b. National Space Policy Initiatives in the Post-Reagan Age

Following Reagan's departure from office, ensuing administrations addressed national space policy, and their correlating issues, in different ways.[98] President George H.W. Bush continued in Reagan's footsteps by balancing space policy concerns through a National Security Council[99] and by continuing Reagan-based space policy initiatives throughout his presidency.[100] Presidents Clinton, George W. Bush, and Obama, on the other hand, deviated in many ways from Reagan's space initiatives[101] when devising their own space, national security, and national security space policies.[102] This has debatably influenced the current climate of policy divergence in the national security space and national commercial space policy realms.

President Clinton avoided using a national space council or interagency group to balance national security space needs and commercial space policy goals.[103] Additionally, he "separate[d] civil space activities and national security space activities . . . [with] national security activities . . . 'overseen by the Secretary of Defense and the Director of Central Intelligence (DCI)' . . . ."[104]

President George W. Bush and President Obama both implemented space policies void of national space councils and/or inter-

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[98] Hall, *supra* note, at 70, 79*; see also* U.S. NATIONAL SPACE POLICY, *supra* note 87; NATIONAL SPACE POLICY OF THE UNITED STATES OF AMERICA, *supra* note 85; National Security Space Policy of 2011, *supra* note 89.

[99] Hall, *supra* note 1, at 70*;* Kay, *supra* note 40, at 243.

[100] Hall, *supra* note 1, at 79; Kay, *supra* note 40, at 243; *see* U.S. NATIONAL SPACE POLICY, *supra* note 87; NATIONAL SPACE POLICY OF THE UNITED STATES OF AMERICA, *supra* note 85; National Security Space Policy of 2011, *supra* note 89; *see also* Todd Barnet, *United States National Space Policy, 2006 & 2010*, 23 FLA. J. INT'L L. 277 (2011).

[101] Please note that President Reagan's national security space policies fell under the auspices of national space policy. Kay, *supra* note 40, at 239; It was not until much later that national security space policy became a subset of national security policy. *see also* William G. Schmidt, *Aviation and Aerospace Law*, 31 INT'L LAW. 571, 577-78 (1997).

[102] Barnet, *supra* note 105, at 23.

[103] Kay, *supra* note 40, at 243.

[104] William G. Schmidt, *Aviation and Aerospace Law*, 31 INT'L LAW. 571, 577-78 (1997). It should be noted that like Reagan, President Clinton encouraged the use of commercial space technologies in national space initiatives and called for "a national missile defense deployment readiness program as a hedge against the emergence of long-range missile threat against the U.S." *Id*.

agency groups capable of balancing varied and potentially conflicting space policy interests.[105] Furthermore, due to heightened post 9/11 security concerns, both Bush[106] and Obama[107] contrived space policy that, though containing commercial space goals reminiscent of prior administrations,[108] additionally emphasized and prioritized national space security needs.[109] Bush's 2006 national space policy included a "space control" provision that enabled the U.S. to "maintain capability to deter and . . . defeat efforts . . . [that] . . . interfere with U.S. Space Capabilities,"[110] which essentially "authorized the United States to unilaterally determine which nations should be barred from space, for what reason, and when."[111] President Obama's space policy followed the same vein by "allowing the United States to protect its national interests in space . . . [,]"[112] but also reins in the earlier Bush space doctrine by "call[ing] for cooperation and transparency"[113] with other nations.[114]

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[105] NASA's Strategic Direction and the Need for a National Consensus, Committee on NASA's Strategic Direction; Division on Engineering and Physical Sciences; National Research Council (2012) available at https://oig.nasa.gov/Special-Review/SpecialReview(12-5-12).pdf

[106] U.S. NATIONAL SPACE POLICY, *supra* note 87.

[107] NATIONAL SPACE POLICY OF THE UNITED STATES OF AMERICA, *supra* note 85.

[108] Jeff Kueter, *Evaluating the Obama National Space Policy: Continuity and New Priorities*, George C. Marshall Institute (July 2010); *see also* Barnet, s*upra* note 105, at 278.

[109] Barnet, *supra* note 105, at 278.

