Defense One

FUTURE of WAR

Foreword

Kevin Baron

What is the future of war? Its boundaries seem to be melting away. The questions of global security touch everything from drone strikes to upheaval in the Middle East to the password on your iPhone.

Over the past year, *Defense One* worked with the folks at New America to explore these questions with the impressive roster of national security experts on the "Future of War" project. The resulting commentaries comprise a surprisingly varied and nuanced package of recommendations that every policymaker, weapons buyer, arms manufacturer, and simple natsec fanboy ought to consider and absorb.

For this ebook, we've picked some of the best. There's a survey of experts on what to expect in 2016. New America project director and author Peter W. Singer teams up with a Georgetown law professor to list the questions you should be asking the next commander in chief about drone warfare. A career Air Force officer explains why tomorrow's weapons need to reach the battlefield more quickly. A former Navy SEAL explains how special operators are exploiting networks.

The military likes to think of problems in near, medium, and long term, and generals will say they've been incorrect at predicting the next conflicts 100 percent of the time. But the imperative is to keep trying, studying, understanding, debating, talking, and devising the right questions for those tasked with the solemn missions of finding and executing the right solutions. One certainty about the future: it will include war.

Kevin Baron
Executive Editor
Defense One

📷 *(Cover)* **Tech. Sgt. Joseph Swafford/ U.S. Air Force Photo**

What is the Future of War?

Facing a new inflection point, 'Future of War' project members sound off with their take on where conflict is headed in the 21st century.
By Peter W. Singer

Whether it has been fought with sticks and stones or improved explosive devices and drones, war has been a seemingly permanent and unchanging part of human history for the last several millennia. It remains a tragedy caused by our human failings, violence and politics crossed to awful consequences.

And yet, it is also clear that the forces that shape warfare, in everything from the tools we use to fight to the locations where we battle, are at an inflection point of change. Indeed, the very definitions of what is "war" and "peace" may even be shifting. It is with this in mind that New America, a nonpartisan think tank network; Arizona State University, the nation's largest public university; and Defense One, the home for innovative online reporting and debate about security, have teamed up to launch a new series on the future of war. The site will host original reporting, commentary, analysis and public databases, all designed to help us better understand the new trends, technologies, and forces shaping war.

Reflecting the ideas that warfare is becoming highly networked and plays out on multiple levels, the project has forged a multi-disciplinary network of experts and leaders. Occasionally, we'll survey them for a "wisdom of the crowd" approach to the key questions.

To help launch the project, we asked: What does a group that ranges from policy wonks and historians, to special operators and technologists think that we get most wrong today about the future of war tomorrow?

Peter Bergen
Vice president at New America and professor at Arizona State University, CNN national security analyst and the author of best-selling books about al-Qaeda, including Manhunt: The Ten Year Search for Bin Laden from 9/11 to Abbottabad.

Just as the United States lost its monopoly on atomic weapons shortly after World War II, the U.S has now lost its monopoly on armed drone warfare and effective cyber warfare. These two forms of warfare both take place outside of
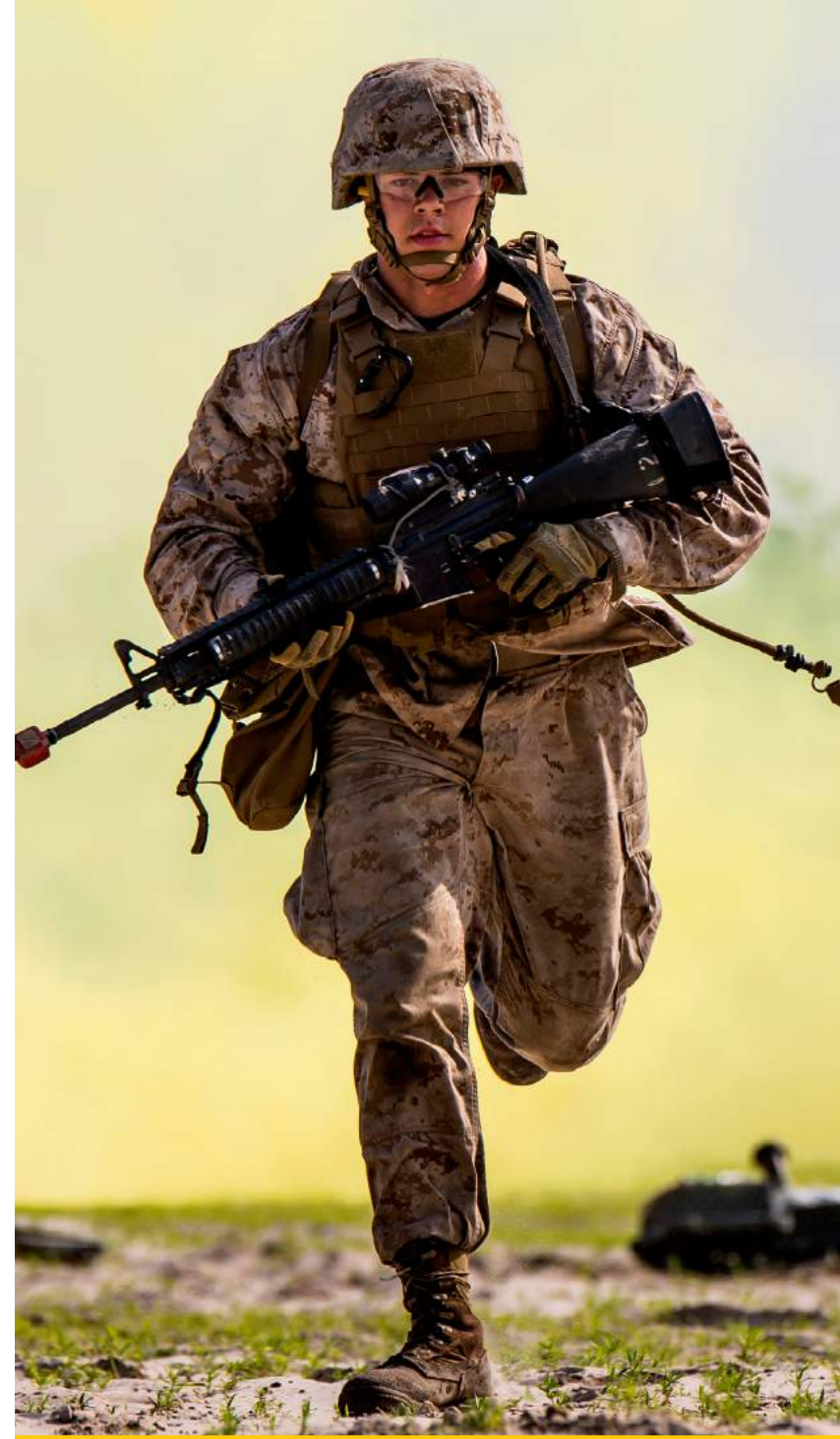
traditional war zones and so are not really covered by the Geneva Conventions. These conventions don't contemplate the use of drones to assassinate someone in a country where no war has been declared (for instance, in Yemen), nor do they contemplate the use of cyber warfare to inflict significant damage to the national security apparatus of a state we are not at war with (Iran/Stuxnet), or economic damage to an important American industry in a time of peace (Sony/North Korea). We need to construct international laws that would create rules of the road for these new forms of warfare. These would not, of course, constrain groups like the Islamic State (also known as ISIS) or countries like North Korea,

We assume that change will be both **predictable and incremental** and we will have time to plan and adapt. We're wrong.

