deter further attacks by the Assad regime have a specific intended objective, and some likelihood of achieving that objective. Targets chosen to simply punish the Assad regime will have little impact on the strategic outcome.

Degrade the ability of the Assad regime to deliver chemical weapons against civilians: If the desired objective is to reduce the Assad regime's ability to use

chemical weapons against civilians, the correct targets would be any of the delivery systems the Assad regime has available. These include, but are not limited to, aircraft, artillery, rockets, and ground transportation vehicles. There are enough TLAM in theatre to degrade the ability of the Assad regime to deliver chemical weapons against civilians but not to eliminate it. Complete destruction of delivery systems would require a larger commitment than just TLAM, including a significant intelligence operation to precisely locate all delivery systems as well as multiple sorties by manned aircraft. This would require significant degradation or destruction of the Syrian Integrated Air Defense System (IADS). It is not clear, in fact, that an air campaign alone of any scale could completely eliminate the Assad regime's ability to use chemical weapons at some level.

Degrade chemical weapons in situ: If the desired objective is to degrade the Assad regime's access to chemical weapons, the best way to do that would be to degrade the chemical weapon stockpile in situ. There are enough TLAM in theatre to degrade the Assad regime's stockpile of chemical weapons. Although partial damage of chemical weapons in situ does raise the possibility that chemical weapons will be activated in place, there are technical limitations that mitigate this danger. In order for chemical weapons to function effectively, the warhead must be activated in a specific sequence to ensure proper aerosolization. Incomplete aerosolization will significantly reduce the effectiveness and lethality of chemical weapons.[37] Complete destruction of chemical weapons in situ would require a larger commitment than just TLAM, including a significant intelligence operation to precisely locate all delivery systems as well as multiple sorties by manned aircraft. This would require significant degradation or destruction of the Syrian Integrated Air Defense System (IADS). As many other conflicts have shown, air operations alone will likely be able to degrade Syria's chemical weapons stockpile only to a certain extent, but not completely.

Degrade Syrian regime conventional military capabilities: If the desired objective is to reduce the Assad regime's ability to continue fighting against the rebels, this effect could be partially achieved by targeting TLAM currently in theatre against Syrian army units, equipment, supply depots, etc. Complete destruction of the Syrian regime's conventional military capabilities would require a larger commitment than just TLAM, including a significant intelligence operation to precisely locate military formation, vehicles, etc., as well as multiple sorties by manned aircraft. This would require significant degradation or destruction of the Syrian Integrated Air Defense System (IADS). Any such undertaking would make much more sense if it were closely coordinated with the operations of the Syrian rebel forces actually fighting the regime on the ground. But even uncoordinated large-scale disruption of the Syrian military's ability to function would likely create opportunities that the rebels could exploit, possibly to achieve strategically-significant effects.

Degrade Syrian Integrated Air Defense System (IADS): If the desired objective is to condition future behavior of the Assad regime, degrading or destroying the IADS now would leave the regime open to future attack by manned aircraft. There are enough TLAM in theatre to degrade the IADS, and destroy the static portion of it. Complete destruction of the IADS, including road mobile radars, guns, and missiles, would require a significant intelligence operation and multiple sorties by manned aircraft.

All of these potential desired objectives could be partially achieved by using TLAM already in theatre. Realizing these desired objectives fully would require a significantly larger force than is currently on station.

STRATEGIC PURPOSE OF STRIKING SYRIA

Choosing targets at the tactical level is a routine task that military planners perform virtually every day. Given the length of the conflict in Syria, it is certain that targeting specialists at U.S. Central Command (CENTCOM), the Combatant Command responsible for all U.S. military operations in Syria,[38] and U.S. Navy Sixth Fleet, responsible for all military operations in the Mediterranean,[39] have been choosing and refining target lists for quite some time. The ability of CENTCOM to decide which targets to hit, and the ability of U.S. Navy Sixth Fleet to accurately strike those targets with TLAM, has been validated in numerous real world operations.

