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Civil Law: Civil law disciplines are interwoven with the acquisition, operation, protection, and preservation of the force and its people, funds, weapon systems, materiel, and installations.

IMPACTS OF WIND ENERGY

Posted: 28 January 2021

By Mr. Michael L. Casillo, edited by Major Mark E. Coon

Excerpt: With hundreds of military training routes (MTRs), ranges and important radar systems in potentially viable wind energy development areas, there is an ever increasing risk of unacceptable impacts on DoD operations and military readiness.

Leadership: Our mission readiness and success depend on leadership development across all domains, including knowledge management, professional development, training, planning and resourcing, and inspections

IMMERSIVE TECHNOLOGY

Posted: 24 August 2021

By Maj Danielle Crowder

Excerpt: Immersive technologies, such as virtual reality, 360-degree video, and avatar simulation, are successfully being used to train professionals across a wide range of disciplines.

Military Justice and Discipline – The purpose of military law is to promote justice, to assist in maintaining good order and discipline in the armed forces, to promote efficiency and effectiveness in the military establishment, and thereby strengthen national security.

DECRYPTING BITCOIN AND BLOCKCHAIN FOR MILITARY LAWYERS

Posted: 23 September 2021

By Lieuteant Colonel Dean Korsak and Major Erik Fuqua

Excerpt: This article should serve as a cryptocurrency primer for lawyers practicing in the Federal government. It will provide a basic overview of the history of Bitcoin and blockchain technology then discuss blockchain use cases for military interests and criminal law hurdles created by cryptocurrency.

ARTICLE 6B REPRESENTATIVE

Posted: 27 May 2021

By Captain Heather Houseal

Excerpt: Article 6b representatives ensure victims have a voice and that they are not overlooked, particularly if the victim is not already represented by an SVC.

CONFIDENTIAL INFORMANTS

Posted: 29 April 2021

By Major Robert W. Miller

Excerpt: This article discusses the delicate balance between law enforcement's interests in protecting the identity of CIs and a military accused's Constitutional and Statutory rights where "Congress intended more generous discovery to be available for military accused."

MAKING YOUR CASE WITH WITNESS TESTIMONY

Posted: 19 March 2021

By Lieutenant Colonel Andrew R. Norton

Excerpt: Considering the decisive effect witness testimony has on the outcome of a trial, preparing witnesses for testimony and improving direct examination techniques will pay dividends for your case presentation.

SHOW ME THE MONEY

Posted: 11 February 2021

By Major Michael A. Pierson and Major Ryan M. Fisher

Excerpt: While the Right to Financial Privacy Act (RFPA) used to be inapplicable to military practice, this article shows the new pre-referral compulsory process authorities likely make RFPA applicable in military courts-martial practice.

PERU'S TRANSITION TO AN ADVERSARIAL MILITARY JUSTICE SYSTEM

Posted: 14 January 2021

By Lieutenant Colonel Daniel E. Schoeni

Excerpt: We sometimes take for granted how well our justice system works and what it means to have a fully functional JAG Corps. Our partner nations do not have such a system or such a JAG Corps. They want what we have.

Operations and International Law – Operations and International law capabilities enhance command situational awareness, maximize decision space, and promote optimal conditions for the projection of ready forces to defend the Nation and our allies.

TAKING TO THE SKIES

Posted: 10 December 2021

By Captain Karina Osgood

Excerpt: The current U.S. policy on aerial interdictions was made in haste after a tragic accident. Reconsideration of this policy is long overdue.

ATTORNEY'S GUIDE TO AI

Posted: 27 October 2021

By Major David F. Jacobs & Captain Fleming E. Keefe

Excerpt: Use of AI in both warfare and military administration is poised to increase dramatically, and a DoD that embraces AI and its potential will gain a strategic advantage over its competitors in the future.

IN MEMORIAM: COLONEL W. HAYS PARKS

Posted: 24 June 2021

By Major R. Scott Adams

Excerpt: In Memoriam: Colonel W. Hays Parks passed away on 11 May 2021

MOON WARS

Posted: 4 March 2021

By Captain Bryant A. Mishima-Baker

Excerpt: Will the Cold War-era Outer Space Treaty survive in the current geopolitical environment? And if not, then what? Does the success of the Artemis Accords point towards further developments in the near future?

PERU'S TRANSITION TO AN ADVERSARIAL MILITARY JUSTICE SYSTEM

Posted: 14 January 2021

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Excerpt: AWe sometimes take for granted how well our justice system works and what it means to have a fully functional JAG Corps. Our partner nations do not have such a system or such a JAG Corps. They want what we have.

CATEGORIES Military Justice and Discipline | Operations and International Law

Text Excerpt from Digital Reporter Post: 14 January 2021 https://reporter.dodlive.mil

Learning About the Water We Swim In

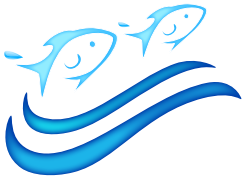
AFSOUTH's Role in Peru's Transition to an Adversarial Military Justice System

BY LIEUTENANT COLONEL DANIEL E. SCHOENI
EDITED BY LIEUTENANT COLONEL PATRICK NEIGHBORS AND MAJOR ALEX DEHNER
LAYOUT EDITOR: THOMASA HUFFSTUTLER

We sometimes take for granted how well our justice system works and what it means to have a fully functional JAG Corps. Our partner nations do not have such a system or such a JAG Corps. **They want what we have.**

"There are these two young fish swimming along, and they happen to meet an older fish swimming the other way, who nods at them and says, "Morning, boys. How's the water?" And the two young fish swim on for a bit, and then eventually one of them looks over at the other and goes, 'What the hell is water?'"

– David Foster Wallace[1]



WHAT'S THE DIFFERENCE?

Our adversarial military justice system, one feature of our common law heritage, is exported around the world. Until recently, most countries had an inquisitorial justice system derived from the continental civil law tradition. Why the shift toward adversarial justice? What is it about our criminal justice system, both military and civil, that other countries have found so alluring? What do we have that they want?

If you're like me you graduated from law school with a vague awareness that Britain and its former colonies use the adversarial system, whereas continental Europe and their former colonies mostly use the inquisitorial. But what's the difference? That was something of a mystery to me until

2013 when I started teaching trial advocacy with the Defense Institute of International Legal Studies (DIILS) in Mexico. Its armed forces were transitioning to an adversarial system, and at first I had little comprehension of the inquisitorial justice system. It just didn't make sense to this corn-fed Iowa lawyer. A better understanding came gradually as I taught a half dozen courses and, later, when I wrote two short articles to make sense of what I had observed.[2]

In 2017, I was assigned to 12 AF/JA (AFSOUTH). 12 AF is a Component Numbered Air Force, meaning that it serves two masters: Air Combat Command (ACC) at Langley AFB, Virginia, and U.S. Southern Command (SOUTHCOM) in Miami, Florida. Upon arrival, I learned that SOUTHCOM had assigned AFSOUTH the lead for legal engagements in three countries: Peru, Guatemala, and the Dominican Republic. A few months later, I found myself at a working lunch in Lima with senior Peruvian judge advocates discussing challenges with their transition to an adversarial system. I told them about my experience in Mexico, and they later invited us to model our upcoming subject-matter expert exchanges (SMEEs) on our program there.

We have since led two such SMEEs in Peru and a third was postponed due to COVID-related restrictions. During our first, the editor of the ministry of defense's military justice law review, El Jurista, invited me to write an article explaining what we were doing and why. What follows is adapted with permission from that piece.[3]

The value of this article to the Corps is threefold: first, military justice practitioners may learn from the comparative analysis since gaining a deeper understanding about what distinguishes our system from others makes us better counselors and advocates; second, to those who serve in countries with inquisitorial systems (e.g., Japan, Korea, Turkey, Spain, Italy, Germany), it provides some perspective; third, to the 508 attorneys and paralegals who self-identify in Roster as proficient Spanish-speakers and want to use their language skills, it offers some suggestions for getting one's foot in the door.

Those who study a foreign language often say that the experience helps them to understand the mechanics of their native language better. Before discussing Peru's reforms, I discuss the adversarial system, contrast it with the inquisitorial, and explain why the U.S. government has for decades sought to replicate its system abroad. This analysis will, I hope, be useful both to JAGs stationed abroad and military justice practitioners in a similar fashion: this comparison may offer insights that are perhaps less obvious when our system is viewed in isolation. We are, in short, sometimes ignorant about the water that we swim in.

A common misconception is that the adversarial system originated in medieval England.

THE ADVERSARIAL SYSTEM

A common misconception is that the adversarial system originated in medieval England.[4] In fact, the system traces its roots a couple of millennia further back and is arguably more ancient than the inquisitorial system. While the inquisitorial system originated in imperial Rome, the adversarial system originated in ancient Greece and the early Roman Republic.[5] Like the modern variety, ancient adversarial systems were public and featured an oral contest between the parties (prosecution and defense). The inquisitorial system, by contrast, was secret, written, and the parties had passive roles—only the judge had a truly active role in the process. Eventually, the former was associated with democratic societies that subordinated state powers to individual rights and liberties, the latter with powerful governments that sought to control, subjugate, and impose order.[6]

The most distinctive feature of the two systems is the judge's role: if the judge herself conducts the investigation and drives the process, the system is inquisitorial; if her rulings are based on facts and arguments presented by the parties, the system is adversarial.[7] This approach is not merely a structural or procedural nicety, but lies at the core of what makes the adversarial system different.[8]

There is another essential facet to America's adversarial system. Our republic was founded on a political culture that mistrusted government, not just our own institutions but the very idea of government. Our criminal justice system reflects this fundamental suspicion and is thus mainly oriented to protecting individual rights.[9] The aphorism attributed to Blackstone says, "It is better that ten guilty people escape than an innocent suffer."[10] This was also well known to the Founders[11] and constitutes a cardinal principle of our country's legal system.[12]

When Latin American nations achieved independence in the first decades of the nineteenth century, their founders were aware of liberal justice systems such as ours. Their framers deliberately rejected such systems and chose instead the inquisitorial system because they distrusted jurors, public hearings, and oral advocacy.[13] They doubted that their people were prepared for a freer, more democratic system.[14] A century and a half later, public opinion swung in the opposite direction. Whereas the secrecy of the inquisitorial system was thought to be ineffective, bureaucratic, and associated with corrupt dictatorships, the more open adversarial system had become associated with freedom, democracy, and the protection of human rights.[15]

If the protection of **individual rights** is the hallmark of the adversarial system, we often associate the inquisitorial system with the horrors of the Spanish Inquisition.

THE INQUISITORIAL SYSTEM

If the protection of individual rights is the hallmark of the adversarial system, we often associate the inquisitorial system with the horrors of the Spanish Inquisition.[16] This is misplaced and is due not only to ignorance, but also in part to successful anti-Catholic propaganda of the Protestant Reformation.[17] The inquisitorial system is not synonymous with torture, brutality, or intolerance. Nor is it necessarily inferior to the adversarial system. Each system has its pros and cons and makes reasonable tradeoffs between order and liberty. However, having made that concession, this summary undoubtedly betrays my prejudices in favor of the adversarial system.

The most significant right of the adversarial system is the **presumption of innocence**. The inquisitorial system, by contrast, assumes that the accused is guilty.

The adversarial system is characterized above all by due process. That phrase is a term of art, and American law students spend many hours poring over the case law and coming to understand what that means. Due process covers a range of rights and structural aspects of our system, including a hearing, a jury composed of one's peers, representation by counsel, an impartial judge, and procedures driven by the parties.[18] By contrast, the inquisitorial is characterized by an investigator-judge, whose prominent role includes not only charging the offense and directing the proceedings but also supervision of the investigation.[19] Instead of evidence being presented mostly through live testimony during a relatively brief trial as in the adversarial system, judges in the inquisitorial system assemble a dossier of written evidence, painstakingly collected over a longer period.[20]

The most significant right of the adversarial system is the presumption of innocence. The inquisitorial system, by contrast, assumes that the accused is guilty and is therefore much more comfortable with pretrial detention. This procedural distinction may seem minor, but it has resulted in the mass incarceration of Latin Americans awaiting trial[21] and in large measure explains the crisis of the inquisitorial system in the region.[22]

Most of Latin America is transitioning to the adversarial system. [23] This did not begin with a U.S.-led initiative, but with the pens of two Argentine scholars in the 1980s, Alberto Binder and Julio Maier.[24] Like-minded scholars throughout the region advocated for a transition to the adversarial system

because, they argued, the existing system was susceptible to corruption and incompatible with democracy.[25] Such scholars were aware that the adversarial system had its own problems, but they nonetheless believed that public trials would better protect individual rights and be more efficient.[26] To persuade voters, they also emphasized that the new system would be more consistent with internationally recognized human rights norms. Their rhetoric resonated with the people, who had grown to distrust the inquisitorial system because of its association with authoritarian and repressive governments.[27] A wave of reforms ensued, and the consensus is that the resulting systems have been better aligned with human rights than their predecessors.[28]

Like-minded scholars throughout the region advocated for a transition to the adversarial system because, they argued, the existing system was **susceptible to corruption** and incompatible with democracy.

THE ADVERSARIAL SYSTEM'S MERIT

Winston Churchill famously said that democracy is the worst form of government…except for all the others.[29] The same could be said about the adversarial system.[30] We should not fool ourselves. Our system is imperfect. We are always improving it, hoping to make it more fair, efficient, and reliable.[31] But it does work. We believe in it enough that we consider it worth sharing—perhaps not for others to copy it to the letter, but at least to serve as a model to be adapted to local conditions.

What, then, are the merits of the adversarial system? Apart from the fact that the system is ours, why do we believe it is special and should be transplanted? The answer depends on how one defines what is preferable.[32] Before answering these questions, limitations must be recognized in the evaluation and comparison of systems.

As we will see later on, several U.S. government agencies have been dedicated to exporting our justice system in the last three decades, yet the empirical results are mostly unknown.[33] Despite the vast resources invested to carry out the reforms,[34] very little attention has been devoted to the evaluation of this effort.[35] Data collected have focused on the volume of training, not on more relevant indicators for the evaluation of a penal system, such as the reduction of violence, efficiency of operations, or protection of rights.[36] It is also difficult to make a definitive comparison because there have been so many varieties of reforms in the region.[37] In addition, more time is needed to assess whether the changes to the adversarial system have been successful in the long term.[38] Thanks to the comparative studies of the Justice Studies Center of the Americas in Chile, perhaps we will soon know more about the progress of reforms throughout the region.[39] Meanwhile, because of the limited empirical evidence, discussion about the advantages of the adversarial system remains somewhat speculative.

Arguably, however, our system possesses three merits. First, it better protects the rights of the individual.[40] Second, it is more efficient.[41] Third, its results are fairer. [42] The latter merit is especially important because the perception of fairness, many would argue, is fundamental to the rule of law and a properly functioning society.[43]

If not all the merits can be verified, anecdotal evidence supports faith in Latin America's adversarial reforms. For example, we know that pretrial detention was more common under the inquisitorial system and this practice has been reduced with adoption of an adversarial system. We also see improvements in procedural efficiency. Perhaps most importantly, transparency has increased because trials are now public. This evidence suggests that the adversarial system represents progress, even if it is not a panacea.[44]

EXPORTING THE ADVERSARIAL SYSTEM

Exportation of our justice system began with political fights between President Ronald Reagan and Congress. President Reagan sought to support the anti-communist government in El Salvador and Congress opposed military support due to high-profile assassinations by the U.S.-trained Salvadoran

military.[45] A commission was assigned to look for another way to support our ally without supporting its armed forces. The recommendation was to invest in democratization efforts, including reform of the justice system. Such reforms concentrated on the prosecution of human rights violations and other high-profile cases.[46] The U.S. Agency for International Development initiated a program first in El Salvador and later in Guatemala and Colombia that would replace their inquisitorial systems with the adversarial system. Such efforts accelerated with the fall of the Soviet Union, when the government sought ways to continue cooperation with allies, but found that without the Cold War a unifying logic was lacking.[47] The government eventually settled on the fight against transnational crime.[48]

Over time, a program whose benign purpose was to assist partners in fighting crime transmogrified into a program that sought to remake foreign systems in our image.[49] Our reform efforts in Latin America roughly coincided with, and were aided by, the aforementioned scholars' advocacy for adversarial reforms.[50] Eventually, this effort involved 38 countries spanning the globe.[51] What began with reformation of civilian criminal justice systems extended to the realm of military justice. With reason, former Attorney General Eric Holder observed in the context of this program that "the rule of law has become one of the largest exports in the United States."[52]

The U.S. government has invested considerable treasure in reforming criminal justice around the world, but the questions remain: Was it worth it? Is our system transplantable? Or is it a fragile plant that can only flourish in its native soil? Critics argue the effort was a failure. Others claim the reforms were worthwhile because the adversarial system is superior, even if we can't prove it.[53] For the present we cannot know which side is right. Assessing the results of this revolutionary experiment will require more time.

Peru began its most recent attempt to adopt the adversarial system in 2004.

PERU'S MILITARY JUSTICE REFORMS

Peru began its most recent attempt to adopt the adversarial system in 2004, with the second wave of countries making such reforms.[54] Together with Mexico, countries in this second wave benefitted from lessons learned from the first wave of reformers in the 1990s and thereby achieved greater success.[55]

Some are skeptical about the reforms.[56] As is the case with these reforms specifically in Latin America, it is difficult to evaluate global reforms.[57] Yet Peru, at least, has seen some promising results.[58] Preventive detention is now the exception rather than the rule. Wait times for trials have been halved.[59] These achievements are remarkable and indicative of wider progress even if the final results are still pending.

Law schools are **reluctant** to discard centuries of experience with the inquisitorial system and struggle to train the next generation of students in an **unfamiliar system**.

As reforms progress across Latin America, we see certain patterns. Lawyers and judges tend to resist change[60] and to revert to the familiar old processes.[61] Resources designated for defenders are insufficient.[62] Practitioners need more training.[63] Law schools are reluctant to discard centuries of experience with the inquisitorial system and struggle to train the next generation of students in an unfamiliar system.[64] Such ongoing challenges may explain in part why Peru's JAG Corps requested our assistance.[65]

OPPORTUNITIES FOR SPANISH-SPEAKING JAGS AND PARALEGALS

During my two years at 12 AF, we saw remarkable progress in Peru. Having left AFSOUTH, I'm increasingly concerned about continuity and carrying on this legacy. I care about our partner countries and want the mission to succeed. Fortunately, there is no shortage of Spanish-speaking attorneys and paralegals interested in security cooperation,

international law, and travel opportunities. If you're one them, may I offer a few suggestions?

Over the years I've noticed some patterns about JAGs who are selected for the two Spanish-coded billets, AFSOUTH/JA and ODC Madrid. Here are some tips:

- **First,** sign up for the Defense Language Proficiency Test (DLPT) at your testing center. Earn a good score (a 3 Reading/3 Listening or higher makes you competitive). You'd be surprised how few actually do that.
- **Second,** consider applying for the Language Enabled Airman Program (LEAP), which pays qualifying Airmen, including JAGs, Foreign Language Proficiency Pay even if they are not in language-coded billets. This singles you out as someone who has maintained proficiency and gained valuable experience using your language in service of the Air Force mission.
- **Third,** short of the permanent assignments in Tucson and Madrid, look for intermediate opportunities. These include teaching the rule of law course at the Inter-American Air Forces Academy at Joint Base San Antonio-Lackland, TX; volunteering for the New Horizons exercise, which deploys personnel to the AOR for 6–8 weeks to build hospitals or schools; and serving as adjunct on DIILS mobile training teams.

Two years working at AFSOUTH afforded 17 trips to various countries in the region.

CONCLUSION

My introduction to this track resulted from dumb luck. Until 2014, the Air Force filled a 6-month TDY to Colombia. When my college roommate was tagged, his boss vetoed that deployment and sent him elsewhere. I was second pick. Later work in Mexico was also serendipitous. Two years working at AFSOUTH afforded 17 trips to various countries in the region. By my lights, 12 AF chief of international law is, no exaggeration, one of the most rewarding jobs in the Corps.

We sometimes take for granted how well our justice system works and what it means to have a fully functional JAG Corps. Our partner nations do not have such a system or such a JAG Corps. They want what we have. They can see what JAGs bring to the fight. I've had an interesting career. Yet sharing best practices with such eager learners has doubtless been a highlight.

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PHOTOS

AFSOUTH's Mr. Craig Burton demonstrates a direct examination of "Mrs. Bear" (played by Major Barbara Algarin) from the children's story *Goldilocks*, Iquitos, Peru, 27 Feb. 2019. (Photo by U.S. Air Force Lieutenant Colonel Daniel Schoeni)

Senior Peruvian judge advocate presents during the opening ceremony for a trial advocacy exchange in Cusco, Peru on 18 July 2018. AFSOUTH's Mr. Craig Burton translates for the SOUTHCOM SJA, Captain Bill Dwyer. (Photo by Army Captain Aaron Contreras)

ENDNOTES

[1] Jenna Krajeski, *This Is Water*, New Yorker, Sept. 19, 2008, https://www.newyorker.com/books/page-turner/this-is-water, quoting Wallace's 2005 commencement speech at Kenyon College.

[2] Daniel Schoeni, *Teaching Trial Advocacy South of the Border: Helping Mexico Transition to an Adversarial Military Justice System*, Iowa Law., Jan.-Feb. 2016, at 36; *Seminarios de Juicios Orales*, *infra* note 3.

[3] This article was published in Peru's El Jurista in June 2019, and was entitled *Seminarios de Juicios Orales entre Comando Sur de los EE.UU. de Norteamerica y el Fuero Militar Policial*. The author acknowledges Mr. Craig Burton, Lt Col Steven Loertscher, Mr. Samuel Londono, Mr. Antonio Lopez, and Lt Col Jennifer Sanchez for their valuable feedback, both substantive and linguistic.

[4] *See, e.g.*, Janet Ainsworth, *Legal Discourse and Legal Narratives: Adversarial versus Inquisitorial Models*, 2(1) Linguagem e Direito 1, 2 (2015).

[5] James L. Bischoff, *Reforming the Criminal Procedure System in Latin America*, 9 Tex. Hisp. J.L. & Pol'y 27, 31 (2003).

[6] *Id.* at 31–32.

[7] McNeil v. Wisconsin, 501 U.S. 171, 181 n.2 (1991).

[8] John D. King, *The Public Defender as an International Transplant*, 38 U. Pa. J. Int'l L. 831, 837 (2017) (arguing that the most profound change with this transition is the transfer of power to investigate and present charges from the judge to the prosecutor).

[9] *Id.* at 892–893.

[10] 4 William Blackstone, Commentaries *352.

[11] Daniel Epps, *The Consequences of Error in Criminal Justice*, 128 Harv. L. Rev. 1065, 1080 (2015).

[12] *Id.* at 1068 (citing United States v. Greer, 538 F.2d 437, 441 (D.C. Cir. 1976)).

[13] King, *supra* note 8, at 839–840.

[14] *Id.*

[15] *Id.* at 841–842.

[16] Erin Creegan & Clare Hatfield, *Creeping Adversarialism in Counterterrorist States*, 29 Conn. J. Int'l L. 1, 5 (2013) (observing that for most Americans the inquisitorial system is synonymous with the torture that was emblematic of the Inquisition).

[17] *But see* Mauricio Duce & Rogelio Pérez Perdomo, *Citizen Security and Reform of the Criminal Justice Systems in Latin America*, *in* Crime and Violence in Latin America: Citizen Security, Democracy, and the State 69, 72 (Hugo Frühling, Heather Golding & Joseph S. Tulchin, eds., 2003) (reporting that torture was common to extract confessions during the late Middle Ages).

[18] *Id.*; Allegra M. McLeod, *Exporting U.S. Criminal Justice*, 29 Yale L. & Pol'y Rev. 83, 117 (2010).

[19] McLeod, *supra* note 18, at 116–117.

[20] Ronald F. Wright, *Mexican Drug Violence and Adversarial Experiments*, 35 N.C.J. Int'l L. & Com. Reg. 363, 370 (2010).

[21] María Gracia Andía, *The Uphill Battle of Justice Reform*, Americas Q. 50, 51 (Summer 2012).

[22] *A Broken System*, Economist, July 4, 2014.

[23] Ainsworth, *supra* note 4, at 3.

[24] *Id.* at 4.

[25] *Id.* (observing that these scholars produced a model penal code in 1988 that has influenced the regional reforms since then).

[26] McLeod, *supra* note 18, at 119.

[27] King, *supra* note 8, at 841–842.

[28] Andía, *supra* note 21, at 51; McLeod, *supra* note 18, at 119–120.

[29] Winston Churchill, Nov. 11, 1947, International Churchill Society, https://winstonchurchill.org/resources/quotes/the-worst-form-of-government/.

[30] King, *supra* note 8, at 834.

[31] Perhaps the best example of the failures of our system is that 99% of cases are resolved through declaratory agreements because oral trials are too expensive to administer. *See* McLeod, *supra* note 18, at 117–118.

[32] Ainsworth, *supra* note 4, at 5.

[33] McLeod, *supra* note 18, at 160.

[34] *Id.* at 119–120 (reporting that in the program's first decade alone the United States spent more than $500 million in Latin America).

[35] *Id.* at 87–88. *See also* Brett J. Kyle & Andrew G. Reiter, *Militarized Justice in New Democracies: Explaining the Process of Military Court Reform in Latin America*, 47 Law & Soc'y Rev. 375, 380 (2013) (noting that few investigations have been published regarding reforms of military criminal systems of Latin American countries and therefore the field is ripe for such an effort).

[36] McLeod, *supra* note 18, at 134–139.

[37] Daniel Pulecio-Boek, *The Genealogy of Prosecutorial Discretion in Latin America: A Comparative and Historical Analysis of the Adversarial Reforms in the Region*, 13 Rich. J. Global L. & Bus. 67, 67–68 (2014).

[38] Bischoff, *supra* note 5, at 49.

[39] Steven E. Hendrix, *Current Legal Trends in the Americas: USAID Promoting Democracy and the Rule of Law in Latin America and the Caribbean*, 9 Sw. J.L. & Trade Am. 277, 310–311 (2002/2003).

[40] King, *supra* note 8, at 892–893.

[41] McLeod, *supra* note 18, at 94; *Judging Latin America's Judges*, Economist, Aug. 2, 2018.

[42] McLeod, *supra* note 18, at 94.

[43] Ainsworth, *supra* note 4, at 6.

[44] *Judging Latin American Judges*, *supra* note 40.

[45] McLeod, *supra* note 18, at 100–101.

[46] *Id.* at 101.

[47] *Id.* at 103.

[48] *Id.* at 116–122.

[49] *Id.* at 126–127 (counting that Department of Justice officials who were sent abroad to assist with the prosecution of crime tended to export our criminal system, despite instructions from their superiors to the contrary).

[50] *Id.*, at 119; Ainsworth, *supra* note 4, at 3–4; King, *supra* note 8, at 841–842.

[51] McLeod, *supra* note 18, at 84–86 (recounting the creation of the Office of Assistance & Development Training of the Foreign Prosecutor's Office in the Department of Justice in 1991, whose mandate was the training of foreign prosecutors and now works in more than 30 countries).

[52] *Id.* at 84.

[53] *Id.* at 146–153; *Judging Latin American Judges*, *supra* note 41, citing Luís Pasara, Una Reforma Imposible: La Justicia Latinoamericana en el Banquillo (2015); Paul Hathazy & Markus-Michael Müller, *The Crisis of Detention and the Politics of Denial in Latin America*, 98:903 Int'l Rev. Red Cross 889 (2016).

[54] Andía, *supra* note 21, at 50–51. In fact, Peru had already experimented with adversarial systems, first in 1924 and again in 1990. *Id.* at 52; Duce & Pérez Perdomo, *supra* note 17, at 74.

[55] Andía, *supra* note 21, at 50–52.

[56] *See, e.g.*, *Judging Latin American Judges*, *supra* note 41 (citing an academic, Luis Pasara, who says that the reform has not diminished impunity nor increased public confidence).

[57] Bischoff, *supra* note 5, at 49.

[58] Andía, *supra* note 21, at 52.

[59] Ross Boone, *Reform of the Criminal Justice System in Peru*, Human Rights Brief (Mar. 27, 2014), [link no longer active, article on file with the author].

[60] Andía, *supra* note 21, at 53.

[61] *Judging Latin American Judges*, *supra* note 41.

[62] King, *supra* note 8, at 865–866 (citing a study saying that the right to a defender is usually a formality, not a legal guarantee); McLeod, *supra* note 18, at 151–152 (reporting that defenders are insufficiently trained and their numbers are disproportionate with prosecutors).

[63] King, *supra* note 8, at 863–865; Bischoff, *supra* note 5, at 49–50; *Judging Latin American Judges*, *supra* note 41. *See also* The Honorable M. Margaret McKeown, *The ABA Rule of Law Initiative: Celebrating 25 Years of Global Initiatives*, 39 Mich. J. Int'l L. 117, 132 (2018) (noting that the transition to another system must be extremely difficult for lawyers with experience in the old system).