ROSA BROOKS

but they would make it harder for countries like Iran to give armed drones to groups like Hezbollah or countries like Russia to carry out serious cyber attacks. In the U.S such new laws would likely face opposition from the right (they constrain American power) and also from the left (they legitimize new forms of warfare), but just as the States and indeed the world has benefited from laws about nuclear proliferation we would also benefit from having an international legal framework about these powerful new weapons of war, weapons that right now are only in their infancy.

Rosa Brooks
New America fellow and professor at Georgetown University School of Law; former counselor to the under secretary of defense for policy.

We assume that change will be both predictable and incremental and we will have time to plan and adapt. We're

wrong. If we can't accept this and build a strategy that itself premised on uncertainty and exponential change, the U.S. will continue to decline as a global power.

Sharon Burke
Senior fellow at New America; former U.S. assistant secretary of defense for operational energy.

We don't pay enough attention to the big picture: the world order that has favored U.S. prosperity and security is crumbling, and war is becoming increasingly unaffordable for the United States. We face a future of individuals, groups and states that want everything from mischief to market domination, armed with anything from keyboards to nuclear weapons where even nature itself will be more hostile. The great question is whether the United States is up to the challenge of re-imagining what prosperity and security mean in such an age, or if we're going to just keep building F-35s.

Christopher Fussell
Senior fellow at the New America Foundation and a principal at the McChrystal Group. He has spent the past 15 years as an officer in the Navy SEAL Teams.

The vast majority of our current system for considering and engaging in conflict is based on and biased by a nation state-centric optic. As these systems fail, the vacuum will continue to be filled by distributed networks with little recognition of the traditional rules of the game. It is our system, not theirs, that will need to adapt.

Mark Hagerott
Nonresident fellow at New America and distinguished professor of cyber security at the U.S. Naval Academy; retired Navy captain, his experience ranges from nuclear engineering to security force assistance/advising to Afghan Army, Air Corps, and police programs.

Warfare and policing have always involving balancing freedom of action by combatants, or citizens and police, with the desire for centralized control exerted from headquarters or political centers. We are experiencing perhaps the "Mother of all Control/Freedom Crises" brought on by proliferating autonomous machines, networked cyber technologies, social media induced social disruption and advancing artificial intelligence. What kind of officers (Defense Department, military, para-military or police)

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> **SHANE HARRIS**

The 24th Air Force cyber warriers work in their facilty on Port San Antonio. **Air Force Photo**

can achieve this new balance with both wisdom and efficacy in the face of novel technologies and social responses (e.g., ISIS, narco-terrorism, hacktivists), in a compressed time scale that is shorter than normal career development cycle?

Shane Harris
Fellow at New America and senior writer at the Daily Beast; author of @War: The Rise of the Military-Internet Complex, and The Watchers: The Rise of America's Surveillance State.

The U.S. is far more equipped to identify our adversaries in cyberspace than most people understand. The recent hack on Sony, which was quickly and definitively attributed to North Korea, demonstrates that our national security agencies know who is attacking us. The more important and far trickier question is: what do we do about it?

Drew Herrick
Future of War fellow at New America and PhD student in international relations & methods at George Washington University.

The use of new war-fighting capabilities is not limited to financial or technical concerns. We need a better understanding of the political, cultural and institutional constraints that influence the skill of a military and shape how actors understand, integrate and use new capabilities. They have a very real effect on force employment and military effectiveness.

David Kilcullen
Senior fellow at New America and former special advisor to the Secretary of State, senior advisor to Gen. David Petraeus in Iraq, author of Accidental Guerrilla, Counterinsurgency, and Out of the Mountains: The Coming Age of the Urban Guerrilla.

In 1993, during his confirmation hearing to be CIA director, James Woolsey said of the Soviet Union and the Cold War that just ended, "We have slain a large dragon, but now we find ourselves in a jungle filled with a bewildering variety of poisonous snakes." We spent most of the past several decades confronting these snakes—terrorism, insurgency, narcotics, state weakness, humanitarian crises—but today the dragon is back: we face state and non-state threats at the same time, and in many of the same places. In thinking about future war, we can't ignore state-based threats but we're dealing now with a dragons who've watched closely as we struggled in Iraq and Afghanistan, and learned new ways to sidestep our conventional strength. Strategic paralysis and national overstretch are the risk here – and new ways of war, conceptual and technological, are critically needed.

Ioannis Koskinas

Senior fellow at New America, and CEO of the Hoplite Group, he retired from the U.S. Air Force in 2011 after a twenty-year career in special operations.

The aspect of future of war that does not receive sufficient attention is time; there is a vast disparity between the time necessary to achieve results and the time we allot to achieve results. The aspect of future of war that also doesn't get sufficient attention is that of the need for nuanced long-term strategies. Vast disparity between the need for nuanced macro-strategies devised and implemented by specialists in micro-campaigns versus the Defense Department's innate propensity to leverage one size fits all conventional solutions implemented by conventional generalists.

Michael Lind

Co-founder of New America, former editor/staff writer for The New Yorker, Harper's, and The National Interest, author of multiple books including The American Way of Strategy.

The greatest challenges to America's world order goals will arise not from stateless actors but from rival global and regional great powers, which will avoid direct conflict in favor of cold wars involving trade war, propaganda war, sabotage, arms races and proxy wars. The demands of arms races can be met by credible, ever-evolving finite deterrents, while success in proxy wars in third countries will require the intelligent provision of advice, arms and aid, with the introduction of combat forces only as a last resort. We need a military designed for indirect, low-level cold war competitions, not one structured to wage unlikely conventional wars against powerful states.

Tim Maurer

Research fellow at New America, focusing on cybersecurity, cyberwar and internet security and freedom.

Modern technology will increasingly provide the option to replace humans in complex decision-making processes. That is not necessarily a bad thing — think of accidents caused by human error. Yet, while much of the worry has been about having

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> **IOANNIS KOSKINAS**

humans in the loop, we need more debate about if, when, where and why we need to keep humans in the loop when it comes to the fast paced, complex decision-making and execution of future wars, especially on the cyber side.

Sascha Meinrath

Founder of New America's Open Technology Institute and director of X-Lab; named to the "TIME Tech 40: The Most Influential Minds in Tech."

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> **TIM MAUER**

The Geneva Conventions state, "the following rules...shall be observed in all circumstances... The civilian population as such, as well as individual civilians, shall not be the object of attack." However, "cyberwarfare" as currently conceptualized often targets civilians and civilian infrastructure, as epitomized by shutting down Internet connectivity everywhere from Georgia to Syria to North Korea. International conventions need to be clarified to ensure that cyber attacks against civilian populations do not become the new war norm.

