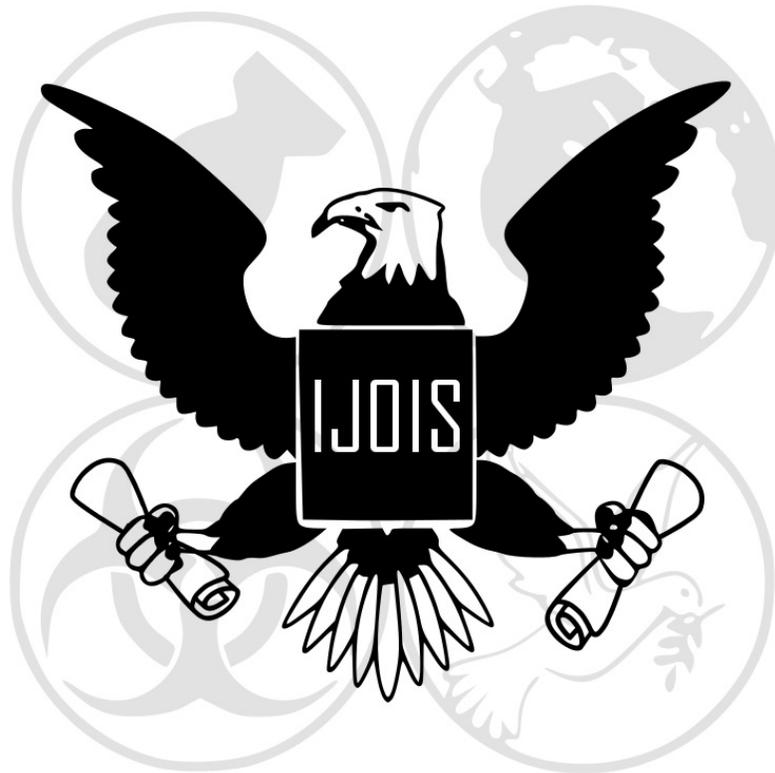


Illini Journal of International Security

Fall 2016, Volume II



Letter from the Editor

Dear reader,

On behalf of the IJOIS Editorial Board, the Program in Arms Control & Domestic and International Security, the University Library, and the supportive academic community of the University of Illinois at Urbana-Champaign, I would like to thank you for reading the second issue of Illini Journal of International Security (IJOIS)! IJOIS is a peer-reviewed academic journal that was founded in September 2015 by undergraduate students at the University of Illinois at Urbana-Champaign. We publish exceptional papers on topics within international security or foreign affairs.

For our second issue, we are excited to publish outstanding undergraduate papers that explore some of the most pressing issues within international security and foreign affairs, covering a wide range of topic areas and geographical regions. In “Explaining Middle East Participation in the Convention Against Torture,” Derek Hoot walks us through why Middle Eastern states actually comply or agree to comply with the Convention Against Torture. Largely keeping with the Middle East, James Holevas looks at the pros and cons of the use of drone strikes in Iraq, Yemen, and in the Afghanistan-Pakistan region in his paper “Drones: A Projection of Force Abroad.”

Moving to the United States, Maxx Villotti explains the continued relevance of the US nuclear arsenal in “The Current State of the US Nuclear Arsenal.” In Gabriel Wacks’ submission, he looks at the Chinese nuclear arsenal and if a nuclear conflict is ever a possibility in “Atomic Dragon: Chinese Nuclear Weapon Development and the Risk of Nuclear War.” Lastly, we go back to the Middle East with John Bolis taking a look at the Syrian Civil War and the official al Qaeda branch there in “Jabhat Fatah al Sham’s Implication on the Syrian Civil War and Beyond.”

These exceptional undergraduate papers present novel arguments on a wide array of issues within international security and foreign affairs. We hope that these papers will challenge and inform our readers, spark discussion, and encourage undergraduate students to explore these pressing issues or pursue international studies further.

We hope you enjoy reading!

Caleb Weiss

Editor-In-Chief

About the Illini Journal of International Security

The Illini Journal of International Security (IJOIS) is a peer-reviewed undergraduate academic journal that was founded in September 2015 by undergraduate students at the University of Illinois at Urbana-Champaign. IJOIS is published biannually through the Program of Arms

Control & Domestic and International Security (ACDIS) and is comprised of exceptional undergraduate and graduate papers on topics related to international security or foreign affairs. IJOIS utilizes a cross-disciplinary approach and accepts papers from students studying the social sciences, STEM fields, business and the humanities that analyze international security issues from innovative perspectives. While IJOIS is run by students at UIUC, the Journal accepts submissions from students at all University of Illinois campuses (Urbana-Champaign, Chicago, and Springfield).

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Explaining Middle East Participation in the Convention Against Torture

Derek Hoot

University of Illinois

Abstract

The study of international regimes has largely concentrated on two central questions: 1. Why do states sign and ratify international regimes?; and 2. Do states comply with international regimes? These questions are deeply intertwined, as lack of compliance signals either state helplessness or ulterior motives for ratification behavior. In this paper, I will focus on those ulterior motives, mainly aid-seeking behavior and the desire for trade benefits.

This paper seeks to demonstrate the relationship between Middle Eastern states' participation in the Convention Against Torture (CAT) and the acquisition of economic benefits. Additionally, it examines the significance of conflict in determining ratification behavior.

About the Author

Derek Hoot is a senior studying Political Science and Arabic Studies. He is interested in international human rights law and the implications of geopolitics on human rights.

Introduction

For the purposes of examining motives for Middle Eastern CAT compliance, the “Middle East” includes Egypt, Syria, Jordan, Lebanon, Israel, Iraq, Iran, Qatar, Bahrain, United Arab Emirates, Oman, Yemen, Saudi Arabia, and Turkey. In order to demonstrate the changing state of human rights, specifically with regards to torture, the Cingranelli-Richards (CIRI) Human Rights Database's variable on the practice of torture was used. The CIRI Database defines torture as the “purposeful inflicting of extreme pain, whether mental or physical, by government officials or by private individuals at the instigation of government officials” (Cingranelli, 2014). The CIRI Database primarily draws from State Department data and is used by over 400 organizations worldwide. Each country-year is independently coded by at least two coders to ensure reliability. Data on political terror, physical integrity, and armed conflict was used, which is described at length under “variable operationalization.”

Ratification Theory

In Oona A. Hathaway's 2007 paper “Why Do Countries Commit to Human Rights Treaties,” she describes what she calls the “collateral consequences” of committing to a human rights treaty. Hathaway asserts that “the decision to commit to a treaty... has collateral as well as legal consequences. These collateral consequences arise from the reactions of domestic or transnational actors to the state's decision to commit to the treaty” (Hathaway, 2007). This paper will focus on the transnational consequences, which according to Hathway, “may come about through the linking of foreign aid, trade, or other transnational relationships to the state's decision to ratify.”

Other political scientists hold that a state's decision to ratify can also be influenced by domestic factors such as conflict, political instability, and uncertainty. In his paper on the origins of human rights regimes, Andrew Moravcsik claims that “governments seek to establish reliable judicial constraints on future non-democratic governments or on democratically elected governments that may seek (as in interwar Italy and Germany) to subvert democracy from within” (Moravcsik, 2000). He goes further to say that “[a state's] willingness to tolerate sovereignty costs increases insofar as the costs are outweighed by the benefits of reducing domestic political uncertainty” (Moravcsik, 2000). This implies that states in conflict are more likely to be ratifiers because they have a greater stake in reducing political uncertainty.

However, just as political uncertainty and domestic strife can increase a state's likelihood of ratification, conflict is believed to have a negative effect on human rights realities. The United Nations states that “serious violations of international humanitarian and human rights law are common in many armed conflicts. In certain circumstances, some of these violations may even constitute genocide, war crimes or crimes against humanity.” That said, it also acknowledges the complex relationship between human rights and conflict. The United Nations System Staff College in Turino, Italy, which trains United Nations personnel, cites the Cape Town Centre for Conflict Resolution, stating that “[the relationship] is two-fold: conflict can lead to human rights violations, and the sustained denial of human rights can lead to violent conflict” (Parleviet, 2002). This paper will focus on the first relationship: countries in conflict are more susceptible to human rights violations.

Beyond the tangible benefits of aid, trade, and decreased political uncertainty, ratifying states may seek to participate in the “window dressing phenomenon,” that is, they simply wish to appear “good” to the international community while continuing noncompliant behavior in private

settings. This is an international phenomenon, but it is much stronger on a regional level.

Hathaway contends that “if a country lies in a region in which human rights norms are highly valued, it will seek to demonstrate its commitment to these shared norms and thereby smooth relations with other countries in the region” (Hathaway, 2007).

I chose to analyze the Middle Eastern countries because of the complex nature of human rights, conflict, aid, and trade in the Middle East. Although the “Middle East” is a Eurocentric term and its boundaries are largely considered arbitrary, I chose the definition is concurrent with the State Department's definition of the “Near East” and “Middle East” in 1958 (with the exception of Yemen and the United Arab Emirates, which were established in 1971 and 1990 respectively, and Iran, which I considered because of its geographic location and its relevance to the study of the effects of conflict and exports on ratification) (The New York Times, 1958). In studying the ratification of human rights agreements, I focused my efforts on countries' ratification behavior in relation to the Convention Against Torture.

In this paper, I seek to explain why Middle Eastern countries, especially those that ultimately fail to comply with the Convention Against Torture, ratify it anyway. I hypothesize that Middle Eastern countries who ratify the CAT will experience “rewards” in the form of increased foreign aid despite stagnating or decreasing human rights conditions in their countries post-ratification. I also hypothesize that conflicts with a domestic dimension will increase the the likelihood of CAT ratification.

Variable Operationalization

In explaining CAT ratification behavior, I divided my independent variables into three major categories: human rights realities, economic variables (transnational collateral consequences), and conflict variables (domestic collateral consequences).

I chose to describe human rights realities in Middle Eastern countries by using Purdue's Political Terror Scale [PTS], and Cingranelli-Richards Human Rights Data Set torture [TORT] and physical integrity [PHYSINT] variable. I chose the Purdue PTS scale in particular because it provides insight into the more visible state behaviors that do not comply with the CAT. Its coders are also specifically trained to ignore their personal biases and give states the benefit of the doubt while analyzing human rights reports. Purdue researchers' Political Terror Scale (PTS) uses evaluations of torture, rule of law, civil and political rights, and political murder from both the State Department and Amnesty International. For my PTS variable, I averaged State and Amnesty findings, which range from zero to five. Level One implies that the state in question is "under a secure rule of law, [where] people are not imprisoned for their views, and torture is rare or exceptional." (Gibney, 2016) In contrast, in Level Five countries, terror has expanded to the whole population – there is no limit on the means or thoroughness in which the leaders of Level Five societies pursue personal or ideological goals.

The PTS variable works in tandem with the torture and physical integrity variables to show whether human rights conditions improved in Middle Eastern societies post-ratification. However, it also shows the value the society in question places on its international image. If a state is attempting to "window dress" by signing onto human rights agreements, they may or may not continue to practice torture but will attempt to reduce overt forms of political terror.

The Cingranelli-Richards (CIRI) data set defines torture as the “purposeful inflicting of extreme pain, whether mental or physical, by government officials or by private individuals at the instigation of government officials” (Cingranelli, 2014). The torture variable ranges from zero to two, with zero meaning “torture did not occur” in that given year, one meaning “torture was practiced frequently” and two meaning that torture was widespread and/or systematic.

My last human rights-related variable, physical integrity (PHYSINT), is an additive index constructed from the torture, extrajudicial killing, disappearance, and political imprisonment. It ranges from zero to eight (no government respect for these four rights and full government respect for these four rights, respectively) (Cingranelli, 2014).

In order to determine whether countries were motivated to ratify the CAT for economic benefits, I employed two variables, representing “aid” [FAID] and “trade” [EXPO]. Both of my data sets were from the World Bank Database. In operationalizing aid, I took year-by-year data of foreign aid from 1981 to 2011. In operationalizing trade, I took year-by-year data of the percent of the state's gross domestic product that was composed by exported goods and services. FAID is in US dollars and EXPO is a percentage (World Bank, 2015).

I also wanted to capture the effect of armed conflict, specifically armed conflicts with a domestic dimension, on CAT ratification. I hypothesized that conflicts with domestic consequences would increase political uncertainty and therefore correlate with a higher likelihood of ratification. For my armed conflict variables, I used the UCDP/PRIO Armed Conflict Dataset (Uppsala Conflict Data Program/Centre for the Study of Civil Wars, International Peace Research Institute, Oslo). Because the nature and intensity of armed conflicts

could potentially affect state ratification behavior as well as forms of government repression, I used UCDP/PRO's disaggregated conflict variables as well as their intensity variable.

UCDP/PRIO defines an armed conflict as a “contested compatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths” (Uppsala University, 2016). Armed conflicts in the dataset are separated into four categories: extrasystemic conflicts, interstate conflicts, internal conflicts, and internationalized conflicts. Extrasystemic conflicts occur between a state and a non-state group outside of its own territory, like the American mission to destroy al Qaeda. Interstate conflicts occur between two or more states, internal conflicts occur between the government of a state and one or more internal opposition group(s) without intervention from other states, and internationalized internal armed conflicts occur between the government of a state and one or more internal opposition group(s) with intervention from other states (secondary parties) on one or both sides. I coded this “nature of conflict” variables as binary/binomial variables. For example, if a state experienced an extrasystemic conflict in 1984, it would receive a score of one for the extrasystemic [ExtraSys] variable for that year.

The conflict intensity [Intensity.Level] variable ranges between one and two, with a score of one describing a “minor” conflict in which between 25 and 999 battle-related deaths occurred in a given year, and a score of two describe a “war” in which at least 1,000 battle-related deaths occurred in a given year (Uppsala University, 2016). To account for some countries experiencing multiple conflicts during the same year, the conflict intensity variable is additive. For instance, if a state experiences two wars and a minor conflict in a single year, that year receives an intensity level score of five.

Results

First, I wanted to examine the human rights conditions in Middle Eastern societies post-ratification of the Convention Against Torture to see whether they improved. Out of the twelve ratifying countries, political terror increased in eight (two-thirds) of them. Likewise, eight countries experienced a decrease in physical integrity post-ratification. Only four countries experienced an increase in torture. “Improvement,” however, is not the international standard. Out of the twelve ratifiers, all but two (one being Iraq, which has no torture data post-ratification) experienced years where they practiced “frequent” torture. Additionally, Qatar, which signed in 2000, experienced widespread and systematic torture for the majority of its post-ratification years. The only truly CAT-compliant state from ratification in 2004 to 2011 is Syria, a state which has since descended into civil strife and resorted to bombing and deploying chemical weapons on its own citizens.

Next, I wanted to get an idea of whether CAT-ratifying countries were experiencing increased aid and trade post-ratification, to see whether they were seeking transnational collateral consequences, and being rewarded. Two-thirds of ratifying countries experienced increases in foreign aid post-ratification. Likewise, eight ratifiers, or two-thirds of ratifying countries, experienced an increase in exports as a percentage of Gross Domestic Product. Lastly, even though nearly every single ratifier was in one way or another non-compliant since ratification, every single ratifier experienced either aid or trade benefits.*

Figure 1.a. – Comparing compliance and transnational collateral consequences

Country	Did political terror increase post-ratification?	Did physical integrity decrease post-ratification?	Did torture increase post-ratification?	Did foreign aid increase post-ratification?	Did exports increase post-ratification?
Bahrain	Yes**	No	No	No	Yes
Egypt	Yes	Yes	No	Yes	Yes
Israel	Yes	Yes	Yes***	No	Yes
Jordan	Yes	Yes	No	Yes	No
Kuwait	No	No	Yes	No	Yes
Lebanon	No	No	Yes	No	Yes
Qatar	No	Yes	No	Yes	No
Saudi Arabia	Yes	Yes	Yes	Yes****	Yes
Syria	Yes	Yes	No	Yes	No
Turkey	Yes	Yes	No	Yes	Yes
Yemen	Yes	Yes	No	Yes	Yes

*That is not to say that there were not countries that temporarily or completely phased out torture in the years following ratification: Syria and Turkey phased out torture completely post-ratification (until 2011) and Yemen phased out torture for the next five years. Still, in all cases, there existed post-ratification years in which torture was practiced frequently.