[64] Andía, *supra* note 21, at 53.

[65] McKeown, *supra* note 64, at 132–133 (describing the training program that Peru has developed to close the gap).

CATEGORY Civil Law

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An Emerging Threat:

Impacts of Wind Energy Production on DoD Operations and Their Legal Implications

BY MR. MICHAEL L. CASILLO
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With hundreds of military training routes (MTRs), ranges and important radar systems in potentially viable wind energy development areas, there is an ever increasing risk of **unacceptable impacts** on DoD operations and military readiness.

Wind energy is becoming a more prevalent source of energy in the United States. As of August 2019, there are over 57,000 wind turbines operating in 41 states and two U.S. territories, with a total wind capacity of 97,960 megawatts (MW). This is enough energy to power over 30 million homes and reliably supply more than 20 percent of the electricity in six states.[1] Wind energy development is also rapidly expanding. There are over 200 wind energy projects underway in 33 states, which will increase installed wind capacity by more than 25 percent in half of the U.S. states.[2] With hundreds of military training routes (MTRs), ranges and important radar systems in potentially viable wind energy development areas, there is an ever increasing risk of unacceptable impacts on DoD operations and military readiness.

As wind energy development expands and technology improves, the impact on the DoD is expected to worsen. While wind energy proponents claim wind energy projects are compatible with national security and do not change military missions,[3] the reality is that the military often accepts some diminishment of missions or operational capability as a result of these projects. This typically comes in the form of a reduction of military airspace, reduction of the size of established MTRs or diminished radar functionality, which[4] may cause cumulative adverse impacts up to and including the failure of operations, missions and systems.[5] As wind energy development expands and technology improves, the impact on the DoD is expected to worsen. Advancements in turbine technology now allow for massively taller wind turbines, which may further erode operational capabilities of radar systems and training operations, bringing several operations and radar systems to the brink of unacceptable adverse impact. In fact, new turbines soon hitting the market for offshore use are significantly (45%+) taller than traditional wind turbines—over eight hundred fifty feet tall (nearly the height of the Chrysler Building less the spire)—with blades longer than a football

field (three hundred fifty one feet).[6] These taller turbines threaten to create even greater adverse impacts to low-level MTRs, military airspace and the operational capacity of essential radar systems. In order to address the adverse impact to military operations and readiness, potential wind energy projects are routed through a dedicated official in the Pentagon for DoD review. While wind energy developers and DoD components typically have excellent and effective working relationships, and initial findings of adverse impacts often are resolved in a way that preserves the viability of the proposed project, the adverse impact to the military is often not completely removed.[7] Typically, this review process results in a negotiated resolution with minor alterations to the proposed project that results in compromises that still limit operational capabilities of military radar systems and the efficacy of existing MTRs.[8]

While wind energy proponents claim wind energy projects are compatible with national security and do not change military missions, the reality is that the military often accepts some **diminishment of missions** or operational capability as a result of these projects.

In this landscape, yet another threat has emerged—lawsuits claiming that the DoD review process of wind energy projects that result in decreased projected revenue to landowners constitutes a compensable taking under the Fifth Amendment of the Constitution. This article discusses the military's review process for proposed wind energy projects, the recent Fifth Amendment taking claims asserted against the United States, the court rulings in these cases, and their implications.

MILITARY REVIEW OF PROPOSED WIND ENERGY PROJECTS

In 2011, Congress established the Military Aviation and Installation Assurance Siting Clearinghouse ("DoD Clearinghouse" or "the Clearinghouse").[9] The Clearinghouse law made military reviews part of an existing Federal Aviation Administration (FAA) process under 14 C.F.R. Part 77 ("Part 77")[10] that determines whether structures or improvements present a hazard to air navigation.[11] Computerized screening tools assist in assessing which of the thousands of annual Part 77 filings may pose a potential risk to military airfields, MTRs, airspace, and radar systems.[12] If a wind energy project triggers potential risk review, the Clearinghouse distributes available information to appropriate DoD components for an adverse impact review and recommendation.[13] DoD components then review the proposed projects and advise the Clearinghouse of their analysis and recommendation through the chain of command.[14] Within seventy-five days[15] of receipt of the Part 77 application, the Clearinghouse makes one of three potential adverse impact determinations: (1) the project will have an adverse impact on military operations and readiness,[16] (2) the project will not have an adverse impact or (3) the project's adverse impacts are sufficiently attenuated that they do not require mitigation.[17] If the Clearinghouse finds adverse impact, it issues a notice of presumed risk to the applicant and offers to discuss mitigation.[18] The Clearinghouse also notifies the State Governor where the project is located and invites the Governor's comments.[19] Negotiations may result in formal or informal resolution of the DoD concerns.[20] If the applicant does not agree to mitigate or no agreement is reached within a prescribed period (and this period is not extended by mutual agreement), the Clearinghouse must recommend that a senior DoD official make a final determination of whether the project presents "an unacceptable risk to the national security of the United States."[21] Such a finding is extremely rare[22] and has attendant requirements for justifying and supporting such a decision.[23] Even still, the FAA alone makes the final decision on whether the project presents a hazard to air navigation, and considers a DoD "unacceptable risk determination" as but one of several factors.[24]

Some landowners are dissatisfied with the military review of proposed wind energy projects have filed suit against the U.S. claiming that military review of wind energy projects diminished their profits or caused developers to decline to go forward with otherwise viable projects amounting to a compensable taking under the Fifth Amendment.[25]

FIFTH AMENDMENT LAWSUITS RELATED TO CLEARINGHOUSE PROCESS

In the summer of 2018, two landowners filed Fifth Amendment taking claims against the U.S. involving wind energy projects. In the first case, Buddy and Donna Taylor claimed that a wind energy developer cancelled a wind energy development contract on the Taylor's land after DoD officials advised the developer that the Government would not issue a "No Hazard" determination for the project.[26] The Taylors claimed that the inability to secure a "No Hazard" determination was fatal to the wind energy deal and that the Air Force's actions constituted a regulatory[27] taking of their land.[28] The Taylors also alleged that low-level (20-500 feet above ground level (AGL)) overflight activity by the Government was a compensable physical taking[29] of the their land.[30]

> The United States successfully moved to dismiss both the regulatory and physical taking claims.

The United States successfully moved to dismiss both the regulatory and physical taking claims. With respect to the regulatory taking claim, the U.S. argued that the Taylors' failed to allege that they (or anyone else) filed for an FAA hazard determination and that a FAA hazard determination cannot constitute a taking as a matter of law.[31] As to the physical taking claim, the U.S. argued that the plaintiffs failed to allege sufficient facts to establish a claim, particularly with regard to the overflight frequency and substantial interference with property rights.[32] The Court of Federal Claims agreed with the U.S. on both the regulatory and physical taking claims and dismissed the complaint.[33] On appeal, the Taylors asked the Federal Circuit to vacate the dismissal and allow them to amend their complaint. As to the physical taking claim, the Taylors alleged that any flights below 500' AGL amounted to a compensable taking. With respect to the regulatory taking claim, the Federal Circuit found that airspace is highly regulated and that the Taylors should have reasonably anticipated that the FAA might not issue a "No Hazard" designation.[34] The Court also found that the alleged actions by the Air Force, suggesting that the FAA would not issue a "No Hazard" designation, was not the type of government action that gives rise to a regulatory taking claim.[35] Instead, the Court explained, dissemination of information is a legitimate agency function, especially in the context of public safety.[36] The Federal Circuit denied the request for remand to amend their complaint[37] and affirmed the lower court on the physical taking claim, finding that the allegations in the complaint could not support an inference of the required frequency.

In the second case, *Richard v. United States*, the Commissioner of Public Lands for New Mexico alleged that a negotiated resolution of DoD concerns with a wind energy developer resulted in a reduction of wind energy turbines on state trust lands and amounted to a regulatory taking without just compensation.[38] The Commissioner also claimed that the Government's appropriation and physical occupation of state airspace below 500 feet AGL constituted a physical taking of state land, preventing construction of wind turbines on such land.[39]

The U.S. also successfully moved to dismiss the *Richard* case. As to the regulatory taking claim, the U.S. argued that the claim was not ripe because the FAA had not issued any final hazard determinations concerning Part 77 notices involving structures on the Commissioner's lands.[40] Similar to the *Taylor* case, the U.S. argued that FAA hazard determinations are advisory only and cannot constitute a regulatory taking. [41] With respect to the physical takings claim, as in *Taylor*, the U.S. argued that the Commissioner failed to allege sufficient facts to establish such a claim, particularly with regard to frequency and substantial interference.[42] The U.S. also argued that the Commissioner's claims were time-barred by the applicable (six-year) statute of limitations[43] because the MTR in question was established as a low-level

route in the 1970s, and had been in continuous use ever since.[44] In support of this position, the U.S. averred that the date of accrual of a taking claim in such a case is based on when the government started using a flight route, *not* when the consequences of such government acts became most painful.[45]

The Commissioner countered the statute of limitations argument by invoking the "accrual suspension rule," which sets the accrual date based on when the plaintiff knew or should have known the claim existed. Further citing this rule, the Commissioner also asserted that the claim did not become substantial enough for a taking until the opportunity to extract economic benefit from the potential wind energy project actually arose.[46] In response, the U.S. explained that while an escalation of flight activity or more substantial (lower or louder) flight activity *may* give rise to a secondary or successive taking claim and restart the limitations period, the Commissioner failed to allege that there had been any material change in flight operations or that the Governmental use of the MTR was somehow unknowable to the Commissioner.

The Court stated that the accrual suspension rule **might apply** in a future case if a plaintiff **properly supported claims** about when the opportunity arose to extract economic benefit from the land using the "newly available technology."

While the Court ultimately dismissed the Commissioner's complaint, it found the Commissioner's accrual suspension rule claim to be "an appealing one."[47] The Court stated that the accrual suspension rule might apply in a future case if a plaintiff properly supported claims about when the opportunity arose to extract economic benefit from the land using the "newly available technology."[48] The *Richard* Court surmised that based on such information, a court could find that governmental flight activity substantially interfered with a plaintiff's right to use the land in an economically beneficial way based on when the plaintiff knew or should have known of the interference.[49]

POTENTIAL IMPACTS AND NEXT STEPS IN THESE TYPES OF TAKING CLAIMS

Applying the accrual suspension rule as contemplated by the *Richard* Court is troubling to the U.S. because it would seem to support special treatment for physical takings claims involving wind energy production and allow claims to lie dormant for years, no matter how long U.S. operations had been in effect. It could also remove the incentive for wind energy developers to work with the DoD to resolve concerns over a project's impacts on military missions and readiness.

If such claims materialized, the U.S. could argue that wind energy production, while relatively new,[50] is merely a type of land use, and the proper consideration of this land use is during valuation, not the determination of the claim's accrual date. Under established case law, courts look to government overflight activity to establish if and when governmental overflight activity was sufficient to constitute an initial taking (e.g. commencement of thousands of annual low-level military aircraft flights over a landowner's land).[51] If it finds a taking has occurred more than six years before the case was filed, the statute of limitations serves to bar that claim.[52] Courts, however, routinely examine whether changes of governmental activity, such as an extension of a runway or a basing decision resulting in more flights generally, more flights at lower elevations, or noisier aircraft[53] constitute an additional, compensable taking within the limitations period.

If a court finds a viable taking claim has occurred during the limitations period, the Court proceeds to valuation – a determination of the difference in value of the property before and after the taking in the limitations period.[54] If a new land use (e.g. residential or wind energy) makes the property more valuable at the time of the additional taking, the court will award compensation to the landowner that reflects the increase of valuation due to new the land use—even if the same area was previously subject to a prior taking outside the limitations period.[55] Thus, there is no

need to change the approach to setting the accrual date for physical taking claims involving potential wind energy production—courts already consider land use types during its valuation analysis.

> If the Court agreed with the Taylors that any flights below 500' AGL constituted a taking, it may have invited a **potential flood of claims**.

As for the *Taylor* case, the Federal Circuit's decision strongly supports the Air Force/DoD's sharing of their analysis of the potential impacts of wind energy projects on flight safety. A contrary ruling may have had a chilling effect on military component reviews of wind energy projects. It is also assuring that the Federal Circuit affirmed the lower court's ruling that the Taylors failed to allege that the flights were frequent enough to state a claim for a navigation easement. If the Court agreed with the Taylors that any flights below 500' AGL constituted a taking, it may have invited a potential flood of claims for any sporadic, infrequent governmental flight activity below 500' AGL, including military flyovers at sporting events, graduations or as a sign of support for health care workers and first responders.

CONCLUSION

Wind energy competes for the same space used by DoD operations, and the construction of wind turbines may interfere with radar systems. The competition is getting fierce and impacts are escalating with cumulative impacts from multiple wind projects threatening to eliminate the viability of some missions and systems. This will worsen with taller turbines soon to hit the market. Thus far, Fifth Amendment lawsuits that threatened to upset the DoD review process of proposed wind energy projects have been unsuccessful. If that were to change, however, the viability of the Clearinghouse could be at risk, increasing the already heightened tension between wind energy projects and military operations and readiness.

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ENDNOTES

[1] *Record U.S. Wind Farm Development Driven by Corporations, Utilities, and State Calls for Offshore Projects*, Renewable Energy Mag., Aug. 1, 2019, https://www.renewableenergymagazine.com/wind/record-us-wind-farm-development-driven-by-20190801.

[2] *Id.*

[3] American Wind Energy Association Fact Sheet, Promoting Our Energy Independence and Our National Security, accessed Sept. 18, 2019, https://www.awea.org/Awea/media/Resources/Fact%20Sheets/AWEA_EnergyIndependence-Security-R.pdf.

[4] *See* DoD Clearinghouse Report, Apr 2016, supra n. 7 at 5-7.

[5] *Id.* at 6. (because of wind projects, "some DoD missions are no longer realistic." Accordingly, there has been "significant alteration of military operations or degrad[ation of] capability development"). A surge in projects since this report has exacerbated this problem.

[6] https://www.ge.com/renewableenergy/wind-energy/offshore-wind/haliade-x-offshore-turbine; *see also* Karl-Erik-Strommsta, *GE Finishes First Nacelle for 12MW Offshore Wind Turbine*, Green Tech Media, Jul. 22, 2019, https://www.greentechmedia.com/articles/read/ge-finishes-first-nacelle-for-12mw-haliade-x-offshore-wind-turbine.

[7] Mitigation agreements between wind energy developers have resulted in: alterations in the location of turbines; modification of government radars (software optimizations and supplementing and relocating radars); and curtailment of radar use for specified periods. *See* DoD Clearinghouse Report, Apr 2016, *supra* n. 7 at 4-7.

[8] Military training route is defined as "a training route developed as part of the Military Training Route program, carried out jointly by the [FAA] and the Secretary of Defense, for use by the armed forces for the purposes of conducting low-altitude, high-speed military training." 10 U.S.C. § 183a(h)(6).

[9] National Defense Authorization Act of Fiscal Year 2018, Pub. L. No. 115-91, 131 Stat. 1283, 1343-48 (codified at 10 U.S.C. § 183a (2018). Originally, Section 358 of the Ike Skelton National Defense Authorization Act for Fiscal Year 2011, Pub. L. No. 111-383, § 358(a), 124 Stat. 4137, 4198-4202 (2011).

[10] 10 U.S.C. §§ 183a(a)-(b).

[11] The FAA process is part of by FAA's responsibility to regulate the safe and efficient use of navigable airspace. 49 U.S.C. § 40103. Specifically, under 14 C.F.R. Part 77 ("Part 77"), FAA evaluates notices concerning proposed structures or improvements that exceed a certain height above the ground level (AGL) to determine whether it would present a hazard to air navigation. 14 C.F.R. § 77.31.

[12] DoD Clearinghouse, Report on Impact of Wind Energy Developments on Military Installations (Apr. 2016) at 3 *accessible at* https://www.acq.osd.mil/dodsc/library/RTC%20Report%20on%20Wind%20Energy%20Impacts%20-%20Letters%20and%20Report%20-%20(USA000910-16).pdf.

[13] *See* 32 C.F.R. § 211.6(a).

[14] 10 U.S.C. § 183a(c)(5); 32 C.F.R. § 211.6(a)(2).

[15] National Defense Authorization Act for Fiscal Year 2020 Pub. L. No. 116-92, § 311, (to be codified as amended at 10 U.S.C. § 183a(c)(1)).

[16] Defined as 'any adverse impact upon military operations or readiness, including flight operations research, development, testing, and evaluation and training, that is demonstrable and is likely to impair or degrade the ability of the armed forces to perform their warfighting missions." *See* 32 C.F.R. § 211.3.

[17] *See* 10 U.S.C. § 183a(c)(2); *see also* 32 C.F.R. §§ 211.3; 211.6(a)(3)(i)-(iii). Potential mitigation options include: modifications to the project (including specific components of the project); modifications of military operations, radars and equipment; potential upgrades to existing military systems or procedures; and the purchase of new systems. *See* 10 U.S.C. §§ 183a(d)(2)(F)(i)-(v); *see also* 32 C.F.R. § 211.9.

[18] 32 C.F.R. § 211.6(a)(3)(iii)(A),(C),(D).

[19] 10 U.S.C. § 183a(c)(3).

[20] 32 C.F.R. § 211.6(b)(1).

[21] Defined as the construction, alteration, establishment, or expansion, or the proposed construction, alteration, establishment, or expansion, of a structure or sanitary landfill that would: (1) endanger safety in air commerce related to the activities of DoD; (2) interfere with the efficient use and preservation of the navigable airspace and of airport traffic capacity at public use airports related to the activities of DoD, and (3) significantly impair or degrade the capability of the DoD to conduct training, research, development, testing, and evaluation, and operations or to maintain military readiness. 32 C.F.R. § 211.3.

[22] The Clearinghouse has only made one "unacceptable risk determination" out of thousands of wind energy projects reviewed. *See* DoD Office of Under Sec'y of Def. for Acquisition, Tech. and Logistics, Report on the Determination of Unacceptable Risk to Nat'l Sec. from a Proposed Commercial Wind Turbine Project in the Vicinity of Naval Air Station Patuxent River and the Atlantic Test Range (Dec. 2014), *accessible at* https://www.acq.osd.mil/dodsc/about/library.html.

[23] If an "unacceptable risk" is found, the Clearinghouse must send its determination to FAA, promptly provide a detailed report to Congress, and notify appropriate state agencies *See* 10 U.S.C. §§ 183a(e)(2)(A)-(B); *see also* C.F.R. §§ 211.6(b)-(c); 211.10.

[24] *See* 10 U.S.C. § 183a(g); *see also* 14 C.F.R. § 77.31; 32 C.F.R. §§ 211.4(c); 211.6(b)(2)(iv).

[25] U.S. Const. Amend. V states "private property [shall not] be taken for public use, without just compensation."

[26] *Taylor v. United States*, 142 Fed. Cl. 464, 468 (Ct. Fed. Cl. 2019).

[27] A regulatory taking occurs where the governmental action is a regulation that unduly burdens a property. *Huntleigh USA Corp. v. United States*, 525 F.3d 1370, 1377-78 (2008). Regulatory takings are sub-divided into two types: categorical and non-categorical. A categorical taking occurs when the regulatory imposition deprives "all commercially viable use" of the property. A non-categorical taking occurs where only some of the uses otherwise available to the property are prohibited or restricted by the regulatory imposition. *Id.* at 1378 n. 2.

[28] *Taylor*, 142 Fed. Cl. at 468.

[29] As opposed to a condemnation action initiated in the Courts by Government, an inverse condemnation claim of a physical taking alleges that governmental activity constitutes a condemnation of a compensable property right. To establish a physical taking due to physical invasion of airspace over one's property, a claimant must establish: (1) the governmental planes flew directly over the claimant's land; (2) the flights were low and frequent; and (3) the flights directly, immediately, and substantially interfered with the claimant's use and enjoyment of the land. *Brown v. United States*, 73 F.3d 1100, 1102 (Fed. Cir. 1996).

[30] *Taylor*, 142 Fed. Cl. at 468.

[31] *Id*. at 471-73.

[32] *Id*.

[33] *Id*. at 471-73.

[34] *Taylor v. United States, No. 2019-1901, 2020 U.S. App. LEXIS 15565 at *10-11 (Fed, Cir. May 15, 2020).*

[35] *Id.* at *11-12.

[36] *Id*.

[37] *Id*. at *14-15. The Taylors sought to leave to amend their complaint in the Court of Federal Claims, which the Court of Federal Claims denied on August 14, 2020.

[38] *Richard v. United States*, No. 18-1225L, 2019 U.S. Claims LEXIS 669 at *7-9 (Jun. 19, 2019).

[39] *Id*.

[40] *Richard*, 2019 U.S. Claims LEXIS 669, at *12-13.

[41] *Id*. at 10, 12-19; *see also Breneman v. United States*, 57 Fed. Cl. 571, 583-85 (2003) ("FAA's hazard determinations simply have no enforceable legal effect. The FAA is not empowered to prohibit or limit proposed construction it deems dangerous to air navigation."); *Flowers Mill Assoc. v. U.S.*, 23 Cl. Ct. 182, 187 (Ct. Cl. 1991) (finding that although the FAA's hazard determination would have "constituted a considerable stumbling block," it cannot be the basis for a Fifth Amendment takings claim); *see also Dimare Fresh, Inc. v. United States*, 808 F.3d 1301, 1308 (Fed. Cir. 2015) (interpreting *Flowers Mills*); *Aircraft Owners and Pilots Ass'n v. FAA,* 600 F.2d 965, 967 (D.C. Cir. 1979) (holding that hazard determinations are advisory in nature).

[42] *Id*. at *28.

[43] *Id*. (citing *A.J. Hodges Indus. Inc. v. United States*, 174 Ct. Cl. 259 (Ct. Cl. 1966).

[44] *Id*. at *28-29.

[45] *Id*. at *30 (citing *Fallini v. United States*, 56 F.3d 1378, 1383 (Fed. Cir. 1995)).

[46] *Id*. at *29-32 (citing *Young v. United States*, 529 F.3d 1380, 1384-85 (Fed. Cir. 2008) (suspension of accrual applies when a plaintiff can demonstrate that either the defendant concealed its acts with the result of plaintiff being unaware of their existence or that the injury was inherently unknowable at the accrual date)).

[47] *Id*. at *31.

[48] *Id*.

[49] *Id*.

[50] The U.S. could also argue that the *Richard* Court only opened the door to claims *if* wind energy technology were only available within the preceding six years. Wind turbine technology is not new—the potential impacts of wind turbines on defense systems and missile warning radars was documented in a report to Congress as early as 2006. Report to Congressional Defense Committees on Effect of Windmills on Military Readiness (2006) accessible at https://www.acq.osd.mil/dodsc/library/Congressional%20Report%20Impact%20of%20Wind%20Turbines%202006%20AFRL.pdf.

[51] *A.J. Hodges Indus. Inc.*, 174 Ct. Cl. at 265-66 (finding taking occurred when the U.S. began to operate B-47s regularly and frequently over plaintiff's property with the intention of continuing such flights indefinitely).

[52] *Id*. at 266; *Mid-States Fats & Oils Corp. v. United States*, 159 Ct. Cl. 301, 309-10 (Ct. Cl. 1962) (taking occurred when regular intrusions by military jet aircraft in lower reaches of airspace over the plaintiff's property and have continued with great frequency).

[53] *Avery v. United States*, 165 Ct. Cl. 357, 359-62 (introduction of larger, heavier, noisier aircraft can constitute a new and additional taking even if the new aircraft do not violate the boundaries of the initial easement).

[54] *A.J. Hodges Indus. Inc.*, 174 Ct. Cl. at 267-68; *Mid-States Fats & Oils Corp*., 159 Ct. Cl. at 310.

[55] In *A.J. Hodges*, a portion of the claimant's property was eligible residential development before the additional taking and the remaining portion was valued based on the existing use, which was agricultural. The Court awarded damages for the difference between residential and agricultural use for the acreage that was eligible for residential development. *Id.* at 271, 283.

CATEGORY Military Justice and Discipline

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Show Me The Money:

Financial Records Investigative Subpoenas and Article 30a of the Uniform Code of Military Justice (UCMJ)

BY MAJOR MICHAEL A. PIERSON AND MAJOR RYAN M. FISHER
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While the Right to Financial Privacy Act (RFPA) used to be inapplicable to military practice, this article shows the new pre-referral compulsory process authorities likely make RFPA applicable in military courts-martial practice.

The Military Justice Act of 2016 (MJA '16) introduced a revolutionary step in military justice: authorizing compulsory process pre-referral. Such a power, however, comes with new responsibilities. One of these responsibilities, often overlooked, is to ensure collateral statutory frameworks are not implicated. Especially in the area of privacy protections. This article addresses one such collateral statute: the Right to Financial Privacy Act (RFPA). While RFPA used to be inapplicable to military practice, this article shows the new pre-referral compulsory process authorities likely make RFPA applicable in military courts-martial practice. Given this finding, the article goes on to discuss the functions and application of RFPA. Finally, the article provides some examples of using compulsory process and doing so in compliance with RFPA.

COMPULSORY PROCESS PRE-MJA '16

Prior to MJA '16, any investigator or trial counsel needing evidence pre-referral could not look to the military justice system to provide a means of compulsory process to obtain evidence. Instead, investigators would often turn to other agencies within or outside the Department of Defense (DoD) to obtain compulsory process pre-referral.

MJA '16 changed this. Article 46, Uniformed Code of Military Justice (UCMJ), now authorizes two forms of compulsory process pre-referral. The first is investigative subpoenas.[1] Investigative subpoenas can be used to compel production of books, papers, documents, data (other than stored communication data), or other objects.[2] Investigative subpoenas cannot be used to compel testimony pre-referral.[3]

The second authorization is for compulsory process to produce stored wire or electronic communications.[4] However, authority to issue compulsory process for stored electronic communications is solely reserved to a military judge to issue a warrant or order for such information.[5]

When the President, under his Article 36, UCMJ authority, promulgated procedural rules for accessing stored wire or electronic communications, he provided elaborate procedural detail on the issuance of orders and warrants for electronic communication. In addition to the rules for issuance of orders and warrants, the rules also discuss processes for delaying notification to an individual whose communications were seized.[6] Most of these procedural steps were not a creation of military law, rather, it was likely the impact of a collateral statute, the Stored Communications Act (SCA), and its application history in Article III federal courts that drove this detailed procedural guidance.[7]

Investigative subpoena procedural rules are found in the broader Rule for Courts-Martial (RCM) 703 discussing production of witnesses and evidence. Comparing the procedural rules for investigative subpoenas with RCM 703A, an entire six-section rule dedicated to stored communications, creates a false impression that collateral statutes, like in the context of stored communications and the SCA, are not implicated when using investigative subpoenas. As shown below, such an inference is misplaced, as indeed collateral statutes may be implicated by use of investigative subpoenas and require similar procedural steps as those required by the SCA.

RFPA AND ITS APPLICATION TO MILITARY JUSTICE PROCEEDINGS

RFPA is a Congressional statutory response to the Supreme Court's finding that no reasonable expectation of privacy exists in one's financial records under the 4th Amendment to the Constitution.[8] RFPA prohibits the Government from accessing information contained within financial records except under several limited exceptions.[9] Since RFPA is a collateral statute, like the SCA, the first question is its application to military justice proceedings.

The Court of Appeals for the Armed Forces (C.A.A.F.) answered this question affirmatively in *United States v. Dowty*.[10] In *Dowty*, the Defense asserted that the statute of limitations tolling provisions in RFPA did not apply to the statute of limitations provided in Article 43, UCMJ.[11] The Defense asserted this position despite the Accused collaterally challenging the seizure of his financial records in federal district court for violation of RFPA.[12] Articulating a "cautious" approach to applying statutes outside the UCMJ, C.A.A.F. nevertheless held, "in the…absence of a valid military purpose requiring a different result, generally applicable statutes normally are available to protect service members in their personal affairs."[13] Applying this test to RFPA, C.A.A.F. found no specific military purpose that would prevent the application of RFPA.[14] Therefore, C.A.A.F. held, "RFPA has covered applicable financial records of members of the armed forces since it was enacted in 1978."[15]

Despite C.A.A.F.'s holding that RFPA generally applies to the military justice system, RFPAs protections do not apply to post-referral compulsory process (e.g. trial counsel subpoenas).