Doug Ollivant
Senior fellow at New America; retired US Army officer, he served as a director on the National Security Council, counterinsurgency advisor in Afghanistan and leader of the team that wrote the 2006-7 Baghdad "surge" plan.

The impotence of military force to bestow popular legitimacy on a changed regime (e.g.—Iraq, Afghanistan, Libya). Unfortunately, regime change is frequently a politically assigned war aim. Ignored is the very real danger of trading a bad regime for a worse situation of chaos/suffering/instability, as the military is directed by political leadership to do something outside its capability.

Matthew Pinsker
ASU Future of War fellow; Brian Pohanka chair of Civil War history

at Dickinson; professor at the Strategic Studies Institute of the U.S. Army War College; and director of the House Divided Project.

One overlooked key to planning for the future of war is to understand better the past of war. Learning lessons from the past is often a pretty shallow exercise in Washington, but it can be transformed into a rich, vigorous one that fully acknowledges multiple interpretations while always seeking to measure them carefully against each other. The body of historical evidence for war-planners is certainly deep, perhaps more than people realize, with arguably dozens of American wars, declared and otherwise, hundreds of separate combat deployments and countless covert operations in the years since 1776.

Tom Ricks
Senior advisor at New America and Pulitzer Prize-winning former Washington Post reporter, author of best-selling books about the U.S. military including Fiasco: The American Military Adventure in Iraq.

The most neglected area, I think, is the huge difference between possessing firepower and knowing how, where, when and why to use it.

Daniel Rothenberg
Co-director of the Future of War Project, Future of War fellow at

New America, professor of practice at Arizona State University, and co-editor of Drone Wars.

What rules can we use to regulate war and conflict as these practices rapidly change? Are there ways to reconceptualize the laws of war to more effectively include non-state actors; to reasonably address an expansion of the use of force beyond traditional temporal and spatial constraints (thereby avoiding "forever wars" and the dangerous idea that legal conflict can take place anywhere); and to provide guidance for emerging technologies, increasingly automated weapons systems, and ever-more complex surveillance and data-driven targeting? What are the risks of failing to elaborate new, more appropriate, and context sensitive rules on the projection of deadly and damaging force and what are the long-term implications of inadequately creative planning?

Peter W. Singer

Strategist and senior fellow at New America, consultant for the U.S. military and Defense Intelligence Agency, author of multiple bestselling books including Corporate Warriors, Children at War; Wired for War; Cybersecurity and Cyberwar: What Everyone Needs to Know and the forthcoming Ghost Fleet: A Novel of the Next World War.

What was once abnormal quickly becomes the new normal. Non-state actors, unmanned technologies, cyber – these are all important new parts of the present reality and likely future of war. But we don't talk enough about the trends looming that make

The most neglected area is the huge difference between possessing firepower and knowing how, where, when and why to use it.

TOM RICKS

📷 *U.S. Army Rangers fire off a Carl Gustaf at a range on Camp Roberts, Calif.* **Pfc. Rashene Mincy/U.S. Army Photo**

us most uncomfortable. Examples like: could 3-D printing do to the current defense marketplace what the iPod did to the music industry? Could ubiquitous sensors and artificial intelligence utterly change the way we think of the observe, orient, decide and act (OODA) loop? What major platforms of today, or even planned buys of tomorrow, are the equivalent of the battleship or Gloster Gladiator of yesterday? How will human performance modification technologies change the human side of war? And, perhaps most uncomfortable of all, because no one wants it but it must be weighed as a real risk, what would the 21st century version of full-out, great power, state-on-state warfare look like?

> # We spend a lot of time thinking, talking and writing about how to **fight future wars,** but I don't hear nearly enough discussion about how to not fight a future war.
>
> **DAN WARD**

Anne Marie Slaughter
President of the New America Foundation; former director of policy planning, State Department, and dean of the Wilson School of Public and International Affairs at Princeton University.

War has been a constant of human history; understanding how it is evolving is essential to planning for peace. Much of conflict is in potential flux at its most essential levels: Will the wars of the future be more or less frequent than today? More or less expensive? Who will fight them? And with what weapons? Will we able to distinguish 'war' from 'violence'? These are the kind of fundamental level questions we have to answer.

Ian Wallace
Senior fellow and co-director of the Cybersecurity Initiative at New America; previously a senior official at the British Ministry of Defence and the British Embassy, for Washington's defense policy and nuclear counselor.

Far too little consideration is given to the organizational implications for militaries of new and emerging technologies, up to and including their service structures. The organization of private sector companies has changed radically over the past two centuries, largely in order to stay competitive in a changing world. As the character of conflict evolve, not least as a result of the ongoing information revolution, militaries will also need to face up to fundamental questions about whether the organizational constructs of the nineteenth and early twentieth centuries are really best suited to winning the wars of the twenty-first century."

Michael Waltz
Senior national security fellow with the New America Foundation, and president of Metis Solutions. He commanded a U.S. Army Special Forces unit in the reserve component with multiple deployments to Afghanistan and the Middle East.

The United States government is not organized appropriately to wage current and future warfare. Our authorities and expertise often lie with our civilian agencies while our budget and ability to operate in difficult places lie within our defense department. This gap manifests itself from border control to counterinsurgency to cyber to illicit finance. Stopgap measures such as provisional reconstruction teams and the civilian response corps have been largely ineffective and institutional reform is needed.

Dan Ward
Non-resident fellow at New America, is a bestselling author and expert on military technology and innovation. He served more than 20 years as an Air Force acquisition officer.

In a word, deterrence. We spend a lot of time thinking, talking and writing about how to fight future wars - drones, cyber, the Joint Strike Fighter, various naval ships, etc. - but I don't hear nearly enough discussion about how to not fight a future war. What can and should the U.S. military do to deter and prevent (rather than accept as inevitable) future armed conflict? Yes, we must be prepared to fight, but far better to seek the "ultimate excellence," in Sun Tzu's words, of defeating the enemy without fighting. **D**

2016 Predictions: A Look Ahead at the Future of War

New America polled former Navy SEALs, Pentagon officials, technologists, historians — and here's what they expect.
By Peter W. Singer

Imagine you had a time machine that could take you back to compare what people thought would happen in 2015 with what actually did occur.

Some of the events of the last year, like the Syrian rebel training programs falling apart, were utterly predictable. Others were deeply surprising; the scale of the OPM breach left U.S. cybersecurity experts, and also likely the attackers themselves, agape at the massive harvest of data. Still other events, such as Russia's doubling down in Syria, were in fact predictable, yet surprising to too many. And, finally, other events, like the formal admission of women into combat roles, were not merely predictable, but belated.

If we had that time machine, though, we'd want to jump ahead, to see what lies in the future. The problem is that while we do have hoverboards that work in labs and as Christmas presents that catch on fire, the time machine that Hollywood promised us on Oct. 15 hasn't yet arrived.

So instead, we turned to a group that ranges from former Navy SEALs and Pentagon officials to technologists and historians, and asked them: "Give one prediction for 2016 in the realm of national security and warfare."