**Bahraini political terror decreased post-ratification but then experienced backsliding

***Israeli torture did not increase for four years post-ratification

****Saudi foreign aid increased briefly post-ratification

In order to empirically test this phenomenon, I designed a logit model describing the effects of foreign aid, exports, and the various conflict variables (nature and intensity) on CAT ratification. Logit, or logistic regression models are used to estimate the probability of a binary response variable based on one or more predictors. In this case, state compliance with the CAT is

the binary response variable. Model code and summary of fit are included in the Appendix I, and time-series describing trade and aid variables are included in Appendix II.

Two variables demonstrated significance: internationalized conflict and foreign aid. Internationalized internal conflict had a p-value of 0.0268 and foreign aid had a p-value of 0.0714. This means that given the data, there is a 7.14% chance that the null hypothesis, that internationalized internal conflict has no effect on CAT compliance, is true. Likewise, given the data, there is a 2.68% chance that the null hypothesis, that foreign aid has no effect on CAT compliance, is true. The [Internat] variable had a negative coefficient, implying that the more internationalized conflict that a society experienced, the less likely they were to ratify the CAT. In contrast, foreign aid had a positive coefficient, implying that the more foreign aid a state received, the more likely they were to ratify the CAT.

This first finding seems counterintuitive: It would seem likely that a state experiencing any kind of internal conflict, however internationalized, would be pressured into trading increased political certainty for decreased sovereignty. However, I argue that, out of all the conflict types, internationalized internal conflict is the most threatening to state sovereignty. In that case, a regime will do everything in its power to avoid taking actions that will further reduce or threaten state sovereignty. This includes the active avoidance of international human rights agreements, including the CAT.

The second finding reaffirms my hypothesis about transnational collateral consequences. Countries exhibit aid-seeking behavior when deciding whether or not to ratify the CAT. The data provides dramatic examples. Turkey, Qatar, Lebanon, and Egypt all experienced 100%+

increases in foreign aid in the first five years after ratification, with Egypt almost quadrupling its aid numbers from \$1.6 billion to \$6 billion from 1986 to 1990.

Discussion

In examining motives for ratifying the Convention Against Torture, only internationalized internal conflict and foreign aid had a significant effect on state ratification behavior. There are several potential reasons as to why other conflict variables and the trade variables did not have a significant effect.

For the three insignificant conflict variables, two possible explanations exist based on the literature. One explanation is that these conflicts affect a state's sovereignty profile and political uncertainty profile. Therefore, in some conflicts, trading sovereignty for political certainty is not feasible because both are threatened to a relatively equal extent. In other conflicts, political certainty is paramount, but there is no discernible pattern that implies that internal armed conflict, extrasystemic conflict, or interstate conflict influence state ratification behavior one way or the other.

Another explanation for the insignificance of these three conflict variables is that ratification only decreases political uncertainty for certain regimes in conflict, particularly fledgling democracies. Most Middle Eastern countries, according to the Polity Project, are autocracies and anocracies (Marshall 2013). Therefore, these are not “governments [seeking] to establish reliable judicial constraints on future nondemocratic governments or on democratically elected governments that may seek...to subvert democracy from within,” nor are they working to prevent “democratic backsliding,” as Moravcsik posits. Moravcsik’s reasoning supports the findings: conflict-involved states with lower polity scores are rarely ratifiers.

For the trade variable (exports as a percentage of gross domestic product), there are also opposing elements that may influence ratification behavior in ambiguous ways. Intuitively, countries that demonstrate rent-seeking behavior will ratify human rights treaties to maximize trade benefits. However, rentier states often experience rampant human rights violations due to lack of accountability. DeMeritt and Young argue that “repression is less costly where states do not rely on their citizenry for generating revenue, so that these states are more likely than others to use indiscriminate violations of personal integrity rights as a policy tool” (DeMeritt and Young, 2013). That is not to say that non-compliant states never ratify, but that repressive states may avoid agreeing to human rights treaties to deny dissenters any sort of legitimate legal framework. For some states, Hathaway's “legal consequences” may outweigh any positive collateral consequences.

With the presumption that internationalized internal conflict discourages ratification, let us examine Iraq, Lebanon, and Yemen, all of whom experienced internationalized internalized conflicts during the 1981- 2011 time period. Iraq, which experienced IIC from 2004 onwards, did not ratify the CAT until 2011, the exact year that the conflict deescalated from “war” status to “minor conflict” status on the UCDP/PRIO scale. Lebanon, which experienced IIC in 1983 and 1984, did not ratify the CAT until 2000. Yemen, which experienced IIC from 2009-2011, ratified the CAT 18 years prior, in 1991. It would be interesting to see, had Yemen not ratified the CAT yet, how long this conflict would postpone their government's ratification decision.

Lastly, what about the “window dressing” argument? Do regimes use ratifying as a tool to conform to regional or international norms? As noted in the results (Figure 1.1), the majority of ratifiers experienced increased political terror post-ratification. These are largely overt acts of violence that violate international human rights norms. Considering that PTS data comes from

the State Department and Amnesty International, these acts are largely visible to state and non-state actors. One argument is that by ratifying the CAT, regimes temporarily distract from their human rights malfeasance. Another factor is that countries only care about the regional norms to which Hathaway refers, and thus may not strive to meet the international standard if it is significantly more difficult to conform to than the regional norm.

Limitations

If I were to examine the role of trade, aid, and conflict in human rights agreements again, I would operationalize my variables much differently to minimize the number of binary and low-range, discrete variables in my regression. For example, instead of having a conflict intensity variable that ranges from one to two, I would have a variable describing the number of battle-related deaths in the conflict. This would better capture the wide range of conflict intensity within and between Middle Eastern states, and perhaps provide a more detailed picture of how conflict intensity affects compliance behavior.

To further improve upon this analysis, I would also collect country aid data to determine the primary sources of foreign aid post-ratification. Distinguishing specific aid types, such as military aid, would also provide useful information. It is possible that ratifiers are seeking specific types of aid. Placing all aid types in a single variable makes it difficult to unpack what motivates ratification behavior. Seeking out specific types of aid could skew the results because certain states may receive significantly larger amounts of military or humanitarian aid than others.

In addition, there are obviously other factors beyond ratification that lead to increased exports and foreign aid. Humanitarian disasters, free trade agreements, resource discovery, and

other factors can influence these economic variables. Controlling for these events would greatly improve further studies. With these added controls, researchers could more accurately discern the “reward” effect that causes countries to exhibit aid-seeking behavior and pursue trade benefits.

Lastly, examining this phenomenon in other regions could shed some light on why Middle Eastern governments behave the way that they do. Do regions with more diverse economies exhibit the same aid and rent-seeking behavior? Do regions with more established human rights norms ratify human rights agreements at faster rates than regions without those norms? By broadening the study, researchers could glean more information about economically driven and normative behavior.

Conclusion

Across the Middle East, repressive regimes that are unable to fully comply with the Convention Against Torture ratify the CAT to obtain foreign aid benefits. When experiencing internationalized internal conflicts, however, Middle Eastern countries avoid ratification to preserve their threatened sovereignty. Other conflict types do not affect ratification behavior, perhaps because of ambiguous effects on sovereignty and uncertainty profiles, or perhaps because these regimes have no interest in bolstering the judicial means of future democracies.

Transnational collateral consequences matter. When countries see non-compliant ratifiers in their region rewarded, they pile onto human rights agreements regardless of their capacity to comply. Not only does this reward aid-seeking behavior, it undermines the legitimacy of the international human rights regime and harms the very citizens it claims to protect.

Furthermore, the sovereignty-certainty calculus matters. Countries that feel that their sovereignty is threatened are unlikely to agree to human rights treaties, and therefore are unaccountable to

human rights norms. In countries where the government feels its sovereignty is compromised, little can be done to push a human rights agenda.

Policy implications are two-fold: First, foreign aid benefits should be explicitly contingent on compliance, not ratification, especially if military aid is involved. This should not discourage ratification because it is still a prerequisite for compliance. Second, interventionist countries should reevaluate their approach to promoting human rights internationally. For example, by dismantling Iraqi sovereignty, the War in Iraq postponed the Iraqi ratification decision by a number of years. Thus, Iraq's road to human rights compliance was lengthened considerably. In the future, commitment to preserving a state's sovereignty in the long run may persuade them to concede some sovereignty to the international human rights regime in the short run. This commitment can be stated explicitly during negotiations, referred to as an upside of ratification (i.e. recognizing human rights provides an extra layer of legitimacy), and communicated through state and supra-state organization behavior. For example, states and international organizations pushing the CAT should limit intrusive military actions and be wary of statements that challenge the legitimacy of potential ratifiers. With this approach in mind, the international human rights regime can move to encourage Middle Eastern participants to act on the CAT.

References

Cingranelli, David L., David L. Richards, and K. Chad Clay, The CIRI Human Rights Dataset, 2014, 2014.04.14

DeMeritt, Jacqueline HR, and Joseph K. Young. "A political economy of human rights: Oil, natural gas, and state incentives to repress." *Conflict Management and Peace Science* 30.2 (2013): 99- 120.

Gibney, Mark, Linda Cornett, Reed Wood, Peter Haschke, and Daniel Arnon. 2015. *The Political Terror Scale 1976-2015*.

Hathaway, Oona A. "Why do countries commit to human rights treaties?." *Journal of Conflict Resolution* 51.4 (2007): 588-621.

Marshall, Monty G., and Ted Robert Gurr. "Individual Country Regime Trends." *The Polity IV Project*. The Center for Systemic Peace, 2013. Web.

Moravcsik, Andrew. "The origins of human rights regimes: Democratic delegation in postwar Europe." *International Organization* 54.02 (2000): 217-252.

"'Near East' Is Mideast, Washington Explains." *The New York Times* 14 Aug. 1958: 8. Print.

"Net Official Development Assistance and Official Aid Received (current US\$)." Data. World Bank, 2015. Web. 06 May 2016.

Parlevliet, Michelle. "Bridging the divide. Exploring the relationship between human rights and conflict management." *Track Two* 11.1 (2002): 8-43.

"UCDP/PRIO Armed Conflict Dataset - PRIO." UCDP/PRIO Armed Conflict Dataset - PRIO.

Department of Peace and Conflict Research, Uppsala University, Centre for the Study of
Civil War at the International Peace Research Institute Sweden, n.d. Web. 06 May 2016.

R Code: Regression Analysis

Call:

```
glm(formula = CATts ~ PHYSINTts + TORTts + PTSts + FAIDts + EXPOts +
     ExtraSysts + InterStts + InterArmts + Internatts + ConNumts +
     Intensity.Levelts, family = "binomial")
```

Coefficients: (1 not defined because of singularities)

	Estimate	Std. Error	z value	Pr(> z)
(Intercept)	4.043e-01	9.805e-01	0.412	0.6801
PHYSINTts	1.744e-02	1.188e-01	0.147	0.8832
TORTts	-4.360e-01	2.909e-01	-1.499	0.1340
PTSts	-1.339e-01	2.180e-01	-0.614	0.5390
FAIDts	2.298e-10	1.275e-10	1.803	0.0714 .
EXPOts	-6.435e-03	6.907e-03	-0.932	0.3515
ExtraSysts	-1.725e+01	1.328e+03	-0.013	0.9896
InterStts	-2.080e+01	1.120e+03	-0.019	0.9852
InterArmts	-7.934e-01	9.117e-01	-0.870	0.3842
Internatts	-6.212e+00	2.805e+00	-2.215	0.0268 *
ConNumts	NA	NA	NA	NA
Intensity.Levelts	1.178e+00	8.376e-01	1.407	0.1595

```
0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
>#Foreign Aid is below .1 and Internationalized Conflict is below .05
```

Appendix I:

Figures explained.

Figures 2.a.-2.p. are time-series describing the human rights conditions of each Middle Eastern country from 1981-2011. They include the Political Terror Scale (PTS) variable (in gray), the physical integrity (PhysInt) variable (in black) and the torture (TORT) variable (in blue). The vertical red line represents the year that the country in question ratified the Convention Against Torture.

Figures 3.a-3.o are time-series describing the fluctuation in foreign aid in each Middle Eastern country from 1981-2011. The vertical red line represents the year that the country in question ratified the Convention Against Torture.

Figures 4.a-4.o are time-series describing the fluctuation in exports (as a percentage of gross domestic product) in each Middle Eastern country from 1981-2011. The vertical red line represents the year that the country in question ratified the Convention Against Torture.

Appendix II:

Figures: Human Rights Conditions, Foreign Aid, and Exports (As % of GDP)

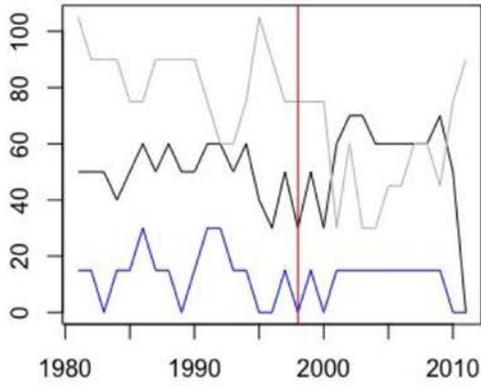


Figure 2.a: Bahrain Human Rights Conditions

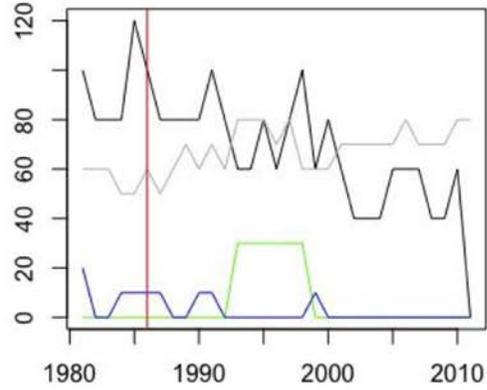


Figure 2.b: Egypt HR Conditions

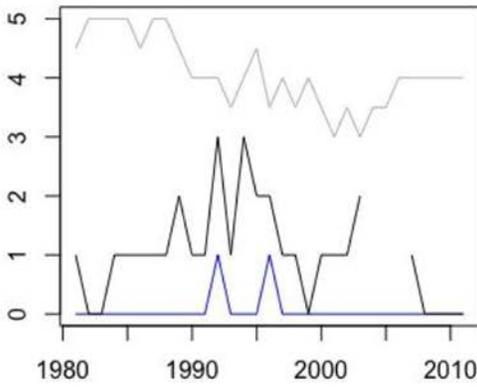


Figure 2.c: Iran Human Rights Conditions

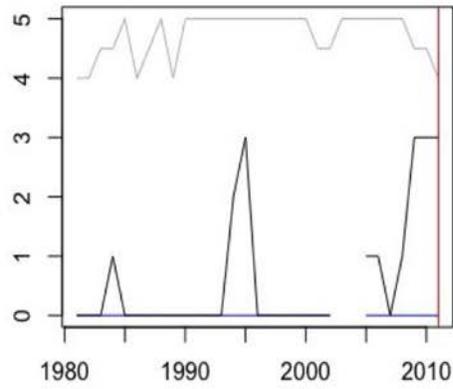


Figure 2.d: Iraq Human Rights Conditions

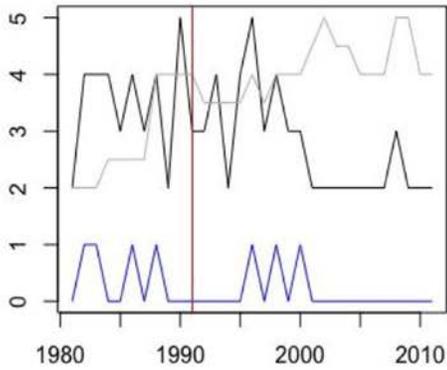


Figure 2.f: Israel Human Rights Conditions

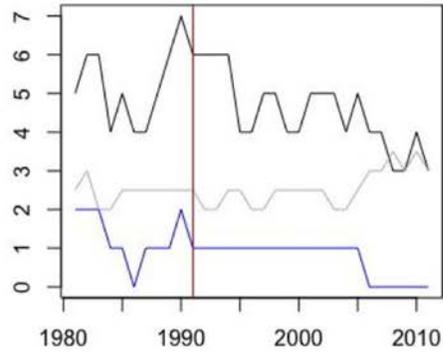


Figure 2.g: Jordan Human Rights Conditions

Figures: Human Rights Conditions, Foreign Aid, and Exports (As % of GDP)