Despite C.A.A.F.'s holding that RFPA generally applies to the military justice system, RFPAs protections do not apply to post-referral compulsory process (e.g. trial counsel subpoenas). Such was the finding of the Court of Military Appeals (C.M.A.) in *United States v. Wooten*.[16] In *Wooten*, the Defense moved to suppress the collection, via trial counsel subpoena, of the Accused's financial records for violation of RFPA.[17] The Government asserted that a trial counsel subpoena issued during the course of litigation is exempted from the privacy protections and process of RFPA.[18] The C.M.A. relying on 12 U.S.C. § 3413(e) of RFPA agreed. The C.M.A. noted that § 3413(e) exempts application of RFPA to records sought, "by a Government authority under the Federal Rules of Civil or Criminal Procedure or comparable rules of other courts *in connection with litigation to which the Government authority and the customer are parties*."[19] The court found trial counsel subpoenas issued under the authority of Article

46, UCMJ, were comparable to rules of criminal procedure when applied to a person held for court-martial.[20] Therefore, RFPA would not apply to such records.[21]

In the context of the divergent holdings of *Dowty* and *Wooten* the question remains whether RFPA is applicable to investigative subpoenas pre-referral. The answer must be yes. First, pre-referral process is not a tool of litigation as discussed in § 3413(e). The pre-referral process is an investigatory tool used prior to any decision on whether litigation will be initiated. Investigative subpoenas are issued under different statutory authority than trial counsel subpoenas. Second, many federal civilian court functions are conducted via the Federal Rules of Criminal Procedure but are also still governed by RFPA. For instance, RFPA has several procedures that apply to grand jury proceedings,[22] but, the grand jury procedure is largely set out within Rule 6 of the Federal Rules of Criminal Procedure.[23] Therefore, *Wooten's* finding that RFPA does not apply to trial counsel subpoenas issued under Article 46, UCMJ, likely does not apply to investigative subpoenas. Therefore, RFPA is applicable in military justice proceedings.

RFPA generally prohibits access to a customer's financial records unless permitted by limited exceptions…

COMPLIANCE WITH RFPA IN THE CONTEXT OF INVESTIGATIVE SUBPOENAS

As discussed above, RFPA generally prohibits access to a customer's financial records unless permitted by limited exceptions provided in the statute. Before turning to the two exceptions applicable to investigative subpoenas, first, a brief comment is necessary on a category of financial information in which RFPA's prohibition on access does not apply.

Like stored electronic communications, the statutory prohibition does not apply to basic account information or "subscriber" information.[24] So the discussion below as to customer notification, customer challenges, and statutory exceptions does not apply to this information. Further, because the financial institution is not civilly liable for providing this information, the financial institution may be willing to share this information without compulsory process. Thus, it is important to know that RFPA does not apply to account information—it only applies to the details or "content" of the financial record.

Practically, there are two exceptions that apply to the new investigative subpoenas: (1) administrative subpoenas and (2) judicial subpoenas. First, 12 U.S.C. § 3405 provides an exception to the general prohibition and authorizes the seizure of financial records pursuant to an administrative subpoena which is authorized by law and when the records sought are relevant to a legitimate law enforcement inquiry. This exception would likely apply to investigative subpoenas issued by trial counsel when authorized by a convening authority. Although it is possible that even these subpoenas may be construed as judicial subpoenas.[25] Second, 12 U.S.C. § 3407 provides a similar exception when the records are sought via a judicial subpoena. This exception would likely apply to subpoenas issued by a military judge under Article 30a, UCMJ.

Finding an applicable exception, however, does not end the Government's duties under RFPA. The Government must also comply with the notice and challenge provisions prior to executing the administrative or judicial process. Under 12 U.S.C. §§ 3405 and 3407, once compulsory process is issued, the Government must then provide the customer notice and an opportunity to challenge the compulsory process for collection of the records. In the court-martial context, this should provide the customer the right to move a military judge to quash the subpoena.[26]

Given that customer notice may often be problematic in the context of a criminal investigation, the statute provides a delayed customer notification option, but such delay must be ordered by a presiding judge.[27] Further, the presiding judge must find that:

> (1) the investigation being conducted is within the lawful jurisdiction of the Government authority seeking the financial records; (2) there is reason to

believe that the records being sought are relevant to a legitimate law enforcement inquiry; and (3) there is reason to believe that such notice will result in (a) endangering [life or safety], (b) flight from prosecution, (c) destruction of or tampering with evidence, (d) intimidation of potential witnesses, or (e) otherwise seriously jeopardizing an investigation or official proceeding….[28]

The initial delay cannot exceed ninety days, but may be extended in periods of up to ninety days when granted by the presiding judge.[29] Once the delay period expires, the Government must still provide notice to the customer even though the Government has already seized the records.[30] The Department of Justice Criminal Resource Manual (DoJ CRM) has a wealth of information about the applicability of RFPA. Customer notice templates are available and can be tailored for military justice purposes.[31]

When a financial institution acts in good faith in providing records relying upon a certificate of compliance, RFPA absolves the financial institution of civil liability for any improper disclosure of records.

Finally, because financial institutions can be civilly liable for violating RFPA, the statute directs the Government to issue a certificate of compliance with RFPA to the financial institution complying with the compulsory process.[32] This document serves as a sort of "get out of jail free" card for any potential civil liability for improper disclosure. When a financial institution acts in good faith in providing records relying upon a certificate of compliance, RFPA absolves the financial institution of civil liability for any improper disclosure of records.[33] A trial counsel should only issue such a certificate when all the requirements of RFPA have been satisfied.

VIOLATIONS OF RFPA

In addition to the procedures and authorizations, RFPA also sets out statutory remedies for violations of RFPA. 12 U.S.C. § 3417 authorizes a civil action against either the Government or the financial institution for violation of RFPA. The authorized recovery is $100 regardless of the volume of records involved.[34] Additionally, a party may recover actual damages as a result of the violation, court costs, and reasonable attorney fees.[35] Punitive damages are recoverable if the violation was willful or intentional.[36] However, at least three federal district courts and the C.M.A. in *Wooten* held that suppression of the fruits of a RFPA violation is not a remedy.[37] The sole remedy is the civil one.

EXAMPLES OF USING RFPA WITH INVESTIGATIVE SUBPOENAS

Since MJA '16 took effect on 1 January 2019, trial counsel at both Yokota Air Base and Kadena Air Base, Japan have seized financial records in compliance with RFPA.

The first investigation, at Kadena Air Base, sought the financial records of an Airmen who had deserted his unit and appeared to have traveled to Europe. Trial counsel in that case applied for a military judge to issue an investigative subpoena. The trial counsel in the request notified the court of the belief that RFPA applied to these records and to the court's issuance of an investigative subpoena. Further, trial counsel notified the court they intended to request a delayed customer notification from the court. Trial counsel asserted this was necessary to prevent the Airmen's awareness that the Government was using his financial records to track his whereabouts.

The military judge assigned agreed. The military judge not only issued an investigative subpoena, but also ordered the financial institutions to whom the subpoenas were issued to delay customer notification for a period of 90 days in accordance with RFPA. Thus, while applying RFPA can seem to be a matter of mere compliance with law, here, the delayed customer notice created a lawful duty for the financial institution to not tell the customer of the record production. Given commercial vendors have recently tried to place a primacy on the privacy of records in their possession,

the additional enforceability of a delayed customer notification order is a good step to take.

The second use at Yokota Air Base was also for a deserter. In this case, evidence suggested the Airmen intended self-harm when he deserted. Given the bank is on the hook for RFPA violations, it is prudent to give them every assurance that the process issued is lawful and protective of their interests. This includes protecting them from liability under RFPA for properly issued compulsory process like investigative subpoenas. This is not only the right thing to do, but also saves the time of needless litigation over the validity of the compulsory process.

> While these collateral statutes create more procedural hurdles, they also may aid investigators with tools like the delayed customer notification provisions of RFPA.

With that in mind, and needing the information expeditiously, trial counsel followed the same procedure employed in the case at Kadena Air Base. Here, a different military judge was assigned, but came to the same conclusion issuing both an investigative subpoena and delayed customer notification order.

In both cases, the investigative subpoena and the delayed customer notification greatly aided the investigation. In the first case, the financial records tracked down the Airmen to Europe and availed investigators of means to seek his return to military custody. In the second, the records were used to track the Airmen's financial activity leading investigators to a region of ATMs where money was being taken out on a routine basis. Upon investigators visiting one of these locations the Airmen walked into the facility leading to his apprehension. Had the trial counsel not sought the delayed customer notification in either case, it is possible the financial institution would have complied with RFPA and notified the customer. In the second case, such a notification may have furthered the Airmen's instability and resulted in self-harm.

CONCLUSION

In *McDonough v. Windall,* Judge Lewis Babcock of the Federal District Court of Colorado took the Air Force to task for "facially inadequate and defective" compliance with RFPA and stated, "the Air Force may not avoid the requirements of the RFPA merely because it is a branch of the military."[38] As shown here, with the authority now for pre-referral process and more robust authorities to military judges, collateral statutes, like the SCA and RFPA, may now be implicated by military justice practice. As the trial counsel did here with the application of RFPA, practioners should seek awareness of collateral statutes impacting compulsory process requests. While these collateral statutes create more procedural hurdles, they also may aid investigators with tools like the delayed customer notification provisions of RFPA. Ultimately, compliance with implicated collateral statutes will help show the professionalism of the military justice system and encourage even broader authorities pre-referral in the future.

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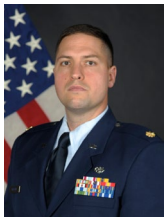

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ENDNOTES

[1] *See* Article 46(d)(2), UCMJ

[2] *See* Discussion to RCM 405(h)(3)

[3] *See Id.*

[4] *See* Article 46(d)(3), UCMJ

[5] *See Id.*

[6] *See* RCM 703A

[7] *See* 18 U.S.C.S §§ 2701-2713 (Lexis 2020)

[8] *See United States v. Dowty*, 48 M.J. 102, 107-108 (C.A.A.F. 1998); *United States v. Miller*, 425 U.S. 435 (1976).

[9] *See* 12 U.S.C.S. § 3402 (Lexis 2019).

[10] *See Dowty*, 48 M.J. 102.

[11] *See Id.* at 105. Article 43, UCMJ, establishes a statute of limitations for all punitive offenses.

[12] *See Id.* at 104.

[13] *Id.* at 107.

[14] *See Id.* at 109.

[15] *Id.*

[16] *See United States v. Wooten*, 34 M.J. 141 (C.M.A. 1992).

[17] *See Id.*

[18] *See Id.* at 145.

[19] *Id.*

[20] *See Id.* at 146.

[21] *See Id.*

[22] *See* 12 U.S.C.S. §§ 3413(i) and 3420 (Lexis 2019).

[23] Fed. R. Crim. P. 6.

[24] *See* 12 U.S.C.S. § 3413(g) (Lexis 2019).

[25] *See United States v. Curtin*, 44 M.J. 439, 441 (C.A.A.F. 1996) (finding that trial counsel subpoenas are judicial subpoenas under Article 46, UCMJ akin to functions of a clerk of court of a United States District Court)

[26] *See* 12 U.S.C.S. § 3410 (Lexis 2019). However, if a GCMCA issued subpoena was interpreted to be an administrative subpoena and not a judicial subpoena then the customer's sole avenue of relief under RFPA is likely application for an injunction in federal district court. *See McDonough v. Widnall*, 891 F. Supp. 1439 (D. Colo. 1995)

[27] *See* 12 U.S.C.S. § 3409 (Lexis 2019).

[28] *Id.*

[29] *See id.*

[30] *See id.*

[31] *See Criminal Resource Manual*, Department of Justice, §§ 400-488, https://www.justice.gov/jm/criminal-resource-manual-401-499 (last visited Mar. 29, 2019).

[32] *See* 12 U.S.C.S § 3404 (Lexis 2019)

[33] *See* 12 U.S.C.S. § 3417 (Lexis 2019)

[34] *See supra* note 31.

[35] *See* § 3417

[36] *See id.*

[37] *See Wooten*, 34 M.J. at 146; *United States v. Kington*, 801 F.2d 733, 737 (5th Cir. 1986); *United States v. Frazin*, 780 F.2d 1461, 1466 (9th Cir. 1986).

[38] *McDonough* 891 F. Supp. at 1448, 1450 (D. Colo. 1995).

CATEGORY Operations and International Law

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Moon Wars:

Legal Trouble in Space and Moon Law

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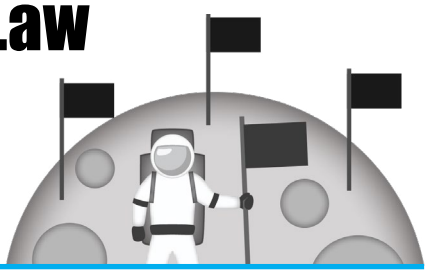

Will the Cold War-era Outer Space Treaty survive in the current geopolitical environment? And if not, then what? Does the success of the Artemis Accords point towards further developments in the near future?

A major milestone took place in the history of space and technology on 2 January 2019.[1] For the first time, a man-made object was successfully landed on the far side of the Moon. Because the Moon rotates around its axis and revolves around the Earth in the same period of time, only a single side of the Moon is visible to us on Earth. Despite what the Pink Floyd rock song may suggest,[2] the far side of the Moon is not always in darkness, but it is shrouded in a mist of scientific mystery. The U.S. has successfully landed people and equipment on the familiar side of our nearest celestial neighbor, and several other countries have had similar successes.[3] But no country had ever landed anything on the far side of the Moon. No country, that is, until China landed Chang'e-4. This singular achievement raises important questions that existing law does not adequately address. My desire with this article is to inspire dialogue on how to address the inadequacies of international space law to address the potential conflicts that soon could be happening on the Moon.

CHANG'E: THE MOON GODDESS

On 8 December 2018, China launched the Chang'e-4 probe on its Long March 3B rocket from the Xichang Satellite Launch Center in Sichuan province.[4] Less than a month later, it made the 384,000-kilometer (239,000 miles)[5] trip to the Moon and landed in the Von Kármán crater near the South Pole-Aitken basin. This first was made possible because of the incredible efforts and focus of the burgeoning Chinese Space Program.

As the name suggests, Chang'e-4 is the fourth mission of the Chinese Lunar Exploration Program (CLEP), also known as the Chang'e Project. The project is named after the legend of the Chinese goddess of the Moon, Chang'e, and the missions are aimed at making milestones on the Moon.[6] The Chang'e project started with the launch of Chang'e-1 on 24 October 2007, which mapped the entire surface of the Moon in unprecedented detail.[7] Chang'e-2, which tested new tracking technologies, launched on 1 October 2010,[8] followed

by China's first lunar rover, Chang'e-3, on 1 December 2013.[9] In 2019, China doubled down on its success with the Chang'e-4 lunar rover. And while the schedule was plagued by the COVID-19 pandemic and other delays[10], China launched its Chang'e-5 probe to the Moon on 24 November 2020.[11] That mission successfully led to the return of samples of the lunar surface back to the earth.[12]

The Chinese Communist Party has pushed forward with ambitious plans for the Moon.

The Chang'e-4 landing is most significant because it landed near the Moon's South Pole, an area that National Aeronautics and Space Administration (NASA) scientists have labeled "one of the most compelling places in the entire Solar System."[13] The unique geography in this area has allowed for minerals to coalesce in ways which could give clues about the oldest aspects of our Solar System.[14] The area also contains large amounts of water and helium-3.[15] Water, a resource so common on earth, is a costly commodity to transport into space. More importantly, it is a vital part of the human physiology and will be an absolute necessity in order to sustain a future human presence on the Moon. Not only are the water molecules themselves vital for human survival, but with the most basic of chemical processes, water can be broken down into its respective parts to provide oxygen to breathe and rocket fuel to meet transportation needs. What this means is that the location contains the building blocks of potential human habitation. It contains resources that could be used as a launching-off point to explore further out into space. And ingredients can be found there for an estimated multi-trillion-dollar industry that is waiting to be tapped into.[16]

CHINA AND THE U.S. ON THE MOON

Given that context, it is no wonder that China has been investing the funds and political focus to pursue a presence there. With complete control over all government decisions, the Chinese Communist Party has pushed forward with ambitious plans for the Moon.[17] China is doing this with an eye toward its scientific value, the prestige long-term presence there could bring, and the rich resources it offers.[18] President Xi Jinping has stoked nationalist excitement about the prospect of Chinese superiority in space.[19] The messaging used by President Xi and the Chinese Communist Party has successfully made the Moon and its potential as a source of resources, technological advancements, and global prestige a popular focus for the country at large.[20]

One way such focus has manifested itself is in clear signs that China plans to send people to the Moon. Since at least 2017, universities in China have been hard at work researching what the requirements would be for a permanent manned presence on the Moon.[21] And in 2018, China announced that it would be accelerating its development of the Long March 9 rocket, a system equivalent to the Saturn V rocket booster that took NASA astronauts to the Moon in the 1960s and '70s.[22] In late 2018, former NASA Administrator Mike Griffin estimated that with current technologies, China could be a mere six to eight years away from having boots on the lunar surface—a feat that no country has accomplished in almost a half-century.[23]

On 26 March 2019, Vice President Mike Pence called for NASA to reach the Moon, and to establish, **"by any means necessary,"** a permanent settlement by 2024.

Understandably, the U.S. is not planning on sitting by idly. After taking office in 2017, the Trump administration revitalized the Nation's space exploration efforts, published multiple space policy directives, empowered the private sector, created a military Space Force, and re-instituted the National Space Council which had been inactive since the Clinton administration.[24] On 26 March 2019, Vice President Mike Pence gave a speech at a National Space Council meeting in which he made a surprise announcement. He called for NASA to reach the Moon, and to establish, "by any means necessary," a permanent settlement by 2024.[25] It is yet to be seen whether or not this speech will go down in history as a

successful repeat of President John F. Kennedy's "We choose to go to the Moon" speech in terms of technological and policy advancement in space.[26] What is clear, however, is that the U.S. seems to recognize the potential impact that having a presence on the Moon will have for whichever nation, or nations, reach there first.

> Rules regarding sovereignty over airspace were evolving on the international level.

SOVEREIGNTY OVER AIRSPACE

So why does all of this matter for us, the lawyers? To answer that, we need to look back at another first in space history that set the rule on space. That event was not Neil Armstrong's "one small step" for a man on the Moon. It was the first success ever to take place in space,[27] the launching of the Sputnik satellite into orbit by the Soviet Union in 1957.

Ownership of airspace has been a well-understood concept since ancient Rome. The Romans called it *cujus est solum ejus est usque ad coelum*.[28] This roughly translates to "he who owns the soil owns up into the sky," or in other words, "he who owns the soil owns also everything above."[29] Once air travel became a technological possibility, this private property right began to be curtailed by national sovereign authority to use and govern airspace.[30]

At the same time, rules regarding sovereignty over airspace were evolving on the international level. This was done by a mix of both international agreement and customary international law. The Paris and Chicago conventions,[31] the latter of which now has 193 State parties,[32] recognized that the airspace over a nation would be subject to the exclusive sovereignty of the nation that controlled the land and territorial waters beneath that airspace.[33] Since the signing of these two conventions, nations around the world, both signatories and otherwise, have recognized this right to sovereignty,[34] and it has thus made its way into customary international law.[35] This sovereign right was tested in 1956 by the United States when it began flying U-2 surveillance aircraft above the sovereign territory of the Soviet Union.[36] When a plane was shot down in 1960, the United States was faced with enormous pressure to put an end to its spy plane program by the international community. The Soviet Union labeled the intrusion an act of aggression that would legitimize the declaration of war. In response, most members of the United Nations Security Council concluded that the flying of the U-2 airplanes over Soviet territory clearly violated Soviet sovereignty, but resoundingly rejected the Soviets' declaration that it therefore amounted to an act of international aggression.[37]

Even before this happened, Dr. Wernher von Braun and his team of German scientists during World War II had been working in Nazi Germany to create the V-2 missile with the intention of using this military technology to build a rocket that would travel above the atmosphere into orbit around the earth;[38] it was a revolutionary idea. What was unclear at the time was what this would mean to the international community. It would not be until 1957 that a successful launch into orbit would first be accomplished, and it would not be by Dr. von Braun and his then Americanized team, but by the Soviet Union.

> Was the flying of that first satellite a breach of sovereignty of the territories over which Sputnik flew?

But was the flying of that first satellite a breach of sovereignty of the territories over which Sputnik flew? At the time of the signing of the Paris and Chicago conventions, space travel was not yet a possibility, let alone a factor for consideration. Would flying through space be treated by the law in the same way that flying through the air would be as illustrated in the aftermath of what has come to be known as the "U-2 Incident?" In 1957, no one knew.

That is, until Sputnik flew.

SPUTNIK AND SPACE SOVEREIGNTY

On 4 October 1957, Sputnik was launched into low Earth orbit and traveled around the entire globe, passing over every nation in its path including the United States. What made this event important from a legal perspective is that the United States and other nations chose to let it happen without objecting. Public fears of missile launches, the outbreak of war, and the raining down of nuclear firepower notwithstanding, the United States and other nations were unwilling to label this as a breach of their sovereignty. In fact, in a rush to catch up, only a few months later, the first U.S. satellite Explorer I accomplished the exact same thing with the same result: no international uproar.[39]

> The legal consensus became that there was a **fundamental difference** between "airspace" and "outer space."

So what happened? The legal consensus became that there was a fundamental difference between "airspace" and "outer space."[40] The "Sputnik moment" created what has since been described as a moment of "instantaneous international customary law" that remains to this day.[41] It is what allows the thousands of space objects to be in space today, all flying over dozens of nations without any national sovereignty-based objections.[42] Arguably, with a single launch of a rocket, a customary international law principle was created that sovereignty over outer space does not exist.

This was put into hard law in 1967 by the signing of the now well-known Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, also known as the Outer Space Treaty.[43] Articles I and II of the treaty lay out a somewhat counter-intuitive combination of declarations which have formed the backbone of how space is accessed and utilized by nations. Article I declares that "Outer space, including the Moon and other celestial bodies, shall be free for *exploration* and *use* by all States without discrimination of any kind."[44] This right to the use of space is followed immediately by the declaration in Article II that "Outer space, including the Moon and other celestial bodies, is not subject to *national appropriation* by claim of sovereignty, by means of use or occupation, or by any other means."[45]

As emphasized above, the key concepts in these first two articles are that nations are free to "use" space, they are just not allowed to "appropriate" it. When a nation places objects into orbit this is a fairly simple landscape to work with. This means that actors are allowed to have anything they want in space, as long as what is up there does not cause any sort of undue burden on the ability of another nation to use space.[46] The number of objects in orbit around the earth has reached the thousands of pieces, leading to a growing concern with the overcrowding of orbits.[47] Even with this growth, however, no nation has yet challenged the right of another to add additional objects into space.

Where these rules become complicated is when you are on a celestial body like the Moon. As previously discussed, there is a relatively small area on the Moon that is considered resource-rich.[48] It is well-recognized that the use of these resources and these lunar locations is permitted by custom and the Outer Space Treaty,[49] but the universal right to use space resources is still not fully tested because no nation has yet attempted to extract resources on a large scale. The time of that testing, that "Sputnik moment," appears to be approaching.

> What if China decided that it did not want to defer to an American presence?

BATTLE FOR THE MOON?

Imagine the near future. Let's assume that the timelines laid out by China and the United States for reaching and staying at the Moon described above end up reflecting reality. That would mean that the United States would have a permanently manned base on the Moon by sometime in 2024, with the Chinese following suit in about 2027. If it happened in that order, then the United States would likely have the pick of the most opportune locations, meaning the lunar sites with the most easily accessible natural resources.

China would then have to make its pick based on whatever was left over. With the size of the Moon and the amount of resources that appear to be on or just below its surface, one hopes this would not be a difficult task.

But what if China decided that it did not want to defer to an American presence? According to the law as it stands, this would mean that after the United States had put in the legwork, landed on the Moon first, and begun the massive construction and infrastructure project that would be required to begin extracting and utilizing the surface of the Moon, China could then come in and begin using that cultivated landscape for its own purposes. Moreover, in at least a purely legal sense, it could also mean that there is absolutely nothing that the United States could do to stop them.[50] It is important to keep in mind here, that although facilities for human habitation on the surface of the moon, as well as equipment, would likely not take up much space, the area being mined for resources could be extensive.[51] And while any structures or equipment are protected under international treaty, the geographic areas of efforts on the moon are not.

While any structures or equipment are protected under international treaty, the geographic areas of efforts on the moon are not.

To illustrate, let us imagine a future rudimentary lunar mining location set up by a U.S. company. At its most basic, such an operation would likely consist of base of operations, a launch pad where rockets can land and take-off, and an area being mined. Under the current law, the base of operations and launch pads would remain the property of the U.S. company. But the area being mined, as well roads created between the structures or pathways into the mining area, would technically not be owned by anyone and in theory, China or other nations could use these roads if they wanted to.[52]

So would such a Chinese use of lunar land be acceptable? Even if it is land and that cannot be owned via international treaty? And what if the parts were reversed? If China spent billions of tax-dollars laying down the groundwork first, building roads and perhaps clearing rough terrain, could U.S. companies resist sweeping in and taking advantage of it? What if such companies could prove that their use would not interfere with Chinese uses? Should licensing agencies allow such a thing? What would such a regulatory setup look like? Should the United States be required to receive Chinese permission before doing so? What if a Chinese mining layout was purposely designed to encompass dozens or even hundreds of square kilometers? Would China acquiesce to American efforts to take advantage of their mining layouts? Could or should they have a right to veto a U.S. policy they disagree with? And if so, how is that different than claiming appropriation?

The questions don't stop there. It is far more likely that China and the United States would create camps at respectable distances from one another, thus avoiding the immediate conflict of having to answer the kinds of questions outlined above. Even assuming both sides avoid conflict for several years, resource utilization and huge profits will eventually become a reality and, like the number of objects in orbit, the population of persons and equipment on the Moon will blossom. Inevitably, paths will begin to cross, leading to greater potential for conflict. Will China (or the U.S.) adhere to international norms currently set in place that deny the right to claim territory? At what point might the needs of lunar markets induce leading space powers to repudiate the Outer Space Treaty's ban on appropriation of celestial territory?

PREDICTING CHINA'S PLANS FOR THE MOON: LAWFARE

One interesting theory that could help predict how China would act in such a situation comes from the South China Sea. International maritime law has long recognized the principle that open seas are open territory for nations to use freely.[53] China, however, does not see it this way. Rather than openly attack nations attempting to utilize the South China Sea though, China has stretched its definitions of the

law by claiming sovereign control of the area, creating islands, and even just exerting economic and social pressures on states to recognize its claims to the maritime geography.[54] Similar pressures have been used to claim continued ownership of Taiwan.[55] One such fascinating example has been China's use of propaganda maps and periodicals to show Taiwan as being a part of mainland China, or to demand that public and private entities only use maps that show the same.[56] With the growth rate of China, it makes sense for many international merchants to acquiesce to these seemingly small demands, but in so doing, they have permitted China to rely on these small acquiescences as historical proof of their claims to territory in international debates.

So with China on the Moon's surface and other interested parties beginning to encroach close by, what would stop China from claiming territory over an area that they had (1) landed on first; (2) cultivated into a useful location; and (3) spent billions of dollars on?[57] For now the only answer we have is the same one that China has ignored in the past—a combination of customary international law and treaty.

Moreover, on the other side of the coin, how would the United States feel as a nation if our country built up the lunar mining infrastructure first, only to have China come in and try to take advantage of the prepared surface area? Are we comfortable with funding the infrastructure necessary for China or other nations to come in and capitalize on our efforts? To many, the answer is no. There is nothing in the law, as it exists now that would allow the United States to play favorites. That is, we have no right to tell U.S. companies or entities that they could gather resources in a location but that Chinese or Iranian nationals could not.

There are theories which may be used to protect against such uncertainty. One potential protection comes from Article IX of the Outer Space Treaty. This article states that

> In the exploration and use of outer space, including the Moon and other celestial bodies, States Parties to the Treaty shall be guided by the principle of co-operation and mutual assistance and shall conduct all their activities in outer space, including the Moon and other celestial bodies, *with due regard* to the corresponding interests of all other States Parties to the Treaty.[58]

Due regard for the interests of other nations and their resources on the Moon would presumably include some sort of respect for the efforts of those nations to extract resources—perhaps including a responsibility to refrain from active harmful interference with those efforts. However, the extent of what due regard would require is far from clear. For example, due regard likely does not require States to agree not to extract resources that another nation had merely shown or declared an intention to extract.

NASA has recently negotiated the Artemis Accords, an effort to forge agreement among partner nations to respect non-exclusionary rights to non-interference on the surface of the Moon.