[110] David A. Koplow, *An Inference About Interference: A Surprising Application of Existing International Law to Inhibit Anti-Satellite Weapons*, 35 U. PA. J. INT'L L. 737, 827 (2014); *see also*, *What Do You Leave Behind? Evaluating the Bush Administration's National Security Space Policy*, George C. Marshall Institute (December 2006).

[111] Barnet, *supra* note 105.

[112] NATIONAL SPACE POLICY OF THE UNITED STATES OF AMERICA, *supra* note 85*; see also* Scott J. Shackelford, *Governing the Final Frontier: A Polycentric Approach to Managing Space Weaponization and Debris*, 51 AM. BUS. L.J. 429, 470-71 (2014); *see What Do You Leave Behind? Evaluating the Bush Administration's National Security Space Policy*, George C. Marshall Institute (December 2006); Jeff Kueter, *Evaluating the Obama National Space Policy: Continuity and New Priorities*, George C. Marshall Institute (July 2010).

[113] NATIONAL SPACE POLICY OF THE UNITED STATES OF AMERICA, *supra* note 85; *see also*, Jeff Kueter, *Evaluating the Obama National Space Policy: Continuity and New Priorities*, George C. Marshall Institute (July 2010).

[114] Kueter, *supra* note 118.

Though recent presidential policy has reiterated the importance of a national security space program that diligently protects U.S. interests through space capabilities;[115] and a commercial space policy that promotes the economic and innovative benefits of a thriving commercial space industry,[116] such presidential policy initiatives have at times conflicted with other proposed and/or established presidential,[117] congressional,[118] and agency-based[119] policy initiatives.[120] This in turn has created an atmosphere of competing and counter-productive policy ideologies.[121]

The next section discusses various policy divergent departure points within the national security space and national commercial space realms and explains why Congress should implement a permanent, multi-resource uniform space policy & oversight commission tasked with balancing the economic and innovative goals of commercial space policy with the interest-protecting importance of national security space initiatives.

IV. CONVERGENCE, DIVERGENCE, AND A BALANCE-DRIVEN TENSION AT THE INTERSECTION OF NATIONAL COMMERCIAL SPACE POLICY GOALS AND NATIONAL SPACE SECURITY NEEDS.

To this point, much of this paper has focused on the development of, and presidential influence upon, National Security Policy (NSEC) and National Space Policy (NSPP) (and assorted subsets) and the various policy-convergent and policy-divergent departure points between NSEC and NSPP.[122]

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115 U.S. NATIONAL SPACE POLICY, *supra* note 87; NATIONAL SPACE POLICY OF THE UNITED STATES OF AMERICA, *supra* note 85.

116 U.S. NATIONAL SPACE POLICY, *supra* note 87; NATIONAL SPACE POLICY OF THE UNITED STATES OF AMERICA, *supra* note 85.

117 For example, the Bush Space Doctrine called for a Commercial Crew program that would return man to the moon, whereas the Obama Space Doctrine dropped that goal to focus on unmanned space exploration.

118 Blount, *supra* note 5, at 705-06.

119 Captain Michael R. Hoverstein, *U.S. National Security and Government Regulation of Commercial Remote Sensing from Outer Space*, 50 A.F. L. REV. 253, 254 (2001); Major Elizabeth Seebode Waldrop, *Integration of Military and Civilian Space Assets: Legal and National Security Implications*, 55 A.F. L. REV. 157, 157 (2004).

120 *Id.*

121 *Id.*

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It is the opinion of the author that a discussion of policy-convergent and policy-divergent departure-points within space policy must include an overall depiction of such departure

The remainder of this paper will: 1) address the conflict between presidential, congressional, and agency actors and initiatives related to National Security Space Policy (NSSP) and Commercial Space Policy (CSP); 2) describe various policy divergent departure points between NSSP and CSP initiatives;[123] and 3) recommend a permanent, multi-resource uniform space policy oversight commission to be used for facilitating vital balance between and adherence to NSEC and NSPP.

A. Convergence and Divergence of National Security Space and Commercial Space Policy

1. Actors Affecting, and Effected by, National Security Space and Commercial Space Policy Divergence

As discussed throughout this paper, both the Executive and Legislative Branches have had a hand in developing national security and national space policy.[124] The President sets NSEC[125] and

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points throughout the development of space policy to ensure that the reader has an understanding that policy divergence between national space and national security space policy is not a new phenomenon, but an ongoing issue. Much focus was placed on President Ronald Reagan within this paper due to the fact that President Reagan had a large influence upon the development of both commercial space and national security space policy, which he managed by using an interagency group to monitor the needs and national security space, national commercial space, and national civil space initiatives. *See supra* notes 99, 100, 101 and accompanying text.