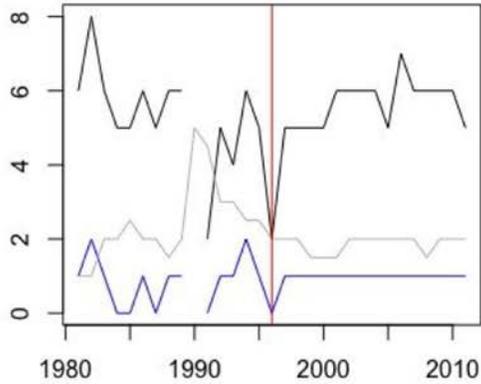


Figure 2.h: Kuwait Human Rights Conditions

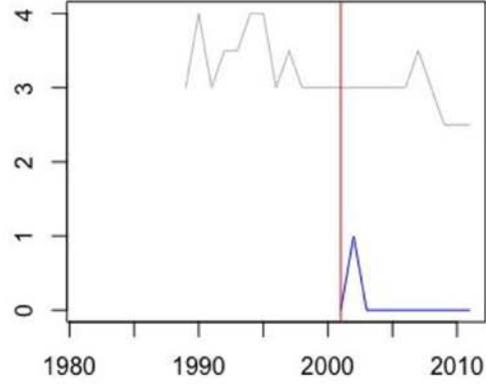
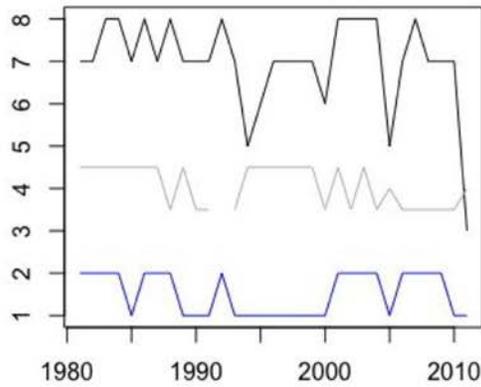


Figure 2.i: Lebanon Human Rights



Conditions Figure 2.j: Oman Human Rights Conditions

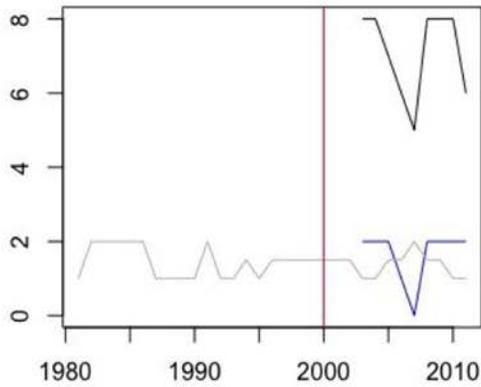


Figure 2.k: Qatar Human Rights Conditions

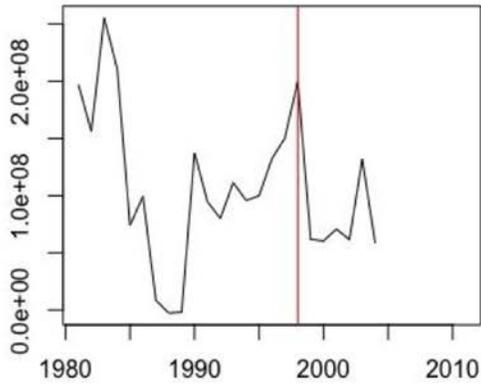


Figure 3.a: Bahrain Foreign Aid

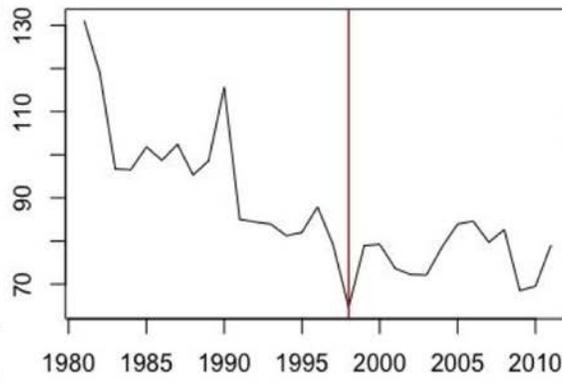


Figure 4.a: Bahrain Exports (As % of GDP)

Figures: Human Rights Conditions, Foreign Aid, and Exports (As % of GDP)

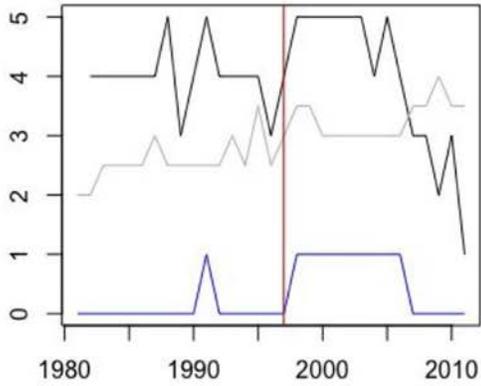


Figure 2.l: Saudi Arabia Human Rights Conditions

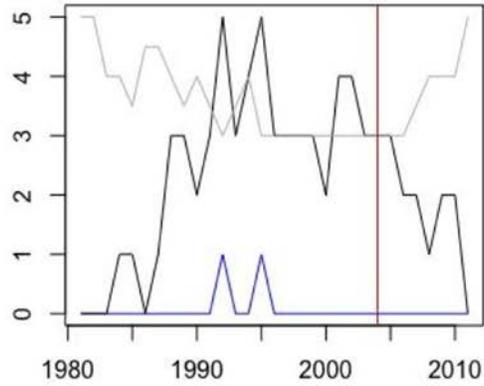


Figure 2.m: Syria Human Rights Conditions

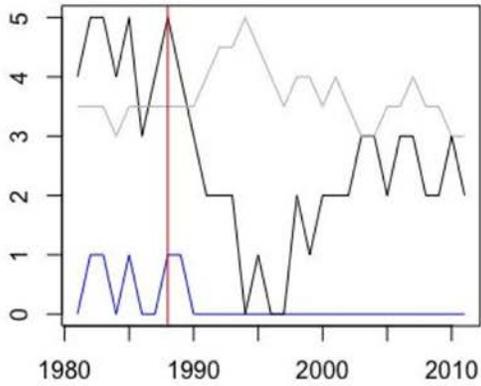


Figure 2.n: Turkey Human Rights Conditions

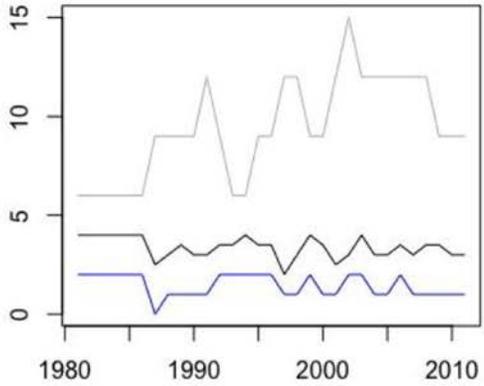


Figure 2.o: UAE Human Rights

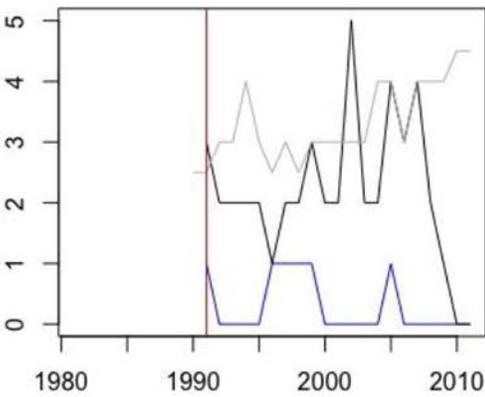


Figure 2.p: Yemen Human Rights Conditions

Figures: Human Rights Conditions, Foreign Aid, and Exports (As % of GDP)

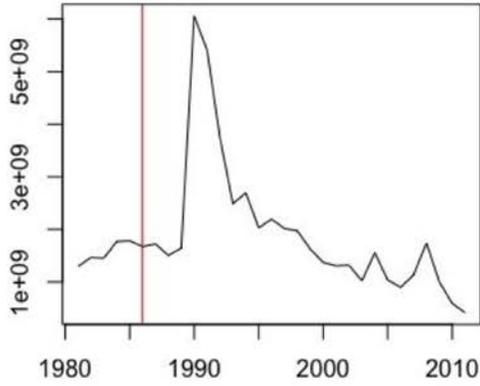


Figure 3.b: Egypt Foreign Aid

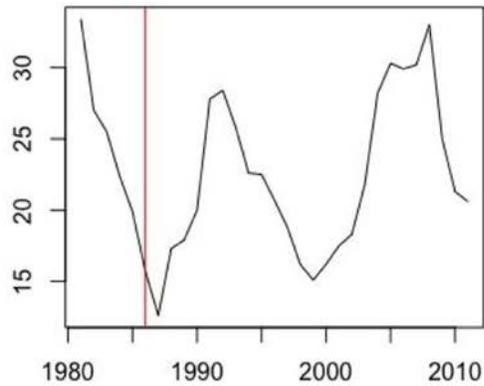


Figure 4.b: Egypt Exports

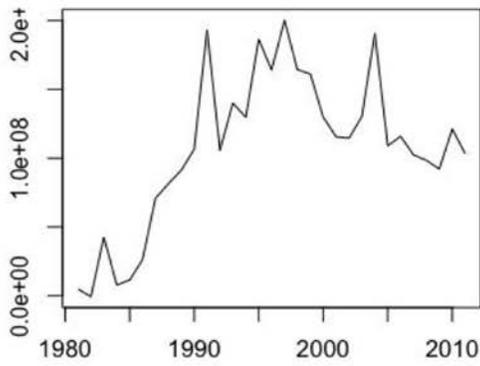


Figure 3.c: Iran Foreign Aid

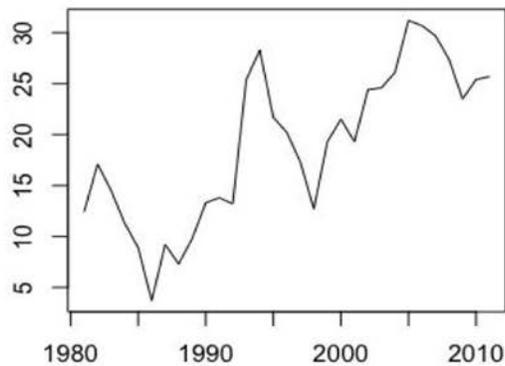


Figure 4.c: Iran Exports

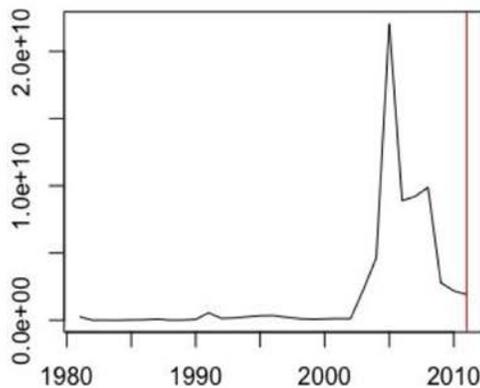


Figure 3.d: Iraq Foreign Aid

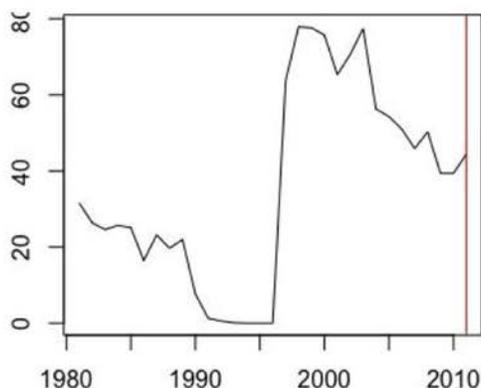


Figure 4.d: Iraq Exports

Figures: Human Rights Conditions, Foreign Aid, and Exports (As % of GDP)

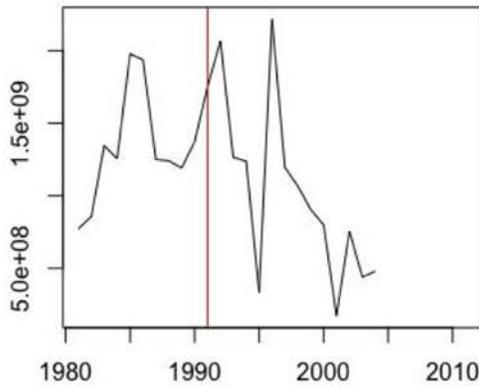


Figure 3.e: Israel Foreign Aid

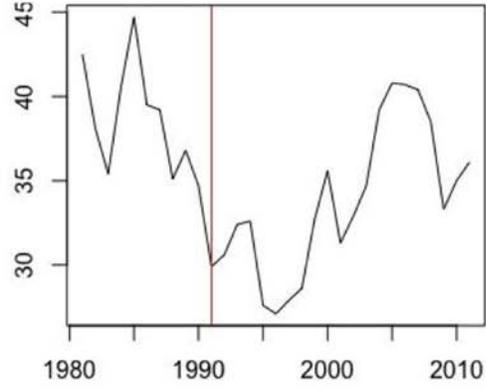


Figure 4.e: Israel Exports

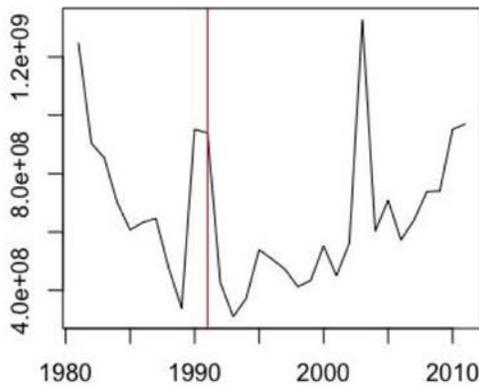


Figure 3.f: Jordan Foreign Aid

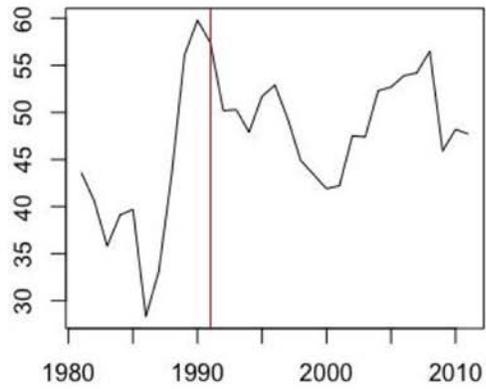


Figure 4.f: Jordan Exports

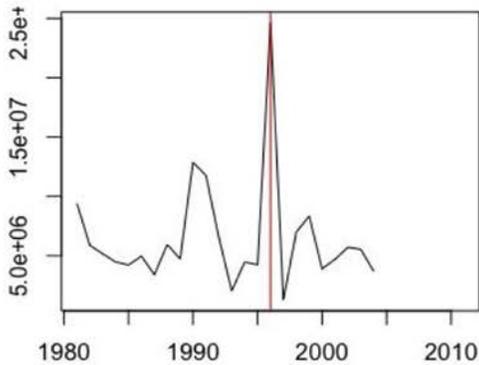


Figure 3.g: Kuwait Foreign Aid

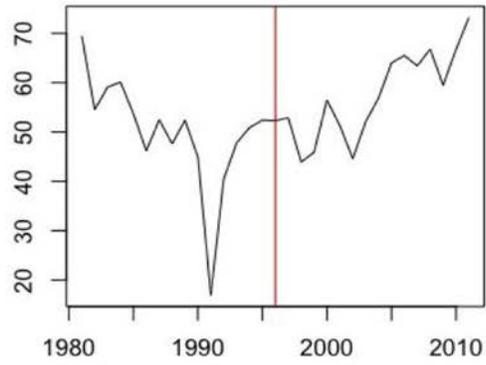


Figure 4.g: Kuwait Exports

Figures: Human Rights Conditions, Foreign Aid, and Exports (As % of GDP)