MOON AGREEMENT

Another option lies with principles outlined in what has become known as the Moon Agreement.[59] This 1979 agreement was originally designed to elaborate on the rules for use of the Moon and its resources that had been discussed in the Outer Space Treaty.[60] The controversy over this agreement, which has not been ratified by the U.S. or any other country that has landed an object on the Moon,[61] is that it defines the Moon and its natural resources as "the common heritage of mankind."[62] Such a provision, in theory, would easily solve the problem of contention over ownership or extraction rights because it eliminates such rights altogether. Some argue, however, that such rights are not completely destroyed, merely hampered by the need to share any resources extracted amongst all nations of the world, and have thus suggested that an international regime to determine such resource allocations should be created.[63] The United States disagrees strongly with this view, and

passed legislation to encourage the private commercial exploitation of space resources.[64], [65]

This sort of legal uncertainty could lead (and arguably has led) to a hesitancy to beginning this lunar resource renaissance. Therefore, NASA has recently negotiated the Artemis Accords, an effort to forge agreement among partner nations to respect non-exclusionary rights to non-interference on the surface of the Moon.[66] While the Accords are an important step towards creating a precedent of respect on the Moon, both China and Russia, our most likely program rivals, have specifically rejected them.[67] Also, noticeably missing from the Accords is any mechanism for enforcement. While this author looks forward to continued efforts by NASA and others, we are still left with the unanswered questions illustrated in this article.

The international community will have to solve a problem whose solution has been historically elusive: **how do you fairly allow nations to claim new territory in a way that does not lead to war?**

CONCLUSION

So whether the right answer is an international organization, an unpopular Moon treaty, or an untested legal principle, the fact remains that there is deep uncertainty as to how the world will face the coming legal controversy. This lack of clarity remains a troubling situation, and it is a legal problem of considerable magnitude. Will the Cold War-era Outer Space Treaty survive in the current geopolitical environment? And if not, then what? Does the success of the Artemis Accords point towards further developments in the near future? The international community will have to solve a problem whose solution has been historically elusive: how do you fairly allow nations to claim new territory in a way that does not lead to war? The rapid advancement of space technology in both the U.S. and China suggests that answers to these questions will become necessary sooner than previously thought.

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[29] *Id.*

[30] *Id.* at 21, *cf.* United States v. Causby, 328 U.S. 256 (1946) (holding that, although U.S. military aircraft were entitled to overfly respondents' farm, the overflight impaired use and enjoyment of the property and constituted a taking for which the government owed compensation).

[31] Convention Relating to the Regulation of Aerial Navigation, 13 October 1919, 11 L.N.T.S. 173 [hereinafter Paris Convention], *superseded by* Convention on International Civil Aviation, 7 December 1944, 61 Stat. 1180, 15 U.N.T.S. 295 [hereinafter Chicago Convention], https://www.icao.int/publications/Documents/7300_cons.pdf.

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[35] Quincy Wright, *Legal Aspects of the U-2 Incident*, 54 Am. J. Int'l L. 836 (1960).

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[43] Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, 27 January 1967, 610 U.N.T.S. 205, T.I.A.S. 6347, 18 U.S.T. 2410 (entered into force 10 October 1967) [hereinafter Outer Space Treaty or OST].

[44] *Id.* art. I (emphasis added).

[45] *Id.* art. II (emphasis added).

[46] *See also id.* art. IX, discussed *infra*.

[47] Loren Grush, *As Satellite Constellations Grow Larger,* NASA *is Worried about Orbital Debris*, Verge (28 September 2018), https://www.theverge.com/2018/9/28/17906158/nasa-spacex-oneweb-satellite-large-constellations-orbital-debris.

[48] As NASA and other contemporary scientific organizations around the world continue to study the Moon, recent reports suggest that in fact water may be far more common on the Moon's surface than previously thought. *See* Sean Potter, Felicia Chou & Allison Hawkes, NASA*'s SOFIA Discovers Water on Sunlit Surface of Moon*, NASA (26 October 2020, updated 4 January 2021), https://www.nasa.gov/press-release/nasa-s-sofia-discovers-water-on-sunlit-surface-of-moon/.

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[50] It should be noted, however, that this infrastructure would apply only to the actual landscape of the Moon, not to structures placed on the moon by the U.S. or other states. Both Articles VIII and XII of the Outer Space Treaty clearly dictate that objects in space remain the property of the launching states that placed them there. In contrast to this, regolith and ore prepared for extraction on the Moon may have no such protections.

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[52] It is important to note that this use could not lawfully interfere with the U.S. company's use. See Article IX, Outer Space Treaty; see also discussion *infra*.

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[62] Moon Agreement art. 11.

[63] *Id.* cl. 5, *cf.* Sarah Coffey, *Establishing a Legal Framework for Property Rights to Natural Resources in Outer Space*, 41 Case W. Res. J. Int'l L. 119 (2009).

[64] 51 U.S.C. §§ 51301-03 (2015).

[65] Interestingly, whether agreement with the contents of the Moon Agreement necessitates a stop to lunar resource utilization by individual nations has been called into question. While Australia is among the signatories of the Moon Treaty, it also recently signed the Artemis Accords. *See* United Nations Office for Outer Space Affairs, Status of International Agreements Relating to Activities in Outer Space as at 1 January 2020, 5, https://www.unoosa.org/documents/pdf/spacelaw/treatystatus/TreatiesStatus-2020E.pdf; Sean Potter & Cheryl Warner, NASA, *International Partners Advance Cooperation with Artemis Accords*, NASA (2020), https://www.nasa.gov/press-release/nasa-international-partners-advance-cooperation-with-first-signings-of-artemis-accords (last visited 21 November 2020).

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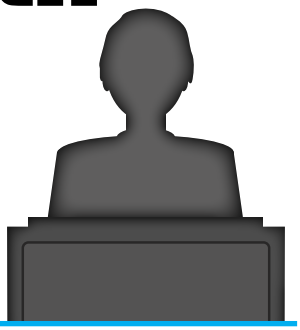
Making Your Case with Witness Testimony



BY LIEUTENANT COLONEL ANDREW R. NORTON
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Considering the decisive effect witness testimony has on the outcome of a trial, preparing witnesses for testimony and improving direct examination techniques will pay dividends for your case presentation.

"Your Honor, the government calls its first witness, Ms. Amanda Silver."

Anticipation builds and the courtroom falls silent as the bailiff leaves the courtroom to retrieve the witness. From the bench, the judge scans the courtroom and observes the lead trial counsel nervously jot a note at the podium, assistant trial counsel resists the urge to stare at the door (but glances frequently in that direction anyway), defense counsel tries to look bored as her client shifts uneasily in his chair, the members sit on the edge of their seat anxious to hear the witness' story. As the courtroom door swings open, every eye shifts towards the entrance and the witness steps inside.

The witness is in the spotlight and the lawyer is there to direct the testimony to synthesize the elements of the offense, address any potential defenses, and incorporate theme and theory in a compelling, understandable, and memorable way.[1] The intent of this article is to emphasize the importance of witness testimony and provide best practices for counsel to strengthen their case through preparation, purposeful witness interviews, and effective direct examinations.

PROFESSIONALISM AND PREPARATION

While accepting the Cecil B. DeMille award for outstanding contributions to the world of entertainment at the 2020 Golden Globe Awards, Tom Hanks relayed some advice he received as a young actor: "You have got to show up on time, and you have to know the text, and you have to have a head full of ideas."[2] While intended as advice for professionals in the entertainment industry, his advice applies equally to trial lawyers.

Showing up on time means being a professional and having respect for others.[3] Having time to "settle down" gives you the freedom to get comfortable, have a drink of water, use the restroom, and be calm and confident *before* trial begins.[4]

Knowing the text means being prepared for the work. New advocates may believe that successful litigators can roll into the courtroom and charm their way to victory. Confidence and charisma are characteristics of a good advocate, but the best lawyers know they cannot rely on talent or past success. Knowing the case inside and out and being prepared for any situation that may arise are part of the formula to achieve confidence and charisma in the courtroom. **Having a head full of ideas** is the result of being prepared and bringing insightful ideas to the case. This is an underappreciated part of trial preparation. Working a case early and often gives you a decided advantage — the ability to think about your case.

> Local counsel can increase their role on the trial team and improve their overall case presentation by embracing their role as "continuity" and developing creative and effective ways to present their case.

In complex courts-martial, local trial counsel and the area defense counsel often serve as the continuity on the case before circuit counsel arrives.[5] By knowing the case inside and out, you give yourself the opportunity to brainstorm and devise effective ways to present your case. A thorough understanding of the case is important for two reasons: (1) as continuity on the case, you can identify key insights that affect trial strategy based on your knowledge of the investigation, prior witness interviews, and procedural history of the case; and (2) taking time to think about the case can help you find innovative ways to present evidence (i.e., using PowerPoint to display text messages, using video editing software to present portions of an interview, etc.). Showing your value to circuit counsel gives them confidence to give you a bigger role in the trial. On the other hand, if you are not prepared, circuit counsel will undoubtedly shoulder the lion's share of the work thereby diverting their efforts from other aspects of trial preparation.

The many competing interests demanding counsel's time can make keeping up with witnesses a challenge. Knowing what a witness will say in their testimony is a basic principle of witness preparation, but experience has shown it is not always clear that counsel interviewed their witnesses before trial. One findings witness, upon being asked to point out the Accused, looked around the courtroom earnestly before proudly pointing to a case paralegal seated in the gallery and wearing service dress. In another instance, a government sentencing witness, after being painstakingly led through the foundation to provide a rehabilitative potential opinion, proceeded to enthusiastically endorse the Accused's ability to be restored to a useful and constructive member of society.[6] These examples show what can happen when one "assumes" what their witnesses are going to say without conducting a thorough interview. Here are a few things counsel can do to ensure they are prepared when their witness takes the stand.

DEVELOP A THEORY AND STRATEGY TO PRESENT YOUR CASE

Trial preparation should start with a thorough review of the evidence and development of a theory that drives all case presentation decisions. This process must necessarily be focused on the members and create a clear and consistent picture of what happened.[7] Once you have a case theory, you must assess how to present your case to the members so that it persuades them to decide in your favor. Remember, while you have been living with the case for several weeks or even months prior to trial, the members feel like they are "jumping onto a fast moving train in unfamiliar territory."[8] Therefore, it is important to present testimony to the members in a logical, straightforward, and easy to follow way. When thinking about witness sequence and how to organize each direct, consider storytelling mechanisms that will make it easier for members to understand and remember the testimony. Some common story structures to consider may be chronological, relational, *in medias res*[9], or utilizing the effects of primacy and recency by presenting the most important facts first and last. Stories are containers that organize and store facts for easier comprehension, so the better you tell the story, the better members will understand and remember your theory of the case.

REVIEW WITNESS STATEMENTS

Before conducting any witness interviews, make sure you are familiar with any statements related to the case made by the witness. The obvious place to start is witness statements but do not forget to review any other source of evidence such as photos, social media, text messages, or reports that contain prior statements or information relevant to the witness' testimony.

When reviewing the case file it may be tempting to only read the typed investigator summary of a witness interview …. However, actual witness statements often contain important details left out of summaries.

When reviewing the case file it may be tempting to only read the typed investigator summary of a witness interview instead of deciphering barely-legible scribbles on an Air Force IMT 1168.[10] However, the actual witness statements often contain important details left out of summaries. In addition to going directly to the source material, there are other ways you can be more efficient with your time. First, take notes as you review the prior statements and highlight important sections of the statement. However you organize for trial, having separate files (or electronic folders) for each witness makes sense so you can have everything related to a particular witness in one easily accessible place.[11] Another way to streamline trial preparation is to type out a verbatim copy of any difficult to read witness statement. Having a legible copy helps you to carefully review the prior statement while simultaneously creating a useful trial aid. Likewise, if the interview was videotaped, typing out a transcript of the interview along with notes and time-hacks will save time, for you and circuit counsel.

PURPOSEFUL WITNESS INTERVIEWS

Plan. Conducting pretrial interviews is not as easy as arranging a time and asking questions. When investigators conduct interviews, they are often starting from scratch and mining for relevant information. By the time a trial lawyer is conducting interviews the issues are narrowed. Therefore, counsel should prepare by creating an interview plan or outline to ensure all important topics are covered. Here are some general areas that should be covered in a pretrial interview (depending on the type of witness).

Location. To the extent possible, it is a good idea to show witnesses the courtroom and walk through the process of testifying. For this reason, trial counsel should conduct most interviews at the legal office so the witness can see the courtroom. For defense counsel, while less convenient, it is worthwhile to coordinate access to the courtroom for a visit. Even if a courtroom visit is not possible, a thorough explanation of the entire process from when to arrive and where to wait, up through the excusal instructions and exiting the courtroom is helpful. Even criminal investigators benefit from a walk-through. Air Force Office of Special Investigations criminal investigation agents and Security Forces investigators are often new and nervousness may affect their credibility as a witness. Preparing the witness so they know what to expect in the courtroom can make a witness feel more comfortable and lead to better testimony. For instance, investigators may have a tendency to become defensive when challenged on cross examination about the quality of their investigation. Giving the witness an idea of what to expect so they are not caught off guard and reminding the witness to remain composed can significantly improve the witness' experience – and their credibility.

Participants. A third-party should be present for all witness interviews.[12] Failing to have a "witness" present to observe the interview and take notes could lead to forgoing the ability to impeach the witness if necessary.[13] Ideally you would have a case paralegal or defense paralegal who is familiar with the case taking meticulous notes. A best practice is also to type up the notes and send to the attorney immediately afterward to keep in the witness file.

Nature of Testimony. Before conducting the interview, counsel should have a good idea of the expected testimony. Drafting the examination outline prior to the interview helps to nail down the areas that you expect to cover during testimony. Communicating to the witness what is expected from their testimony without coaching the witness is not that difficult. Explain what you want them to testify about and then ask related questions so you are familiar with how they respond. This practice may vary based on the type of witness or circumstances, but the basic principles are these: (1) the witness should be comfortable with the questions you will be asking in court; and (2) you should be comfortable knowing what answers to expect.

Prior Statements. It is always a good idea to have the witness review relevant prior statements before their interview and testimony. This pre-emptive refreshing recollection will ensure information is fresh in their mind and can help identify potential discrepancies. If the witness remembers something differently, it is better to know about it in advance so you understand the nature of the discrepancy and how to address it during testimony. This can be particularly important for investigators who completed their investigation several months or even a year before trial. For example, if counsel plan to ask when an investigator took a particular investigative step it may be helpful to review something to identify the exact date they contacted that witness (i.e., phone record, Report of Investigation, etc.). In one trial, a local law enforcement officer testified about their role in an investigation. What should have been a relatively simple line of questioning about how the investigation progressed, took three times longer as counsel repeatedly had to refresh the witness' recollection on minor details that were not in dispute. Simply ensuring the officer was prepared and had reviewed the appropriate documents would have saved time and enhanced her credibility. Witnesses do get nervous and may forget something on the stand; it is a good practice to be prepared for this eventuality by explaining the process for refreshing recollection to the witness in a pretrial interview.[14]

Exhibits. Demonstratives or actual evidence can help make witness testimony more memorable and persuasive as learning and retention are improved when information is presented both aurally and visually.[15] If you expect to use exhibits with a witness, take the time to practice during the interview. The witness should be familiar with any documents you intend to use (except perhaps when counsel is using the exhibit to impeach or surprise a witness on cross examination).

EFFECTIVE DIRECT EXAMINATIONS

Trials are won based on the strength of the evidence presented. Being an effective advocate means presenting that evidence in a way that members will "understand, accept, and remember."[16] Here are a few suggested ways to design and conduct effective direct examinations to present a stronger case.

> Being an effective advocate means presenting evidence in such a way that members will "understand, accept, and remember."

Control and Confidence in the Courtroom. Good advocates realize the members are always watching and are more likely to place their confidence in an advocate if they establish competence in how they perform legal tasks.[17] One way to gain or lose such confidence is when a witness is called to testify. Prior to a witness entering the courtroom, nearly every time, there is a short colloquy between the judge and counsel.

> **Judge:** Counsel, do you have any evidence to present?
>
> **Trial counsel:** Yes, your honor, the government calls Ms. Jane Doe.
>
> **Judge:** Bailiff, please retrieve Ms. Doe from the witness room.

Thus, it is *never* a surprise when a witness is about to enter the courtroom. Yet anecdotal experience reflects it is a common occurrence for the witness to enter the courtroom and

receive no immediate direction. Failure to direct a witness in the courtroom is more common when a witness is called by the defense. On one occasion, a general officer was called to testify in the defense case in chief. Appropriately, counsel alerted the court in advance to the witness' rank and all parties agreed the courtroom should not be called to attention for the general officer.[18] However, despite the anticipation leading up to the witness being called, when he entered the courtroom, no one was prepared to direct the general to the witness stand. He entered the courtroom and looked around uncomfortably before being directed by the judge. By virtue of the procedural guide, trial counsel have a golden opportunity to establish control of the courtroom by *simply being ready*.

By virtue of the procedural guide, trial counsel have a golden opportunity to establish control of the courtroom by simply being ready.

Confidently, courteously, and efficiently directing witnesses to the witness stand and administering the oath is an easy way to show the members (and the judge) you know your way around a courtroom. Once the witness is called, counsel should meet the witness at the entrance to the well, open the gate to enter the well, and clearly and confidently direct them to the witness stand before administering the oath loud enough for all to hear. Counsel should memorize the oath and be prepared to ask the identifying and introductory questions (full name, rank, and unit, if military, or full name and address, if civilian).[19]

Pace and Volume. Once the witness takes the stand, the effective advocate knows the witness should be at center stage while the advocate fades into the background. Counsel should conduct the conversation like a symphony, guiding the tone, volume, and pace. The mechanics of testifying should be worked out in advance by explaining to the witness where to direct their answers, to speak loudly so members can hear, and to speak at a reasonable pace. Even the most seasoned witness will likely fall back into their ordinary speaking habits, so it is incumbent on counsel to remind the witness with subtle conversational signals. For example, if counsel wants the witness to direct their answer to the members, they can do so by making eye contact with the witness and then looking over to direct their attention to the members while using a tagline such as "*can you tell the members …*" Similarly, if the witness is speaking too softly, counsel can cue them to speak up simply by raising their voice slightly to remind the witness to keep their voice up without interrupting the flow of the direct. During emotional testimony a witness' voice may naturally soften, but no matter how emotional, the testimony will be meaningless in the deliberation room if members are unable to hear and understand the witness.

Finally, members are hearing the testimony for the first time and they are processing a lot of information at once. Witness testimony is the feature presentation so if it looks like you or your witness are rushing through their testimony, the members may conclude the testimony is not that important. To avoid this disastrous outcome, counsel should be aware of their own pace and conduct the examination at a measured pace so the listener can digest the testimony. Controlling the pace also allows you to slow down the action so important facts do not get lost.[20] This can be accomplished by breaking the testimony into small, easy to comprehend segments.[21]

Headlines. Another effective tool to present witness testimony in a way members are more likely to understand and remember is to use headlines. When a witness first takes the stand, the members likely do not know what to expect from the witness. Headlines (also referred to as tags or signposts) orient the members to the general nature and purpose of the testimony. After asking the witness to introduce themselves, an advocate can tell the members, and the witness, what to expect from the testimony. For example, "*Airman Jones, I would like to talk to about your relationship with Mr. Crane and where you were on October 31st. But first I want to ask you a few more questions about yourself.*" Each time you move to a new topic, include a transition to serve as a signpost for the change in topic: "*thank you Airman Jones, now I'm going to ask you about your relationship with Mr. Crane.*"

Headlines serve to orient the audience, they can also direct the witness to the topic of conversation and keep a wandering witness on track.

Headlines have several other advantages for an advocate. First, they can help control a witness on direct examination. Just like headlines serve to orient the audience, they can also direct the witness to the topic of conversation and keep a wandering witness on track.[22] For instance, "*Airman Jones, we will talk about that in a moment, but first I have a few more questions about Mr. Crane.*" Second, headlines create an easy way to organize a witness examination and keep it conversational in tone. Headlining a new topic with "*now I'd like to ask about your relationship with Mr. Crane*," will inform the members what they are about to hear from the witness *and* sets up the advocate to follow up that headline with a series of short, easy to follow questions such as: "*how do you know Mr. Crane?*," "*when did you first meet?*," "*where was that?*," "*what was his demeanor like?*," "*how could you tell he was upset?*," "*do you know why was he upset?*" These questions do not need to be scripted out and can be as broad or narrow as necessary to elicit the appropriate information on that topic. As you can see in the example above, you can draw out the information you want by mixing up *who*, *what*, *when*, *where*, *why*, and *how* questions. This also emphasizes the importance of listening to the witness so the direct becomes a conversation in which the advocate asks natural follow up questions based on the witness' responses.

Listening. Just like an engaging conversation, a good direct examination requires listening. A good conversationalist makes the speaker feel comfortable by being an active listener and showing interest in the speaker. If counsel do not appear engaged in what their witness is saying, why should the members be interested? Clinging to a scripted list of questions can lead to a boring and stilted examination. If you are focused on your next question rather than listening to the witness, members will detect disinterest.

One method of preparing for a direct examination is to have a list of the facts you need to elicit from the witness and an outline to guide the conversation with prepared headlines and transitions. This gives the examiner a cheat sheet to direct the story while allowing enough flexibility to create an organic conversation. Another benefit of good listening is that you are engaged in the conversation as a participant and proxy for the members. As this is the first time the members are hearing the testimony, you should play your role as if it is the first time you are hearing the answers as well. Show interest and ask follow-up questions as appropriate to clarify and explain answers when appropriate. Similarly, the witness may leave something out or hurry through a key part of their testimony. By listening attentively, an advocate can use techniques like looping, incorporating a particularly important answer into the next question to highlight the answer and control the witness.[23]

Evidence and Demonstrative Exhibits. It is challenging to present testimony so members will understand and remember it. To compound the challenge, members are operating at two disadvantages: (1) they have never heard the testimony before; and (2) they are receiving it aurally.[24] Studies have shown that learning and retention are improved significantly when information is conveyed visually.[25] Using exhibits during testimony is a good way to corroborate witness testimony and gives you a chance to highlight important testimony through the use of an exhibit. Since a witness' credibility is always at issue, why not use readily available and admissible graphic information such as photographs, a map, or diagram to corroborate the witness' testimony? In addition to supporting the testimony it also creates a mental picture for the members to visualize when they listen to the story, thus effectively giving the members an opportunity to "relive reality from your side's perspective."[26] Exhibits can be used during testimony to break up lengthy testimony by adding a visual component or they can be used at the conclusion of dramatic testimony to summarize and highlight the important facts brought out in the testimony.[27]

Demonstrative exhibits can be almost anything, provided counsel is able to lay the proper foundation.[28] If alcohol consumption is at issue, it may be useful to have a demonstrative of the cups being used on the night of the offense. Instead of saying, "everyone was drinking out of red plastic cups …" counsel could lay the foundation for a photograph of the cups or an actual cup which is identical to those used on the night in question. Given the technology available in most courtrooms, counsel are only limited by their own creativity in presenting admissible videos, recordings, photos, text messages, documents, or other exhibits to complement witness testimony and make the presentation more captivating. Counsel should be aware, however, that using demonstratives and exhibits requires preparation and practice. Particularly with the use of technology in the courtroom, be forewarned — Murphy's Rule applies — anything that can go wrong, will go wrong. This is not meant to deter anyone from using technology, but counsel should prepare in advance, practice the presentation … and have a back-up plan.

When using technology in the courtroom, counsel should prepare in advance, practice the presentation … and have a back-up plan.

CASES RISE AND FALL ON WITNESS TESTIMONY

Witness testimony forms the backbone of every litigated trial. Some trial lawyers would like to think eloquent openings and closings stir the factfinder to decide in their favor, but ultimately, it is witness testimony (and the credibility of that testimony) that determines the outcome of a case. The drama of a courtroom plays out through witness testimony and cases are won and lost on the content and believability of each witness' testimony. Considering the decisive effect witness testimony has on the outcome of a trial, preparing witnesses for testimony and improving direct examination techniques will pay dividends for your case presentation.

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ENDNOTES

[1] Thomas A. Mauet, Trial Techniques 97 (Aspen Publishers, 7th ed. 2007).

[2] Justin Bariso, *Hidden in Tom Hanks's Emotional Golden Globes Speech was the Best Career Advice You'll Hear Today. Here it is in One Sentence*, Inc. (6 January 2020), https://www.inc.com/justin-bariso/hidden-in-tom-hankss-emotional-golden-globes-speech-was-best-career-advice-youll-hear-today-here-it-is-in-1-sentence.html, (last visited 4 February 2021).

[3] 5 Roger M. Goldman, Mark J. Kadish & Rhonda A. Brofman, Criminal Law Advocacy § 80.05 (Matthew Bender & Co., 2020). The public and court members have an expectation that JAG attorneys are knowledgeable and professional at all times. Proving them wrong by showing up late or unprepared is at your peril. "The advocate should always conduct himself in such a way that the jury will conclude that he is a true professional in his field."

[4] Bariso, *supra* note 2.

[5] Circuit trial and circuit defense counsel are senior Air Force litigators competitively selected to serve in the role of prosecutor and defense counsel on the Air Force's most serious and complex cases. They have ordinarily served assignments as both prosecutor and defense counsel prior to selection as circuit counsel.

[6] *See* Rules for Courts-Martial (R.C.M.) 1001(b)(5). Devoting the time to develop a clear understanding of rehabilitative potential evidence, a topic which comes up repeatedly in courts-martial sentencing proceedings, is a good return on investment.

[7] Mauet, *supra* note 1, at 25.

[8] Lt Col Grant L. Kratz, *Guilty Plea/Member Sentencing Cases: The Only Thing that Should Be Relaxed is the Rules*, 37 The Reporter, 6, 7 (2010).

[9] *In medias res*, a Latin phrase meaning to start a narrative "in the middle of things," is a classic storytelling technique used in Homer's *Iliad* and *Odyssey*, Shakespeare's *Hamlet*, as well as modern classics like *Star Wars* and the *Godfather* trilogy.

[10] An Air Force Form 1168, Statement of Suspect/Witness/Complainant, is a commonly used form in Air Force practice by investigators to obtain written statements from witnesses.

[11] Remember the 7-second rule. You should be able to find anything you need in under 7 seconds while in trial.

[12] *See* Air Force Standards for Criminal Justice, Rules 4-4.3(d); 3-3.1(g).

[13] *Id.*

[14] Inexperienced counsel frequently confuse the process for refreshing recollection (I don't remember what you want me to say) with impeachment (commit, credit, confront). This is another area where counsel would get a good return on investment to understand the two and be able to lay the correct foundation at the drop of a hat. As a general matter, with a friendly witness on direct examination, you are trying to help the witness remember. So generally, on direct examination, you want to refresh the witness's memory. With an unfriendly witness on cross examination, you are not trying to help; you are trying to land a blow to the witness' credibility. So generally, on cross-examination, you want to impeach.

[15] Mauet, *supra* note 1, at 169.

[16] *Id.* at 97.

[17] Goldman et al., *supra* note 4, at § 80.05.

[18] *See* Uniform Rules of Practice Before Air Force Courts-Martial, Rule 6.1 (1 January 2021).

[19] *See* R.C.M. 913(c)(2), discussion.

[20] Mauet, *supra* note 1, at 107.

[21] *Id.*

[22] Jim McElhaney, *Direct Answers: Examining a Witness Is Telling a Story — So Make It a Good One*, ABA Journal, 1 May, 2012, https://www.abajournal.com/magazine/article/direct_answers_examining_a_witness_is_telling_a_storyso_make_it_a_good_one, (last visited 2 November 2020).

[23] Mauet, *supra* note 1, at 113. Looping incorporates the witness' last answer into the phrasing of the next question, both highlighting the fact and using it to frame the next question.

[24] *Id.* at 98. Attention spans drop significantly after 15 – 20 minutes.

[25] *Id.* at 169.

[26] *Id.* at 97.

[27] *Id.* at 115.

[28] A good resource for foundational requirements in military practice can be found in Military Evidentiary Foundations authored by David A. Schlueter, Stephen A. Salzburg, Lee D. Schinasi & Edward J. Imwinkelried, (Matthew Bender & Co., 6th ed. 2016).

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Government Discovery Obligations in Courts-Martial Involving Confidential Informants

BY MAJOR ROBERT W. MILLER

This article discusses the delicate balance between law enforcement's interests in protecting the identity of CIs and a military accused's Constitutional and Statutory rights where "Congress intended more generous discovery to be available for military accused."