What has not been explicitly validated is the U.S. strategic purpose in attacking Syrian regime targets. This paper neither advocates for U.S. intervention in Syria, nor argues against it, but does explicitly argue that in order for tactical military action, such as striking targets in Syria, is to be effective, it must be taken in the context of a clear strategic goal.

On January 30, 2012, White House Spokesman Jay Carney stated that the Assad regime "Has lost control of the country and will eventually fall."[40] Eighteen months later, it is clear that the Assad regime is not going to simply collapse. The Assad regime has survived by cultivating and expanding relationships with strategic partners external to the conflict to secure access to resources, and executing an effective strategy of localized domination of rebel forces in key areas inside the conflict.[41] Of particular importance to the survival of the Assad regime has been the support of Iran.[42] Iranian Islamic Revolutionary Guards Corps (IRGC) Ground Forces and Quds Force have been involved in training Syrian regime forces as well as local militias. The Iranian Defense Industries Organization has been providing the Syrian regime with weapons, supplies, and equipment, including support for the chemical weapons program.[43] Along with formal, state-based support from Iran, the Assad regime has benefitted from ongoing support from non-state actors, primarily Lebanese Hezbollah.[44] In addition to Lebanese Hezbollah, Iraqi Shi'a militias are actively supporting the Assad regime in Syria.[45] There is no indication that the Assad regime is on the verge of collapse, no reasonable expectation that it will collapse in the near future, and every indication that Iran and Hezbollah are increasing their support for the Assad regime, not decreasing it.

At the same time, al-Qaeda and other organizations either allied with or sympathetic to al-Qaeda, such as Jabhat al-Nusra (JN) and the Islamic State of Iraq and al-Sham (ISIS) have also gradually and steadily increased their presence and influence in Syria while fighting against Assad.[46] The local population in rebel controlled areas, while not universally supportive of al-Qaeda, JN, and ISIS, has no effective means to dispute their control and governance. As a result, these terrorist groups are gradually consolidating control of municipal function and effectively establishing safe havens for future operations.[47]

Whatever tactical action U.S. forces take should not be focused merely on responding to the use of chemical weapons, but should serve the greater strategic objective of denying Syria as a safe haven to Iran and Lebanese Hezbollah on the side of the Assad regime, and al-Qaeda, JN, and ISIS on the side of the rebels. If the current trajectory of the Syrian Civil War continues, Iran and Lebanese Hezbollah will have a safe haven in regime controlled territory and dominating leverage over the Assad regime, and al-Qaeda, JN and ISIS will have a safe haven in rebel controlled territory and significant influence over the rebel movement. Denying Iran, Lebanese Hezbollah, al-Qaeda, JN, and ISIS safe havens in Syria and influence over the future of Syria is, or should be, a strategic objective of the US. Any action taken in Syria by U.S. forces should serve this strategic objective, not the symbolic objective of "punishing" the Assad regime for using chemical weapons.

CONCLUSION

The use of chemical weapons in Syria by the Assad regime is an atrocity. The U.S. has an interest in addressing the use of chemical weapons and preventing their future use and proliferation in Syria and elsewhere. But U.S. interests in Syria do not stop there.

There are real reasons to intervene militarily in Syria, where Iran and Hezbollah are fighting al-Qaeda in ways that strengthen these adversaries rather than weaken them. The violence is drawing regional and global extremists, and destabilizing Iraq, Lebanon, Jordan, Gaza, and Turkey. The Syrian regime is vulnerable to targeting aerial resupply of its forces by Iran and Russia. The reinforcement of radical opposition elements by other states in the region is eroding the moderate, secular opposition's ability to lead the military movement effectively. And there are popular movements against al-Qaeda governance that require support in order to mitigate that threat. Punitive strikes do not address any of these problems or take advantage of any of these opportunities.

If the U.S. is going to strike targets in Syria, it must do so with a clear understanding of what U.S. strategic interests are, how striking targets in Syria serves those interests, and what the long-term commitment would be to achieve specified objectives.

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