[123] Though there are other areas of divergence within the National Security and National Space realms, this section will focus on problems that arise between National Security Space and National Commercial Space initiatives because that is that place of divergence in Space Exploration Techs. Corp. v. U.S. and United Launch Sys., No. 14-354C, (Fed. Cl. Apr. 30, 2014), and the place in which space policy divergence is most easily observed.

[124] Hall, *supra* note 1, at 6-10, 19, 22, 24, 27, 33, 43, 70, 79*; see also* Kay, *supra* note 40, at 239-241; U.S. NATIONAL SPACE POLICY, *supra* note 87; NATIONAL SPACE POLICY OF THE UNITED STATES OF AMERICA, *supra* note 85; National Security Space Strategy 2011 available at https://www.hsdl.org/?view&did=10828; *see also* NATIONAL SECURITY SPACE POLICY UNCLASSIFIED SUMMARY (Jan. 2011), *available at*, file:///Users/HaleyGrantham28/Downloads/nps51-020711-02.pdf; National Aeronautics Space Act of 1958, Pub.L. 85-568, 72 Stat. 426. (1958); Commercial Space Launch At of 1984, Pub.L. 98-575, 98 Stat. 3055 (1984); National Aeronautics and Space Administration Authorization Act of 2010, Pub. L. No. 111-267, 124 Stat. 2805.

[125] Roy E. Brownell II, *The Coexistence of United States v. Curtiss-Wright and Youngstown Sheet & Tube v. Sawyer in National Security Jurisprudence*, 16 J.L. & POL. 1, 21 (2000) (explaining that the president's "plenary" foreign affairs power authorizes the president to set national security policy); *see also* H. Jefferson Powell, *The President's*

NSPP;[126] while Congress provides legislative authority[127] to agency entities tasked with implementing such policies.[128] Currently, the President,[129] the Congress,[130] the DoD,[131] the Intelligence Community,[132] and the FAA[133] all contribute to the development, implementation, monitoring, and/or application of NSEC and or NSPP for various national initiatives. However, these organizations and entities often work against—rather than with—each other when implementing policy because the focus and goals of each organization and entity varies according to its mission.[134]

Incidentally, policy divergence between policy actors has produced problems for both national security space[135] and private

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Authority over Foreign Affairs: An Executive Branch Perspective, 67 GEO. WASH. L. REV. 527, 529 (1999).

126 51 U.S.C. § 20102 (2017).

127 A. Michael Froomkin, *In Defense of Administrative Agency Autonomy*, 96 YALE L.J. 787, 813-14 (1987); *see also* Larry Alexander & Saikrishna Prakash, *Delegation Really Running Riot*, 93 VA. L. REV. 1035, 1037 (2007).

128 *Froomkin, supra* note 127.

129 Powell, *supra* note 130, at 529; 51 U.S.C. § 20102 (2017).

130 Alexander & Prakash, *supra* note 132, at 1037.

131 *See* NATIONAL SECURITY SPACE POLICY UNCLASSIFIED SUMMARY, *supra* note 129; Department of Defense space initiatives center around the launching and monitoring of satellites for troop tracking and deployment, on-ground enemy combatant positioning, and intelligence tracking and interception, as well as EELV satellite launches for intelligence and military-tracking technology. *Id.*; *see also* The Rumsfeld Commission Report, *supra* note 49; The Allard Commission Report, *supra* note 49.

132 The intelligence community uses NSSP to monitor and track potential terrorist action against the U.S. through a myriad of cyber, signal, and remote sensing technology. Lee and Steele, *supra* note 82, at 80-81; *see also* David A. Koplow, *Back to the Future and Up to the Sky: Legal Implications of "Open Skies" Inspection for Arms Control*, 79 CAL. L. REV. 421, 496 (1991); *see* Walter Gary Sharp, Sr., *Balancing Our Civil Liberties with Our National Security Interests in Cyberspace*, 4 TEX. REV. L. & POL. 69, 69-70 (1999); Winn and Wright, § 18A.14 *Counter-Cyberterrorism Initiatives*, Law of Electronic Commerce, 2014 WL 6814375.