Let's hope the good-news predictions are the ones that come true, and the bad-news ones merely prove the experts wrong.

A Thin Veneer of Great-Power Cooperation

The combination of American presidential campaign politics; increased terror attacks in the EU, U.S., Russia, and China; and forced coexistence in battle spaces such as Syria will generate an increased appearance of collaboration among the European Union, United States, Russia, and China. Such collaboration will, however, be exceedingly fragile and difficult to maintain. Especially between the United States, and both Russia and China, it will represent more of a change in tone: the structural conflict between a rising China and the U.S.,

and the fundamental differences in worldview and interests between the U.S. and Russia, are too deep for anything else. Moreover, it will not last past the exigencies that require it. Nonetheless, the veneer of civility and collaboration will create an opportunity to encourage and institutionalize deeper communication among the world's major militaries, which will be seized, and will prove to be one of the few bright spots in an increasingly complex environment of global conflict. But such increased collaboration might also generate significant costs: consider what such a collaboration among nation-states might well look like from an Islamic perspective, especially given the rhetoric of the American presidential campaign to date and the inherent tendency of militant Islam to reject secular authorities (cue Clash of Civilizations).

Braden R. Allenby is Lincoln Professor of Engineering and Ethics and President's Professor of Civil, Environmental, and Sustainable Engineering, and of Law at Arizona State University.

Happy Days Are Here Again

It's always tempting to predict death and destruction, because you'll be at least a little bit right and no one will fault you if you're wrong. So I'm going to take a big risk and choose to be optimistic about 2016. First, both the United States and Taiwan will get their first female presidents, and China will look to welcome both to power with some kind of public slap on the wrist, mostly symbolic. But no one will be complacent about it. Putin will use the Syria crisis to broker a face-saving detente with the U.S. and Europe, though the allies will not take their eye off the bear. Iraq and Afghanistan will be plagued by violence, but will wobble toward stability, with the help of U.S. "advisors" on the ground. Kim Jong-Un will get annoyed that no one's paying enough attention to him and do something to remind us that he's still crazy after all these years. No one will really care, beyond public condemnations and constructive

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> **BRADEN R. ALLENBY**

private conversations about how to handle a problem like Korea. The Iran deal will go forward as Iran agrees to all the terms, and the U.S. will begin to cautiously roll back sanctions. A wave of tragic, small-scale killings will roll around the world, inspired or instigated by vaguely Islamic anarchists. Underneath the resulting demagoguery, the affected nations will deepen collaboration, from Nigera, Cameroon, Chad, and Niger to France to Lebanon to the United States, in favor of rule of law and against violent extremist organizations. There will be an attack or extreme weather event that causes a power outage in the U.S. Electricity will be restored, and while the affected people will be a little irritated, they'll get over it quickly. Finally, the global economy will show signs of recovery, with a slow but sustainable growth rate.

Sharon Burke is a senior fellow at New America and a former U.S. assistant secretary of defense for operational energy.

NATO's 'Success' Masks Disarray

I predict that the NATO Summit in Warsaw in July 2016 will be hailed as a "great success" — they always are. But behind the scenes it will highlight the growing challenges faced by world's most powerful Alliance. Three challenges stand out: first,

tension between "eastern" and "southern" allies on whether the Alliance's main priority should be Russia or North Africa/Middle Eastern instability and the refugees that that generates (hint: both are unavoidable); second, the uncomfortable fact that NATO's military capabilities are actually ill-suited to responding to both the hybrid tactics and strategy of Russia or the underlying political causes of the refugee crisis; and third, effective cooperation with the European Union, which could do the things that NATO cannot/should not, remains far less effective that it needs to be. These challenges will be compounded by the fact that by July, at least two of NATO's traditional leaders will be highly distracted: the United States by the Presidential election and the United Kingdom by a domestic battle over European Union membership. The best hope: that from this, aides to the Presidential campaign will recognize that European security is once again an issue on which active engagement by the new U.S. President will not only be desirable, but a priority for 2017.

Ian Wallace is a Senior Fellow in the International Security Program, and also Co-Director of New America's Cybersecurity Initiative. He was previously a senior official at the British Ministry of Defence.

The Kurds Say No

"The Kurds will scuttle any attempt at Middle East peace that does not grant them at least a proto-state. Given that they are now closer to attaining a state, or at least a federation of autonomous areas of their own, than at any time in the last century, they are not going to accept going back to the status quo ante of the Syrian civil war."

Anne-Marie Slaughter is the president and CEO of New America.

The Post-Post-Snowden World

In the wake of the Paris and San Bernardino attacks, we are likely to see a rollback of the post-Snowden reforms of surveillance powers. In particular, Congress could very well provide governmental backdoors to encryption and expand (or at least not shrink) FISA Section 702's broad programmatic and non-particularized foreign targeting authority, while calls to curb "incidental" collection of U.S. citizens' information will likely be muted. Abroad, the need to strike terrorist groups loosely affiliated with ISIS around the world will test the limits of the existing Congressional Authorization to Use Military Force, already stretched thin to cover airstrikes in Syria.

Laura A. Dickinson is a professor at George Washington University Law School and a Future of War fellow at New America.

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ANNE-MARIE SLAUGHTER

📷 *Kurdish YPG Fighters*
KurdishStruggle/Flickr

It's All In The Story

Some of the most dangerous moments in 2016 will be delivered by the oldest smart weapon of all: the story. As global conflicts grow increasingly messy, narratives spun by propagandists and troll factories will wreak havoc via social media, state news organs and even the global free press. Russia's doing it. Bashar al-Assad is doing it. Donald Trump exudes weaponized fiction from his very pores. It's going to be a big year for carefully engineered narrative viruses created by state actors, terrorist groups and other players on the geopolitical stage.

Ed Finn is the director of the Center for Science and the Imagination at Arizona State University, where he is also an assistant professor in the School of Arts, Media & Engineering and the Department of English.

The First Female Navy SEAL Gets Set for BUD/S

After a year of rigorous review, the U.S. Navy will announce the name of the first female sailor who will start Basic Underwater Demolition/SEAL (aka BUD/S) training sometime in 2017. She'll be as fit and tough as any other sailor that earned the opportunity, and soon be as cold, tired and miserable as her classmates. If she has the grit, she'll graduate into the SEAL Teams…I wish her luck!

Christopher L. Fussell is a senior fellow with the International Security Program at New America. He has spent the past 15 years as an officer in the Navy SEALs.

Drone Regulation and Cyber Testing

The growing, unregulated fleet of recreational drones in the U.S.(now exceeding a million), will be recognized as a potential Trojan Horse that couldthreaten the physical security of the national grid and national airspace. The unregulated importation of recreational drones will be recognized as the de facto importation of potential millions of bad actors, that can be used for attack vectors against busy urban airports, criminal activity against vulnerable power grids, the surveillance of vulnerable populations, and more. Lastly, the million-plus recreational drones now in U.S. cities will be recognized as prone to cyber insecurity, and could even be subject to the control of other nation states, especially China, where a large share of the drones are manufactured. Recreational drones of the future will face increasingly strict import controls and users will be liable if anti-virus protection is not kept up to date.