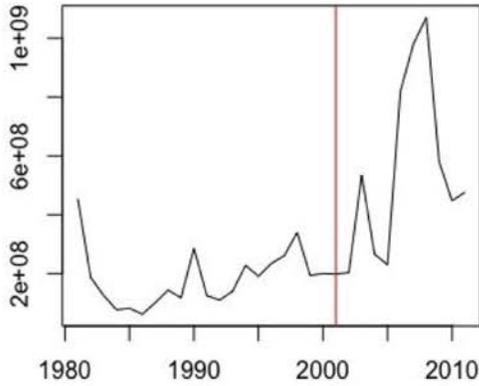


Figure 3.h: Lebanon Foreign Aid

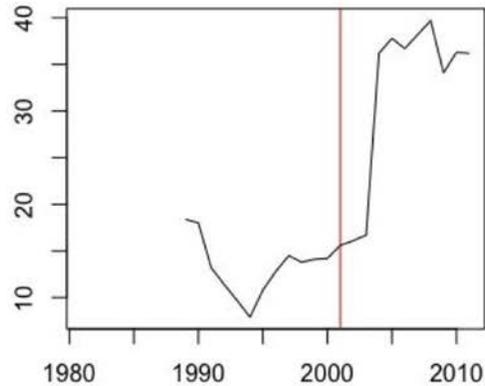


Figure 4.h: Lebanon Exports

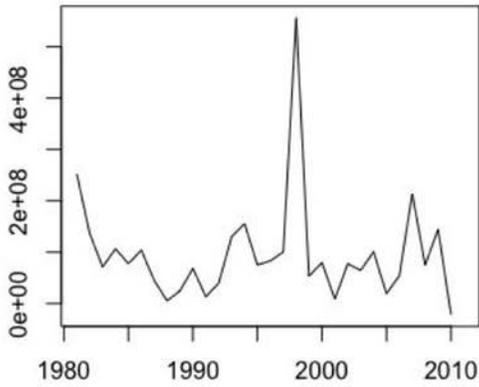


Figure 3.i: Oman Foreign Aid

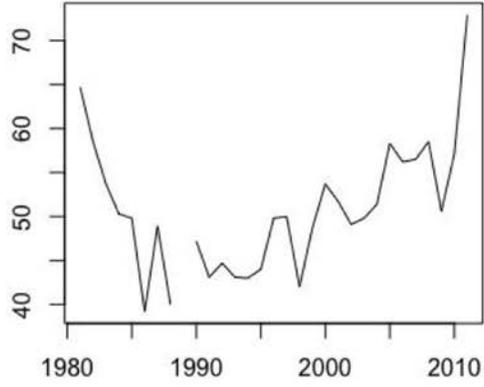


Figure 4.i: Oman Exports

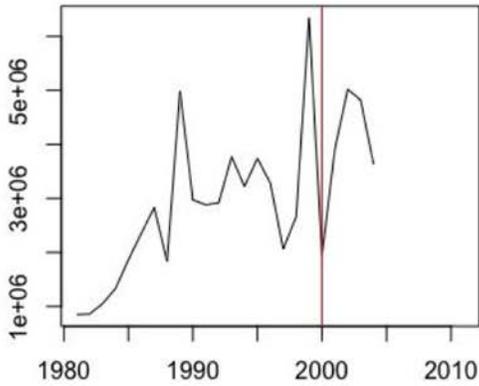


Figure 3.j: Qatar Foreign Aid

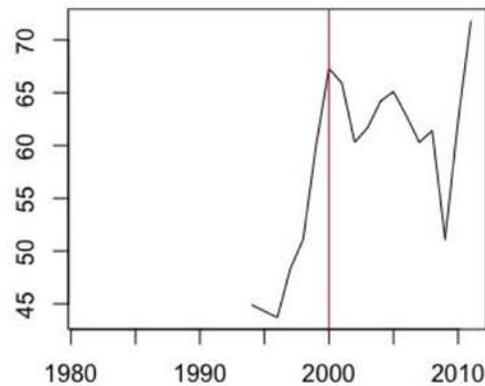


Figure 4.j: Qatar Exports

Figures: Human Rights Conditions, Foreign Aid, and Exports (As % of GDP)

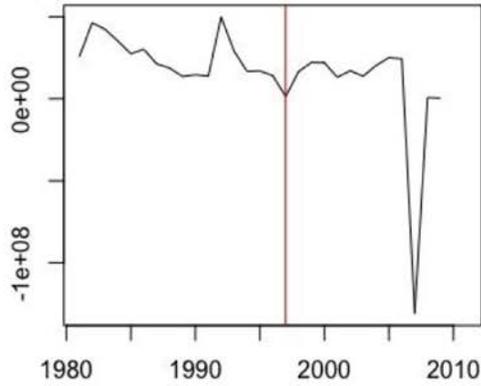


Figure 3.k: Saudi Foreign Aid

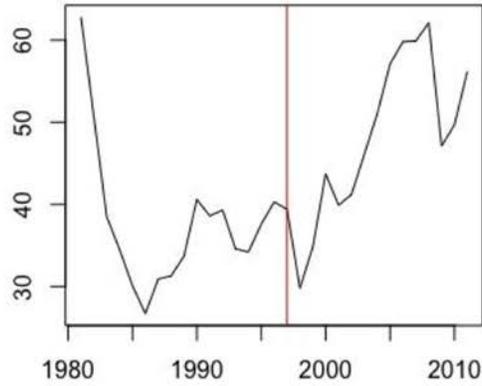


Figure 4.k: Saudi Exports

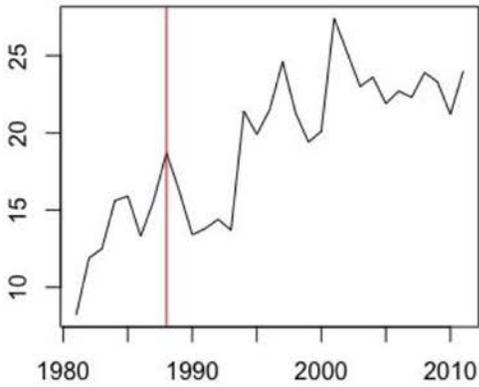


Figure 3.l: Syria Foreign Aid

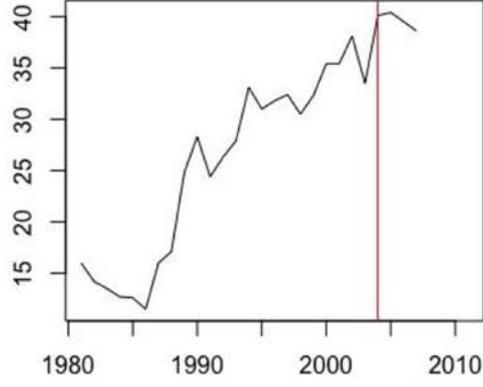


Figure 4.l: Syria Exports

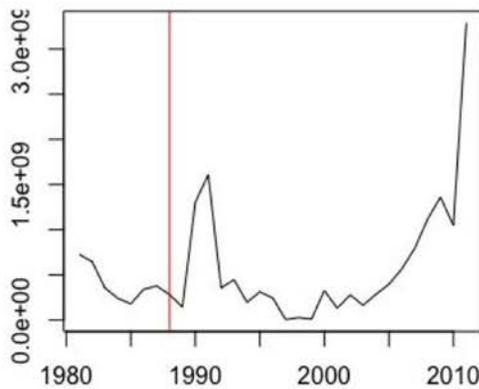


Figure 3.m: Turkey Foreign Aid

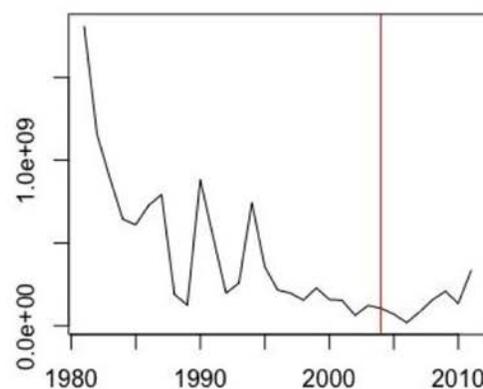


Figure 4.m: Turkey Exports

Figures: Human Rights Conditions, Foreign Aid, and Exports (As % of GDP)

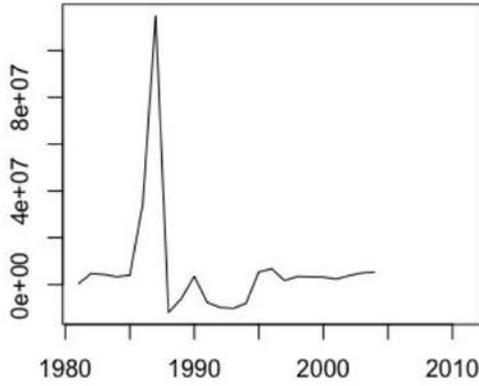


Figure 3.n: UAE Foreign Aid

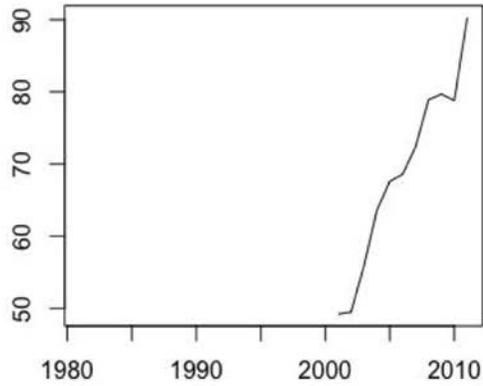


Figure 4.n: UAE Exports

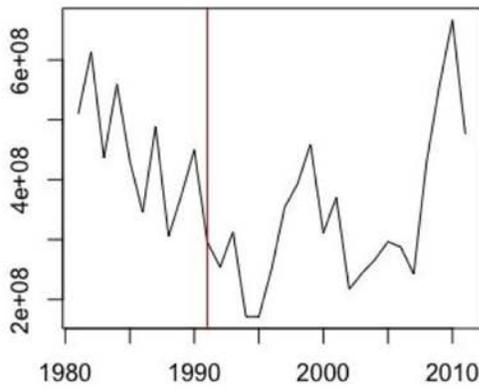


Figure 3.o: Yemen Foreign Aid

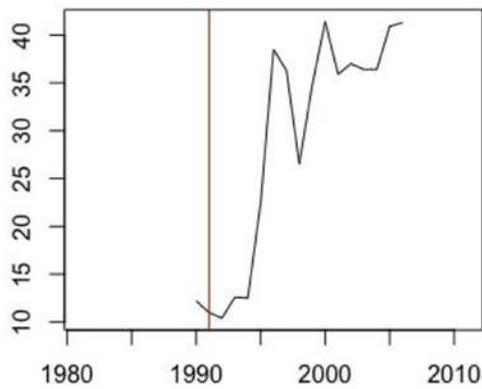


Figure 4.o: Yemen Exports

Drones: A Projection of Force Abroad

James Holevas

University of Illinois

Abstract

After the events that took place on September 11th, 2001, the United States military drastically increased their use of unmanned aerial vehicles (UAVs). This type of projection of force abroad has not come without scrutiny. Both the legality and effectiveness of use have come under question. This study sets out to understand whether the use of drones by the United States is an effective way to fight terrorism abroad. In order to measure success, the study looks at the legality of strikes with regards to how the United States frames their use of drones. The study also looks at the foreign policy goals of the United States usage of drones, specifically through the lenses of liberal-interventionism, in order to determine whether the usage of drones is effective in combating terrorism abroad. The study will focus on drone usage against al Qaeda and the Taliban, primarily in the countries of Pakistan, Afghanistan, and Yemen. Subsequently, the United States drone usage is a useful instrument because of the way it eliminates key targets and facilities of US enemies abroad.

About the author

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Introduction

Between 2009 and 2013, the United States drone program under the Obama Administration eliminated over 3,000 al Qaeda fighters and other members of terrorist organizations (Bynam, 2013). Although the use of drones in military actions has utilized since World War II, states have opted to use unmanned aircraft because of substantial technological developments (Gusterson, 2016). Since the invasion of Iraq and Afghanistan following September 11, 2001, the United States has turned to the use of UAVs to promote their interests abroad. The ability to project force around the world without physical human presence has become one of the US' preferred tactic in fighting terrorism. This essay will analyze the question of whether drone usage is a successful tool in fighting terrorism in the Middle East, by measuring the legality of strikes, the overall strategy and goal of these strikes, and finally by analyzing the actions through the foreign policy goals of the United States. This essay finds that the United States drone usage is a useful instrument because of the way it eliminates key targets of terrorist abroad and disrupts terrorist organizations in the Middle East.

Background

Foremost, it is necessary to look at the context of events in the international world in order to understand the increase of drone usage by the United States. After the events of 9/11, the United States government declared the goal of fighting terrorism abroad a priority. The terrorists identified in the attacks on the US were said to be members of a group known as al Qaeda. This terrorist group and its subgroups would become the primary target of US military action overseas. This group is primarily settled in the countries of Pakistan and Afghanistan (Johnston

& Sarbahi, 2015). A particular area of importance in this study is the Federally Administered Tribal Areas, which is largely a rural area where many offshoots of al Qaeda are reported to be (Johnston & Sarbahi, 2015). The Federally Administered Tribal Areas (FATA) are mountainous, poorly mapped, and not readily accessible to ground troops. To effectively exert force in this region, the US turned to the use of drones. To understand if the use of force was effective in the fight against terrorism, it is important to classify militants and combatants accordingly.

Defining Terms and Legality

In order to understand whether the use of drones has been a beneficial tool in fighting terrorism, it is important to distinguish between combatants and noncombatants in conflict. For drone strikes to fit in the legality of war, they must be administered during the presence of an armed conflict (Vogel, 2013). Post 9/11 the United States and the US media posed the conflict against al Qaeda as a “war on terror” in general. This description guided audiences and the public to see this conflict as an ambiguous fight against all terrorists abroad (Vogel, 2013). By 2009, the administration would abandon the phrase “war on terror” instead changing the conflict to a “war with al Qaeda and its associated forces,” (United States Department of Justice, 2009).

This change of description would also include members of the Taliban, who were thought to be harboring al Qaeda members and would later be targets of drone strikes (Vogel, 2013). As stated by Vogel, this war against al Qaeda and its associates has been “declared” numerous times by United States government through defense spending bills and presidential speeches. The war was first formally declared in 2001 by the passing of the Authorization for the Use of Military Force Against Terrorists (Vogel, 2013). With the United States clearly stating they are in an armed conflict with a particular enemy, although it is considered a non-state actor, it opens the

door to the potential use of drones in this conflict. Without the justification of being in an armed conflict, the United States would not be able to legally justify their usage (Vogel, 2013).