133 Under NSPP authority, the FAA controls licensing, launch, and reentry of space vehicles, but could affect both national and commercial actors, when dealing with private actors intent on providing products and services to national state actors. Michael C. Mineiro, *Law and Regulation Governing U.S. Commercial Spaceports: Licensing, Liability, and Legal Challenges*, 73 J. AIR L. & COM. 759, 759-60 (2008).

134 Waldrop, *supra* note 124, at 191-92; *see also* J. David Grizzle et. al., *Navigating the Turbulence of Competing Interests: Principles and Practice of the Federal Aviation Administration*, 75 J. AIR L. & COM. 777, 779-80 (2010).

135 Justin Levine, *Reevaluating ITAR: A Holistic Approach to Regaining Critical Market Share While Simultaneously Attaining Robust National Security*, 2 U. MIAMI NAT'L SEC. & ARMED CONFLICT L. REV. 150 (2012).

space initiatives,[136] and in turn has caused adverse, long-term effects on national security, the U.S. economy, civil and commercial space policy initiatives—as seen in the ITAR-governance of commercial space technologies and in *SpaceX v. U.S.* [137]

a. ITAR

Over the last twenty years, and especially since 9/11, there have been several policy divergent departure points between national security space and commercial space policy initiatives.[138] While U.S. space policy has outwardly promoted the use of private industry for U.S. space interests,[139] not all actors have been open to such relationships.[140] In fact, there seems at times to be an inherent tension between commercial and national security space interests.[141]

Since enactment of the Commercial Space Launch Act, national space policy[142] has encouraged competition and innovation in the space industry by encouraging national security space procurement through private industry.[143] However, not all government policy, nor government actors, have encouraged such competition or open use.[144] This is especially true when considering government

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[136] *Id.*

[137] *Id.*

[138] *Id.*; see *also* Space Exploration Techs. Corp. v. U.S. and United Launch Sys., No. 14-354C, (Fed. Cl. Apr. 30, 2014)

[139] Hall, *supra* note 1, at 43, 51-52; Kay, *supra* note 40, at 240-24; *see also* U.S. Commercial Space Launch Competitiveness Act, Pub.L. 114-90, 129 Stat. 704 (2015); U.S. NATIONAL SPACE POLICY, *supra* note 87; NATIONAL SPACE POLICY OF THE UNITED STATES OF AMERICA, *supra* note 85.

[140] Space Exploration Techs. Corp. v. U.S. and United Launch Sys., No. 14-354C, (Fed. Cl. Apr. 30, 2014)

[141] David Damast, *Export Control Reform and the Space Industry*, 42 GEO. J. INT'L L. 211 (2010*); see also* Waldrop, *supra* note 124, at 191-92; Grizzle, *supra* note 139, at 779-80; Space Exploration Techs. Corp. v. U.S. and United Launch Sys., No. 14-354C, (Fed. Cl. Apr. 30, 2014).

[142] Hall, *supra* note 1, at 45, 61, 75, 86; *see also* Kay, supra note 40, at 239-241*; see also* U.S. NATIONAL SPACE POLICY, *supra* note 87; NATIONAL SPACE POLICY OF THE UNITED STATES OF AMERICA, *supra* note 85

[143] Glenn Harlan Reynolds, *The Omnibus Space Commercialization Act of 1993*, 20 RUTGERS COMPUTER & TECH. L.J. 581, 596 (1994).

[144] Michael S. Straubel, *The Commercial Space Launch Act: The Regulation of Private Space Transportation*, 52 J. AIR L. & COM. 941, 948 (1987).

tasked national security objectives.[145] For instance, after being confronted with various foreign, dual-use-technology security breaches,[146] military and civilian security agencies argued for greater regulations of space technology in order to promote and protect national security interests.[147] To combat the potential misappropriation and use of U.S. defense and intelligence information by foreign actors against U.S. interests, Congress called for the application of the International Traffic in Arms Regulations (ITAR) export regulations to dual-use space technologies.[148] These export regulations placed space technologies on the United States Munitions List (USML)—under the jurisdiction of the Department of State—prohibiting the exportation of such technologies,[149] thereby severely limiting the types of technology and services the commercial space industry could export and the type of space actors that could be used in the commercial space industry.[150] [151]