"Once an informant is known the drug traffickers are quick to retaliate. Dead men tell no tales. The old penalty of tongue removal … has been found obsolete."[1]

INTRODUCTION

The Supreme Court of the United States has long recognized that confidential informants (CIs) play a "vital part of society's defensive arsenal" and "protecting [their] identity rests upon that belief."[2] The use of CIs in criminal investigations is an important and effective tactic that allows law enforcement to ferret out crimes in some of the darkest corners of society. After all, those who conspire to commit crimes generally do so in the presence of trusted confidants and not openly in public — let alone in the presence of law enforcement. Nevertheless, in *Roviaro v. United States*, the Supreme Court recognized that the public interest in protecting an informant's identity must be balanced against an accused's right to prepare his defense.[3] This article discusses the delicate balance between law enforcement's interests in protecting the identity of CIs and a military accused's Constitutional and Statutory rights where "Congress intended more generous discovery to be available for military accused."[4]

In the military context, CIs are especially useful in cases involving the use, possession, and distribution of controlled substances. Military law enforcement also uses CIs in cases involving fraud, espionage, terrorism, and other offenses involving multiple criminal actors.[5] It is important to briefly distinguish between undercover agents (UAs) and CIs in the military environment. UAs are trained law enforcement personnel who conduct covert operations.[6] For example, military law enforcement agencies often use UAs in cases involving internet crimes against children (ICAC) in which

UAs assume the identity of a minor while communicating online. On the other hand, CIs are non-law enforcement personnel, typically active duty service members, who do not receive formal training in conducting covert operations. Unlike UAs who work for a law enforcement agency, CIs sign a statement of agreement to act at the direction of law enforcement on its behalf.[7] This article focuses on the Government's discovery obligations in military courts-martial specifically involving CIs.

OSI CONFIDENTIAL INFORMANT PROGRAM

The Office of Special Investigations (OSI) is a federal law enforcement agency charged with investigating felony-level offenses committed by Air Force members. Much like other law enforcement agencies, OSI operates a CI program. In accordance with Air Force Instruction (AFI) 71-101, Volume 1, *Criminal Investigations Program*, dated 1 July 2019, paragraph 1.4.4., OSI field units must "operate a confidential informant program consisting of people who confidentially provide vital information for initiating or resolving criminal or counterintelligence investigations." As part of the CI program, OSI field units recruit active duty airmen and vet them for potential use as informants. Prior to 2012, OSI used the term "confidential source" rather than "confidential informant."[8] However, for all practical purposes, the two terms are synonymous and often times used interchangeably.

> The CI recruiting process generally includes an initial interview with OSI agents and an extensive vetting process.

The CI recruiting process generally includes an initial interview with OSI agents and an extensive vetting process. If selected to serve as an informant, the member signs a declaration of agreement prior to receiving assignments as an informant. Once entered into the program, OSI engages in a series of source meets, or follow-up meetings, with each CI throughout the informant's participation in the CI program. OSI uses source meets to collect information on active duty members suspected of engaging in criminal behavior. OSI creates a dossier file for each informant, which typically includes a running catalogue of each source meet, information received from the informant, assignments given by OSI agents to the informant, and training received by the informant.

> OSI's CI program is incredibly valuable to Air Force commanders at all levels because it facilitates readiness and national security.

OSI's CI program is incredibly valuable to Air Force commanders at all levels because it facilitates readiness and national security. Like any law enforcement agency, OSI has an interest in protecting the identities and activities of CIs to ensure their safety and to maintain operational security. Unnecessary disclosure of a CI's identity could potentially result in physical harm to the informant or their family and have a significant chilling effect on OSI's ability to recruit informants. Additionally, disclosure of a CI's identity or activity could impact other pending OSI investigations involving the informant.

TRIAL COUNSEL DISCOVERY OBLIGATIONS

While Government discovery obligations are triggered by service of charges on the accused,[9] trial counsel are "strongly encouraged to provide discovery to Defense Counsel as soon as practicable."[10] Defense initial discovery requests often include language seeking the following: (1) the identity of any CIs involved in the investigation; (2) information or communications provided by the CI to law enforcement; and (3) any documentary evidence, such as agent notes and/or dossier file related to the CI. This article analyzes the Government's discovery obligations for cases in which the Government intends to call a CI to testify in its case-in-chief, as well as cases in which the Government does not intend to call a CI to testify as a Government witness. Additionally,

for reasons that will be discussed further below, even if not explicitly included in a Defense discovery request, the Government must also comply with its discovery obligations under *Brady v. Maryland*, 373 U.S. 83 (1963). In particular, this includes disclosure of the fact that a witness called to testify in the Government's case-in-chief is either currently serving or previously served as a CI, even if done in a capacity unrelated to the case at hand.

Confidential Informant Testifies as Government Witness

For this analysis, as is often the case, OSI recruits a CI, tasks the CI to collect information on the accused's use of a controlled substance, and then obtains information about the accused's use of a controlled substance at an off-base party. Then, at trial, the Government calls the CI as a witness in its case-in-chief to prosecute the accused for use of a controlled substance. As a starting point, Military Rule of Evidence (Mil. R. Evid.) 507(a) provides that "the United States … has a privilege to refuse to disclose the identity of an informant."[11] However, in the above scenario in which the CI appears as a witness for the prosecution, Mil. R. Evid. 507(d)(1)(B) explicitly requires disclosure of the CI's identity.[12] Assuming Defense submits a discovery request seeking such information, the OSI dossier file related to the testifying CI and any agent notes related to information provided by the CI is almost always discoverable under Rule for Courts-Martial (R.C.M.) 701(a)(2). This *Rule* requires the Government to provide items relevant to Defense preparation. In order to properly prepare a defense, the accused must be permitted to inspect the documents used to build the Government's case. The dossier file and agent notes allow Defense to explore a potential entrapment defense, as well as properly equip Defense with ammunition on cross-examination to attack the CI's credibility.[13]

Confidential Informant Does Not Testify as Government Witness

While the *Rules* seem fairly straightforward when the CI is expected to testify, the analysis becomes more convoluted when OSI uses a CI during an investigation into the accused and the Government does not intend to call the CI to testify in its case-in-chief. For example, taking the above scenario, if the CI provides information to OSI about the accused's use of a controlled substance at an off-base party, then OSI interviews other attendees who also observed the accused's use, the Government may decide to call those other party attendees to testify rather than the CI. In such a scenario, OSI may wish to conceal the identity of the CI and any related dossier file in order to continue covert operations with the CI. Assuming Defense is unaware of the CI's identity referenced in the OSI report of investigation, Defense may request the identity of the CI and dossier files related to the CI to further investigate, prepare its defense, and to potentially call the CI as their own witness at trial.

> Trial counsel should coordinate the Defense request for release of any CI's identity and related dossier file with the local OSI detachment to determine what, if anything, will be provided.

Like any discovery request for documents within the government's possession, the analysis begins with R.C.M. 701. In accordance with R.C.M. 701(a)(2)(A)(i), Defense may inspect documents within the possession, custody, or control of military authorities that are relevant to Defense's preparation and are not otherwise protected from disclosure by a privilege. Trial counsel should coordinate the Defense request for release of any CI's identity and related dossier file with the local OSI detachment to determine what, if anything, will be provided. There are, in fact, limited situations in which the CI's identities and related dossier files are not subject to discovery. For instance, perhaps the CI was only peripherally involved as a "tipster" and the relevance of the related dossier file is tenuous.

In this situation, trial counsel should work closely with the local OSI detachment before refusing to provide the requested discovery. As a practical consideration, OSI detachments should understand that failure to comply with discovery obligations could potentially result in the dismissal of charges by the military judge. After coordina-

tion with OSI, trial counsel should respond to the Defense discovery request acknowledging the existence of the requested information (e.g., that confidential informant "John Doe" does exist and that OSI maintains a dossier file for the informant). In appropriate situations, trial counsel should inform Defense that it is invoking privilege for the CI's identity under Mil. R. Evid. 507 and that it does not believe the dossier file or any agent notes related to the CI are discoverable. This is perhaps the most important step for trial counsel. Trial counsel often times mistakenly believe that a decision not to release the CI's identity and related dossier file require a response along the lines of "none exist" or that the Government is "unaware of any such identity." Instead, the Government must expressly acknowledge what exists and indicate that it is denying Defense's request for that particular information.

IN CAMERA REVIEW AND PROTECTIVE ORDERS

Once trial counsel responds to Defense's discovery request, Defense must then decide whether to file a motion to compel the CI's identity and related dossier file. In accordance with R.C.M. 701(g)(2), "upon motion by a party, the military judge may review any materials in camera." Therefore, if Defense files a motion to compel, trial counsel should specifically request that the military judge conduct an in camera review of the disputed discovery materials. Trial counsel should coordinate with OSI to provide the military judge unredacted copies of the materials. Additionally, the OSI case agent should be prepared to testify in support of the Government's opposition to the release of the information and articulate to the military judge the rationale in opposing production of the requested materials.

R.C.M. 701(g)(2) further provides that "upon a sufficient showing, the military judge may at any time order that the discovery or inspection be denied, restricted, or deferred, or make such other order as is appropriate." Accordingly, trial counsel should request that the military judge issue a protective order to the Defense over any materials ordered released by the military judge. The protective order should specify that Defense counsel is not to release the information to anyone outside the Defense team[14] and to return all copies of documents provided to trial counsel at the conclusion of trial.

Although protecting sensitive information is important for effective law enforcement, there is no such "tradecraft privilege" permitted by the Military Rules of Evidence or case law.

DISPELLING MYTHS ABOUT OSI TRADECRAFT

In deciding to withhold certain information, OSI agents often invoke the term "tradecraft." Although protecting sensitive information is important for effective law enforcement, there is no such "tradecraft privilege" permitted by the Military Rules of Evidence or case law. Mil. R. Evid. 505 provides a privilege for classified information if disclosure would be detrimental to national security. Mil. R. Evid. 506 provides a privilege for non-classified Government information if disclosure would be detrimental to the public interest. Mil. R. Evid. 506(b) defines the scope of "Government information" as official communication and documents and other information within the custody or control of the Federal Government. Additionally, Mil. R. Evid. 506(b) expressly states that "this rule does not apply to the identity of an informant (Mil. R. Evid. 507)." While certain OSI practices might theoretically require trial counsel to invoke privilege under Mil. R. Evid. 506, it is unlikely that anything related to OSI's CI program would qualify under this privilege.

COMPARISON TO CIVILIAN JURISDICTIONS

In *Roviaro v. United States*, the Supreme Court held that although the Government has a privilege to withhold an informant's identity in certain instances, application of the privilege is limited by fundamental requirements of fairness.[15] The Court noted, "Where the disclosure of an informer's identity, or of the contents of his communication, is relevant and helpful to the defense of an accused, or is

essential to a fair determination of a cause, the privilege must give way."[16] Acknowledging the importance in preserving anonymity, the Court established a balancing test between "the public interest in protecting flow of information to law enforcement against the individual's right to prepare [a] defense."[17] In evaluating each case, the Court must consider the crime charged, the possible defenses, the possible significance of the informer's testimony, and other relevant factors.[18] In determining whether to disclose the identity of an informant, virtually every federal circuit employs a similar balancing test, which essentially boils down to whether the informant is merely a "tipster" versus an actual participant or spectator to the crime.[19]

The Government must also disclose whether a particular witness has ever served as a CI, either in the past or in the present, even if the witness served as a CI in a capacity unrelated to the case against the accused.

GOVERNMENT WITNESS SERVED AS CONFIDENTIAL INFORMANT IN UNRELATED MATTER

The above analysis assumes that the investigation into the accused involves the use of a CI. However, the Government must also disclose whether a particular witness has ever served as a CI, either in the past or in the present, even if the witness served as a CI in a capacity unrelated to the case against the accused. The rationale for disclosure of this information is that an individual who serves as a CI may want — or expect — something in return, or may have a bias in favor of the Government. Take, for example, a scenario in which a CI is tasked by OSI to collect information on a particular member's use of a controlled substance, but then, in a completely unrelated manner, becomes a witness to an assault at an off-base party. If the Government calls the witness to testify in its case-in-chief to the assault consummated by a battery, the fact that the witness served as a CI is nevertheless discoverable under R.C.M. 701(a)(6), which partially incorporates the holding in *Brady v. Maryland*, 373 U.S. 83 (1963).[20] To some extent, as indicated below, R.C.M. 701(a)(6) is different from *Brady v. Maryland* in that R.C.M. 701(a)(6) does not include evidence "*material* to the accused's guilt or punishment," but *Brady* does. (Emphasis added).

R.C.M. 701(a)(6) provides

> trial counsel shall, as soon as practicable, disclose to the Defense the existence of evidence known to trial counsel which reasonably tends to (A) negate the guilt of the accused of an offense charged; (B) reduce the degree of guilt of the accused of an offense charged; (C) reduce the punishment; or (D) adversely affect the credibility of any prosecution witness or evidence.

The Government violates an accused's right to due process under *Brady* if it withholds evidence that is favorable to the Defense and material to the accused's guilt or punishment.[21] Additionally, evidence that could be used at trial to impeach witnesses is subject to discovery.[22] Finally, the *Discussion* to R.C.M. 701(a)(6) states,

> In accordance with R.C.M. 701(d) … trial counsel should exercise due diligence and good faith in learning about any evidence favorable to the defense known to others acting on the Government's behalf in the case, including military, other governmental, and civilian law enforcement authorities.[23]

Therefore, it is incumbent upon trial counsel to coordinate with OSI to determine whether any Government witness ever served as a CI.

UNITED STATES V. CLAXTON

In *United States v. Claxton*, the Air Force Court of Criminal Appeals (AFCCA) addressed the issue of whether the Government's failure to disclose the fact that one of its witnesses was a confidential informant for OSI pursuant to *Brady* was harmless beyond a reasonable doubt.[24] Appellant, a cadet at the United States Air Force Academy, was convicted of sexual offenses involving two different

women on two separate occasions.[25] Appellant was convicted of engaging in wrongful sexual contact with Cadet MI stemming from a March 2011 incident that occurred in his dormitory room.[26] Cadet Eric Thomas was present in the Appellant's dormitory room when the wrongful sexual contact occurred.[27] Appellant was also convicted of assault consummated by a battery and attempted abusive sexual contact on Ms. SW stemming from a November 2011 incident that occurred in Cadet Thomas' dormitory room.[28] Finally, Appellant was convicted of assault consummated by a battery for a physical altercation that occurred the same night as the November 2011 incident between the Appellant, Cadet Thomas, and another cadet in the hallway outside Cadet Thomas' dormitory room.[29]

In late 2011 and throughout the first half of 2012, including during the time period of Appellant's trial, Cadet Thomas actively worked as a CI for OSI in several unrelated investigations.[30] In its discovery request, Defense requested, amongst other things, "any information received from an informant."[31] The Government did not disclose to Defense any information about Cadet Thomas' status or activities as a CI prior to Appellant's trial in June 2012.[32] At trial, the Government called Cadet Thomas to testify about the charged sexual offenses and assault consummated by a battery. On appeal, AFCCA found that the Government should have disclosed to Defense the fact that Cadet Thomas was an informant and should have provided the dossier file, which included statements about Cadet Thomas' motivation to serve as a confidential informant for OSI.[33] AFCCA held that by failing to provide Defense information about the CI status of Cadet Thomas and another cadet, the Government precluded Defense from impeaching their credibility and motive.[34] However, AFCCA found that the failure to disclose the cadets' CI status and related dossier file was harmless beyond a reasonable doubt, since testimony by the two cadets was relatively unimportant in relation to Appellant's own admissions and was cumulative of other testimony and evidence in the case.[35]

In reviewing AFCCA's decision, the Court of Appeals for the Armed Forces (CAAF) agreed that the Government committed a *Brady* violation in failing to disclose the two cadets' status as CIs with OSI, but affirmed the lower Court's decision that the error was harmless beyond a reasonable doubt.[36] Nevertheless, CAAF characterized the Government's failure to disclose this information as "gross governmental misconduct."[37] In his opinion, Judge Stucky noted that it is unclear from the record whether trial counsel were aware of Cadet Thomas' status as a CI, but it was their duty to learn of any favorable evidence known to others acting on the Government's behalf and to disclose it to Defense.[38] Judge Stucky further noted that there is no evidence in the record that trial counsel made any attempt to inquire as to the status of Government witnesses as required by the Defense discovery request.[39]

As a matter of practice, trial counsel should coordinate with OSI in every case to confirm whether any CIs participated in the investigation.

CONCLUSION

As a matter of practice, trial counsel should coordinate with OSI in every case to confirm whether any CIs participated in the investigation. Trial counsel should also coordinate their witness list with OSI to confirm none of the Government's witnesses are currently serving or previously served as CIs. As mentioned above, even if not expressly requested by Defense, failure to disclose this information could potentially result in a *Brady* violation causing reversible error. The *Discussion* to R.C.M. 701 provides that "[d]iscovery in the military justice system is intended to eliminate pretrial gamesmanship, minimize pretrial litigation, and reduce the potential for surprise and delay at trial." After coordination with OSI, trial counsel should provide timely disclosures to Defense to eliminate the need for unnecessary litigation and to protect the accused's Constitutional right to due process. While the old penalty of tongue removal may be obsolete, state bar removal is not.

Edited by Major Glen L. Minto and Captain Olivia B. Hoff
Layout by Thomasa Huffstutler

ABOUT THE AUTHOR

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ENDNOTES

[1] Roviaro v. United States, 353 U.S. 53, 67 (1957) (Clark, J., dissenting).

[2] McCray v. Illinois, 386 U.S. 300, 307 (1967).

[3] *See* Roviaro, 353 U.S. at 62.

[4] United States v. Eshalomi, 23 M.J. 12, 24 (C.M.A. 1986); *see also* United States v. Enloe, 35 C.M.R. 228, 230 (C.M.A. 1965) (congressional intent to provide military accused with broader right of discovery than civilian defendants); United States v. Santos, 59 M.J. 317, 321 (C.A.A.F. 2004) ("The military justice system provides for broader discovery than required by practice in federal civilian criminal trials.").

[5] *See* Office of Special Investigations, manual 71-118, Vol. 1, Criminal Investigative Source Management (14 March 2019) [hereinafter OSI].

[6] *See* OSI *supra* note 5, Vol. 3, Undercover Operations (10 June 2019).

[7] *See* OSI *supra* note 5.

[8] *See* OSI *supra* note 5, Vol. 1, Confidential Source Management (3 October 2002).

[9] *See* Manual for Courts-Martial, United States, R.C.M. 701(a) (2019).

[10] *See* U.S. Dep't. of Air Force, Instr. 51-201, Administration of Military Justice, para. 5.12 (5 January 2021).

[11] Significantly, Mil. R. Evid. 507(a) only extends a privilege to the actual communications of an informant where "necessary to prevent the disclosure of the informant's identity."

[12] *See also* MCM, *supra* note 9, R.C.M. 701(a)(3)(A).

[13] *See* Giglio v. United States, 405 U.S. 150 (1972); *See also United States v. Williams*, 50 M.J. 436, 440 (C.A.A.F. 1999) (impeachment evidence is subject to discovery); *United States v. Watson*, 31 M.J. 49, 54-55 (C.M.A. 1990) (impeachment evidence "can obviously be material evidence at a criminal trial"); *United States v. Roberts*, 59 M.J. 323, 325 (C.A.A.F. 2004) (information need not be admissible at trial to be discoverable).

[14] Trial counsel should request a tailored protective order specifying each member of the defense team by-name to avoid any confusion (e.g., Capt Jane Doe, detailed military defense counsel, Mr. John Doe, civilian defense counsel; TSgt John Doe, defense paralegal; and Ms. Jane Doe, expert consultant in the field of forensic psychology).

[15] *See* Roviaro v. United States, 353 U.S. 53, 60 (1957).

[16] *Id.* at 60-61.

[17] *Id.* at 62

[18] *Id.*

[19] *See Carpenter v. Lock*, 257 F.3d 775 (8th Cir. 2001); *United States v. Freeman*, 816 F.2d 558 (10th Cir. 1987); *United States v. Gray*, 47 F.3d 1359 (4th Cir. 1995); *United States v. Jefferson*, 252 F.3d 937 (7th Cir. 2001); *United States v. Sierra-Villegas*, 774 F.3d 1093 (6th Cir. 2014).

[20] *See infra* p. 8 (discussion of *United States v. Claxton*).

[21] *See* United States v. Behenna, 71 M.J. 228, 237-38 (C.A.A.F. 2012) (citing Smith v. Cain 565 U.S. 73, 75 (2012)).

[22] *See* United States v. Santos, 59 M.J. 317, 321 (C.A.A.F. 2004) (citing United States v. Watson, 31 M.J. 49, 54 (C.M.A. 1990).

[23] *See also* Kyles v. Whitley, 514 U.S. 419, 437 (1995).

[24] *See* United States v. Claxton, 2016 CCA LEXIS 649 (A.F.C.C.A. 2016).

[25] *Id.* at *1.

[26] *Id.* at *4-5.

[27] *Id.*

[28] *Id.* at *5-6.

[29] *Id.*

[30] *Id.* at *9.

[31] *Id.* at *18.

[32] *Id.* at *9.

[33] *Id.* at *20-21 ("Cadet Thomas told OSI in December 2011 that he feared being disenrolled and 'will do anything he can to remain at [the Academy] and keep his career in the Air Force.' The Defense would also have learned that Cadet Thomas' disenrollment process had been delayed at the request of OSI so he could continue to work as a CI and testify at several courts-martial, including that of Appellant.")

[34] *Id.* at *22.

[35] *Id.* at *29, *33, *35.

[36] *See* United States v. Claxton, 76 M.J. 356 (C.A.A.F. 2017).

[37] *Id.* at 361.

[38] *Id.* (citing Kyles v. Whitley, 514 U.S. 419, 437 (1995).

[39] *Id.*

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Article 6b Representative

BY CAPTAIN HEATHER HOUSEAL

Article 6b representatives ensure victims have a voice and that they are not overlooked, particularly if the victim is not already represented by an SVC.

WHO IS IT AND WHY DO I CARE?

The conversation about victims and victims' rights is constantly changing and unless you are immersed in victims' issues daily, it can be challenging to stay apprised of these changes, much less why they matter. This article seeks to explain one aspect of victims' rights that was very confusing to me as a civilian Guardian ad Litem (GAL) attorney, trial counsel, and as a Special Victims' Counsel (SVC) — the Article 6b representative. In this article, I will discuss the statutory guidance for Article 6b representatives, the role of such representatives, practical considerations for appointing designees, and whether the representatives add value.

STATUTORY GUIDANCE

The appointment of a victim's representative originates in The Crime Victims' Rights Act of 2004. The right to a representative is not designated as an enumerated right; rather, it falls under the definition of "crime victim."[1]

A qualifying victim includes a victim of an offense under the UCMJ who is *under 18 years of age and not a member of the armed forces*, or who is *incompetent, incapacitated*, or *deceased*.

Congress then created Article 6b in the National Defense Authorization Act for Fiscal Year 2014, codifying crime victims' rights under the Uniform Code of Military Justice (UCMJ). Prior to 1 January 2019, Rule for Court Martial (RCM) 801(a)(6) mandated military judges designate, in writing, a suitable individual to assume a victim's rights under the UCMJ.[2] A qualifying victim includes a victim of an offense under the UCMJ who is *under 18 years of age and not a member of the armed forces*, or who is *incompetent*,

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incapacitated, or *deceased*. The military judge would designate an Article 6b representative once an offense was properly brought before the court and upon notice by trial counsel that the victim qualified for a representative. Under this rule, the Article 6b representative is not appointed until after referral, when the military judge is detailed to the case and the case is brought before the court.

With the Military Justice Act of 2016, this mandate became a permissive appointment. The appointment remains under RCM 801(a)(6) but allows the appointment "at the military judge's discretion."[3] The primary change recognizes that a qualifying victim may already have a legal representative who could assume his or her rights. However, the mere presence of a victim's attorney does not preclude the appointment of an Article 6b representative.[4]

Although the 6b responsibility overlaps the SVC's responsibilities, the 6b representative does not have confidentiality with the victim and does not necessarily represent the victim's expressed interest.

THE ROLE OF THE ARTICLE 6B REPRESENTATIVE

The Article 6b representative, hereinafter 6b representative, is to *assume* the victim's Article 6b, UCMJ, rights by ensuring the victim is aware of those rights and impress upon the court the need to acknowledge and enforce those rights.[5] In fulfilling this role, the representative attends all court hearing in which the victim is entitled to attend. If the victim does not have an SVC, the RCM allow the 6b representative to also receive service of process on the victim's behalf, [6] act on the victim's right to be reasonably heard during presentencing hearings,[7] receive notices and motions,[8] and submit matters to the Convening Authority after the sentence is announced.[9]

In order to dispel some myths about the role of the 6b representative, it is important to rule out other roles that are often confused with the 6b representative's role. The 6b representative is not the SVC, who represents a victim's expressed interest. Although the 6b representative's responsibility overlaps the SVC's responsibilities, the 6b representative does not have confidentiality with the victim and does not necessarily represent the victim's **expressed** interest. Further, the 6b representative is not the same as a GAL, who represents a child's **best** interest. While the designee could be an individual who is a GAL attorney for the child in a civilian jurisdiction, the 6b representative does not represent the victim's best interest under the construction of the UCMJ. The 6b representative merely assumes the victim's rights and ensures those rights are enforced by the court, even if the victim rejects such enforcement.

WHO ARE ARTICLE 6B REPRESENTATIVES?

Statutory Perspective

When considering a designee, the military judge may consider the age and maturity of the designee, the designee's relationship to the victim, and the physical proximity of the proposed designee to the victim. The military judge may also consider the cost incurred in making the appointment, the willingness of the proposed designee to serve in such a role, the previous appointment of a guardian by another court of competent jurisdiction, the preference of the victim, and any potential delay in appointing the proposed designee.[10] While these factors remain relevant, they were removed from the text in the *Manual for Courts-Martial* (2019).[11]

Practical Perspective

From a practical perspective, the 6b representative is someone the victim knows and trusts, such as a non-offending parent, relative, friend, civilian GAL, etc. If the victim is unable to identify a designee, a Special Victims' Paralegal (SVP) or a Victim and Witness Assistance Program (VWAP) liaison can be useful in this role. The accused is not to be the designee. While the accused's biases may be apparent, it is prudent for trial counsel and the SVC to consider whether the non-offending parent or another relative of the accused is appropriate to fulfill this role because a non-offending parent

may not ensure enforcement of the child victim's right to be protected from an offending parent. While non-offending parents should not be immediately perceived to choose spouse over child, counsel would be prudent to consider the non-offending parent's response to the child victim's crime report, his or her interactions with the victim, and his or her ability to protect the victim.

> Consider whether the non-offending parent or another relative of the accused is appropriate to fulfill the 6b representative role … will they ensure enforcement of the child victim's right to be protected from an offending parent?

Consider an example in which an SVP was designated as the 6b representative for a 17 year-old-female. The teenage girl was the alleged victim in a general court-martial, in which she alleged sexual assault against her brother-in-law. It should not be surprising that the family dynamics were declining as a result of the allegation and pending court-martial. As a result of the declining family dynamics, she could not identify anyone she trusted to fill the 6b representative role. The victim's sister (the spouse of the alleged perpetrator) and her parents were conflicted about the allegation and attempted to protect the family unit, as opposed to supporting the victim through her abuse. As a result, the victim's non-offending parents attempted to sway the victim's level of participation, essentially overshadowing her Article 6b right to be heard and to consult with trial counsel. The victim had an SVC, but the victim's *expressed interest* in the proceedings was likely conflicted by her family's advice and involvement. So, the SVC and trial counsel needed someone who could step in and provide oversight for the victim's rights throughout the justice process. A non-conflicted SVP was able to step in as the 6b representative, build rapport with the victim, and ensure her rights were not impinged by biased family members.

Trial counsel should consider the full scope of the case before recommending a designee. Could the designee be required to testify as a witness at court-martial, independent of his or her role as the 6b representative? If so, the witness-designee would be prohibited from attending all hearings in which the victim is entitled to be present and thus fail to carry out the role. Further, would defense counsel have an objection to the designee based on the circumstances of the case? SVCs have not yet encountered a situation in which the defense objected to an appointment of a 6b representative, but this is primarily due to the parties' collaboration prior to making a recommendation to the military judge.

IS A 6B REPRESENTATIVE ADDED VALUE?

Prior to January 2019, the 6b representative was a mandatory appointment. However, now that the appointment is discretionary, the parties should collectively determine whether a 6b representative adds value for the victim. A few points for trial counsel to consider before raising the issue to the military judge include the victim's representation by an SVC, if the victim has a disinterested family member or friend whom they trust to fill the role, and whether the victim's qualifying needs require a specific representative.

SVC involvement:

Is an SVC already representing the victim? If so, the SVC will advise the client on his or her Article 6b rights and notify the court if a procedural violation arises and the client authorizes the SVC to do so. Generally, the SVC is already advising the client and advocating for the client's expressed desires.

While the SVC's duties involve advising clients of their Article 6b, UCMJ, rights the SVC is bound to advocate for the client's *expressed interests*. If the client does not authorize the SVC to address a violation before the court then the violation will likely go unnoted on the record. A 6b representative should raise the issue with the military judge so that it is fully recognized and becomes part of the trial record. For instance, consider a victim's expressed interest regarding her right to be reasonably protected from the accused. A child victim may want to contact her offending parent despite a military protective order and

the SVC discouraging her from doing so. While the SVC may try to dissuade her client from communicating with her offending parent during the court proceedings, the SVC cannot disclose the communication or stop the client. A 6b representative who knows of the communication, however, could notify trial counsel or the military judge of the communication so it can be ended. Ultimately, the 6b representative ensures the victim is protected from the accused and any possible witness tampering resulting from a parent-child, power-imbalanced relationship.