With that in mind, during these armed conflicts, there are often unforeseen casualties. These casualties are categorized into two main groups: combatants and noncombatants. Under International Human Rights law, during a conflict there are certain privileges given to “lawful combatants”, this distinction is given to participants in the conflict who belong to the state that is fighting. For example, during the First World War, lawful combatants would be soldiers on either side of the fight. In regards to the US’ conflict with al Qaeda, the US government did not categorize enemy fighters to be “lawful” but instead as “unlawful combatants,” which do not receive the same privileges as the latter (Vogel, 2013).

According to R.J. Vogel, this classification was used by the US government because of the “irregular force” al Qaeda had become. This “irregular force” is described to be committed by a non-state transnational organization whose “members’ actions do not allow for protections entailed to lawful combatants.” This distinction would be used by the United States in order to frame the legality of their drone strikes against “al Qaeda and its associated forces.” (Vogel, 2013). This proposed war would account for a substantial amount of casualties, and the US needs to ensure their use of force against non-state actors like al Qaeda is legally justified.

Continuing, the United States would state that its declaration of the Authorization for the Use of Military Force Against Terrorists overrides provision set out in Article 51 of the United Nations Charter that limits the use of force against non-state actors. The US suggests it holds jurisdiction to defend itself in three situations (1) after armed events, (2) where pre-emptive defense is necessary to address a “continuing threat,” (3) and in times where a threat is present

(Nasser, 2015). With the combination of clearly defining the enemy and rights of those in the combat, the United States sets up a legal framework that could be argued to be within the bounds of international law. However, Nasser points out that many of the justifications used by the United States to legitimize their use of drones are rooted in ambiguities and the complexity of overlapping international laws (Nasser, 2015). This legal justification is critical to understand if drone strikes have been a useful tool in the fight against terrorism.

In order to stay within the boundaries of war, the US government needed to frame where the battle or conflict was taking place. As stated above, the majority of the empirical data comes from the Federally Administered Tribal Areas region, but the US was able to frame a much larger geographical area of conflict. Since al Qaeda is connected across many different countries, the US declared its fight on al Qaeda and terrorism as a whole to have no geographical boundaries. This can be seen from the drone strikes in countries like Yemen and Iraq (Byman, 2013). The US has tried to broaden its scope of force abroad by broadly defining both combatants and the area of conflict; this ensures that the US government stays within the bounds of a legal war.

Legality of use is one way that suggests the use of drones is beneficial. Although, there is legality in targeting al Qaeda, the civilian casualties because of drone usage is a fundamental criticism of the use. Data collected by Long War Journal from 2006 to 2016, showed that drone strikes in Pakistan accounted for an estimated 158 civilian deaths. In comparison, during that same period, the ratio of confirmed deaths of “al Qaeda and associates” to civilian deaths was 17:1 (Roggio, 2016). In the conflict with al Qaeda, the United States is never legally justified in any of its killings of civilians.

Drone Strike Targeting

The effectiveness of drone strikes in the Middle East is critical in the understanding of the US' goals. The US government turned to drone usage because of the difficulty of directly eliminating terrorist cells in the difficult terrain of the Middle East. Since al Qaeda and its members know the region, they can stay hidden and concealed from most detection. By using drone surveillance, the government can locate specific groups and targets. Target killings were sanctioned by the US in the years following 9/11. The first reported target killing occurred on November 2, 2002, when a head leader of al Qaeda was eliminated during a strike in Yemen (Cheema & Chaudhry, 2015). This would be the start to many future drone strikes, which would eliminate terrorist targets abroad without putting soldiers in harm's way. The US government has continued to use targeted strikes to remove senior officials similar to those in Yemen. Drone strikes are also targeted on at strongholds and potential training grounds of terrorist groups. The government's use of drones has disrupted the training of al Qaeda members by discouraging them to gather in large groups or out in the open (Bynam, 2013).

The fear of a drone strike has made members go so far as to not use electronic communication systems (Byman, 2013). Even without the physical use of the drones, the US can exert military presence and power in a region far from US territory. With the both ability to eliminate key al Qaeda members and disrupt the everyday workings of the organization shows the usefulness of the US drone strikes in the fight against terrorism in the Middle East and South Asia. In contrast, the Obama administration has changed from targeting al Qaeda members to most recently using "signature attacks" on the Taliban. These "signature attacks" are when US drones target suspected groups of Taliban ground soldiers. Reports show over 40% of drone strikes during the Obama administration have been aimed at the Taliban (Bergen & Rothenberg,

2015). This shift in targets demonstrates the versatility of the US use of drones to target many facets of terrorism in the Middle East. In looking at the data behind drone strikes, its usage in fighting terrorism in the Middle East can be seen as beneficial.

Success by the Numbers

Data acquired throughout the 2000s shows an increase of drone usage over time from the Bush to the Obama administration. According to data collected in April of 2011, there have been 233 drone strikes, resulting in that caused roughly 1,400 to 2,000 casualties. The study showed that 95% of those victims were military combatants (Bergen & Tiedemann, 2011). Low rates of civilian deaths have been attributed to the increase in both cooperation between foreign governments and technology. Drone strike data shows that the US is effectively using drones to take out specific targets and is doing so accurately. Bergen and Tiedemann also state that since 2011, drone strikes have taken out 33 “insurgent leaders”. Research done by The Long War Journal estimated that from 2004 to 2016 over 50 either Taliban or al Qaeda leaders were killed by drone strikes (Roggio, 2016). With that in mind, there is also data to show that drone strikes have killed a considerable amount of civilians.

According to the Bureau of Investigative Journalism, there have been 204 children killed by drone strikes (Pugliese, 226). With a ratio of around seventeen confirmed militant kills to every one civilian, the argument of proportionality of use comes into the discussion. Scholars, such as Tony Nasser would argue that there are international laws that prohibit the murder of civilians no matter the type of armed conflict or actors involved. Although a counter-argument for the use of drones is that many would suggest these civilian fatalities would come whether the use of force was drones or alternative methods of combat. According to the Bureau of

Investigative Journalism, the civilian death rate in Yemen was three times higher when using non-drone military force such as “ground troops or non-drone missile strikes” compared to drone strikes during a fixed period of time (Saletan, 2016). Ultimately, the majority of measures taken from the data on drone strikes in the Middle East, suggest that drone strikes are useful in the fight against terrorism.

A Tool to Achieve US Foreign Policy Goals

With that in mind, the use of drone strikes is a tool used to promote the foreign policy goals of the United States. For the last two decades, the United States has promoted foreign policy goals that align with liberal interventionist ideology (Parmar, 2009). This political theory favors the role of interventionism in humanitarian conflicts as well the promotion of democracy through interventions abroad. Inderjeet Parmar describes the recent interventions in Iraq and the Middle East to be focused on military action to promote democracies. Parmar, suggest the US intervention in the Middle is based on protecting the domestic security of the United States (2009).

The protection of US security is clearly seen by the US use of drones in its fight against terrorism. The United States is able to continually promote its democratic interest abroad through its use of drone strikes. In addition drone usage continues to promote the recent foreign policy shift of neo-conservatism, which highlights the necessity for the United States to use its power to enhance the global stage (Parmar, 2009). In order to affect the international arena, the US has turned to fighting terrorism in the Middle East. The US government is achieving this foreign policy goal through the effective use of drone strikes in the Middle East.

Both the Bush and Obama administrations have seen it as prudent to continue to combat terrorist groups abroad through the use of drone strikes. The use of drones gives the US continuous projection of force against threats to their national interest. The US drone usage allows the government to continuously promote its national interest in the Middle East. The promotion of US foreign policy goals through the use of drones can be seen through the recent example of the US conflict with Islamic State.

Islamic State Conflict

In the case of the US intervention against the Islamic State in the Middle East, the United States aimed their attacks in order to “eliminate the threat the posed to the international community” (Department of Defense, 2015). As of December 3, 2015, the Department of Defense reported 14 strikes carried out by unmanned vehicles against the Islamic State and its resources in Syria. Many of these strikes were targeted at Islamic State buildings and oil well heads ("Strikes Hit ISIL in Syria, Iraq"). These strategic attacks are one primary goal of the US in their fight against terrorism. As stated above, the elimination of crucial resources and targets disrupts the organization of terrorist groups. These strikes are also an example of how the US intervenes in conflicts around the world without the risk of endangering US military. This recent example highlights the US ideology of defending its interest abroad.

Conclusion

Ultimately, drone usage has been shown to be a useful tool in the fight against terrorism in the Middle East. Since the US government is engaged in armed conflict with terrorist groups, they have legal grounds in using this type of force. This projection of force eliminates key targets and leaders of different terrorist groups in the Middle East. With the absence of ground troops,

the United States is still able to intervene in conflicts abroad without the risk of US military casualties. In looking at drone strike data, the US drone usage has been a useful tool in accurately eliminating targets without substantial civilian deaths. The United States has continued to increase its use of drone strikes from the Bush to Obama administration and could be argued to be their preferred tool in fighting terrorism in the Middle East. Currently, the United States has been able to dismiss international concerns of its drone use by the way it has shaped the legality of their strikes. Policymakers must continue to accurately define combatants and externalities of the war to justify the use of drones. The United States has recently followed a doctrine focused on liberal interventionism in order to promote domestic security, and the use of drones has been shown to be one of the best tools for doing so, especially in its fight against terrorism in the Middle East.

References

- Bergen, P., & Tiedemann, K.. (2011). Washington's Phantom War: The Effects of the U.S. Drone Program in Pakistan. *Foreign Affairs*, 90(4), 12–18. Retrieved from <http://www.jstor.org.proxy2.library.illinois.edu/stable/23039602>
- Bergen, Peter L., and Daniel Rothenberg. *Drone Wars: Transforming Conflict, Law, and Policy*. New York: Cambridge UP, 2015. Print.
- Byman, D. (2013). Why drones work: The case for washington's weapon of choice. *Foreign Affairs*, 92(4), 32-43. Retrieved from <http://search.proquest.com/docview/1411622851?accountid=14553>
- Cheema,P.I. and Chaudhry, M. I. "License to Kill On the Legality of Targeted Killings in Pakistan by Drones." *Journal of Political Studies* (2015). Academic OneFile. Web. 2 Dec. 2015.
- "Coalition Strikes Target ISIL Terrorists in Syria, Iraq From a Combined Joint Task Force Operation Inherent Resolve News Release." [Http://www.defense.gov/News-Article-View/Article/632483/coalition-strikes-target-isil-terrorists-in-syria-iraq](http://www.defense.gov/News-Article-View/Article/632483/coalition-strikes-target-isil-terrorists-in-syria-iraq). N.p., 3 Dec. 2015. Web.
- Gusterson, Hugh, *Remote Control Warfare*, The MIT Press, Dec 4, 2016
- Inderjeet, Parmar. "Foreign Policy Fusion: Liberal Interventionists, Conservative Nationalists And Neoconservatives — The New Alliance Dominating The US Foreign Policy

Establishment." *International Politics* 46.2/3 (2009): 177-209. America: History & Life.

Web. 6 Dec. 2016.

Johnston, P., & Sarbahi, A. (2015, April 21). *The Impact of U.S. Drone Strikes on Terrorism in Pakistan*. Retrieved October 01, 2016, from <http://patrickjohnston.info/materials/drones.pdf>

Nasser, Tony. "Modern War Crimes By The United States: Do Drone Strikes Violate International Law? Questioning The Legality Of U.S. Drone Strikes And Analyzing The United States' Response To International Reproach Based On The Realism Theory Of International Relations." *Southern California Interdisciplinary Law Journal* 24.1 (2014): 289-327. Academic Search Complete. Web. 6 Dec. 2016.

Pugliese, J.. (2015). *Drones*. In M. B. Salter (Ed.), *Making Things International 1: Circuits and Motion* (pp. 222–240). University of Minnesota Press. Retrieved from <http://www.jstor.org.proxy2.library.illinois.edu/stable/10.5749/j.ctt14jxw02.20>

Roggio, Bill. "Pakistan Strikes | FDD's Long War Journal." *FDD's Long War Journal*. N.p., n.d. Web. 06 Nov. 2016.

Saletan, William. "Civilian Deaths Would Be Much Higher Without Drones." *Slate Magazine*. N.p., 2015. Web. 06 Oct. 2016.

U.S. Department of Defense "Airstrikes Hit ISIL in Syria, Iraq." N.p., n.d. Web. 04 Dec. 2015.

United States Department of Justice (2009) Respondents' Memorandum Regarding the Government's Detention Authority Relative to Detainees Held at Guantanamo Bay, In re

Guantanamo Bay Detainee Litigation, No. 08-442, 3 (Washington, D.C.: March 13, 2009).

Vogel, R. J. (2013). Droning on: Controversy surrounding drone warfare is not really about drones. *The Brown Journal of World Affairs*, 19(2), 112-122. Retrieved from <http://search.proquest.com/docview/1649691585?accountid=14553>

The Current State of the US Nuclear Arsenal

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Abstract

The US nuclear arsenal has reached a critical point in its existence. Approaching the end of their service lives, the weapons that make up the current arsenal must either be upgraded or replaced in order to maintain their effectiveness as deterrents. Nuclear deterrence is still necessary to prevent other states from deploying nuclear weapons, and the arsenal in its current state will not be able to serve this purpose in the near future. To create a long-term, reliable nuclear deterrent, it is recommended that the current weapons in the US nuclear arsenal be replaced with a Reliable Replacement Weapon. Current Life Extension Programs are short-term solutions that do not guarantee the United States will have a modern, reliable nuclear force well into the twenty-first century.

About the Author

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Introduction

Since the fall of the Soviet Union, the state of and the need for the US nuclear arsenal has been a topic of debate. Because there is no longer a daily threat of total nuclear annihilation to the American public, the necessity of the nuclear arsenal has become unclear. The need to spend large amounts of money on weapons that are unlikely to be used is hard to justify to the American taxpayers. This paper will explore the need for a nuclear arsenal in the twenty-first century and why the current arsenal should be modernized. The focus will be on ongoing modernization programs, such as the Life Extension Program, and the proposed Reliable Replacement Weapon program to replace the current arsenal.

The Need for a Nuclear Arsenal

The threat of a nuclear attack on the United States or its allies has not vanished with the fall of the Soviet Union. Although the Cold War has ended, there are still high tensions between the United States and two nuclear armed states: the Russian Federation and the Democratic People's Republic of Korea (North Korea). Russian military action in Eastern Europe strained the relations between it and the US. In 2014, Russia annexed the Crimean Peninsula, a Ukrainian territory of strategic value in controlling the Black Sea. Although this did not escalate into a major war between Russian and NATO forces, this conflict was evocative of the Cuban Missile Crisis, where a regionalized situation greatly affected global stability.

If a war between Russia and NATO were to occur, it is possible that the Russian military would deploy either tactical or strategic nuclear weapons. Jacek Durkalec, a research analyst for the Polish Institute of International Affairs, explains that "Russia's nuclear brinkmanship has strengthened the presumption that any hypothetical conflict between NATO and Russia would

involve Russian nuclear threats, implicit or explicit” (Durkalec, 2015). By maintaining a nuclear deterrent, the United States is dissuading the Russian military from deploying nuclear weapons due to fear of retaliation. The situation is similar with North Korea: although their nuclear program cannot currently mass produce nuclear weapons, the state still maintains the ability to attack Japan or South Korea with nuclear weapons (Cha & Kang, p. 27).

The fear of retaliation from the United States under the doctrine of mutually assured destruction keeps the North Korean military from launching such an attack. In his article “Modernizing Nuclear Arsenals: Whether and How,” Eugene Miasnikov puts forward the idea that a nuclear force will be necessary until every nuclear power in the world disarms itself (2015). However, worldwide simultaneous nuclear disarmament is an unlikely event; therefore it is advisable to the US to maintain a capable nuclear arsenal to deter a nuclear strike.