Mark Hagerott is a nonresident fellow at New America and chancellor for the North Dakota University System. He is a retired Navy captain and distinguished professor of cyber security at the U.S. Naval Academy.

2016? It Is the Year of I and T.

No, this isn't another prediction about technology. It's about implementation — in the short term. Does implementation of the Iran deal keep tensions moving downward in at least one corner of Southwest Asia? And for the long term, do countries take

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> **Recreational drones of the future will face increasingly strict import controls and users will be liable if anti-virus protection is not kept up to date.**
>
> **MARK HAGEROTT**

seriously their climate commitments, both on curbing emissions and on assisting the most vulnerable? And ISIS will keep the headlines, so yes, T for terrorism, but also T for three countries

> **Will 2016 be different? Is three times a charm? My prediction is that Putin will continue to take Obama to strategic geopolitical school.**
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> **IOANNIS KOSKINAS**

Russian President Vladimir Putin is seen during his speech with a special message after his telephone conversation with U.S. President Barack Obama on Feb. 22, 2016.
Mikhail Klimentyev/ Sputnik, Kremlin Pool Photo via AP

whose democracies we depend on to navigate tough internal and regional challenges in 2016: Taiwan, Tunisia, and Turkey.

Heather Hurlburt directs the New Models of Policy Change project at New America. She has held senior positions in the White House and State Department and worked on Capitol Hill and for the International Crisis Group.

Putin Beats Obama (Again)

Even as the Crimea crisis turned into a Russian annexation, President Obama continued to believe that "the Russian people will recognize that they cannot achieve the security, prosperity and the status that they seek through brute force." Obama imposed new sanctions on Russia in 2014, hoping to curb aggressive behavior in the Ukraine. But even after a Russian-made surface-to-air missile brought down Malaysia Flight 17 in July 2014, President Obama and the international

community did very little to hold President Putin to account. In 2015, President Putin moved an amphibious force, fighter jets, and bombersto Syria, in complete rejection of the 60-plus-member U.S.-led coalition fighting ISIS and aiding groups that are opposing the terrorist group but who mostly hate the Assad regime, which is supported by Russia. Once more, somehow President Obama thinks that international pressure, combined with a Russian-people realization that President Putin is not acting in their best interests, will eventually change Russia's behavior. Obama was wrong in 2014 and in 2015. Will 2016 be different? Is three times a charm? My prediction is that Putin will continue to take Obama to strategic geopolitical school. As Obama's second term comes to a close, Putin will remove Obama's foreign policy "crown jewel" accomplishment. Putin will somehow help scuttle the U.S.-Iranian nuclear deal.

Ioannis Koskinas, a senior fellow at New America and CEO of the Hoplite Group, retired from the U.S. Air Force in 2011 after a 20-year career in special operations.

Europe's Borders Return

The backlash in Europe triggered by jihadist terrorism and mass

immigration from Syria and elsewhere will deepen in 2016. National populist movements like France's National Front and Sweden's Sweden Democrats will gain in strength. Center-right parties will try to coopt populist voters by moving to the right on immigration and to the left on economics, while center-left parties continue to lose voters. Border controls will be widely and permanently reinstituted, ending the dream of a post-national Europe with free movement of people, labor and goods.

Michael Lind, a co-founder of New America, is a former editor or staff writer for the New Yorker, Harper's, and The National Interest and the author of multiple books, including The American Way of Strategy.

Civilians' Harm Ignored; Seeds Laid for Future Conflicts
As systematic violence by state and non-state actors continues in multiple locations around the world, the majority of politicians and thought leaders will continue to view the extraordinary suffering of millions of civilians as a secondary issue, an afterthought alongside what are viewed as pressing challenges to international security. Even in the extraordinary case of Syria – 250,000 killed and half the country's population forcibly displaced in the past 4 ½ years – civilian harm is widely understood as an inevitable outcome of war, rather than an urgent humanitarian crisis with profound short- and long-term security consequences. In 2016, we will see continued civilian suffering, increased restrictions on refugees and limited policy engagement with the meaning and impact of what millions are experiencing. In the not so distant future, the implications of these failures will be linked to major global security threats and U.S. officials and other political leaders will explain that more should have been done, back then in 2016.

Daniel Rothenberg is a law professor at Arizona State University.

A Year of Monkeying Around, at Sea and in Cyber
In 2014, we saw the use of "little green men" by Russia to undermine a neighbor's sovereignty, but without the official overt military action. In 2015, we saw the expansion of Chinese claims over disputed territories and, in turn, an increased military response by neighbors and the US, with everything from freedom of navigation maneuvers to new security and basing agreements with the Philippines, Singapore, Japan,

and soon Malaysia. In 2016, the "Year of the Monkey" in the Chinese zodiac, we might see the combination of these two trends in the Pacific. China's maritime claims have not gone away, but may be asserted more by its own "Little Blue Men." Its various maritime militia, coast guards, and even fishermen provide a means to keep presence and harass, but puts the onus of escalation on the other side. This will also be paralleled in cyberspace, where the new U.S.-China agreement prohibits state-linked theft of intellectual property, but has given a new out. When caught, state proxies offer deniability. For instance, the OPM hack has, in the Chinese government claim, actually "turned out to be a criminal case rather than a state-sponsored cyberattack as the U.S. side has previously suspected." I expect 2016 to be The Year of Monkeying Around.

Peter W. Singer is Strategist at New America and Author of Ghost Fleet: A Novel of the Next World War.

ISIS Holds On; U.S., Russia Align
Net instability in the Middle East remains constant. Expect some good military news from Iraq to be balanced out by continuing turmoil in Yemen, Libya, and—barring some unexpected diplomatic breakthrough—Syria, while Afghanistan maintains its slow decline into chaos. It will be a bad year for ISIL core in Iraq and Syria as they both lose territory (primarily in Iraq) and run low on assets to confiscate and sell in what remains, greatly diminishing their financial resources. That said, ISIL still holds Raqqa in January 2017. The West will continue to experience Islamist-inspired attacks (small-scale in the U.S., possibly larger in Europe), but find that these are uncorrelated with waxing or waning ISIL fortunes, causing eyes to eventually turn to other root causes. Events and aligned interests will drive the U.S. and Russia closer together in the region, to the discomfort of all involved.

Doug Ollivant, a senior fellow at New America, is a retired Army officer who has served as a director on the National Security Council, counterinsurgency advisor in Afghanistan, and leader of the team that wrote the 2006-7 Baghdad "surge" plan.