Not only did ITAR restrict the export of dual-use space technologies that affected national security interests, but it also "placed *all* space-related equipment and hardware on the USML, bringing space technology exclusively under the auspices of the ITAR . . . ." [152] Incidentally, this Congressional reactionaryanism prompted an "overly broad implementation of . . . ITAR . . . [and caused] . . . substantial damage to the nation's economy"[153] by disregarding commercial space policy interests, thus countermanding Congressionally sanctioned commercial space policy intended to facilitate growth in the private sector.[154]

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[145] *Id.; see also* Levine, *supra* note 140.

[146] David Damast, *Export Control Reform and the Space Industry*, 42 GEO. J. INT'L L. 211 (2010).

[147] Major Matthew D. Burris, *Tilting at Windmills? The Counterposing Policy Interests Driving the U.S. Commercial Satellite Export Control Reform Debate*, 66 A.F. L. REV. 255, 262-63 (2010).

[148] Levine, *supra* note 140.

[149] *Id.*

[150] *Id.*

[151] *Id.*

[152] Mike N. Gold, *Thomas Jefferson, We Have A Problem: The Unconstitutional Nature of the U.S.'s Aerospace Export Control Regime As Supported by Bernstein v. U.S. Department of Justice*, 57 CLEV. ST. L. REV. 629, 631 (2009).

[153] *Id.*

[154] *Id.*

Though Congress managed to revise ITAR regulations in 2013[155] by "loosen[ing] export controls,"[156] the damage had already been done to the U.S. commercial space industry, as companies and countries sought out ITAR free technologies from non-U.S. space-faring nations, which caused the U.S. to lose upwards of a third of the space industry market share.[157]

The administration of ITAR governance to commercial space endeavors ironically also harmed national security space efforts "by emasculating America's domestic satellite manufacturing market, thereby sending billions of dollars and thousands of jobs overseas . . . [consequently] . . . encouraging, and in some instances forcing, other nations to develop native capabilities . . . [and thereby] . . . fueling proliferation.[158]

If there had been a uniform space policy oversight commission that weighed national security needs with commercial space policy goals when applying "overly broad" ITAR guidance to commercial space endeavors—rather than leaving the issue to a reactionary Congress—then the U.S. may have balanced the needs of NSEC and NSPP and maintained a larger market share in the commercial space industry while bolstering its national security efforts. Instead, U.S. policy-makers made small view decisions that had long-term effects upon both NSSP and CSP, and promulgated far-reaching policy divergence between national security space policy needs and commercial space policy goals.

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[155] *Amendment to the International Traffic in Arms Regulations: Initial Implementation of Export Control Reform*, A Rule by the State Department (April 16, 2013) at https://www.federalregister.gov/documents/2013/04/16/2013-08351/amendment-to-the-international-traffic-in-arms-regulations-initial-implementation-of-export-control

[156] Marcia Smith, *Senate Debating NDAA, Including ITAR, INKSNA, Launch Liability, and SLS/Orion Funding Amendments*, SpacePolicyOnline.com (November 29, 2012) at https://spacepolicyonline.com/news/senate-debating-ndaa-including-itar-inksna-launch-liability-and-sls-orion-funding-amendments/

[157] *Id.*; *see also*, Mike Gold, *Thomas Jefferson, We Have a Problem: The Unconstitutional Nature of the U.S.'s Aerospace Export Control Regime as Supported by Bernstein v. U.S. Department of Justice*, 57 Cleveland St. L. Rev. 629, 633, 640 stating "[o]verly broad" ITAR regulation harmed not only commercial space endeavors, but ironically also harmed national security space efforts "by emasculating America's domestic satellite manufacturing market, thereby sending billions of dollars and thousand of jobs overseas . . . [thereby] . . . encouraging, and in some instances forcing, other nations to develop native capabilities . . . [and thus] . . . fueling proliferation. Gold, *supra* note 157 at 633.

[158] Gold, supra note 157 at 633.

b. Space X v. U.S.