If the victim is not represented by an SVC, a 6b representative would ensure the victim understands his or her legal rights throughout the proceedings, particularly when the trial counsel is not available to discuss rights with the victim during the court proceeding.

Ultimately, the 6b representative ensures the victim is protected from the accused and any possible witness tampering resulting from a parent-child, power-imbalanced relationship.

Victims' Connection to a Representative:

Does the situation of designating a representative result in "just another stranger" the victim does not know to whom he or she must reveal personal trauma? Does the victim even have someone he or she trusts? Some victims, particularly those whose family member perpetrated the abuse, may feel that they have no one to trust, such as the case of the 17 year-old-girl, discussed earlier, whose family members' influence overshadowed her right to fully enjoy her Article 6b, UCMJ, rights. For other victims, the situation may prove easier, as one family member or friend may be identified who can accompany them through this legal process. Be mindful, however, that the designee is responsible for sitting through the hearings in which the victim is entitled to attend and that the victim may not want to attend all hearings. Thus, counsel should be cautious not to choose an individual who serves as the victim's primary support system so the victim is not left alone outside of the courtroom during the proceedings.

Having sufficient time to build rapport with the victim is a primary area of concern. SVCs and SVPs express the reality that representatives are often not appointed until the week before trial, thus placing establishing trust between victims and representatives unknown to the victim in jeopardy. Such compressed timing also denies representatives who are unfamiliar with the military justice process and victims' rights adequate training. With these concerns at the forefront, one may question the amount of value appointing a representative adds to the equation. This situation can be remedied by appointing a VWAP liaison who the victim has already met, or a non-conflicted SVP earlier in the timeline.

Counsel should assess the victim's relationship with prospective designees to ensure the legal process furthers a supportive and nurturing environment for the victim as opposed to creating a further strain on the victim's relationships or experience with the justice system. This is specifically true for very young children who function primarily in relationship to others and not independently.[12]

Complexity of the Victims' Qualifying Needs:

The American Bar Association states that the concept of "child development" should be a framework for advocacy efforts for children.[13] This approach takes into account the child's developmental needs and interests when analyzing the child's position in court.[14] In applying this approach to any victim qualifying for a 6b representative, trial counsel should engage with victims early to build rapport with the victim, understand his or her emotional, cognitive and developmental needs, determine the victim's competence, and understand the victim's familial background. Trial counsel and SVCs should consult with teachers, mental health professionals, the victim's guardians, and the victim to determine his or her unique needs and competence.

The age of the victim also factors significantly into the approach. Generally, children are presumed competent at 16 years of age in most states. However, children under 16 years old may also be competent. A young child's ability to

understand and comprehend his or her rights as a victim may change over the course of the case; however, early and frequent interactions with a child can assist counsel in determining the child's need for a 6b representative. For cases involving young children who may be able to understand some but not all of their rights, a 6b representative may be the best option for explaining those rights in child-friendly terms.

A representative may be helpful to accompany the victim through the hearings as an objective observer and to provide an extra set of ears and eyes when the victim is emotionally distraught. It is very likely that a victim may be too emotionally distraught to be able to voice a violation of his or her rights, even if competent to understand them.

If the child is mature and otherwise competent to understand the process and his or her rights through the SVC or trial counsel, then a representative may not be necessary to fully explain the victim's rights. However, a representative may be helpful to accompany the victim through the hearings as an objective observer and to provide an extra set of ears and eyes when the victim is emotionally distraught. It is very likely that a victim may be too emotionally distraught to be able to voice a violation of his or her rights, even if competent to understand them. A 6b representative, whose sole responsibility is protecting the rights of the victim, will be less distracted and better able to identify a violation of the victim's rights than the trial counsel, particularly if they are more subtle and outside the confines of the legal process itself.

While the majority of victims will qualify for a 6b representative based on age, it is possible for a victim to qualify due to incapacitation, incompetence, or death. Counsel should understand the victim's physical, cognitive, and emotional development, independent of age, and determine whether a 6b representative is necessary. Identification and selection of the victim's primary caregiver will likely result in a good fit because the caregiver may already assume responsibility for the victim's personal interests and legal rights. Regardless of the materiality of any one particular factor, appointment of a representative should prove fruitful in designating someone to be the extra eyes and ears in the midst of the chaos that can be involved in a court-martial.

Article 6b representatives ensure victims have a voice and that they are not overlooked, particularly if the victim is not already represented by an SVC.

CONCLUSION

Crime victims may feel like a burden and an outsider to the legal process, resulting in further withdrawal and failure to voice concerns about rights violations. Article 6b representatives ensure victims have a voice and that they are not overlooked, particularly if the victim is not already represented by an SVC. It is not always necessary for an Article 6b representative to be appointed, however, there are certainly cases in which the representative can be a valuable bridge from the victim to the process, and trial counsel and SVCs must be familiar enough with the victim and the circumstances of the case to make that call.

Edited by Lieutenant Colonel Patrick Neighbors and Captain Victoria Smith

Layout by Thomasa Huffstutler

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ENDNOTES

[1] 18 U.S.C. § 3771(e)(2)(B).

[2] R.C.M. 801(a)(6), Manual for Courts-Martial [hereinafter MCM], 2016.

[3] R.C.M. 801(a)(6); MCM, 2019; *see also*, R.C.M. 801(a)(6)(A), which further states the military judge is not required to hold a hearing before determining whether a designation is required or before making such a designation under this rule. If the military judge determines a hearing is necessary under Article 39(a), UCMJ, the victim shall be notified.

[4] David A. Schleuter, *Reforming Military Justice: An Analysis of the Military Justice Act of 2016*, 39 St. Mary's L.J. 1, 24 (2017).

[5] Article 6b(c), UCMJ. *See also*, R.C.M. 1106A(c)(3).

[6] R.C.M. 703(g)(3)(C)(ii), Discussion. This section applies to receiving notice of subpoenas for personal or confidential information about the victim.

[7] R.C.M. 1001(c)(2)(A); R.C.M. 1001(c)(4); R.C.M. 1001(c)(5)(A).

[8] M.R.E. 412(c)(1)(B). *See*, R.C.M. 405(i)(2)(B), which applies the same right for the victim's 6b representative to receive notice of motions and written responses for introduction of M.R.E. 412 evidence at preliminary hearings. *See also*, M.R.E. 513(e)(1)(B) regarding a similar application to the psychotherapist-patient privilege, and M.R.E. 514(e)(1)(B) regarding application to the victim advocate-victim privilege.

[9] R.C.M. 1106A.

[10] R.C.M. 801(a)(6), Discussion, MCM 2016.

[11] R.C.M. 801(a)(6), MCM 2019, noting the omission of the factors listed in note _10.

[12] Candice L. Maze, J.D. *Practice & Policy Brief: Advocating for Very Young Children in Dependency Proceedings: The Hallmark of Effective, Ethical Representation*, American Bar Association (October 2010), retrieved from https://www.americanbar.org/content/dam/aba/administrative/child_law/ethical_rep.pdf.

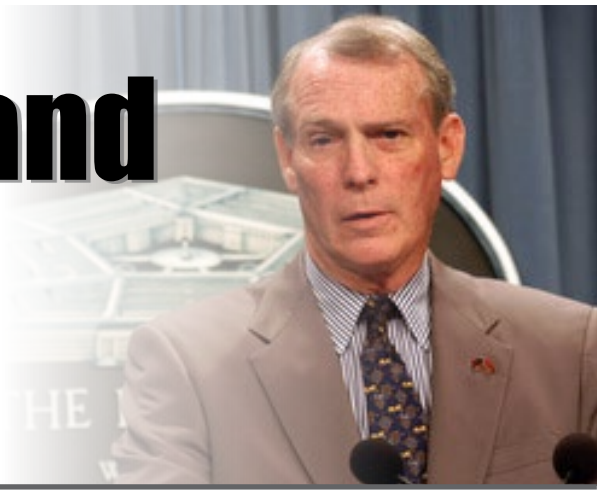
[13] Maze, *supra* note 12, at 26.

[14] Maze, *supra* note 13.

CATEGORY Operations and International Law

Text Excerpt from Digital Reporter Post: 24 June 2021 https://www.jagreporter.af.mil

W. Hays Parks and the Law of War



BY MAJOR R. SCOTT ADAMS

In Memoriam: Colonel W. Hays Parks passed away on 11 May 2021

The study of the law needs to be integrated with the study of history: if not, it is inadequate.

-Sir Adams Roberts [1]

AUTHOR'S NOTE

On 11 May 2021, W. Hays Parks passed away. A series of experts who knew and understood Parks far better than I did provided concise dedications to his memory, including our former Deputy Judge Advocate General, Maj Gen (ret) Charles Dunlap.[2] The proliferation of memorials was fitting for the "giant" of the law of war and made a brief re-publication of this work appropriate.

I first encountered Parks as a First Lieutenant, attending a course at the Army's Judge Advocate General's Legal Center and School, where Parks delivered the keynote address. He posed a question to the audience. I raised my hand and rehearsed the correct rule. "Yes," he said, "but why?" His ability to fluently walk through the primary source foundations and historical background was a clear demonstration that my own practice of the law had been inadequate. But it was not until I began seeking an LL.M. in International Law that I began to understand the extent of Parks' remarkable influence. While writing Article 36 weapon reviews as an exchange officer with Australia's Directorate of Operations and International Law, I saw the uncanny practical value of his extensive work. It almost became a cliché in this office for Australian, British or American lawyers to respond to "novel" questions of law by saying: "there's a Hays Parks article on that." I was intrigued by the influence an individual scholar could have on the law of war, and so at some point I made a vague goal to systematically read the entirety of Parks' vast body of work. In accomplishing this goal, I found that Parks deserves his "hawkish" reputation, or as Dunlap would say more thoughtfully: "Hays has been America's most formidable advocate of the U.S. view of the law of war."[3] But while simultaneously marinating in modern views of

DoD Photo (Archive): W. Hays Parks discusses issues related to the Geneva Convention at the Pentagon on April 7, 2003.

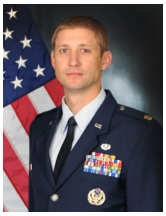
international humanitarian law, I became fascinated by the dichotomy between Parks' pragmatism and the progression, or rather, fluidity of ideas that permeate modern efforts to shape our understanding of the law. Parks' work, supported by quantitatively and qualitatively superior experience, often challenge those modern ideas. I interviewed Parks twice for the 26 March 2020 JAG Reporter article (W. Hays Parks and the Law of War). **He was kind, generous, intense, and as always, brilliant. He will be missed.**

EXPAND YOUR KNOWLEDGE

External Links to Additional Resources

- **C-Span: Hays Parks** https://www.c-span.org/person/?haysparks
- **Lawfire: In Memoriam** https://sites.duke.edu/lawfire/2021/05/17/in-memoriam-colonel-w-hays-parks-u-s-marine-corps-ret/
- **Washington Times: Obituary** https://www.legacy.com/obituaries/washingtontimes/obituary.aspx?n=william-hays-parks&pid=198800460
- **Westpoint: Hays Parks Legacy** https://lieber.westpoint.edu/hays-parks-legacy/

ABOUT THE AUTHOR



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ENDNOTES

[1] Sir Adam Roberts, *Land Warfare: From Hague to Nuremburg, in* The Laws of War: Constraints on Warfare in the Western World 117 (Sir Michael Howard, George J. Andreopoulos & Mark Shulman eds., 1994).

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Immersive Technology:

The Future of Air Force JAG Corps Training

BY MAJOR DANIELLE H. CROWDER

Immersive technologies, such as virtual reality, 360-degree video, and avatar simulation, are successfully being used to train professionals across a wide range of disciplines.

Video: Airman Magazine: How Virtual Reality is Changing U.S. Air Force Training

INTRODUCTION

General Charles Q. Brown, Jr. became the Air Force's 22nd Chief of Staff in 2020. Shortly thereafter he released "Accelerate Change or Lose", where he calls on Airmen to boldly and proactively shape our future to avoid unacceptable risk and mission failure.[1] The United States has enjoyed air dominance for decades; however, we are relying on capabilities developed long ago that need to be updated to maintain our edge. This extends beyond the battlefield and to the Air Force Judge Advocate General's Corps (AFJAGC). The purpose of this paper is to start a conversation about how we can follow Gen Brown's guidance in regards to modernizing our training methods in the AFJAGC.

While the legal profession is not known for keeping pace with changing times, the AFJAGC has made recent strides to modernize. Enterprise level examples of this include the efforts to upgrade our case management software and the new public filing system for court documents. At the base level, some offices are even abandoning paper in the courtroom and presenting evidence to the members on tablets and other electronic media.[2] Such progress is welcome, but our community can do more to accelerate change consistent with General Brown's vision. One such field of technology that we should consider incorporating is **immersive technology**.

Military service member wearing virtual reality goggles
(Photo by Air Force Staff Sgt. Keith James)

IMMERSIVE TECHNOLOGY

As its name would suggest, immersive technology "blurs the lines between the physical and virtual worlds, creating a sense of immersion and enhancing the realism of virtual experiences."[3] The level of immersion experienced depends on the type of technology and method of its use. Three common technologies existing on different parts of the immersion continuum are **virtual reality (VR)**, **360-degree video**, and **mixed reality**.[4] VR is a simulated reality built with computer systems that create a sense of "presence" in another environment.[5] It is considered the pinnacle of immersive technology because it engulfs the senses, seemingly transporting users to alternate worlds. VR is best experienced via head-mounted devices (HMDs), which are worn like goggles over a person's eyes and ears,[6] and create a fully enveloping aural and visual experience. They also typically include hand-held controllers that allow for motion-tracking so the user can reach out and physically engage with the virtual environment. A high-quality VR HMD that could be used anywhere with wireless internet access would cost a few hundred dollars in 2021.[7]

U.S. Air Force MSgt Rory Menard, 380th Expeditionary Security Forces Squadron logistics and supply superintendent, calibrates a virtual reality (VR) system. (U.S. Air Force photo by Senior Airman Bryan Guthrie)

One way that VR content can be produced is via 360-degree video. Such cameras can capture the entire environment around them, which allows users to watch content in a full sphere rather than from one fixed point.[8] This can be viewed on a computer, a smart phone, or an HMD, with varying degrees of immersion. By watching with an HMD, the viewer is transported into the video and must move his or her real body around to look in every direction to watch the video unfold.

EXPAND YOUR KNOWLEDGE

External Links to Additional Resources

Sample Virtual Tours

- 360 Cities
- D-Day Interactive AR Exhibit
- Google Expeditions
- Smithsonian Virtual Tours

While VR is easily described, mixed reality encompasses a wider range of technology with varying levels of immersion, making it more difficult to define. One way to conceptualize it is to say it includes everything on the continuum from the virtual world (i.e. VR) to the real world, without including the purely virtual or purely real environments.[9] One technology within this spectrum is **avatar simulation**. This is the use of virtual representations of people (avatars) controlled by human actors in a computer-mediated environment.[10] It is the blending of real people with virtual avatars that make this a "mixed reality" medium. These avatars can interact with people in real-time conversations, including lifelike body gestures, that are based on the movements of the human actor. No special equipment is necessary to utilize this technology other than a computer and an internet connection.

Practical applications are still being developed, but it is undisputed that immersive technologies offer tremendous possibilities for teaching and training.

IMMERSIVE TECHNOLOGIES AS LEARNING TOOLS

The technologies referenced above offer the potential to modernize training and teaching in the AFJAGC. In fact, the roots of today's immersive technology actually began almost a century ago with the first flight simulator used to train pilots, called the Link trainer.[11] As technology improved, it spread to other risky or dangerous jobs like

surgeons, astronauts, and soldiers.[12] Practical applications are still being developed, but it is undisputed that immersive technologies offer tremendous possibilities for teaching and training.[13]

> Those who are trying to learn must first **"grasp"** an experience and then **"transform"** it.

The **Experiential Learning Theory (ELT)** gives one account of the success of this technology as a training tool. ELT holds that knowledge occurs through the "transformation of experience."[14] Those who are trying to learn must first "grasp" an experience and then "transform" it.[15] Each of us has a preferred learning style.[16] Instructors can maximize students' gains by figuring out their style and tailoring their teaching methods accordingly. Some of these teaching methods include written papers, group projects, videos, presentations, and experiments. Immersive technologies now represent another tool that can be effectively used for students whose preferred learning style is more hands-on. Many studies have been done using VR as a teaching tool, and professions such as soldiers, surgeons, nurses, dentists, and professional athletes, have incorporated it into their training.[17] The best example of this in the military is in the flying community. Recently, rather than use traditional flight simulators that are almost like fully-built cockpits — and carry a hefty price tag of $4.5 million — the AF has begun training pilots using VR stations that cost $15,000 each.[18] The program, called Pilot Training Next (PTN), not only saves money, but is also able to produce pilots from Undergraduate Pilot Training with the appropriate skill level in half the amount of time.[19] One of the key elements of the PTN program is that students have individual VR training stations in the classroom and stations shared with their roommate in their dorm rooms.[20] The amount of time they can spend in that immersive environment practicing their skills far surpasses what they would have received in a traditional cockpit flight simulator that is shared amongst all of the students during class. The savings in time, manpower, and money through this use of VR technology is extraordinary, and the improvements in its accessibility represent the next phase in the evolution of pilot training.

EXPAND YOUR KNOWLEDGE

External Links to Additional Resources

- Experiential Learning Theory (Video)
- Air Education and Training Command Embraces Virtual and Augmented Reality
- AU students experience virtual reality regional study trips

IMMERSIVE TECHNOLOGIES IN THE LEGAL FIELD

While pilots have been using flight training simulation technology for decades, the legal profession is just beginning to see its value. The legal field does not prioritize the acquisition and acceptance of new technology, practices, or training, though,[21] which makes it challenging to incorporate these new tools.

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Second Life

There are some law schools, however, that began to experiment with VR in the classroom in the past decade. A popular platform that was initially used by three Australian universities to create virtual content for students is the program **"Second Life."** This program creates a virtual world where users operate avatars in scenarios that mimic everyday life.[22] In 2009, a criminal law class at the University of Southern Queensland gave its students the option of using Second Life to deliver an oral argument.[23] This allowed distance-learning students, who made up 70% of the student body, the opportunity to have a more realistic advocacy environ-

ment than they would have had if they were only allowed to submit their argument via video.[24] Participants took a survey after completing their advocacy training, the results of which confirmed the educational benefits of using Second Life in distance learning for advocacy skills development.[25] Specifically, the students all agreed that they were engaged, the virtual environment was beneficial to their training, and they were better able to understand course concepts.[26]

In 2010, another Australian university conducted a small pilot study in Second Life in which its International Humanitarian Law moot court team practiced its moot arguments.[27] The students provided feedback on the experience, stating that they were able to concentrate more on their speaking and vocal delivery than in real life.[28] They also believed it would be beneficial for introverted students to build confidence and control nerves.[29]

> The simulated learning environment "created an authentic learning experience leading to greater engagement and improved learning outcomes."

Finally, in 2012, the Queensland University of Technology School of Law built a scenario in Second Life for a Trust and Negotiation class which combined virtual content and in-person activities.[30] First, the students were virtually introduced to various family members who were dealing with a situation involving a trust. Then students had to provide legal advice to one of the family members in the scenario, as well as construct a negotiation plan with other class members in a small group. They had to role-play the negotiation in the real world and self-reflect on how it progressed.[31] Feedback from the participants in this virtual scenario led to the conclusion that this simulated learning environment "created an authentic learning experience leading to greater engagement and improved learning outcomes."[32]

Gamification and 360-Degree Video

Outside of Second Life, other law schools have more recently included virtual technology in the classroom. At Westminster University in the United Kingdom in 2016, a learning game was developed for the Criminal Law class in which students explored a crime scene in VR and determined, based on the evidence and interactions with non-player characters, whether or not all the elements of murder were present.[33] This was the first step in a series of proposed experiments to determine the viability of these games at the University. The participants felt that the VR system was easy to use and reliable, with further study recommended into the learning impacts of this system, as compared with traditional book-learning methods.[34] Also in 2016, the University of Missouri Kansas City (UMKC) used 360-degree video to record law school students in a trial advocacy class as a self-assessment measure for their in-court performance.[35] While the students were impressed with the recordings, the length of time it took to process the 360-degree videos into a watchable format using the camera they chose was a hindrance to receiving immediate feedback. [36]

> Law schools have used 360-degree video to create virtual crime scenes and to familiarize new attorneys with courtrooms.

Other law schools have used 360-degree video to create virtual crime scenes and to show law students previously inaccessible places, such as a water reclamation site.[37] Additionally, Harvard Law's Access to Justice Lab is studying the use of 360-degree video to familiarize new attorneys with courtrooms.[38] Their study tests whether potential pro bono attorneys are more likely to commit to pro bono representation after receiving training via HMDs versus regular training.[39] The VR training consists of 360-degree videos with a courtroom introduction and a walk-through of what they will actually be doing during the pro bono case.[40] The hope is that attorneys with little courtroom

experience will feel more confident in their litigation abilities after the VR training and will want to volunteer to help in common pro bono situations, such as debt-collection, landlord-tenant, and divorce proceedings.[41]

Advantages of VR include increased effectiveness and reduced costs as compared with hiring actors to create realistic scenarios.

Finally, in addition to law schools, organizations like the International Committee of the Red Cross (ICRC) recognize the increased opportunities that VR provides to teach and influence. The ICRC has a unit dedicated to producing VR content to train its own personnel who must visit sites in war-torn locations to view potential human rights violations, as well as to teach International Humanitarian Law to military members in dozens of countries.[42] They utilize gaming software to create realistic VR environments based on real-life situations the ICRC has encountered in order to train individuals to conduct investigations and determine whether human rights' violations occurred.[43] Since new employees only had two weeks of intensive training time, the ICRC chose to use VR because it increased effectiveness and reduced costs as compared with hiring actors to create realistic scenarios.[44]

BENEFITS OF IMMERSIVE TECHNOLOGY IN MILITARY LEGAL TRAINING

Law schools and civilian organizations have demonstrated how immersive technology can be effectively used, and the benefits are even greater for the AFJAGC. This is primarily due to the unique deployed environments and military courtrooms in which JAGs practice to support our national security. When commanders need to target legal objectives during an airstrike or lock-up Airmen to ensure good order and discipline, they depend on mission-ready JAGs.

EXPAND YOUR KNOWLEDGE

External Links to Additional Resources

- Air University's (AU) Teaching and Learning Center
- Immersive Learning VR/AR in Learning Trends
- DoD tests VR suicide prevention training (Video)

As the Pilot Training Next program has shown, mission-ready officers can be produced in far shorter timeframes than previously thought possible due to the inclusion of immersive technology in the curriculum. This technology can also be used to cut down on the amount of time it takes to train a fully-competent JAG, offering a more agile and capable fighting force for commanders. Specifically, immersive technology can be used to provide an environment where students can consistently repeat training activities without the risks inherent in real-life. Using litigation as the prime example, prosecuting and defending cases in military courts-martial is an incredibly stressful and high-stakes endeavor. A poor performance by a JAG could result in a mistrial, future appellate issues, time delays, or the erroneous acquittal or conviction of a service member. Mishandlings of cases involving high-profile crimes, often result in negative publicity, to include Congressional attention on the military justice system as a whole.[45]

Repetition of training activities and familiarization with environments via immersive means can also decrease anxiety and increase confidence in the courtroom.

Repetition of training activities and familiarization with environments via immersive means can also decrease anxiety and increase confidence in the courtroom. Studies have shown that increased anxiety can lead to worse working-memory performance.[46] This could have important manifestations in court, such as failing to object to inadmissible evidence

at appropriate times, or lacking persuasiveness in closing arguments. Spectators may also develop a negative view of the military justice process if JAGs lack confidence in advocating for their clients.

Repetitive training with immersive technology can also free up brainpower. According to the **Cognitive Load Theory** (CLT), the brain has a limit to the amount of material that can be processed at any given time. To overcome this limitation, the brain forms common schemas,[47] which some people may experience as being on "autopilot." Experienced litigators, do not waste processing capabilities on information contained within these schemas, while novices must continue to use that brainpower on those tasks.[48] For example, a Circuit Counsel would not spend time thinking about how to read a script or where to stand in the courtroom, while a new JAG may dedicate excessive brainpower to such routing functions. Focusing on minor details that are unlikely to affect the outcome can result in insufficient attention to more important matters, such as like how the members are reacting to the evidence or the argument presented. Immersive technology allows for the type of repetitive training necessary for new JAGs to form these schemas and free up brainpower for more complex tasks.

Focusing on minor details that are unlikely to affect the outcome can result in insufficient attention to more important matters.

CURRENT TRAINING LIMITATIONS

Judge Advocate General's School

Currently, training for JAGs occurs in a few distinct ways, all of which have limitations. First are the formal training classes offered by the Air Force Judge Advocate General's School (AFJAGS). New attorneys must successfully complete the nine-week Judge Advocate Staff Officer Course (JASOC), which includes litigation of an abbreviated mock sexual assault court-martial. Students are taught everything from direct examination to closing argument via large group instruction and smaller seminar sessions. Due to the amount of material that needs to be covered in the set timeframe, there is no time in the curriculum to incorporate repeated practice of skills. This makes it difficult for students to make significant improvements. Other formal litigation classes are offered at later points in a JAG's career; however, they are not for brand new JAGs. This means that we are sending JAGs to their bases to litigate real trials after only having completed one abbreviated mock trial.

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Murder Boards

Outside of AFJAGS, less formal training options also exist at base level legal offices. Two common ways they occur are in "murder boards" or at general, periodic office training sessions. Murder boards typically help with overall case strategy and theme or theory issues, but they generally do not provide the repetition or skill training needed to get comfortable in the courtroom. Likewise, office trainings seldom occur for long enough time periods to enhance or provide familiarity with courtroom litigation skills.

On-The-Job Training

The remaining option is on-the-job training (OJT), which essentially consists of watching other JAGs litigate. It has been shown that watching others perform a task can facilitate learning, especially in physical tasks like weaving or knot tying.[49] However, research has also shown that observers cannot transfer what they have learned to a slightly different problem due to lack of knowledge of the reasoning behind the actions.[50] In addition, there are significant logistical issues with observing judicial proceedings, such as their diminishing frequency and lost productivity of JAGs sitting in court. Also, there are no guarantees that the JAGs who are litigating are doing it exactly by the book to provide an effective model for observers.[51]

IMMERSIVE TECHNOLOGIES AS TEACHING TOOLS IN THE AFJAGC

360-Degree Video

Immersive technologies offer many tools to enhance training options within the AFJAGC, especially when the goals are familiarization with new environments and skill practice. One realistic, simple, and highly beneficial way to incorporate this technology would be to record mock trial proceedings with 360-degree video cameras. The actors should be AFJAGS faculty or experienced military litigators to ensure the correct procedures are modeled. This video could then be viewed by JASOC students either prior to or during JASOC to familiarize themselves with courtroom appearance, practice, and rules, just as the pro bono attorneys did in Harvard Law's Access to Justice Lab study. JAGs could choose to watch an entire proceeding, or just pick specific events such as cross examination, voir dire, or evidence introduction. Many new JAGs have never participated in a court-martial, so viewing this video would offer a great opportunity for familiarization with the basics of script-reading all the way to the complexities of character evidence.

> Recording the proceedings in 360-degree video allows students to see the entire courtroom at any time, so they can choose which person to watch based on what they are trying to learn.

Recording the proceedings in 360-degree video allows students to see the entire courtroom at any time, so they can choose which person to watch (e.g., judge, members, defense counsel) based on what they are trying to learn. The most immersive viewing experience for these videos would occur in a VR HMD, however they could also be viewed on a smart phone. This allows for access to these training tools outside of the classroom, which was one factor in the PTN experiment that likely contributed to the ability to produce trained pilots in half the amount of time.[52]

Avatar Simulations

Another way to utilize this technology is to increase the use of avatar simulations. This medium works well for the development of soft-skills, such as leadership, counseling, and communication.[53] It is currently being used to some degree by every school around Air University, from Air War College to Squadron Officer School to the Chaplain Corps College. AFJAGS has used it successfully in a seminar at a leadership course for majors when a student played the role of a Deputy in a legal office and was asked to deliver bad news to a subordinate about a deployment. Student feedback was very positive for this seminar and emphasized the potential that avatar simulation has for practicing voir dire, witness interviews, and legal assistance. There is no special equipment needed to access avatar simulation technology except an internet connection; however there is an hourly fee for the service.