China's Hold on South China Sea Deepens
South China Sea diplomacy is centered on bi- and multi-lateral efforts to resolve competing claims to features in that body

> **2016 is the year of decision: will the war on terror have a legal framework when the next president takes office, or will it be another four years of political wrangling rather than law and regulation.**

DAVID STERMAN

📷 *An infantryman helps escort a combat vehicle full of supplies for an observation post.* **Cpl. Marco Mancha**

of water. The diplomacy is essentially stalemated while the UN Arbitral Tribunal deliberates and ASEAN and China dither over a code of conduct for all who use SCS waters. While all of this transpires, China has been constructing new facts in the water by building artificial islands from shoals and reefs. These may be delegitimized in international maritime law, but power politics suggests that the only way China's presence in these locations can be reversed is by the use of force. No country, including the United States, is prepared to do so. Thus, China's "salami tactics" seem to be working and suggest that Beijing's future actions in the region will follow this model. Tension in one of the world's busiest waterways will continue, and while, outright warfare is unlikely, the probability of skirmishes among the claimants is high.

Sheldon Simon is a professor in the School of Politics & Global Studies at Arizona State University.

The Legal Fate of The War on Terror is Decided
Unless President Obama takes decisive action, 2016 will be the year that the effort to muddle through the past decade of fighting terrorism is left to birth the outrages of the next. Guantanamo Bay will either be closed or it will be left to a new administration

> **To paraphrase a former defense secretary, we'll be surprised by how surprised we are of the challenges we face. We will continue to encounter developments that we did not anticipate and that we are insufficiently prepared to respond to.**
>
> **JEFF EGGERS**

that may not want to close it. Even if the next administration does want to close the prison, it may not be interested in making it a top priority among the many political fights that will occur in its first term. Rules regarding the use of drone strikes for targeted killing and the record of how they were used over the past decade will be publicly released or the strikes will continue with little to no public oversight. The war against ISIS will be authorized or it will continue to exist in a legal netherworld of claims of imminent threat insufficient for a real campaign and false claims that ISIS is the same as al Qaeda even as the two groups engage in their own internecine war. 2016 is the year of decision: will the war on terror have a legal framework when the next president takes office, or will it be another four years of political wrangling and whim rather than law and regulation.

David Sterman is senior program associate at New America.

Rummy Proves Right?

To paraphrase a former defense secretary, we'll be surprised by how surprised we are of the challenges we face. We will continue to encounter developments that we did not anticipate and that we are insufficiently prepared to respond to. The pace of threat evolution will continue to outmatch the pace of U.S. discourse and planning to adapt to such change in the global landscape.

Jeff Eggers, a senior fellow at New America, has served in the special operations community as a Navy SEAL and as a strategic advisor to Gen. Stanley McChrystal.

Stormy Weather Ahead, Literally

I expect the weather to become so odd turbulent, with weird storms in new places, that it will sweep away the last skepticism about global warming. If I could figure out how to short Florida real estate, I would.

Thomas Ricks is Senior Advisor on National Security at New America's International Security Program and a Pulitzer Prize-winning journalist and writer. **D**

The Weapons of Tomorrow Must Come Cheaper, Faster and Simpler Than Before

Instead of trying to build silver bullets for the future, policymakers and industry must become better at responding to the unpredictable.
**By Dan Ward**

Several years ago I came into possession of a book from 1983 entitled *The Non-Nuclear Defense of Cities*. The author is the late Daniel Graham, a retired Army lieutenant general and former director of the Defense Intelligence Agency. His book suggests using a space-based defense system called High Frontier to counter Soviet ICBM's. It helped shape President Ronald Reagan's Strategic Defense Initiative (aka Star Wars) and was published to considerable acclaim 32 years ago.

I confess I haven't read the entire book but I think the title is awesome. I'd like to imagine it was part of a long-running series of similarly futuristic books that includes an 1861 volume titled *The Non-Pony Distribution of Postal Correspondence*, and that 1965 classic *The Non-Vinyl Storage of Popular Musical Recordings*. Other books in the series remain to be written, such as *The Non-Silver-Jumpsuit Approach To Space Fashion*, due to be released in the middle of the 25th century.

As a historical artifact of the Cold War, Graham's book — or at least the title of his book – is worth considering and pondering, particularly by those of us who are trying to say something meaningful about the future of war in this new century. As we strive to imagine how conflict might progress in days yet to come, *The Non-Nuclear Defense Of Cities* is both an example and a cautionary tale.

On the one hand, Graham demonstrated an admirable degree of creativity and imagination. He looked at the major threats in his world and described a new, better way to address those threats. He envisioned a future where "poorly conceived U.S. security policies such as MAD [Mutual Assured Destruction]" could be replaced by better policies that do not put humanity's very survival at risk. Even well-conceived security policies require periodic re-examination and replacement, and Graham provides an outstanding example of what that process can look like and produce.
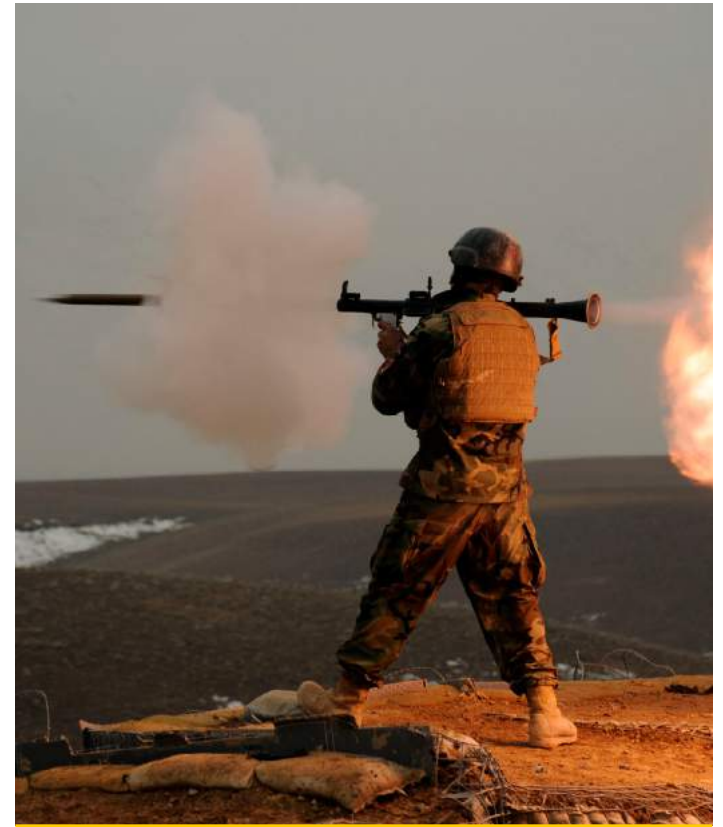
📷 *An 8th Commando Kandak soldier fires a rocket-propelled grenade during a live-fire exercise in Afghanistan.* **Petty Officer 2nd Class Jacob Dillon**

Rather than trying to get better at guessing, we would do well to instead focus on sharpening our ability to quickly respond to unpredictable developments. We cannot know in advance what new needs will arise.

And yet, as far-sighted and inventive as Graham was, his book remained rooted in certain contemporary assumptions that ceased to be valid much sooner than anyone expected. This is not a flaw, per se. It is simply the nature of predictions. Although Graham was very aware that threats and technologies change, there was no way he could know in 1983 that the USSR would be gone in less than a decade, making his proposed "High Frontier" system obsolete before it got off the ground. He knew change was inevitable but could not see the specific nature or pace of those future changes… and neither can we.