Over-application of ITAR to commercial space ventures is just one area in which NSEC and NSPP have caused longstanding issues between national security space and commercial space policy initiatives. Divergence has also occurred in instances where national actors have ignored national procurement procedures that encourage and/or require national actors to use and acquire commercial space products and services for national security space initiatives through competitive bidding processes, and instead, such actors have provided non-competitive bid awards to single parties.[159] Such is the case with *Space Expl. Techs. Corp. v. United States*, 68 Fed. Cl. 1, 1-2 (2005).

In *Space Expl. Techs. Corp.*, national security policy diverged with national space policy when the DoD violated national procurement policy initiatives when denying SpaceX the opportunity to compete for EELV launch awards, and in turn awarded non-competitive, multi-billion dollar block bids to ULA for multi-year EELV launch opportunities.[160] In its bid protest, SpaceX contended that the ULA award "concluded outside of public scrutiny, funnel[ed] hundreds of millions of . . . dollars to Russia's military-industrial base . . . [and] . . . include[ed] monies that [could] flow to individuals on the U.S. sanctions list."[161]

In its response, the DoD justified the ULA award by stating "that ULA was the only "'responsible source'" and "'only launch provider'" that could meet [Air Force] requirements from Fiscal Year 2012 until Fiscal Year 2017 . . . ['based on the information received in' the Air Force's 2011 EELV Request for Information]."[162] It further contended that SpaceX had the opportunity to contest this determination, but failed to do so in a timely manner, thus depriving SpaceX of any right to contest the block-bid awards.[163]

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[159] Bid Protest at ¶ 9.

[160] *Id.*

[161] *Id.* at 2; *see also* Gietzen, *supra* note 6; SpaceX also criticized "Skyrocketing" EELV costs related to non-competitive procurement practices that had "been criticized by external auditors like the Government accountability Office ("GAO") for its strategic use of complex contractual structures that eliminate[d] transparency." *Id.* at 9.

[162] Defendant's Motion to Dismiss at ¶ 5, Space Exploration Techs. Corp. v. U.S. and United Launch Sys., No. 14-354C, (Fed. Cl. Apr. 30, 2014).

[163] *Id.*; SpaceX preemptively answered these contentions in its original motion by explaining that in "2005 . . . the Air Force committed to solicit interest from new entrants

The court sided with SpaceX, citing an Executive Order from March 2014 that prohibited U.S. government entities from paying for or trading in Russian space technologies, and ordered a preliminary injunction of ULA's sole-bid awards.[164] As of January 2015, this matter settled behind closed-door, sealed mediation.[165]

2. Divergence-Driving Need for a Permanent, Uniform Space Policy and Oversight Commission

The policy divergence bolstered by Congress in the over application of ITAR and by the DoD in *Space Expl. Techs. Corp.v. United States* shows—at the very least—the depth to which policy divergence occurs between national security space policy and commercial space policy interests in the absence of a permanent, uniform space policy oversight commission, and illustrates the cost this policy divergence has had upon both the United States and the commercial space industry.[166] Interestingly, there have been pre and post-09/11calls for a permanent, uniform space policy oversight commission to balance competing space interests.[167] Most notably, in 2001, Donald Rumsfeld recommended the implementation of a uniform space commission that would coordinate inter-agency communication efforts.[168] The Allard Commission of 2008 reiterated the need for a uniform space commission in light of the government's failure

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on an annual basis and only award sole source launches for each year in which there was no new qualified competition," and thus the multi-billion dollar block bid award directly contradicted the Air Force's earlier statements, and thus should be nullified. *Id*. at ¶ 34.

164 *Id*.

165 Mike Gruss, *SpaceX, Air Force Settle Lawsuit over ULA Blockbuy*, (Jan. 23, 2015), http://spacenews.com/spacex-air-force-reach-agreement/.

166 Aside from assumed astronomical legal fees in *Space Exploration Technologies Corp. v. U.S. and United Launch Systems, LLC*, ITAR and DoD sole-source block bid awards have the potential of costing commercial entities and taxpayers billions of dollars.

167 *See* The Rumsfeld Commission Report, *supra* note 49; The Allard Commission Report, *supra* note 49; *see also*, Joan Johnson-Freese, *An Allard Commission Postmortem and the Need for a National Space Council*. Joint Forces Quarterly, issue 60, 1st Quarter 2011, 54-60 (January 2011).