By maintaining a worldwide nuclear deterrent, allies of the United States do not have to create their own nuclear arsenal. In a 2008 speech, former Secretary of Defense Robert Gates noted the importance of the nuclear arsenal in defending US allies (Garwin, 2008). The United States discourages its allies from creating their own nuclear weapons programs, instead guaranteeing protection under the US “nuclear umbrella.” The nuclear umbrella promises its signatories that the United States will treat any attack against one of its allies as an attack against the US itself. This policy grants smaller states the protection of a deterrent force without having to create and protect their own nuclear weapons.

This policy also limits the ability for terrorist groups to obtain nuclear weapons or material by reducing the amount available worldwide. By preventing the creation of new weapons programs, the US is preventing the creation of new, nascent nuclear weapons programs

and new nuclear weapon states, two main points to preventing nuclear terrorism proposed by Graham Allison, a Harvard professor specializing in nuclear terrorism research. With its nuclear deterrent force, the US is protecting its allies while simultaneously limiting the number of nuclear weapons worldwide, making nuclear terrorism more difficult.

Just as it stops US allies from creating nuclear arms, a strong nuclear deterrent force discourages the development of nuclear arms by states that may be hostile to the US and its allies. In his paper “Missions for Nuclear Weapons After the Cold War,” Ivan Oelrich, the Senior Fellow for the Strategic Security Program at the Federation of American Scientists, argues that a strong nuclear arsenal can be used to discourage the creation of another nuclear arsenal (2005, p. 34). If the US maintains a nuclear arsenal that is easily capable of annihilating a state’s new nuclear arsenal, then there is almost no advantage to having created the arsenal in the first place.

The argument put forth by Oelrich is that any state planning to create a new nuclear arsenal would realize this and would not invest the time, money, or resources in such a futile effort. This argument can be expanded to cover the creation of chemical, biological, or radiological weapons. This idea of developmental deterrence relies entirely on the US maintaining a nuclear arsenal strong enough to launch an attack that would render a state’s nuclear production line inoperable. This could involve the destruction of multiple independent and reinforced structures, such as breeder reactors, enrichment facilities, and weapon assembly plants. If it were possible that a few enemy weapons were to survive the US strike, then the hostile state may continue with its weapons program. Therefore, another reason that the United States must maintain a highly capable nuclear deterrent force is to deter the creation of new nuclear weapons programs.

Why the Current Arsenal Needs Modernization

The current nuclear arsenal is not optimized for the threats, strategies, and missions of the twenty-first century. The US military's conventional forces have evolved over time to meet the demands it faces today; since the threat of thousands of Soviet tanks rolling across Eastern Europe has been replaced with that of insurgency and terrorism the equipment and tactics of the military are now developed and deployed with this new threat in mind. However, the US nuclear arsenal is still deployed with one goal: the annihilation of any state that launches a nuclear attack against the United States or its allies. Although this idea of brinkmanship was effective during the Cold War, the weapons created to support it do not meet the needs of today.

In a report for Congress titled "Nuclear Weapons: The Reliable Replacement Weapon Program," National Nuclear Security Administration administrator Linton Brooks argues that current nuclear weapons are too high in yield and do not allow for precision strikes (Medalia, 2005, p. 21). This is a major problem for the US military, which has focused on limiting collateral damage as much as possible in the recent years. With the deployment of small yield and precision guided conventional munitions, it follows that the US nuclear force would be upgraded to minimize collateral damage. Brooks also argues that nuclear weapons could be tailored to maximize the output of certain capabilities, such as the electromagnetic pulse released when a nuclear device detonates (Medalia, 2005, p. 22). This pulse would give the US the ability to destroy electronic equipment while limiting civilian casualties. By upgrading it to meet the demands of today, the US arsenal becomes a more effective and diversified worldwide deterrent.

Upgrades to the US arsenal are currently underway in the form of Life Extension Programs (LEPs). LEPs are defined by the NNSA as "programs to repair or replace components

of nuclear weapons to ensure the ability to meet military requirements” (2016). These programs allow weapons that are approaching the end of their service lives to continue to serve in the US nuclear arsenal. To do this, individual components of current weapons are upgraded to maintain their initial function capability.

For example, the arming systems in all W88 warheads, used in Trident II submarine launched ballistic missiles, are currently being replaced with an up-to-date system (2016). Although these programs allow nuclear weapons to function an estimated additional thirty years, LEPs are expensive and do not provide a long-term solution to the aging nuclear arsenal. After thirty years, the entire arsenal will need to be quickly replaced to maintain a nuclear deterrent, an expensive undertaking. If the modernization of the nuclear arsenal began immediately, the money that would be spent extending the service life of twenty-year-old weapons could be spent developing and deploying a new nuclear weapon that would have a significantly longer service life.

How to Modernize the Nuclear Arsenal

A Reliable Replacement Weapon (RRW) would supplant the current arsenal and increase the safety and reliability of the nuclear arsenal. One advantage of creating an entirely new weapon is that it would make use of modern, cutting-edge technology. Instead of spending money replacing individual parts of an old weapon in order to maintain its ability to function, a new weapon could be designed with the intention to incorporate these new technologies. This would allow for higher reliability and a longer service life for all new weapons.

In a report for Congress titled “Nuclear Weapons: The Reliable Replacement Weapon Program,” Jonathan Medalia, a specialist in national defense at the Congressional Research

Service, explains that an RRW could allow for replacing the current nuclear arsenal with a longer lasting, smaller one (Medalia, 2005, p. 4-5). Because of the reliability of the new weapon, fewer spare warheads would need to be produced. By reducing the number of nuclear weapons in the US arsenal, the nuclear complex that creates and maintains these weapons could also be reduced, increasing safety and security by allowing more oversight over fewer facilities.

A smaller, more modern nuclear arsenal would save money and maintain proper worldwide nuclear deterrence. By investing in an advanced, reliable nuclear weapon, the US government could produce fewer weapons. The current mission of the US nuclear deterrent force could be carried out by an arsenal a fraction of its current size armed with the high reliability and modern capabilities of the Reliable Replacement Weapon. There would no longer be a need to launch multiple weapons at a single target in fear of one not functioning properly. This reduction would allow the US government to save money on the production and maintenance of the weapons, as well as the facilities that service and house them.

In his Los Angeles Times article "To Save Money, Look to Nukes," Michael O'Hanlon argues that a smaller nuclear force and smaller weapons production facilities could save the US government between \$30 and 35 billion over a ten-year period (O'Hanlon, 2011). With its newly modernized nuclear arsenal, the United States could maintain a strong nuclear deterrent while reducing military expenditures.

Conclusion

This report has shown that even in a post Cold-War world, it is in the best interest of the United States military to develop and maintain a modern nuclear arsenal. This arsenal would be better suited for modern conflict than the aging stockpile the government is trying to maintain

with costly Life Extension Programs. Given its commitment to global peace through strength, the US military has both the fundamental interest and strategic imperative it needs to create a modern, long-term, cost-effective nuclear arsenal.

References

Cha, V.D. & Kang, D.C. (2003). *Nuclear North Korea: A Debate on Engagement Strategies*.
New York: Columbia UP.

Durkalec, J. (2015, October 30). NATO must adapt to address Russia's nuclear brinkmanship.
European Leadership Network.

Garwin, R.L. (2008, December 4). A different kind of complex: the future of US nuclear
weapons and the nuclear weapons enterprise. *Arms Control Today*.

Kroenig, M. (2015). Why US nuclear modernization is necessary. *Bulletin of the Atomic
Scientists*.

Medallia, J. (2005, July 20). *Nuclear Weapons: The Reliable Replacement Weapon Program*.
Congressional Research Service.

Miasnikov, E. (2015, January 7). Modernizing nuclear arsenals: whether and how. *Bulletin of the
Atomic Scientists*.

National Nuclear Security Administration. Life Extension Programs. Retrieved from [https://
nnsa.energy.gov/ourmission/managingthestockpile/lifeextensionprograms](https://nnsa.energy.gov/ourmission/managingthestockpile/lifeextensionprograms)

Oelrich, I. (2005, January). Missions for nuclear weapons after the Cold War. *Federation of
American Scientists*.

O'Hanlon, M. (2011, November 16). To save money, look to nukes. *Los Angeles Times*.

Atomic Dragon: Chinese Nuclear Weapon Development and the Risk of Nuclear War

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Abstract

As China's economy, military, and regional power continue to grow, so do tensions between it and the United States. Long characterized as peaceful, China's ascension to a world power has been accompanied by a marked increase in sophistication of its nuclear arsenal and strategy. China is currently developing stronger nuclear deterrents, and there have been calls from the Chinese military to shift its nuclear policy from a more passive strategy to a higher level of alertness, worrying US military planners. This research will delve into the background of China's nuclear program, details of China's current nuclear development, and the risk to global security that these developments present.

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Introduction

With the end of the Cold War in 1991, the threat of nuclear war seemed to disappear. Nuclear stockpiles stagnated and began to shrink, and trade expanded between former adversaries, particularly between the United States and China. Although the world is not free of nuclear weapons and the same nuclear doctrines that dominated the post WWII-era (such as mutually-assured destruction) are still in effect, nuclear apocalypse no longer appears to be on the forefront of international diplomacy. As a quasi-capitalist country, China appears more preoccupied with managing its economy than with spreading its political ideology. Despite their poor relations, Russia and the United States rarely discuss nuclear weapons outside of low-level arms reduction treaty talks.

However, there are undercurrents of a resurgence in nuclear tensions, particularly in East Asia: A slow nuclear arms race between China and the United States now appears to be intensifying. Not only do tensions remain high between the two countries, but territorial disputes and historical grievances between China and several US allies also still remain unresolved. One major source of tension is that China's nuclear arsenal is both smaller and less technologically advanced than that of the United States. An American first-strike could potentially destroy China's small nuclear stockpile, putting China at risk for a nuclear attack on its military or population centers.

Recent technological and policy developments have become a significant concern for the Chinese military. US military advancements and foreign policy decisions have led to a Chinese backlash, leading in part to an increasing rate of expansion in both the size and sophistication of China's nuclear arsenal. This paper will explore the military capabilities and organization of China's nuclear program as well as the technical and policy changes that this program is now undergoing.

Background on Chinese Nuclear Weapons

China completed its first successful nuclear test in 1964 (Nuclear Threat Initiative, 2015). This was the culmination of 9 years of nuclear research, hampered by the withdrawal of Soviet technical assistance due to the Sino-Soviet split. Since its inception, the Chinese nuclear program had different goals and technical specifications than the US or Soviet programs. The primary focus, rather than offensive capabilities, was largely defensive in nature. Very shortly after China became a nuclear weapons state, it declared a no-first-use (NFU) policy, a policy that it has since maintained (Office of the Secretary of Defense 2016, p. 58). The NFU policy is a guarantee by China not to use nuclear weapons against other countries unless China is targeted by nuclear weapons first. China has additionally pledged not to launch strategic nuclear first-strikes against its enemies even during times of war, in contrast Soviet and American policies.

The rationale for China's NFU policy stems back to Mao Zedong's thoughts on nuclear weapons. Mao believed that nuclear weapons were mere "paper tigers," weapons that appeared powerful but were not decisive in terms of international conflict and diplomacy. Mao wished for China to acquire nuclear weapons as a security precaution against American (and later Soviet) nuclear threats. China faced potential one-sided nuclear war during the Korean War and the Taiwan Straits Crisis; by developing nuclear weapons, China sought to dissuade the United States from launching a nuclear attack on China. This framed China's nuclear program and its future developments: The Chinese nuclear program focused primarily on deterrence, and continues to do so (China Daily, 2015).

Although China's nuclear arsenal remained much smaller than the massive Soviet or American arsenals, China's possession of nuclear weapons effectively ended the US experts'

discussion of a nuclear attack on China. This arsenal did not need to be large, as its mere existence was enough to prevent a nuclear strike for fear of large-scale nuclear war. From there, China sought to increase the survivability of its arsenal in the event of a nuclear first-strike. China began developing (or copying from Soviet strategy) various methods to ensure that a nuclear first-strike could not destroy its nuclear arsenal, which would leave it essentially defenseless against follow-up strikes, such as mobile nuclear missiles and later nuclear submarines.

Recently, China's level of nuclear organization has increased both technologically and structurally. Communication systems used by the People's Liberation Army (PLA) have improved in recent years, ensuring that they can remain functional in the event of a nuclear strike (Federation of American Scientists, 2000a). Control of China's nuclear weapons has recently been given to the People's Liberation Army Rocket Force, the successor to the Second Artillery Division (Ministry of National Defense of the People's Republic of China, 2015).

This branch of the military will have the same level of authority as the PLA (People's Liberation Army, which is composed primarily of ground units), PLA Navy (PLAN), and the PLA Air Force (PLAAF). Nuclear weapons still play only a small role in Chinese strategic planning, but are nonetheless increasingly autonomous from other branches of the military. While China's fledgling nuclear submarine fleet did not appear to be under the control of the Second Artillery Division, which was part of the PLA, they have now been given over to the Rocket Force. This indicates a consolidation of nuclear power under a single military branch, possibly due to the increased sophistication of China's expanding nuclear triad. The Rocket Force will control both land- and sea-based missiles, as well as nuclear-capable bombers

(Kelsey, 2016). This consolidation reflects the increased sophistication of China's nuclear strategy and organization.

Even so, China's offensive nuclear measures remain generations behind the United States. China only developed and deployed intercontinental ballistic missiles (ICBMs), capable of striking the entire United States in 1981, when the Dongfeng-5 (DF-5) ICBM reached initial operational capability (Federation of American Scientists, 2000b). China's air and sea capabilities remain very vulnerable to conventional attack by the US military. Nevertheless, China has developed an impressive arsenal of nuclear missiles and delivery systems capable of striking potential enemies as well as nuclear strategies intended to keep its arsenal safe and ready for launch.

Chinese Nuclear and Military Capabilities

China does not publish records of its nuclear stockpile or most of its military capabilities, making it difficult to obtain concrete numbers; As a result, these estimates are somewhat speculative in nature. Nevertheless, satellite footage and public releases by the Chinese government provide rough information on China's military developments. By observing China's non-commercial nuclear reactors and estimating the size of its total load of fissionable material (nuclear material that can be made into nuclear weapons), the size of China's nuclear arsenal can be calculated (International Panel on Fissile Materials, 2016). It is believed that China has around 260 nuclear weapons and a variety of delivery systems (Kristensen and Norris, 2015). These nuclear weapons are on a low-alert setting, often with the warhead and the missile stored separately (U.S.-China Economic and Security Review Commission, 2015, p. 20). Most of China's nuclear weapons are land-based, though China has been deploying submarine-launched

ballistic missiles (SLBMs) and the submarines necessary to deliver them. These delivery systems (while inferior to US systems) are capable of targeting any location in the United States with nuclear weapons and of resisting US first strikes. China's nuclear arsenal is intended to deter a US first-strike that could destroy China's retaliatory capabilities.

Most of China's nuclear missiles are silo-launched, meaning that they are launched from land-based locations throughout China. China is believed to have between 75-100 ICBMs in total, all of them from the Dongfeng missile series (literally "East Wind", to be referred to as DF) (Office of the Secretary of Defense, 2016, p. 25). While China may have as many as 12 or 13 varieties of land-based rockets, only the DF-5 and the DF-31A have the capacity to strike the United States (Nuclear Threat Initiative, 2015). The DF-5 was first tested in 1971 and fully deployed 10 years later (Federation of American Scientists, 2000b). It comes in two varieties: the DF-5A, which has a single warhead, and the DF-5B, which carries multiple, independently-targetable re-entry vehicles (MIRVs). The DF-5B is suspected to be able to carry up to three warheads on a single missile, and therefore its destructive capability is vastly greater than the DF-5A. There are believed to be only 10 of each type of DF-5 missile, which have an estimated range of 12,000-15,000 km. Both are liquid-fuel rockets, meaning that the warheads are kept separate from the missiles. The fuel, which is corrosive to the missile itself, is stored separately on-site (Goldstein and Erickson, 2005, p. 15).