> The Army JAG School has created a successful virtual coloring book game for their special victims' counsel to use for interactions with child victims

Gamification

Immersive technology can also enhance training and learning by incorporating it into gamification – the process of extracting motivating and engaging elements from games and applying them to educational activities.[54] This is a popular way to try to make learning fun, and it can be taken to the next level by adding immersive technology. There are many ways to do this, as shown in the Westminster University murder crime scene and the ICRC's creation of virtual environments to train its personnel and military officers to recognize human rights' violations. The Army JAG School has also created games focused on courtroom objections and advising commanders.[55] Additionally, they created a successful virtual coloring book game for their special victims' counsel to use for interactions with child victims.[56]

If the interest and funding was present, the AFJAGC could utilize gamification to create any number of scenarios in an immersive environment to better prepare JAGs for real-world situations. The greatest benefit for gamification may be found in operational law, including targeting and air operations. Most JAGs do not experience these situations outside of deployed environments, which makes any amount of advanced training all the more valuable. As shown through the other examples above though, these games can enhance learning in almost any area of the law.

They could practice litigation skills with real people located **anywhere** in the world.

VIRTUAL COURTROOM TRAINING

In addition to 360-degree video, avatar simulation, and gamification, training options abound within a virtual courtroom environment. JAGs could choose to record themselves practicing courtroom skills individually, such as giving an opening statement or closing argument. This enables self-assessments, like those done by the law school students at UMKC.[57] Or, they could practice litigation skills with real people located anywhere in the world. This could be an effective way of utilizing the Air Reserve Component members of the AFJAGC, since they may have vast litigation experience in their civilian employment to provide valuable advice and critiques for new JAGs. Using this virtual environment allows them to put in man-hours when it fits into their busy schedules and without the cost and inconvenience of traveling, which became even more burdensome during the COVID-19 pandemic.

Using a virtual courtroom for these training options presents the greatest potential benefit but also the most significant challenges of all the immersive options presented, though. First, from a practical standpoint, the technology does not yet exist for computer-avatars to interact with people using real-time communication in a virtual environment. Since communication and instant reactions are key to many courtroom skills, such as witness examination, voir dire, and making objections, the lack of this capability limits the ways VR can be used by individual JAGs to practice. Advances are being made in this technology, though, as shown in 2019 by an artificial intelligence bot named "Charlie" who was able to participate as an independent panel member at a conference by listening and communicating her own creative responses in real-time.[58] Besides technology, other challenges to utilizing a virtual courtroom environment would be the cost of building and maintaining the virtual space, as well as purchasing the VR HMDs that would be necessary to interact effectively.

As VR technology becomes more commonplace, its usefulness for training new JAGs will increase exponentially.

CONCLUSION

As VR technology becomes more commonplace, its usefulness for training new JAGs will increase exponentially. It is already at that level for other professions, such as pilots, and they can attest there is no better environment to train in than one which allows endless repetitions with no real-life risk. Designs for these legal training environments in VR already exist[59] and it is incumbent upon the AFJAGC to stay apprised of the latest developments in immersive technology to ensure JAGs are getting the best training possible.

While it is certainly true that there is nothing wrong with the way we educate and train our JAGs, one of the main points in Gen Brown's strategic approach is "good enough today will fail tomorrow."[60] If we wait for something to be actually broken in order to modernize, we have already lost. Can we produce a fully trained JAG in half the time we currently do? It is clear that we cannot if everything stays the same, however we may even surprise ourselves if we proactively integrate technology and accelerate change.

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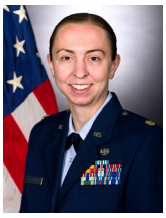

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CATEGORY Military Justice and Discipline

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Decrypting Bitcoin and Blockchain

For Military Lawyers

BY LIEUTENANT COLONEL DEAN KORSAK AND MAJOR ERIK FUQUA

This article should serve as a cryptocurrency primer for lawyers practicing in the Federal government. It will provide a basic overview of the history of Bitcoin and blockchain technology then discuss blockchain use cases for military interests and criminal law hurdles created by cryptocurrency.

INTRODUCTION

New technologies create new challenges and opportunities. Bitcoin and its underlying **blockchain technology** increasingly impact all facets of society. Bitcoin's status as digital gold is merely the tip of this technology. Military organizations feel impacts from this technology that span from personnel security risk management to longer term prospects of streamlining nearly every aspect of operations. Blockchain technology alone is fast becoming an integral part of human existence, just like credit cards, the Internet, and cell phones. Bitcoin and blockchain are ushering in new norms affecting nearly every aspect of life. Military lawyers must familiarize themselves with the challenges created by this new technology and be ready to address them in situations ranging from the courtroom to legal assistance to the operational environment. This article provides an overview of these issues to accelerate familiarization.

What Is Cryptocurrency in Simple Words?

Cryptocurrencies are systems that allow for secure payments online which are denominated in terms of virtual "tokens."

~Investopedia

Close-up photo of several gold plated bitcoins
(Photo © iStock.com/skodonnell)

MONEY LEADS THE WAY

A variety of industries are evaluating adoption of blockchain technology, but the leading use-case for blockchain adoption is financial use in the form of **cryptocurrency**.[1] Money exists to facilitate transactions among strangers who specialize in different skills, enabling complex economies.[2] As humanity developed, groups developed mediums of exchange to facilitate commerce.[3] The barter system was one early medium.[4] Money then displaced the barter system and developed further into a ledger-based medium of exchange, eliminating the need to carry items of value and enabling credit-based economies.[5] These developments produced today's complex ledger system. Consistent with centuries-old monetary theory, Bitcoin and other cryptocurrencies seem to be a natural development to account for an increase in exchanges between transacting parties, which "requires larger or more efficient medium of exchange, but not necessarily more money."[6]

> Military lawyers must familiarize themselves with the challenges created by this new technology.

A basic understanding of money and ledgers is necessary to understand the revolutionary impact of Bitcoin and blockchain technology.[7] The U.S. dollar primarily exists in ledger form in computer systems — only approximately eight percent exists as physical coin or cash.[8] The deposit ledger system is nearly exclusively used for all major transactions today. It involves a buyer's bank subtracting an amount from the buyer's account ledger and a seller's bank adding that amount to the seller's ledger. Yet it is not that simple. In reality, the system is highly complex, relies heavily on trust, and it can sometimes take days to complete a transaction. It requires many middlemen, from banks to credit card processors, and other costly components such as vaults and armored trucks, as well as the human capital requirements of large organizations simply to manage the spreadsheets and computer systems.

Cryptocurrency cuts out all the middlemen and removes the need for trust. Put another way, cryptocurrencies like Bitcoin are decentralized. Decentralization allows cryptocurrencies to be exchanged or converted at any time and almost anywhere in the world in, at most, a matter of minutes. However, these features of decentralization also create tension with fiat currencies.

EXPAND YOUR KNOWLEDGE

External Links to Additional Resources

- Afghans turn to crypto market for stability during Taliban takeover (CNBC After Hours)
- What is Money? And Could Bitcoin Be the Best One? (TedX)
- Bitcoin hodlers are about to spark a run (Cointelegraph)
- Today's Cryptocurrency Prices (Coin Market Cap)
- How Does Bitcoin Actually Work? (YouTube)

Fiat currencies

Fiat currencies are backed by an issuing government. Since fiat currency depends on convertibility and trust,[9] national economic progress depends on the extent to which a country's fiat currency is globally accepted. Fiat currencies can become so-called "bad money" when a nation's economic policies, excessive debt, and other negative industrial and societal trends lead to a decline in world economic power.[10] However, by removing a central authority and the need for trust, Bitcoin and related cryptocurrencies create a form of permanent and universal value that is mostly insulated from regional economic and political instability. For example, no government or organization controls Bitcoin. It has a fixed supply cap of 21 million Bitcoin, so Bitcoin's value cannot be diluted in the way that governments dilute fiat currency by creating more money. Despite these stability characteristics, the growing popularity of Bitcoin and other cryptocurrencies results in price volatility while the market determines a defined range of value. Beyond the monetary aspects of Bitcoin, its underlying blockchain technology alone is just as revolutionary. A closer look at this technology reveals many opportunities, solutions, and challenges for the military and other large organizations.

BLOCKCHAIN TECHNOLOGY PRIMER

Blockchain technology enabled the creation of Bitcoin. In the groundbreaking Bitcoin white paper, Satoshi Nakamoto described the "chain of blocks" that serves as a record of all Bitcoin transactions.[11] Blockchain technology addressed the limitations of earlier attempts at digital currency, and many other cryptocurrency projects have adopted it as well.[12] In explanation, its applications transcend cryptocurrency and extend to smart contracts,[13] financial services, health care, voting, and more. But what is it?

> The blockchain is a decentralized digital ledger distributed across multiple computers ("nodes").

The blockchain is a decentralized digital ledger distributed across multiple computers (**"nodes"**). It is also publicly viewable. Any person in the world with Internet access can view the entire history of Bitcoin transactions at any time. This distributed digital ledger aspect removes the requirement of trust from transactions and solves the **Byzantine General's Problem**.[14] The Problem describes the need in computer science for individual parties to agree on a specific strategy to avoid a system failure. It manifests in virtual transactions as double-spending. Double-spending can occur if the entities verifying transactions do not agree, resulting in multiple users spending the same piece of currency. Banks and other financial institutions provide the trust that fiat currency does not fall victim to double-spending. The distributed digital ledger provides this confidence for Bitcoin. As processors (**"miners"**) enter transactions on the ledger, the blockchain grows. In exchange for Bitcoin, miners devote computing power to confirm groups of transactions at regular intervals, which creates timestamped blocks in the process, and those blocks become part of the Bitcoin blockchain.[15] Through facilitating these transactions a new Bitcoin block is created approximately every 10 minutes.

EXPAND YOUR KNOWLEDGE

External Links to Additional Resources

- Blockchain Explained (Investopedia)
- Byzantine Generals Problem - Intro to Blockchain (YouTube)
- How the Blockchain is Chaning Money and Business (TedTalk)
- Inside One of The Nation's Largest Cryptocurrency Mines (NBC)
- Can Central Bankers Kill Bitcoin? (Forbes)

Pseudonymous Not Anonymous

Although the Bitcoin blockchain is always viewable (you can even download it and have your computer serve as a node on the Bitcoin network), transactions maintain some degree of privacy. Bitcoin transactions are **pseudonymous**, but not anonymous. As discussed later, this distinction has important implications for law enforcement and limits the ability for bad actors to use Bitcoin to engage in illegal activity. Bitcoin's pseudonymity is due to its use of public-key cryptography. This system involves two keys, one private and one public. The private key allows a person to access the Bitcoin and transact with it.[16]

> At any time, anyone can access the Bitcoin blockchain and view every Bitcoin transaction associated with any given public key.

The public key corresponds mathematically to the private key and can be converted into an address ("hashed") to which anyone can send Bitcoin. At any time, anyone can access the Bitcoin blockchain and view every Bitcoin transaction associated with any given public key. However, the public key is not linked to the owner's personal information. This structure provides a high degree of privacy. However, if an individual is ever linked to the pseudonymous public key, then the world can know the person's entire transaction history and Bitcoin holdings. Definitive connections can be made between wallet addresses and corporate or human identities. For example,

researchers have long since identified the public keys associated with Satoshi Nakamoto, who never spent the roughly 1 million Bitcoin he mined during the first seven months of Bitcoin when it basically had no value.[17] Lastly, while a private key holder will always have the associated public key, it is mathematically impossible to use the public key to identify the private key.[18] This means that cracking the encryption is not feasible to associate public and private key wallet addresses. Bitcoin's use of public key cryptography forces interested parties to attempt to identify Bitcoin users in other ways, such as companies disclosing Bitcoin transactions or linking transactions to particular individuals through timing, amount, and associates. Although financial transactions presently dominate blockchain adoption, use cases extend far beyond personal financial transactions.

CRIMINAL LAW CHALLENGES AND OPPORTUNITIES

The Department of Justice (DOJ) recently acknowledged that the technology "raises breathtaking possibilities for human flourishing."[19] Yet it further noted that "despite its relatively brief existence, cryptocurrency technology plays a role in many of the most significant criminal and national security threats that the United States faces."[20] This is no different than criminal enterprises taking full advantage of the Internet.

The novelty of cryptocurrency and blockchain technology poses the primary hurdle for law enforcement and prosecutors, though law enforcement can also use this same technology for investigative advantage. For example, Silk Road was an "eBay for drugs" located on the Darknet.[21] Business on Silk Road was conducted in Bitcoin in an attempt to maintain anonymity.[22] Ultimately, the FBI was able to shut down Silk Road, and it used blockchain analysis to overcome the pseudonymity.[23] More recently, the FBI was able to seize $2.3 million worth of Bitcoin representing a ransom paid by Colonial Pipeline to the hacking group Darkside after the hackers installed ransomware on Colonial's computer systems.[24] Interestingly, the Silk Road and Colonial Pipeline cases also dispel the myth that cryptocurrency is merely a tool for nefarious activity. Instead, they demonstrate how Bitcoin's public blockchain makes it a poor tool for bad actors who wish to maintain anonymity.[25]

The evolving nature of cryptocurrency continues to pose challenges as developers create newer privacy-focused coins and mechanisms for enhancing anonymity.

Despite law enforcement's success, the evolving nature of cryptocurrency continues to pose challenges as developers create newer privacy-focused coins and mechanisms for enhancing anonymity. **Monero's XMR** currency is perhaps the most well-known coin with added technology to increase privacy. In fact, in September 2020, the IRS offered $625,000 for anyone who could crack Monero's privacy features.[26] Other privacy enhancing tools such as **"mixers"** pose similar challenges for law enforcement.[27] Investigative techniques must keep pace with these technology advancements in order to identify indicators of nefarious activity.

Regulatory tools have also targeted the ability to use cryptocurrency for illicit purposes. For example, cryptocurrency exchanges operating in the United States are required to employ Know Your Customer, Anti-Money Laundering, and Combating the Financing of Terrorism measures that apply to other financial services businesses.[28] However, some exchanges are now decentralized, with no requirements or capabilities to maintain user or transaction history.[29] These **decentralized exchanges (DEXs)** lack a trusted intermediary and merely facilitate peer-to-peer cryptocurrency trading.[30] They function more like a building owner of a flea market, helping to facilitate transactions, while not actively participating in transactions. In effect, DEXs stack another level of decentralization on top of the already decentralized cryptocurrency. This structure limits the ability of law enforcement and regulators to track

or audit transactions on DEXs and would likely make any attempt to subpoena information from a DEX fruitless. After all, DEXs have no central entity to audit or subpoena. DEX transactions require users to transfer cryptocurrencies using physical or virtual digital wallets which contain a person's full transaction history for that wallet. This aspect of cryptocurrency also presents concerns for organizations when it comes to security of personnel and the related concerns blockchain technology can generate.

PERSONAL FINANCIAL RISKS

All employees are subject to financial stress. Personal financial health is a performance and security concern. Stock market crashes, identity theft, foreclosure, and related events can impact job performance. Service departments offer a wide variety of assistance to help personnel stay focused on the mission, including legal assistance, financial literacy training, and even tax services. Cryptocurrency will increasingly impact financial stress and factor into these services.

Fraud Schemes

Cryptocurrency is subject to common fraud schemes. For example, the private keys associated with cryptocurrency are akin to passwords and are thus targets of phishing. The Federal Trade Commission has compiled helpful information to assist those inquiring about cryptocurrency fraud.[31]

Tax Implications

Cryptocurrency also has federal tax implications. The IRS treats cryptocurrency as property for tax purposes.[32] This designation imposes tax consequences for something as simple as buying a cup of coffee with Bitcoin, such as the need for the buyer to calculate the basis and gain in the Bitcoin used for the purchase.

Family Law Issues

Cryptocurrency will increasingly become a factor in family law issues as well. Lawyers apply relevant state property laws to divorce agreements and will have to determine how the state at issue treats cryptocurrency. Due to the highly volatile market prices for cryptocurrencies, court orders may be necessary to prevent parties from converting fiat currency to virtual currency. This temporary restraint will safeguard assets until the proceedings are final. Practitioners advising clients on family law matters involving cryptocurrency must be generally aware of the relevant financial and tax implications or be prepared to direct the clients to someone more qualified.

Estate Planning

Finally, cryptocurrency factors into estate planning. Lawyers should understand how to incorporate digital assets into estate plans and should be prepared to discuss the unique aspects of cryptocurrency with their clients. The American Bar Association has published some guidance,[33] and the Air Force JAG Corps has internal guidance for its legal assistance personnel.[34]

> Decentralized transactions do not benefit from a financial institution spreadsheet for transactions, making itemized disclosure and valuation a bit more challenging than traditional transactions.

CONFLICTS OF INTEREST

Cryptocurrency, such as Bitcoin, complicates the financial disclosure process. Each year, approximately 400,000 United States employees must disclose their financial connections to different companies and financial institutions, to include investments, close personal relationships, and business interests.[35] The government uses these disclosures to identify conflicts of interest and ensure employees make decisions in the government's best interest. The two commonly used forms are the United States Office of Government Ethics **(OGE) Form 278e** for senior personnel with public disclosure requirements and **OGE Form 450** for non-senior personnel with confidential disclosure requirements.[36] Given the novel and unique nature of cryptocurrency, many filers may not be aware of the disclosure requirements applicable to cryptocurrency. Current OGE guidance defines cryptocurrency as property held for investment.[37] Financial disclosure filers must report a cryptocurrency holding if

the value of the holding exceeds $1,000 at the end of the reporting period or if the holding produced more than $200 in income during the reporting period. Filers have additional reporting requirements for cryptocurrencies that are also securities.[38] Decentralized transactions do not benefit from a financial institution spreadsheet for transactions, making itemized disclosure and valuation a bit more challenging than traditional transactions.

Whether a cryptocurrency is a security is currently one of the most complicated and controversial legal questions related to cryptocurrency and corporate finance.

Whether a cryptocurrency is a security is currently one of the most complicated and controversial legal questions related to cryptocurrency and corporate finance.[39] In December 2020, the Securities and Exchange Commission (SEC) sued the largest U.S.-based cryptocurrency firm, Ripple, alleging Ripple's XRP cryptocurrency was an unregistered security.[40] SEC officials have previously opined that Bitcoin and another popular cryptocurrency, Ethereum, are not securities.[41] Federal ethics and financial disclosure guidance will likely require updating upon finalization of the Ripple lawsuit or issuance of comprehensive cryptocurrency regulations on this topic.

As with any new technology, regulations and litigation will impact value, compliance, and reporting requirements. Additionally, federal agencies may define and classify digital assets differently for different reporting purposes. Admittedly, most of the federal workforce is not required to file financial disclosures, but employees still may face personal financial issues due to cryptocurrency's confusing regulatory environment.

FEDERAL PERSONNEL SECURITY CONCERNS

All large organizations maintain personnel risk management policies. United States Government personnel security management policies include a plethora of programs designed to protect and advance organizational objectives. These programs include preventing opportunities for espionage, insider threats, fraud, and financial conflicts of interest. Beyond prevention efforts, the services offer programs such as legal assistance for taxes, estate planning, and consumer protection to minimize personal distractions and increase focus on assigned missions. The following paragraphs provide an overview of how cryptocurrency technology implicates these programs.

Current DoD guidance prohibits personnel with a security clearance from owning foreign state-backed, hosted, or managed cryptocurrency or wallets hosted by foreign exchanges, excluding diversified investments.

Over four million United States employees and contractors are cleared for access to classified information, with the DoD accounting for the large majority of these cleared personnel.[42] Security Clearance suitability determinations screen for foreign contacts, business relationships, influence, and preference.[43] Current DoD guidance prohibits personnel with a security clearance from owning foreign state-backed, hosted, or managed cryptocurrency or wallets hosted by foreign exchanges, excluding diversified investments.[44] The guidance aims to avoid cleared personnel having assets held hostage on a foreign exchange, but does not apply to DEXs.[45] This lack of focus is especially important since DEX use may pose a greater clearance risk than foreign exchanges.

Use of foreign exchanges has been significantly mitigated by the largest ones creating separate, U.S. regulatory complaint services for U.S. customers, and by blocking U.S.-based IP addresses from accessing foreign exchange services.[46] For example, in November 2020, Binance forced U.S.-based users to leave its original exchange, pointing them instead to its reduced service "BinanceUS" exchange.[47] Further risk mitigation comes from how cryptocurrency trading commonly occurs — it involves automated transactions based on technical indicators, functioning like a diversified investment portfolio, not large individual transactions that could be held hostage.

Since DEXs do not hold or track assets, there simply is no easy way to track, audit, or otherwise catch illicit decentralized financial activities.

So long as assets are not held on foreign-controlled wallets, DEX use does not pose the same risk of assets being held hostage, but it does increase the risk of personnel hiding illicit transactions. Since DEXs do not hold or track assets, there simply is no easy way to track, audit, or otherwise catch illicit decentralized financial activities. This limitation places greater importance on the use of current screening and investigative techniques to prevent, identify, and respond to **insider threats** to government programs. This new era will require employees to pay greater attention to coworkers who exhibit indicators of unexplained financial gain.

BLOCKCHAIN TECHNOLOGY USE CASES AND MILITARY APPLICATIONS

Although blockchain technology will for all time be associated with Bitcoin due to their common genesis, it has broader applications.[48] Any type of data or information can be **"tokenized"** and placed upon a blockchain. For assets, the asset is associated with a digital token, and whoever has the private keys to that token owns the asset. In March 2021, a tokenized digital image sold online at Christie's for $69.3 million.[49] In 2018, the owners of the St. Regis Aspen resort hotel in Aspen, Colorado tokenized and sold nearly 20 percent of the hotel through $18 million in digital tokens.[50] Blockchain technology can also be used to secure data and process transactions in almost any industry. Estonia now uses it to handle all the country's healthcare billing.[51] A Russian airline company recently developed a blockchain-based system for digital aviation fuel payments, cutting processing times from 4 to 5 days to 15 seconds.[52] There are many other indicators that society is on the cusp of blockchain mass adoption.

There are many other indicators that society is on the cusp of blockchain mass adoption.

The DoD has been interested in blockchain technology for a few years now. In 2018, the Defense Logistics Agency acknowledged the potential for blockchain to enhance supply chain management.[53] The Defense Advanced Research Projects Agency (DARPA) began experimenting with blockchain in 2019, and the DoD Digital Modernization Strategy noted its cybersecurity benefits.[54] Over the past year-and-a-half, Simba Chain has been awarded multiple contracts to develop blockchain projects for the Air Force, the Navy, and the DoD.[55] The Space Force also recently chose a blockchain company to develop data security systems.[56] So far in 2021, the Air Force has vetted 22 proposals for innovative blockchain research.[57] While the details remain proprietary, the proposed use cases were very promising, especially for military uses and commercialization. Military involvement in blockchain development could have a more pronounced impact on society than the military's role in the Global Positioning System. Yet as with any new technology, the use cases are not limited to those who wish to benefit society. Criminals are discovering their own use cases, posing new challenges for law enforcement and prosecutors.

Military lawyers should stay current on the broad applications of blockchain technology in the defense community, especially as other global powers advance their capabilities.

For example, at times the United States struggles to keep up with near-peer advancements in cyber hacking.[58] China recently created its own cryptocurrency, in part to circumvent United States sanctions.[59] Blockchain technology presents a new chapter of capabilities for cyber, operations, and even acquisitions. Military lawyers with a basic understanding of this technology will be better equipped to advise senior ranking officials as they increasingly encounter it in these various spheres.

With increasing use and corporate adoption, cryptocurrency and blockchain technology are already changing how society operates.

CONCLUSION

This overview will likely be the first of many resources devoted to this new technology. With increasing use and corporate adoption, cryptocurrency and blockchain technology are already changing how society operates. Familiarity with cryptocurrency is becoming a competency requirement for lawyers, regardless of practice area. Blockchain technology itself is also quickly finding broader uses in expanding global economic power, military cyber strategy, and fundamental human rights. Military lawyers must begin paying more attention to these new and quickly involving issues in order to accelerate change, or lose.

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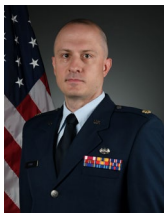

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ENDNOTES

[1] For clarity, the remainder of this article will use the term cryptocurrency. Other sources may use terms such as virtual currency or digital currency.

[2] *See generally* Yuval Noah Harari, Sapiens: A Brief History of Humankind 173-187 (2015) (explaining the development of money over spans of human history).

[3] David Kinley, Money: A Study of the Theory of the Medium of Exchange 39-52 (1909).

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[5] *See* Jane Gleeson-White, Double Entry: How the Merchants of Venice Created Modern Finance 20–21 (2013) (explaining that double-entry accounting first emerged in about 1300 A.D).

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[8] Jack Weatherford, The History of Money: From Sandstone to Cyberspace 124 (1997).

[9] Harari, *supra* note 2, at 186.

[10] *See generally*, Kevin Phillips, Bad Money: Reckless Finance, Failed Politics, and The Global Crisis of American Capitalism 20-21 (2008) (providing historical examples of indicators of when a nation has passed its zenith of world economic power).

[11] Satoshi Nakamoto, *Bitcoin: A Peer-to-Peer Electronic Cash System*, https://bitcoin.org/bitcoin.pdf (last visited 13 March 2021). "Satoshi Nakamoto" is a pseudonym, and Satoshi's identity has been a mystery since Bitcoin's inception. *See* Zoë Bernard and Grace Kay, *The many alleged identities of Bitcoin's mysterious creator, Satoshi Nakamoto*, Business Insider (26 February 2021), https://www.businessinsider.com/bitcoin-history-cryptocurrency-satoshi-nakamoto-2017-12.

[12] All cryptocurrencies created after Bitcoin are referred to as alternative coins, or "alt coins." Also, this article uses the Bitcoin blockchain in its discussion since it is the original blockchain. While other cryptocurrencies and blockchain projects may use blockchain technology, they will have their own separate blockchains.

[13] *See generally*, Yano, *supra* note 7, at 32-34 (explaining the need for smart contracts and the limitations of blockchain, including how smart contracts are computer programs built on blockchain protocols that automatically facilitate preset agreement criteria).

[14] *See* Leslie Lamport et al., *The Byzantine General's Problem*, 4 ACM TRANSACTIONS ON PROGRAMMING LANGUAGES AND SYSTEMS, Issue 3, 382 (1982), https://doi.org/10.1145/357172.357176, (providing an overview of the Byzantine General's Problem as an allegory first used to describe computing limitations), *see also* Anthony Stevens, *Understanding the Byzantine Generals' Problem (and how it affects you)*, Medium (7 May 2018), https://medium.com/coinmonks/a-note-from-anthony-if-you-havent-already-please-read-the-article-gaining-clarity-on-key-787989107969, (Explaining The Problem in its simplest form asks the question: "How can individual parties find a way to guarantee full consensus?").

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[17] Daniel Phillips, *How many Bitcoin does its inventor Satoshi Nakamoto still own?*, Decrypt (3 January 2021), https://decrypt.co/34810/how-many-bitcoin-does-its-inventor-satoshi-nakamoto-still-own (explaining that as of 3 January 2021, Satoshi's wallets were worth over $30 billion).

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[25] *See, e.g.,* United States v. 280 Virtual Currency Accounts, Civil Action No. 20-2396 (D.D.C. 27 August 2020), https://www.justice.gov/opa/press-release/file/1310421/download (Providing a fascinating example of a DOJ forfeiture action against North Korean hackers who allegedly stole funds from cryptocurrency exchanges. The complaint also contains a discussion of Bitcoin, Ether, blockchain analysis, hacks, and the process by which the DOJ identified the accounts at issue).

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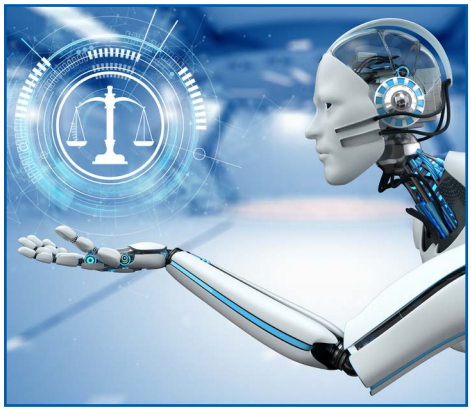
CATEGORY Operations and International Law

Text Excerpt from JAG Reporter Post: 27 Oct 2021 https://www.jagreporter.af.mil

Attorney's Guide to AI

Primer: A Practicing Attorney's Guide to Artificial Intelligence



BY MAJOR DAVID F. JACOBS AND CAPTAIN FLEMING E. KEEFE

Use of AI in both warfare and military administration is poised to increase dramatically, and a DoD that embraces AI and its potential will gain a strategic advantage over its competitors in the future.