168 *See* The Rumsfeld Commission Report, *supra* note 49; According to Mr. Rumsfeld, unless the U.S. took steps to coordinate inter-agency communication efforts and make space security a top priority, the U.S. could face a veritable "Space Pearl Harbor." *Id.* He explained that though it might be considered "improbable [,] . . . history is replete with instances in which warning signs were ignored and change resisted until an external 'improbable' event forced . . . action," and as the largest user of space technology, the U.S. was ripe for attack in the space realm. *Id*.

to follow through on the Rumsfeld recommendations.[169] According to the Allard Commission, the "[lack of] an effective national-level leadership mechanism . . . [harms national space programs because it creates] . . . an inability to resolve interagency differences in setting achievable requirements and resource priorities."[170]

Interestingly, both the Executive and Legislative Branches have ignored the economic and national security costs of NSPP and CSP divergence, despite the recommendations of noteworthy NSPP and CSP players.[171] Consequently, unless Congress acts to ensure balance between NSPP and CSP, the U.S. will continue to expose itself to national security and economic risks, and will inevitably harm the future of the United States.

V. CONCLUSION: MOVING FORWARD

As access to space and space technology becomes more attainable and the United States becomes both more reliant on space technology, and more susceptible to foreign attacks, the United States must do what it can to balance its differing economic and security interests.

Although these interests are not diametrically opposed, there will be a natural tension between policy interests when national security space and commercial space policies diverge because on some levels, each policy promotes a distinctly important mission. However, these competing goals could—and should—be balanced; neither goal should be denied nor oversimplified. The United States should maintain economic stability within its borders while maintaining security at its borders.

To balance policy priorities, and ensure various policy actors cooperate with existing and evolving NSSP and CSP, Congress should enact a permanent, uniform space policy oversight commission, staffed by advisement councils from the national security,[172] commercial space,[173] and civil space[174] arenas. As seen with Reagan space policy, and with the Rumsfeld Report and Allard Commission

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169 *See generally* The Allard Commission Report.

170 *Id*. at 13.

171 Johnson-Freese, *supra* note 171.

172 Staffed by representatives from the current presidential administration.

173 Staffed by members of the commercial space industry.

174 Staffed by NASA, NOAA, and Congressional committee members.

suggestions, a uniform space policy oversight commission would benefit NSSP and CSP actors alike. It would provide a forum for various national security space and commercial space actors to present their issues, concerns, and complaints, and it would provide much needed oversight and organization to space issues that touch many different agencies and issues. In a day when the U.S. extensively relies upon space capabilities to protect itself from internal and external threat, and fights to maintain and stabilize its economy, a multi-resource space policy oversight commission (MR SPOC) would provide much-needed balance and consistency in NSSP and CSP matters.

STUDENT ARTICLE

STAKEOUT FROM SPACE: FOURTH AMENDMENT CONCERNS RESULTING FROM THE ONSET OF SATELLITE VIDEO

Blake Knight

I. INTRODUCTION

In 2014 a company called Skybox Imaging released video of a Beijing airport taken from Earth orbit using its satellite, the *Skysat-1*.[1] The resolution of the video was such that viewers were able to identify the exact flight number of the flights recorded landing.[2] Just months prior, the same company released video of a slightly lower spatial resolution[3] showing clips of the Earth's surface.[4] After amassing considerable investment revenue, and a name change and acquisition by Google[5], Terra Bella (formerly Skybox Imaging) was announced to be acquired by the larger Planet Labs (now known simply as "Planet"[6]), another operator of remote sensing satellites.[7] All the foregoing is to suggest that high definition video

[1] Betsy Mason, *Incredible HD Video from Space Brings Maps to Life,* (Mar. 4, 2014), https://www.wired.com/2014/03/skybox-video-earth-from-space/.

[2] *Id.*

[3] Spatial resolution refers to the smallest object that can be discerned from the image. *See* http://www.nrcan.gc.ca/node/9407 for a more detailed explanation.

[4] David Wogan*, High-definition video from space is available for purchase. Finally.*, (Dec. 30, 2013), https://blogs.scientificamerican.com/plugged-in/high-definition-video-from-space-is-available-for-purchase-finally/.