Given the unpredictable nature of the world, even the most forward-leaning visionary will have a hard time keeping up with all the surprises and changes that come our way. What can be done to deal with this situation? Rather than trying to get better at guessing, we would do well to instead focus on sharpening our ability to quickly respond to unpredictable developments. We cannot know in advance what new needs will arise or when they will pop up, but we can take steps to speed up our response time and reduce the delay between recognizing a new opportunity and doing something about it.

This concept is at the heart of a book I published last year titled *F.I.R.E.— How Fast, Inexpensive, Restrained, and Elegant Methods Ignite Innovation*. It presents a collection of true stories, general principles and specific practices designed to help technologists of all stripes, including military technologists, deliver best-in-class new systems on short timelines and tight budgets. The basic premise is that innovation does not have to cost so much, take so long, or be so complicated. In fact, the data in my book shows that our best results come when we embrace speed, thrift and simplicity rather than adopting a "take your time, spare no expense" mentality.

Convincing the defense acquisition business to operate at the speed of need is a long-standing dream. Even Graham's book bemoaned that "the acquisition cycle has more than doubled in length since the 1950's." In a commentary that is even more relevant today than it was in 1983, he observes that "…the departments have been unable to implement all the measures they themselves recognize as required for rapid and cost effective system acquisition." *Plus ca change*

However, Graham ends on a hopeful note when he points out "precedent exists for shorter acquisition cycles since these continue to be successfully pursued in the case of some intelligence systems and commercial programs." This means the endless schedule delays and sky-high budget overruns that so often plague the Pentagon are not inevitable. We can deliver world-class new technologies quickly and cheaply, and we have often done so. Graham knew it back in 1983. We know it today. The secret is to find and follow the good examples – like the Navy's Virginia Class submarine or the USAF's MC-12 Project Liberty aircraft – and to build on the successful precedents of those who went before us. It turns out, the key to future success just might be found in the past. **D**

Ask Your 2016 Candidate These Questions on Drone Warfare

Our country needs to know where its next commander-in-chief stands.
By Laura A. Dickinson and Peter W. Singer

In a little over 600 days from now, an important job will open up in the national security community. From Hillary Clinton and Jeb Bush to Bernie Sanders and Ted Cruz, the presidential contenders are vying for the chance not just to be commander in chief, but also "decider" of when and where U.S. military and quasi-military forces go to war via drone.

When Barack Obama ran for president in 2008, the technology of unmanned systems was considered exotic and its use abnormal. There had been a limited number of strikes under the Bush administration, but the topic was little mentioned in his campaign against Sen. John McCain, R-Ariz., and was certainly not a core issue of American foreign policy. Since then, Obama has presided over at least 475 decisions to carry out lethal force in nations beyond the ones where U.S. military forces are deployed on the ground, according to New America's research.

This change in the use of force overseas is part of a larger story that might surprise the Founding Fathers almost as much as a MQ-9 Reaper would. The Constitution lays out the basic framework that Congress declares war and holds the purse strings, while the president is commander in chief of the forces in war. By minimizing U.S. casualties and augmenting more conventional air campaigns, however, drones reduce the political costs of engagement, making it easier to contemplate using force abroad. Perhaps even more significantly, they enable the president to rely on legal arguments that Congress need not necessarily get involved in its most important duty: when and where we conduct warfare. Throughout this change, lawmakers have declined to weigh in on these decisions. Indeed, Congress has never formally voted on the so-called "drone war" campaign and has only provided a minimum of oversight, much of it in the form of Senate Intelligence Committee staffers watching recorded video of the acts during visits to CIA headquarters.

It is important to note that this shift in the constitutional balance of power between Congress and the president on decisions of war is playing out not only in the not-so-covert operations against terror targets, but also as part of overt military operations. To understand, we have to go back to 1999, when President Bill Clinton sought to halt the ethnic cleansing campaign of the Yugoslavian dictator Slobodan Milosovic in Kosovo but at a low risk. The strategy had a double goal: stopping the killing, but without spilling U.S. blood. It proved a success: in 78 days of aerial bombing, there were no U.S. combat casualties.

This dual strategy of waging war from a safe distance, but viewing it as something other than war, had consequences for the new model of the balance of power between Congress

In other words: because U.S. blood would not be at risk, it wasn't **warfare.**

and the President. At the time, Clinton administration lawyers did not explain the constitutional basis of the president's authority to conduct the Kosovo campaign without Congress' authorization. But a decade and a half later, when the Justice Department's Office of Legal Counsel sought to justify Obama's use of force in Libya in 2011, it suggested that Clinton had never needed to get Congress's blessing in part because the risk of casualties was so minimal.

📷 *An MQ-1B Predator remotely piloted aircraft on a training mission passes the airfield at Creech Air Force Base, Nevada.* **432nd Air Expeditionary Wing/U.S. Air Force Photo**

By the time of the Libya campaign, the new technology of unmanned systems had developed to such a point that it was even easier to use force while limiting risk. Drones not only helped increase precision and reduce civilian casualties in the air war, but also were used to drop the bombs themselves. Indeed, unmanned systems launched 145 of the strikes on Libya, almost half of the overall U.S. total, while also doing most of the spotting that enabled the manned strikes.

Administration lawyers argued that the reduced risk of casualties made possible by drones justified an exemption from Congress's exclusive authority to declare war. An OLC memo reasoned that a particular use of force is a war "for constitutional purposes" only if there are "prolonged and substantial military engagements, typically involving exposure of U.S. military personnel to significant risk over a substantial

period." On top of this, administration lawyers further argued the Libya campaign didn't fall within the War Powers Resolution, which sets a 60-day limit on "hostilities" without congressional approval, as U.S. manned planes had moved into a supporting role (but, notably not so the unmanned forces, which continued to carry out strikes to the very day Muammar Qaddafi was killed).

In other words: because U.S. blood would not be at risk, it wasn't warfare. The same kind of thinking has underscored drone strike campaigns in states that range from Pakistan to Yemen to Somalia to the current air war campaign against the Islamic State, or ISIS, in Iraq and Syria. While former can be argued to be covert, the anti-ISIS campaign is an official DoD operation, now four times past the War Powers limit of 60 days. Administration officials have contended that Congress's

What concerns us instead is the relative lack of public debate about a fundamental shift in the long-term balance of power between the presidency and legislature, fueled by the mix of technology, law and politics.

2001 authorization to use military force against al-Qaeda also authorizes the fight against ISIS, despite the tenuous link between the two terrorist organizations that are literally fighting each other on the ground in Syria, while also arguing that the operation has no sustained risk to U.S. forces. So far, members of Congress have been happy to go along with this legal pretzel in order to avoid that vote.

Notice that we didn't say whether or not we supported these varied operations made possible by new technologies. What concerns us instead is the relative lack of public debate about a fundamental shift in the long-term balance of power between the presidency and legislature, fueled by the mix of technology, law and politics, and whether that shift is being properly woven into our system, including our election campaigns.