Artificial intelligence (AI) can be defined as "the ability to perform tasks that normally require human intelligence."[1] This definition encompasses technology that has been around for nearly a century as well as decades-old technology already embedded throughout the Department of Defense (DoD) such as: aircraft autopilots, missile guidance, signal processing systems, and even our human resource systems.[2] While the emergence of AI may be aged, recent advancements in large data sets, increased computing power, improved machine learning algorithms, and open source code libraries have led to a considerable increase in real-world applications for AI.[3] These advances are already drastically revolutionizing our gadgets and lives towards a more AI-centric future.[4] A more AI-centric future can offer increased accuracy, increased capability, reduced human capital requirements, and a distinct advantage in future military operations. There is even evidence that AI can make us happier and healthier.[5] However, the promise of a more AI-centric future also brings unfamiliar threats driven by the speed of development and technological sophistications within the field of AI. The legal profession is poised to play a vital role in shaping how AI impacts our lives, the DoD, and society. But, before it is possible to know how Air Force and other DoD attorneys can succeed in such an endeavor, it is necessary to understand how AI works.

EXPAND YOUR KNOWLEDGE

External Link to Additional Resources

- Video: Artificial Intelligence (DVIDS)
  https://www.dvidshub.net/video/793739/artificial-intelligence
- U.S. and UK Research Labs Collaborate on Artificial Intelligence
  https://www.afrl.af.mil/News/Article-Display/Article/2816018/

3D illustration. Humanoid robot presenting legal scales.
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MAJOR GROUPS OF ARTIFICIAL INTELLIGENCE SYSTEMS

Rule-Based Systems

Generally speaking, AI is split into two large groups, *rule-based (RB) systems* and *machine learning (ML) systems*, conditioned upon on how the machine "learns."[6] The first group is comprised of systems which learn from rule-based techniques; these machines are called *rule-based systems* or *handcrafted knowledge systems*.[7] RB systems learn through a process of reducing knowledge to if-then statements—known as a *rule set* or *rule sets*—whereby each rule obliges a specific output that is predetermined by the given input.[8] A human operator "teaches" the machine using traditional software programming.[9] A "classic" example of a RB system is International Business Machines Corporation's (IBM) Deep Blue® chess playing computer.[10] The RB Deep Blue® system bested reigning World Chess Champion Gary Kasparov in New York City on 11 May 1997.[11] This victory was the result of IBM's extensive collaboration with chess champions to develop if-then rule sets that the computer system would follow when countering a chess move made by a human player.

> A human operator "teaches" the machine using traditional software programming.

To put this in everyday terms, the concept of RB learning can also be seen in the use of e-mail inbox rules.[12] For example, an operator may teach a system to automatically move e-mails sent by airmansnuffy@us.af.mil from an inbox folder to a subfolder labeled "Office." More complex inputs by the operator illustrate multilayered rules, like when an operator "teaches" a system to forward e-mails received from airmansnuffy@us.af.mil *which also* contain the word "invoice" to a different e-mail address altogether (i.e., financeworkflow@us.af.mil.) Depending on a system's function, the rule set(s) will be more or less complex and can even be used in conjunction with the second major group, machine learning systems, to form an AI system.[13] As such, RB learning systems will continue to remain relevant for the DoD.[14]

> ML systems "learn" by interactions with a real environment, a simulated environment, and/or training data sets.

Machine Learning Systems

Machine learning systems include machines which learn through adaptive capabilities.[15] In contrast to RB systems which are human-programed and have fixed rule sets, ML systems "self-program" by creating rules which the system may later discard, modify, and/or create new rules—to varying degrees.[16] ML systems "learn" by interactions with a real environment, a simulated environment, and/or training data sets. In simple terms, the primary distinction between RB and ML systems is: when an AI system executes the same task(s) on the same data population, a RB system will have the same output every time but a ML system *should* produce a more efficient and effective output at each subsequent interval. To achieve more efficient and effective outputs, ML systems use a mathematical algorithm built with software code that gives varying values to data which is imputed into the system.[17] ML systems are further divided into four subsets, called *learning methods*, determined by how the algorithm handles data. The four learning methods—*supervised learning, unsupervised learning, semi-supervised learning,* and *reinforcement learning*—are differentiated by learning algorithm and input data characteristics, as discussed below.[18]

Supervised, Unsupervised, Semi-supervised, & Reinforcement Learning Methods

Supervised learning uses input data[19] known as *training data*. Training data is data which has been labeled, often by a human supervisor, to the correct data class.[20] This type of input training data is called *labeled data*.[21] In other words, supervised learning involves the process of identifying raw data (images, text files, videos, etc.) and adding one or more meaningful labels to provide context that is used by a software algorithm.[22] The goal of each learning method is to teach a machine a particular function and the human supervisor must keep that goal in mind if labeling input

training data. For example, if the goal is to identify F-16 aircraft from overhead imagery, the human supervisor should collect a sample group of aircraft photographs and assign the photographs to a particular class (F-1s, F-14s, F-15s, F-16s, F-22s, etc.*)*. When shown a new image, the model will predict the correct aircraft classification of the new image by comparing the new image to the training data.

Supervised learning systems tend to have higher performance levels than unsupervised systems; however, they are more time-intensive to build and require sizable training data sets.

In contrast, ***unsupervised learning*** uses unlabeled training data and assigns a particular data class based on detected patterns.[23] Unsupervised learning occurs most frequently when there is not enough expert knowledge to assign correct class labels, when the training data is so large that it is economically or temporally impractical to label the data, or when researchers are asking questions without already knowing the correct answer. Supervised learning systems tend to have higher performance levels than unsupervised systems; however, they are more time-intensive to build and require sizable training data sets.[24] *Semi-supervised learning*, as the name suggests, uses a combination of both labeled and unlabeled training input data.[25] Once trained, a ML system may use labeled or unlabeled data regardless of whether it is a supervised, semi-supervised, or unsupervised system.[26]

The last type of learning method is ***reinforcement learning***. Reinforcement learning uses feedback obtained through trial-and-error; whereby, a machine is tasked to make a decision (action), receives a reward or punishment (feedback) based on whether the action was consistent with the machine's predefined goal(s), and then applies feedback to influence subsequent decisions.[27] Reinforcement learning appears to be the most complicated learning method at first glance but it is easily demonstrated through a real-world example. When teaching a dog to sit (action) you provide the dog feedback based the action aligning, or not aligning, with your predefined goal (the dog sitting). If the dog sits, you give the dog a treat (positive feedback). If the dog does not sit, you do not give the dog a treat (negative feedback). The dog uses the earlier feedback (receiving a treat or not) to decide whether to comply the next time you ask the dog to sit. By repeating the action and feedback loop, the output accuracy should increase at each subsequent interval and, eventually, the dog *should* sit every time you ask.

It is worth noting that ***deep learning***, also known as *deep neural networks*, is a ML technique that can be applied to any of the abovementioned learning methods[28] but the technical details are beyond the scope of this article. While an in-depth discussion of deep learning and neural networks goes beyond the scope of this article, it is important to highlight a common AI technique that is frequently used to improve the software algorithm. *General adversarial models* (GANs) use two sub-models to train an AI system—*a generator* and a *discriminator*.[29] A generator produces a plausible example, such as an image of a fake person, and a discriminator compares the plausible example against a real image to determine which is real.[30] [31] The generator improves its algorithm model based upon its ability to trick the discriminator.[32]

LEGAL PRINCIPLES FOR ARTIFICIAL INTELLIGENCE

In general, an AI system consists of two components: the software that makes up an algorithm and the data that interacts with the software algorithm. Humans remain critical to the development and deployment of AI systems through choosing algorithms, formatting data, setting learning parameters, and troubleshooting problems.[33] Potential legal challenges relating to AI systems are numerous and daunting, so having a baseline understanding of AI systems is crucial to a successful legal review. In this regard, the ability to distinguish between RB and ML systems and various ML models is essential for attorneys practicing in this field. For one reason, a legal review of RB systems does not require addressing training data because RB systems do not use training data. Similarly, understanding the kind of ML model that is being used can help the legal practitioner

identify which types of data should be evaluated in the legal review. When examining an AI system, it is best to analyze the system from three distinct perspectives: first, an overarching view imposed by the DoD, called *AI ethics*; second, a view from the point of data, which interacts with the software algorithm to produce an output; and third, a view from the point of software, which is primarily comprised of the algorithm on which the AI system operates.

Ethical Principles

The DoD published five ethical principles for guiding the ethical development of combat and non-combat AI capabilities on 24 February 2020, as part of its efforts to be a leader in the fields of AI and AI regulation.[34] Those principles, listed below, encompass the general areas of responsibility, equity, traceability, reliability, and governability. However, ethical principles exist beyond those listed below, and legal reviewers must exercise due diligence and remain cognizant of the fact that there may be other controlling regulations, dependent on the customer or audience.[35]

> *1. Responsibility: DoD personnel will exercise appropriate levels of judgment and care, while remaining responsible for the development, deployment, and use of AI capabilities.*
>
> *2. Equity: The Department will take deliberate steps to minimize unintended bias in AI capabilities.*
>
> *3. Traceability: The Department's AI capabilities will be developed and deployed such that relevant personnel possess an appropriate understanding of the technology, development processes, and operational methods applicable to AI capabilities, including with transparent and auditable methodologies, data sources, and design procedure and documentation.*
>
> *4. Reliability: The Department's AI capabilities will have explicit, well-defined uses, and the safety, security, and effectiveness of such capabilities will be subject to testing and assurance within those defined uses across their entire life-cycles.*
>
> *5. Governability: The Department will design and engineer AI capabilities to fulfill their intended functions while possessing the ability to detect and avoid unintended consequences, and the ability to disengage or deactivate deployed systems that demonstrate unintended behavior.*[36]

On 26 May 2021, Deputy Secretary of Defense issued a memorandum affirming DoD's commitment to the DoD ethical principles and implementing responsible AI (RAI) in the DoD.[37] Despite the potential confusingly similar name to first ethical principle of AI ethics, RAI is DoD's implementing strategy for all five of the ethical principles.[38] The Joint Artificial Intelligence Center (JAIC) serves as DoD's coordinator for development and implementation of RAI strategy, guidance, and policy.[39] As of the date of this article, the JAIC has not published any official policy for interpreting AI ethical principles outside of the data strategy document and the RAI implementation memorandum; however, legal practitioners employed in the development or deployment of AI should check the JAIC website for updated material.[40] Until the DoD formalizes such policies, attorneys should, at a minimum, note in their legal reviews that the DoD AI ethical principles were considered prior to procurement, development, or deployment of an AI system.

Data Principles

As AI becomes increasingly more widespread, complex legal questions will naturally arise regarding acquisition, development, use, and ownership of the underlying data used to train or operate an AI system. Just as the underlying software is becoming more advanced, so too is the availability of data and the complexity associated with handling that data. Forbes reported that 2.8 quintillion bytes of data were created each day and over 90% of the world's data had been created over the preceding two years, at the time of the article in 2018.[41] Since 2018, the amount, type, and availability of data has only been increasing.[42] The DoD is starting to recognize the power that vast data can have in AI development and deployment.[43] To that end, the DoD has begun to focus on becoming a more data-centric organization that uses data at speed and scale for operational advantage and

increased efficiency.[44] The transformation of the DoD to a data-centric organization created the need to re-think the importance of data throughout the organization and acquisition life-cycle.[45] The result is that the federal government and the DoD now consider data a strategic asset.[46]

The legal practitioner should consider what is happening to the data at each of these stages with a general understanding of personnel with access, how the data will be used, and constitutional or other legal implications.

Three Distinct States

Data is a strategic asset that does not exist in a single state, but exists across three distinct states—*in use*, *at rest*, and *in transit*, also called *data in motion*. *Data at rest* is all data in computer storage that is not currently being accessed or transferred, *data in motion* is data that is moving or being transferred between locations within or between computer systems, and *data in use* is data that is currently being updated, processed, accessed and read by a system.[47] The legal practitioner should consider what is happening to the data at each of these stages with a general understanding of personnel with access, how the data will be used, and constitutional or other legal implications. This is particularly important in areas where there are restrictions, controls, or privacy implications to data access. For example, data containing personally identifiable information (PII)[48] may require: a privacy impact assessment,[49] system of records notice (SORN),[50] contractor approval for handling,[51] a public affairs review,[52] or constitutional considerations for how the data is being used.[53] Additionally, multiple contractor approvals may be necessary if different contractors handle the data at different states. For example, one contractor may work on storage and handling of the data and another contractor may work on handling the data when used to train an AI system.

In order for data to be usable for AI systems it must be properly formatted across all three states.[54] For the DoD, proper formatting means that the data is visible, accessible, understandable, linked, trustworthy, interoperable and secure across each state.[55] The Department of the Air Force, Chief Data Office, is responsible for the Air Force's policies and procedures for handling data.[56] As of the date of this article, the Chief Data Office has not published an official policy on how to satisfy DoD's formatting requirements, but education and training standards are already being implemented.[57] As such, legal practitioners should continue to monitor this area for new developments in standard licensing terms, formatting requirements, and other data-structuring procedures.

When evaluating an AI system, a legal practitioner must determine the underlying rights, if any, associated with the data.

Data-Use Rights

The DoD is directed to maximize data sharing and data-use rights.[58] In fact, ownership in technical data is essential for ensuring Department of the Air Force systems remain affordable and sustainable.[59] However, data suitable for AI training and use may carry various restrictions or terms which could limit the application of an AI system in its intended end state. Just because a Department of the Air Force unit has access to the data, does not necessarily mean the unit owns the data itself.[60] Failure to properly account for ownership and future use of underlying data can have drastic implications for usability of an AI system down the line.[61] When evaluating an AI system, a legal practitioner must determine the underlying rights, if any, associated with the data. For example, some licenses limit data use to educational or research purposes only.[62] Additionally, to ensure the data is ultimately usable, attorneys should be careful to clarify new rights, or changes to existing rights, if formatting data. If a contractor formats or makes changes to the data, associated licenses or contracts must identify what rights are attached to the formatted data. The role of a legal practitioner when examining data for AI

systems should be to ensure the Department of the Air Force is using data consistent with any terms or restrictions and that data acquired for AI enables the greatest flexibility well into the future.

Data Ethics

The DoD Data Strategy calls out *data ethics* as a legal consideration distinct and unique from AI ethics.[63] While the DoD Data Strategy does not provide a clear definition for data ethics, the federal data ethics framework defines *data ethics* as "norms of behavior that promote appropriate judgments and accountability when acquiring, managing, or using data, with the goals of protecting civil liberties, minimizing risks to individuals and society, and maximizing public good."[64] Therefore, a legal review assessing data which was acquired for, or is used by, an AI system should regard ethical implications of the data itself as a discrete consideration. While most ethical considerations relating to data are self-evident, such as civil liberties, some are not as readily apparent. One less obvious consideration involves actions that may qualify as human subject research.[65] Many AI systems utilize or analyze data containing PII, but such use may qualify as human subject research under applicable DoD regulations regardless of whether the data was training or operational data.[66] For example, surveillance cameras outside of a Base Exchange (BX) capture images of its customers and those images likely contain PII, or information which could be used to distinguish or trace the identities of those customers. If a ML system uses the BX live camera feeds, it may qualify as human subject research at two distinct times—as the machine trains on the data before operational use and as the machine adapts once it becomes operational.

Software Principles

Similar to data, ownership in software is essential for ensuring Department of the Air Force systems remain affordable and sustainable.[67] Legal practitioners must determine software ownership and applicable restrictions, if any. While this task may seem relatively straightforward, it can quickly become complicated if employing a software suite that contains software code incorporating several different license structures.[68] Aside from the complexities of multi-layered license structures, even so called "open-source" software sets may convey restrictions and terms on software use.[69] Addressing this early on can pay dividends for the command and mission in the long run.

While weapon systems are the obvious choice for legal review requirements, non-weapon systems may also violate policy and law at state or federal levels.

Review of the software is also where a legal practitioner should look to federal and state laws addressing how AI systems can and will be used. Department of Air Force attorneys may quickly jump to the weapons review process and considerations outlined in Department of Defense Directive (DoDD) 3000.09, *Autonomy in Weapon Systems*, and Air Force Instruction 51-401, *The Law of War*; however, those policies address legal considerations for some, but not all, of the uses of AI in a weapons system. Indeed, there currently exists a noted gap in DoDD 3000.09 for AI weapon system considerations[70] and an ongoing debate outside the scope of this article on how to address that gap. While weapon systems are the obvious choice for legal review requirements, non-weapon systems may also violate policy and law at state or federal levels. The ability of DoD-compliant AI systems to lawfully operate is not at all assured. For example, several states have laws restricting or banning the use of biometrics,[71] which would directly affect the feasibility of an AI facial recognition system for detecting intruders. Many of the data considerations will affect the software considerations and vice versa; however, a review should analyze considerations separately given that data and software may operate independently from each other in an AI system.

SUMMARY

The use of AI in both warfare and military administration is poised to increase dramatically, and a DoD that embraces AI and its potential will gain a strategic advantage over its competitors in the future. However, a number of challenges related to technology, policy, process, and data will continue to challenge those working in the dynamic field of AI. To address these challenges, the DoD published ethical principles and an implementation memorandum for responsible AI, but the absence of formal policies related to data formatting and data rights is another obstacle to the successful integration of AI in military applications. Collectively, these factors represent an enormous charge for legal practitioners. To help navigate this ever-changing field we established key concepts and provided a framework for legally examining AI from three viewpoints—data, software, and ethics. In evaluating data, an attorney must determine data ownership and whether there are restrictions, controls, or privacy implications all while considering how the data is being used and accessed against all three states. Similarly, an attorney must evaluate governing licenses and laws to determine whether there are restrictions on software and its use. Lastly, there is an obligation to ensure ethical use of data, software, and AI systems generally. As such, practicing attorneys must examine an AI system from three distinct views in order to ensure the system as a whole is legal.

Layout by Thomasa Huffstutler

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CATEGORY Operations and International Law

Text Excerpt from JAG Reporter Post: 10 Dec 2021 https://www.jagreporter.af.mil

TAKING TO THE SKIES:

The Future of Renewed Air Drug Interdiction in Latin America

BY CAPTAIN KARINA OSGOOD

The current U.S. policy on aerial interdictions was made in haste after a tragic accident. Reconsideration of this policy is long overdue.

AIRCRAFT DOWN

Early on April 20, 2001, an event occurred that would long mark the nature of U.S. support for foreign counternarcotic operations. An unidentified civil aircraft was sighted in Peruvian airspace. A series of communication errors led to a team of U.S. and Peruvian officials classifying the plane as suspect aircraft, but their attempts at radio contact never reached the civilian pilot. Believing that the apparently uncooperative pilot was a drug trafficker, Peru's A-37 shot down the aircraft, wounding the American pilot and killing two innocent passengers, an American Baptist missionary and her young daughter.[1] This tragedy was the unintended consequence of an effort to combat drug trafficking starting in the mid-1990s, known as the Air Bridge Denial Program (ABDP),[2] whereby the U.S. Air Force would provide partner air forces with flight paths, times, departure points, and destinations of suspicious flights.[3] The goal was to deter the use of private aircraft to transport cocaine from Peru to Colombia.[4]

The goal was to deter the use of private aircraft to transport cocaine from Peru to Colombia.

After the 2001 incident, the United States suspended the ABDP and ultimately decided not to reinitiate the program with Peru.[5] In 2003, it agreed to restart an ABDP with Colombia.[6] As part of this agreement, the parties outlined measures to prevent the tragedy in Peru from reoccurring, such as improved communication channels and enhanced foreign language training requirements.[7] Since then, the

(PHOTO) E-3 Sentry airborne warning and control system aircraft flies a surveillance mission over the eastern Pacific Ocean to find drug runners. (U.S. Air Force photo/Tech. Sgt. Cecilio Ricardo)

United States has not entered into similar ABDPs. Although aerial drug interdiction remains a lively issue for partner countries in the region, the legal authority to target civil aircraft within a country's airspace has received little attention here.[8] Events over the last 10 years, however, indicate that this issue deserves reconsideration. Several countries in the region are initiating or renewing aerial interdiction laws, which in turn will affect our ability to partner with them. The significance of this matter to U.S. national security interests extends far beyond Latin America.

EXPAND YOUR KNOWLEDGE

External Links to Additional Resources

- CIA Procedures Used in Narcotics Air Bridge Denial Program https://www.cia.gov/readingroom/docs/PROCEDURES%20USED%20IN%20NARCOTICS%20AIRBRIDGE%20DENIAL%20PROGRAM%20IN%20PERU%2C%201995-2001.pdf
- Senate Report on April 20, 2001 Civilian Aircraft Shootdown https://www.intelligence.senate.gov/sites/default/files/publications/10764.pdf

NARCOTICS TRAFFICKING AT A GLANCE

Latin America is the hub for global narcotics production. A common misconception is that the region's most commonly trafficked drug is heroin.[9] In fact, cocaine is, and Colombia, Peru, and Bolivia are its main purveyors.[10] Colombia remains the world's largest producer.[11] In 2019, it had 212,000 hectares dedicated to cultivation.[12] Despite hopes that production would decline with the 2016 signing of a peace treaty between Colombia and the Revolutionary Armed Forces of Columbia (FARC)[13], it increased from 877 to 936 metric tons from 2018 to 2019.[14] In 2015, 90 percent of all cocaine seized in the United States originated there.[15] Five years later, its share held steady at 89 percent.[16] **Globally, Colombia produces about 70 percent of cocaine.**[17] As part of the war on drugs, each year the President issues a memorandum classifying the major drug transit or producing countries.[18] For 2021, 22 such classifications were issued. More than half were in Latin America and these included Colombia, Peru, Bolivia, and Venezuela.[19]

While the narcotics trade has remained steady and even increased since the 2001 shootdown, the industry has encountered a setback with the ongoing COVID-19 pandemic. Lockdowns have disrupted international travel and border access, making trafficking less profitable. However, these obstacles are temporary. Cartels have a talent for circumvention. For example, only a few weeks into the initial pandemic lockdowns, U.S. Customs and Border Protection reported an increase in drone and light aircraft sightings along the border.[20]

As the world eventually returns to normal following the pandemic, **the question is whether the United States will remain committed to the war on drugs.** With an increasing focus on great power competition, will the Pentagon have the bandwidth for this mission? Is this a fight in which America is willing to continue investing resources and manpower? If the answer to those questions is yes, then determining the legality of aerial-shoot-down laws will be critical.

THE RENEWAL: RETURNING TO AIR INTERDICTION

In recent years, various partner countries in Latin America have demonstrated renewed interest in air interdiction. Thus far, such efforts have taken place without notable U.S. interest. To the extent that the United States has been involved, it has been to maintain its longstanding policy of prohibiting cooperation with nations that have lethal aerial interdiction policies. If the United States is to retain a leadership role in the region—especially given increasing competition from Russia and China for influence—a reconsideration of these issues is past due.

In 2015, Peru passed legislation authorizing the FAP to target and shoot down small aircraft suspected of narcotrafficking.[21] This legislation renewed the same policy that resulted in the 2001 shootdown.[22] The United States was opposed—arguing Peru had proven that it could effectively combat trafficking without a lethal aerial interdiction program[23]—and urged Peru to undertake practices consistent with international law and respect for human rights.[24]

Renewed interested in air interdiction is not unique to Peru; other Latin American countries have taken similar steps over the past decade. For example, in 2014, **Honduras** passed the "Law of Aerial Exclusion," which permits its air force to target and shoot down aircraft.[25] Shortly after, **Bolivia** also passed a law giving the same authorization to its military to shoot down "hostile" aircraft whose pilots disregard warnings.[26] **Paraguay** enacted another such law, and it is also problematic.[27] **Argentina** has taken a slightly different approach in 2016. The president declared a state of emergency and on this basis authorized a shootdown policy.[28] Most recently, **Uruguay** passed legislation in 2020 that authorizes lethal aerial interdiction. Although it does not specifically cite anti-trafficking efforts as a basis for shoot-downs, its military now has authorization to conduct shoot-downs deemed "necessary."[29]

As Latin American countries renew or initiate aerial interdiction policies, unanswered questions spanning two decades resurface: shouldtdowns of civil aircraft?

As Latin American countries renew or initiate aerial interdiction policies, unanswered questions spanning two decades resurface: **should international law approve of shootdowns of civil aircraft?** If so, under what conditions? Further, not everything that is allowed under the law makes good policy. So even if shoot-downs are permissible, what should U.S. policy be?

THE JUSTIFICATION: SHOOTDOWNS UNDER INTERNATIONAL LAW

Establishing whether there is a legitimate basis for shootdowns under international law has been a topic of discussion for three decades. In 1994, the Department of Justice Office of Legal Counsel issued an opinion discussing ABDP operations and cautioning against the use of aerial interdictions.[30] This opinion remains the U.S. government's most comprehensive analysis of the issue and has been highly influential in policy debates. It should not, however, be taken as the final word on the subject.

The **Chicago Convention** is the lodestar in defining states' obligations as to civil aviation under international law.[31] These include a duty to establish regulations that ensure "due regard" for the safe navigation of civil aircraft.[32] In the past, the United States interpreted this to mean the establishment of some sort of regulatory regime, which could include rules of engagement.[33] More recently, it has interpreted this provision more restrictively such that the U.S. government now holds that ABDP-style shootdowns are generally forbidden.[34]

Forty years after the Chicago Convention was signed, the **Montreal Protocol** amended its requirements, adding that states must "refrain from resorting to the use of weapons against civil aircraft in flight and that, in the case of interception, the lives of persons on board and the safety of aircraft must not be endangered."[35] Of relevance to the question of shootdowns, the Montreal Protocol noted that this provision should not be construed so as to modify states' rights under the U.N. Charter,[36] referring to a sovereign nation's inherent right to self-defense.[37] Apart from this one qualification, though, neither the Chicago Convention nor the Montreal Protocol addresses the question at issue. Hence, if there is colorable authority for shootdowns other than in cases of genuine self-defense,[38] it must originate from other sources.

In what is still the seminal article on the question of shootdowns, the author examined the various sources that could be used to **justify aerial anti-narcotics operations**. He found that the best authority would be the state of necessity exception[39] as codified in Article 25 of the Draft Articles of State Responsibility for Internationally Wrong Acts.[40] To invoke this exception, a state must show that (1) the act is the "only way … to safeguard an essential interest against a grave and imminent peril" and that (2) doing so would not "seriously impair an essential interest" of the state itself, its obligations to other states, or the international community.[41]

In the commentary on Article 25, an "essential interest" can be applied to a "wide variety of interests."[42] These include "safeguarding the environment, preserving the very existence of the State and its people in a time of public emergency, and ensuring the safety of a civilian population."[43] Such peril requires being "objectively established," not merely possible.[44] In addition, the threat must be imminent.[45] Finally, the vital interest must "outweigh all other considerations."[46] This determination entails a "reasonable assessment of the competing interests, whether these are individual or collective."[47]

> The question becomes whether the drug war constitutes a "grave and imminent peril" that threatens an "essential interest."

Based on this guidance, the question becomes whether the drug war constitutes a "grave and imminent peril" that threatens an "essential interest."[48] As noted, Argentina declared a state of emergency in 2016, claiming drug trafficking constitutes a "threat to national sovereignty."[49] While other countries have not issued such formal declarations, renewed interest in interdiction policies suggests that they share Argentina's concerns about the threat posed by the drug trade. Similarly, when Colombia asked the United States to restart the ABDP in 2003, its justification was that this program was necessary to combatting drug trafficking.[50] To this evidence can be added support even from the U.S. President.[51] An analysis applying the necessity test to the conditions in each country would exceed the scope of this essay. However, taken collectively, the facts seem to support findings of necessity similar to what Colombia first articulated in 2003 such that shoot-downs of drug traffickers are sometimes permissible under international law.[52]

So far it is has been suggested that shooting down civil aircraft operating in support of the drug trade could be justified under international law. But this is not only a question of *law*, either international or domestic. The U.S. armed forces cannot provide material support to allies if they enact aerial interdiction laws because U.S. *policy* creates a presumption of wrongdoing.[53] The legislature could easily change that policy. Further, Congress has already granted the President authority to make exceptions when a determination is made that trafficking poses an extraordinary national security threat to partner nations.[54] For two decades, every year the President has signed such a determination memorandum for Colombia.[55] He could do the same for Peru, Brazil, Uruguay, and other key regional partners. What is lacking is not the authority for making such a determination but the political will to do so.

CONCLUSION

The current U.S. policy on aerial interdictions was made in haste after a tragic accident. Reconsideration of this policy is long overdue. In the two decades since, safeguards have been developed that reduce risks of accidents.[56] Threats have also evolved, as have strategic priorities.[57] The U.S. government's prohibition on assisting nations with aerial interdiction laws has less to do with the outward requirements of international law and more to do with inward policy. That policy needs a fresh look to determine if it is still consistent with U.S. strategic goals. Arguably, it is not.

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[31] Convention on International Civil Aviation, Dec. 7, 1944, 61 Stat.1180, 15 U.N.T.S. 295.

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[46] *Id.* at 83–84 (establishing that the necessity element requires proving that "the conduct in question must not impair an essential interest of the other State or States concerned").

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