[5] Google, *Google and Skybox Imaging Sign Acquisition Agreement*, (Jun 10, 2014), https://abc.xyz/investor/news/releases/2014/0609.html

[6] Tony Campitelli, *A Changing Planet: Meet Our New Brand*, (Jun 12, 2016), https://www.planet.com/pulse/meet-our-new-brand/ .

[7] Will Marshall, *Planet to Acquire Terra Bella from Google, Sign Multi-Year Data Contract*, (Fed. 3, 2017), https://www.planet.com/pulse/planet-to-acquire-terra-bella-from-google/.

from satellites in orbit of the earth is soon to be commercially available and the technology is being pursued with considerable material investment.

The privacy concerns of observing earth by satellite is a debate that has been discussed by scholars for decades,[8] but video surveillance by satellite is a capability that has existed within the realms of speculation regarding the government's ability and Hollywood dramatization.[9] Today's environment for commercial remote sensing services is distinctly different than the one envisioned by legal scholars decades ago.[10] We stand near in time to an era in which law enforcement (or a private citizen, perhaps) could conceivably purchase video from satellites capable of tracking the movements of an individual person. Certainly this presents legal issues different than those that may currently exist from the ability to view still images from satellite that are potentially years old- as is already possible with a service such as Google Maps.[11] This article intends to address some distinct concerns related to the Fourth Amendment that potentially arise with the use of video from space by analyzing hypothetical space video surveillance scenarios in light of older and more recent Supreme Court cases. In addition, this Article attempts to address the question of whether or not the commercial ubiquity of satellite video changes the debate of what constitutes a "reasonable expectation of privacy." Finally, this Article will propose that the Congress of the United States preemptively nullify much of the concern by legislating privacy rights as it relates to space video in a manner similar to the regulation of other law enforcement technologies.

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[8] *See generally* Krysten C. Kelly, *Warrantless Satellite Surveillance: Will Our 4th Amendment Privacy Rights Be Lost in Space,* 13 J. MARSHALL J. COMPUTER & INFO. L. 729, ii (1995), and Lisa J. Steele, *The View from on High: Satellite Remote Sensing Technology and the Fourth Amendment*, 6 HIGH TECH. L.J. 317, 334 (1991) (discussing the concerns of satellite remote sensing in the early Nineties).

[9] *See* BEHIND ENEMY LINES (20th Century Fox, 2001) (As part of the plot, the military uses live video feed from a satellite to track the movements of a downed Naval pilot).

[10] Steele, *supra* note 8, at 319-320.

[11] *See generally* https://www.google.com/maps (It is important to note that Google Maps and Google Earth are in fact two different services with similar satellite imagery).

II. EXAMINING SPACE VIDEO SURVEILLANCE UNDER RELATED SUPREME COURT CASES

a. Katz v. United States

Katz v. United States[12] is a 1967 Supreme Court case that expanded the definition of a "search" under the Fourth Amendment of the Constitution. In the case, a man was speaking on the phone to convey illegal wagering information while inside a public, but closed, phone booth.[13] The FBI placed a listening device on the exterior of the phone booth and was able to listen in on the conversation.[14] The defendant sought to argue that the phone booth was a constitutionally protected place and therefore, for the FBI to conduct the surveillance without a warrant was an unreasonable search. Arguably, then, the resulting recorded phone call should have been excluded from evidence under the exclusionary rule.[15] The FBI argued that because no physical intrusion had occurred, there could not have been a "search."[16] In writing the opinion of the Court, Justice Stewart claimed that both sides missed the mark in formulating the argument by focusing on the status of the phone booth,[17] and that, instead, what is protected from searches by the Fourth Amendment is what the person "seeks to preserve as private."[18]

From *Katz* we gather two important holdings: first, what may be searched depends somewhat on the subjective expectation of the person that the place or information will remain private, and second, that physical intrusion is not necessary to constitute a search, that is a search is entirely possible by remote, technological means. In his concurrence in *Katz,* Justice Harlan proffers a test for determining when a person has a reasonable expectation of privacy.[19] The test first requires that the person exhibited an actual and subjective expectation to withhold something as private, and secondly,

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[12] *Katz v. United States*, 389 U.S. 347 (1967).
[13] *Id* at 348.
[14] *Id*.
[15] *Id* at 350.
[16] *Id* at 352.
[17] *Id* at 351.
[18] *Id* at 352.
[19] *Id* at 361.