Here are some questions that might be asked either by media or by interested voters to help clarify some of the crucial issues. These are meant to help spur a healthy debate about the next president's role in America's wars, as well as to better prepare the candidates and their campaign advisors for the hard decisions if they actually win.

▶ Do you believe the War Powers Resolution applies to the president's decisions to use force abroad, and under what circumstances? Specifically, would you be required to notify Congress and receive approval within 60 days, even when no U.S. personnel are at risk due to expanded use of new technologies or other factors?
▶ Both countless leaks and external reporting have established that the U.S. has conducted almost 500 drone strikes against suspected terrorist targets in various locales ranging from Pakistan to Somalia. Will your administration acknowledge this campaign in public?
▶ Should drone strike campaigns be conducted by the Defense Department or CIA?
▶ In any campaign beyond active war zones, will you personally approve each drone strike or delegate the kill decision based on certain pre-approved criteria? Will your administration conduct "signature strikes," based on the target meeting a specific profile, or only strikes where the identity of the target is known? What is the system of accountability your administration will have in place for any strikes that go awry?
▶ Will you seek a new authorization from Congress to use military force against ISIL? If not, why not?

If a candidate can't answer these questions, then they aren't yet ready to be either commander or decider in chief. In the era of drone wars, we must recognize that the president's role in war has changed, and it's crucial that we have a conversation about this during the upcoming election. **D**

How JSOC Harnessed Networks to Take on Terrorists

A former SEAL and McChrystal aide outlines the cultural shifts that helped fight AQI — and are needed against ISIS.
By Chris Fussell

Search for "It takes a network to defeat a network," and you'll get more than 3,000 results. Shorten the query to "it takes a network" and you're at 1.7 million. The concept has become part of the way we think about the information-age battlefield. But we talk far more about creating network-centric organizations than we actually do it.

The idea was introduced into academic thinking by John Arquilla and David Rondfeldt during their work at RAND in the 1990s, and its key phrase entered the broader conversation in the mid-2000s, when then-Lt. Gen. Stan McChrystal overhauled the Joint Special Operations Command and demonstrated the power of the network approach against Al Qaeda in Iraq (AQI). Now we need to learn from JSOC's success.

When Gen. McChrystal took over JSOC in 2003, a poorly trained, ill-equipped, and underfunded adversary was outmaneuvering the world's best counterterrorism forces. Our systems followed a reductionist, silo-based organizational model that was designed in the Industrial Age to operate with efficiency and scale in a highly predictable manner. But networked organizations — whether terror groups or consumer ecosystems — are organic entities in a constant state of unpredictable evolution. In fighting AQI, we initially found ourselves trying to predict their actions – and plan efficiently against those predictions. The problem was, even the AQI network didn't know its next move. Their changes were driven by input variables — in many cases, our raids against their key members — as much or more than centralized control.

Eventually, the reality set in that we were facing an entirely new type of conflict. Driven by the incalculable amounts of data and levels of connectivity available to anyone with a smartphone or Internet connection, the Network Age brought speeds of information flow and levels of interconnectedness between individuals that traditional organizational structures simply were not designed to handle. Winning was not simply a matter of creating a superior strategy or of improving our effectiveness on the ground. We faced the far more daunting task of fundamentally redesigning the organization. Our structure needed to become our strategy.

JSOC's shift to operate as a distributed network required a host of process changes and at least two cultural shifts. First, we created "shared consciousness." Beginning with the Counterterrorism Task Force as our hub, we expanded our network ties to conventional military units and beyond, creating deep relationships with the broader interagency team: State Department, intelligence, every key organization. This allowed us build inclusive, global communications that moved faster than the threats we faced. The heartbeat of our organization, this shared consciousness enabled thousands of people around the world to see and understand the problem in lockstep and near-real-time.

This allowed us to take the next critical step: "empowered execution." Today's terror networks are decentralized, so fighters on the fringe simply need a general understanding of the organization's intent – and from that point they can operate with incredible speed and independence. Traditional systems, designed for efficiency and scale, are simply incapable of keeping up. In the early days of the fight against AQI, we found that as we contemplated or planned our next action, our opponents would make three moves in quick succession, leaving us flat-footed and overwhelmed. Pushing requests through the bureaucracy slowed us down when minutes counted. Our target would melt back into the chaos and plan another action.

There are good reasons to send important decisions to the top: subordinates tend to lack the strategic context to make informed choices on complex issues. But using our newfound "shared consciousness" of our global team-of-teams network, we empowered individuals in the Task Force to execute independently to an unprecedented degree. Better information

The interconnected nature of today's world allows ISIS to push a narrative from the deserts of Iraq to the chat rooms of Europe to the living rooms of North America, spreading fear and enticing recruits.

sharing plus empowered people yielded a smarter, faster force that could soon outmaneuver the enemy.

As an aide to Gen. McChrystal in his final year at JSOC, I watched how his transformed organization did business. Coming off the battlefield, we could all recite that it "took a network" — but no one had explored how we arrived at this moment. So Gen. McChrystal, David Silverman, and Tantum Collins, and I dove deeper into the topic in our new book, Team of Teams: New Rules of Engagement for a Complex World, and we came to better understand several fundamental principles.

Through this lens, we saw how ISIS is expertly harnessing the new speed of information flow. It's difficult to measure ISIS' reach on social media, but a recent Brookings study suggests at least 46,000 active Twitter accounts are supporting their messaging, providing a daily reach unprecedented for a non-state group that controls no traditional media.

Such tools are making it easier and easier to spread ideas — and ISIS is, as much as anything, an idea. It proffers to the disenfranchised masses, both in the region and around the globe, a path to glory and a way to poke the great powers in the eye. In reality, of course, it's a miserable organization that provides nothing but oppression — but that's not the point. The interconnected nature of today's world allows it to push a narrative from the deserts of Iraq to the chat rooms of Europe to the living rooms of North America, spreading fear and enticing recruits.

Bottom line: the situation is far too complex and

unpredictable for a traditional organizational structure to respond to. So we need to change to confront ISIS, much as we did to fight AQI.

Recently, Joint Chiefs Chairman Gen. Martin Dempsey, called Gen. McChrystal's approach a model for the current fight against ISIS. But implementing such a system can prove even harder than accepting the need to do so. Even as the network shift is changing everything — conflicts to nation-state relationships to enterprises — many of the organizations that should be applying its lessons to today's fight are allowing their bureaucracies to revert to traditional, pre-21st-century modes of operating.

JSOC's model has its limitations. It cannot be fully controlled from the Beltway, nor constrained by bureaucracy or interagency intricacies. It needs to be decentralized and run out of the theater of war. And its hub needs real empowerment from Washington to execute a known strategy, pursue a desired end-state, and handle the hard work of building and managing real partnerships, not sound-bite coalitions.

And, of course, our model can only contain or shrink the problem. The root causes of these conflicts must be addressed, or we'll be fighting ISIS's networked younger brother some years down the road.

But it's the model we need — and not just in our military. The shifts of the network age must change not just how we fight, but how we structure higher education, health care, global businesses, and any number of 20th-century endeavors. **D**

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