As such, it could take several hours after approval has been granted to launch one of these missiles, making them vulnerable to a US first-strike. However, some of China's nuclear missiles are mobile, meaning that they are mounted on trucks or other such vehicles equipped with mobile launching stations. The DF-31A is China's primary mobile nuclear missile, and there are an estimated 25 such missiles that are operational (Federation of American Scientists,

1999a). The DF-31A has an estimated range of 10,000-14,000 km. China could have many of these nuclear weapons in motion on its vast highway system, from downtown Shanghai to the empty deserts of Xinjiang province. These vehicles are most likely located on the roads in the rural countryside, ensuring that these mobile nuclear weapons would almost certainly remain intact even if China were targeted by a nuclear strike. Critically, these rockets are some of the few in the Chinese arsenal that are solid-fuel rockets, meaning that the missile and warhead are stored together. If authorized, a DF-31A missile could be launched in a very short period of time, possibly minutes after launch approval was granted.

China is also in the process of developing ICBMs with longer ranges and improved accuracy. The DF-41 ICBM, which could have a range greater than that of the DF-5, is nearing completion and has been tested as a rail-mobile missile (Missile Threat, 2014). This would allow for China's developed railroad system to be weaponized, housing ICBMs capable of targeting anywhere location in the United States while remaining untraceable due to the vast amount of trains on the rails at any given time. Although this project appears to be in the final stages of development, it will probably not replace the Chinese mobile arsenal for at least another few years. However, even in its current state, Chinese land-based ICBMs are essentially impossible to destroy in a first-strike, given the sheer size of China. This guarantees that a land-based deterrent will remain intact, even after an enemy first-strike.

China also possesses the capacity to deliver a nuclear strike using its Air Force assets. The PLAAF maintains some 120 H-6 bombers, which are essentially the Chinese version of the Russian Tupolev Tu-16 (Airforceworld.com). China is currently in the process of deploying the H-6K, which is specifically designed to be a long-range strategic bomber platform. The H-6K has the capability to carry up to six (or possibly seven, as sources conflict) cruise missiles that

could be fitted with nuclear warheads (military-today.com). It has a combat radius of 3,500 km, and its cruise missiles have an additional range of around 2,000 km, meaning that from mainland China it could strike targets as far as Alaska. While a bomber-based nuclear strike does not figure prominently in Chinese nuclear plans, China, like the United States, retains the capability to do so.

Chinese Nuclear Submarine Development

Despite its strong land-based deterrent and growing air-based nuclear capabilities, fears of a successful US first-strike have led to Chinese development of sea-based nuclear delivery systems. China has been developing nuclear submarines with the capacity to launch submarine-launched ballistic missiles (SLBMs) capable of striking the United States. The JL-2 SLBM has an estimated range of 7,400-8,000 km and is currently being readied for deployment (Federation of American Scientists, 1999b). The estimated number of JL-2 missiles varies widely from 48-96 missiles in total (Kristensen, 2015). China's Jin-class submarine, which will form the base of the Chinese nuclear submarine fleet, has recently been completed.

The advantages of a nuclear submarine fleet are critical in regards to nuclear deterrence. While the JL-2 missile can only reach the west coast and Alaska from Chinese territory or coastal waters, a Chinese nuclear submarine could target any part of the continental United States from Hawaii (O'Rourke, 2016 p. 18). Nuclear submarines are very difficult to find and destroy, making it likely that China will be guaranteed a nuclear deterrence even in the event of a successful US nuclear first-strike. The United States is developing anti-submarine strategies, such as new submarine detection capabilities and strategic chokepoints to stop Chinese submarines in the western Pacific. In the event of a military confrontation with China, the United

States, the Philippines, Japan, and Taiwan could collectively mount an anti-submarine war in the Yellow Sea, the Ryukyu Islands, and the South China Sea, concentrating their efforts around key locations and thereby preventing Chinese nuclear submarines from reaching the high seas.

However, China is currently preparing to send out a nuclear “deterrence patrol,” which would begin long-range voyages throughout the Pacific (Baker, 2015). These submarines will be difficult to track and harder to destroy. If deployed first during peacetime, they would already be past the Pacific defensive lines in the event of an outbreak of hostilities. A single submarine could carry as many as 12 JL-2 SLBMs, ensuring that even one submarine could lay waste to a dozen American cities in the event of nuclear war (O’Rourke, 2016, p. 18). This submarine fleet would function as a serious deterrent to a nuclear first-strike against China. The Jin-class nuclear submarines, however, are known to be very noisy and are generally outclassed by opposing US submarines, making them vulnerable to a sea-based first-strike. (U.S.-China Economic and Security Review Commission, 2015, p. 347).

Furthermore, the United States has been creating several anti-submarine systems. One of these is the Sea Hunter, an autonomous navy drone designed to track and follow enemy submarines, is intended to ensure that targets cannot avoid detection in the event of war (Pellerin, 2016). Future US technological developments could potentially counter the relatively outdated Chinese sea-based deterrent before it is even deployed. Nevertheless, the development of a functional sea-based deterrent marks a major step towards China finally developing a nuclear triad and makes it even harder to neutralize China’s nuclear arsenal with a first-strike.

Chinese Military Concerns

China's security concerns continue to grow as the United States expands its military capabilities. China follows a no-first-use nuclear policy since 1964, in spite of a changing political and military landscape (China Daily, 2015). Because China's nuclear arsenal is very small in comparison to the US arsenal (which contains over 7,000 nuclear weapons), the threat of a nuclear first-strike is still considered to be significant (Arms Control Association, 2014). The sheer number of US nuclear weapons has led planners to fear that a nuclear first strike could destroy some or all of the Chinese arsenal before it could be deployed against the United States.

The United States has a wide variety of advanced delivery systems, early warning systems, and nuclear defense systems. A US strike can be launched from land-based nuclear silos, submarines, or by nuclear bombers while China is still struggling to develop any form of secure submarine deterrent. Many Chinese military scholars believe that China is at risk of a United States nuclear first-strike, a fear that could potentially lead to a major expansion of the Chinese nuclear arsenal as well as a potential shift away from China's low-alert status of nuclear weaponry (Kulacki, 2016, p. 5)

The current US nuclear mentality is deeply worrying to China; In the view of Chinese experts, the US refusal to recognize its vulnerability to Chinese nuclear weapons is an indication that it seeks to develop the means to neutralize the Chinese nuclear program (Kulacki, 2016, p. 1). The United States has spent billions of dollars attempting to develop an anti-ballistic missile (ABM) system; while this has largely been ineffective, American willingness to develop these ABM systems worries Chinese planners.

The United States has been attempting to construct nuclear defense systems, such as the Aegis and THAAD anti-ballistic missile system, which could theoretically intercept Chinese

nuclear weapons en-route to the United States. Although it would not necessarily be directed at China, plans to deploy a THAAD system in South Korea to defend against North Korean nuclear weapons has elicited protests from the Chinese government. The Chinese government claims that such a system could be used against China's nuclear arsenal and is thus an attack on China's security and retaliatory capabilities (Missile Threat, 2015). Effective missile defenses on the Korean peninsula could weaken China's offensive nuclear capabilities in Northeast Asia (despite THAAD's limited range and effectiveness), and many Chinese military experts are worried by this prospect (The Interpreter, 2016). This has contributed to rising tensions between the United States and China.

Another potentially destabilizing factor is the development of a "Prompt Global Strike" system, which could potentially allow the United States to destroy any target inside China with non-nuclear missiles within hours (Woolf, 2014 p. 2). These missiles could target nuclear storage sites, missile silos, and military targets from US territory without the use of nuclear weapons. Just as with the anti-ballistic missile systems, PLA military experts have expressed concern over this neutralization strategy. A conventional first-strike by the United States could cripple China's nuclear deterrent, leaving China unable to retaliate beyond conventional means. Due to the development of defensive strategies and alternative offensive measures by the United States, China has focused on the development of rail-launched nuclear missiles, as explained previously, and has been developing its submarine fleet. However, there are many in the People's Liberation Army who do not believe that these measures are sufficient, and there have been calls by PLA military experts to shift China's nuclear weapons onto a higher-alert status (Kulacki, 2016, p. 1)

Chinese Policy Changes and Nuclear False Alarms

Of the estimated 45 land-based nuclear weapons that can reach the United States, the majority are believed to be mobile solid-fuel rockets which can be launched fairly quickly. Unlike US missiles however, China's missiles are on a low-alert status. This means that it could take several hours to authorize a nuclear launch, even if the nuclear missiles are attached to solid-fuel rockets. As such, a first-strike by the United States could lead to the destruction of China's nuclear arsenal before it has a chance to launch a nuclear retaliation, a scenario that has not been lost on Chinese military experts. In 2013, the Chinese Academy of Military Sciences published *The Science of Military Strategy (SMS)*, a comprehensive overview of Chinese military strategy and nuclear weapons policy (Kulacki, 2016, p. 4).

This book, intended for Chinese readers, explains (among many other topics) China's concerns with US policy and potential countermeasures. Strategists in the PLA call for shifting China's nuclear weapons to hair-trigger alert, allowing them to be launched "on warning," or after a missile launch has been detected, but before it reaches its target. The work references the ongoing development of an early-warning system to detect enemy nuclear missile launches, though it does not go into specifics. This lack of specificity is worrying because of a key risk in the field of global nuclear proliferation: nuclear false alarms.

There have been several false alarms in which early-warning systems detected non-existent nuclear missile launches, nearly resulting in nuclear war. The Union of Concerned Scientists has compiled several memorable and terrifying incidents: In 1980, a malfunctioning computer chip led to the detection of a Soviet nuclear missile launch, leading to the mobilization of the US nuclear bomber fleet (Union of Concerned Scientists, 2016, p. 8). This could have

resulted in the deployment of nuclear bombers over Soviet territory, triggering a conventional or nuclear war. In 1983, sunlight reflecting off of clouds led a Soviet satellite to erroneously detect the launch of five nuclear missiles from the United States (Union of Concerned Scientists, 2016, p. 7). This came at a period of high tensions between the two countries.

Despite the alert, the Soviet officer in command of the early-warning system suspected that this was an error and did not report the launch. However, had he done so, the Soviet Union would have launched a nuclear strike against the United States. In 1995, a Norwegian rocket designed to study arctic aurora was detected by the Russian early warning system as a potential SLBM launch and was interpreted to be an attempt to damage Russian radar systems with a nuclear electro-magnetic pulse (Union of Concerned Scientists, 2016, p. 8). While Norway had informed Russia of this rocket launch, the information had not reached the relevant authorities, nearly leading to Russia launching nuclear weapons at the United States. These are only a few of the accidental near-launches, all of which are a result of the hair-trigger status of nuclear weapons. The Chinese early-warning system is most likely in its infancy; should it detect an erroneous nuclear launch, China's launch-on-warning policy could potentially lead to actual nuclear war.

One potential consequence of relying on early-warning systems for a launch-on-warning policy is that a first-strike by conventional missiles could also trigger an accidental launch. As the United States expands its Prompt Global Strike system, conventional missiles heading towards Chinese nuclear sites could be mistaken for nuclear weapons, even if launched at a depressed angle (unlike an ICBM, which launches at a much higher angle, though the previously mentioned Norwegian rocket also travelled at a depressed angle and was still believed to be a

nuclear weapon) (Woolf, 2016, p. 34). Should Chinese commanders mistake these missiles for a nuclear first strike, a conventional, non-nuclear war could escalate into nuclear conflict.

There have also been concerns, raised primarily by American military experts, that China may abandon its NFU policy. China's nuclear submarine developments have concerned many US analysts that China may change its nuclear doctrine or that it may not to keep its pledges to limit nuclear weapons to retaliatory purposes. With a submarine deterrent, China could discontinue the policy because it is no longer necessary to keep China safe from a preemptive nuclear strike (Woolgar-James, 2015). However, China's 2015 Military Defense Paper and the SMS both reference the NFU policy as the cornerstone of Chinese nuclear policy and show no indication of changing it.

The SMS describes nuclear weapons as playing a relatively minor role in Chinese military strategy, even following a nuclear attack on China. China's nuclear retaliation plans do not involve striking US military centers, but rather population centers. (Kulacki, 2015). The main reason behind this is that experts believe that China's nuclear program is too small to successfully cripple the US military and thus is primarily a deterrence program. A successful Chinese nuclear retaliation would cause tens of millions of civilian casualties, ensuring that the cost of nuclear war with China would be too heavy for any nation to pay. A Chinese strike on an enemy's military capabilities may not be successful and could leave China without an adequate nuclear deterrent. There is no conceivable reason to alter the NFU policy as China does not appear to be upgrading its nuclear weapons for battlefield use. Even though a shift of China's nuclear weapons to a high-alert status is being considered, Chinese military experts do not appear to be abandoning the NFU policy.

Conclusion

Understanding Chinese nuclear development is critical in understanding China-US relations as well as the future of bilateral nuclear arms control. China's nuclear program and its ongoing changes reflect the pressures that China faces from its rivals abroad. While China's arsenal may be smaller and less advanced than the American arsenal, it is slowly approaching military parity. Shifting Chinese nuclear weapons to a high alert status, would make the world significantly less secure from the threat of nuclear war. It is vital to understand China's nuclear policy along with the trajectory of its current development in order to understand the risks facing global stability and security. Perhaps with this understanding, US policies could be modified or abandoned in order to ensure that another Cold War and nuclear arms race does not materialize.

References

Airforceworld.com, H6 Bomber – Chinese PLAAF,

<http://www.airforceworld.com/pla/english/B-6-H-6-bomber-china.html>Outline:

Arms Control Association, (2014, June 23), Nuclear Weapons: Who Has What at a Glance”.

<https://www.armscontrol.org/factsheets/Nuclearweaponswhohaswhat>

Baker, Benjamin David, (2015, December 19) China Deploys First Nuclear Deterrence Patrol,

The Diplomat. <http://thediplomat.com/2015/12/china-deploys-first-nuclear-deterrence-patrol/>

China Daily, (2015, May 26), China’s Military Strategy. [http://m.chinadaily.com.cn/en/2015-](http://m.chinadaily.com.cn/en/2015-05/26/content_20820628.htm)

[05/26/content_20820628.htm](http://m.chinadaily.com.cn/en/2015-05/26/content_20820628.htm)

Davenport, Kelsey, China Elevates Nuclear Rocket Force, Arms Control Association, March

2016. https://www.armscontrol.org/ACT/2016_03/News/China-Elevates-Nuclear-Rocket-Force

Federation of American Scientists, (1999a, October 5), China: DF-31.

<http://fas.org/nuke/guide/china/icbm/df-31.htm>

Federation of American Scientists, (1999b, September 3), JL-2 (CSS-NX-4).

<http://fas.org/nuke/guide/china/slbn/jl-2.htm>

Federation of American Scientists, (2000a, June 23), China: Command and Control.

<http://fas.org/nuke/guide/china/c3i/>

Federation of American Scientists, (2000b, July 28), China: DF-5.

<http://fas.org/nuke/guide/china/icbm/df-5.htm>

Goldstein, Lyle J, Editor, (2005), Erickson, Andrew S. China's Nuclear Force Modernization,

Naval War College. <https://www.usnwc.edu/Publications/Naval-War-College-Press/-Newport-Papers/Documents/22-pdf.aspx>

International Panel on Fissile Materials, (2016, January 15), Countries: China.

<http://fissilematerials.org/countries/china.html>

The Interpreter, Lowy Institute for International Policy, (2016, July 12), What THAAD

Deployment in South Korea Means for China.

<http://www.lowyinterpreter.org/post/2016/07/12/What-THAAD-deployment-in-South-Korea-means-for-China.aspx>

Kristensen, Hans M. (2015, April 23), Is China Planning to Build More Missile Submarines?,

Federation of American Scientists. <https://fas.org/blogs/security/2015/04/china-sub/>

Kristensen, Hans M, Norris, Robert S, (2015), Chinese Nuclear Forces, Bulletin of the Atomic

Scientists. <http://thebulletin.org/2015/july/chinese-nuclear-forces-20158459>

Kulacki, Gregory. (2015, March), The Chinese Military Updates China's Nuclear Strategy",

Union of Concerned Scientists.

<http://www.ucsusa.org/sites/default/files/attach/2015/03/chinese-nuclear-strategy-full-report.pdf>

Kulacki, Gregory. (2016, January) China's Military Calls for Putting Its Nuclear Forces on

Alert", Union of Concerned Scientists.

<http://www.ucsusa.org/sites/default/files/attach/2016/02/China-Hair-Trigger-full-report.pdf>

Military-today.com, H-6K, <http://www.military-today.com/aircraft/h6k.htm>

Ministry of National Defense of the People's Republic of China, (2015, January 1), China Establishes Rocket Force and Strategic Support Force.

<http://eng.mod.gov.cn/ArmedForces/second.htm>

Missile Threat, A Project of the George C. Marshall and Claremont Institutes, (2014, February 12), DF-41 (CSS-X-10)". <http://missilethreat.com/missiles/df-41-css-x-10/>

Missile Threat, A Project of the George C. Marshall and Claremont Institutes, (2015, April 23), Chinese Military Expert Warns of THAAD Risks to Regional Security".

<http://missilethreat.com/chinese-military-expert-warns-of-thaad-risks-to-regional-security/>

Nuclear Threat Initiative, (2015), China. <http://www.nti.org/learn/countries/china/>

Office of the Secretary of Defense, (2016), Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2016.

<http://www.defense.gov/Portals/1/Documents/pubs/2016%20China%20Military%20Power%20Report.pdf>

O'Rourke, Ronald, (2016, June 17), China Naval Modernization: Implications for U.S. Navy Capabilities—Background and Issues for Congress, Congressional Research Service.

<https://www.fas.org/sgp/crs/row/RL33153.pdf>

Pellerin, Cheryl, (2016, April 8), Work: Robot Warship Demonstrates Advances in Autonomy, Human-Machine Collaboration”, U.S. Department of Defense.

<http://www.defense.gov/News-Article-View/Article/716156/work-robot-warship-demonstrates-advances-in-autonomy-human-machine-collaboration>

Union of Concerned Scientists, (2016, January), Reducing the Risk of Nuclear War.

<http://www.ucsusa.org/sites/default/files/attach/2016/02/Reducing-Risk-Nuclear-War-full-report.pdf>

U.S.-China Economic and Security Review Commission, (2015, November), Annual Report to Congress,

http://origin.www.uscc.gov/sites/default/files/annual_reports/2015%20Annual%20Report%20to%20Congress.PDF

Woolf, Amy F, (2016, February 24), Conventional Prompt Global Strike and Long-Range Ballistic Missiles: Background and Issues, Congressional Research Service.

<https://www.fas.org/sgp/crs/nuke/R41464.pdf>

Woolgar-James, Richard, (2015, November 19), China’s Nuclear Submarines: The End of ‘No First Use?’ Bulletin of the Atomic Scientist. [http://thebulletin.org/chinas-nuclear-](http://thebulletin.org/chinas-nuclear-submarines-end-no-first-use8900)

[submarines-end-no-first-use8900](http://thebulletin.org/chinas-nuclear-submarines-end-no-first-use8900)

Jabhat Fatah al Sham's Implication on the Syrian Civil War and Beyond

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Abstract

The purpose of this paper is to shed light on the history, organization, and activities of Jabhat Fatah al Sham, formerly the Al Nusrah Front, the official al Qaeda branch in the Syrian Civil War. This group will be analyzed through predominately economic and Western security-oriented lenses to show that ultimately Jabhat Fatah al Sham is following the larger trend of al Qaeda-led Islamic insurgencies around the world. This is important to note within the context of the competition between al Qaeda and the Islamic State, its offshoot, for the reigns of the global jihad movement.

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Introduction

As the current civil war in the Syrian Arab Republic wages on with no clear end, it is important to analyze, evaluate, and speculate on the broader implications of this brutal conflict

on both current events and the current order. As it pertains to this research, it is absolutely imperative to understand the hierarchy and observed tactics of an al Qaeda branch named Jabhat Fatah al Sham (JFS). In particular, one needs to understand this terrorist group's history and attempt to project a reasonable academic and scientific picture of the path that this organization is taking to realize its Salafi-jihadi goals both nationally and globally, by highlighting what makes them such a dangerous and persistent insurgency.

Background on Jabhat Fatah al Sham

It is important to recognize that Jabhat Fatah al Sham is the Syrian-based branch of the world-wide terror organization al Qaeda. Much like the Islamic State, al Qaeda is a Salafi-jihadi organization that aims to spread jihad around the globe in, hopes of destroying the decadent and overly-materialist Western culture along with replacing it with an extreme version of Islam. Currently, the Islamic State and al Qaeda are competing to determine who will ultimately shape and lead this global Salafi-jihadi movement. Despite this competition, the continual presence and action by both of these umbrella groups pose serious threats to Western values and the way of life most embodied by America and Europe.

Delving deeper into the study of JFS, that this al Qaeda branch is a very well organized and patient organization which is following a very conservative and long-run pursuit of the their endgame - replacing the Western Liberal Order with Salafism. Located mainly in the Idlib Governorate of Syria with additional cells throughout the country, the hierarchy governing JFS is currently comprised of religious scholars, seasoned military veterans, scientists, PhD holders, and other intellectuals. Thus, it is easy to see that such intellectuals, such as Emir Abu

Mohammed al Julani, Deputy Emir Sami al-Oraydi, the late Abu Firas al Suri, and Abu Maria al Qahtani, are formidable both in the field of battle and at the negotiating table.

Jabhat Fatah al Sham officially came into the scene of the Syrian Civil war in January of 2012 after branching off from the Iraqi franchise of al Qaeda. Their geographical presence does not reflect their influence: they have a relatively small land area under their control, but pose an enormous network of revolutionary groups opposing Bashar al-Assad. This key geographic difference amongst JFS and the Islamic State illustrates just how well Jabhat Fatah al Sham has permeated other revolutionary factions. Additionally, it shows how they have tried to isolate their competitor (Islamic State) by painting an increasingly “extremist” portrait of them.

A prime example of this is the extensive publicizing of the barbaric acts the Islamic State carries out against fellow Muslims, which is prohibited by the Qur’an. Consequently, it is accurate to say that JFS is an important player in the greater al Qaeda “insurgency.” Al Qaeda and the Islamic State are not mere terrorist groups, but highly organized insurgencies aiming to overthrow governments in the Muslim world in order to establish a set of home bases from which to “spread their ideology to all of humanity” (American Enterprise Institute).

Strategy

Narrowing the focus of this finding, one can see that Jabhat Fatah al Sham has pragmatist this strategy effectively by occupying foothold within Syria (Idlib) and is waiting for the effective disillusionment of the current Assad regime. It is likely that from that point onward, Jabhat Fatah al Sham will be able to utilize its network in a way that will greatly benefit it in terms of legitimate governmental authority in transitional Syria. Moving past Jabhat Fatah al

Sham's long-run strategy, one can see that they are poised to be the great victor of the transitional period in Syria when (or if) it occurs.

The Islamic State seized expansive swathes of territory in both Syria and Iraq, making it prone to attacks mainly by the United States and other actors such as Turkey. Thus, one can see that maintaining too great of a profile may lead to much greater resistance and opposition from one's enemies – something that JFS has not yet have to deal with. From this, it can gleaned that in the longrun, it is more important to win hearts and minds rather than expansive territory, merely because territory can be acquired later once a stronger foundation of popular support has been built.

Even more important than an expansive network and a modest international profile is the fact that Jabhat Fatah al Sham is strategically attacking the West in unprecedented ways. JFS's strategy indicates that it sees the benefit in attacking its opponents on a philosophical and moral front in addition to traditional political and military avenues. This is clear in that this group openly applauded physical terrorist attacks such as the San Bernardino attack and Paris attacks. Given this, one can clearly posit that JFS is clearly at odds with Western values, and that they are plotting to use political and military means to achieve their respective vision.

Thus, through its sporadic attacks, JFS et al systematically attempts to force the West to disassemble its civil rights and liberties, to fear its partners, and act in a xenophobic and oftentimes irrational manner during the most trying of times. Frankly, JFS seeks to neutralizing their "decadent" opponent as threat by provoking a slow, yet consciously, relinquishment of liberties in hopes of being "more secure." This is reflected in the all too current debate regarding the balance of liberty and security.

JFS's stated goal has been to "fight the near enemy" and replace the Assad regime with an institutionalized Sharia-based judicial system, ultimately culminating in a fundamentalist Islamic state. In early 2015, al Qaeda leader Ayman al-Zawahiri told the Jabhat Fatah al Sham Front to pursue a set of goals including: 1) To achieve even greater integration among local inhabitants and the Syrian revolution, 2) To coordinate more closely with other militant groups (non-Islamic State aligned), 3) To contribute to a nation-wide sharia legal system, 4) To build systemic al Qaeda strongholds within strategic parts of Syria, and 5) To temporarily pause activities and attacks aimed at the West as to allow for what al Zawahiri believes will be a further legitimization of JFS and a prime opportunity to network with forces that may prove to be influential in a post-Civil War-Syria. Once that occurs, as one can deduce from both the studies done by the Institute for the Study of War (ISW) and the Critical Threats Project (CTP) at the American Enterprise Institute, a greater expansion and diversified style of globalized jihad will follow. It is this phenomenon that will be most threatening to the current global order and way of life.

Structure

Regarding the structure, motives, and style of operation of Jabhat Fatah al Sham, one can infer that Jabhat Fatah al Sham is in fact much more dangerous than its more famous counterpart Islamic State. Through setting up strategic strongholds within Syria, Jabhat Fatah al Sham's plan is to effectively utilize these areas as training grounds and indoctrination camps for its fighters and their affiliates. It seems that they plan to use these strongholds not only as a bargaining chip in the local Syrian Civil War but also as bases of terror exportation and radicalization. A prime product of these types of bases include Jabhat Fatah al Sham special sniper divisions and its

explosives-manufacturing operations, which undoubtedly affect their efficiency, lethality, and influence altogether.

This organizational structure called a “threat node” by many scholars further highlights JFS’ organizational complexity. These nodes also serve an integrative function, in that they allow the group to further embed themselves into the local population - in a distinctly al Qaeda-like fashion - making them much harder to target and root out than groups such as the Islamic State.

Implications for the West

An important question must be raised: How does the West protect itself, its values, and its way of life embodied by the current order when groups such as Jabhat Fatah al Sham are trying to replace them with their own perception of radical Salafi-jihadi values? In the American case specifically, it is important to note that the United States is not just a geographic polity inhabited by a group of culturally-Western individuals; America is much more. Much like Europe and other regions that hold democratic and enlightened values dear, America needs to view the Salafi-Jihadi threat as embodied by Jabhat Fatah al Sham, as something greater than a guerilla-style military campaign.

Essentially, JFS’s opponents will need to realize that Jabhat Fatah al Sham is pursuing a broader goal of replacing the enlightened liberal democratic order with its own constructed reality. Once this is realized, an amalgamation of solutions and strategies may develop, which all need to be considered to ultimately counter this fundamentalist threat. This by no means is an excuse for the United States to press forward with the notion that other countries and regions of

the world must conform to its standards; it is a wake up call in order to defend and uphold the enlightened and democratic ideals shared by most of the developed world.

As one can effectively glean from various news articles as well as the reports aforementioned by working groups of the American Enterprise Institute, as well as the ISW, in order to defeat this blatant plot against their way of life, countries that are characterized by the liberal democratic order will need to reevaluate the threats posed by JFS et al. Without identifying too closely with the demeanor of many, it seems that a patient, passive, and indifferent attitude will ultimately increase the propensity of these attacks and the rate of our collective demise.

Ideology

Although no one has a complete plan of how to effectively defeat this threat, it seems logical that those who oppose JFS should start at the root of the problem. Salafi-jihadi insurgencies emerge and gain strength in an environment of internal chaos, seen in failed states such as Syria, Iraq, and Libya. These insurgencies win the hearts and minds of the locals by operating schools, hospitals, food banks, and libraries as well as offering social services. If these insurgent groups are denied such a desperate population they will be unable to obtain a foothold in their respective localities.

Another point worth mentioning is the wide array of Salafist groups. Strategically, it may be more than appropriate to divorce militant salafi-jihadists from other factions of the Salafist umbrella – mainly the Quietist and political Salafists. By doing this, Jabhat Fatah al Sham could potentially be denied access to various political opportunities and much needed funding.

In order to further unpack this concept, one must understand what basic Salafism is. Generally speaking, Salafism is the belief in a pure and Orthodox version of Islam. Salafists believe that Islam became decadent over time and that it has “strayed off the righteous path.” The aim of general Salafism is to return to a more authentic version of Islam, in which the teachings of the Prophet Muhammad and his closest companions are strictly followed. Although Salafism itself does not include violent tendencies many radical Islamists seize opportune moments to bend and fold Salafism into a more jihadi-centered movement.

There are three distinct factions of Salafism. These include the Quietists, the political Salafists, and the jihadi Salafists. Of these three, Fredrick W. Kagan and Kimberly Kagan identify only the jihadi faction to be a great danger to citizens and military installations around the globe. The other two factions are typically peaceful and focus on the interpretation of geopolitical events, philanthropic activities, and political activism when it is deemed necessary. A prime example of this may be found in the Egyptian political party the Muslim Brotherhood (MB) - although it was formerly openly violent and it is likely that the MB may be related to the recently formed and violent Liwa al Thowra and Hasam organizations.

Given this clarification, one can see that it is important to keep the Quietist/political faction of Salafism separate from the violent jihadi faction of Salafism. If allowed to merge, they may feed each other and fuel violence and radical fundamentalism. This merger would allow for the exploitation of the greater Salafist network and would direct it toward serving extremist purposes. However, the continued separation of these different factions of the Salafist umbrella is not the only strategy needed to effectively neutralize jihadi efforts.

Conclusion

Equally important is the effective recognition of jihadi “threat nodes” and their systematic removal. Strategic actions such as these - although admittedly difficult to carry out - can prove to be enormous setbacks for insurgent activities while effectively saving a large amount of lives in the short to medium run. By targeting these “nodes,” bases from which these various militant cells operate, the Salafii-jihadi threat in its most current form can be combatted. As events continue to unfold, one can see that the fight against Jabhat Fatah al Sham and the greater Salafi-jihadi umbrella will not be easy. In the interim, there will be continued chaos, fear, and distrust. Moving forward, however, JFS’s adversaries will be able to evolve and improve the situation against these threats.

To win both on paper and in reality, the specific opponents JSF are plotting against may need to reinforce their democratic and free-market foundations. If the Salafi-jihadi threat - or any other for that matter - succeeds in coercing them to give up freedoms, opportunities, and their ways of life JFS will have ultimately achieved their objectives. This concept is important regardless of whether one lives in a nation that is traditionally Western, or in a region of rural Syria.

References

McCants, W. F. (2015). *The ISIS apocalypse: The history, strategy, and doomsday vision of the Islamic State*. New York: St. Martin's Press.

Kagan, F. W., Kagan, K., Cafarella, J., Gambhir, H., & Zimmerman, K. (2016). *Al Qaeda And ISIS: Existential Threats To The U.S. And Europe (Rep. No. 1)*. Washington D.C.: ISW